U.S. DEPARTMENT OF COMMERCE

FISCAL YEAR   FISCAL YEAR

2023 - 2025

Annual Performance Report   Annual Performance Plan

DEPARTMENT AT A GLANCE

HISTORY AND ENABLING LEGISLATION

The Department of Commerce (DOC) was originally established by Congressional Act on February 14, 1903, as Commerce and Labor (32 Stat. 826; 5 U.S.C. 591) and was subsequently renamed the U.S. Department of Commerce by President William H. Taft on March 4, 1913 (15 U.S.C. 1512). The defined role of the new Department was "to foster, promote, and develop the foreign and domestic commerce, the mining, manufacturing, and fishery industries of the United States."

LOCATION

Commerce is headquartered in Washington, D.C., at the Herbert Clark Hoover Building, which is located on eight acres of land covering three city blocks. Commerce also has field offices in all states and territories and maintains offices in more than 86 countries worldwide.

BUDGET AUTHORITY

The Department's FY 2023 enacted budget authority was approximately $11.1 billion[1].

WEBSITE

The Department's Internet address is https://www.commerce.gov/.

MISSION

The Department of Commerce's mission is to create the conditions for economic growth and opportunity for all communities.

VALUES

The following four core values lay the foundation to support the Department in upholding its mission: Service, Passion, Respect, Equity.

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[1] The FY 2023 enacted budget authority amount does not include funding from above base appropriations such as the Creating Helpful Incentives to Produce Semiconductors (CHIPS) Act, the Bipartisan infrastructure Law (BIL), the Inflation Reduction Act (IRA), and the American Rescue Plan (ARP).

HEADQUARTERS OFFICES AND BUREAUS

- Office of the Secretary (OS)
- Office of Inspector General (OIG)
- Bureau of Economic Analysis (BEA)
- Bureau of Industry and Security (BIS)
- Census Bureau
- Economic Development Administration (EDA)
- International Trade Administration (ITA)
- Minority Business Development Agency (MBDA)
- National Institute of Standards and Technology (NIST)
- National Oceanic and Atmospheric Administration (NOAA)
- National Telecommunications and Information Administration (NTIA)
- National Technical Information Service (NTIS)
- Office of the Under Secretary for Economic Affairs (OUSEA)
- U.S. Patent and Trademark Office (USPTO)

ORGANIZATIONAL STRUCTURE
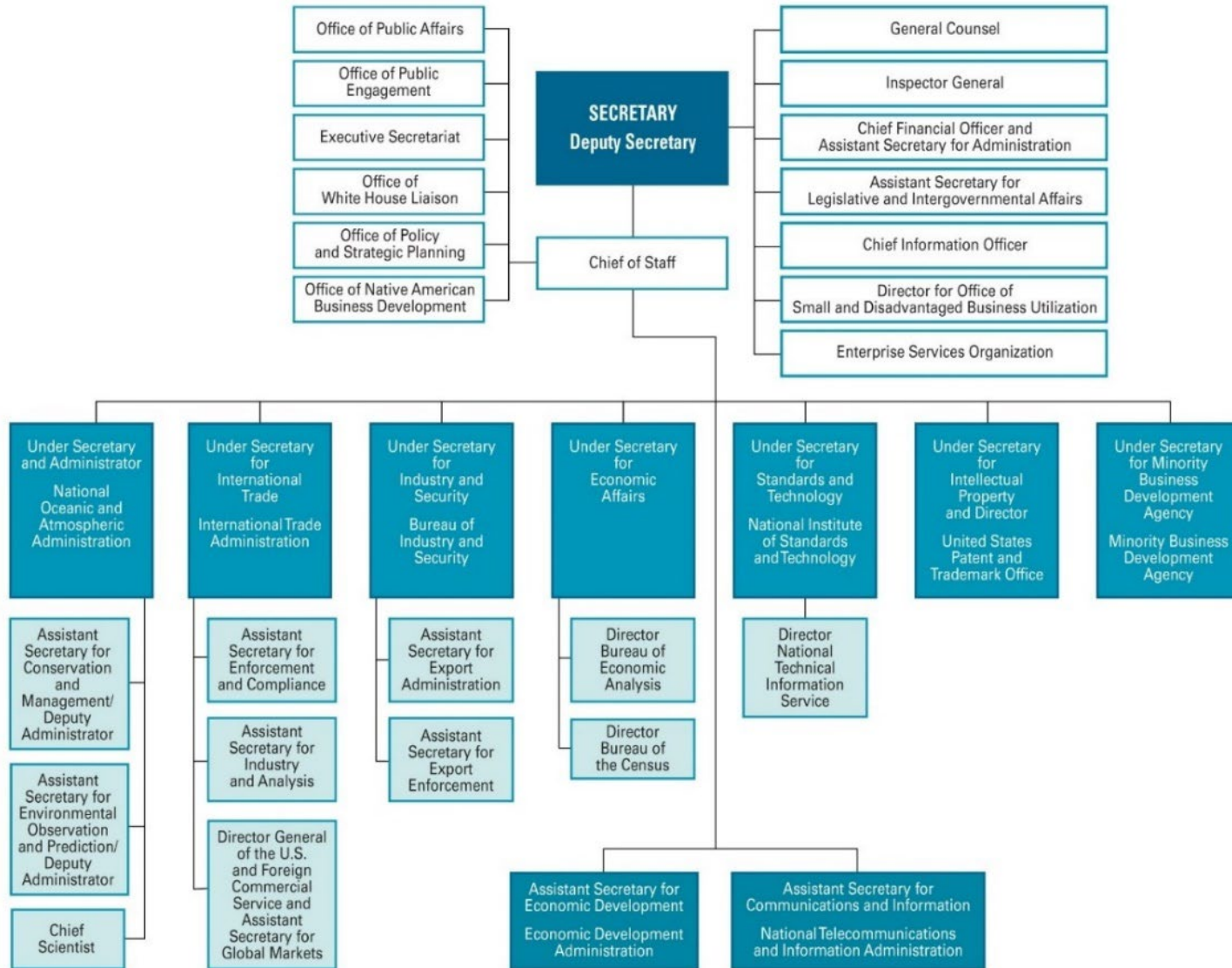
BACKGROUND ON STRATEGIC PLANNING AND REQUIRED REPORTING

Consistent with Government Performance and Results Act (GPRA) and the Modernization Act of 2010 (GPRAMA) requirements, the Secretary of Commerce issued a 2022 – 2026 Strategic Plan with the FY 2023 President's Budget in accordance with the Administration's priorities, GPRAMA, and the policies and timetable established by the Office of Management and Budget (OMB).

Prior to FY 2014, agencies developed and published strategic plans on different schedules. Synchronizing plans promoted coordination and collaboration among Federal agencies. Further, OMB facilitated a multi-agency view by regularly convening agency representatives to discuss plans as they evolved. Developed by the political and career leadership in collaboration with representatives across all bureaus, Commerce's 2022 – 2026 Strategic Plan includes strategic goals and objectives, Agency Priority Goals, strategies, key performance indicators (KPIs), and learning agenda questions in line with guidance from the Secretary and the Office of Policy and Strategic Planning. The strategic plan's structure, content, and emphasis are in line with the priorities of the Secretary and the White House. For example, the Strategic Plan, and related Learning Agenda, incorporate priorities listed in the President's Management Agenda (PMA) and Executive Orders signed during the first year of the Administration.

This Annual Performance Plan and Report (APPR) document serves two purposes. First, the Performance Report provides detailed performance information on the results achieved during FY 2023. Second, the Performance Plan sets KPI targets for the next two fiscal years. These targets represent the level of performance that core Department programs seek to achieve in the future. Key performance indicators and targets are aligned to the Strategic Objectives in Commerce's strategic plan. Commerce's APPR will be sent to Congress with the President's Budget. It will report all finalized KPI results for FY 2023 and set finalized targets for FY 2024 and FY 2025 considering the FY 2025 President's Budget and the 2022 – 2026 Strategic Plan. The Department's prior APPRs are posted on www.Performance.gov for public view.

PROCESS FOR MONITORING PROGRESS

Each spring, the Department conducts its Annual Strategic Review (ASR) with the Deputy Secretary. The ASR process includes deliberations by multi-bureau Strategic Objective implementation teams. These team meetings foster learning and inform revisions of strategies and performance indicators. In the spring of 2023, Commerce conducted the FY 2023 ASR and delivered findings to OMB in July. The FY 2024 ASR process will begin in April 2024.

Bureau key performance indicator review processes vary in approach and schedule but are systematic. Data on mission support metrics and initiatives (e.g., Human Resources, Acquisition, Financial Management, etc.) are tracked on online dashboards and typically reviewed monthly by the CXOs (e.g., Chief Financial Officer, Chief Human Capital Officer, Chief Acquisition Officer, and Chief Information Officer).

FUELING LEADING-EDGE PERFORMANCE MANAGEMENT

As a premier Federal statistical agency, Commerce strives to lead the way to improve how data are made more easily accessible and useful for the American public. Consistent with the Foundations for Evidence-Based Policymaking Act's (Evidence Act) imperatives for data accessibility, the Department of Commerce maintains **Commerce Performance Data Pro**, a website that provides the American public an interactive online tool for learning more about Commerce, its strategic objectives, and the progress Commerce is making. This website is an excellent example of how the Federal Government is making performance data more easily accessible and useful for the public.

SEEING THE DEPARTMENT'S IMPACT IS EASY

By using **Commerce Performance Data Pro**, the American public can easily understand the progress Commerce is making by exploring Commerce *Impact Stories* and interacting with the *Citizen's View Dashboards*, charts, key performance indicators, and featured datasets. Researchers, businesses, and interested citizens will appreciate the website's engaging stories and data about Commerce 's programs that impact daily life. Users can interact with performance data, monitor Commerce's efforts to strengthen the U.S. economy, and learn more about efforts to improve many critical services.

The website provides citizens who are interested in the Department of Commerce and want information on its progress with the following tools and capabilities:
- Featured Commerce *Impact Stories* about our focus areas and new strategic initiatives.
- *Citizen's View Dashboards* summarize progress on the strategic plan and show each bureau's performance.
- Access to over 200 *KPI Insights* tiles that measure program results.
- Ability to connect directly to datasets using an Application Programming Interface (API).
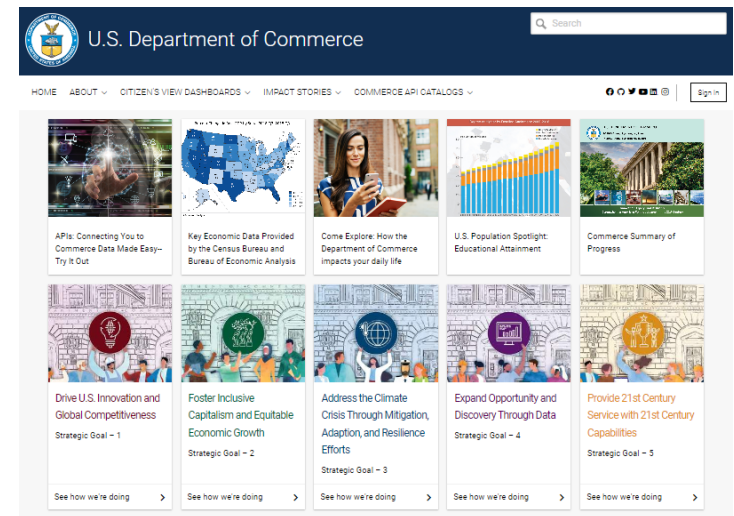
ENABLING LEARNING AND IMPROVEMENT

Using metadata to assign Commerce 's KPIs to Strategic Objectives, Program Activities, and Bureaus, **Commerce Performance Data Pro** provides insight into how the Strategic Plan is executed. The website enables data analysis through interactive charts and graphs. The standard dashboards and charts reveal patterns and trends that make key insights obvious to viewers. The website's analytic capabilities, interactive open data, and ease of use directly support Commerce 's increased use of program impact and performance data in decision making.

AGENCY PRIORITY GOALS

The GPRAMA requires agencies to establish Agency Priority Goals (APG). APGs set two-year targets for initiatives that can drive substantial progress and would benefit from a focused, well-orchestrated sprint. Most major Federal departments have three to five APGs that are selected by top leadership and approved by OMB. Quarterly key performance indicator data on APGs are posted to www.Performance.gov.

The Department developed and is implementing five new APGs for FY 2024 – FY 2025. In accordance with guidance from OMB, the Department is collaborating with the U.S. Department of Agriculture on a Joint Agency Priority Goal related to Broadband. The Department's FY 2024 – FY 2025 APGs are:

- **Advance U.S. Semiconductor Manufacturing:** By September 30, 2025, the Department of Commerce will advance U.S. national security and economic competitiveness by building domestic semiconductor manufacturing capacity through investing in the development of a range of semiconductor facilities and upstream suppliers, including at least two clusters dedicated to the fabrication of leading-edge logic chips; and by investing in research and development programs focused on supporting research in semiconductor technology, metrology, advanced packaging, and manufacturing.
- **Ensure all Americans have access to high-speed, affordable broadband (Jointly implemented with the U.S. Department of Agriculture):** By September 30, 2025, the Departments of Agriculture and Commerce will expand affordable and reliable access to broadband service by funding projects, which when completed, will provide at least 6,250,000 households and other locations with reliable and affordable access to high quality internet service. This will be achieved through investment in broadband infrastructure and related activities, accompanied by outreach and technical assistance, and in coordination with applicable Federal agencies, to promote American household accessibility to affordable, reliable, high-speed internet service.
- **Advance toward climate ready coasts:** By September 30, 2025, NOAA will improve climate resilience in coastal communities by completing 100% of programmatic milestones: to improve fish passage for threatened and endangered species; support coastal habitat restoration priorities of tribes and underserved communities, remove marine debris; and protect and conserve coastal and Great Lakes habitats.
- **Accelerate place-based and innovation-driven economic development**: By September 30, 2025, Economic Development Administration (EDA) will equitably and inclusively accelerate high-growth industry clusters that are critical for U.S. global competitiveness. This will be achieved by supporting the economic transformation of 21 U.S. regions awarded through the Build Back Better Regional Challenge and by designating at least 20 regional technology hubs (Tech Hubs).
- **Protect U.S. critical and emerging technology:** By September 30, 2025, the Bureau of Industry and Security (BIS) will enhance its efforts to protect U.S. critical and emerging technologies by: 1) conducting outreach to a minimum of 2,500 domestic and foreign companies, foreign governments, and other parties to increase awareness of and thus compliance with export controls; and 2) enhancing the effectiveness of our controls by increasing the number of enforcement outcomes by 15% and increasing the number of end-use checks, which are a critical tool to prevent the transshipment and diversion of U.S. items, by 25%.

The Department completed the three APGs for FY 2022 – FY 2023. As of September 30, 2023, the Administration's closed out reporting on these and posted the results on www.Performance.gov. The goal statements and final status for the Department's FY 2022 – FY 2023 APGS are:

- **Ensure all Americans have access to high-speed, affordable broadband**: By September 30, 2023, the Departments of Agriculture and Commerce will expand affordable and reliable access to broadband service by funding projects, which when completed, will provide at least 550,000 households with reliable and affordable access to high quality internet service. This will be achieved through investment in broadband infrastructure and related activities, accompanied by outreach and technical assistance, in coordination with applicable Federal agencies, to promote American household accessibility to affordable, reliable, high-speed internet service.
  Closeout Status: <u>APG not achieved yet significant progress made towards the performance target</u>. While Commerce and USDA did not fully achieve the ambitious objective established at the start of this goal cycle, this APG significantly advanced the overall goal of ensuring all Americans have access to high-speed, affordable, and reliable broadband. At 540,102 total households, Commerce and USDA achieved 98.2% of their overall APG target of 550,000 households. The remaining 9,988, or 1.8%, will be achieved by May 2024.

- **Increase conservation of America's coastal land and waters**: By September 30, 2023, in support of the America the Beautiful initiative, NOAA will advance formal designation or expansion processes to conserve at least 590,000 square miles of additional coastal and marine habitats as National Marine Sanctuaries or National Estuarine Research Reserves (NERRs) to help ensure that nationally significant resources continue to provide economic, social, and environmental benefits for future generations.
  Closeout Status: <u>APG achieved</u>. NOAA met its overall APG target of advancing formal designation and expansion processes that could protect over 590,000 square miles of additional coastal and marine habitats as of September 30, 2023. At 593,582 square miles, this APG goal was surpassed by 3,582 square miles or 0.6%. The designation and expansion processes that contribute to this total completed at least one major process step. This includes five of the seven proposed sanctuaries and expansions for Papahānaumokuākea, Chumash Heritage, Lake Ontario, Florida Keys expansion, Hudson Canyon, as well as two of the four NERRs for Connecticut and Atchafalaya. This work grows the nationwide sanctuary system for conservation.

- **Strengthen the global competitiveness of American businesses**: By September 30, 2023, in support of expanding the global footprint of American small and medium-sized enterprises (SMEs) and enhancing its accessibility and assistance to businesses in underserved communities, the International Trade Administration will accelerate its digital transformation to double the annual number of clients assisted from 38,000 in FY 2020 to 76,000 in FY 2023, with a particular focus on SMEs and the Nation's underserved communities.
  Closeout Status: <u>APG achieved</u>. ITA exceeded its overall APG target of 76,000 clients assisted as of September 30, 2023. At 92,000 clients assisted, this APG goal was surpassed by 16,000 clients or 21 percent. ITA also exceeded its supporting target of ensuring over 80 percent of U.S. exporter clients assisted are SMEs by 5%. Additionally, ITA assisted 10,120 clients in underserved communities. This reflects 88 percent of ITA's 11,500 target.

KEY TERMS AND DEFINITIONS IN THE STRATEGIC PLAN AND APPR

The U.S. Department of Commerce Strategic Plan is organized by Strategic Goals, Strategic Objectives, Strategies, and Key Performance Indicators. This strategic planning structure follows the standardized **Federal Performance Framework** established in guidance from OMB and is used to organize content in all Federal agencies' APPRs.

Within this APPR, a standardized table is used to show results and targets for key performance indicators for each strategic objective. It is noted if a key performance indicator is new and whether baseline values are established. N/A indicates that data is not available. If needed, an explanation of targets is provided. The targets are typically set based on funding levels requested in the President's Budget. Although not included in the APPR, all bureau GPRA key performance indicator results and targets are provided in the bureau backup appendices that are part of the Department of Commerce FY 2025 Congressional Budget Justification document.

The following defines terms that are fundamental to the Commerce Strategic Plan and APPR:

Strategic Goal – Includes the goal statement and goal overview. The highest-level statement of aim or purpose that is included in the strategic plan. The strategic goals articulate the broad categories of action that Commerce will take to advance its mission.

Strategic Objective (SO) – Includes the objective statement and the objective overview. This plan's 23 strategic objectives are the primary unit for strategic analysis and decision-making. Strategic objectives state the outcomes or management impacts Commerce is trying to achieve.

Strategy – Represents key approaches, initiatives, and tactics that will be pursued to advance the related strategic objective.

Key Performance Indicator (KPI) – A key performance measure used to track progress toward achieving a strategic objective. Commerce measures and monitors the trend for these indicators.

Target – A quantifiable level of achievement that is planned for a measure of Strategic Objective progress.

KPI Status – The actual level of achievement that is realized for each KPI. The status can be marked as exceeded, met, or not met. Unless otherwise noted, a KPIs status is considered Exceeded when the actual is over 100% of the target; Met when the actual is between 90-100% of the target; and Not Met when the actual is less than 90% of the target.

Baseline Value – A key performance indicator's level over one or more time periods to assess the appropriate level for future performance targets.

Evidence – The information used to formulate goals, objectives, and strategies in this plan. Evidence can be quantitative or qualitative and may include, but is not limited to performance measurement, research studies, evaluations, statistical data series, survey information, and data analytics.

SUMMARY OF STRATEGIC GOALS AND OBJECTIVES

The following chart summarizes the progress/status of the strategic goals and objectives established in the 2022 – 2026 Strategic Plan. The complete strategic plan can be accessed online at: https://www.commerce.gov/about/strategic-plan.

Strategic Goal	Strategic Objectives	FY 2022 Status	FY 2023 Status
Goal 1 – Drive U.S. Innovation and Global Competitiveness	1.1 - Revitalize U.S. manufacturing and strengthen domestic supply chains	**On Track**	**On Track**
	1.2 - Accelerate the development, commercialization, and deployment of critical and emerging technologies	**On Track**	**On Track**
	1.3 - Increase international cooperation and commerce	**Noteworthy Progress**	**On Track**
	1.4 - Protect national security interests and enforce trade rules	**On Track**	**Noteworthy Progress**
	1.5 - Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship	**On Track**	**On Track**
	1.6 - Improve the Nation's cybersecurity and protect Federal Government networks	**On Track**	**On Track**
	1.7 - Advance U.S. leadership in the global commercial space industry	**On Track**	**Focus Area for Improvement**
Goal 2 – Foster Inclusive Capitalism and Equitable Economic Growth	2.1 - Drive equitable, resilient, place-based economic development and job growth	**On Track**	**On Track**
	2.2 - Build sustainable, employer-driven career pathways to meet employers' need for talent and to connect Americans to quality jobs	**On Track**	**On Track**
	2.3 - Advance entrepreneurship and high-growth small and medium-sized enterprises	**On Track**	**On Track**
	2.4 - Expand affordable, high-quality broadband to every American	**On Track**	**On Track**
Goal 3 - Address the Climate Crisis through Mitigation, Adaptation, and Resilience efforts	3.1 - Increase the impact of climate data and services for decisionmakers through enhanced service delivery and improved weather, water, and climate forecasts	**Noteworthy Progress**	**On Track**
	3.2 - Strengthen coastal resilience and advance conservation and restoration of lands and waters for current and future generations	**On Track**	**On Track**
	3.3 - Accelerate development and deployment of clean technologies	**On Track**	**On Track**
	3.4 - Embed climate considerations across Department programs	**On Track**	**On Track**
Goal 4 – Expand Opportunity and Discovery through Data	4.1 - Implement evidence-based decision making within the Department of Commerce to increase program and policy impact	**Focus Area for Improvement**	**On Track**
	4.2 - Modernize economic and demographic statistics to better meet business, policymaker, and community needs	**Noteworthy Progress**	**Noteworthy Progress**
	4.3 - Improve Commerce data usability and advance ethical, responsible, and equitable data practices	**On Track**	**On Track**

Strategic Goal	Strategic Objectives	FY 2022 Status	FY 2023 Status
Goal 5 – Provide 21st Century Service with 21st Century Capabilities	5.1 - Effectively implement new Department of Commerce authorities and investments	**On Track**	**On Track**
	5.2 - Optimize workforce and diversity, equity, and inclusion practices	**Focus Area for Improvement**	**Noteworthy Progress**
	5.3 - Equitably deliver exceptional customer experience	**On Track**	**On Track**
	5.4 - Make Department facilities and operations more sustainable and efficient	**On Track**	**On Track**
	5.5 - Modernize mission support processes and infrastructure	**On Track**	**Focus Area for Improvement**

DEPARTMENT OF COMMERCE FY 2023 ACCOMPLISHMENTS

On December 29, 2023, Secretary of Commerce Raimondo released an official statement that highlighted key accomplishments across the Department of Commerce during FY 2023. The Department's major accomplishments during 2023 include but are not limited to:

- CHIPS for America program launched two funding opportunities for manufacturing incentives, released national security guardrails and a vision for the National Semiconductor Technology Center, and garnered more than 550 statements of interest from companies around the country. In December, the CHIPS program moved into the next phase of implementation with the first announcement of a preliminary memorandum of terms to provide incentives for a key national security project in Nashua, New Hampshire. (NIST)
- National Telecommunications and Information Administration awarded more than $1.3 billion in grants to close the digital divide in communities across the country, including tribal communities, and announced Internet for All funding allocations for every state and territory, taking the next step towards delivering affordable, reliable, high-speed Internet service to everyone in America. NTIA also released the National Spectrum Strategy, identifying more than 2,700 megahertz of airwaves to study for innovative new uses. Additionally, NTIA began awarding funding for the Public Wireless Supply Chain Innovation Fund, which supports the development of open and interoperable wireless networks. (NTIA)
- Economic Development Administration announced the designation of 31 Regional Technology and Innovation Hubs (Tech Hubs) to supercharge local economies and transform regions into globally competitive innovation centers. These Tech Hubs designations will strengthen each region's capacity to manufacture, commercialize, and deploy technologies that will advance American competitiveness. EDA also announced the 22 finalists of the Distressed Area Recompete Pilot Program (Recompete). Recompete targets the hardest-hit and most economically distressed areas where prime-age employment is significantly lower than the national average, with the goal to close this gap through flexible, locally driven investments. (EDA)
- Alongside our Indo-Pacific Economic Framework (IPEF) partners, Secretary Raimondo in November announced the substantial conclusion of the Clean Economy and Fair Economy IPEF Pillars, as well as the signing of the landmark Supply Chain Agreement. These agreements are key to addressing 21st century challenges and strengthening economic engagement in the region. (ITA)
- National Oceanic and Atmospheric Administration awarded $1.1 billion in grant and contract projects funded by the Bipartisan Infrastructure Law and the Inflation Reduction Act, which will boost coastal and climate resilience, improve fisheries, restore habitats, and upgrade key infrastructure. (NOAA)
- Minority Business Development Agency announced the 43 winners of the Capital Readiness Program grant competition, the largest investment to support minority and underserved businesses in Commerce's history. (MBDA)
- The 2023 SelectUSA Investment Summit was the largest in its history, with 4,900 attendees spanning 83 international markets. In FY 2023, SelectUSA facilitated more than $55 billion in client-verified investments supporting more than 35,000 jobs. (ITA)

- National Institute of Standards and Technology took on a leading role in ensuring that we have responsible and trustworthy use of artificial intelligence (AI), including through the release of the AI Risk Management Framework (RMF). NIST also released a draft update to its popular and widely used Cybersecurity Framework, following a yearlong process with extensive community input. NIST will play a significant role in implementing the President's AI Executive Order 14110, including through the establishment of the U.S. Artificial Intelligence Safety Institute (USAISI). The institute, housed under NIST, will lead the U.S. government's efforts on AI safety and trust, particularly for evaluating the most advanced AI models. (NIST)
- U.S. Patent and Trademark Office launched a new Semiconductor Technology Pilot Program to advance out of turn patent applications for innovations in semiconductor manufacturing, a Climate Change Mitigation Pilot Program to advance applications related to technologies that will help achieve net-zero greenhouse gas emissions, and a Cancer Moonshot Pilot Program to advance applications for cancer-related technologies. (USPTO)
- Trade specialists at the International Trade Administration assisted more than 92,000 U.S. business clients explore global markets for exporting in FY 2023, facilitating more than $170 billion in U.S. export revenue and inward investment, which supported 595,000 American jobs. (ITA)
- Bureau of Industry and Security released several consequential rules imposing further restrictions on Russia for its illegal war against Ukraine, updated export controls on advanced computing semiconductors and semiconductor manufacturing equipment to arms embargoed countries, including the People's Republic of China (PRC), and added a total of 466 entities based in a variety of countries around the globe to the Entity List. BIS completed an authoritative survey of the U.S. microelectronics supply chain and announced the launch of a new survey to inform future policy responses to PRC anti-competitive practices. BIS also launched the Disruptive Technology Strike Force with the Department of Justice (DOJ) to protect U.S. advanced technologies from illegal acquisition and use by nation-state adversaries like Russia, China, and Iran, and strengthened enforcement policies and partnerships to help keep the most critical U.S. technology out of the most dangerous hands. (BIS)

CARES ACT AND ARP ACT IMPLEMENTATION

On March 27, 2020, Congress enacted the Coronavirus Aid, Relief, and Economic Security Act, Pub. L. 116-136 (CARES Act). The CARES Act appropriated nearly $2 billion in supplemental funds to the Department of Commerce's following four bureaus:

Bureau	Amount Allocated	Admin Expenses	Budgetary Resources	Amount Obligated As of September 30, 2023[2]	Amount Outlayed As of September 30, 2023[1]	Overall Status
Economic Development Administration (EDA)	$1.5 billion	$33 million	$1.467 billion	$1.467 billion, 100%	$988.47 million, 67.38%	On Track
National Oceanic and Atmospheric Administration (NOAA)	$320 million	$2.1 million	$317.9 million	$317.8 million, 99.97%	$316.84 million, 99.67%	Complete
National Institute of Standards and Technology (NIST)	$66 million	$1.1 million	$64.94 million	$64.94 million, 100%	$64.31 million, 99.03%	Complete
Minority Business Development Agency (MBDA)	$10 million	$0	$10 million	$10 million, 100%	$9.73 million, 97.3%	Complete

OMB Memorandum M-20-21, Implementation Guidance for Supplemental Funding Provided in Response to the Coronavirus Disease 2019 directed agencies that received CARES Act appropriations to leverage and employ existing financial transparency and accountability mechanisms where possible.

On March 11, 2021, Congress enacted the American Rescue Plan Act, Pub. L. 117-2 (ARP Act). The ARP Act appropriated over $3 billion in supplemental funds to the following Department of Commerce bureaus:

Bureau	Amount Allocated	Admin Expenses	Budgetary Resources	Amount Obligated As of September 30, 2023[1]	Amount Outlayed As of September 30, 2023[1]	Overall Status
Economic Development Administration (EDA)	$3 billion	$60 million	$2.940 billion	$2.939.87 billion, 100%	$319.15 million, 10.86%	On Track
National Institute of Standards and Technology (NIST)	$150 million	$2.44 million	$147.56 million	$147.56 million, 100%	$61.39 million, 41.60%	On Track
Minority Business Development Agency (MBDA)	$125 million	$7.98 million	$117.02 million	$117.02 million, 100%	$0.00 million, 0.00%	On Track

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[2] When calculating Percent Obligated and Percent Outlayed, the amount used for the denominator is Budgetary Resources, which is the Amount Allocated less Admin Expenses for salaries and expenses and payment to the Department's Office of Inspector General to audit execution of funds.

OMB Memo M-21-20, Promoting Public Trust in the Federal Government through Effective Implementation of the American Rescue Plan Act and Stewardship of the Taxpayer Resources, directed agencies that received ARP Act appropriations to submit implementation plans for new programs established under ARP, include ARP programs in agency equity assessments and action plans, establish detailed and accurate award descriptions to ensure accountability and transparency, and ensure robust and transparent monthly reporting of ARP funding via USASpending.gov.

The Department made substantial progress on allocating and managing its CARES Act and ARP Act funding. All bureaus are either on schedule or ahead of schedule. The following is an update on funding deployment and overall status.

EDA – CARES Act: $1.5 billion; ARP Act: $3 billion
CARES Act Key Progress and Accomplishments

- CARES Act Notice of Funding Opportunity (NOFO) was published on 7 May 2020.
- The first CARES Act grant award was announced on 16 June 2020 and as of 30 September 2023, 1,239 total grants were awarded.
- As of 30 September 2022, EDA obligated 100% and outlayed 67.38% of its CARES Act funds to promote innovation and entrepreneurship, support indigenous communities, and provide support for rural communities.
  - Based on grantee estimates, these awards are expected to create, retain, or place 154,144 jobs within nine years of EDA's investment.
- All CARES Act funds were fully obligated by 30 September 2022 and will be outlayed by 30 September 2027.
- While CARES Act awards do not need to be fully disbursed until 30 September 2027, EDA has already fully disbursed over 50% of the awards with another 12% of projects at 90% disbursement or higher.
- EDA's CARES or ARP Act funds have no actively identified instances of waste, fraud, or misuse.

ARP Act Key Progress and Accomplishments

- EDA published NOFOs for 6 ARP Act programs on 22 July 2021.
- The first ARP Act grant award was obligated on 24 September 2021 and as of 30 September 2022, 780 total grants were awarded.
  - Based on grantee estimates, these awards are expected to create, retain, or place 220,000 jobs within nine years of EDA's investment.
- As of 30 September 2023, EDA obligated $2.94 billion or 100% and outlayed $319.1 million or 10.86% of its ARP Act funding.
- In Q4 of FY 2023, EDA and the Census Bureau advanced grantee and participant data collection for the Good Jobs Challenge, including updating survey questions and releasing internal demographic data to EDA for the first time. Additionally, EDA implemented an internal method for collecting qualitative feedback on ARP Act project level risk assessments earlier in FY 2023, and in Q4, adapted the instrument to enable time series views for tracking changes in project risks over time.

NOAA – CARES Act: $320 million
CARES Act Key Progress and Accomplishments

- Congress authorized $300 million to NOAA Fisheries to distribute aid to help marine fisheries affected by the COVID-19 crisis.
- CARES Act NOFO was published on 13 May 2020.
- The first CARES Act grant award was announced on 15 July 2020 and as of 30 November 2020, 6 total grants were awarded.
- As of 30 September 2023, NOAA obligated and outlayed 100% of its Fisheries specific CARES Act funding.
- As of 30 September 2023, 29 of 29 states and territories and 31 of 31 tribes have completed their disbursements.
- As of 30 June 2022, NOAA fully obligated and outlayed its OCFO specific CARES Act funding.
- No identified instances of waste, fraud, or misuse of funds with NOAA's CARES Act funds.

NOAA – Consolidated Appropriation Act (CAA), 2021: $300 million
CAA Key Progress and Accomplishments

- As of 30 September 2023, NOAA obligated 100% and outlayed 75.11% of its Fisheries assistance specific Consolidated Appropriations Act, 2021 funding. No awards will be extended beyond August 31, 2024.

NIST – CARES Act: $66 million; ARP Act: $150 million
CARES Act Key Progress and Accomplishments

- NIST completed its CARES Act outlays during FY 2022 and reported progress in the FY 2022/2024 APPR.

ARP Act Key Progress and Accomplishments

- NIST published the ARP Act NOFO/RFA on 26 April 2021 and 24 May 2021.
- The ARP Act grants were awarded on 13 July 2021 and as of 28 February 2022.
- As of 30 September 2023, NIST obligated 100% and outlayed 41.60% of its ARP Act funding.
- National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) project highlight: Several sub-recipients, including Sigma Aldrich, achieved breakthroughs such as halving the production time for new coronavirus spike proteins, essential for diagnostics and vaccine development.
- Rapid Assistance for Coronavirus Economic Response (RACER) project highlight: A team led by Advanced Functional Fibers of America (AFFOA) is developing biodegradable alternatives for air filter products, with promising environmental impact results and potential partnerships with composting facilities.

MBDA – CARES Act: $10 million
CARES Act Key Progress and Accomplishments

- MBDA completed its CARES Act outlays during FY 2022 and reported progress in the FY 2022/2024 APPR.
- MBDA also received $25 million in Coronavirus Response & Relief funding under the Consolidated Appropriations Act to assist minority businesses necessary expenses that exist to prevent, prepare for, and respond to coronavirus, and identify or access Government assistance.
- As of 30 September 2023, $25 million or 100% was obligated and $24.5 million or 97.80% was outlayed. Remaining funds were rescinded under the Fiscal Responsibility Act as two grantees decided not to use their allocated funds. Since these funds cannot be re-awarded, MBDA has obligated and outlayed all planned Consolidated Appropriations Act funds.

ARP Act Key Progress and Accomplishments

- The MBDA Capital Readiness Program (CRP) is funded by the Department of Treasury's State Small Business Credit Initiative (SSBCI) and was reauthorized under the American Rescue Plan Act of 2021.
- CRP is a technical assistance program to help minorities and other underserved entrepreneurs grow and scale their business.
- The $100 million CRP received over 2,000 emails and 1,200 applications. The Selection Review Panel reviewed and processed over 800 applications, of which 43 applicants were recommended and awarded. Funds were obligated on 18 September 2023, prior to the end of FY 2023.
- As of 30 September 2023, $117.02 million or 100% was obligated, $0.00 million or 0.00% was outlayed.
- The White House announced and held a round table event for the 43 recommended CRP awardees on 4 August 2023.

FY 2024 TOP MANAGEMENT CHALLENGES

The Department of Commerce's Office of Inspector General (OIG) identified twelve <u>management challenges</u> within Commerce for FY 2024. Commerce integrates and coordinates challenge resolution with enterprise risk management (ERM) processes such as the inventory of Mission Critical Programs and Activities and Risk Profile. These processes consider OIG findings, recommendations of the Government Accountability Office, past performance, and the insights and expertise of Commerce staff. Deliberations are multi-level and require involvement and approval by Commerce executive councils. Outcomes inform Commerce's strategic planning, ERM, and topics for multi-disciplinary program review boards.

The challenges described in this section are based primarily on the OIG FY 2024 Top Management and Performance Challenges. However, they also draw from other internal assessments. The challenges are addressed by Strategic Objectives and the related strategies and action plans that match the complexity of the subjects. Alignment to the 2022 – 2026 Strategic Plan and highlights of FY 2024 action plans are provided in the charts below and include high level milestones and links to additional public information.

FY 2024 Management Challenge Identified by DOC OIG	Alignment to Department 2022 – 2026 Strategic Objectives that Address the Challenge	Official Responsible for Resolving the Challenge
1. Continuing the transition to zero trust to overcome IT security shortcomings and strengthen cybersecurity	SO 1.6 – Improve the Nation's cybersecurity and protect Federal Government networks	Chief Information Officer, Department of Commerce
2. Awarding and overseeing grants to expand broadband access to all Americans	SO 2.4 – Expand affordable, high-quality broadband to every American	Assistant Secretary of Commerce for Communications and Information and NTIA Administrator
3. Promoting growth in domestic semiconductor manufacturing and research	SO 1.2 – Accelerate the development, commercialization, and deployment of critical and emerging technologies	Under Secretary of Commerce for Standards and Technology and the Director of the National Institute of Standards and Technology, NIST
4. Enhancing weather, water, and climate services	SO 3.1 – Increase the impact of climate data and services for decisionmakers through enhanced service delivery and improved weather, water, and climate forecasts	Assistant Administrator for the National Weather Service, NOAA Assistant Administrator for Satellite and Information Services, NOAA Director of Marine and Aviation Operations, NOAA Assistant Secretary for Environmental Observation and Prediction, NOAA

FY 2024 Management Challenge Identified by DOC OIG	Alignment to Department 2022 – 2026 Strategic Objectives that Address the Challenge	Official Responsible for Resolving the Challenge
5. Leveraging trustworthy artificial intelligence and modernizing IT systems	SO 5.5 – Modernize mission support processes and infrastructure	Chief Information Officer, Department of Commerce
6. Effectively enforcing export controls and supporting U.S. supply chain resilience	SO 1.1 – Revitalize U.S. manufacturing and strengthen domestic supply chains SO 1.4 – Protect national security interests and enforce trade rules	Under Secretary of Commerce for Standards and Technology and the Director of the National Institute of Standards and Technology, NIST Deputy Assistant Secretary for Export Administration, BIS
7. Ensuring public safety entities have the network services they need to respond effectively to emergencies	SO 2.4 – Expand affordable, high-quality broadband to every American	Chief Executive Officer, First Responder Network Authority
8. Managing and overseeing contracts and grants while ensuring equitable procurement	SO 5.5 – Modernize mission support processes and infrastructure	Senior Procurement Executive/Director, Office of Acquisition Management, Department of Commerce
9. Safeguarding intellectual property to promote innovation and economic prosperity	SO 1.5 – Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship	Deputy Under Secretary of Commerce for Intellectual Property and Deputy Director of the United States Patent and Trademark Office, USPTO
10. Ensuring the Census Bureau provides quality data to stakeholders	SO 4.2 – Modernize economic and demographic statistics to better meet business, policymaker, and community needs	Associate Director for Decennial Census Programs, Census Bureau
11. Protecting funds awarded under the Public Wireless Supply Chain Innovation Fund grant program	SO 1.1 – Revitalize U.S. manufacturing and strengthen domestic supply chains	Assistant Secretary of Commerce for Communications and Information and NTIA Administrator
12. Ensuring strong oversight and effective use of funding for National Institute of Standards and Technology construction and maintenance	SO 5.1 – Effectively implement new Department of Commerce authorities and investments	Under Secretary of Commerce for Standards and Technology and the Director of the National Institute of Standards and Technology, NIST

FY 2024 TOP MANAGEMENT CHALLENGES – ACTION PLANS

Progress updates on action plans are submitted by Strategic Objective Leads to the Deputy Secretary during the Annual Strategic Review (ASR) process. More frequent progress updates are managed via periodic Strategic Objective Review Meetings, the Enterprise Risk Management process, Milestone Review Boards, and/or Agency Priority Goal meetings, as appropriate. The tables below illustrate key elements of these action plans for each of the twelve FY 2024 management challenges.

1. Continuing the transition to zero trust to overcome IT security shortcomings and strengthen cybersecurity

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• In alignment with the Department's Zero Trust Architecture (ZTA) Strategy, the Department will procure and implement foundational capabilities to support enterprise ZTA.	• Deploy Endpoint Detection and Response (EDR) tool. • Procure and deploy Enterprise Identity Management Solution to support Single Sign-On. • Deploy Secure Access Service Edge Capability. • Operate the Department's Risk and Vulnerability Assessment and managed Vulnerability Disclosure Program.	Federal Zero Trust Strategy Fiscal Year 2023 Guidance on Federal Information Security and Privacy Management Requirements
• Implement tools to enable Cybersecurity and Infrastructure Security Agency's (CISA) to detect and prevent cyber attacks targeting federal civilian executive branch agency networks.	• Transition 100% of Bureaus from EINSTEIN 3 Accelerated (E3A) to the CISA Protective DNS (PDNS) Resolver Service.	
• Work to mature the Department's Enterprise Continuous Diagnostics and Mitigation (ECDM) program, which includes improving the data quality pertaining to the Bureaus Vulnerability and Asset Enumeration data.	• Integrate, consolidate, and automate reporting of cybersecurity data across multiple platforms to send to Agency and Federal CDM Dashboards.	
• Track and monitor compliance with National Institute of Standards and Technology Special Publication 800-53 Revision 5 and Adoption guide.	• Process and review requests for waivers on timeline to complete Rev 5 migrations. • Track progress toward completion throughout FY 2024 based on approved waivers.	NIST SP 800-53 Rev 5: Security & Privacy Controls for Information Systems & Organizations

2. Awarding and overseeing grants to expand broadband access to all Americans

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
Ensure funding is properly allocated and awarded to close the digital divide: • Work with States on challenges submission to Federal Communications Commission (FCC) Fabric and Broadband Data Collection map to promote accuracy in unserved location data. • Provide technical assistance to states to use analytical tools to support States and Territories in the BEAD process, including access to the FCC BDC in NTIA's National Broadband Availability Map (NBAM) and other broadband deployment cost tools.	• Provide technical assistance for users of the Eligible Entity Planning toolkit, which was launched in Summer 2023.	Funding by State/Territory	Internet for All Blog Series on FCC Map and Implications for BEAD Allocation: Post 1, Post 2, Post 3 Three Take Aways Version 2 FCC's National Broadband Map Blog BEAD Allocation Methodology BroadbandUSA Technical Assistance Hub—Mapping NTIA National Broadband Availability Map (NBAM)
Oversee broadband programs with challenging regulatory and National Telecommunications and Information Administration requirements: • Develop practices and mechanisms to mitigate broadband award implementation risks related to supply chain issues, permitting requirements, and federal award duplication.	• Finalize Build America, Buy America (BABA) limited program waiver for BEAD. • Permitting Tiger Team will develop tools and processes to streamline Environmental and Historic Preservation (EHP) activities for NTIA broadband grants. • Coordinate with Federal Agencies biweekly to proactively share data on potential grant projects to avoid duplication of Federal funds.	BEAD BABA Waiver Request for Comment NTIA BABA Updates Environmental and Historic Preservation Resources on BroadbandUSA Technical Assistance Hub—Permitting Federal Interagency Memorandum of Understanding to Share Broadband Funding Data
Optimize workforce to manage increases in grant administration activities: • Complete hiring needed for grant program administration. • Continue formal training on grants management and oversight and programmatic training to support Federal Program Officers.	• Have highly trained Federal Program Officers (FPO) in implementing the broadband grant programs, including grants administration and oversight activities.	NTIA cross-trains its Federal Program Officers and its grant applicants/awardees through its Technical Assistance offerings (BroadbandUSA Technical Assistance Hub)
Implement measures to prevent, detect, and report potential fraud and hold grantees and subgrantees accountable for performance:	• Receive and review semi-annual technical performance/progress reports and financial reports from each grantee. • Perform risk assessments of grant awards to align monitoring activities with risk level.	Grants Administration Resources in BroadbandUSA Technical Assistance Hub—Grants Administration Semi-Annual Report Template Instructions and Resources BroadbandUSA Technical Assistance

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Continue to implement Monitoring Framework and Risk Assessment for all active grant awards and grantees. • Create post-award Technical Assistance materials for grantees to promote understanding and compliance. • Review semi-annual reports to track grantee project technical performance and progress and require semi-annual financial reporting. • Aggregate performance and financial data by program to track performance and detect anomalies. • Require grant awardees with sub granting to provide their plans for subgrantee selection and subrecipient monitoring.	• Conduct quarterly calls, desk reviews, site visits, depending on the risk profile of the grantee. • Complete development of additional internal operational dashboards that provide financial data, post-award report data, grant monitoring, and compliance statuses, etc. to support operational monitoring and oversight. • Develop programmatic standard operating procedures, materials, and Federal Program Officer training for risk assessments and monitoring activities. • Conduct monthly State Broadband Leaders Network (SBLN) meetings for State and Territory BEAD / Digital Equity grantees (held 23 in FY23) • Hold two in-person SBLN meetings for Technical Assistance (held two in FY23). • Require States to provide to NTIA for review and approval their sub granting process and the subrecipient monitoring plans.	Hub—search by each funding program to see specific reporting templates/TA BEAD Initial Proposal Requirements and Guidance

3. Promoting growth in domestic semiconductor manufacturing and research

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
Hire and retain qualified staff: • Onboard individuals with program-specific onboarding goals prioritized by position based on immediate programmatic needs. • Use applicable and appropriate hiring authorities and flexibilities to fill positions. • Streamline the interview and onboarding process and establish tracking dashboards. • Collaborate with the OIG-initiated audit to determine whether NIST has enough staff with the necessary skills to ensure proper oversight and use of CHIPS Act funds.	• Execute staffing projection needs analyses to ensure that CHIPS for America is appropriately resourced. Monitor and track total staff onboard against projections. • Monitor and track days to hire, number of hiring authorities/flexibilities used, and vacancy rate.	Evaluation of CHIPS Workforce Management (2023-462) Current CHIPS Job Openings

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
Implement adequate internal controls and oversight: • Ensure awards are reviewed and processed in line with CHIPS Act requirements, DOC regulations, NIST policies, and additional applicable federal regulations. This includes a robust due diligence process as part of the CHIPS Incentive program application process. • Establish a Risk Team that is fully integrated into the program to focus on transaction risk, portfolio risk, and compliance functions. • Ensure applicant information and data access policy is in place to protect applicant information. Coordinate with oversight and compliance offices.	• Implement robust Due Diligence and Compliance programs and strictly monitor the use of funds to protect taxpayer dollars and ensure that companies deliver on their promises. • Conduct extensive due diligence prior to awarding funds. • Disburse funding over time and tied to applicants meeting agreed-upon commitments and milestones. • Design and test controls for key internal processes.	CHIPS for America Fact Sheet: Protecting U.S. Taxpayers CHIPS for America Fact Sheet: CHIPS Program Office Launches Notice of Funding Opportunity 15 CFR Part 231: Preventing the Improper Use of CHIPS Act Funding

4. Enhancing weather, water, and climate services

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References

Maintain a robust satellite architecture:
• Execute established programs:
   o Manage schedule and technical challenges for completing the JPSS program.
   o Launch final GOES-R series satellite and complete on-orbit testing.
• Plan future satellite capabilities:
   o Meet observational requirements and evolve space acquisition philosophy and approach.
   o Design GeoXO satellite system to provide the best overall mission value.
   o Use space weather program to prevent data gaps.
   o Migrate data and services to the cloud.
   o Plan for potential loss of opportunities to purchase weather data from vendors.
	• Key milestones completed on time for satellite deployments.
	• Percentage of NOAA-managed satellite data processed and distributed within targeted time.
	• GOES-U launch.
	• Near Earth Orbit Network Program Milestone 1.
	• Space Weather Follow-On Key Decision Point-D.
	• Space Weather Next L1 Series project Milestone 2.
	• GeoXO Sounder award announcement to begin development phase for GeoXO instrument.
		www.nesdis.noaa.gov/current-satellite-missions/currently-flying
		www.nesdis.noaa.gov/our-satellites/future-programs/geostationary-extended-observations-geoxo
		www.nesdis.noaa.gov/next-generation/near-earth-orbit-network-neon
		www.nesdis.noaa.gov/our-satellites/future-programs/space-weather

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
Maintain a robust satellite architecture: • Mitigate risks to satellite operations o Safeguard operations and communications from frequency interference.	• NOAA Radio Frequency Interference Monitoring System (RFIMS) will be placed in service at the NOAA Atlantic Oceanographic Meteorological Laboratory and Daniel K. Inouye Regional Center to monitor, geolocate, and assist in mitigating harmful interference to NOAA Satellite Ground Service missions in the 1695 to 1710 MHz frequency band shared with licensed commercial vendors.	Not applicable
Maintain a robust satellite architecture: • Mitigate risks to satellite operations. o Develop initial capabilities to provide basic space situational awareness services (SSA).	• Fill key Office of Space Commerce positions. • Manage development of infrastructure for the Traffic Coordination System for Space (TraCSS) operational system. • Execute commercial pathfinder projects and procure commercial SSA tools.	www.space.commerce.gov/traffic-coordination-system-for-space-tracss/
Ensure successful ship replacement efforts and communicating impacts of a potential gap in high-altitude aircraft observations: • Update NOAA's Fleet Plan: Half of NOAA's ships must be replaced within 5 years. • Communicate gaps for Hurricane Hunter aircraft nearing the end of their service life.	• Update NOAA Fleet Plan for ship recapitalizations. • The NOAA Aircraft Plan was presented to Congress. Contents included Hurricane Hunter aircraft replacements. • Contract Award for C-130s (Hurricane Hunters replacements) consistent with NOAA Aircraft Plan presented to Congress.	Not applicable
Increase the National Weather Service's effectiveness at protecting life and property in a changing climate: • Hire and retain a skilled workforce quickly enough to reduce vacancy rates. • Transition to reliable, resilient infrastructure. • Improve accuracy to better adapt to society's changing needs and vulnerabilities.	• Percent of employees hired within 80 days as described in the E2E Model. • Maintain IDP Operational Availability at 97%. • Complete Minimum Viable Product of weather.gov 2.0. • Percent of U.S. population served by operational Flood Inundation Mapping Services. Target: 30%. • Complete operational implementation of AWIPS remote access solution for IMETs and expand user base to CWSUs and Thin Client users. • Implement National Blend of Models v.4.2, which provides an update to ensemble models critical to advancing forecast production for the Future Operating Model and Probabilistic IDSS.	Not applicable

5. Leveraging trustworthy artificial intelligence and modernizing IT systems

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Deploy new Business Application Solution (BAS) features and functionality.	• Phase 1B deployment completed on time / budget. • Complete Phase 2 and 3 deployments.	Business Applications Solution (BAS)
• Assist customer transition into BAS before, during, and after deployments.	• Early access for Subject Matter Experts. • Early learning and confidence gaining activities. • User Acceptance Training. • Extensive end user training and continual learning.	Not applicable
• Engage with OIG and BAS governance stakeholders.	• Monthly meetings of the BAS Executive Board. • BAS Program Audit with OIG. • Monthly executive stakeholder engagements.	Not applicable
• Transition Commerce grants programs to Grants Evaluation and Management System (GEMS).	• NOAA Phase 2 deployment completed on schedule and on budget.	Not applicable
• Engage with OIG and GEMS governance stakeholders.	• Monthly meetings of the GEMS Executive Board • GEMS program audits with OIG	Not applicable
• Migrate BIS Critical Mission Applications to cloud. • BIS Connect user research project with export community / over 1000 stakeholder touchpoints. • Modernize data analysis / sharing tools, including Power BI and Snowflake data curation solutions. • BIS Website Redesign closed beta. • Virtual Desktop Pilot and Phasing out Citrix and RSA Token Usage (replacing with PIV). • Maintain robust cybersecurity posture via Cybersecurity and Infrastructure Security Agency's Shields Up initiative. • Recruit new talent to team BIS-OCIO. • Splunk High FedRAMP sponsorship.	• BIS Critical Mission Applications are 100% in cloud. • Number of employees who completed Contracting Officer's Representatives certifications. • Increasing ability to modernize platforms to ensure better data fidelity for agency usage. • Weekly exchange of BIS entity data and State Department entity data via Commerce USXPORTS Exporter Support System. • Implementation of the AI Executive Order 14110. • Right-size cloud architecture to reduce costs and threat vectors. • Harden the security of public-facing export license submission application.	Notification Advance Computing
• Manage Census AI Governance Board to increase awareness, align policy, ensure safe AI technology adoption. • Manage open source/cloud native AI technologies through the Business Ecosystem initiatives.	• Develop prototypes of large language models to surface data from the CEDSCI for users asking questions of chat bots about census data. • Train and educate employees on data science and generative AI capabilities.	Transforming the Census Bureau's Annual Surveys of Businesses Business Ecosystem UN Guide on Privacy-Enhancing Technologies for Official Statistics // Task Team on Privacy Enhancing Techniques — UN-CEBD

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Research AI capabilities offered by existing FNA IT providers and evaluate existing cloud services to ensure that FNA proprietary data is not being and will not be used to train AI.	• Incorporate AI and Cloud Services training into FY 2024 Individual Development Plans for all FNA OCIO personnel.	Not applicable
• Institute scaled lean-agile framework for portfolio planning, budgeting, and information technology product development to improve productivity, increase transparency, and strengthen intra-Bureau alignment on IT investments.	• Number of products and minor enhancements launched and operationalized.	FACT SHEET: Executive Order 14110 Press Release: Department of Commerce to Undertake Key Responsibilities in Historic Artificial Intelligence Executive Order 14110
• Improve satellite data performance, information products and services, numerical weather prediction, ocean models, and big data analysis, storage, and dissemination. • Maintain NOAA Open Data Plan for improving public access to priority NOAA data assets. • Transition NOAA Telecommunications services to GSA's Enterprise Infrastructure Solution (EIS).	• NOAA Open Data Dissemination (NODD) initial engagement: Percent initial engagement with customer/user that reach out via nodd@noaa.gov within 48 hours. • EIS transition: Percent transition of NOAA Telecommunication services to GSA's EIS	The NOAA Open Data Dissemination (NODD) Program NOAA Center for Artificial Intelligence (NCAI)
• Proceed with NTIA application cloud transition.	• Percent of applications transitioned	Not applicable
• Create guidance and develop best practices to promote consensus industry standards that help ensure the development and deployment of safe, secure, and trustworthy AI systems.	• Launch the US AI Safety Institute and related Consortium and complete NIST-assigned responsibilities in the October 2023 AI Executive Order 14110.	https://www.nist.gov/artificial-intelligence
• Evaluate and pilot AI/Emerging Technologies (ET) for improving employee productivity, operational efficiency, and customer experience.	• Three ET evaluations and/or pilots with recommendation to implement or not.	www.uspto.gov/initiatives/artificial-intelligence

6. Effectively enforcing export controls and supporting U.S. supply chain resilience

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
Ensure compliance with U.S. export control laws and regulations: • Export service addressed in ExporTech program delivery.	• Issue and/or expand regulations outlining export controls restrictions. • Execute Export Control/Compliance review.	www.bis.doc.gov/index.php/regulations/export-administration-regulations-ear

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Raise awareness of export controls for small and medium manufacturers (SMMs).	• Expand and implement export control programs and strategies to increase the awareness of and compliance with export controls requirements. • Number of ExporTech™ programs delivered and the number of participating companies. (MEP) • Number of partnerships and referrals to other federal agencies and entities (e.g., ITA / SBDCs, World Trade Centers, District Export Councils).	www.federalregister.gov/documents/2023/03/23/2023-05869/preventing-the-improper-use-of-chips-act-funding www.nist.gov/exportech grow.exim.gov/blog/exportech-helping-us-businesses-create-an-export-plan
Strengthen supply chain resilience: • Increase supply chain visibility. • Increase supplier scouting capacity. • Increase technology adoption.	• Execute marketing campaign on supply chain efforts in the manufacturing industry, highlighting industries served, current employers, and ITA/MEP efforts, success stories and challenges. • Map and assess supply chains, identifying key industries and key locations. • Manage Supply Chain Optimization and Intelligence Network (SCOIN) Expansion Program.	www.nist.gov/mep www.mepsupplychain.org/
Engage with NIST and other supply chain stakeholders (e.g., OIG, ITA, etc.):	• Regular meetings of supply chain stakeholders. • Monthly executive stakeholder engagements. • Quarterly Meetings of the MEP Executive Board.	Not applicable
Narrow the workforce gap for supply chains: • Build a pipeline of future employees that will support supply chains. • Assess and integrate small and medium manufacturers and underserved populations into the U.S. supply chains.	• Encourage collaboration with educational institutions and supply chain participants to develop talent pipeline to address hiring needs. • Conduct outreach to small and medium manufacturers and underserved communities to identify/expand supply chain talent pools. • Coordinate with other federal agencies and/or other entities to recruit talent for supply chains	www.mxdusa.org/2023/10/18/mxd-announces-partnership-with-nist-manufacturing-extension-partnership/
• Enhance effectiveness of export controls by increasing the number of enforcement outcomes. • Enhance use of end-use checks to prevent the transshipment and diversion of U.S. items	• Number of actions that result in a deterrence or prevention of a violation and cases which result in a criminal and/or administrative charge. • Increase number of end-use checks	Not applicable

7. Ensuring public safety entities have the network services they need to respond effectively to emergencies

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Revise and strengthen documentation from Senior Management Council meetings to ensure meeting minutes and presentations that pertain to oversight actions and reinvestment decisions. • Review and update all existing Quality Assurance Surveillance Plan (QASP) metrics and identify and implement enhancements for future Task Orders to measure contractor performance regarding NPSBN service quality. • Improve procedures and processes to include additional on-site surveillance methodologies. • Update program management processes to account for specific activities supporting contract oversight and site compliance visits. • Incorporate public safety user input and sentiment analysis to ensure FirstNet network subscribers' expectations, preferences, and aversions are fed into the First Responder Impact Model (FRIM) for investment decisions.	• FirstNet Authority's Senior Management Council processes or policy (FNP 404) revised. • Develop and implement a QASP analytic dashboard to feature trending key performance indicators to improve visibility into AT&T contract performance and augment the current manual contract oversight processes. • Conduct physical inspections, demonstrations of services being evaluated, and assessments of service deliveries. • Sentiment index, Net Promotor Score (NPS), and Customer Satisfaction Score (CSAT)/System Usability Scale score (SUS).	First Responder Network Authority | FirstNet FirstNet Authority Board Meetings FirstNet Authority Annual Report to Congress

8. Managing and overseeing contracts and grants while ensuring equitable procurement

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Manage contract and grant awards, oversight, and program performance. • Manage, strengthen, and retain a skilled acquisition workforce to support the Department's mission. • Ensure equity in procurement.	• Document Acquisition Management and Grant Management Review findings and ensure corrective action plans are followed. • Complete Acquisition Review Board reviews. • Re-baseline acquisition human capital planning activities. • Expand number of acquisition professionals with Digital Services specialization credential. • Operationalize The Lab through targeted training, resources, and coaching.	CAM 1307.1 Acquisition Planning DOC Contractor and Recipient Responsibility Program Handbook DOC Grants and Cooperative Agreements Manual CAM 1372 Acquisition Management Review Procedures Guide Digital Services Credential

	• Ensure small businesses, underserved communities, and minorities are aware of procurement and grant opportunities. • Partner with OIG to implement tools available under suspension and debarment program to ensure responsible use of federal funds. • Conduct Big A Conference.	

9. Safeguarding intellectual property to promote innovation and economic prosperity

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
Adapt to emerging technologies: • Create policies to advance and govern the development and use of AI. • Educate the public on rights on creating / using objects in metaverse for design patents. • Develop policies and promote regulations that encourage and incentivize U.S. innovation in emerging technologies (ET). • Track critical / emerging technology vital to national security / economic development. • Drive AI search tool's output capability based on patent documents. • Develop AI image search for design patents. • Develop NexGen machine learning for AI classification of utility patent applications.	• Draft AI policy. • Provide stakeholders training on inventions and designs in the metaverse that can be protected. • Issue guidance on graphical user interfaces. • Track prioritized examination programs for ET. • Track CET filings and identify technologies that are underperforming. • Ensure patent search collection accuracy. • Acquire AI search system, attain authority to operate (ATO), and deploy to examiners. • Monitor and report on AI classification transition (finalize NexGen ML models, test models' performance, investigate user acceptance, and measure business impacts).	www.uspto.gov/initiatives/artificial-intelligence www.uspto.gov/initiatives/artificial-intelligence/artificial-intelligence-resources
Maintain the integrity of the patent application system and the trademark register: • Monitor and prevent fraud in utility, plant, and design patent applications. • Provide patent applicants with a secure digital identification verification option. • Promptly publicize changes to policies. • Increase clarity in decision-making used in America Invents Act (AIA) trial proceedings.	• Draft rulemaking to implement the Penalty for False Assertions and Certification provision of section 107 of Unleashing American Innovators Act of 2022. • Launch ID.me for patent applicants. • Provide patent examiner training to the public. • Guidance/rules/decisions issued. • Communications and engagements to increase AIA trial proceeding understanding. • Corrective actions completed by the due date. • Expand the register protection team.	www.uspto.gov/patent/laws-and-regulations/examination-policy/examination-guidance-and-training-materials www.uspto.gov/patents/patent-quality/public-patent-examination-learning-center www.uspto.gov/sites/default/files/documents/ptab_sop_4-2023-oct.pdf

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Conduct public outreach and issue communications to aid public understanding of all PTAB proceedings. • Complete all corrective actions identified in USPTO's Plan of Action and Milestones. • Increase use of register protection tools by increasing capacity and engagement.	• Number of petitions or director-initiated Trademark Modernization Act proceedings. • Number of applications/registrations and USPTO.gov accounts implicated in issued administrative orders. • Number of emails reporting scams.	
Improve patent / trademark quality and timeliness: • Drive an evidence-based, problem-solving, and critical-thinking culture. • Test initiatives identified by customers and examiners to improve quality / pendency. • Expand internal survey and data monitoring programs to gauge patent examiner experiences and infrastructure impacts on achieving pendency and quality targets. • Integrate feedback from stakeholders and applicants when making decisions. • Provide coaching/mentoring opportunities to increase examiners' technical/legal skills. • Measure and assess patent utility application actions for compliance with quality and pendency metrics. • Update Master Review Form (MRF) and implement new sampling strategy specifically for design patent applications. • Gain efficiency using technology / training. • Gain productivity by optimizing the examination workflow.	• Evaluate Patents Innovation Lab's impact on problem-solving and key challenges. • Employee net promoter scores (NPS). • Customer trust and confidence in patent processes/interactions at key touchpoints. • Evaluate patent examiner satisfaction with coaching/mentoring related to technical and legal skills development. • Measure customer satisfaction with timeliness and quality efforts. • Report patent term adjustment (PTA) results. • Conduct patent examination education classes for all examiners. • Ensure all rocket docket, or expedited design, applications are processed within six months from filing to first office action. • Achieve Hague Treaty compliance greater than or equal to 93%. • Improve examination systems w/ IT resources. • Hire 66 examining attorneys in FY 2024. • Stimulate the production of first actions. • Develop AI and robotic process automation (RPA) to enhance examination process. • Deploy eFile.	www.uspto.gov/patent/patent-quality www.uspto.gov/dashboard/patents/
Improve critical mission support functions: • Implement the six recommendations reported in the patent legacy systems audit. • Retire vulnerable patent legacy IT systems.	• Improve IT cost estimate documentation. • Establish a training plan to improve USPTO's IT cost and schedule estimates. • Retire nine patent legacy IT systems.	www.cpars.gov/

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Address cyber vulnerabilities as they occur. • Revise Patent and Trademark Acquisition Guidelines (PTAG) Desktop Guide to include guidance on noncompetitive procurements. • Conduct training for its customers on their procurement planning responsibilities. • Eliminate overdue Contractor Performance Assessment Reporting System (CPARS) evaluations.	• Prioritize cyber vulnerabilities in product development sprints activities. • Publish PTAG Desktop Guide. • Hold training by September 2024. • CPARS Compliance Reports.	

10. Ensuring the Census Bureau provides quality data to stakeholders

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Release remaining 2020 Census data products by September 30, 2024. • Finalize research and release recommendations to support early planning of the 2030 Census and inform the design of the 2026 Census test. • Implement improvements to the integration between data collection and data processing in near real time. • Release ACS 2018-2022 5-year estimates by December 31, 2023. • Finalize specifications for the ACS 2023 1-year and 2019-2023 5-year tabular data product releases by March 31, 2024. • Release ACS 2023 1-year estimates by September 30, 2024.	• 2020 Census data products released as scheduled. • Research recommendations released as scheduled. • Develop and test a modernized data processing system that includes near real time processing for the 2026 Census test. • ACS data products released as scheduled.	About 2020 Census Data Products 2030 Census Research Project Explorer American Community Survey Data Releases

11. Protecting funds awarded under the Public Wireless Supply Chain Innovation Fund grant program

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Implement measures to prevent, detect, and report potential fraud and hold grantees and subgrantees accountable for performance. • Continue to implement Monitoring Framework and Risk Assessment for all active grant awards and grantees. • Create post-award Technical Assistance materials for grantees to promote understanding and compliance. • Create semi-annual report templates to track grantee project technical performance and progress and require semi-annual financial reporting.	• Require semi-annual technical performance/progress reports and financial reports from each grantee. • Perform risk assessments of grant awards on a regular basis to align monitoring activities with risk level. • Conduct regular monitoring activities, e.g., quarterly calls, desk reviews, site visits, depending on the risk profile of the grantee. • Developed programmatic standard operating procedures, materials, and Federal Program Officer training for risk assessments and monitoring activities. • Hold an internal monthly Program Management Review with Innovation Fund leaders to review the portfolio. • Develop internal operational dashboards that provide financial data, post-award report data, grant monitoring and compliance statuses, etc. to support operational monitoring and oversight.	Public Wireless Supply Chain Innovation Fund

12. Ensuring strong oversight and effective use of funding for National Institute of Standards and Technology construction and maintenance

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Receive Annual Construction of Research Facilities (CRF) funding approval in accordance with the National Academies of Science, Engineering, and Medicine (NASEM) Recommendations, and the 12 year Coordinated Recovery Plan (CRP). • Receive NIST Director approval of the 12 Year CRP (base) and annual updates based on actual annual appropriations. • Develop updated research facility conditions survey completed within research community with peer review validations.	• CRF funding per the CRP approved by NIST, DOC and included in the President's budget. • 12-year CRP Base approval by 12/31/23 and Annual Updates by June 30th each year. • Charter approved by 1/15/24. • Survey completed in Boulder by 3/30/24. • Survey completed in Gaithersburg by 6/30/24. • Assessment of >90% of labs completed by 6/30/24. • A minimum of 30 research space presentations developed of facility condition impacts by 6/30/24. • Develop matrix by 3/31/24.	Not applicable

• Develop a comprehensive mission impacts assessment due to facility conditions by using the NASEM model. • Develop a prioritized research functions matrix cross referenced to spaces that consider national security / critical emerging technologies. • Update annual project prioritization process for non-capital projects integrating mission impacts assessment and the prioritized matrix. • Implement a comprehensive Facility Management Software (FMS) Suite. • Award upgrades, expansion, replacement to NIST's Central Utility Plant (CUP) and underground utility infrastructure (U/G UI).	• Updated plan due with FY 2025 Annual SCMMR Projects Board and presented by 8/30/24. • FMS Award: By 1/1/24 and Go-Live: By 6/1/25. • Milestones per approved MRB schedule. • Award of CUP Modernization by 9/30/25. • Award of U/G UI program by 9/30/25.	

STRATEGIC OBJECTIVES' PERFORMANCE ASSESSMENT AND PLANNING

STRATEGIC OBJECTIVE 1.1 – Revitalize U.S. manufacturing and strengthen domestic supply chains

Lead Bureau: NIST
Contributing Bureaus: BEA, BIS, Census, EDA, ITA, MBDA, NTIA

Key Strategies:
- Advance U.S. leadership in semiconductors
- Increase the resilience and diversity of critical, domestic supply chains
- Accelerate technology development and deployment in U.S. manufacturing

Executive Summary of Progress

The National Institute of Standards and Technology (NIST) worked to implement the Creating Helpful Incentives to Produce Semiconductors (CHIPS) Act of 2022, a $50 billion investment through the Department of Commerce CHIPS for America Fund. NIST also supported U.S. manufacturing through the Manufacturing USA program and the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL), the Hollings Manufacturing Extension Partnership (MEP), and the NIST mission of measurement science and standards leadership. Some major achievements of these manufacturing-based initiatives include:

- **CHIPS for America**: Recently released two notices of funding opportunities for commercial fabrication facilities and for small-scale supplier projects. Additionally, the National Advanced Packaging Manufacturing Program (NAPMP), one of the four research and development programs for CHIPS for America, announced it will invest $3 billion in funding to drive U.S. leadership in advanced packaging. The National Semiconductor Technology Center (NSTC) was also established and will be a hub of collaboration for members of the entire semiconductor manufacturing and supplier ecosystem. The NSTC will also accelerate the pace of innovation and help lower the cost and time required to bring new technologies to market. Additionally, the final rule implementing the national security guardrails of the CHIPS and Science Act was released, elaborating on two core provisions of the statute: the first, prohibiting CHIPS funds receipts from expanding material semiconductor manufacturing capacity in foreign countries of concern for ten years; and the second, restricting recipients from certain joint research or technology licensing efforts with foreign entities of concern.

- **Manufacturing USA**: The Workforce, Education and Vibrant Ecosystems (WEAVE) program recently accepted proposals for public service awards of $11 million, with an announcement of awards forthcoming. This funding is intended to be used for Manufacturing USA institutes to provide vibrant and inclusive advanced manufacturing ecosystems. Manufacturing USA also supports the DOC-funded NIIMBL experience program, which offers Black, Latinx, and Indigenous students an all-expenses paid biopharmaceutical manufacturing immersion program, with the goal to diversify the school-to-industry pipeline. Additionally, NIST released a summary of public comments solicited to inform the design of, and requirements for, potential Manufacturing USA institute(s) that would strengthen the semiconductor and microelectronics innovation ecosystem in design, fabrication, advanced test, assembly, and packaging capabilities.
- **Hollings Manufacturing Extension Partnership (MEP)**: According to a FY 2022 survey, MEP is estimated to have supported 113,487 new and retained jobs, $6.3 billion in investments, $18.6 billion in new and retained sales, and an overall return on investment of 18.1:1. They also published an interactive map, allowing manufacturers to find workforce-related programs and services at MEP centers across all 50 states and Puerto Rico and a strategic plan for 2023-2027. Additionally, MxD, the digital manufacturing and cybersecurity institute, announced a partnership with MEP to advance digital adoption by small and medium-sized manufacturers. This five-year collaboration will help strengthen America's manufacturing base and increase competitiveness by delivering tailored support to small and medium-sized manufacturers. MEP also awarded roughly $400,000 to each of its MEP national Network Centers in every state and Puerto Rico to help support the creation of a database called the national Supply Chain Optimization and Intelligence Network (SCOIN).
External Reports: NIST, with support from ITA and other bureaus, authored the Department of Commerce section of a March 2023 White House Office of Science and Technology Policy (OSTP) report entitled Bold Goals for U.S. Biotechnology and Biomanufacturing focusing on biotechnology and biomanufacturing R&D to further supply chain resilience. The Department was tasked to lead the report via the National Biotechnology and Biomanufacturing Initiative, which was launched through Executive Order 14081: Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy. NIST was also one of the key contributors to the development of the National Strategy for Advanced Manufacturing. Finally, in June 2023, Building the Bioworkforce of the Future was published by the White House, highlighting NIST's approach toward workforce development and awareness, especially as it pertains to expanding equitable opportunity in biomanufacturing. This published plan includes public input, which in turn informed recommendations and action steps outlined in the publication.

BEA released expanded statistics on Trade in Value Added (TiVA) in March 2023, adding statistics for 2021 and revising statistics for 2007-2020, increasing industry detail from 81 to 138 industries, and adding geographic detail for Japan and Asia excluding China and Japan. These statistics provide detail on the foreign and domestic content of U.S. exports, illuminating linkages in global supply chains, and are produced in collaboration with the National Science Foundation.

BIS will work to increase transparency in semiconductor supply chains and provide policy guidance to support domestic manufacturing through multiple defense industrial base assessments. In FY 2023, BIS completed an initial report on the capabilities of the U.S. microelectronics industrial base mandated in the National Defense Authorization Act.

ITA created a new Supply Chain Center with a small initial team to provide strategic guidance and policy recommendations related to responses to fast-moving supply chain crises, coordinated governmentwide efforts to proactively improve supply chain resilience, and provided strategic direction for supply chain engagements with foreign trading partners. ITA's Advisory Committee on Supply Chain Competitiveness (ACSCC) refined and improved upon its June 2022 recommendations to support U.S. supply chain resilience. The ACSCC provides the Secretary of Commerce with detailed advice on the elements of a comprehensive national freight infrastructure and freight policy to support U.S. supply chain, foster national economic competitiveness, and improve U.S. supply chain competitiveness in the domestic and global economy.
ITA and NIST hosted over 300 stakeholders in a virtual event on _How Standards Help SMEs to Innovate, Compete and Grow_ as part of the stakeholder outreach for U.S.-European Union (EU) Trade and Technology Council. ITA also hosted the National Defense University (NDU) Supply Chain Class as part of a 10-month long series of lectures preparing students for strategic leadership to acquaint NDU students with ITA's work on supply chains, logistics, and national security. Additionally, ITA evaluated 34 Department of Defense (DOD) Defense Production Act Title III proposals requesting over $1.1 billion in funding for projects aimed at securing the supply chains outlined in Executive Order 14017. ITA's industry expertise and business acumen helps DOD ensure these deals are viable and can succeed commercially without indefinite government support. DOD successfully funded four projects which invest $123 million in the domestic production of cobalt, high purity aluminum, antimony trisulfide, and graphite.

ITA and Department leadership negotiated a Memorandum of Understanding establishing a U.S.-India Semiconductor Supply Chain and Innovation Partnership. ITA and the European Community likewise reached an agreement on establishing an Early Warning Mechanism to share information about and cooperate in addressing future disruptions in the semiconductor supply chain. ITA successfully advocated for modifications to the Harmonized Tariff Schedule, resulting in new statistical breakouts for personal protective equipment (PPE) and other essential public health supplies. The level of detail now available empowers analysts across the U.S. Government by increasing supply chain visibility for these products and the ability of the U.S. to anticipate, prepare for, and respond to potential public health emergencies or supply chain disruptions. ITA helped secure over $940 million of exports in cargo and aviation scanning equipment to Mexico, supporting over 1,000 U.S. jobs and countering the presence of Chinese equipment on the U.S.-Mexico border.

In FY 2023, EDA invested over $148.1 million in 106 projects, including infrastructure, technical assistance, and planning activities, that support job creation, business expansion, technology and capital upgrades, and productivity growth in manufacturing.
EDA also facilitated several Communities of Practice (CoP) where economic development practitioners could exchange best practices, learn from peers, and access technical assistance and coaching from experts. One of these CoPs focused entirely on manufacturing, and explored how to create and maintain a robust manufacturing ecosystem that could generate quality jobs and provide the necessary resources and opportunities for manufacturers to grow and innovate in their regions. Another CoP was dedicated to technology-based economic development, but it also incorporated manufacturing

as a key theme. This CoP explored how to use technology to help traditional manufacturers adapt to the future of manufacturing, and how to foster a culture of innovation and entrepreneurship in the sector.

Through these grants and ongoing CoPs, EDA is not only financially supporting manufacturing efforts, but is also actively engaged in supporting efforts to better understand and improve the ecosystem.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	NIST	Number of small and medium manufacturers who receive technical assistance to increase contributions of additional key products and critical technologies in the domestic supply base	—	—	—	465	488	479	Exceeded	531	536
Proposed new	NIST	Value of advanced manufacturing technology portfolio within Commerce-sponsored Manufacturing USA Institutes	—	—	$47.30 M	$135.10 M	$147.00 M	$60.00 M	Exceeded	$152.00 M	$157.00 M
Current/ Recurring	MBDA	Number of (Manufacturing) MBE clients served	—	—	408	437	173	239	Not Met	249	249

Strategic Conclusions and Recommendations

The Department made progress in revitalizing U.S. manufacturing and strengthening domestic supply chains. Through the efforts of multiple bureaus, linkages in global supply chains are illuminated, domestic manufacturing is supported, and supply chain resilience is improved. These efforts have major implications in U.S. competitiveness and in overall national security and should remain a priority of the Department.

With the implementation of the CHIPS and Science Act, the Department made great strides toward revitalizing U.S. manufacturing and strengthening domestic supply chains through both the CHIPS Program Office and CHIPS Research and Development Office. The Department should also support other NIST manufacturing programs, including Manufacturing USA, the Hollings Manufacturing Extension Partnership, and NIST intramural research programs that are vital to serving foundational needs for U.S. manufacturing success. Additionally, the Department should support supply chain analyses performed by multiple bureaus, including ITA, BEA, and BIS.

Actions to Advance Progress through FY 2025

The Department of Commerce, along with NIST, will further implement and support the CHIPS and Science Act, including dissemination of CHIPS incentives funding, standing up the NSTC, NAPMP, and a new Manufacturing Institute, as well as internal metrology projects to address semiconductor industry needs. NIST will also support U.S. leadership in advanced manufacturing in areas other than semiconductors, striving toward the goals detailed in the co-authored National Strategy for Advanced Manufacturing and the MEP National Network Strategic Plan for 2023-2027, and supporting NIST manufacturing-based programs like MEP and Manufacturing USA. Finally, NIST will support initiatives to grow and diversify the U.S. manufacturing workforce, including through NIIMBL and WEAVE.

Work on the next vintage of BEA's TiVA statistics is currently underway. These data are scheduled for release in early 2024 and will encompass revised statistics for 2017-2021 and new statistics for 2022. Looking beyond that release, BEA also began researching the possibility of expanding the granularity of country coverage to include the United Kingdom and other countries as part of the FY 2025 TiVA release. Additionally, BEA is now engaged in a collaborative effort with colleagues at Statistics Canada to develop an experimental U.S.-Canada regional supply and use table, which will facilitate the creation of additional TiVA metrics focused specifically on the U.S.-Canada trade relationship.

BEA is also actively engaged in research to estimate U.S. foreign direct investment abroad by ultimate host country. These statistics would complement BEA's existing statistics on direct investment by ultimate owner, providing a fuller picture of how financial flows move through holding companies and other special purpose entities to the true location of productive activity.

In FY 2024, BIS will work on follow-on assessments on the capabilities, requirements, and challenges of critical materials, manufacturing equipment, and components necessary for the manufacture of semiconductors. BIS is also developing a Defense Production Act survey intended to illuminate the use of chips manufactured in China, in U.S. defense and critical industry supply chains.

ITA expects to build out its Supply Chain Center with analytic and program support and fully leverage unique and cost-effective commercially available advanced analytics tools and datasets.

EDA prioritizes manufacturing as an investment area and will support projects that create jobs and enhance the competitiveness and growth of domestic suppliers and the domestic production of innovative, high-value products and technologies. EDA will also monitor its Communities of Practice and share best practices, findings and recommendations with the Department and other stakeholders when available.

STRATEGIC OBJECTIVE 1.2 – Accelerate the development, commercialization, and deployment of critical and emerging technologies

Lead Bureau: NIST
Contributing Bureaus: BIS, EDA, ITA, MBDA, NOAA, NTIA, NTIS

Key Strategies:
- Promote research, applications, and standards for emerging technologies such as quantum computing, AI, biotechnology, and advanced communications
- Strengthen U.S. participation in technical standards development
- Strengthen the competitiveness of America's R&D ecosystem through inclusive commercialization and technology transfer of critical and emerging technologies

Executive Summary of Progress

The National Institute of Standards and Technology (NIST) laboratory programs support the overall NIST mission of promoting U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve quality of life. NIST emphasizes research on six critical and emerging technologies: Artificial Intelligence (AI), Biotechnology, Cybersecurity and Privacy, Advanced Communications, Energy Technologies, and Quantum Information Science. Below are a few highlights of what NIST has accomplished in the last year:

- **Artificial Intelligence**: Announced in July 2023, the Generative AI Public Working Group, led by NIST, has about 1,000 volunteers from the public and private sector to manage risks associated with generative AI, building on NIST's AI Risk Management Framework that was released earlier in the year. Additionally, NIST is the Secretariat to the National AI Advisory Committee (NAIAC), which is composed of over 20 leaders from the private sector, academia, nonprofits, and civil societies who advise the President and the National AI Initiative Office at the White House on matters involving AI. NAIAC is in its second year and has held 12 public meetings to date and published recommendations, reports, findings, and statements. The NAIAC recommended enhancing AI literacy for the United States and ensuring emerging economies are represented in global AI gatherings. Finally, NIST remains a leader in trustworthy and responsible AI, is establishing the U.S. AI Safety Institute, and is requesting Letters of Interest from organizations to help support the institute across AI safety, AI governance, and AI fairness.
- **Biotechnology**: The Office of Science, Technology, and Policy released the NIST-authored Department of Commerce report (with contributions from ITA) on biotechnology research and development for supply chain resilience titled Biotechnology and Biomanufacturing R&D to Further Supply Chain Resilience as part of a report compilation titled Bold Goals for U.S. Biotechnology and Biomanufacturing: Harnessing Research and

Development to Further Societal Goals. As directed in the Executive Order 14081: Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy, and as part of NIST's roles within the National Biotechnology and Biomanufacturing Initiative, NIST led the development of a lexicon to support measurements and risk assessments of the bioeconomy. The lexicon harmonizes a base set of terms and definitions with the goal of enabling the development of measurements and measurement methods for the bioeconomy that support uses such as economic measurement, risk assessments, and the application of machine learning and other artificial intelligence tools.

- **Cybersecurity and Privacy**: NIST released a draft of Cybersecurity Framework 2.0 in August 2023 after multiple NIST-led events and public input. NIST is also developing a list of standards on algorithms designed to withstand attack by quantum computers.
- **Advanced Communications**: NIST held a 6G Core Networks Workshop and discussed the transition from the 5G to 6G ecosystem. NIST also partnered with the First Responder Network Authority to host the Public Safety Innovation Summit. This event allowed leaders across different sectors to talk about the current state and the potential future of public safety communications technology. NIST also released an updated version of its Interagency Report on Advanced Communication Technologies Standards, a guide used by Federal agencies.
- **Energy Technologies**: NIST is one of four implementing agencies of the U.S. Greenhouse Gas Center, which facilitates coordination across federal and non-federal, domestic, and international entities to integrate and improve greenhouse gas data and modeling capabilities. Also, NIST's Urban Dome In-situ Tower Network allows for testing emission data accuracy and developing measurement tools to estimate the accuracy of greenhouse gas inventory in cities.
- **Quantum Information Science**: NIST completed a dictionary of terms for single-photon sources and detectors, some of the building blocks of quantum computers. This document, after being under construction for 3 years, incorporates input from international experts across multiple sectors. NIST additionally supports the quantum ecosystem through engagement with quantum organizations such as the Quantum Economic Development Consortium (QED-C) and The Quantum Systems through Entangled Science and Engineering (Q-SEnSE) Institute.
- **Semiconductors**: NIST lead the CHIPS Act implementation, recently releasing two NOFOs for commercial facilities for semiconductor materials and manufacturing equipment at two different capital investment levels.
- **Standards Development**: The White House launched the U.S. Government National Standards Strategy for Critical and Emerging Technology in May 2023, with NIST leading the governmentwide implementation. The strategy focuses on critical and emerging technologies including those listed above, complements ANSI's U.S. Standards Strategy, and builds a foundation to safeguard U.S. technology, leadership, and competitiveness in international standards development.

- **Technology Transfer**: The Federal Laboratory Consortium (FLC) developed the Federal Lab Education Accelerator program (FLEX) to introduce post-graduate business school students to the complexities and challenges inherent in making tech transfer happen. In this program, graduate students at participating business schools look over examples of patented federal research in federal agency portfolios, pick the most appealing technologies, and work with faculty tech transfer managers to assess the technology. NIST also received the prestigious Interagency Partnership Award for Technology Transfer from the Federal Laboratory Consortium (FLC), showcasing work in partnership with the National Institutes of Health (NIH) to modernize and enhance the iEdison platform. The iEdison platform reports and categorizes inventions and patents resulting from federal research and detailing compliance with domestic manufacturing requirements. NIST continued its Pulse Accelerator Program, helping emerging technology companies accelerate growth and development that supports the public safety and first responder sectors. Additionally, NIST, through the Technology Partnership Office, filed 102 patent applications and issued 29 patents, 55 invention disclosures, 9 licenses, and 53 Cooperative Research and Development Agreements (CRADAs) in FY 2023.

In support of the Department's mission to accelerate the development and commercialization of critical and emerging technologies while ensuring the national security of the United States, BIS worked to identify, assess, and, where necessary, control emerging and foundational technologies essential to the national security of the United States. This work includes original research and analysis, collaboration and consultation with interagency partners and key industry and academic stakeholders, and engagement with allies and partners at multilateral export control regimes. BIS focused recent efforts on AI, microelectronics, quantum computing, biotechnology, and other emerging technology categories. BIS's efforts on advanced artificial intelligence chips and semiconductor manufacturing equipment necessary to produce artificial intelligence chips resulted in critical updates to the October 7, 2022, controls on these items. BIS dedicated resources to conducting horizon scanning for specific critical and emerging technologies, to include fusion energy, artificial intelligence, and machine learning (AI/ML), and quantum computing. BIS completed initial assessments of those technology categories and produced deliverables to help inform export control policy. In addition to those technology areas, the team began assessments of the bioeconomy, biotechnology, and brain-computer interface (BCI) technology areas. The team assisted the Designated Federal Officers (DFO) of the Emerging Technology Technical Advisory Committee (ETTAC) with committee operations, including facilitating meetings and assisting with related deliverables. BIS consults closely with industry on the development of regulatory policy through its Technical Advisory Committees (TACs). TACs provide valuable input on trends in technology and the potential impact of export control developments.

ITA provided industry expertise and recommendations for the U.S. Government policy discussions on emerging and enabling technologies and critical sectors such as semiconductors, electric vehicle and other high-capacity batteries, clean technology, critical minerals, automobiles, space, civil nuclear, artificial intelligence, advanced manufacturing, transportation and logistics services, and biotechnology. ITA experts analyzed and recommended the approval of a Department of Energy (DOE) loan, which awarded $2 billion to support the growth and expansion of an advanced battery recycling company in Nevada. The approved project will create hundreds of manufacturing jobs and reduce U.S. supply-chain dependence for electric vehicle (EV) battery material inputs from foreign sources. ITA similarly advanced EV-industry competitiveness in Asia-

Pacific Economic Cooperation (APEC), co-hosting the twenty-fifth Anniversary of the Automotive Dialogue. The Automotive Dialogue is a public-private forum to find barriers to growth in the region. The American delegation used these discussions to advance consensus on standards harmonization and supply chain diversification for EVs and autonomous vehicles. ITA also serves as co-chair of the International Working Group of the Subcommittee on Microelectronics Leadership, an interagency subcommittee under the National Science and Technology Council charged under the Creating Helpful Incentives to Produce Semiconductors Act with coordinating governmentwide efforts on semiconductor research and development. ITA advises the subcommittee on how diplomacy and trade can support U.S. leadership in the semiconductor industry.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	NIST	Number of U.S. Government staff trained to effectively coordinate, participate, and influence technical standards development	—	—	—	1,050	475	400	Exceeded	600	700
Current/ Recurring	NTIA	Number of times research publication are downloaded annually	7,300	9,500	15,800	18,957	13,312	9,500	Exceeded	9,500	9,500
Proposed new	NIST	Number of participants at outreach events, hosted by NIST to identify opportunities for engagement and influence in critical and emerging technology standards development	—	—	—	280	500	300	Exceeded	500	600
Current/ Recurring	NIST	Number of businesses using NIST research facilities	486	530	492	525	655	350	Exceeded	400	550

Strategic Goal 1: Drive U.S. Innovation and Global Competitiveness

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NIST	International Adoption of NIST Quantum SI Standards	5	8	12	20	25	15	Exceeded	32	39
Current/ Recurring	NIST	Relative citation impact of NIST - authored publications	1.59	1.57	1.57	1.57	1.07	1.40	Not Met	1.40	1.30

Strategic Conclusions and Recommendations

In FY 2023, the Department accelerated innovation in critical and emerging technologies. NIST's emphasis and research focus on six critical and emerging technologies (CETs), along with standards development, increases overall U.S. competitiveness in these areas. Additionally, BIS supports controls of CETs, when necessary, and are using their assessments to influence policies. ITA also supports this strategic objective through providing expertise and recommendations for policy discussions on a vast range of technologies. Together these efforts strengthen the competitiveness of the U.S. R&D ecosystem.

Through the CHIPS and Science Act and the recently signed Executive Order 14110: Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence, it is clear Congress supports the need for U.S. leadership in competitive R&D sectors. However, the U.S. needs to further invest in these R&D efforts to maintain technological leadership in the face of international competition and to support U.S. supply chain resilience. Furthermore, the Department needs to support the R&D and standards efforts for advanced technologies and the modernization and upkeep of the facilities that drive these efforts. Ongoing investment in facility management is crucial for the U.S. to maintain a leading role in critical and emerging technological fields.

Actions to Advance Progress through FY 2025

Through FY 2025 and beyond, NIST will prioritize research in critical and emerging technologies. NIST is constantly pushing the limits of these technologies, including in artificial intelligence, biotechnology, cybersecurity, advanced communications, energy technologies, quantum information science, and semiconductors, along with increasing U.S. competitiveness in international standards development. NIST will value and request input from external partners and experts, both domestic and international, and share NIST results and data widely. Additionally, Executive Order 14110 will increase

focus and productivity on NIST's AI-related efforts and facilitate collaboration across multiple sectors to fulfill the deliverables and goals of safe and trustworthy AI.

BIS will sharpen the effectiveness of export control policies and ensure further development and commercialization of critical and emerging technologies in line with national security goals. BIS will research, assess, and engage with relevant stakeholders on export control and emerging technology topics. BIS will also iteratively update its assessments of critical emerging technologies to determine whether new or revised export controls are necessary. The team plans to conduct assessments within other areas of critical and emerging technologies and will complete assessments within the broad biotechnology category.

EDA's Technology-Based Economic Development investment priority aims to fund economic development planning or implementation projects that foster regional knowledge ecosystems that support entrepreneurs and startups that are creating technology-driven businesses and high-skilled, well-paying jobs of the future. EDA will make further investments that support this initiative and help lay the foundation for economic development and job creation in underserved areas.

EDA awarded $300 million to several coalitions through the Build Back Better Regional Challenge (BBBRC) in FY 2022. These coalitions are making progress in their project implementation to advance innovation in emerging technologies. EDA is committed to ensuring the success of its BBBRC projects, which support regional economic recovery and resilience. Phase 1 grantees are executing their projects and reporting their progress and outcomes to EDA on a quarterly basis. Through a partnership with Purdue University, EDA will collect data from the 21 Phase 2 BBBRC coalitions through quarterly surveys, yearly Ripple Effects Mapping sessions, and other relevant indicators through at least 2025. EDA will also support the BBBRC Community of Practice, which enables knowledge sharing, capacity building, technical assistance, and resource provision for the 60 finalist coalitions and their partners, to share best practices and help amplify impacts beyond the regional coalitions.

STRATEGIC OBJECTIVE 1.3 – Increase international cooperation and commerce

Lead Bureau: ITA
Contributing Bureaus: BEA, Census, EDA, MBDA, NIST, NTIA

Key Strategies:
- Deepen economic engagement with allies and partners to promote a resilient, inclusive, and sustainable global economy
- Increase U.S. exports by broadening access to the Department's network, programs, and services for U.S. small and medium-sized businesses with a focus on the Nation's underserved communities
- Assist U.S. exporters seeking foreign government contracts or projects, and address policies or actions by foreign governments that impede the exports of U.S. goods and services
- Attract job-supporting foreign direct investment (FDI) into the United States

Executive Summary of Progress

Based on FY 2023 analysis, ITA assisted a record-breaking number of clients—over 92,000 through digital and traditional channels—and facilitated more than $170 billion in U.S. exports and inward investment, supporting over 595,000 American jobs through export and inward investment promotion functions as well as Commercial Diplomacy and Advocacy. These efforts level the playing field for American businesses, ensure access to foreign markets, and counter foreign-sponsored competition.

Of the more than 92,000 clients assisted, ITA directly assisted over 32,000 U.S exporters with 195,000 inquiries. With 85 percent of its export customers identified as small and medium-sized enterprises (SMEs), ITA maintained compliance with the Congressional mandate to emphasize the promotion of goods and services from SMEs. ITA's Advocacy Center facilitated over 90 contracts signed by U.S. exporters pursuing foreign government procurement opportunities following successful advocacy campaigns. The value for these contracts exceeded $56 billion and supported more than 233,000 U.S. jobs.

ITA's inward investment promotion work allowed ITA to assist over 10,000 unique investment clients—both foreign investors and U.S. economic development organizations—which led to 179 investment deals valued at nearly $55 billion and supporting over 35,000 U.S. jobs. These results were facilitated by ITA's annual SelectUSA Investment Summit, which marked the largest-ever investment summit in the United States, attracting over 4,900 attendees, more than 2,300 company representatives from 83 foreign markets, and approximately 700 representatives of U.S. economic development organizations from 55 U.S states and territories.

Throughout FY 2023, ITA supported efforts and initiatives to increase international cooperation on trade related issues. For example, the Assistant Secretary of Commerce for Global Markets and Director General of the U.S. and Foreign Commercial Service visited Dhaka, Bangladesh, to officially open the new Foreign Commercial Service Office and met with representatives of the Government of Bangladesh and private sector representatives. ITA also opened a new office in Georgetown, Guyana, to support the large influx of U.S. companies in this emerging market where they are facing increased direct competition from Chinese firms, particularly in energy and infrastructure. ITA provided support for the September 2023 meeting between the Secretary of Commerce and President of Guyana that focused on deepening U.S.-Guyanese trade and announced the opening of a Commercial Service office in the country. Additionally, ITA facilitated the meeting between the Secretary of Commerce and the Japanese delegation of semiconductor companies to encourage partnerships with U.S. companies and to contribute to the development of the semiconductor supply chain, including by investing into the United States. This event advanced the Administration's goals and fulfilled a key commitment under the Department of Commerce and Department of State co-led U.S.-Japan Economic Policy Consultative Committee. ITA also led the first-ever trade mission to Montenegro and the first trade mission to Serbia in over 20 years and hosted several Discover Global Markets events across America to increase U.S. exports in Europe and Eurasia.

ITA remains at the forefront of the U.S. Government efforts on digital trade and privacy in the international marketplace, including leading the Privacy Shield Program and the Cross Border Privacy Rules initiative. After two years leading the interagency negotiation effort with the U.K., ITA helped the U.S. to achieve a milestone in facilitating bilateral dataflows between the U.S. and U.K. Both nations announced their commitment in principle to establish a U.S.-U.K. data bridge allowing for the free flow of data between organizations in the U.K. and participating organizations in the U.S. that upholds the rights of data subjects, facilitates responsible innovation, and provides individuals in both countries with greater access. ITA renegotiated the EU-U.S. and Swiss-U.S. Privacy Shield Frameworks, which served over 5,000 U.S. participating companies. ITA is now administering the updated EU-U.S. and Swiss-U.S. Data Privacy Frameworks, along with the United Kingdom Extension to the EU-U.S. Data Privacy Framework. These mechanisms enable companies to transfer personal data from Europe to the U.S. in support of the $7.1 trillion transatlantic economic relationship. Approximately 75 percent of the participating companies are SMEs.

ITA also led the expansion and uptake of the Global Cross Border Privacy Rules (CBPR) forum to facilitate data protection, privacy, and interoperability in support of the free flow of data. ITA planned and executed five bilateral and one multilateral capacity-building workshops on the Global CBPR Forum across Southeast Asia and Latin America. Strategic partnership with colleagues across Department of State empowered ITA to bring in-person, multi-stakeholder capacity-building events on the Global CBPR Forum to priority countries that neither would have been able to accommodate within the given timeframe due to financial or technical expertise limitations.

BEA produced statistics measuring the role of the United States in the global economy. These statistics include monthly estimates of U.S. international trade produced jointly with the Census Bureau, quarterly estimates of the U.S. international investment position and international transactions, and annual estimates of the activities of multinational enterprises. Statistics released in November 2022 provide the first in-depth information about the activities of U.S. multinationals during 2020, the first year of the COVID-19 pandemic.

Strategic Goal 1: Drive U.S. Innovation and Global Competitiveness

Census led trade reconciliations with the U.K. and India to better understand trade asymmetries and develop future agreements. The U.K. and Census will publish a joint report in FY 2024. The publication is currently under review by the U.K. Financial Secretary of the Treasury. Census and India completed a joint publication in March 2023 which is available on the Census website. Census also engaged with Statistics Canada on improvements to the U.S.-Canada data exchange and agreement.

Census co-lead the International Single Window Working Group of the Border Interagency Executive Council (BIEC). The working group evaluates, advises, and supports interagency business, technical, and legal analysis and research for government-to-government single window data exchange and connectivity. The BIEC International Single Window Working Group with the Association of Southeast Asian Nations developed a white paper identifying options for putting a framework in place to set principles and standards for future international single window trade data exchanges.

Census actively participated in the United Nations Statistics Division and Organization for Economic Cooperation and Development working groups related to goods and services. Census provided guidance and best practices on data collection, use of data tools, and new export opportunities. Census is also assessing potential ways to use its own existing data collection authorities and other data resources to monitor and respond to medical product supply chain resilience and using import data to identify risks.

EDA launched the Regional Technology and Innovation Hubs program (Tech Hubs) to boost regional innovation and job creation. The program helps regions develop and implement strategies that build on their strengths, address their challenges, and foster collaboration among public, private, and academic partners. The program's support for regional innovation and competitiveness can attract more investments in these areas, including from foreign investors. Additionally, the program connects regions with other federal initiatives, such as the National Artificial Intelligence Research Institutes, the Manufacturing USA network, and the National Quantum Information Science Research Centers. These partnerships can accelerate growth by leveraging existing resources, thereby potentially reducing costs, risks, and barriers to entry for investors.

In addition to launching the Tech Hubs program, EDA invested nearly $176 million in 66 projects to support U.S exports and attract foreign direct investment that creates jobs in the communities and regions that EDA serves. Based on grantee estimates, these projects will generate more than 13,000 jobs and attract almost $6.26 billion in private investment.

MBDA operated its four Export Centers located in Phoenix, Arizona, Miami, Florida, and Houston and San Antonio, Texas. In FY 2023, centers generated $254 million in awarded transactions for their clients. These centers work closely with ITA's U.S. Export Assistance Centers to use resources to help minority exporters to expand their global footprint through market intelligence. MBDA also maintained a strong alliance with ITA's Global Diversity Export Initiative (GDEI). MBDA facilitated ITA serving as co-chair of the White House Initiative on Historically Black Colleges and Universities International Clusters Committee. Additionally, MBDA collaborated with ITA's GDEI on export initiatives and to support U.S. Department of Commerce executive-led trade missions and inter-agency collaborations to promote business to business (B2B) linkages between U.S. minority business enterprises (MBEs) and Africa, European, South America, Asia, Caribbean, and other global SMEs across a range of targeted industry sectors.

During FY 2023, MBDA actively participated in the following MBDA/DOC Internal Working Groups:

- MBDA Export Centers
- Exim/MBDA Sales Force Interface
- DOC/ITA Advocacy Center/Multilateral Bank Group
- Trade Promotion Cooperating Committee – TPCC
- MBDA Tech Transfer / Emerging Tech Group
- DOC Travel & Tourism Group

MBDA consulted with the ITA Advocacy Center's Multilateral Development Bank (MDB) group. The MDB group works with the World Bank and several other multilateral financial institutions and is looking to expand minority participation in international projects. MBDA participated in an ITA working group focused on digital assets. The working group provided a report and ongoing comments to the Secretary of Commerce and the White House on digital assets.

During FY 2023, MBDA also participated in the ITA National Travel Tourism Strategy (NTTS) group. The group focuses on ensuring diverse, inclusive, and accessible tourism experiences. MBDA involvement includes Native American and Rural initiatives, National Association of Black Hotel Owners (domestic and international Multicultural tourism activities), and Brand USA.

During the fiscal year, MBDA participated in webinars including the Building Bridges Seminar, the Innovation in Agriculture & Energy Opportunity Zone Summit, and the World Green Energy Symposium.

MBDA also participated in the SelectUSA Investment Summit, the premier Foreign Direct Investment conference in the U.S., and moderated a panel on the Emergence of MBEs in The Global Marketplace. MBDA also participated in Interagency meetings with other government agencies focused on International Trade. MBDA worked with the Baltimore U.S. Export Assistance Center on webinars focused on Trade Finance and Accessing Global Markets.

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The CHIPS and Science Act promotes a holistic view on building resilient supply chains in the United States, especially as it pertains to semiconductors by using the entire labor force, including small businesses, and minority-owned, women-owned, and veteran-owned businesses. To support this, Congress awarded Manufacturing USA with $14 million in special appropriations in support of CHIPS and Science Act obligations, including funding to support the Workforce, Education and Vibrant Ecosystems program, which strives to build a vibrant and diverse manufacturing ecosystem. In international engagement, the Department engaged with allies and partners that have provided government funding to their own semiconductor industries or developed critical R&D workforce and supply chain capabilities. Additionally, the Department engaged with domestic and international partners to drive the voluntary consensus standards ecosystem for critical and emerging technologies and ensured fair access to markets through globally accepted standards adoption.

NTIA's FirstNet Authority participated in conferences (e.g., Critical Communications World and British Association of Public Safety Communications Officials) that focus on public safety communications and participated in wireless standards setting in international forums. Periodically, the FirstNet Authority shares its experiences about the establishment and deployment of the nationwide public safety broadband network. Information exchanges increase international cooperation and demonstrate to other nations U.S. Leadership for public safety communications.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	ITA	Percentage of U.S. exporter clients that achieved their export objectives	78%	80%	84%	89%	89%	85%	Exceeded	85%	85%
Current/ Recurring	ITA	Number of Investment Promotion Written Impact Narratives	127	115	155	181	179	145	Exceeded	130	130
Current/ Recurring	ITA	Number of investment clients assisted	6,471	6,921	11,721	9,932	10,350	11,000	Met	9,900	9,900

Strategic Conclusions and Recommendations

ITA broadened and strengthened its outreach and assistance to U.S. exporters and investment clients, increased the number of ITA-facilitated foreign government actions benefiting U.S. companies, and emphasized tailored assistance to SMEs and disadvantaged businesses. Given the imperative that Economic Security is National Security, ITA is leading efforts to cultivate trusted markets around the world for U.S. businesses by leading in government-to-government and private-sector-to-government bilateral and multilateral engagements on economic issues.

ITA set an ambitious FY 2022-2023 APG of doubling the annual number of clients assisted while maintaining a focus on SMEs and businesses in underserved communities. At the conclusion of the two-year reporting period, ITA exceeded its overall APG target by 21 percent.

Actions to Advance Progress through FY 2025

ITA is effectively positioned to execute its mission and carry out the Administration's priorities through 2025. Planned actions include the following:

- Provide industry analysis and recommendations to support U.S. competitiveness and national security.
- Administer the EU-U.S. and Swiss-U.S. Data Privacy Frameworks, which enable data transfers from those markets and the United States and lead U.S. efforts, working with other agency partners, to expand global participation in the Cross Border Privacy Rules System to facilitate global data flows.
- Continuously advocate for the United States as the world's premier market for conducting business, attract foreign investors, and assist states and localities to facilitate job-creating investments into U.S. communities.
- Support U.S. company resilience to foreign economic and geopolitical coercion and policies and practices of malign actors and their sponsored entities in third country markets as well as promote U.S. standards and business practices worldwide.
- Initiate a review of existing internal operations and client services to modernize mission work for the 21st century and better meet the needs of U.S. SMEs, including existing clients and companies in underserved communities.

EDA launched the first phase of the Tech Hubs program in October 2023, designating 31 Tech Hubs to boost their communities' technology ecosystems and help those communities become global leaders in the next decade. EDA also made 29 strategy development awards to help communities enhance their local coordination and planning activities. In Phase 2, EDA will fund 5-10 Designated Tech Hubs with implementation grants ranging from $40-$70 million each, distributed across 3-8 projects per Hub. These investments will strengthen the regions' innovation capacities, lead to job creation, and attract further investment. EDA will make awards for economic development planning or implementation projects that support growth in U.S. exports and increasing FDI, as they remain key investment priorities.

STRATEGIC OBJECTIVE 1.4 – Protect national security interests and enforce trade rules

Lead Bureau: BIS
Contributing Bureaus: ITA, NIST

Key Strategies:
- Administer and enforce export controls and foreign investment restrictions to protect against inappropriate use of U.S. technologies
- Enforce U.S. antidumping and countervailing duty trade remedy laws
- Identify and protect emerging technologies essential to national security

Executive Summary of Progress

The Bureau of Industry and Security (BIS) advanced U.S. national security, foreign policy, and economic objections by ensuring an effective export control and treaty compliance system, and by promoting U.S. strategic technology leadership. Efforts include ongoing identification of items important to U.S. national security, including emerging and foundational technologies, maintaining robust enforcement of controls, ensuring that U.S. and foreign businesses understand and comply with the export administration regulations through ongoing education, and building coordination mechanisms among international partners to stop the export of sensitive items to bad actors. ITA enforced U.S. trade laws to defend American manufacturers, workers, and farmers from unfair trade, monitor and ensure compliance with trade agreements, assess foreign direct investment impacts on national security, and improve international intellectual property protections. NIST invested in critical and emerging technologies research, measurement development, and standards development to further American global leadership in artificial intelligence, quantum computing, biotechnology, advanced communications, energy technologies, and semiconductor production.

In FY 2023, BIS played a critical role in advancing key national security and foreign policy priorities. BIS intensified its efforts to implement policies and engage enforcement activities that address strategic national security threats and foreign policy objectives. These threats include attempts by arms embargoed countries, such as China, Russia, and Iran, to obtain U.S. technology and commodities to improve their military capabilities and commit human rights abuses.

BIS is committed to its statutory responsibilities under Section 1758 of the Export Control Reform Act (ECRA) of 2018 including identifying and implementing appropriate export controls on emerging and foundational technologies essential to American national security. BIS works with industry, other government organizations, and U.S. allies to identify potential dual-use applications as early as possible in their developmental stages both within the United States and aboard. BIS also implements export controls effectively and judiciously, while engaging and acting, when possible, with likeminded allies and partners.

Since the enactment of ECRA, BIS identified 46 technologies for export controls pursuant to section 1758 of ECRA: 45 multilateral controls and 1 unilateral control. In FY 2023, BIS imposed controls on four new technologies and proposed controls on five others.

In May 2023, ITA proposed modifications to its antidumping and countervailing duty (AD/CVD) regulations that improve enforcement activities designed to defend U.S. companies from unfair trade practices and received 53 comments in response. The proposed regulations apply to aspects of AD/CVD proceedings, including:

- Strengthening DOC's ability to address transnational subsidies or subsidies flowing from one country to another that are used to undercut domestic industries.
- Clarifying U.S. particular market situation practice, a provision designed to counteract distortive trade practices.
- Changes to level the playing field for U.S. producers by ensuring that a country's weak, ineffective, or nonexistent intellectual property, human rights, labor, or environmental protections do not provide an unfair advantage over U.S. producers. These changes complement the existing subsidy and dumping calculation methodologies.

In the summer of 2023, NIST released a draft of the Cybersecurity Framework 2.0 and the Post Quantum Cryptography Standards, along with an AI Risk Management Framework, supporting the protection of critical and emerging technologies. The CHIPS and Science Act reinforces national security efforts by investing in American semiconductor manufacturing capacity, supporting the manufacturing of advanced chips in the U.S. to build a resilient supply chain. The funding provided by the CHIPS and Science Act included clear guardrails to strengthen national security. The statute:

- Prohibits recipients of CHIPS incentives funds from using the funds to construct, modify, or improve a facility outside of the U.S.;
- Restricts recipients of CHIPS incentives funds from investing in most semiconductor manufacturing in foreign countries of concern for 10 years after the date of award; and,
- Limits recipients of CHIPS incentives funds from engaging in certain joint research or technology licensing efforts with a foreign entity of concern that relates to a technology or product that raises national security concerns.

If these guardrails are violated, the Department can claw back the entire federal financial assistance award.

BIS implemented military end-use controls to prevent exports that would enhance the military capability of countries with interests contrary to the United States, including the People's Republic of China, Russia, Venezuela, and Burma. For example, U.S. exports to Russia in categories of items subject to BIS licensing requirements decreased 96% in number of shipments and 91.7% in value as compared to the same time-period from September 21, 2020-February 23, 2022, according to prerelease data. Overall, U.S. exports to Russia have decreased 88.5% in value over the same time-period.

Following the first measures in FY 2022, BIS enacted additional licensing requirements and prohibitions to support Ukraine by constraining the flow of U.S.-origin goods to Russia and Belarus. BIS accomplished this by expanding the scope of the Russian industry sector sanctions to include lower-level items potentially useful for Russia's chemical and biological weapons production capabilities and items needed for advanced production and

manufacturing capabilities across relevant industries. BIS expanded the increased licensing requirements for items destined to entities designated as Russian and Belarusian 'military end users' and 'military-intelligence end users' anywhere in the world, to degrade the two countries' ability to conduct war-related activities. These license requirements now include foreign-made items produced using U.S.-origin software and technology. BIS updated and revised its licensing requirements and prohibitions to align with the European Union (EU) and allied countries. BIS also imposed new export control measures on Iran to counter Iran's provision of Unmanned Aerial Vehicles (UAVs) to Russia.

BIS built support and cooperation with international partners and allies to demonstrate joint resolve, and to maximize the impact of restrictions. BIS collaborated with academics and businesses to assist with export compliance. For example, BIS expanded the Academic Outreach Initiative to 29 academic institutions to help these institutions maintain an open, collaborative research environment in a way that also protects them from national security risk. BIS also issued industry alerts and best practice guidance to prevent diversion and established a new suspicious activity report code to enable financial institutions to alert BIS of possible export violations with the support of Treasury.

In FY 2023, BIS conducted the highest number of end-use checks in reported history, totaling 1,509 checks, including a record 130 end-use checks in mainland China because of a new enforcement policy announced in October 2022. BIS investigations resulted in 67 individuals and businesses convicted of criminal violations, $1.7 million in criminal fines, $3.4 million in forfeitures, $9 million in restitution, and 1,779 months of imprisonment. This is the highest ever number of convictions, restitution amount, and months in prison since tracking began. BIS's unique administrative authorities resulted in 102 conviction-based export denial orders, six administrative export control enforcement cases, and four administrative antiboycott compliance cases. Additionally, BIS imposed the largest standalone <u>administrative penalty</u> in BIS history – a $300 million penalty against Seagate and Seagate Singapore International Headquarters Pte. Ltd. of Singapore for their violation of the foreign direct product rule by shipping millions of hard drive disk to Huawei. In total, BIS levied $303,401,583 in administrative penalties and an added $425,500 in antiboycott administrative penalties in addition to issuing 36 Temporary Denial Orders (TDOs) and TDO Renewals (including one TDO that was modified). This is the highest ever number of TDOs and denial orders issued since tracking began.

BIS issued over 515 warning letters, conducted more than 650 detentions, and 190 seizures. Additionally, since the enhanced Russia controls became effective on February 24, 2022, BIS conducted more than 865 outreaches to individuals or companies, detained or seized 525 shipments valued at $284.3 million, and opened 376 investigative cases. BIS targeted Russia's commercial aviation sector and the private aircraft of Russia's oligarchs by publicly identifying over 300 Russian, Belarusian, and Iranian aircraft that have flown into Russia in violation of BIS controls, thereby making any activity involving such planes (e.g., export, servicing) a violation of export administration regulations, which significantly impacted these airlines' operations. During FY 2023, BIS issued 28 TDOs for aircraft related to Russian aircrafts.

BIS investigations had a direct impact on the Department's top priorities. For Russia-centric investigations, BIS had four criminal convictions, resulting in $140,000 in criminal fines and $833,244 in forfeitures. For investigations that primarily involved China, BIS had six criminal convictions, resulting in 57 months of imprisonment, $185,000 in fines, $125,000 in forfeitures, and $168,885 in restitution. And when the focus of the investigation was Iran, BIS

had nine criminal convictions resulting in 287 months of imprisonment, $398,769 in criminal fines, $1,480,000 in forfeitures, and $3,509,916 in restitution.

BIS also initiated over ten major initiatives to upgrade its enforcement posture. To support enforcement, BIS launched the Disruptive Technology Strike Force (DTSF) to bring together criminal investigators and analysts from BIS, FBI, Homeland Security Investigations (HSI) with 14 U.S. Attorneys' Offices in 12 metropolitan regions across the country, to target bad actors, strengthen supply chains, and protect critical technologies from being acquired or used by nation-state adversaries.

Internationally, BIS established the Disruptive Technology Protection Network with Japan and South Korea, as announced by the President, to collaborate on efforts to keep potentially disruptive technologies out of the hands of bad actors. BIS also worked with the Governments of Australia, Canada, New Zealand, and the United Kingdom (i.e., the Export Enforcement Five or E5) to formalize export control enforcement coordination, particularly regarding restricting Russia's access to technologies that fuel its invasion of Ukraine, and sign an administrative cooperation arrangement with the European Anti-Fraud Office to share information related to potential diversion of export-controlled goods to Russia or for other illicit purposes. Further, BIS established an Enforcement Coordination Mechanism with G7 countries to bolster the enforcement of multilateral sanctions and export controls aimed at denying Russia the inputs it needs to equip its military and the revenue necessary to fund its illegal war. BIS established three additional overseas attaché positions to better monitor U.S. exports to Russia and China.

BIS implemented a new policy for addressing situations where a foreign government prevents BIS from conducting end-use checks. This new policy established a process for adding parties to the Unverified List and then the Entity List if a foreign government prevents the conduct of end-use checks. BIS added 31 parties to the Unverified List and added nine entities to the Entity List since the implementation of this policy. BIS later removed 62 parties from the Unverified List following satisfactory completion of end-use checks according to the policy.

BIS clarified its voluntary self-disclosure (VSD) policy to make clear that if a company knows of a potential violation and affirmatively decides not to divulge it, BIS will consider that lack of disclosure as an aggravating factor in penalty calculations if BIS later uncovers the violation. BIS also clarified that when a party informs BIS about another party's violation and that information allows BIS to take enforcement action, BIS will consider it extraordinary cooperation and treat it as a mitigating factor if the notifying party engages in prohibited conduct in the future.

Trade enforcement activity under ITA—including new investigations and circumvention inquiries—is at a historic high, consistent with the Administration's goal to make trade free, fair, and reciprocal. Through FY 2023, ITA administered 671 AD/CVD orders, an all-time high. During FY 2023, ITA initiated 61 new AD/CVD investigations and is currently conducting 80 AD/CVD investigations. Through its Trade Agreements Compliance Program, ITA successfully closed 46 compliance cases in FY 2023. ITA worked with the United States Trade Representative (USTR) and interagency partners on efforts to reinvigorate standing World Trade Organization (WTO) Committees for compliance activities. ITA also looked for strong, binding disciplines in key U.S. commercial agreement negotiation activities outside of the WTO, including the Indo-Pacific Economic Framework and the U.S.-Taiwan 21st Century Trade Initiative.

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BIS revised its internal metrics to better align with and further prioritize enforcement efforts. Specifically, BIS focused its investigative and analytic efforts on the most pressing national security threats represented by transactions involving prioritized technologies, end users, and/or end uses of national security interest.

BIS implemented enhanced enforcement policies to strengthen antiboycott administrative enforcement, including amending the Boycott Reporting Form to include the name of the specific party making a boycott-related request. This change will help the Office of Antiboycott Compliance investigate and hold accountable those making such requests. BIS also published antiboycott statements on both the Department of Commerce and the U.S. Government's acquisition websites that clearly articulate the requirements of the antiboycott regulations and their applicability to government contracts.

ITA's industry expertise is also critical for U.S. national security, especially as it relates to providing a sectoral understanding and supply chain-related analysis when examining cases in the Committee on Foreign Investment in the United States (CFIUS). This expertise, along with ITA's expansive industry connectivity, is crucial to understanding potential national security risks posed by certain outbound investments and to the implementation of the Administration's outbound policy to address these risks effectively while minimizing unintended economic effects on and maintaining dialogue with industry. ITA furthered the implementation of Foreign Investment Risk Review Modernization Act (FIRRMA) requirements through its CFIUS team. Through FY 2023, the Department met its FIRRMA obligations and the expected increase in CFIUS cases under FIRRMA for ITA and BIS. For example, ITA participated in every CFIUS review of transactions—which included 290 cases valued at $298.5 billion. CFIUS reviewed 160 declarations valued at $81.82 billion. ITA's Office of Investment Security coordinates the Department's inputs as a statutory member of CFIUS. ITA also shared market analysis and other industry-specific research for the other agencies on CFIUS, which helps build expertise in supply chain focused analysis. ITA played a role in the creation of Executive Order 14105: Addressing United States Investments in Certain National Security Technologies and Products in Countries of Concern, and Advanced Notice of Proposed Rulemaking. ITA also supported BIS processes (e.g., data transparency, timeliness of decisions, etc.) for requesting exclusions from the additional duties and quantitative limits on imports of aluminum and steel imposed under Section 232 of the Trade Expansion Act of 1962.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	BIS	Number of exporters educated and trained through outreach activities	24,000	60,511	64,528	28,270	28,113	25,000	Exceeded	25,000	25,000
Current/ Recurring	BIS	Number of actions resulting in a deterrence or prevention of a violation, and cases resulting in a criminal or administrative charge	1,802	1,667	2,018	1,864	1,846	1,600	Exceeded	1,840	1,840
Current/ Recurring	BIS	Percent of licenses requiring Information Triage Unit (ITU) report completed by Export Enforcement (EE) within ten Executive Order (EO) days of referral	94%	93%	94%	94%	93%	90%	Exceeded	90%	90%
Current/ Recurring	BIS	Number of end-use checks completed	1,171	987	1,030	1,151	1,509	1020	Exceeded	1,275	1,275
Current/ Recurring	ITA	Number of trade agreement compliance cases resolved successfully	37	30	41	38	46	38	Exceeded	38	38

Strategic Goal 1: Drive U.S. Innovation and Global Competitiveness

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	ITA	Percentage of antidumping and countervailing duty (AD/CVD) determinations issued within statutory and/or regulatory deadlines	99.0%	99.5%	99.0%	97.0%	97.0%	91.0%	Exceeded	91.0%	91.0%
Current/ Recurring	BIS	Percent of declarations received from U.S. industry in accordance with CWC time lines that are processed in time for the U.S. to meet treaty obligations	100%	95%	100%	100%	100%	100%	Met	100%	100%

Strategic Conclusions and Recommendations

Export controls are necessary to advance U.S. national security, foreign policy, and economic objectives and to promote U.S. strategic technology leadership. Export controls mitigate the risk that foreign actors will use U.S. products in ways contrary to U.S. interests. Overall, BIS's targets are consistent with its funding requests. Funding levels will impact BIS's ability to improve its ability to meet foreseeable shifts in the implementation of export controls.

BIS exceeded the target for end-use checks for FY 2023 because activities in regular areas and programs of operation generally resumed normal levels after the COVID-19 pandemic, and because of Ukraine supplemental funding granted by Congress, which enabled the deployment of several short-term temporary duty assignments and overseas.

In FY 2023, travel restrictions implemented due to the COVID-19 pandemic in previous years were mostly eliminated, allowing for normal scheduling and completion of end-use checks in regular areas and programs of operation. These export controls are necessary to advance U.S. national security, foreign policy, and economic objectives and to promote U.S. strategic technology leadership.

Enforcement actions performed by additional staff hired under the Ukraine supplemental and contracted support personnel enabled BIS to exceed its number of actions resulting in a deterrence or prevention of a violation, and cases resulting in a criminal or administrative charge.

BIS met or exceeded performance targets for most indicators in FY 2023. FY 2024 and FY 2025 targets are set based on the ability to meet the foreseeable shifts in export administration, such as new opportunities within Export Control Reform Act (ECRA), and new challenges due to changing foreign policy and national security objectives. BIS anticipates incremental increases in most of its targets related to national security activities and funding levels appropriate for success in meeting such increases.

Actions to Advance Progress through FY 2025

The Administration, alongside allies and partners, supports, and advances national security by denying Russia the downstream products that are critical to its ambitions to develop high-tech capabilities in aerospace and defense, lasers and sensors, maritime, AI, robotics, and quantum computing, as well as the inputs required to develop and produce them. BIS will more effectively meet the challenges of increasing global strategic ambition and technological competition. Such work requires a strong depth of understanding of all aspects of U.S. and foreign efforts to use technology for national security advantage. BIS plans to fully address evolving and increasingly sophisticated tactics employed by U.S. adversaries to deter their ambitions to steal U.S. technology. BIS will expand its workforce of temporary analysts and special agents and prioritize enforcement actions on the items, end uses, and end users of highest concern to national security. BIS anticipates this effort will allow analysts to provide more and higher-quality leads to BIS's special agents located in 30 cities across the U.S. BIS, armed with better information, will expand its close collaboration with interagency partners to detect and disrupt illicit procurement networks used by adversaries through aggressive use of criminal investigative and administrative enforcement authorities. BIS will research, review, identify, and analyze technologies that are essential for American leadership in the development of leading-edge technologies while ensuring that the export of these technologies is consistent with U.S. national security and foreign policy objectives. Outreach to industry, including educational outreach, is necessary for the success of this plan. BIS's portfolio also includes working with allies to facilitate coordinated licensing policy, collaborative technology development, and a level playing field for U.S. exporters. Greater U.S. interaction with foreign governments increases trust, cooperation, and develops common messaging that leads to coordinated policy and a better environment for U.S. business.

BIS will also maintain overseas temporary duty positions and domestic analyst positions to support a surge in end-use checks related to potential diversion of U.S.-origin items subject to export controls to nation-state actors of concern, and maintain domestic special agent, analyst, and engineer positions utilizing the Ukraine Supplemental funding to support investigations and policy work, including international engagement, related to the enhances to Russia and Belarus controls. Although BIS does annual temporary duty trips to the Caribbean and Central and South America, BIS's budget request includes add two additional export control officer positions in the Western Hemisphere to provide enhanced end use monitoring of firearms exports. BIS will implement actions to strengthen administrative enforcement program, including the imposition of significantly higher penalties for serious violations, using non-monetary resolutions for less serious violations, eliminating no admit, no deny settlements, and facilitating efficient

processing of voluntary self-disclosures, including focusing on finite resources on the most severe violations. BIS will implement enforcement outcomes that better align with the seriousness of violations and discourage companies from cooperating with any unsanctioned boycott.

BIS will also further develop the BIS Academic Outreach initiative, including strategically prioritizing engagement, providing counseling, leveraging assigned special agents to establish long-term partnerships, conducting background briefings, offering training on export control compliance, and reviewing university export compliance procedures. BIS will also support underserved communities by focusing on academic institutions serving underserved populations as part of its academic outreach initiative. BIS will implement the Climate Crisis Initiative by providing outreach on compliance with the EAR to companies producing or exporting climate-related products.

BIS will aggressively enforce controls on disruptive technologies, such as artificial intelligence and advanced semiconductors, through coordination with the Department of Justice, FBI, HSI, and other law enforcement partners, including through the Disruptive Technology Strike Force (DTSF). Additionally, BIS will aggressively enforce controls on Russia and Belarus, including with the Department of Justice under Task Force KleptoCapture. Further, BIS will impose new Entity List designations for parties in Russia, including third party companies that backfill controls, China, Iran, and in other jurisdictions where parties are acting contrary to U.S. national security and foreign policy interests. In addition, BIS plans to sign a new Memorandum of Understanding with HSI to increase enforcement coordination and cooperation, which will improve the overall effectiveness of both agencies.

BIS plans to ensure robust participation in existing international export control dialogues and establish new ones as appropriate. This includes support for the U.S.-EU Trade and Technology Council's Export Control Working Group, the Japan-U.S. Commercial and Industrial Partnership, the India-U.S. Strategic Trade Dialogue, and other mechanisms. BIS plans to host the first meeting on technology protection exchanges with South Korean and Japanese Government officials and the DTSF, led by Department of Commerce and Department of Justice. BIS will also prioritize working with industry and government partners in the Global Export Control Coalition to ensure alignment of controls, compliance, and enforcement efforts. This includes working with E5 and G7 partners. BIS issued an industry advisory jointly with Australia, Canada, New Zealand, and the U.K. on priority items needed by the Russian military and red flags indicators to prevent diversion to Russia and Iran.

STRATEGIC OBJECTIVE 1.5 – Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship

Lead Bureau: USPTO
Contributing Bureaus: ITA

Key Strategies:
- Improve equitable and affordable access to the IP system
- Enhance patent quality and compact prosecution
- Reduce trademark pendency and protect the integrity of the register
- Protect and enforce IP abroad

Executive Summary of Progress

As America's innovation agency, the United States Patent and Trademark Office (USPTO) understands the importance of delivering timely, efficient services that help innovators, creators, entrepreneurs, and brand owners bring their ideas to impact more quickly and efficiently. Robust and reliable patents and trademarks offer meaningful, enforceable IP protection to those who hold them and those around them who operate in the same competitive landscape.

USPTO conducted activities throughout FY 2023 to support and empower under-represented independent inventors, entrepreneurs, and small businesses in underserved communities. Programs included the Women's Entrepreneurship (WE) initiative, with its Women's Entrepreneurship Symposium event series; the Council for Inclusive Innovation (CI²), with IP leaders in corporate, academic, professional, and government organizations; and USPTO's innovator events for everyone. More than 2,000 attendees heard from diverse, successful innovators who shared how they used their IP to reach their full potential (e.g., starting or growing a business or achieving commercialization of their product or service). In addition to hearing inspirational stories and learning best practices, audiences gained access to resources from USPTO, other government agencies, and national organizations that serve under-represented communities. In FY 2023, USPTO and the Intellectual Property Owners Association (IPO) launched the Women Entrepreneurs MENTEE Pilot Program, a collaborative effort bringing together mentors and mentees to encourage community-building and the empowerment of women inventors and entrepreneurs. This program provides participants an opportunity to connect with those in the IPO, an international trade association made up of diverse companies, law firms, service providers, and individuals in all industries and technology fields who own, or are interested in, IP rights.

USPTO established its entrepreneurship resources for the military community initiative to empower more veterans, military spouses, and service members to participate in the innovation ecosystem and to support their entrepreneurial pursuits. Last year, USPTO, in partnership with the Small Business Administration (SBA) and other entrepreneurial support organizations, conducted road shows at eight military bases, delivering startup resources to nearly 500 individuals from four service branches. USPTO also worked with SBA to revamp IP modules in SBA's Boots to Business curriculum, enhancing IP education for transitioning service members and military spouses. Other outreach programs USPTO offered regularly throughout the year included one-day patents and trademarks boot camps, which provide comprehensive IP information to pro se filers (customers filing applications without the assistance of counsel) and under-represented communities.

USPTO receives approximately 40,000 patent applications per year that name at least one inventor who is a first-time filer. For the smaller subset of first-time micro entity filers, including those in historically underserved geographic and economic areas, wait times for the patent application process may act as a barrier. Under the CI², USPTO created a pilot program that provides expedited examination to applicants in underserved populations. Specifically, the First-Time Filer Expedited Examination Pilot Program strives to increase accessibility for inventors new to the patent application process. This program speeds up the first office action for pilot participants, increasing the possibility of receiving an early indication of patentability and allowing inventors to make business decisions earlier in the patent process. If the invention is patentable, a faster patent grant can get the innovation to market more rapidly than average. Throughout FY 2023, the CI² worked to increase participation in the innovation ecosystem, focusing on communities that are typically under-represented.

USPTO is committed to connecting under-resourced inventors and entrepreneurs to legal assistance through a variety of programs that are featured on a dedicated webpage that highlights resources and programs by state or regional office. These resources and programs include the Patent Pro Bono Program, no-cost Patent Trial and Appeal Board (PTAB) and Trademark Trial and Appeal Board (TTAB) services, and law school clinics that offer free legal assistance.

The Patent Pro Bono Program is one of USPTO's primary tools to provide access to the innovation ecosystem. The program's network of regional programs matches volunteer patent professionals with financially under-resourced inventors and small businesses. These patent practitioners prepare and file more than 220 patent applications annually, reaching communities with historically low patent participation rates. The work of the program's professionals is critical to ensuring equity and economic growth in traditionally underserved communities. The Patent Pro Bono Program also offers pathways events for current and aspiring inventors and entrepreneurs. These virtual and in-person events connect participants with information and resources regarding IP protection, funding options, and inventor networks. The agency conducts pathways events in coordination with the Pro Bono Advisory Council and the SBA. In addition, both the PTAB and the TTAB coordinate no-cost legal assistance for qualifying inventors and entrepreneurs with proceedings before their respective jurisdictions.

USPTO is also increasing access to free legal services by expanding its Law School Clinic Certification Program to more law schools. USPTO welcomed two new law schools in FY 2023, and the program now includes 60 participating law school clinics. The program provides free services to patent and trademark applicants, including help with filing applications and registering trademarks. Its benefits are twofold. In addition to assisting inventors and entrepreneurs, the program also allows the next generation of lawyers to gain hands-on experience in patent and trademark registration. The program's

expansion means more Americans, including those from under-represented communities, are better able to access legal services—both today and tomorrow.

In FY 2023, the number of utility patent application filings was 594,143, a slight increase from the previous year and approximately 2,000 above projections. Design patent applications surpassed 53,000, although they were slightly below USPTO's FY 2023 projection of approximately 60,000. In September 2023, USPTO also celebrated the issuance of the one millionth design patent.

USPTO established patent timeliness goals based on patent term adjustment (PTA), the agency's overall adherence to statutorily defined time frames. Reducing issued PTAs provides consistently shorter processing time for all applications and gives applicants greater certainty of timeliness in their own cases. USPTO exceeded its FY 2023 target of 80%, achieving 81% total PTA compliance for mailed actions (i.e., office actions the agency mailed to applicants). USPTO did not meet its PTA compliance target for remaining inventory (i.e., cases awaiting action from the agency). Total PTA compliance was 82%, 4% below the target of 86%. USPTO implemented approaches, including authorized overtime, revisions to the examiner award program, and increased hiring targets, to address remaining inventory.

The cornerstone of USPTO's work is the quality of its IP protections. In FY 2023, USPTO exceeded its patent quality targets. USPTO evaluates patent quality by measuring and assessing its work products. A random sample of work products is reviewed for compliance with <u>Title 35 of the United States Code (U.S.C.)</u> and the relevant case law at the time of the patentability determination.

- Statute 35 U.S.C. 101 - Inventions patentable (including utility and eligibility); target was 94%, and USPTO exceeded it at 98.2%.
- Statute 35 U.S.C. 102 - Conditions for patentability, novelty (prior art compliance); target was 94%, and USPTO exceeded it at 96.0%.
- Statute 35 U.S.C. 103 - Conditions for patentability, non-obvious subject matter (prior art compliance); target was 91%, and USPTO exceeded it at 92.2%.
- Statute 35 U.S.C. 112 (a), (b), including (a)/(b) rejections related to 35 U.S.C. 112(f) - Specification; target was 92%, and USPTO exceeded it at 94.4%.

Emerging technologies using artificial intelligence, machine learning, and robotic process automation bring potential opportunities to maximize USPTO's operations and workforce. These tools can serve as catalysts for operating efficiencies and cost savings, enhancing the work of patent examiners and increasing access to prior art. In October 2022, USPTO released the new AI-based Similarity Search feature to examiners' Patents End-to-End (PE2E) Search suite. This feature receives examiner-selected application information, including specification, as input and uses trained AI models to produce a list of domestic and foreign patent documents similar to the searched patent application. Recognizing that patent applications are becoming increasingly complex and that technologies are converging, USPTO ensures patent examiners have access to the best prior art as early as possible in the prosecution process.

Registered trademarks play a critical role in promoting innovation across all sectors of the American economy. USPTO received 737,018 trademark application classes for registration in FY 2023, 50,777 classes fewer than FY 2022. Although the rate of new trademark applications declined, FY 2023 trademark filings were roughly in line with the 738,112 new applications filed in FY 2020, returning to historical growth rates. Nearly three years of

historical growth and capacity constraints increased trademark pendency (time between filing and first action), but in FY 2023, USPTO held the pendency line at 8.5 months and still managed to achieve several successes in FY 2023, including:

- Met and exceeded all quality targets.
- Moved all its trademark examining attorneys to a new, web-based trademark examination system called Trademark (TM) Exam.
- Retired approximately 85% of the legacy IT system called the Trademark Reporting and Application Monitoring (TRAM) system, while USPTO work to modernize TM Exam and other systems in parallel.

USPTO is committed to protecting patent and trademark owners from fraud, theft, and abuse by those intent on stealing their proprietary ideas, designs, brand identities, and livelihoods. By reinforcing IP protections and deterring fraudulent practices, USPTO will bolster confidence in America's innovation ecosystem. During the last few years, USPTO noted an uptick in fraudulent patent application filings. The problem is particularly acute among requests for expedited examination of design applications, which translates to longer wait times for all design patent applicants, a loss of USPTO revenue, and an unnecessary expenditure of agency resources. USPTO is proactively taking steps to address questionable filings, including mailing applicants notices that request information to resolve irregularities. Section 7(b)(1) of the Unleashing American Innovators Act of 2022 authorized USPTO to issue fines for falsely asserting entity status, and USPTO implemented the provisions.

In FY 2023, USPTO supported STOPfakes.gov, the multi-agency IP portal, by publishing a new edition of the China Intellectual Property Rights Toolkit. ITA leads the interagency STOPfakes program with over ten partner federal agencies to provide expertise, guidance and resources to U.S. businesses and consumers on the importance of protecting intellectual property (IP), including in export markets. In FY 2023, the STOPfakes program engaged more than 4,500 individuals focused on intellectual property rights, including more than 2,800 businesses at the Consumer Electronics Show (CES). In partnership with U.S. Export Assistance Centers, the STOPfakes program resumed in-person STOPfakes Roadshows. Roadshows took place at the Harley-Davidson University in Milwaukee, Wisconsin, and at a business incubator in Orlando, Florida. Additionally, ITA's STOPfakes team presented on the STOPfakes program as part of the U.S.-Argentina Forum on Innovation and Creativity for Economic Development in Buenos Aires, Argentina, and at the Asian Pacific Economic Cooperation Intellectual Property Experts Group Meeting in Seattle, Washington. Throughout FY 2023, the STOPfakes program engaged with SMEs, women-in-business, underserved businesses, global brands, and government officials at venues, including at ITA's SelectUSA conference. ITA also led the departmentwide effort to evaluate the adequacy and effectiveness of protection and enforcement of intellectual property rights in a selection of countries. Findings of the evaluation were incorporated in the USTR Special 301 Report on the global state of intellectual property rights protection and enforcement. The Congressionally mandated interagency review details the U.S. Government findings on more than 100 trading partners.

USPTO restarted its in-person China IP Road Show series, several one-day events coordinated with organizations, including universities, USPTO's regional offices, business groups, state and local governments, and other federal agencies. USPTO also worked with the National Association of Attorneys General to deliver programming that enhances awareness among state attorneys general on the importance of IP enforcement in the context of criminal activity and consumer protection.

USPTO represented the United States and the interests of U.S. rights holders at more than 45 high-level meetings of international organizations in FY 2023. USPTO gauges its efforts to improve IP systems abroad through four performance criteria. The first is comprised of institutional improvements in IP office administration for advancing IP rights. The second includes institutional improvements in IP enforcement entities. The third consists of improvements in IP laws and regulations, and the fourth involves the establishment of government-to-government cooperative mechanisms. In FY 2023, USPTO exceeded its target of 66% by achieving progress on at least three of the four performance criteria with prioritized countries (Brazil, China, and India). During FY 2023, the percentage of action steps made for Brazil was 86%, with 76% for China and 77% for India. In August 2023, USPTO signed a memorandum of understanding with Mexico that will allow for accelerated patent grant procedures to benefit U.S. patent holders. USPTO concluded 15 other agreements and memorandums of understanding in FY 2023 with IP offices and partner organizations, including Canada, Mongolia, and Panama.

USPTO also provided 144 capacity-building and training workshops around the globe in FY 2023. These programs focused on IP enforcement and targeted audiences including police, prosecutors, and customs and border enforcement officials. The workshops also included capacity-building programs with foreign IP officials, such as patent and trademark examiners. USPTO conducted some of these programs in partnership with other federal agencies, foreign governments, and nongovernmental organizations. USPTO also provided policy advice and technical training on domestic and international IP matters. These efforts included over 140 USPTO-organized programs delivered through the agency's Global Intellectual Property Academy. Altogether, in FY 2023 USPTO trained more than 10,000 U.S. stakeholders and foreign officials responsible for the protection and enforcement of IP, exceeding its target of 5,000 trainees.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	USPTO	Patents total PTA Compliance, all mailed actions	—	83%	83%	80%	81%	80%	Exceeded	80%	80%
Current/ Recurring	USPTO	Percentage of prioritized countries for which intellectual property country teams have made progress on at least 3 of the 4 performance criteria	66%	100%	100%	100%	100%	66%	Exceeded	66%	66%

Strategic Goal 1: Drive U.S. Innovation and Global Competitiveness

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	USPTO	Trademark average first action pendency (months)	2.6	3.0	6.3	8.3	8.5	8.5	Met	8.4	7.5
Current/ Recurring	USPTO	Average processing time for trademark applications	9.3	9.5	11.2	13.8	14.6	14.5	Not Met	14.4	13.5
Current/ Recurring	USPTO	Patents PTA compliance, remaining inventory	—	88%	86%	85%	82%	86%	Not Met	81%	81%

Strategic Conclusions and Recommendations

All Americans—regardless of race, gender, geography, or economic conditions—should have the opportunity to innovate and reap the rewards from innovation through entrepreneurship and commercialization. Ensuring equitable access to the U.S. IP system is a critical part of fueling that economic engine. USPTO will engage with the public to bring awareness and accessibility to the innovation ecosystem through means, including its inclusive innovation efforts, CI[2], WE, internships, legal assistance, K-12 training, and much more.

USPTO will focus on investments in patent examination quality, including application readiness, continuation practice, prior art and searching, training, and prosecution changes and enhancements to improve patent durability. All patent examiners are now using PE2E Search, which includes AI search features. Around 55% of patent examiners are now using the AI search features and have run about 1.5 million queries, indicating an increase in the adoption and acceptance of this technology. Additionally, over 67% of patent examiners have used Similarity Search, a new feature launched during the transition into FY 2023. Technical teams collect continual feedback on this product and perform rigorous testing to ensure features meet performance standards. In the patent search product, USPTO makes continuous improvements to the AI model based on examiner feedback and enhancements to the underlying ML models, allowing it to become more effective over time. Ongoing assessments have yielded positive results. A guiding principle in these endeavors is an emphasis on the human element of AI. Human input is vital and helps any AI/ML model improve. In fact, AI empowers rather than replaces human experts by exposing relevant information and suggesting new avenues of investigation.

In FY 2023, USPTO's unexamined trademark application inventory remained more than 300% higher than pre-pandemic levels, resulting in higher pendency. Although new trademark application filings have since slowed and inventory is stabilizing, the backlog remains high and will take several years

to reduce to an appropriate level. USPTO launched initiatives to reduce pendency and to keep customers informed, including hiring more trademark examining attorneys and specialists, enlisting paralegal support, and exploring opportunities for efficiency using a third-party management consulting firm.

Despite the added strain on resources to respond to the trademark application filing surge experienced during the pandemic, USPTO met and exceeded all trademark quality targets in FY 2023. Compliance rates for first and final office actions were 96.8% and 98.6%, respectively, versus the 95.5% and 97.0% targets. USPTO is committed to maintaining high trademark compliance quality metrics and is reviewing the internal standards to ensure they are aligned with trademark examination efficiency goals. These efforts include standardizing training and feedback, promoting online tools and enhanced processes, and improving the trademark examination guidance.

Expediting the examination process allows trademarks to better prevent scammers from obstructing the progress of legitimate applicants. In December 2022, USPTO implemented phase 2 of the Trademark Modernization Act (TMA) that shortened response times from six months to three months for pre-registration office actions. To receive six months, the applicant would need an extension. This initiative has shortened the time for applicants to respond before their applications undergo examination.

There has been an increase in the number and sophistication of scams targeting trademark applicants and registrants. USPTO published two scam awareness webpages about trademark auction sites and specimen farms and sent an accompanying Trademark Alert and internal staff email. Trademarks is also working to shut down USPTO.gov accounts when a holder creates an account that is controlled by a scammer. Additionally, USPTO will build on multi-year initiatives to protect the integrity of the trademark register, strengthen controls, and enhance operations. USPTO created the Register Protection Office, a new organization within Trademark Examination Policy, to reduce the number of fraudulent trademark applications and other scams by completing administrative reviews of suspicious filings for possible sanctions; referring attorneys to the Office of Enrollment and Discipline for suspected legal misconduct; suspending USPTO.gov accounts used for improper submissions; eliminating unused registrations through non-use cancellation proceedings; conducting post-registration audits that require registrants to provide proof of use of their mark; imposing a maintenance filing deletion fee penalty when registrants can't provide proof of use; and creating scam awareness communications, including examination guidance, webpages, and blogs.

To help protect and enforce IP abroad, USPTO has IP Attachés and IP specialists stationed worldwide supporting U.S. IP interests and assisting U.S. rights holders in doing business around the globe. In FY 2023, the agency's IP Attachés assisted over 5,500 U.S. inventors and businesses, including many small and medium-sized enterprises and first-time or new-to-market exporters. USPTO will also continue to actively engage with other patent and trademark offices around the world. USPTO will promote cooperation and collaboration with those IP offices by exchanging information on practices and programs that facilitate increasingly user-friendly and interoperable patent, trademark, and design systems.

Actions to Advance Progress through FY 2025

USPTO is expanding its efforts to increase participation in the innovation ecosystem by encouraging, empowering, and supporting all future innovators. USPTO will take steps to improve the data available to identify and address inequities in the use of America's IP system. USPTO will work with the CI² and other efforts to build a more diverse and inclusive innovation ecosystem.

USPTO remains committed to processing patent applications in a timely manner, consistent with established goals based on PTA. Reducing the number of issued PTAs provides shorter pendency for all applications, reduces uncertainty in the marketplace, and ensures patents expire and become available to the public at the statutorily defined time of 20 years from filing. USPTO will focus on PTA time frames, which will reduce the number of PTAs issued and provide applicants with improved predictability. Additionally, USPTO will emphasize quality and training to enable the issuance of reliable and predictable patents. The terms reliable and predictable apply to patents USPTO issues in compliance with all the requirements of 35 U.S.C. as well as the relevant case law at the time of issuance. USPTO will develop the examining corps by investing in a range of opportunities for technical and legal training. For example, these opportunities include training on subjects relating to 35 U.S.C. 102, 35 U.S.C. 103, 35 U.S.C. 101, 35 U.S.C. 112, and search. Additionally, USPTO will run programs to train stakeholders on USPTO practices and procedures to improve applicant submissions, including initial filings and USPTO action responses, and to improve collaboration between applicants and examiners. Further, USPTO's quality assurance program remains the agency's foundation for assessing its multiple efforts to improve reliability and consistency. Under this program, USPTO reviews a random sample of patent examiners' work products to provide timely, reliable, and meaningful indicators of examination quality.

USPTO plans to introduce initiatives aimed at reducing trademark pendency. These initiatives include hiring examining attorneys, enhancing training in the Trademark Academy, evaluating retention, and fully reviewing details and work projects, the Trademarks organization will increase productivity by optimizing examination time. USPTO will use trademark professionals to advance anti-scam work. The agency will also evaluate the use of trademark professionals to balance examining attorney workload and workforce with the uncertainty of incoming application demand levels. USPTO will further enhance trademark productivity by exploring award production incentives, reevaluating the effectiveness of examination quality standards, changing the current comprehensive excellence standard for arguments and evidence, and streamlining bad faith processing by moving suspicious files out of examination and into administrative review. Moreover, USPTO will direct additional investment to improvements in its IT systems to minimize system downtime. These changes are currently underway.

USPTO will increase its capacity to identify existing fraudulent trademark application submissions, to eliminate them from the trademark register, and to block them from being filed. Through a combination of increased suspensions of bad actor USPTO.gov accounts, increased administrative review of suspicious filings, increased Director-initiated reexamination or expungement proceedings, and increased efficiency in reviewing third-party reexamination or expungement petitions, Trademarks will disrupt scam activity targeting USPTO. Additionally, Trademarks will raise awareness of scams by increasing and updating webpages, webinars, and social media content that warns trademark owners of new types of scams. Furthermore,

Trademarks is implementing mandatory ID verification of attorney-sponsored support staff accounts in FY 2024, which will cut down on abuses of the filing system and prevent bad faith filings.

USPTO expects to implement Phase 3 of the TMA, flexible response times for post-registration by FY 2025. It will occur after USPTO upgrades its databases, public search system, and internal examination systems to provide greater efficiencies for customers and staff. This change will align response times for post-registration office actions with pre-registration office actions. By shortening response times, overall disposal pendency is likely to decrease, and bad faith applications as well as applications to maintain a registration will be moved to disposition more quickly.

Trademarks will pursue a process redesign that may enhance system capacity, effectiveness, and efficiency, as well as the user experience. Trademarks expects to advance the integration and use of AI, ML, RPA, and natural language processing. This will keep Trademarks at the forefront of the international IP office community, support internal needs to reduce pendency, improve quality, enable data-to-information processes, and help trademark applicants submit better-quality applications to increase their chances for quick and efficient examination.

USPTO will improve international IP protection and administration, capacity building, and policy initiatives, including the creation of country and regional strategic plans and specific action plans in relation to prioritized countries of interest. USPTO will also provide training to foreign government agencies and capacity building to a variety of audiences to promote the protection and enforcement of American innovator and creator IP rights in the United States and abroad. ITA will work with USPTO, the IP Attachés, and other agency experts to help stakeholders address IP-related trade impediments arising in foreign markets, as well as to develop additional digital resources and educational programming. Live STOPfakes road shows will continue with speakers from ITA, USPTO, the Federal Bureau of Investigation, Customs and Border Protection, and the Department of State.

STRATEGIC OBJECTIVE 1.6 – Improve the Nation's cybersecurity and protect Federal Government networks

Lead Bureau: NIST
Contributing Bureaus: BIS, ITA, NTIA

Key Strategies:
- Develop and disseminate robust technical standards and cybersecurity best practices
- Improve the security and integrity of the technology supply chain
- Deliver cybersecurity-enhancing research and technology solutions to industry and government stakeholders
- Expand cybersecurity training and workforce development and increase access to underrepresented communities

Executive Summary of Progress

NIST is a leader in cybersecurity research and standard development. Through continuous engagement and collaboration with external partners, NIST develops standards, guidelines, and other resources to meet the increasing needs of security. NIST priority areas within cybersecurity includes cryptography, education and workforce, risk management, emerging technologies, and privacy. NIST's recent key accomplishments are:

- NIST released a draft of the Cybersecurity Framework 2.0 in August 2023 and is set to release completed work in early 2024.
- The Workforce Framework for Cybersecurity (NICE Framework) was published and lowers the barrier to performing cybersecurity work by describing methods to develop knowledge and skills and describes the skills and tasks that are necessary for organizations to perform related work.
- The White House announced the National Cybersecurity Strategy, where NIST will play a key role in the implementation plan. The report also highlights NIST's efforts in developing research, guidelines, and standards for cybersecurity and privacy.
- NIST leads the execution of the U.S. Government's National Standards Strategy for Critical and Emerging Technology (USG NSSCET), including in the area of Cybersecurity and Privacy. This strategy complements ANSI's U.S. Standards Strategy and builds a foundation to safeguard U.S. technology, leadership, and competitiveness in its international standards development.
- NIST also had a leading role in the implementation of the President's Executive Order 14028: Improving the Nation's Cybersecurity. Although NIST has completed the direct deliverables of Executive Order 14028, NIST will work to build on these efforts.

ITA strengthened coordination with likeminded partners and allies to increase participation in standards development organizations and develop shared positions in intergovernmental standards-setting bodies and principles that align with shared democratic values and fundamental rights.

ITA worked with fellow bureaus and federal agencies to share information of strategic interest via tools such as the International Standards Alert, Strategic Standards Information mechanism, and International Standards Cooperation Network. These three strategic efforts allow stakeholders to stay connected on standards development activities across U.S. government agencies and with likeminded partners and allies. These mechanisms are a proactive approach by the U.S. Government to protect its collective interests and involvement in international standards development, with a particular focus on critical and emerging technologies.

ITA achieved three milestones in support of Executive Order 14028, meeting the compliance requirements for security information and event management, user behavior analytics, security orchestration, automation, response capabilities, detection, and monitoring of data stream disruption, as well as a sustainable way to triage them. These efforts positioned ITA as the first bureau in the Department to achieve this higher level of cyber awareness and security posture.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NIST	Number of companies and organizations exposed to National Cybersecurity Center of Excellence (NCCoE) produced cybersecurity guides and other products	8,995	12,100	13,121	14,343	16,130	15,000	Exceeded	17,500	19,000
Current/ Recurring	NIST	Cumulative number of collaborators on NCCoE projects	190	294	396	513	625	440	Exceeded	750	900
Current/ Recurring	NIST	Number of resources derived from the cybersecurity framework	133	159	179	189	204	190	Exceeded	220	240

Strategic Conclusions and Recommendations

The Department made great strides in cybersecurity. NIST lead the execution of the U.S. Government National Standards Strategy for Critical and Emerging Technology, including for cybersecurity standards, and ITA built on strategic efforts, keeping multiple stakeholders connected on standards development activities. ITA and NIST also performed critical functions for the implementation of Executive Order 14028 on Improving the Nation's Cybersecurity. Additionally, NIST made substantial strides in providing resources to meet American cybersecurity needs through the release of a draft of the Cybersecurity Framework 2.0, release of the NICE Framework, and execution of the implementation plan of the National Cybersecurity Strategy. With increasing technological advances comes greater threats, and a greater need to protect systems, develop new technologies, and predict and prepare for future challenges and threats. With this, the Department should prioritize and support research and development of resources for cybersecurity, including the addition of profiles for specific implementations of the Cybersecurity Framework 2.0. Additionally, the Department would benefit from increased communications surrounding the release of new cybersecurity standards, resources, and guidelines, as NIST products are driven not only by the needs of the U.S. Government, but also by the needs of industry and the public and should therefore be well-known and easily accessible by all sectors.

Actions to Advance Progress through FY 2025

NIST will support research in key priority cybersecurity areas and build on the deliverables completed as part of Executive Order 14028 implementation. Additionally, NIST will release the completed Cybersecurity Framework 2.0 in early 2024 after accepting input from multiple sectors. NIST will also remain committed to promoting workforce development using the NICE Framework and will bring stakeholders together to develop practical cybersecurity solutions through the National Cybersecurity Center of Excellence.

In accordance with Executive Order 14110 on Safe, Secure, and Trustworthy Artificial Intelligence, BIS is preparing to release a Defense Production Act survey that will represent the U.S. Government's first mandatory effort to identify and assess the risk profiles of frontier AI foundation models and the computer clusters needed to train them. With this survey, BIS will identify key players at the cutting edge of AI development and ascertain how these organizations are protecting their work from physical and cybersecurity threats. BIS will also use this survey to learn how the cutting edge of AI models perform in tests known as red team exercises in which simulated bad actors attempt to trick a model into creating illegal, unethical, or dangerous content. The results of this survey will provide the U.S. Government with the most comprehensive overview ever collected of the security practices employed by the AI industry, as well as the risk profiles of cutting-edge AI models. This information will provide the U.S. Government with a unique appreciation of current security practices within the AI industry, which will aid agencies as they craft new technical standards and cybersecurity best practices. The survey will also provide new insight into the AI training process, allowing the U.S. Government to identify possible risks in this often-opaque link in the AI supply chain as it crafts potential safeguards. BIS will deploy this survey no later than January 26, 2024, and anticipates presenting its results in late April 2024.

STRATEGIC OBJECTIVE 1.7 – Advance U.S. leadership in the global commercial space industry

Lead Bureau: NOAA
Contributing Bureaus: BEA, BIS, EDA, ITA, MBDA, NIST, NTIA, USPTO

Key Strategies:
- Coordinate regulatory functions across domestic and international stakeholders to promote competitiveness, and increase legal certainty for U.S. commercial space businesses
- Grow the customer base for U.S. commercial space goods and services
- Improve space safety and sustainability
- Promote commercial space innovation
- Advance development, use, and application of space-based Earth observation capabilities to empower better decision making by the public and private sector

Executive Summary of Progress

The Department established the Commercial Space Coordinating Committee (CSCC) in FY 2023, which committed Bureaus to review, develop, and provide recommendations to the Deputy Secretary on space policy and strategy; coordinate implementation of the Department's Strategic Plan Strategic Objective 1.7; align all bureaus on space-related policy matters and corresponding actions; and enable inter-bureau cooperation, coordination, and information exchange on space activities. NOAA's Office of Space Commerce (OSC) worked with the CSCC bureaus to compile planned 2023 deliverables in support of advancing leadership in the commercial space industry.

The Department improved the safety of commercial space activities as Earth's orbits become increasingly congested with traffic and debris. Through NOAA's Office of Space Commerce (OSC), the Department made progress on the Traffic Coordination System for Space (TraCSS), which, when fully operational, will provide civil and commercial satellite operators with space situational awareness (SSA) services to improve operational safety. The Department of Defense (DOD) and OSC engaged in continuing weekly working groups and semi-annual in-person workshops on collaboration and coordination related to SSA and development of TraCSS. As part of a pilot project to assess spaceflight safety mission assurance to select spacecraft in the medium Earth orbit and geostationary Earth orbit, the OSC partnered with DOD through 2023 to award seven contracts to U.S. commercial space firms for SSA data analysis. OSC progressed in the architecture and procurement strategy to deploy TraCSS Phase 1.0 initial capabilities in quarter four of FY 2024. In 2023, OSC developed a procurement strategy and awarded a cloud utility contract for TraCSS.

Regarding standards, NIST pursued validation of timing capabilities from low Earth orbit by alternative, commercial providers. Additionally, NIST applied their Cybersecurity Framework to space systems, including position, navigation and timing services, satellite ground segments, and commercial satellite

operations. The OSC and NIST coordinated and engaged to share input from the U.S. Government and commercial industry to develop internationally accepted common standards, best practices, and guidelines for space situational awareness and space traffic coordination.

To provide business leaders, policymakers, and the public a new tool to analyze the space economy and to inform investment decisions, the Bureau of Economic Analysis (BEA) published new and expanded statistics quantifying the U.S. space economy for 2012-2021, including the space economy's contribution to U.S. gross domestic product, gross output, private employment, and private compensation. The U.S. Patent and Trademark Office (USPTO) explored filing statistics at USPTO to better understand innovation trends in the commercial space sectors. USPTO determined the number of space related USPTO patents granted each year between 1980 and 2022 grew faster over this period than the overall number of USPTO filings. USPTO convened a multidisciplinary working group to explore and develop policies and initiatives to accelerate innovation in commercial space. The Office of the Chief Economist began tracking space-related patent applications and issued patents and refined their process and methods in hopes of having a public report available in 2024. Additionally, USPTOis actively engaged, both domestically and internationally, on IP issues for the commercial space industry.

The National Telecommunications and Information Administration participated in the World Radio Conference-23 (WRC-23), supporting the State Department. Additionally, NOAA sent nine representatives to WRC-23, including the Assistant Secretary for environmental observation and prediction. Current WRC-23 agenda items related to NOAA were in good standing.

To grow the customer base for U.S. commercial space goods and services, DOC advocated for the economic interests of the U.S. commercial space sector through dialogue with U.S. space companies, participation in interagency working groups, hosting comprehensive dialogues with Japan and France, and organizing bilateral Track 1.5 commercial engagements with countries such as Singapore and South Korea and at events such as the International Astronautical Conference. The International Trade Administration's (ITA) Advocacy Center managed 27 cases in the space industry sector, which includes launch services, satellite manufacturing, satellite telecommunications services, sensors, ground station equipment, and related goods and services. These cases have a total value of approximately $8.8 billion, with approximately $7.7 billion in U.S. export content. This included 21 new advocacy requests in FY 2023. ITA also supported the conclusion of five contract signings in FY 2023, valued at $1.53 billion with 100 percent U.S. content. American space companies also participated in ITA trade promotion events, such as U.S. pavilions at major air shows like the Paris Air Show. In May 2023, SelectUSA held its annual Investment Summit, the most prominent event to encourage foreign investment in the United States. At the Investment Summit, ITA coordinated a panel focused on the commercial space sector, which included three experts in the commercial space industry. The OSC Director moderated the panel.

To support workforce development and close the racial equity gap in the U.S. space industry, NOAA, in coordination with the Office of the Secretary and the Minority Business Development Agency (MBDA), worked on a dedicated workstream proposal under the CSCC. The team identified private sector initiatives focused on space equity, including Black in Astro's Black Space Week, Aerospace Corporation's DEI Pledge (signed by 40 space companies), and the Patti Grace Smith Memorial Fellowship. The CEO of The Aerospace Corporation, representing the Space Workforce 2030 initiative, participated in the Department's fall equity convening.

Lastly, NOAA used innovative commercial space services and data to further its critical weather monitoring mission. In March 2023, NOAA announced the award of the Radio Occultation Data Buy II (RODB-2) Indefinite Delivery/Indefinite Quantity (IDIQ) contracts. NOAA awarded two RODB-2 IDIQ contracts with a total maximum value of $59,312,954. The IDIQ contract vehicle with a five-year ordering NOAA solicited commercial near-real-time satellite-based Global Navigation Satellite System, Radio Occultation, and ionospheric measurements that will be processed into neutral atmosphere and space weather products. NOAA will feed these products into operational data systems, including weather and space weather analysis and prediction systems. NOAA will also use these products for weather, climate, and atmospheric research purposes. NOAA will archive all data and products.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NOAA	Number of workshops, reports, and other tools produced to facilitate growth and advancement of the U.S. commercial space industry	4	3	5	6	9	7	Exceeded	9	12
Current/ Recurring	NOAA	Number of actions taken in response to stakeholder requests for advocacy support	—	40	60	70	80	80	Met	80	80
Current/ Recurring	NOAA	Percent of milestones achieved towards establishment of space situational awareness (SSA) services for civil and commercial stakeholders	10%	25%	30%	40%	35%	50%	Not Met	75%	100%

Strategic Conclusions and Recommendations

With respect to space commercialization, the Department achieved substantial progress and met its performance targets. The Department is managing staff and resources for bureaus through a whole-of-Department approach to implement the commercial space guidance issued by the President and National Space Council. The Department promoted the U.S. as the country of choice for commercial space activities in the face of competitive financial incentives and regulatory environments overseas. The Department's work to create a civil space situational awareness capability progressed with support from industry and the White House. Sustaining this effort is critical to ensure continued space safety and stability as Earth's orbits become increasingly congested.

Actions to Advance Progress through FY 2025

- **Support Commercial Space Situational Awareness** – NOAA will further develop the Traffic Coordination System for Space (TraCSS) to provide basic space situational awareness (SSA) and space traffic coordination (STC) safety services to civil and commercial satellite operators. During FY 2024-2025, OSC will fully implement Phase 1 of TraCSS including – deployment of public user interfaces, increased integration of commercial SSA services, investment in commercial SSA data for additional tracking, build-up of the TraCSS operations center, and planning for technical needs related to launch collision avoidance services during Phase 2.
- **Improve Space Regulations** – Through the CSCC, NOAA will coordinate and advocate for U.S. industry interests in ongoing rulemaking processes affecting commercial space activities, including exports and access to spectrum frequency, and will participate in efforts to define and implement a mission authorization framework for novel activities in space. NOAA's Office of Space Commerce will work with NOAA General Counsel on the required legal research and analysis on existing and needed legal authorities to accomplish the SSA mission and a range of possible STC services.
- **Participate in Space Standards Development Processes** – Working with other bureaus, NOAA will support the development of international space standards with standards developing organizations and assist with convening an interagency working group on SSA/STC Standards. NOAA will support user engagement with international partners to assure sharing of data, sources and responsibilities and work with international partners to establish consensus on terms and conditions for future space operations.
- **Improve Global Connectivity** – NTIA will further interagency coordination with U.S commercial stakeholders and users to support pro-competitive satellite connectivity worldwide through the International Telecommunication Union (ITU) and the International Telecommunications Satellite Organization (ITSO).
- **Continue Commercial Data Program** – NOAA will expand use of commercial satellite data buys which could include new types of Earth observation and space weather data. NOAA will support the development and sustainment of NOAA's infrastructure and capabilities to securely ingest, process, assimilate, distribute, and archive data from commercial providers for operational use.
- **Participate in the National Space Council** – Through the CSCC, NOAA will support the Department leadership's participation in the activities and tasks of the National Space Council.

- **Support Space Workforce Development & Equity** – Through CSCC's Equity Subcommittee, NOAA will pursue efforts with the National Space Council and private sector to help increase representation and retention of workers and entrepreneurs from underserved communities in the space industrial base. The Equity Subcommittee will develop strategic alliances with relevant organizations that are committed to creating equitable and inclusive talent pipelines and supply chains and serve as a pathfinder for applying the Department's Business Diversity Principles to the broader U.S. economy.
- **Measure the U.S. Space Economy** – BEA will research and provide outreach related to measuring the U.S. space economy subject to data and resources. Notable outreach initiatives include a BEA-sponsored space economy measurement workshop to gather feedback on the space economy statistics from subject matter experts and a launch event at the Organization for Economic Co-operation and Development (OECD) Space Forum to introduce the technical report, International, North American and European Statistical Classifications for Space Economy Measurement, a co-publication by the OECD, BEA, European Space Agency, Eurostat, and European Commission's Joint Research Centre.

STRATEGIC OBJECTIVE 2.1 – Drive equitable, resilient, place-based economic development and job growth

Lead Bureau: EDA
Contributing Bureaus: BEA, Census, ITA, MBDA, NIST, NOAA, NTIA

Key Strategies:
- Support communities in developing and growing their local economies through customer-centric place-based investments
- Invest in programs and projects that help communities become more resilient to economic shocks and advance equitable economic opportunity
- Support and accelerate high-growth industry clusters that are critical for economic and national security
- Accelerate the recovery of communities that rely on the travel, tourism, and outdoor recreation sectors
- Grow the Blue Economy

Executive Summary of Progress

The Department plays a critical role in helping to create the conditions for equitable, resilient, place based economic development in communities across the nation through its diverse programs, new initiatives, and tools.

In FY 2023, EDA invested over $224.3 million in 260 economic development planning or implementation projects that directly benefit one or more traditionally underserved populations. These populations include but are not limited to women, Black, Latino, and Indigenous and Native American persons, Asian Americans, and Pacific Islanders or underserved communities within geographies that have been systemically and/or systematically denied a full opportunity to participate in aspects of economic prosperity such as Tribal Lands, Persistent Poverty Counties, and rural areas with demonstrated, historical underservice.

EDA funded the Inclusive Recovery Initiative (IRI) project with New Growth Innovation Network (NGIN) through the Research and National Technical Assistance program. The IRI project had two main objectives: to establish a national Community of Practice (CoP) that offers insights, best practices, and training for economic development practitioners to integrate economic inclusion in their economic recovery plans, and to assist Economic Development Districts with guidance and suggestions on how to embed equity and inclusion in their Comprehensive Economic Development Strategies Coronavirus Economic Recovery Plans.

The IRI project ended in FY 2023 and achieved the following outcomes:

- Built a national CoP that represented 104 practitioners from 98 economic development districts and organizations, who learned from and supported one another to develop more inclusive economic growth strategies for their communities;
- Led 9 virtual events with registrants representing 94 economic development districts who collectively serve a population of over 52.3 million across 604 counties. Topics covered during these sessions include centering BIPOC communities during strategic planning, access to capital to ensure equitable economic recovery, organizing anti-bias data and research, human capital and more;
- Informed updates to EDA's Comprehensive Economic Development Strategy (CEDS) Content Guidelines, to incorporate equity and inclusion, which will help economic development districts embed equitable economic growth strategies in their forthcoming CEDS; and
- Produced a toolkit, with insights from the program, to support regional economic development leaders elevate equity within their organizations, planning, and strategies.

This work guided the implementation of EDA's Equity Impact Investments (EII) program, which came about as a response to the disproportionate impact of the pandemic on underserved communities. The program provides capacity, knowledge, and technical assistance to organizations that serve these areas. The program is led by NGIN, in collaboration with Local Initiatives Support Corporation (LISC) and the International Economic Development Council (IEDC) and aims to form a coalition of organizations that can improve and maintain their involvement and engagement in economic development initiatives, while also creating opportunities for EDA projects to better serve underserved populations and communities, such as urban cores, women, people of color, and any group that has been historically underserved.

Finally, EDA launched the FY 2023 Notice of Funding Opportunity (NOFO) for Phase 1 of its Distressed Area Recompete Pilot Program (Recompete Pilot Program) and expects to announce winners this winter. EDA also expects to announce the NOFO for Phase 2 of the program this winter. The Recompete pilot program aims to invest $200 million in persistently distressed communities by targeting areas where prime-age (25-54 years) employment is below the national average. The program will create and connect people to good jobs and close the employment gap through large, flexible investments that support the local needs and priorities of these communities.

Phase 1 of the program involves strategy development grants, approval of a recompete plan or both to help the communities to identify their strengths, challenges, and opportunities for economic development and resilience. Phase 2 of the program will support a wide range of implementation activities across workforce development, business and entrepreneur development, infrastructure, and additional planning, predevelopment, or technical assistance. These activities will help these communities create jobs and build the capacity for long-term economic development.

ITA's National Travel and Tourism Office (NTTO) provided official U.S. travel and tourism statistics to the private sector as well as reduce institutional barriers to tourism through interagency and multinational policy coordination. NTTO, for instance, led the completion of Year One of the National Travel and Tourism Strategy with measurable progress made through interagency Tourism Policy Council coordination. The ambitious five-year strategy prioritizes governmentwide efforts to rebuild the U.S. travel and tourism industry, which was disproportionately affected by the COVID-19 pandemic, and supports a more inclusive, equitable, accessible, and sustainable industry for the future. NTTO also carried out all responsibilities required of the

Strategic Goal 2: Foster Inclusive Capitalism and Equitable Economic Growth

Department for work associated with the Corporation for Travel Promotion (i.e., Brand USA), including approval of its FY 2023 Annual Objectives, seating of appropriate sector board members for the 2023-2026 term, processing of Brand USA's requests for $100 million in matching funds, and conveying of its Annual Report to Congress. NTTO also supported efforts to successfully advocate for China to restore the United States as an approved destination for Chinese group travel.

NTTO seated a new U.S. Travel and Tourism Advisory Board (TTAB) for the Secretary of Commerce and convened multiple TTAB meetings to solicit industry expertise on issues of relevance to the U.S. Government, specifically in support of the implementation of the National Travel and Tourism Strategy. NTTO also represented the United States in Tourism Ministerial and Tourism Working Group meetings of the Group of 20, APEC, and Organization for Economic Co-operation and Development (OECD) to advance U.S. travel and tourism policy priorities and strengthen U.S. travel and tourism competitiveness. NTTO completed the Interim Report to Congress on the Effects of the COVID-19 Pandemic on the Travel and Tourism Industry and increased data and research products available, such as new reports, report formats, and expansion of its online data visualization tools. Additionally, NTTO collaborated with the Department of State to reopen the Business Visa Travel Office to streamline assistance in getting a business visa for conferences and events.

For NIST, the Hollings Manufacturing Extension Partnership (MEP) released its FY 2022 client survey results. Notably, MEP centers achieved:

- $18.6 billion in new and retained sales.
- 113,487 new and retained jobs.
- $1.4 billion in cost savings.
- An overall 18.1:1 Return on Investment (ROI).

Additionally, NIST's Manufacturing USA also supports developing and growing the current and future workforce. The Workforce, Education and Vibrant Ecosystem program recently accepted proposals for public service awards of $11 million to be used for Manufacturing USA institutes to build vibrant and diverse manufacturing ecosystems. Manufacturing USA supports the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL) eXperience program, which offers Black, Latinx, and Indigenous students an all-expenses paid biopharmaceutical manufacturing immersion program, with the goal to diversify the school-to-industry pipeline. In Cybersecurity, the Workforce Framework for Cybersecurity (NICE Framework) was published with the aim to lower the barrier to performing cybersecurity work by describing methods to develop knowledge and skills that are necessary for organizations to perform related work.

In FY 2023, NOAA reached a historic milestone of 94.5% of key fish stocks meeting their targeted catch limits, since catch limits were applied to all stocks. This helps to reduce the chance of overfishing and ensures the long-term biological and economic sustainability if U.S. fisheries. NOAA obligated all fishery assistance funding under the Consolidated Appropriations Act of 2021. As of September 30, 2023, $181.7 million (72%) of coastal state funds and $13.7 million (91%) in Great Lakes state funds have been disbursed for a cumulative percentage of 76.6%. NOAA announced more than $106 million in recommended funding for 16 West Coast and Alaska state and tribal salmon recovery programs and projects under the Pacific

Coast Salmon Recovery Fund. The funds, including $34.4 million under the Bipartisan Infrastructure Law (BIL) and $7.5 million under the Inflation Reduction will support the recovery, conservation and resilience of Pacific salmon and steelhead in Alaska, California, Idaho, Oregon, and Washington.

NOAA also distributed $87 million in BIL and Inflation Reduction Act (IRA) funding for 23 projects selected through the Restoring Fish Passage through Barrier Removal funding opportunity, and more than $16 million in funding for 13 projects selected through the Restoring Tribal Priority Fish Passage through Barrier Removal funding opportunity. These projects will help restore access to healthy habitat for migratory fish across the country through efforts including on-the-ground fish passage restoration, engineering and design, future project development, and building the capacity of new and existing partners to design projects and manage multi-faceted restoration efforts.

NOAA had several other major achievements in FY 2023 beyond funding. This includes achievements in advancing navigation, observations, and position to support the Blue Economy. NOAA completed its 15-year effort to collect gravity data over the entire area of the U.S. states and territories, which will support construction and improved floodplain mapping, and established the 38th Physical Oceanographic Real-time System (PORTS®) system in Freeport, Texas to support safe marine transportation. Additionally, NOAA launched the Ocean-Based Climate Resilience Accelerators funding opportunity in July 2023 to fund eligible organizations develop business accelerators that provide specific programming and opportunities for small businesses and entrepreneurs aligned with identified marine-based climate resilience theme areas. The program will foster public-private partnerships to develop and support sustainable business models around ocean, coastal, and Great Lakes observation technologies, products, and services that address climate resilience needs.

BEA partnered with NOAA, ITA, and other bureaus to update several satellite accounts that help shed light on the economic contributions of place-based sectors of the economy. These accounts include:

- Marine Economy Satellite Account (MESA), a joint initiative between BEA and NOAA – Updated MESA statistics include the economic contributions of the marine economy for the year 2021, along with revised estimates for 2017-2020. These revisions ensure compatibility with BEA's updated National Accounts and bring in new source data.
- Travel and Tourism Satellite Account (TTSA), a joint initiative between BEA and ITA – Updated TTSA statistics include measures for 2021, providing important detail on the industry's first year of recovery from the COVID-19 pandemic.
- Outdoor Recreation Satellite Account (ORSA) statistics were updated through calendar year 2021. These statistics also provide important state-level details of outdoor recreation's economic contribution and are closely watched by industry and media.

BEA also updated statistics on the GDP growth of the U.S. territories, including Puerto Rico, Guam, the Commonwealth of Northern Mariana Islands, and the U.S. Virgin Islands. These statistics provide important information about the full economic performance of the United States.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	EDA	Number of Jobs created/ retained for grants made in underserved populations and geographies	—	—	—	171,718	16,361	10,014	Exceeded	14,725	14,725
Proposed new	EDA	Dollar amount of private investment leveraged from grants supporting environmentally sustainable development (in millions)	—	—	—	$493.30	$55.90	$33.37	Exceeded	$50.31	$50.31
Current/ Recurring	NOAA	Fish Stock Sustainability Index (FSSI) 3.0	—	788.5	791.0	788.5	780.5	778.5	Met	782.5	794.0
Current/ Recurring	NOAA	Number of protected species designated as threatened, endangered or depleted with stable or increasing population levels	30	28	26	24	21	24	Not Met	21	21

Strategic Conclusions and Recommendations

The Department made progress toward equitable, place-based economic development and job growth in FY 2023. This ranged from programs to help support underserved and tourism-affected communities in their recovery efforts and long-term economic development, to specific focus on growing the blue economy.

Equity remains an investment priority for EDA to help ensure that projects are better targeted to support underserved communities and populations. Much like last year, EDA continues to increase the percentage of overall funding for equity-related grants. In FY 2023, almost 55.6 percent of all EDA awards benefited underserved communities or populations. This is a testament to EDA's commitment to make equity an integral part of its mission.

The Status of the U.S. Fisheries report for 2022 was released in April 2023 and shows 93% of the stocks managed with known status are not subject to overfishing and nearly 81% are not overfished. This shows that the U.S. fishery management system is achieving its long-term sustainability goals. There are two fewer stocks subject to overfishing and three fewer that are overfished. Two additional stocks were rebuilt for a total of 49 since 2000. Ending overfishing and rebuilding stocks supported $253 billion of commercial and recreational sales and 1.7 million jobs across the broader economy in 2020.

Several bureaus collaborated in FY 2023 to produce statistics and other important data resources to ensure accuracy and detail. This kind of collaboration is appreciated and will not only enhance understanding across the Department but will assist in the implementation of efforts to advance this objective.

Actions to Advance Progress through FY 2025

Despite its advances in FY 2023, the Department remains steadfast in its commitment to support and achieve this objective by 2025.

EDA is constantly enhancing its public facing tools to help stakeholders evaluate equity funding opportunities. One of these tools is the Economic Development Capacity Index (EDCI), which gauges a community's ability to foster economic development and resilience. EDA, in collaboration with Argonne National Lab, is adding a time-series feature to the EDCI, to provide economic development practitioners with a more comprehensive view of a community's capacity over time. This will allow them to monitor the shifts and patterns in their community's economic strengths and challenges. EDA will also make investments that prioritize equity to help build the groundwork for economic development and job creation in underserved areas. EDA expects to announce Phase 1 winners and launch the Phase 2 NOFO for the Recompete Pilot Program this winter. This program has the potential to enable some remarkable progress in these communities in the long run.

To advance the blue economy, NOAA will undertake the following initiatives:

- **Fish Passage for Coastal Marine Species –** NOAA will use BIL and IRA funds for grant activities to improve fish passage for coastal marine fishes, such as salmon; these include species associated with commercial and recreational fisheries, and those listed as threatened or endangered under the Endangered Species Act. The National Marine Fisheries Service (NMFS) will fund projects that reopen migratory pathways and restore access to habitat for fish through removal of dams and in-stream barriers, helping to recover endangered fish and support American fisheries.
- **Pacific Coastal Salmon Recovery –** NOAA will use BIL and IRA funds to enhance salmon recovery through a competitive grant program for states and tribes by protecting, conserving, and restoring salmon and steelhead populations and their habitat. NMFS will fund habitat restoration and climate resilience projects that will result in measurable and lasting benefits to salmon and steelhead populations.
- **Habitat Restoration and Coastal Resilience –** NOAA will use BIL and IRA funds to strengthen the climate resilience of coastal ecosystems through transformational projects that will restore habitat for American fisheries, recover endangered species, and strengthen the resilience of coastal ecosystems and communities. NMFS will fund projects that will have a transformative impact for coastal communities and tribes across the

country. They will support efforts such as reconnecting rivers to their historic floodplains, out planting corals to rebuild reefs, building living shorelines that protect coasts from erosion and sea level rise, and build capacity of tribes and underserved communities to participate in restoration activities more fully.

- **Climate-Ready Fisheries –** NOAA will use IRA funds to enable NOAA to build a dynamic fisheries management system that incorporates climate and ecosystem environmental data to support management decisions and the resilience of communities that depend on American fisheries. NMFS will help build an operational system to provide resource managers and resource-dependent communities the information they need to prepare and respond to rapidly changing oceans. Decision Support Teams at all six NMFS Science Centers will provide decision-makers with advice on the best strategies for resilience and adaptation through regional ocean, ecosystem and fisheries projections, risk assessments, and management strategy evaluations needed for climate-informed fisheries management. Targeted research will fill critical gaps in the current understanding of climate impacts on stock productivity.
- **Tribal Priorities –** NOAA will use IRA funds to support fish hatcheries that produce Pacific Salmon and Steelhead that are important to tribes. NOAA will address deferred maintenance and repairs to hatcheries that produce Pacific salmon and steelhead in support of federally recognized tribes. NMFS will conduct a minimum of five tribal engagement sessions on hatchery funding.
- **Climate Crisis Projects –** NOAA will use BIL and IRA funds to expedite federal projects aimed at tackling the nation's climate crisis by completing Endangered Species Act and Essential Fish Habitat consultations, and incidental harassment authorizations, for federal infrastructure projects or those permitted or authorized by federal agencies.
- **Advancing Navigation, Observations, and Positioning –** NOAA will advance the modernization of the National Spatial Reference System, supporting the International Great Lakes Datum Update, expanding real-time PORTS® data accessibility for top U.S. seaports, maintaining and improving the National Water Level Observing Network (NWLON), and advancing the National Strategy for Mapping, Exploring, and Characterizing the United States Exclusive Economic Zone.

STRATEGIC OBJECTIVE 2.2 – Build sustainable, employer-driven career pathways to meet employers' need for talent and to connect Americans to quality jobs

Lead Bureau: EDA
Contributing Bureaus: All Bureaus

Key Strategies:
- Invest in employer-driven regional workforce education and training systems that lead to quality jobs
- Foster transformative employer practices to address their challenges in recruiting and developing a diverse, skilled workforce
- Produce and disseminate timely, clear data and information to help Americans discover and participate in opportunities for skills development and economic advancement

Executive Summary of Progress

The Department made progress toward advancing this strategic objective in FY 2023. This was achieved through the launch of innovative new programs and grant funding to support the objective throughout its existing program portfolio. The Department enabled practitioners to share insights and feedback through Communities of Practice and other initiatives that connected stakeholders within the workforce ecosystem to learn from each other and enhance ongoing efforts.

In FY 2023, EDA invested $86.2 million in 126 projects that support community or regional workforce training objectives focused on the needs of businesses, associated networks of regional employers, trade associations and other stakeholders in the ecosystem. These projects seek to address critical workforce needs and will enable job seekers to secure industry recognized credentials and employment in high-demand industries in their communities or regions.

These investments were spread across EDA's extensive program portfolio, one of which is the STEM Challenge which supports the implementation or scaling of STEM education and training models that are competency-based, work-and-learn, and responsive to the needs of employers in the region. The program aims to build a talent pipeline and fill immediate job openings with qualified candidates and invites eligible applicants to develop strategies that focus on critical, emerging technologies and transformative industries. In FY 2023, EDA awarded over $4.5 million in 11 grants to enhance STEM education and training programs, increased collaboration, and engagement within the innovation ecosystem, and prepared students and workers for the jobs of the future.

As part of the Good Jobs Challenge (GJC), grantees continued enrolling participants in their training programs. EDA, in partnership with the U.S. Census Bureau, conducted quarterly surveys of GJC grantees to collect participant-level information which will be linked to Census data to quantify the impact of the GJC program on the participants' outcomes.

Additionally, the Good Jobs Challenge Community of Practice (CoP), led by Jobs For the Future (JFF), supported all 32 GJC grantees to build networks, learn from peers, and share best practices for equitable economic advancement. The CoP offered coaching, events, and expert connections to help grantees succeed. One such event was a convening in Washington D.C. to discuss collaboration and developing strong workforce systems, which gave grantees access to experts, including three Cabinet members and a Fortune 500 CEO, and networking opportunities.

EDA also released new Comprehensive Economic Development Strategy (CEDS) Content Guidelines for economic development regions. The new guidelines recommend including the concepts of workforce development as well as economic resilience and equity in the development or update of individual CEDS documents.

USPTO supported governmentwide science, technology, engineering, and mathematics (STEM) efforts through national partnerships. Efforts to ensure that America's future innovators, inventors, and entrepreneurs receive an education based on STEM, and consistent exposure to STEM activities, is critical to American economic prosperity.

USPTO connected with teachers and learners to integrate invention education, innovation, and intellectual property (IP) into K-12 schools and learning environments nationally. In FY 2023, USPTO launched the Master Teacher of Invention and Intellectual Property Education Program, a first-of-its-kind, student-centered, train-the-trainer program that provides professional development and support for problem, project, case-based, and invention education. The program's mission is to foster a national network of teacher-leaders who will inspire, motivate, and empower educators to foster invention and IP education in all communities. USPTO also launched EquIP HQ, a virtual hub for invention education. This free online portal designed for K-12 educators and learners offers educational resources that expand student learning, creativity, and innovation through gaming. EquIP HQ introduces students to the world of patents, trademarks, copyrights, and trade secrets at age-appropriate levels, allowing them to discover how IP plays a vital role in daily American life.

USPTO's flagship annual, five-day professional development program for educators, the National Summer Teacher Institute (NSTI) on Innovation, STEM, and Intellectual Property, returned in person to the Saint Louis University campus in 2023. Educators from across the nation convened for this immersive professional development training aimed at equipping elementary, middle, and high school teachers with strategies and tools to integrate IP into their classroom instruction.

As part of its ongoing efforts to help local businesses to stay competitive in the international marketplace and support local jobs, ITA completed hometown tours in several cities throughout the United States. The Hometown Tours outreach series promotes client awareness of ITA's available tools to combat unfair trade, assist clients in making better-informed business decisions, and augment information about resources for U.S. industries and

workers to seek relief from unfair pricing and practices of foreign actors. In support of Executive Order 14041, ITA serves as a delegate of the White House Initiative on Historically Black Colleges and Universities (HBCUs) to foster academic excellence and pathways to opportunity for Black students. In collaboration with the Minority Business Development Agency, ITA's Global Diversity Export Initiative Director co-leads the HBCU International Clusters Committee, which has increased ITA's outreach to HBCUs.

In compliance with recommendations listed in section 4 of Executive Order 14035: Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce, USPTO hired its first-ever Diversity Officer during FY 2023. The Diversity Officer plans, develops, coordinates, and evaluates initiatives designed to promote and expand diversity, equity, inclusion, and accessibility (DEIA) in employment, pay, benefits, and services in USPTO workplace. USPTO is working to establish DEIA Advisors and Ambassadors Council, which will work with leadership to foster DEIA through community-building, training, awareness-raising, and processes and practices that support fair and equal access to career growth and advancement opportunities. The goal is for every member of USPTO workforce to have equal opportunity to thrive and advance professionally.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	MBDA	Number of jobs by MBE clients	—	—	11,011	28,829	18,975	9,702	Exceeded	13,181	13,181
Proposed new	EDA	Number of jobs created and retained for grants made to communities and regions to support workforce development	—	—	—	85,264	11,099	10,785	Exceeded	9,989	9,989
Proposed new	EDA	Dollar amount of Private investments leveraged for grants made to communities and regions to support workforce development (in millions)	—	—	—	$4,703.44	$245.87	$141.36	Exceeded	$221.29	$221.29

Strategic Conclusions and Recommendations

The Department made progress toward advancing this strategic objective in FY 2023. This was achieved through the launch of innovative new programs, like USPTO's Master Teacher of Invention and Intellectual Property Education Program and grant funding for projects supporting the objective throughout its existing program portfolio. The Department also enabled practitioners to share insights and feedback such as EDA's Communities of Practice and other initiatives that connected stakeholders within the workforce ecosystem to learn from each other and enhance ongoing efforts. The Department will improve the workforce ecosystem, build a skilled workforce, support job creation, and foster long-term economic development.

Actions to Advance Progress through FY 2025

The Department has several ongoing initiatives to support Strategic Objective through FY 2025.

EDA will monitor the implementation and impacts of the Good Jobs Challenge on the participants' skills and earnings. EDA will also track its research projects, including the one with Research Improving People's Lives (RIPL) to develop and implement Return-on-Investment (ROI) metrics that will help a broad range of stakeholders, including policymakers, assess the Good Jobs Challenge on equity outcomes. EDA is dedicated to making progress toward this objective and will make grants that support the workforce ecosystem.

USPTO will further support STEM efforts throughout America. Additionally, USPTO will collaborate with K-12 educators and schools, universities, and other organizations to educate American youth about the importance of IP protection.

STRATEGIC OBJECTIVE 2.3 – Advance entrepreneurship and high-growth small and medium-sized enterprises

Lead Bureau: EDA
Contributing Bureaus: Census, ITA, MBDA, NIST, USPTO

Key Strategies:
- Provide support to entrepreneurs to help businesses form and grow
- Promote inclusive entrepreneurial ecosystems by addressing barriers to entry that prevent the participation of historically underrepresented communities
- Enable access to data and evidence to spur entrepreneurship

Executive Summary of Progress

The Department made progress in advancing this Strategic Objective by providing grant funding, technical assistance, resources, and initiatives to entrepreneurship and innovation in an inclusive and sustainable manner.

In FY 2023, EDA invested over $62.5 million in 151 projects to support entrepreneurs and high-growth Small and Midsize Enterprises (SMEs). These investments covered programming across EDA's extensive portfolio including:

- The Build to Scale program, which aims to foster diverse and inclusive innovation ecosystems, awarded $53 million to 60 organizations, including nonprofits, universities, local government agencies, and others, for programs that support technology entrepreneurs, catalyze innovation, and fuel economic growth. These investments will leverage an additional $55 million in matching funds.
- The STEM Talent Challenge program, which seeks to build STEM talent training systems to strengthen regional innovation economies, awarded over $4.5 million in 11 grants to applicants that demonstrated how the program will develop or expand regional STEM workforce capacity to support entrepreneurial ventures, industries of the future, and other innovation-driven businesses.
- The Revolving Loan Fund program awarded close to $4 million in gap financing to businesses, typically from underserved communities and populations that cannot access capital through traditional lenders.
- EDA also made additional investments across its portfolio that align with its equity and technology based economic development priorities to promote inclusive entrepreneurial ecosystems.

EDA fostered collaboration among practitioners and other stakeholders in the ecosystem. In FY 2023, EDA announced the Technology-Based Economic Development (TBED) Community of Practice (CoP) to connect grantees working in risk capital, technology development, and entrepreneurship. The CoP is led by State Science and Technology Institute (SSTI) in partnership with the Association of University Research Parks (AURP) and includes subcommunities of practice that focus on specific strategies within the field. SSTI also supports the CoP through tools such as the Key Technology Area Investment Data Tool, that shows investment activity by state and selected metrics across 18 technology areas. EDA also managed the National Advisory Council on Innovation and Entrepreneurship (NACIE) of over 30 members and hosted five meetings in FY 2023. NACIE is responsible for developing a national strategy to strengthen the United States' ability to compete and succeed as the world's leading nation in startups and innovation in critical emerging technologies.

In addition to EDA's efforts, USPTO conducted numerous activities throughout FY 2023 to support and empower underrepresented independent inventors, entrepreneurs, and small businesses in underserved communities. Programs included the Women's Entrepreneurship (WE) initiative with its Women's Entrepreneurship Symposium event series; the Council for Inclusive Innovation (CI^2) with intellectual property leaders in corporate, academic, professional, and government organizations; and USPTO's innovator events for everyone. More than 2,000 attendees heard from diverse, successful innovators who shared how they used their IP to reach their full potential (e.g., starting or growing a business or achieving commercialization of their product or service). Audiences also gained access to resources from USPTO, other government agencies, and national organizations that serve underrepresented communities. In FY 2023, USPTO and the Intellectual Property Owners Association (IPO) launched the Women Entrepreneurs MENTEE Pilot Program, a collaborative effort bringing together mentors and mentees to encourage community-building and empowerment of women inventors and entrepreneurs. This program provides participants an opportunity to connect with those in the IPO, an international trade association made up of diverse companies, law firms, service providers, and individuals in all industries and technology fields who own or are interested in intellectual property (IP) rights.

USPTO established its entrepreneurship resources for the military community initiative to empower more veterans, military spouses, and service members to participate in the innovation ecosystem and support their entrepreneurial pursuits. USPTO, in partnership with the Small Business Administration (SBA) and other entrepreneurial support organizations, conducted road shows at eight military bases, delivering startup resources to nearly 500 individuals from four service branches. USPTO also worked with the SBA to revamp IP modules in the SBA's Boots to Business curriculum, enhancing IP education for transitioning service members and military spouses.

Other outreach programs offered regularly throughout the year included one-day patents and trademarks boot camps, which provide comprehensive IP information to pro se filers (customers filing applications without the assistance of counsel) and underrepresented communities.

USPTO receives approximately 40,000 patent applications per year with at least one inventor who is a first-time filer. For the smaller subset of first-time micro entity filers, including those in historically underserved geographic and economic areas, wait times for the patent application process may act as a barrier. Under the CI², USPTO created a pilot program that provides expedited examination to applicants in underserved populations. Specifically, the First-Time Filer Expedited Examination Pilot Program strives to increase accessibility for inventors who are new to the patent application process. This

program expedites the first office action for pilot participants, which increases the possibility of receiving an early indication of patentability and allows inventors to make business decisions earlier in the patent process. Throughout FY 2023, the CI² worked to increase participation in the innovation ecosystem, with a focus on reaching communities that are typically underrepresented.

USPTO is committed to connecting under resourced inventors and entrepreneurs to legal assistance through a variety of programs, which are featured on a dedicated website that highlights resources and programs by state or regional office. These resources and programs include the Patent Pro Bono program, no-cost Patent Trial and Appeal Board and Trademark Trial and Appeal Board services, and law school clinics that offer free legal assistance.

The Patent Pro Bono Program is one of USPTO's primary tools to provide access to the innovation ecosystem. The program's network of regional programs matches volunteer patent professionals with financially under-resourced inventors and small businesses. These patent practitioners prepare and file more than 220 patent applications annually, reaching communities with historically low patent participation rates. The work of the program's professionals is critical to ensuring equity and economic growth in traditionally underserved communities. The Patent Pro Bono Program also offers pathways events for current and aspiring inventors and entrepreneurs. At these events, which are conducted both in person and virtually, USPTO connects participants with information and resources regarding IP protection, funding options, and inventor networks. The agency conducts pathways events in coordination with the Pro Bono Advisory Council and the SBA. In addition to the services provided by the Patent Pro Bono Program, both the PTAB and TTAB coordinate no-cost legal assistance for qualifying inventors and entrepreneurs with proceedings before their respective jurisdictions.

USPTO is increasing access to free legal services by expanding its Law School Clinic Certification Program to more law schools. USPTO welcomed two new law schools in FY 2023, and the program now includes 60 participating law school clinics. The program provides free services to patent and trademark applicants, including help with filing applications and registering trademarks. The program's benefits are twofold; in addition to assisting inventors and entrepreneurs, it also allows the next generation of lawyers to gain hands-on experience in patent and trademark registration. The program's expansion allows more Americans, including those from underrepresented communities to better access legal services — both today and tomorrow.

For NIST, the Hollings Manufacturing Extension Partnership (MEP) awarded $400,000 each to all 51 MEP Centers, one in each state and Puerto Rico, to build the domestic supply chain. The aim of this funding is to help establish a national Supply Chain Optimization and Intelligence Network (SCOIN), a databased focused on filling gaps found in the supply chain by connecting manufacturers and providing a comprehensive map of the U.S. supply chain. Additionally, the Manufacturing USA Workforce, Education and Vibrant Ecosystems program recently accepted proposals for public service awards of $11 million, with an announcement of awards forthcoming. This funding is intended to be used for Manufacturing USA institutes to build vibrant and diverse manufacturing ecosystems.

ITA provided export solutions to support SMEs—including minority-owned and historically disadvantaged businesses—to overcome the challenges associated with exporting and attracting inward investment and saw 85% of its FY 2023 export client base represented by SMEs. One way ITA supported SMEs is through its Building Bridge to Global Markets program, which focuses on SMEs from underserved business communities and delivers no-cost, in-person exporting expertise. The 12 Building Bridges events held in FY 2023 directly supported over 500 U.S. companies to better understand the impact

of exporting and the valuable resources available through ITA and other federal agencies. To further demonstrate its commitment to expanding access to services and export assistance for SMEs from underrepresented communities, ITA moved its Commercial Service office in Raleigh, North Carolina, to Shaw University, the oldest historically Black college in the South.

As part of its Trade Winds program, which helps companies achieve growth and exposure in targeted markets across the globe, ITA likewise launched the EMPOWER Asia initiative to support women's economic empowerment in the United States and the Asia-Pacific region. ITA also signed a Memorandum of Agreement with the National Center for American Indian Enterprise Development to encourage foreign direct investment in Indian Country, help Native Americans export to international markets, and ensure intellectual property protection for Native American artists and businesses. Additionally, ITA's Rural Export Center launched its public Export Management Company Directory, which provides a listing of vetted and experienced U.S. companies ready to help SMEs to expand into international markets. Furthermore, ITA's Market Development Cooperator Program (MDCP) continues to partner with nonprofit industry groups, which are effective in reaching SMEs. These groups compete for MDCP awards by proposing innovative projects that address trade barriers, enhance industry competitiveness, and generate exports. On average, MDCP projects generate over $286 in exports for every federal dollar invested.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	EDA	Total sum of funding secured by entrepreneurs as a result of activities sponsored by EDA investments	—	—	—	$72.65	$69.57	$65.39	Exceeded	$62.63	$62.63
Proposed new	MBDA	MBEs Reached	—	—	—	442,020	351,438	252,605	Exceeded	292,487	292,487
Proposed new	NIST	Growth in workforce services provided to small to midsized U.S. manufacturers	—	—	—	2,400	3,119	2,472	Exceeded	2,974	3,004

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	NIST	Growth in technology services provided to small to midsized U.S. manufacturers	—	—	—	1,600	1,492	1,648	Met	1,582	1,598
Current/ Recurring	MBDA	Number of MBE clients served	—	—	4,031	4,994	2,044	4,640	Not Met	11,756	11,756
Current/ Recurring	EDA	Dollar amount of economic development grants made to communities and regions to help build the capacity to support the innovation-related activities and needs of businesses	$178.20	$166.34	$258.14	$1,337.70	$35.93	$136.11	Not Met	$122.50	$122.50
Proposed new	EDA	Percentage of EDA awards that support entrepreneurship in underserved communities and regions	—	—	—	47.07%	23.40%	42.00%	Not Met	37.80%	33.00%

Strategic Conclusions and Recommendations

The Department made progress toward achieving this objective in FY 2023. EDA enhanced access to capital and knowledge for entrepreneurs through grants, Communities of Practice, and research initiatives. USPTO and ITA launched several initiatives that emphasized their commitment to equity and providing data resources for practitioners and other stakeholders. NIST engaged in efforts, including grant funding, to strengthen the supply chain and diversify the manufacturing ecosystem.

Most of the Department's initiatives are ongoing and have great potential for future outcomes that will advance entrepreneurship and inclusivity.

Actions to Advance Progress through FY 2025

EDA launched the Tech Hubs program in FY 2023 to strengthen U.S. economic and national security by boosting regional innovation and job creation. These Tech Hubs will use existing innovation assets to build the workforce of the future, enable businesses to start and scale, and deploy and deliver critical and emerging technologies. EDA will also further its research initiatives and subject matter gatherings to explore and implement recommendations for advancing entrepreneurship.

STRATEGIC OBJECTIVE 2.4 – Expand affordable, high-quality broadband to every American

Lead Bureau: NTIA
Contributing Bureaus: Census, EDA

Key Strategies:
- Invest Federal funds to support equitable deployment, access, and adoption of broadband
- Accelerate broadband expansion through the alignment, coordination, tracking, and measurement of cross-Federal Government broadband programs
- Create and retain high-quality jobs to support broadband infrastructure deployment and utilization
- Maintain, operate, and improve the Nationwide Public Safety Broadband Network and advance first responder communications solutions

Executive Summary of Progress

In FY 2023, NTIA's Office of Internet Connectivity and Growth (OICG) administered six programs that obligated over $2 billion to invest Federal funds to expand affordable, high-quality broadband to every American.

- **Tribal Broadband Connectivity Program (TBCP):** TBCP obligated approximately $1.01 billion in FY 2023 (building off the $755.7 million awarded in FY22) bringing the total to 226 awarded projects that when completed, will provide 165,000 Tribal households with reliable and affordable access to broadband service. TBCP launched a second NOFO on July 27, 2023, to award the remaining funds, with applications due by January 23, 2024.
- **Broadband Infrastructure Program (BIP):** Projects awarded under this program will work to expand Internet access to areas without service, especially to rural areas. All funds are awarded ($282.7 million in FY 2022) for this program, and it is now in the post-award phase.
- **Connecting Minorities Communities (CMC) Pilot Program:** CMC awarded $241.8 million in FY 2023 (building on the $30 million in 11 awards made in FY 2022) to 83 grantees representing Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), and Minority-Serving Institutions. These projects will support the purchase of broadband internet access service and related equipment to support digital equity and broadband adoption. All funds are awarded to the 93 grantees and it is now in the post-award phase.
- **Broadband Equity, Access, and Deployment (BEAD) Program:** The BEAD program awarded $244,424,370.46 in initial planning funds for 53 states and territories to expand infrastructure deployment and adoption programs in FY 2023. As of December 2023, all 56 States and Territories have initial planning funds to develop broadband plans and BEAD Initial Proposals. On June 26, the program announced an allocation of $41.6 billion to the 56 states and territories. Subsequently, States and Territories were invited to submit their Initial Proposals to NTIA by December 27, 2023.

- **Digital Equity Planning Grant (DE):** The DE planning grant program awarded just over $40 million to 40 states and territories to develop digital equity plans, building upon the 12 awards made in FY 2022. All funds are awarded to the 56 grantees for this program, and it is now in the post-award phase.
- **Enabling Middle Mile (MM) Grant Program:** The MM grant program awarded $979.9 million to 39 grantees to support the construction, improvement, or acquisition of middle mile infrastructure to support last mile broadband infrastructure.

OICG's Interagency Coordination's function is to accelerate broadband expansion through the alignment, coordination, tracking, and measurement of cross-Federal Government broadband programs. In FY 2023, OICG's Interagency Coordination made strides to this objective these actions:

- Promoted collaboration with interagency colleagues to align on common policies and practices, reduce duplication, and fulfill statutory coordination activities: 1) NTIA facilitated regular meetings with USDA, Treasury, and the Federal Communications Commission (FCC) under the auspices of the Broadband Interagency Coordination Agreement (BICA) and an additional interagency Memorandum of Understanding signed with Treasury in 2022. In FY 2023, 22 standing interagency meetings were held; 2) NTIA led the development of deduplication principles, recommended policies, and a standard high-level process across Federally funded broadband projects; NTIA co-hosted 22 American Broadband Initiative (ABI) Federal Funding Workstream meetings which brought together Federal agencies with broadband initiatives to share and learn about the work being done on broadband across the Federal Government.
- Expanded public awareness of federal funding sources, the U.S. Government investments in broadband, and the economic impact of those investments: 1) NTIA conducted the annual update of Broadband USA's Federal Funding Website, a one-stop site for broadband funding resources, which incorporated data from 81 programs across 13 federal agencies; 2) NTIA published the second annual Federal Broadband Funding Report and Dashboard, developed in coordination with 12 federal agencies comprising 96 total programs. The report highlights investments in federal broadband support programs and Universal Service Fund (USF) programs. The report was developed in coordination with 12 federal agencies comprising 96 total programs and summarizes the federal broadband investment landscape. It also provides a framework for the analysis of economic impact; 3) NTIA partnered with the Census Bureau to develop the ACCESS BROADBAND Dashboard, which includes a series of maps showing different broadband access and adoption measures as well as local and regional economic outcomes that research suggests could be influenced by expanding access to broadband.

NTIA's funding of nearly $3.7 billion in broadband deployment, adoption/use, and planning funds through FY 2022 and FY 2023 is beginning to yield direct job creation and retainment as projects are implemented:

- Through the BIP and CMC grant funded projects, 74 jobs have been created or retained.
- Further, in preparation for the investment in broadband infrastructure deployment through the BEAD program, NTIA provided Technical Assistance to States and Territories to support their awareness and promotion of workforce development programs in their respective State/Territory to support the future implementation of BEAD projects.
- Through FY 2023, NTIA developed eight Technical Assistance materials for States, Territories, and other stakeholders.

- NTIA developed individual State and Territory Workforce profiles to highlight potential shortages in specific job areas needed for broadband deployment so States and Territories could invest in workforce development programs to ensure they had the workforce needed to deploy the BEAD funded projects, as well as other broadband projects.
- NTIA highlighted the need to onshore key broadband equipment and infrastructure components to support the Administration's Build America Buy America (BABA) requirements. In FY 2023, four large broadband equipment manufacturers announced plans to develop facilities in the U.S. to manufacture broadband equipment—supporting both meeting BABA commitments but also bringing jobs to the U.S. to facilitate both broadband and economic development.

The FirstNet Authority made strides to enhance public safety communications across the United States. Throughout the year, the Authority diligently oversaw the Nationwide Public Safety Broadband Network (NPSBN) under its 25-year contract with AT&T, ensuring the network's deployment, expansion, and evolution. Notably, the FirstNet network buildout and Band 14 spectrum deployment progress is on schedule, achieving more than 99% of the nationwide coverage targets outlined in the AT&T contract. This expansive coverage now extends across over 2.91 million square miles, including urban, suburban, rural, and tribal lands, pending independent confirmation and evaluation by the FirstNet Authority following the Final Operational Capability milestone on March 30, 2023.

Furthermore, the network continued to serve as a critical resource for the nation's first responders and public safety personnel, providing them with prioritized, mission-critical connectivity. The range of devices and applications compatible with the FirstNet Network also expanded, enhancing support for public safety operations and responses.

Engagement with public safety stakeholders remained a cornerstone of the FirstNet Authority's activities, guiding network operations, enhancements, and innovations. This robust interaction ensured that the network's evolution aligned closely with the changing public safety needs. Additionally, the FirstNet Authority remains focused on identifying and developing new areas for reinvestment, aiming to further advance and expand the network's capabilities to meet the evolving broadband needs of public safety services. This commitment to growth and innovation was reflected in the expanding public safety adoption of FirstNet, with approximately 650,000 new device connections and over 2,800 new public safety agencies subscribing to the network during the fiscal year.

Strategic Goal 2: Foster Inclusive Capitalism and Equitable Economic Growth

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NTIA	Percentage of Federal frequency assignments in AWS-3 bands that have vacated or shared spectrum, according to approved transitions plans	—	89%	90%	100%	100%	90%	Exceeded	90%	90%
Current/ Recurring	NTIA	Percentage of public safety adoption targets achieved	—	69%	87%	100%	100%	100%	Met	100%	100%
Current/ Recurring	NTIA	Total amount of NTIA grant funds obligated for broadband-related programs	—	—	—	$1.70 B	$2.02 B	$4.30 B	Not Met	$36.30 B	$36.30 B

Strategic Conclusions and Recommendations

NTIA and FirstNet made progress in delivering on the strategy to ensure all Americans have universal access to broadband and supporting broader economic growth through jobs created and retained. For NTIA, many of the key outputs will be realized in FY 2024 and onward as NTIA plans to obligate more than $40 billion in grant funds in FY 2024 to fund thousands of broadband infrastructure projects and $2 billion to fund digital equity projects to support broadband adoption and use in FY 2024 to FY 2026.

Actions to Advance Progress through FY 2025

NTIA's primary focus through FY 2025 is to administer the Infrastructure Investments and Job Act programs. NTIA plans to obligate more than $40 billion in grant awards in the coming years which are critical to ensure that all Americans have access to high-speed, reliable, and affordable Internet services by 2030. NTIA will actively administer pre-award activities for its Digital Equity programs and provide active monitoring and oversight. Concurrently NTIA

will provide technical assistance to all awarded grantees, including awards made in BIP, CMC, TBCP, BEAD, Middle Mile, and prior Digital Equity awards to promote program and project success and guard against waste, fraud, and abuse.

NTIA's ability to fully achieve this objective will be impacted by the recission of grants administration funds for its Consolidated Appropriations Act (CAA) programs, which was enacted under the Fiscal Responsibility Act of 2023. Additionally, administrative and oversight budget constraints throughout the lifecycle of most of NTIA's grant programs pose a challenge. To mitigate this concern, NTIA is coordinating its administrative budget needs and is prioritizing statutory requirements, including the ACCESS Broadband Act, BICA, administration of the Office of Minority Broadband Initiatives (OMBI), and maintaining its data and mapping expertise. Increased administrative and grant funding flexibility, especially for its Middle Mile, Tribal Broadband Connectivity, and Digital Equity programs, is critical to support universal broadband and effectively oversee these programs.

FirstNet Authority remains committed to the maintenance and enhancement of the NPSBN. Having completed the initial buildout of the FirstNet network in 2023, the authority is currently working to finalize its verification and validation review. Looking ahead, the FirstNet Authority will uphold vigorous contract oversight to ensure that AT&T delivers on the NPSBN. The FirstNet program is actively advancing investments for the enhancement and technological evolution of the network and will focus on improvements in areas such as coverage and resilience. FirstNet Authority's planning is guided by robust investment process that incorporates public safety's operational needs, while aligning with the Act, FirstNet Authority Roadmap, strategic plan, and Board oversight. The FirstNet Authority will engage with and educate the public safety community to ensure the public safety community realizes and integrates the NSBPN's current and future improvements and innovative capabilities into their operations.

STRATEGIC OBJECTIVE 3.1 – Increase the impact of climate data and services for decisionmakers through enhanced service delivery and improved weather, water, and climate forecasts

Lead Bureau: NOAA

Key Strategies:
- Transform ocean, weather, water, and climate information dissemination and service delivery to better and more equitably serve decisionmakers and meet evolving societal needs
- Increase and strengthen partnerships across government, industry, academic, and nonprofit organizations to improve NOAA's suite of climate data and services in response to increasing demand for support services
- Enhance predictive forecasts for extreme, high-impact ocean, weather, water, and climate events
- Enhance observational infrastructure

Executive Summary of Progress

In FY 2023, NOAA made progress in building a Climate Ready Nation by increasing the impact of climate data and services for decision makers. NOAA contributed to the Fifth National Climate Assessment. This underscores NOAA's critical role in the realms of observing, predicting, and collaborating efforts with communities to build resilience against the impacts of climate change. Moreover, NOAA scientists authored 20 of the 32 chapters, including pivotal chapters addressing oceans, coasts, climate trends, Earth system processes, water, adaptation, mitigation, and new chapters addressing social systems and justice, as well as economics. Additionally, NOAA made progress in the following areas:

NWSChat 2.0 Implemented Utilizing Slack: NOAA implemented NWSChat 2.0 using the modern cloud based SLACK platform as a commercial-off-the-shelf (COTS) solution, transforming the way the NWS communicates both internally and with core stakeholders and partners for IDSS when significant weather threatens. NWS onboarded 20,000 partners without service disruption and in time for the 2023 Hurricane Season.

Language Translation Pilot Programs: NOAA completed an adaptive, AI powered Spanish language translation pilot in Weather Forecast Office (WFO) San Juan, Puerto Rico, which will reduce the translation burden by reducing human work time from 45 minutes to only 5-10 minutes in time for the 2023 hurricane season. NOAA also initiated a simplified Chinese language translation pilot in WFO Upton, NY, an office serving a population that includes 2 million limited English proficiency individuals.

NOAA Introduces New Models to Enhance Hurricane Forecasts: The National Hurricane Center and the Environmental Modeling Center introduced the Hurricane Analysis and Forecast System, the first model in the community model concept. This new model will provide improvements to track storm size and intensity forecasts, especially in circumstances of rapid intensification, allowing improved impact-based decision support services (IDSS) to be provided ahead of landfalling tropical cyclones. In addition, recent storm surge model upgrades offer improvements to inundation mapping for decision makers.

Climate Science and Community Resilience: NOAA supported substantial advancements in climate science and community resilience. NOAA's Climate Program Office awarded over $15 million in October 2022 for projects to advance the understanding of wildfire pollutants, assess the fiscal aspects of and capacity for adaptation in rural communities, improve modeling of atmospheric aerosols and refine the understanding of these aerosols' role in potential climate intervention, support the management of National Marine Sanctuaries and Marine National Monuments through better understanding of climate variability, and change in the sanctuary system, and strengthen the understanding and management of drought's impact on ecosystems.

Heat.gov: NOAA in collaboration with other National Integrated Heat Health Information System (NIHHIS) partners launched Heat.gov in August 2022, and saw it grow to become a widely used resource in FY 2023. Since its launch, the website has had over half a million visitors. The website was established to serve as the premier source of heat and health information for the nation to reduce the health, economic, and infrastructural impacts of extreme heat.

Short Range Fire Weather Research: NOAA used BIL to successfully generate, test, and deliver two non-standard low-resolution grids. This is the first step in creating high-resolution modeling improvements and data assimilation activities to improve urban scale forecasts of smoke, fire weather, and fire behavior impacts for at-risk communities directly adjacent to forest lands. This research will also provide advanced fire weather (i.e., winds, precipitation, temperatures, lightning) and fire behavior forecasts for daytime and nighttime fire operations.

Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT)Fully Implemented: NOAA fully implemented a new version of the HYSPLIT, a back trajectory analysis to determine the origin of a large volume of air in the atmosphere that is mostly uniform in temperature and moisture. It is a complete system for computing simple air parcel trajectories, as well as complex transport, dispersion, chemical transformation, and deposition simulations. It is used for tracking hazardous and toxic emissions from industrial, transportation, accidents, smoke from wildfires and prescribed fires, ash from volcanic eruptions, and dust from dust storms. Among other new capabilities, the new version has expanded and enhanced capability for volcanic ash modeling.

Regional Climate Services: NOAA's Regional Climate Services (RCS), including the Regional Climate Centers, worked with local, state, and regional partners to deliver place-based climate information, products, and services to help people make informed decisions. In FY 2023, NOAA regionally engaged with 13 economic sectors through the RCS program, exceeding its annual target of 9 sectors and ensuring that user needs were understood and prioritized. These efforts increase the value of climate information to users and support more efficient, cost-effective delivery of products and services relevant to region-specific economic activity, hazards, and vulnerability.

Ensuring Continuity of Environmental Data from Satellites: NOAA successfully launched the JPSS-2 satellite on November 10, 2022, from the Vandenberg Space Force Base in California. JPSS-2, which was renamed NOAA-21 once in orbit, is part of the Joint Polar Satellite System and is the third of five satellites in NOAA's latest generation of polar-orbiting satellites that allow for continuous global observations for short- and long-term weather forecasts, extreme weather events, and monitoring of climate change. The GOES-18 satellite went into operational service as NOAA's GOES West satellite on January 4, 2023. In its new role, GOES-18 serves as NOAA's primary geostationary satellite to detect and monitor Pacific hurricanes, atmospheric rivers, coastal fog, wildfires, volcanic eruptions, and other environmental phenomena that affect the western contiguous United States, Alaska, Hawaii, Mexico, and Central America.

Environmental Literacy Program: NOAA's Environmental Literacy Program funded six projects that will use education to build the foundation for resilience to extreme weather and climate change in their communities. Together, these projects will receive a total of $2.9 million to empower people to protect themselves and their communities from local climate impacts. More than ever before, the newest cohort of grant recipients represents organizations that are directly serving the most underserved and vulnerable communities. The grantees will use environmental justice approaches to create resilience in frontline communities, such as work with faith-based communities to create climate resilience leaders and create solar installation work-based learning opportunities in public schools.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NOAA	Customer satisfaction with National Weather Service (NWS) services, as measured by the American Customer Satisfaction Index (%)	86	86	81	82	82	81	Exceeded	82	82
Current/ Recurring	NOAA	Number of economic sectors regionally engaged by the Regional Climate Services (RCS) program with sectoral needs documented and prioritized	—	—	—	—	13	9	Exceeded	9	9

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NOAA	Number of StormReady communities serving socially vulnerable populations and U.S. businesses	—	—	—	390	402	395	Exceeded	407	412
Current/ Recurring	NOAA	Number of Weather-Ready Nation Ambassadors serving socially vulnerable populations and U.S. businesses	—	—	—	7,157	7,330	7,207	Exceeded	7,380	7,430
Current/ Recurring	NOAA	Number of OAR R&D products transitioned to a new stage(s) (development, demonstration, or application)	65	104	85	125	110	74	Exceeded	97	97

Strategic Conclusions and Recommendations

NOAA made strong progress toward achieving Strategic Objective 3.1. NOAA will use funds from BIL, Inflation Reduction Act (IRA) supplementals, and annual appropriations to invest in services to support communities, such as enhancement of Heat.gov, establishment of NIHHIS Centers of Excellence, EPIC. phased array radar, flood inundation mapping, and TAO & DART buoys.

NOAA is aware of OIG's Top Management and Performance Challenge Enhancing weather, water, and climate services. NOAA is taking actions to address this challenge. Some actions are to launch and develop new satellites, invest in, and plan for the next generation of satellites, build new ships and aircrafts, ensure sound future infrastructures are in place for weather radar and information dissemination efforts, and address staffing needs. More details are listed in the Management Challenges section of this document.

Actions to Advance Progress through FY 2025

Expand Flood Inundation Mapping to 30% of U.S. Population: The high spatial and temporal resolution capabilities of the National Water Model (NWM) coupled with high resolution hydrography datasets allows NOAA to provide near real-time freshwater flood inundation mapping (FIM) capabilities at neighborhood-level in a consistent and timely way. This effort builds upon the successful implementation of FIM for 10% of the U.S. population in FY 2023.

Operationally Implement Modernized Drought Information Statement: The Drought Information Statement (DGT) is a critical, impact-based product that synthesizes local drought conditions, impacts, and outlook to improve decision making processes by local drought stakeholders. NOAA initiated experimental delivery of modernized DGT in FY 2023 and plans to operationally implement DGT in FY 2024.

Advanced Weather Interactive Processing System (AWIPS) in the Cloud: NOAA will work to transform the AWIPS and the underlying infrastructure into a modern, extensible framework by utilizing cloud-based technologies. This transformation will allow for a more mobile friendly AWIPS, which will allow all our meteorologist, including incident Meteorologist providing on-site weather support at wildfires and all-hazard incidents, as well as Center Weather Service Units serving Air Traffic Control Centers, to be more nimble, mobile, and flexible in providing exemplary impact-based decision support services to all partners and the public.

Implementing Next-Generation Satellite System Architecture: NOAA will continue the development of the Geostationary Extended Observations (GeoXO) satellite instruments and plans to complete Key Decision Point-B, Preliminary Design Review, and Key Decision Point-C milestones in FY 2025. NOAA will also continue to design its Near-Earth Orbit Network (NEON) satellite missions and execute a comprehensive Space Weather Next program plan.

Enhancing Regional and Community Resilience: NOAA will fund grants, using BIL, to external communities to conduct fire weather-related research in short range weather, decision support services, air quality, and sub seasonal and seasonal forecast innovation. This will also include the establishment of the Earth Prediction Innovation Center (EPIC) portal. EPIC will provide cloud computing for fire weather model systems and provide community support, testing, and repository management support.

Phased Array Radar Research and Development Follow-On Plan: NOAA, using funding from the IRA and annual appropriations, will acquire and demonstrate a proof-of-concept Phased Array Radar (PAR) Test Article. The Test Article will be an S-Band single face rotating PAR weather surveillance radar which has the potential to allow for rapid scans, improved tracking of severe storms, and improved reliability.

Water in the West: NOAA will fund research to operations in hydrology for the Water in the West Initiative. The research includes the modeling of snow and hydrologic processes (i.e., sublimation, melting, refreezing, redistribution) in complex, mountainous terrain; hydroclimate prediction services to strengthen co-management of atmospheric river and drought risk; and research-to-applications that work to accelerate co-production and application of hydroclimate products and services. In many western states in the United States, snow melt accounts for a large percentage of the spring runoff that serves as water supply to reservoirs, urban populations, and agricultural activities.

STRATEGIC OBJECTIVE 3.2 – Strengthen coastal resilience and advance conservation and restoration of lands and waters for current and future generations

Lead Bureau: NOAA
Contributing Bureaus: EDA

Key Strategies:
- Use data tools and public investments to improve coastal resilience
- Protect and restore coastal wetlands and coral reefs to sequester carbon, buffer storms and flooding, and foster biodiversity

Executive Summary of Progress

Funding from the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) accelerated progress on advancing coastal resilience and conservation and restoration of lands and waters. The National Ocean Service (NOS) allocated nearly $141 million toward 51 competitive projects in 27 states and territories, addressing challenges including coastal resilience, restoration, marine debris, and tribal priorities. NOS also invested $22.6 million into state-managed Coastal Zone Management programs and National Estuarine Research Reserves (NERRs), as well as approximately $285 million to the National Fish and Wildlife Foundation to support the development and implementation of sustainable designs, plans, and practices that integrate natural features to promote adaptation and resilience to storms, floods, and other coastal hazards. NOS also has active competitive funding opportunities funded by IRA and the second year of BIL. These include the $575 million Climate Resilience Regional Challenge and the $60 million Ocean-Based Climate Resilience Accelerators program. In FY 2023, NOAA saw early results from these investments. In Ohio and Virginia, a combined total of almost 1,000 acres was acquired for restoration and conservation, and Virginia worked to restore the role of environmental stewards to the indigenous tribes of the land.

NOAA achieved success in addressing the challenges of marine debris. In the first half of FY 2023, NOS base-funded projects removed approximately 155 tons of marine debris, in addition to achieving prevention efforts. This work was augmented by BIL funding. Over the course of 2022 and 2023, NOS provided approximately $67 million in BIL funding for projects to remove large and damaging marine debris and prevent it reaccumulating in the

environment. Additionally, in 2023, Oceanic and Atmospheric Research (OAR) spent $19 million in BIL funding toward its marine debris program to investigate and prevent adverse impacts of marine debris.

In support of the America the Beautiful Initiative, NOAA initiated or advanced designation and expansion processes to consider protecting approximately 1.36 million square miles in National Marine Sanctuaries or NERRs, including potential designation of six proposed new sanctuaries and three proposed new NERRs. NOAA is working to manage natural and cultural resources in existing sanctuaries and reserves. When water temperatures suddenly spiked in Florida Keys National Marine Sanctuary, leading to coral bleaching, disease, and death, NOAA managers successfully organized an effort to collect specimens of all known living elkhorn and staghorn coral for land-based living gene banks.

NOAA also produced an array of new or enhanced coastal resilience products. The new Monthly High Tide Flooding Outlook provides the daily likelihood of high tide flooding nationwide in an interactive format. Additionally, NOAA improved the accessibility of its Annual High Tide Flooding Outlook. For novice coastal practitioners, NOAA developed a new coastal adaptation guide to help coastal communities better understand ways to adapt to coastal changes.

NOAA made huge strides in advancing its 'Omics research (the research of identifying, describing, and quantifying the biomolecules and molecular processes that contribute to the form and function of cells and tissues) by launching an 'Omics informational site. This data will bolster the blue economy. NOAA also advanced understanding of ocean acidification by publishing a landmark paper, which provides important information on how ocean acidification affects fisheries management, especially shellfish. Additionally, NOAA gained more understanding of marine heat waves from a study that showed how deep sea heat waves tend to last longer than surface heat waves. Drastic marine heat waves have devastating effects on the health of the ocean ecosystem by disrupting the behavior and productivity of ocean inhabitants.

NOAA released the new NOAA Citizen Science Action Plan, which details how NOAA will advance public participation in NOAA's mission. NOAA's core considerations for its projects and services are collaboration, inclusiveness, and data quality. Citizen Science will help NOAA fill data gaps that contribute to strengthening coastal resilience and advancing conservation and restoration.

In FY 2023 EDA continued previous actions which still serve to strengthen coastal resilience. Climate considerations were formally embedded into the grant process in FY 2022. In FY 2023, EDA worked to incorporate climate considerations into new grants. Additionally, further climate considerations have been enacted through the formal release of the revised EDA Comprehensive Economic Development Strategy (CEDS) Content Guidelines. This report includes a climate-resilience portion that presents specific, targeted resources for Coastal and Island communities, as well as a more general section focusing on environmental sustainability and climate. Also, EDA incorporated robust climate resilience language into its FY 2023 Public Works and Economic Adjustment Assistance (PWEAA) Notice of Funding Opportunity (NOFO). The language advises all applicants to account for current and future weather and climate-related risks (e.g., coastal flooding), especially with regards to how new infrastructure assets will be designed, built, and operated to build resilience to high-impact weather and climate changes that may occur over the asset's life. While these actions may not directly or

solely impact coastal resilience and conservation/restoration efforts, these actions work to mitigate potential harms which could occur in their absence, as well as highlight important factors of consideration in projects which relate to coastal resilience and conservation/restoration efforts.

External to these efforts, EDA funded grants that support resilience and environmental sustainability in areas including, but not restricted to, coastal areas.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NOAA	Number of communities that utilize Digital Coast	6,678	6,608	6,766	7,634	7,012	6,500	Exceeded	6,500	6,500
Current/ Recurring	NOAA	Percentage of U.S. coastal states and territories demonstrating annual improvement in resilience capacity to weather and climate hazards	77%	83%	94%	97%	100%	94%	Exceeded	94%	94%
Current/ Recurring	NOAA	Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management	200	192	172	200	200	200	Met	200	200

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Closing Out	NOAA	Number of square miles of new area advanced through one or more steps of the National Marine Sanctuaries or National Estuarine Research Reserves (NERRs) designation or expansion processes (APG)	—	—	—	591,982	593,582	593,682	Met	DISC	DISC

Strategic Conclusions and Recommendations

Despite the Department's progress in FY 2023, U.S. coastal communities face increased challenges for coastal resilience. Due to rising relative sea levels, the frequency of high tide flooding in communities has more than doubled since 2000. The frequency of flooding is not just increasing, it is accelerating. NOAA will work to help communities prepare for future coastal flooding by collaborating internally and with Federal and non-Federal partners to implement a Coastal Inundation Capability Framework.

To fund priorities in other areas, NOAA plans to divert some resources from coastal resilience and conservation programs. NOAA will work to minimize disruptions and impacts from these decreases, especially once final amounts of BIL and IRA funding is obligated in FY 2026.

To strengthen NOAA's mission to investigate and prevent the adverse impacts of marine debris, NOAA will use funding from BIL, IRA, and annual appropriations to fund projects to improve the resilience of the coastal and marine environment and local economies. These investments will enable them to bounce back more readily in the face of future storms and other natural disasters that often result in large amounts of marine debris.

Actions to Advance Progress through FY 2025

BIL and IRA Investments: NOAA will use remaining BIL and IRA funding to invest in meritorious projects to address challenges including coastal resilience, restoration, marine debris, and tribal priorities. This will include awards for the current active competitive funding opportunities announcements for the Climate Resilience Regional Challenge and the Ocean-Based Climate Resilience Accelerators program. It will also include

additional support for the Societal Data Insights Initiative to advance societal, behavioral, and economic science data infrastructure to evaluate societal response to flooding products and services, as well as the Climate Ready Workforce for Coastal States, Tribes, and Territories Initiative grants aimed to train people and assist employers in developing a 21st century workforce that is climate literate and informed by climate resilience. NOAA will track and manage the grants for these investments to ensure projects are well-managed and positioned to achieve positive outcomes.

Conservation and Restoration: NOAA will advance the 10 existing processes for proposed expansions and new designations of National Marine Sanctuaries (NMS) and National Estuarine Research Reserves (NERR). As part of this work, NOAA will engage with key groups including states, tribes and indigenous organizations, coastal communities, and the public, to ensure that designation decisions are informed by diverse perspectives. Increased support to existing and future sanctuaries will accelerate efforts to expand NMS.

Coastal Resilience: NOAA will continue its core mission work in coastal resilience, which includes delivering training and technical assistance to coastal communities, responding to chemical and oil spills, and developing and delivering ecological forecasts for Harmful Algal Blooms and other coastal hazards. As part of this work, NOAA will identify barriers to accessibility and equitable service delivery.

National Oceanographic Partnership Program (NOPP): Through NOPP, NOAA will reduce plastic waste in the oceans. These efforts include conducting comprehensive mapping and characterization of the U.S. Exclusive Economic Zone, developing next-generation autonomous and remote (i.e., air and satellite) marine data collection systems, pursuing new discoveries of ocean resources and marine habitat dynamics that are gleaned from existing marine information databases, and streamlining the national oceanographic and marine information systems that provide transparent access and advanced data management and analysis tools.

STRATEGIC OBJECTIVE 3.3 – Accelerate development and deployment of clean technologies

Lead Bureau: ITA
Contributing Bureaus: EDA, NIST, NOAA

Key Strategies:
- Increase clean technology exports
- Support offshore, renewable energy while protecting vulnerable marine species and maintaining the economic value of fisheries
- Advance cutting-edge technologies aimed at climate mitigation, adaptation, and resilience

Executive Summary of Progress

In FY 2023, the Department made efforts to accelerate development and deployment of clean technologies. ITA led an interagency team to draft the Climate and Clean Technologies chapter of the National Export Strategy. This chapter details American Government actions and resources to advance U.S. clean tech exporters competitiveness. Additionally, ITA launched a new Clean Tech Strategic Projects Fund, which will provide $870,000 to support ITA staff-proposed and -executed programs to build capacity for clean energy deployment and develop market opportunities in 33 eligible developing countries through FY 2026. ITA implemented the first project under this initiative, a U.S.-Malaysia Clean Tech Forum in Kuala Lumpur, Malaysia, in March 2023. ITA has likewise awarded funds for upcoming workshops on clean energy deployment in Mexico and Vietnam. ITA played a pivotal role in negotiation to reach an OECD export credit reform agreement after several years of efforts by the U.S. delegation. The agreement in principle will enable the Export-Import Bank of the United States to better meet the needs of U.S. exporters by providing more flexible financing terms for additional categories of climate-friendly projects.

ITA advocated for an October 2022 Westinghouse Electric Company (WEC) win in Poland, which selected WEC to serve as the technology supplier for its new national nuclear power program. The project will support 62,500 American jobs and strengthen Poland's transition to clean energy. The Technology Standards Working Group under the Trade and Technology Council reached tentative agreement on the use of numerous standards for heavy duty vehicle charging infrastructure. The technical coordination for charging infrastructure could allow hardware and software usage in both the U.S. and EU markets depending on testing and certification requirements. ITA also worked through Asian-Pacific Economic Cooperation (APEC) to conduct workshops, roundtables, and site visits to highlight clean technology standards for monitoring and measuring greenhouse gas emissions across APEC economies.

EDA launched its Regional Technology and Innovation Hubs (Tech Hubs) program. The program will provide grants to a consortium of public, private, and academic partners to advance the capacities of places to manufacture, commercialize, and deploy technologies, including clean technologies. EDA also

invested nearly $28.3 million in 19 projects to support products or processes that address the climate crisis by reducing environmental impacts while advancing EDA's mission.

NIST's climate work builds on three foundational pillars: Climate Monitoring and Measurement, Decarbonization of the Economy, and Adaptation and Resilience. In climate monitoring and measurement, NIST is one of four implementing agencies of the U.S. Greenhouse Gas Center, a multi-agency effort to facilitate coordination across multiple entities to enhance greenhouse gas data and modeling capabilities. Additionally, NIST, as part of the Urban Dome In-situ Tower Network, developed tools to assess the accuracy of greenhouse gas inventory in cities. NIST recently expanded the Northeastern Corridor test bed to include Newark, New Jersey in addition to Washington D.C. and Baltimore, with plans to include more cities in the future. In Decarbonization of the Economy, NIST participated in research efforts supporting energy efficiency, including in net zero, high performance buildings and developing standards/protocols for smart grid interoperability. NIST also developed benchmark materials, measurements, data, and models for carbon dioxide removal technologies and supported engagement with external stakeholders across multiple sectors through NIST's circular economy program, an effort to minimize waste and return valuable material resources to the supply chain. Finally, in the adaptation and resilience pillar, NIST participated extensively in disaster and failure studies, including studying Hurricane Ian and Maria, the Champlain Towers South Collapse, and the Joplin, Missouri Tornado disasters.

On December 5, 2022, the Bureau of Ocean Energy Management (BOEM) and NOAA announced a Federal Survey Mitigation Strategy to address impacts of offshore wind energy development on NOAA's scientific fish stock surveys. NOAA's survey data form the basis of the science-based management and conservation of America's marine resources. During the environmental review of the first offshore wind energy project on the U.S. Outer Continental Shelf, BOEM and NOAA identified major adverse impacts on surveys conducted in the Northeast region. While focused on New England and the Mid-Atlantic, this strategy will serve as a model to address the impacts of offshore wind on NOAA's fish stock surveys in other regions.

NOAA delivered four models to support siting, development, and management of offshore wind in the Gulf of Mexico, Gulf of Maine, and Pacific Northwest. Informed by a NOAA model, the BOEM designated two Wind Energy Areas in the Gulf of Mexico with the potential to produce enough renewable energy to power nearly three million homes, while limiting environmental impact and conflict with other ocean uses.

Leaders from NOAA, the American Society of Civil Engineers (ASCE), and the University of Maryland Center for Technology and Systems Management held a summit in February 2023 to discuss how the nation's engineering profession can account for climate change in the design and construction of future building and infrastructure projects. A new memorandum of understanding (MOU) was unveiled during the summit, detailing the ways that NOAA's science and products will be used to inform the building and civil engineering codes, standards, and best practice manuals developed by ASCE.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	ITA	Value of Clean Tech Written Impact Narrative Statements	—	—	—	$2.70 B	$13.80 B	—	N/A	$1.11 B	$1.11 B
Closing Out	ITA	Number of International Trade Administration Client Outreach Activities to U.S. Clean Tech Companies	—	—	—	172	148	—	N/A	DISC	DISC

Strategic Conclusions and Recommendations

As clean technology needs continue to evolve in the clean energy transition, the Department will coordinate with other Federal agencies, and other international partners, to further advance clean technology deployment. ITA will provide ongoing collaboration in the development of clean technology events and ensure resources are properly aligned to support this strategic objective.

Actions to Advance Progress through FY 2025

Building on the success of Phase 1 of the Tech Hubs programs, in Phase 2, EDA will fund 5-10 Designated Tech Hubs with implementation grants of about $40-$70 million each, which will fund 3-8 projects per Hub. These investments will enhance regional innovation capabilities, some of which will accelerate the development and deployment of clean technologies and other emerging technologies. EDA will monitor progress and provide updates on the development of the Tech Hubs as they become available. EDA will fund projects that support the creation and implementation of clean technologies under its Tech-based and Environmentally Sustainable Development investment priorities.

NOAA will analyze the potential impacts of proposed offshore wind energy areas and projects on National Marine Fisheries Service (NMFS) trust resources to support the regulatory review process, including technical review, data analysis, and generation of recommendations for Essential Fish Habitat (EFH), Endangered Species Act (ESA), and National Environmental Policy Act (NEPA) consultation processes. NMFS will carry out increased EFH and ESA section 7 consultation and Marine Mammal Protection Act authorization work associated with new BOEM activities and support early

engagement with BOEM and project proponents to streamline efficiency of regulatory reviews, while minimizing impacts and delays to the existing workload carried by biologists and analysts.

NOAA will conduct studies and activities that advance scientific understanding on the interaction of offshore wind on NOAA trust resources, including fish stocks, protected species, and ecosystems, with a focus on the Northeast and Mid-Atlantic regions. Additionally, NOAA will review comprehensive and complex EISs to ensure that NMFS can provide BOEM with best available science and sufficient analyses to assess and address impacts to fish, fisheries, protected resources, habitats, and communities.

NOAA will implement a nationwide Federal survey mitigation program that will take place over the operational lifespan (i.e., 30+ years) of offshore wind developments. The survey mitigation program will address impacts of offshore wind development on NMFS surveys arising from the exclusion of NMFS sampling platforms from the wind development area due to operational and safety limitations; impacts on the random-stratified statistical design that is the basis for scientific assessments, advice, and analysis; and alteration of benthic and pelagic habitats, and airspace in and around the wind energy development. NMFS will evaluate existing survey designs, as well as identify and develop new survey approaches that will be calibrated to existing surveys.

NOAA will deliver spatial planning data and models to inform identification of areas suitable for offshore wind and aquaculture development and other uses, including models for the U.S. Caribbean, Gulf of Mexico, and central Atlantic.

STRATEGIC OBJECTIVE 3.4 – Embed climate considerations across Department programs

Lead Bureau: Office of the Secretary
Contributing Bureaus: All Bureaus

Key Strategies:
- Incorporate climate considerations into grant-making, stakeholder engagement, and internal processes
- Produce climate-related statistics and research that examine the links between climate and the economy

Executive Summary of Progress

The Department coordinates policy development, evaluation, and climate investments at the highest level, through the Department's Climate Council, ensuring consistent review, alignment, collaboration, and shared lessons learned. The Climate Council also coordinated the implementation of the Department's new Department Administrative Order (DAO) 216-22, Addressing the Climate Crisis and provided specific recommendations to the Secretary on addressing climate impacts. The Council is chaired by the Deputy Secretary with operational unit leaders as Council representatives.

Key accomplishments in FY 2023 includes:

- BEA published two key papers summarizing research efforts on the development of environmental-economic accounts. These papers provide experimental estimates of the total value of land in the United States and a prototype measure of air emissions flows by industry.
- BIS determined a re-evaluation of its 2010 Critical Technology Assessment: Impact of U.S. Export Controls on Green Technology Items was necessary prior to any other research efforts.
- The Census Bureau created a working prototype of a new Environmental Impacts Frame and the 2023 Annual Business Survey, currently underway, includes new questions on activities and impacts related to extreme weather and environment-related innovations.
- EDA updated its Comprehensive Economic Development Strategy (CEDS) Content Guidelines to include language recommending the inclusion of climate resilience, as well as revised environmental sustainability/climate language, for entities developing/updating their CEDS and included climate resilience language in new NOFOs (e.g., PWEAA 2023, Tech Hubs Phase 1, FY 2023 EDA University Center Economic Development Program Competition, and FY 2023 EDA Disaster Supplemental).
- ITA logged Written Impact Narratives (WINs) which demonstrates support for U.S. company involvement in more than $2.2 billion dollars in climate and clean tech projects in foreign markets. Select USA assisted 176 unique investment clients in cleantech industries and supported 24 cleantech investment WINs totaling approximately $11.5 billion. This supports 14,210 U.S. jobs.

- ITA launched the Clean Tech Strategic Projects Fund and awarded over $43,000 in FY 2023 to execute three projects to build capacity and enhance commercial collaboration to deploy clean tech in Malaysia, Mexico, and Vietnam. The first of the three projects was completed in March 2023.
- MBDA made 43 awards under the Capital Readiness Program – one of the awardees was Exponential Impact d.b.a. Climate Capital Bio. The project titled Climate Capital Bio Incubator (CCBI) is an incubator for early-stage biotechnology companies to create products that directly benefit the environment and address climate change. MBDA awarded $3 million to support the CCBI project over the course of 4 years (2023 – 2027).
- NIST made strategic investments of $11.7 million in climate, energy, and resilience research and development (R&D) to ensure NIST delivers the most accurate measurements, data, and standards to industry, academia, and Federal and local government. NIST invested in the Innovation in Measurement Science program, Strategic and Emerging Research Initiative program, and other programs outlined in FY 2023.
- NIST made progress to advance climate science and metrology. These efforts include support to new Standard Reference Materials and Traceable Reference Materials, a Standard Reference Instrument and accompanying Calibration Service for photovoltaic cells, new datasets, software, and models that cover greenhouse gas (GHG) measurements, energy efficiency, and carbon capture. NIST informed best practices to combat the increasing number of wildfires and contributed to the latest International Building Code and state building codes that mandate construction techniques to mitigate the impact of tornadoes.
- NIST engaged in a variety of domestic and international forums to advance standards, research, and measurements. Some notable examples include drafting sections of National Climate Assessment 5, participating in the Interagency Working Groups such as GHG Monitoring and Measurement and Net-Zero Game Changers Initiative, establishing Low Carbon Cement and Concrete Consortium, co-sponsoring and organizing workshops, conferences and roundtables, serving on delegations to negotiate a global treaty on plastic pollution, and partnering with Manufacturing Extension Partnership Centers to explore sustainable business practices.
- On February 28, 2023, the CHIPS Program Office released its first NOFO, which requires each applicant to submit a climate and environmental responsibility plan that includes detailed metrics and processes the applicant will use to measure, track, and publicly report its climate and environmental responsibility goals and commitments.
- NOAA Launched Inflation Reduction Act (IRA) initiatives and is on-track to implement BIL initiatives, which together total about $6 billion focused primarily on coastal climate resilience and climate data and services.
- NOAA advanced the provision of climate services to the Nation through expanded partnerships and increased investment in six mission areas (i.e., coasts, marine ecosystems, drought, extreme heat, flooding, and wildfires) including: The launch of the Ocean-Based Climate Resilience Accelerators program, a $60 million IRA investment in coastal resilience and American small businesses to develop sustainable technologies geared toward climate resilience and to attract capital, mature technologies and scale business models for climate impact.
- NOAA initiated $85 million to Industry Proving Ground, an IRA-funded partnership incubator with selected industry sectors (e.g., insurance, retail, architecture, and engineering) to accelerate the provision of essential climate services to American industries by expanding their use of NOAA's trusted and authoritative data and information through products that are tailored to their needs.
- NOAA hosted on-line climate services through the Climate Mapping for Resilience and Adaptation (CMRA) portal and Heat.gov. CMRA combines critical climate data and climate-hazard information with the resources America needs to help fund resilience and adaptation projects. Heat.gov

provides the public and decision-makers with clear, timely, and science-based information to understand and reduce the health risks of extreme heat. This year CMRA provided real-time maps that shows extreme heat, fires, inland and coastal flooding, and drought locations affecting U.S. communities and provided new links to BIL and other Federal funding opportunities. Additionally, Heat.gov provided critical resources to the Nation that included guidance from the White House and FEMA on actions State, Local, Tribal, and Territorial leaders can take to protect workers from extreme heat, and a new surveillance dashboard to track heat-related, emergency medical services response for every county in the country.

- In conjunction with NOAA, NTIA developed an in-depth climate assessment and resilience guidance for NTIA's $42.5 billion BEAD program which will be used by every state and territory to determine potential construction impacts, vulnerabilities, and adaptation opportunities.
- USPTO announced an expansion and extension of the Climate Change Mitigation Pilot Program (CCMPP), which is designed to accelerate review of innovations that will help make progress toward achieving net zero greenhouse gas emissions. USPTO received 541 petitions to participate, accepted 400 patent applications into the program, completed at least a first Office action in 317 of those applications, and granted a patent to 54 applications.
- USPTO added green-tech related terms to the Trademark ID Manual and launched an inaugural cycle of the Trademarks for Humanity awards program to incentivize brand owners committed to improving the environment.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	EDA	Number of economic development grants made to support environmentally sustainable investments	—	—	—	94	26	14	Exceeded	23	23
Proposed new	DM	Number of people engaged through climate literacy training and education.	—	—	—	1,587	1,698	1,250	Exceeded	1,500	1,500

Strategic Conclusions and Recommendations

In FY 2023, the Department promoted trade, economic and business development, innovation, entrepreneurship, accurate supply chain information, best practices, standards, and performance metrics that consider climate change, while creating economic growth and ensuring that U.S. businesses remain competitive. The Department also ensured it is positioned to help companies turn the emerging demand for climate-friendly technologies into a competitive advantage for U.S. manufacturers and entrepreneurs. The Department's Climate DAO assisted the Department in developing and implementing Department-wide and Bureau-specific policy and guidance to imbed climate considerations to both mission work and internal operations.

Actions to Advance Progress through FY 2025

- BEA will advance economic accounting related to the environment and climate, to improve understanding of the interplay between climate work and the U.S. economy.
- BIS will identify areas in its core practices and programs where it can incorporate climate considerations, including developing outreach strategies for awareness of and compliance with export controls for companies focused on climate related solutions and technologies.
- The Census Bureau will conduct research to better understand the effects of climate change on businesses and households and share findings with relevant stakeholders, including with other bureaus.
- EDA will ensure climate change mitigation and resilience concepts are incorporated into program design, including NOFO where appropriate, and will identify and execute additional avenues to incorporate climate considerations into its work.
- ITA will align its industry engagements with the Administration's vision for a low carbon future and will prioritize clean technology as part of its work to coordinate the export promotion and export financing activities of the American Government.
- MBDA will review its programs and practices to identify opportunities to further embed climate considerations into its work.
- NIST will implement a dedicated process to review and coordinate ongoing and planned climate-related activities to ensure that NIST continues to deliver the most accurate measurements, data, and standards.
- NOAA will implement a formal process to oversee, coordinate, and strengthen the work across NOAA offices whose missions include climate; maintain an inventory of its climate-related work; and conduct listening sessions with external stakeholders on their use of NOAA's climate data, tools, observations, assets, and services. Based on those inputs, NOAA will pursue opportunities to improve its climate data, tools, observations, assets, and services and advance coastal resilience and ocean-based climate solutions.
- NTIA will review its programs and practices to identify opportunities to integrate climate considerations into its work.
- USPTO will review its programs and practices to identify opportunities to integrate climate considerations into its work and explore the potential to accelerate review of patent applications that pertain to environmental quality, energy conservation, development of renewable energy, greenhouse gas emission reduction, or other climate related topics.

STRATEGIC OBJECTIVE 4.1 – Implement evidence-based decision making within the Department of Commerce to increase program and policy impact

Lead Bureau: OUSEA
Contributing Bureaus: All Bureaus

Key Strategies:
- Create organizational infrastructure to establish evaluation as a critical agency function and a high-performing internal service
- Identify statistical and administrative data that can be used to assess the impact of Federal interventions and develop refinements to increase the utility of the data

Executive Summary of Progress

In FY 2023, the Department experienced transitions in both the Evaluation Officer (EO) and Statistical Official (SO) positions. The Chief Data Officer (CDO), EO, and SO collaborate under the guidance of the Under Secretary for Economic Affairs. The Evaluation Officer was elevated to a senior technical position and provided additional resources for two permanent positions to support evaluation activities in the Foundations for Evidence-Based Policymaking Act of 2018. The Department has made progress on the questions detailed in the Learning Agenda, maintained evaluation capacity, and completed evaluations in the FY 2022 and FY 2023 annual evaluation plans. An FY 2025 Annual Evaluation Plan was included in the Department's OMB budget submission.

The Department formed a new community of practice for evaluation centered around monthly knowledge sharing sessions about evaluation methods and results from around the organization. The foundation of this community is the bureau Evaluation Leads. The Commerce Data Governance Board's (CDGB) Metrics Working Group developed the report Innovation in Reporting and Evidence-Building: Evolving Program Data Management Practices within the Department throughout the year to follow up on their prior report. The Department also completed its Equitable Data Playbook, with the Evaluation Officer assuming responsibility for updating and maintaining the document. These deliverables are distributed to the intended audiences, including bureau Evaluation Leads, bureau Chief Data Officers, Program Officers, and related agency staff (e.g., statisticians, economists, and other social scientists) who support program design, implementation, and evaluation.

The above-base programs within EDA, MBDA, NOAA, NTIA and NIST have collaborated on their evidence and evaluation needs with the Center of Excellence at the Census Bureau, which will use existing data assets at the Census Bureau to generate program-specific statistics that better inform each program. Over time, the capabilities of the Center will grow. Bureaus also work collaboratively with the Bureau of Economic Analysis. The Marine Economy Satellite Account, which measures how activities related to the nation's oceans, seaports, and Great Lakes contribute to the U.S. economy, was

updated in June 2023 and is a collaboration between BEA and NOAA. In addition to cross-bureau collaboration, bureaus advance their own program evaluation efforts, such as those shown below at EDA and ITA.

To explore, document, and disseminate the lessons, outcomes, and replicable models of the Build Back Better Regional Challenge (BBBRC), EDA funded ride-along research projects. One of the research grantees, the Brookings Institution, created a series of five research publications and case studies to provide early insights and lessons learned. The first publication, released in November 2022, examines BBBRC's program design and its grantee selection process. Four additional publications provide case study examples of grantee activities and coordination with other institutions as well as discussion on potential future impacts from BBBRC investments. Internally, EDA uses the results to help identify and track where BBBRC grantees may need additional support.

In the Learning Agenda questions under Strategic Objective 3.3: What could be key sources of U.S. competitive advantage? How can regional forums be an opportunity for clean technology standards, ITA leads a project under the Asia-Pacific Economic Cooperation (APEC) examining how emerging technologies and the associated standards for monitoring and measuring greenhouse gas (GHG) emissions can help address environmental issues. ITA incorporated inputs from an APEC workshop in February into a draft paper on GHG measurement and monitoring technologies. That paper will be circulated to APEC economies to better understand existing technology and standards solutions and support future regulatory cooperation efforts.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	OUSEA	Percent of Milestones on Track for Working Groups Building Evaluation Metrics	—	—	—	100%	100%	80%	Exceeded	80%	80%
Current/ Recurring	OUSEA	Percent of Annual Evaluation Plan Projects on Track	—	—	—	92%	82%	80%	Exceeded	80%	80%

Strategic Conclusions and Recommendations

In FY 2023, the Department made progress on SO 4.1, although several planned efforts experienced delays. These delays were due to lack of resources, reprioritization of effort, or the high staff cost of sharing program data with the statistical agencies. In FY 2024, the CDO will develop the FY 2025-2028 Commerce Data Strategy under the Commerce Data Governance Board. The sub teams working on each of the five elements of this strategy will each

have representation from the Commerce evaluation community thereby ensuring a closer alignment between data and evaluation within the Department. OUSEA will strengthen the ties between the Department's two statistical agencies, BEA and Census, with the other bureaus and seek to lower the cost of data access and record linkages to statistical data and embed evaluation considerations into programs.

Actions to Advance Progress through FY 2025

The Center of Excellence will help facilitate new, program-specific experimental data products leveraging the Community Resilience Estimates, Business Dynamic Statistics, and other Census Bureau data sources throughout FY 2025. Commerce will develop a Paperwork Reduction Act policy that will require collecting data sufficient to link people, addresses, and businesses/organizations to data at the statistical agencies. This will enable higher quality and lower cost record linkage with statistical data to facilitate quasi-experimental statistical studies on the impact of Commerce programs. It will also create the expectation that programs share data with the Department's statistical agencies.

STRATEGIC OBJECTIVE 4.2 – Modernize economic and demographic statistics to better meet business, policymaker, and community needs

Lead Bureau: Census
Contributing Bureaus: BEA, OUSEA

Key Strategies:
- Expand high-frequency data products in response to government, public, and business data needs
- Modernize data collection and production methods for creating quality data products with minimal respondent burden
- Develop new and expanded products to measure a dynamic economy

Executive Summary of Progress

Economic Census and Census of Governments
The Census Bureau initiated the major data collection activities for the 2022 Economic Census and Census of Island Areas. Major activities included initial and post mail data collection activities such as imprinting, mailing and telephone follow-up, postage, check-in, data capture, and problem solving. Other activities included finalizing analytical data review plans, systematic edits that are put in place to check for and set referrals on inconsistency in data complexes, and the process that captures the company changes and updating the master list of businesses (known as the Business Register) to an analytical database for production allowing staff to conduct micro level data analysis. The Economic Census leveraged mature data collection and processing systems and furthered research and development work needed to implement the Census Bureau's new requirements for confidentiality data protection work. Additionally, the program leveraged the use of big data to supplement data received from businesses and new strategies for publicizing and disseminating survey results. As of August 29, 2023, the 2022 Economic Census achieved a 66% response rate, 0.6% ahead of the same point in time in the 2017 Economic Census.

High Frequency Data program
The Census Bureau Household Pulse Survey (HPS) released 10 sets of public use data files, 10 sets of detailed data tables, and 10 versions of the interactive data tool. The Census Bureau provided near real-time data informing on the impacts the pandemic and other social and economic issues had on American households through the HPS, which was designed and launched in the earliest days of the COVID-19 pandemic data from the HPS to be used and cited by Federal and state agencies, academics, and the media to guide response and recovery efforts on dimensions as diverse as employment, employment income, consumer behavior, housing and food security, educational disruption, access to health care, and mental health. The Census Bureau began data collection for the Business Trends & Outlook Survey, a new High Frequency Data Program that provides ongoing granular and timely data products in near real-time for stakeholders. The Business Trends & Outlook Survey bi-weekly data collection began mid-July 2022. In the

beginning of FY 2023, data covering the first 10 weeks of collection was released. Since then, data has been released every two weeks including a new Emergency Economic Information Collection (EEIC) that was invoked twice with the economic indicators to collect data and measure the effects of recent severe weather events as well as current economic events that have impacted businesses. The EEIC is used to respond to unanticipated international, national, or regional declared emergencies or events of national interest arising as a direct result of declared emergencies having an economic impact on U.S. businesses and/or state or local governments.

Concurrent comprehensive update of national, state, and industry economic accounts
BEA produced the first comprehensive update of national, industry, and regional statistics, harmonizing new source data across all three accounts to provide a comprehensive picture of the U.S. economy and its geographic and industry underpinnings. This is the capstone achievement of BEA's multi-year effort to harmonize the production of statistics across all three dimensions and provide users fully consistent economic information.

Income distribution and well-being
BEA updated statistics on the distribution of personal income with full data for 2020 and provisional estimates for 2021, along with supplemental data for international comparability. BEA also collaborated with the Bureau of Labor Statistics to develop prototype statistics of the distribution of personal consumption expenditures for 2017-2020 based on the Consumer Expenditure Survey. Finally, BEA updated its prototype measures of economic well-being and growth.

Improved international and regional statistics
BEA produced statistics based on the results of the 2019 Benchmark Survey of U.S. Direct Investment Abroad, BEA's largest survey. For the first time, the survey collected new information vital to measuring the digital economy's role in international investment. BEA also introduced a new methodology using Bureau of Labor Statistics data that improves estimates of state-level employment by U.S. businesses newly acquired by foreign investors. Finally, BEA updated regional price parities to include 2021 and revisions to 2017 through 2020, incorporating new source data and methodological improvements.

Research to advance economic statistics
BEA produced several new experimental statistical products and methodologies to expand user understanding of the dynamic economy. These research products include:

- Experimental measures of wages and employment by industry for small, medium, and large businesses.
- Two papers that explore methods and techniques to recognize and value data as an asset, a critical first step in measuring this asset class, which is currently unaccounted for in the national accounts.
- A feasibility study on measuring the bioeconomy, as directed by Executive Order 14081: Advancing Biotechnology and Biomanufacturing Innovation for a Sustainable, Safe, and Secure American Bioeconomy.

Production and dissemination

BEA and Census played a key role in the launch of the Standard Application Process, which provides a single portal and process for researchers to apply for access to restricted-use data across the Federal statistical system. Additionally, BEA completed the second year of a five-year project to convert production processes into the Python programming language to modernize, streamline, and integrate systems, and to facilitate ongoing adoption of data science techniques. BEA also updated the release schedule for the Survey of Current Business, BEA's journal of record, which now releases on a rolling basis to improve timeliness and contains two new content sections to better highlight BEA statistics and research for all audiences.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	BEA	Reliability: Percent of GDP estimates that are statistically reliable	94%	94%	92%	93%	96%	85%	Exceeded	85%	85%
Current/ Recurring	BEA	Relevance: Customer satisfaction (on a 5 point scale)	4	4	4	4	4	4	Exceeded	4	4
Proposed new	Census	On-time delivery of data products from the High Frequency Data program that measure the impact of significant events in near-real time	—	—	—	—	112%	85%	Exceeded	85%	85%
Proposed new	Census	Percentage of new or expanded data products released as scheduled	—	—	—	—	100%	80%	Exceeded	80%	80%
Current/ Recurring	Census	Number of Frames critical milestones met	—	4	4	4	5	4	Exceeded	4	4

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	Census	Percentage of key data products for Census Bureau programs released on time to support effective decision-making of policymakers, businesses, and the public	100%	85%	100%	85%	97%	85%	Exceeded	85%	85%
Current/ Recurring	Census	Percentage of milestones met in developing Census information technology (IT) enterprise to enhance collection, processing, and dissemination of data	100%	100%	100%	100%	100%	85%	Met	85%	85%
Proposed new	BEA	Timeliness: On-time release of economic statistics	65	73	70	72	66	70	Met	66	66
Current/ Recurring	BEA	Milestones completed related to improving economic accounts	100%	100%	100%	100%	100%	100%	Met	100%	100%
Current/ Recurring	Census	2020/2030 Decennial Census planned operational efficiencies and program milestones met	100%	50%	40%	100%	78%	85%	Met	85%	85%
Current/ Recurring	Census	Number of principal economic indicators released on time	110	118	120	120	120	120	Met	120	120

Strategic Goal 4: Expand Opportunity and Discovery Through Data

Strategic Conclusions and Recommendations

Considering the notable progress made, the contributing bureaus will stay the course on executing the key strategies for this strategic objective, including implementing the planned actions described below. The contributing bureaus will continue to address challenges in improving economic and demographic statistics as they arise. The bureaus will also maintain a strict production schedule to ensure that indicators are released on time.

Actions to Advance Progress through FY 2025

New High Frequency Data program
Census will begin the planning and execution of a new High Frequency Data Program, which will provide stakeholders with ongoing granular and timely data products in near real-time. In FY 2021, Census established a generic clearance process to expedite economic data collection in the event of emergency situations.

New principal economic indicator
Census will work with OMB to designate the Business Formation Statistics as a new principal economic indicator.

Annual economic surveys
Census will implement key recommendations from the National Academies of Sciences' report on Reengineering the Census Bureau's Annual Economic Surveys.

Redesign and acceleration of key economic indicators
Census will research new methods and techniques such as the use of satellite imagery to redesign and accelerate the construction indicator to better measure changes in construction activity.

Alternative data sources
Census and BEA will use alternative data sources to substitute or supplement survey responses and add geographic and industry detail to improve data relevance, timeliness, and accuracy.

Differential privacy
Census will research new disclosure methods that allow for the release of data that were previously suppressed.

American Community Survey (ACS)
Census will increase the agility of the ACS in the face of constantly changing times that spawn new data needs. This ensures that Census delivers public value to the Nation's communities. Census is engaged in numerous activities to build and maintain customer support, awareness, and trust in the ACS.

Largely focused on providing a positive experience for customers, Census will minimize burden for survey respondents while keeping content current, maintaining high data quality, and allowing the survey to be responsive to emergent issues.

Current Population Survey (CPS)
Census plans to develop and test the Web-based, self-response instrument for the Current Population Survey, which is the basis for the national unemployment rate.

Household Pulse Survey (HPS)
Census plans to build the capacity to quickly measure the impact of national crises or important events and provide information to policy makers and the public.

STRATEGIC OBJECTIVE 4.3 – Improve Commerce data usability and advance ethical, responsible, and equitable data practices

Lead Bureau: OUSEA
Contributing Bureaus: All Bureaus

Key Strategies:
- Modernize the data ecosystem
- Develop principles, guidance, and capacity for appropriate data practices at the Department of Commerce
- Leverage partnerships and stakeholder engagements to continuously improve data access and usage
- Strengthen scientific integrity across the Department
- Improve efficiency of data sharing

Executive Summary of Progress

In FY 2023, the Commerce Data Governance Board (CDGB) developed an Action Plan. This FY 2023 Action Plan articulates the tactical priorities for CDGB and the Chief Data Officer (CDO) for the next fiscal year.

The first of these actions was to develop standardized, scalable approaches to the evaluation of the Department's program funded by the American Rescue Plan Act (ARP) and the Bipartisan Infrastructure Law (BIL). To this end, the CDGB launched the Metrics Working Group, which made the following recommendations in its report:

- **Look to NTIA and EDA Program Models:** Program administrators should study and leverage the innovative approaches to data linkage and evaluation that NTIA and EDA adopted for ARP and BIL programs.
- **Collect Specific Types of Program Data:** Bureaus should collect specific information about participants, grantees, and place-of-service to facilitate data linkages and evaluations, using the Census Bureau's Data Linkage Infrastructure.
- **Find Ways to Securely Share Data Across the Organization:** The Department should provide the capability to securely share data across the organization to enable large-scale observational studies and ease reporting constraints.
- **Use Newly Available Resources:** Bureaus should use resources provided by the Department to support evidence-building and evaluation.
- **Dedicate More Resources to Continue Advancement:** Bureaus should dedicate resources to further the advancement of program data management and evaluation practices.

The second priority from the FY 2023 Action Plan was to develop best practices for applying data to advance the Department's equity goals. Over the course of the year, the CDO organized biweekly equitable data labs to share best practices and develop a community of practice among equitable data practitioners. At the conclusion of the year, the CDO published an Equitable Data Playbook.

The third priority was to pilot the enterprise-wide acquisition of commercial data. While the Department did not acquire any commercial data in FY 2023, the newly formed Commercial Data Working Group laid important groundwork, such as developing a commercial data inventory and a shared statement of objectives and issuing a Request for Information (RFI) for commercial data providers to license supply chain data to the Department's bureaus.

The Commercial Data Working Group's accomplishments include:

- Created lists of commercial data assets currently stored within the Department's agencies and shared those lists internally.
- Evaluated proposals that were submitted through a public-private partnership, StatVentures challenge, to generate ideas to help measure the U.S. supply chain.
- Submitted the Commerce Data Hub RFI, then received information from vendors to better shape use cases for a centralized data buy across the organization.

The fourth priority in the FY 2023 Action Plan was to facilitate private sector innovation with public data dissemination by adhering to common data and metadata standards. The stakes for this priority became especially high with the emergence of mass-market generative AI and the need to ensure Commerce public data are published in ways accessible by the most popular AI chatbots and other tools. The Census Bureau pilot was successful, and the AI and Open Government Data Assets Working Group is now scaling this effort across the Department. This group will develop technical guidelines and best practices for publishing data that can be consumed by generally available generative AI applications.

The fifth priority was to coordinate department-wide data practitioner recruitment, professional development, and growth. To accomplish this, the Department participated in the Tech-to-Gov Job Fair and a governmentwide SME-QA hiring action for data analysts. The Maturity and Data Skills (MAD Skills) Working Group also coordinated bureau-level data maturity assessments. The Department will use the analyses from these assessments in the planning process for the FY 2025-2028 Commerce Data Strategy.

Additionally, the Department maintained its data inventory, in compliance with the Evidence Act. As of the end of fiscal year, the inventory contained 2,206 datasets.

Strategic Goal 4: Expand Opportunity and Discovery Through Data

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	OUSEA	Percent Data Strategy Action Plan milestones met on time	—	—	—	77%	80%	70%	Exceeded	70%	70%
Disc.	OUSEA	Number of Participants in data Outreach/Engagement events	—	—	—	—	1,190	1,033	Exceeded	DISC	DISC

Strategic Conclusions and Recommendations

Work on the Commerce Data Action Plan is on track. The Department made notable progress on data access and usability through the publication of the Commerce Data Hub and new tools for data analysis. A Committee structure is in place to further advance data governance, technical skills, equity, innovation, and stakeholder engagement. The CDGB meetings created a space for bureau subject matter experts to provide updates on all related work streams and encourage open communication across the Department. Well-developed strategies and plans are in place to achieve Strategic Objective 4.3; the collaborators should execute the strategies and plans for continued progress. The FY 2024–FY 2028 data strategy planning has begun, and the CDGB is working to gather feedback to improve on the outcomes of FY 2023 deliverables.

Actions to Advance Progress through FY 2025

The CDBG FY 2024 Action Plan outlines the Department's tactics for achieving Strategic Objective 4.3. Some particularly notable actions include:

- **Commercial Data:** The working group will research, assess, and acquire commercial supply chain data at an enterprise level. The objective is to ensure easier and cheaper access to commercial data for all Commerce users.
- **AI and Open Government Data Assets:** Leverage mass market AI to democratize access to data while mitigating risk.
- **FY 2025–FY 2028 Data Strategy:** Co-develop a long-term vision for data application and management to address pressing policy priorities.
- **National Spatial Data Infrastructure Strategic Plan:** In partnership with the Federal Geographic Data Committee provide leadership across the Federal landscape in support of establishing a new National Spatial Data Infrastructure Strategic Plan outline goals and objectives serving the needs of the Nation and wider global interests.

STRATEGIC OBJECTIVE 5.1 – Effectively implement new Department of Commerce authorities and investments

Lead Bureau: Office of the Secretary
Contributing Bureaus: All Bureaus

Key Strategies:
- Establish and communicate clear performance management protocols for new and expanded financial assistance programs
- Ensure efficient, effective, and transparent use of funds
- Ensure programs serve all relevant stakeholders
- Increase workforce capacity and innovation competencies

Executive Summary of Progress

Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA)
NTIA enhanced cybersecurity and increased broadband access across the country. In FY 2022, BIL provided $65 billion in funding for NTIA to reach 100% access to reliable, affordable, high-speed internet service. Through the Internet for All initiative, NTIA secured commitments to participate from all 56 eligible states and territories. In FY 2023, NTIA provided planning grants to the states and territories to prepare their initial proposals submission in the coming Fiscal Year. NTIA provided close consultation and technical assistance to grantees throughout the process.

In FY 2023, Digital Equity Act programs awarded planning grants to every state and territory to develop digital equity plans and prepare for upcoming NTIA programming. NTIA's Tribal Broadband Connectivity Program surpassed $1.86 billion total in grants to 226 Tribal entities to support reliable, affordable, high-speed internet networks, devices, and digital skills. This was a major achievement as over 93% of program funds were obligated.

NTIA also announced the final awards from the Connecting Minority Communities Pilot Program, designed to expand high-speed Internet access and connectivity to eligible Historically Black Colleges and Universities (HBCUs), Tribal Colleges or Universities (TCUs), and other Minority-serving institutions (MSIs). In total, 43 HBCUs, 24 Hispanic Serving Institutions, 21 MSIs, and five TCUs received nearly $263 million in funding to expand technological capacity of communities, upgrade classroom technology, and increase digital literacy skills. In June 2023, NTIA announced $930 million in grants for the Enabling Middle Mile Broadband Infrastructure Program, which invests in projects that build regional networks that connect to national internet networks. In September 2023, NTIA announced the final awards in this $1 billion program and projects began to launch across 40 states and territories.

In FY 2022, nearly $3 billion in BIL funding and $3.3 billion in IRA funding was allocated to NOAA to increase climate resilience and restore and improve coastal habitats, especially for Tribal Nations and underserved communities. The IRA is the largest Federal investment in clean energy in U.S. history and in combination with the funding in the BIL, is instrumental to ensure American communities are resilient to climate change, advance critical research and

development to fight climate changes, and create good-paying jobs. In FY 2023, NOAA distributed $34.4 million BIL funds and $7.5 million of IRA funds to support the recovery, conservation and resilience of Pacific salmon and steelhead in Alaska, California, Idaho, Oregon, and Washington. NOAA distributed an added $87 million in combined BIL and IRA funding to support projects that restore access to healthy habits for migratory fish.

Coronavirus Aid, Relief, and Economic Security (CARES) Act and American Rescue Plan (ARP) Act
The Department obligated 100% of CARES Act and ARP Act funding. All bureaus are either on schedule or have completed outlaying these funds. In FY 2023, the Department conducted regular oversight to ensure the transparent and effective use of funds for CARES and ARP funded programs. The Department's governance and accountability requirements reinforced those directed by OMB and included both financial and non-financial controls. Bureaus with COVID-19 relief funding were required to provide detailed and accurate award descriptions and report monthly the use of funds via USASpending.gov. Bureaus also submitted implementation plans for new programs established under the ARP and included ARP programs in their equity assessments and action plans. The Department's Performance Excellence Office and senior leadership conducted quarterly reviews of the performance and progress of CARES and ARP Act programs. Reporting requirements will continue into FY 2024 and will expand to new sources of funding.

Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act
Two Notices of Funding Opportunities (NOFOs) were released for commercial fabrication facilities and small-scale supplier projects. The National Advanced Packaging Manufacturing Program (NAPMP), one of the four research and development programs under CHIPS for America, announced a $3 billion investment to promote U.S. leadership in advanced packaging. Additionally, the National Semiconductor Technology Center (NSTC) was established as a collaborative hub for the semiconductor manufacturing and supplier ecosystem. NSTC aims to accelerate innovation and reduce the time and cost of bringing new technologies to market. NIST published the final rule to implement the national security guardrails of the CHIPS Act.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	DM	Percentage of obligations to small, disadvantaged businesses	16.5%	17.7%	23.4%	25.7%	25.5%	20.9%	Exceeded	21.7%	21.7%
Current/ Recurring	DM	Dollars (Percentage) awarded using high-risk contracting authorities	24.0%	20.0%	19.1%	26.0%	26.9%	46.9%	Exceeded	46.9%	46.9%
Current/ Recurring	DM	Audit Opinion Score	1	1	1	1	1	1	Met	1	1

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	DM	Percentage of obligations to Ability One	0.34%	0.99%	1.10%	0.45%	0.36%	1.50%	Not Met	1.50%	1.50%
Current/ Recurring	DM	Number of repeat significant deficiencies and/or material weaknesses remaining within one year of determination	1	1	1	0	0	0	Not Met	0	0

Strategic Conclusions and Recommendations

Infrastructure investment is critical to promote economic growth and competitiveness. In FY 2023, the Department of Commerce prioritized infrastructure investment, with a focus on expanding broadband access, enhancing weather predictability, and supporting small businesses. This Administration's investment in infrastructure and the Department's efforts to support economic recovery, competitiveness, and innovation, demonstrate the Department's commitment to utilize the funding from these legislative acts to create a more robust and resilient future.

At the end of FY 2023, the Department's implementation of the CARES Act and ARP Act was considered On Track for all three core principles mandated by OMB Memo M-20-21, including mission achievement, expediency, and transparency and accountability. The Department will maintain internal controls and oversight over all existing and new funds.

The Department is committed to effective program oversight and management to ensure that new and existing funds deliver results for the American people. The Department will drive continuous improvement and advance program impact through improved technology systems, including grants management systems and workforce capacity. The historic investments in infrastructure, innovation, and communities have already begun to fuel economic growth, fostering benefits for American workers and businesses, while simultaneously fortifying U.S. competitiveness for the next century.

Actions to Advance Progress through FY 2025

Moving into FY 2024 and 2025, the Department will place equity at the center of its work to ensure all Americans benefit from these critical investments. BIL funding will allow the Department to deliver high-speed internet access to all Americans, invest in coastal resilience, reduce barriers for minority businesses, increase high-tech manufacturing, expand innovation, improve basic research and more. The Department will initiate the acceptance of

applications for funding allocated through the CHIPS and Science Act, aimed at reducing the cost of goods, decreasing dependence on foreign semiconductor manufacturers, and generating well-paying jobs in the United States. Through BIL funding, the Department will provide all Americans with access to affordable, dependable, high-speed internet.

The Commerce Infrastructure Coordination (CIC) Working Group will enter its third year of implementation and will refine its recommendations and collaborative oversight of infrastructure activities across the Department. The Office of Performance Excellence and the CIC Working Group will coordinate to ensure effective and transparent use of current funds from the CARES and ARP Acts as well as new funds from BIL, the CHIPS and Science Act, and the Inflation Reduction Act. These efforts will integrate existing performance management framework and oversight protocols as well as design new operations and centers of excellence to increase efficiency and inform executive decision making across the Department.

STRATEGIC OBJECTIVE 5.2 – Optimize workforce and diversity, equity, and inclusion practices

Lead Bureau: Office of the Secretary
Contributing Bureaus: All Bureaus

Key Strategies:
- Attract, recruit, hire, and retain talented and diverse employees
- Improve hiring processes and pipelines to reduce hiring time and vacancy backlogs
- Make the Department's work environment more accessible, inclusive, and engaging
- Build a pipeline to develop minority managers and senior executives so Department leadership reflects the diverse Nation it serves
- Develop and grow current Federal employee skill sets to adapt to changing priorities and support upward career mobility
- Create more workforce agility, flexibility, and capabilities to accommodate expanded mission areas and the future of work

Executive Summary of Progress

Attract, recruit, hire, and retain talented and diverse employees
The Department developed and launched a Human Capital Strategic Plan (HCSP) 2023-2026 , which defines a series of targeted human capital goals and objectives to be addressed in the coming years. The HCSP will serve as a forward-looking blueprint of the Department's efforts to support recruitment and retention of top talent. The HCSP aligns with related Governmentwide and Departmentwide focused strategic planning efforts, including the President's Management Agenda, the Department's Strategic Plan 2022-2026, and the Department's Diversity, Equity, Inclusion and Accessibility (DEIA) Strategic Plan 2022-2024.

The Department achieved its FY 2023 hiring target for the Infrastructure Investment and Jobs Act vacancies, enhancing infrastructure programs with a focus on rural and underserved communities. Tools such as LinkedIn's recruiter solution and the Department Careers showcase page were leveraged to reach skilled external talent for mission-critical roles. The Department's collaboration with the Office of Personnel Management (OPM) and the White House Office of Science and Technology Policy boosted STEM position recruitment, widening the Department's reach to potential applicants. Three in-person recruitment events were held for the Presidential Management Fellows (PMF) Program, backed by the Secretary's request. The Department posted a total of 83 appointment opportunities yielding 35 permanent placements and hosted 35 rotational opportunities. Additionally, the Department partnered with BIS and Enterprise Services to market and host an in-person Direct Hire career fair for over 70 priority vacancies. Over 4,649 applications were received and over 300 people attended the in-person event.

The Department strengthened its workforce by training 86% of its human resources professionals and hiring managers in Veterans and Disability employment programs and regulations, aligning with the Department's commitment to diversity and inclusion. Further, the Department fostered a formal partnership with the Military Spouse Employment Program (MSEP). As a result, the Department was inducted in October 2023 as a formally

recognized partner. This partnership is aimed at increasing employment prospects for military spouses within Commerce.

The Department established the Employee Recognition Audit Team (ERAT) and launched a second Employee Retention Survey which is a key step in addressing Equal Employment Opportunity challenges. The Department also provided mid-career retirement guidance to help employees better manage their career and benefits as a retention effort. The Department also offered specific retirement training for those within five years of retirement age, which helped employees plan for their retirement transition, both professionally and financially. The registrations for these were 92 participants and 95 respectively.

BEA proactively shared job openings with diverse institutions including League of United Latin American Citizens (LULAC), Historically Black Colleges and Universities (HBCUs), and many other schools through the Symplicity network including American University, Gallaudet University, Georgetown University, University of Baltimore, the University of Maryland, William & Mary, and 86 other colleges, universities, and alumni associations. This approach aimed to attract a varied talent pool, reflecting the nation's diversity.

BIS participated in events at military installations to target veterans and used the Department of Defense (DOD) SkillBridge Program for recruitment. BIS also employed workforce diversity dashboards to inform leadership about recruitment strategies for executive positions. Additionally, BIS planned targeted recruitment at HBCUs and the Hispanic Association of Colleges and Universities (HACU) for recruiting events in FY 2024 to diversity the workforce.

Census enhanced its partnership with historically underserved institutions to develop a next-generation diverse workforce with skills necessary to support the bureau's mission, attract top talent, and foster relationships through knowledge sharing and project-based learning. Notable collaborations included hosting a Data Science Symposium with Bowie State University, defining educational curricula with the University of San Antonio, and establishing a five-year agreement with the University of Puerto Rico. These initiatives focused on developing a skilled, diverse workforce through knowledge exchange and innovative research.

Enterprise Services (ES) held the first ever career/job fairs for ITA and BIS, leading to on-the-spot job offers and the hiring of approximately 116 employees. These events streamlined the hiring process and effectively filled roles within the Department. ITA developed an annual job fair calendar targeting a broad demographic spectrum, with a focus on the Hispanic and Veteran populations. Utilizing Handshake, a national platform with colleges and universities across America, ITA reached out to educational institutions, including HBCUs, community colleges, women's colleges, and top-rated institutions for Veterans. Regular updates on job opportunities by the Deputy Under Secretary also contributed to employee advancement.

NIST conducted recruitment and outreach at 27 events nationwide and interacted with 1,376 candidates, of which, 413 indicated they applied or planned to apply to positions at NIST. Of those, 21 events were diversity-focused including those for the Association of Latino Professionals for America, National Organization for the Professional Advancement of Black Chemists and Chemical Engineers, Grace Hopper Celebration, Careers & the disABLED, WomenTech Global Conference and more to increase NIST's diversity talent pipeline.

NTIA expanded telework and remote work options, attracting a diverse array of candidates and playing a key role in workforce retention. NTIA also identified the need for targeted development and mentorship programs, enhancing employee advancement and satisfaction, thereby contributing to the organization's diversity, stability, and productivity.

Improve hiring processes and pipelines to reduce hiring time and vacancy backlogs
In July 2022, ES transitioned from a Talent Acquisition (TA) vendor managed services model to a hybrid Federal TA servicing HR Office. Since then, ES efficiently processed over 470 classifications and 2,320 recruitment actions, resulting in 1,330 Entry on Duty (EOD) instances. This new model helped resolve a backlog of 377 tickets and stabilized the management of over 30 actions weekly.

ES leadership enhanced HR operations by implementing a dedicated Onboarding team, managing the complete onboarding lifecycle, and hiring approximately 1,000 employees since January 2023. ES also piloted an integrated and secure USAStaffing - Office of Security Integration system to reduce the need for downloading PII, improve recruitment transparency, and accelerate security processes. TA Service Level Agreements were introduced to monitor and improve the time-to-hire process.

BEA established a hiring committee that developed a centralized entry-level hiring process. Key outcomes of the effort included simplifying the administrative requirements to post job announcements, reducing agency vacancies, and utilizing diverse interview panels to review and select candidates. These efforts resulted in hiring more than twice as many new hires in FY 2023 compared to FY 2022.

After TA cases returned to the Census Bureau in 2022, a Tiger Team addressed a backlog of recruitment and classification actions. Census engaged in extensive strategic discussions, posted 747 jobs, issued 1,539 certificates of eligible candidates, and filled 958 positions. This improved the bureau's 80-day hiring metric, with 60% of all recruitments completed within 80 days. This is attributed to the sharing of certificates, hard work, and dedication from hiring managers and HR staff despite the implementation of a new recruitment tool, USA Staffing (USAS). With the assistance of USAS, Census streamlined the onboarding experience, which includes initiating the security process, managing post-selection activities, and transmitting electronic documents to eOPF.

ITA used bureau-wide announcements for each of its mission-critical roles. The resulting Certificate of Eligibles (Certs) were used by managers across all business units. This led to a higher return on investment for each announcement for known vacancies. The Certs were also used for unknown vacancies to reduce time to hire. Additionally, ITA used several non-competitive authorities including Schedule A, NSEP, VRA to reduce time to hire and promoted the DOD SkillBridge program as a pipeline to hire.

NIST Integrated eight HR Specialists and two student interns into its hiring process, collaborating with its Health Unit for physical appointments and the Badging Office for a streamlined fingerprinting process, optimizing the recruitment steps.

NTIA developed an internal recruitment application tool in FY 2023 to expedite application processing and improve hiring timelines. Enhanced communication channels among NTIA's Leadership, HR Division, and hiring managers led to more targeted recruitment. Accelerated onboarding processes were also implemented, enabling new hires to quickly become productive team members.

Make the Department's work environment more accessible, inclusive, and engaging

The Department was ranked the 4th Best Place to Work in the Federal Government, among large agencies, resulting in a Top 5 ranking for 11 consecutive years. These rankings are based on results from the Federal Employee Viewpoint Survey (FEVS) that assesses how employees across the Federal Government experience the policies, practices, and procedures of their agency and its leadership. Based on 2023 FEVS results, the Department scored 76% in the overall Employee Engagement Index, four points above the Governmentwide score, which covers the conditions likely to result in employee engagement and satisfaction. The Department also scored 76%, surpassing the governmentwide average, on the new FEVS Employee Experience Index measuring the extent to which employees are engaged by their work and organization.

Diversity, Equity, Inclusion and Accessibility (DEIA) accomplishments for FY 2023 include timely and effective implementation of the DEIA plan with 82%, 107 of 131, of actions completed or on track. High-level actions included: senior leadership support for DEIA with all-employee broadcasts from the Secretary and Deputy Secretary and the Department Town Hall with DEIA Q&A; updated SES DEIA performance plan language for approximately 450 senior executives and 150 senior professionals; linked governance structure with 15 Diversity Councils and a Community of Practice with over 150 Employee Resource Groups. The Department's DEIA score increased to 76% in 2023, reflecting effective strategies and communication efforts, which was also displayed with consistent video content from the Secretary and Deputy Secretary. The Department organized the first Employee Resource Group (ERG) Summit to enhance networking and information sharing. The Department partnered with the Asian American Pacific Islander ERG to rename the HCHB Auditorium to create more inclusive spaces. Additionally, partnering with PRIDE ERG and OS offices to identify gender neutral restrooms in the Herbert C. Hoover Building (HCHB) led to the conversion of 10 all gender restrooms throughout HCHB.

Participation in special observance events increased, both virtually and in-person. The Department conducted 22 additional programs in FY 2023, emphasizing inclusion, engagement, and retention. The Department Accessibility Committee also effectively addressed accessibility issues, ensuring compliant digital environments and training employees in assistive technology use.

BEA's Diversity & Inclusion Council provided resources to supervisors and employees to raise awareness and training on creating a work environment that is more accessible, inclusive, and engaging. The Council achieved this through hosting facilitated sessions, lunch and learn series, book clubs, and focus groups. In the 2023 FEVS results, BEA's DEIA scores were over 80% across all DEIA questions.

In FY 2023, Census established and implemented policies, procedures, and practices to ensure the agency's work environment was more accessible and inclusive. Census effectively processed 87% reasonable accommodation requests within required time limits and strengthened its training program, offering monthly courses including, Reasonable Accommodation (RA) Briefing for Managers/Supervisors and RA and the Interactive Process training to

all employees. Further, the RA training library was extended to include the following courses: Deafness, Communication, and Reasonable Accommodations; Working Alongside Colleagues of All Abilities; The Interactive Process; and American Sign Language.

ITA hired a dedicated DEIA Officer and provided opportunities for employees to engage in diverse projects and learning experiences outside their standard roles.

To make NIST's environment more accessible, inclusive, and engaging, the bureau conducted the following activities:

- Provided training and articles on RA procedures to enhance workforce inclusion and talent retention.
- Processed 97.5% of reasonable accommodation requests within the Department's processing deadlines.
- Introduced Navigating N1ST as a part of new employee orientation to help new staff understand internal resources and career navigation at NIST.
- Offered bi-monthly N1ST (One NIST) Seminars to showcase NIST's offices, programs, and activities to all staff.
- Established a Peer Group Mentoring program to help new staff integrate and engage more effectively within the NIST community.
- Expanded DEIA critical elements.
- Released a Lactation Program Directive on January 9, 2023, to support a formal, coordinated Lactation Program across NIST.
- Launched the Childcare Subsidy Program (CCSP), a subsidy reimbursement program to assist lower-income NIST employees with eligible childcare expenses using appropriated funds.
- Launched an Anti-Harassment Program in March 2023, to provide an expedited process for responding to harassment.
- Led the development of the Department's Job Quality Toolkit to help organizations improve the quality of the jobs they offer.
- Allocated $2.4 million in FY 2023 appropriations for programs supporting Minority Serving Institutions (MSIs), promoting a broader STEM network through the International and Academic Affairs Office (IAAO).
- Established the NIST Community Building Group to develop and deploy specific actions to help bring people together, explore hybrid work policies and practices, and enhance a richer in-person experience in support of a more inclusive workplace.
- Piloted a new digital signage initiative to provide important safety information (e.g., elevators out of service) and information for staff that do not have access to NIST computers or electronic means of communication.

NTIA participated in events celebrating diverse cultures and social backgrounds, fostering understanding and inclusivity among employees. NTIA also strengthened the flexible work hours, telework, and remote work options to accommodate different work styles and life commitments, leading to a more inclusive and employee-centric environment. Regular channels for employee feedback were established, including town halls and open-door policies, enhancing transparent and inclusive communication. The NTIA Diversity Council developed strategies for retention, recruitment, hiring, education, and innovation focusing on creating a diverse and high-performing workforce reflective of societal diversity.

Build a pipeline to develop minority managers and senior executives so Department leadership reflects the diverse Nation it serves

OCR and OHRM launched a Senior Executive Service (SES) Diversity Initiative to revive the SES Candidate Development Program, developed policy and procedures for inclusive executive outreach and recruitment, and created an SES Hiring Dashboard to track progress and harness DEIA best practices. The DEIA performance plan was updated for about 450 SES members and 150 Senior Professionals.

Nine of the Department's thirteen bureaus analyzed their workforce for mission-critical roles, retirement eligibility, turnover rates, talent demands, and workforce issues such as recruitment and retention, and developed strategic initiatives. In the Office of the Secretary, six of eleven components completed workforce assessments of identified critical positions, developed success criteria, assessed the talent pool, defined organizational structure, and drafted an organizational succession planning strategy to include means to track staff development providing a solid succession planning foundation. The Department hosted an Inter-government Succession Planning Conference, roundtable discussions, and focus groups to bring employees together and discuss succession and workforce planning challenges and development. This allowed participants to explore new information and share innovative ideas.

The Department provided training for new supervisors and refresher training for those with experience. Specifically, Census designed and implemented the Leaders Lead program, a competency-based curriculum that aligns with the OPM Federal Supervisory Training Framework and emphasizes leadership, human resources management, business management, and organizational knowledge necessary to establish team performance and understand the legal and financial contexts of public management. Census also provided quarterly and on demand training sessions for managers aspiring to enter the Senior Executive Service. Census identified a leadership competency-based training curriculum (based on OPM's Supervisory and Managerial Framework) available through the Census Learning Center (CLC) and Percipio to support management and executive level development.

BEA offered a variety of leadership development programs designed to build a pipeline of managers and senior executives. Programs and resources include Aspiring Leaders, Mentoring, New Supervisor Development Cohort, a Leadership Development Continuum, and an Executive Education Application program. These programs and resources are widely available to BEA staff.

ITA partnered with the Treasury Executive Institute to offer all supervisors/managers (e.g., GS 14, GS 15, and current SES) with developmental opportunities, including coaching and other OPM approved programs that lend to the development of the Executive Core Qualifications.

MBDA created enterprise-wide policies and programs for internal mobility and career progression that allow people to move more easily across roles, capabilities, and experiences throughout the organization. MBDA also embedded talent development in the flow of work, including a refresh of next-gen learning and leadership programs, to enable a dynamic succession planning process and build a robust pipeline of the best workforce and future leaders. MBDA assessed the talent pipeline and staff development plan to enhance leadership learning and development. MBDA also identified opportunities for continuous learning and career mobility to drive organizational and individual performance powered by access to digital platforms.

NIST offered a suite of comprehensive leadership and management development programs: the New Leader Program (NLP), the Foundations of

Leadership Program (FLP), the Project Management Leadership Program (PMLP), and Essential Management Core Concepts (EMC2). Leadership for All (L4A) makes the content from the formal leadership programs available to all Federal staff via open registration. The NIST Mentoring Program is also open to all Federal staff.

NTIA implemented leadership development programs aimed at equipping minority staff with the skills and knowledge necessary for managerial and executive roles. Alongside this, NTIA plans to identify ways to initiate mentorship and sponsorship programs. These programs are designed to connect minority employees with experienced senior leaders, providing essential mentorship, networking opportunities, and increased visibility within the organization.

USPTO applied data analytics to monitor workforce diversity trends within leadership and gained about 4% growth in minority populations in SES ranks. Also conducted two, two-month mandatory supervisory certificate programs for 54 new supervisors.

Develop and grow current Federal employee skill sets to adapt to changing priorities and support upward career mobility
In FY 2023, the Department's workforce completed over 678,543 training courses within the Commerce Learning Center (CLC) supporting career development and adapting to new priorities. A new GS supervisory program was introduced, offering 40 hours of skill-based training at the supervisory level. Enhancements like the Percipio Library were added to the CLC, alongside ongoing upgrades and rebranding efforts.

In addition to workforce development programs and resources such as Aspiring Leaders, Mentoring, New Supervisor Development Cohort, a Leadership Development Continuum, and an Executive Education Application program, BEA consults with management at all levels annually on specific training needs to provide necessary internal or external training opportunities.

In FY 2023, Census:
- Enhanced training and development programs to improve professional knowledge and close skill gaps.
- Enhanced the Data Science Training Program (DSTP), by hosting 45 graduates in the FY 2023 DSTP 4th Cohort, who completed 26 data science courses, 11 brown bag sessions, and 4 Capstone projects.
- Sponsored the R Training Day, with 271 participants, to promote the use of open-source software and promote skill enhancement, learning, and professional growth.
- Engaged with participants in the Census Technical and Administrative Developmental Program (CTAD), launched for Administrative Professionals, and partnered with the Department's Recognize, Engage, Access, Communicate, and Help (REACH) initiative.
- Created two undergraduate and three graduate IT Certificate Programs through a partnership with the University of Maryland Global Campus which began in the Fall 2023 semester.
- Launched an Aspiring Leaders Program, geared toward GS-12 Non-supervisory HQ staff to focus on highlighting the competencies and behaviors needed to be a successful supervisor.

ITA offered several opportunities to grow employee skillsets including the detail opportunities for employees across the organization. Further, depending on the employee's goals, ITA offered training in technology, software, and business writing. These training opportunities enhanced ITA work products and provided much needed skills for employees to advance.

NIST graduated 12 coaches from the pilot NIST coach training program. The CLC was reformatted and now includes a focus on curated content on topics ranging from leadership to self-care to project management to DEIA.

NTIA organized and attended seminars on emerging technologies such as AI, blockchain, and IoT, keeping the workforce informed about future trends and potential impacts on their fields. NTIA also participated in job rotation programs allowing employees to work in different departments and roles to broaden their understanding of the organization, enhance adaptability, and develop a diverse skill set. Additionally, NTIA offered opportunities for employees to work on cross-functional projects. Moreover, through the administration of the Connecting Minority Communities (CMC) Pilot Program that launched in FY 2023 to address the lack of high-speed Internet service access, connectivity, adoption, and equity at HBCUs, Tribal Colleges and Universities (TCUs), and MSIs, Program Specialists deepened their knowledge, expertise, management, and leadership skills to administer large-scale grant programs to bridge the digital divide and advance equity across the country.

Create more workforce agility, flexibility, and capabilities to accommodate expanded mission areas and the future of work
The Department convened two Congresses with all 14 bureau DEIA Councils to conduct SWOT analyses and identify topics of common concern and collaboration. Information on the Inaugural Congress was disseminated through channels, including social media. An automated tracking tool, ETK RA, was launched Departmentwide, except for USPTO. This tool supports timely access and retention goals for reasonable accommodation requests made by individuals with disabilities.

In ongoing effort to ensure accuracy of the Department's workforce demographic data for analysis and reporting purposes, the ES Human Resources/Information Technology team and EEOC validated the Department's MD-715 report parameters and ensured mission-critical occupations and GS equivalents were properly captured in the National Finance Center.

The Department reissued DAO 215-10 on RA in August 2023, which addressed goals to ensure legal compliance, promoted DEIA, and provided guidance in support of people with disabilities and their leadership.

A contract was awarded to an 8A vendor to conduct an analysis regarding the equity of awards the Department distributes. The project is projected to be completed in FY 2024. The Department plans to receive an evaluation of the awards program that identifies any potential barriers to equity in awards for EEO groups, and a report that provides achievable recommendations, and best practices that leadership can implement to address the roadblocks.

A renewed Interagency Agreement with the Census Bureau will relaunch an Employee Retention Survey in 2024 to identify barriers to Equal Employment Opportunity (EEO) and retention.

A Disability Inclusion and ASL training for OS and NIST was launched in FY 2023, which promoted EEO/DEIA principles and increased accessibility and retention efforts through education.

The CXO Fellowship Program selected four participants for cross-functional, inter-agency collaboration and professional development. The Excellence in Government Program and Lunch and Learn sessions were provided to enhance bureau mission awareness. More than 600 people registered. BEA encouraged workforce agility, flexibility, and capabilities through activities such as BEA's Project Share, participation in the Interagency Council on Statistical Policy Mentoring Program, and the Desktop Applications Implementation Team who led robust efforts to provide resources and training on Python to BEA workforce.

Census reviewed and updated the telework policy to allow maximum flexibility and improve work life balance. As bureau leadership engaged in discussions regarding hybrid environments, Census developed a comprehensive training curriculum for both managers/supervisors and employees covering working in a hybrid and telework environment to help teams stay connected, engaged, and improve communication. As the HQ facility pushes forward with planned construction, a detailed change management strategy was developed to include a series of videos and blogs to keep employees informed of progress and expectations.

ITA offered its employees flexibility with respect to work-life balance, including expanded telework flexibilities. These flexibilities expanded to remote work when a position was deemed as conducive to 100% remote. ITA announced mission-critical jobs as remote on USAJobs, to attract a greater caliber of talented candidates across the country that may not consider relocating to higher cost of living duty stations.

NIST offered a series of Remote Work & Hybrid Work Seminars, including Hybrid Worker Self-Care; Getting Things Done; Building Relationships & Connections in the Hybrid Workplace; Creating Your Virtual Presence and Managing Your Career While Working Virtually; and Communication Methods & Tools for Hybrid Workers.

NTIA invested more than $262 million in 93 grant awards to HBCUs, TCUs, and MSIs to promote workforce development that will procure future talent acquisition. NTIA is developing a strategy to engage HBCUs, TCUs, and MSIs to support efforts that will engage communities to grow broadband capabilities from infrastructure to training, adoption, and use. The goal is to empower HBCU, TCU, and MSI communities by equalizing accessibility to digital equity and digital skills. Additionally, NTIA implemented flexible hybrid work arrangements, allowing for a mix of remote and in-office work, and invested in advanced mobile work technologies to ensure employees have access to the necessary tools and information regardless of their location. NTIA also accelerated the adoption of cloud computing solutions. This technology shift enables more scalable and efficient data management, supporting workforce flexibility and remote work capabilities.

USPTO ensured programs and the workforce are inclusive and employees are safe, secure, and working in an environment that represents the highest standard of government. USPTO updated their telework policy ensuring uniform standards and approach. They updated the bureau's telework goals and

metrics to align with USPTO's mission along with the development and implementation of improved telework data collection by leveraging current data warehouse and systems.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	DM	Number of Inclusion, Special Observances, and Special Emphasis Programs	15	32	40	19	24	12	Exceeded	15	15
Proposed new	DM	Score on the Diversity, Equity, Inclusion, and Accessibility (DEIA) Index from the Federal Employee Viewpoint Survey	—	—	—	75%	76%	76%	Met	77%	77%
Current/ Recurring	DM	Score on the Employee Engagement Index (EEI) of the Federal Employee Viewpoint Survey	73%	76%	76%	75%	76%	76%	Met	77%	77%
Current/ Recurring	DM	Hiring Timeline (Average number of calendar days to complete hiring actions)	—	—	108	114	113	80	Not Met	80	80

Strategic Conclusions and Recommendations

The Department will advance its DEIA strategic plan, focusing on succession planning, enhancing hiring processes, reducing EEO complaints, and improving employee engagement and retention. The Department will also address staffing needs for the strategic priority programs and offer consulting support to bureaus and offices in DEIA implementation.

The Department should leverage paid internship opportunities to strengthen its talent pipeline. This would advance the President's Management

Agenda goal: Strengthening and Empowering the Federal Workforce and Executive Order 14035: Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce. Paid internships, specifically the Pathways Programs, strategically bolster and safeguard the Department's workforce and succession planning posture. The early career talent derived from these paid, Federal employment programs can be non-competitively converted into mission-critical roles after successful completion of program requirements. Pathways Programs are not used as often in the Department as compared to agencies of a similar size. Pathways Programs allow the agency to develop and retain the next generation workforce.

BEA made notable progress in entry-level hiring and addressing vacancy backlogs. The bureau fostered a culture of development and inclusion through workforce development programs and the activities of its Diversity and Inclusion Council, though challenges in Federal hiring processes and staff capacity for development remain. The Census Bureau effectively developed training, development, and recruiting programs, adapting to technological advancements and customer needs. ITA faced challenges in recruiting veterans and individuals with disabilities but identifies opportunities to broaden outreach efforts to attract these groups to potential careers. NIST acknowledges the need to proactively source diverse talent in support of its Strategic Recruitment Program's annual events. NTIA's achievements in FY 2023 established a strong foundation for workforce optimization and DEIA enhancement. Future efforts will focus on addressing implementation challenges, sustaining training programs, and fostering new partnerships to achieve goals of workforce agility, flexibility, and inclusivity.

Actions to Advance Progress through FY 2025

The Department will:

- Develop a Talent Strategy to recruit, develop, and retain top performers. The strategy will emphasize the importance of the Department's mission impact and public service, recruit directly with colleges and universities across the country, highlight workplace flexibilities, and retain current talent by promoting career growth and sharing internal job opportunities.
- Explore paid internship opportunities, to enhance the talent pipeline and align with the President's Management Agenda and Executive Order 14035: Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce.
- Develop new and updated web resources for job applicants, hiring managers, and HR professionals.
- Increase collaboration with bureau recruitment leads to sharing best practices and resources, identifying common barriers and solutions, highlighting and tracking recruitment events, and leveraging economies of scale.
- Develop a policy to share certificates of eligibles across the Department to streamline hiring and increase job opportunities for applicants. An evidence- and data-based approach will be leveraged for EEO and DEIA, utilizing FEVS DEIA index trend information for refined consultative services. The Department
- Build on the implementation of its FY 2022-2024 DEIA Strategic Plan, by drafting a FY 2025 DEIA Addendum using a gap analysis as well as future-casting model to build out an annex strategy, goals, objectives, and actions.
- Conduct listening sessions with the Asian American, Native Hawaiian, Pacific Islanders (AANHPI) community to understand their promotion process experiences and address any disparities.

- Provide cohort training for Facilitation Skills for HR employees, training specialists, and others who are interested in facilitating or delivering presentations. It consists of four courses and at the end of this series participants will receive a certification in facilitation.
- Provide a comprehensive leadership program for mid-career GS 12 and GS 13 female employees across the Department through the Women's Leadership Development Program. This will enhance managerial and leadership skills, foster diversity, equity, and inclusion, and prepare participants for introductory leadership roles. It will be a blend of online training modules and workshops.
- Develop a Sexual Harassment Prevention and Recognition Program to teach employees to understand and recognize sexual harassment in the workplace. This will help reduce the risk of such issues for the organization. Specifically, employees will learn to recognize, prevent, and understand how to report sexual harassment incidents.
- Hold a compliance training on Section 508 of the Rehabilitation Act of 1973 to ensure the learning content in the Department's CLC is 508 compliant. All training sessions will be delivered online via a senior training delivery professional and will include the required training materials.
- Create an SES Career Development Program using best practices from agencies across the Government.
- Develop a new Emerging Leadership Program for rising leaders.
- Introduce a New Hire Integration with USAStaffing and data feed to eOPF to allow new hire information to transition from USAS to HRConnect and allow new hire documents/forms to be automatically uploaded to eOPF rather than manually downloaded then uploaded. This will improve TA processes; Personnel, Payroll, & Benefits (PP&B) processing efficiency; and the customer experience.
- Automate current, manual excel-based tracking and reporting tools that are used to maintain all classification and recruitment data with a new platform/technology called ATLAS.
- Expand the PP&B services, to transition the Census Field Offices to be serviced by ES PP&B. This will impact an expected 450 employees and is anticipated to be complete in FY 2024.
- Explore PP&B processing automation to improve efficiencies, reduce customer back-and-forth, and improve customer experience.
- Implement an integration in USAStaffing to improve the onboarding experience and timeliness by streamlining handoffs and coordination between ES and the Offices of Security (OSY) and enhance security through secure document transfer of PII within USA Staffing. Following the completion of the USA Staffing/OSY integration, a classification tool and Position Description library will be built and implemented in USA Staffing.
- Enhance ITA's www.Trade.gov career site to add a new section about ITA's commitment to Veterans and disability hiring.
- Explore options at ITA for how to host virtual career fairs using professional platforms such as Brazen.
- Execute partnership agreements with external organizations for paid internship programs to bring students from key demographics currently underrepresented at ITA.
- Foster partnerships and collaborations, through NISTs Strategic Recruitment Program, with existing diversity organizations and MSIs, add 3-5 new partnerships every fiscal year and increase NIST employee participation at recruitment events to communicate the mission and programs and attract talent to positions. NIST also plans to
- Automate telework and remote work agreement forms and approval processes to streamline the process and improve data collection and reporting capabilities at NIST.

- Identify the major bottlenecks in the hiring process at NIST to streamline policies and procedures and improve the time to hire.
- Expand the diversity and inclusion training initiatives at NTIA by embedding these values deeply within the culture and by hiring a Diversity Program Manager who will be responsible for leading the implementation and monitoring of programs that promote DEIA.
- Establish partnerships with universities and colleges in underserved communities to build a diverse talent pipeline.
- Finalize and deploy the new internal recruitment application tool at NTIA to integrate with existing HR systems for seamless operation and include analytics capabilities for continuous improvement.

STRATEGIC OBJECTIVE 5.3 – Equitably deliver exceptional customer experience

Lead Bureau: Office of the Secretary
Contributing Bureaus: All Bureaus

Key Strategies:
- Identify actionable information to eliminate customer pain points and increase customers served
- Enhance equitable digital and nondigital customer engagement and service-delivery
- Drive high-quality customer service, assistance, and satisfaction by improving initial interactions with the public
- Improve customer data standardization, integration, and analysis

Executive Summary of Progress

In alignment with the President's Management Agenda, Executive Order 14058: Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government, and the 21st Century Integrated Digital Experience Act (IDEA), the Department made progress on improving service delivery and providing excellent, equitable, and secure customer experiences.

In FY 2023, the Office of the Secretary's Performance Excellence Council provided three Department-wide CX training events to spark interest in CX practices and to mature the Department's CX culture. The first training, entitled Ignite Customer Experience – Build Your CX Culture to Deliver Exceptional Results, introduced the concept of CX to a broad Department audience and shared best practices through three panel discussions. The second training, the Intersection of Performance and Customer Experience, demonstrated the business case for CX and shared available CX tools that attendees at the Department's Big A Conference could use to improve services and CX. Third, the Department celebrated its first-ever CX Day recognition event. This event increased awareness of CX to employees across the Department.

In FY 2023, the Office of the Chief Information Officer (OCIO) drafted a Technology Modernization Fund (TMF) proposal to acquire a best-in-class marketing stack of technologies. This proposal will enhance the Department's ability to use human-centered design (HCD) tools to advance equitable and excellent CX. The OCIO also completed a comprehensive review of bureau websites to comply with 21st Century IDEA requirements. The review's focus was on key digital experience (DX) attributes, including accessibility, searchability, and mobile readiness.

In FY 2023, as a designated High-Impact Service Provider (HISP), the U.S. Patent and Trademark Office (USPTO) completed an annual CX capacity assessment, reported data quarterly on CX with its two designated services on performance.gov, and delivered on key commitments in its FY 2023 CX Action Plan. For example, USPTO improved communications to patent and trademark applicants by sending welcome letters. These letters provided information on free training and resources to learn more about the application process. USPTO also implemented a Stakeholder Application Readiness

Training, a Patents Customer Ambassador Pilot, and analyzed feedback from trademark customers. This feedback helped USPTO identify ways to improve the trademark filing experience and informed the design of the Trademark Center beta. This new streamlined filing system improves navigation, autosaves applications, and provides access to drafts. Similarly, USPTO enhanced the Patent Center, which allows filers to use a single interface instead of multiple legacy tools for submitting and managing patent applications. Although most patent and trademark applications are submitted by licensed attorneys on behalf of their clients, USPTO ensured it received input from all customers, including independent filers, so that the filing experience is accessible to everyone.

The USPTO exceeded and met the following targets in FY 2023: Percentage of customers who indicate the employees they interacted with were helpful (Patents), and percentage of customers who indicate positive satisfaction with designated priority services (patents), respectively. Due to a change in its CX management platforms, and the survey methodology in calculating scores, the USPTO is adjusting their targets for FY 2024 and FY 2025. In August of 2023, OMB Circular A-11 Section 280 was updated to require HISPs to modify their surveys to a new model that includes a trust question. This change seeks to reduce burden on the public and to assist in developing comparable, government-wide customer experience measures that can be shared publicly. Based on this update, the USPTO has added a trust measure to its list of performance indicators for FY 2024 and FY 2025. For more information on USPTO's CX action plans and quarterly results, visit performance.gov.

In FY 2023, the U.S. Census Bureau, the Department's second HISP, completed an annual CX capacity Assessment and refined its two high-impact services: responding to a Census Bureau administered survey and obtaining Census Bureau statistics online. The Census Bureau also delivered key commitments in its FY 2023 CX Action Plan. For example, the Census Bureau:

- Launched a Spanish-language webpage for the American Community Survey, which includes resources that will help the 41 million Spanish speakers in the U.S respond to the survey and find the data they need.
- Launched a webpage for the 8 million members of the American Indian and Alaska Native community to help them understand how their data are used.
- Reduced the mobile page load time of QuickFacts, the Census Bureau's most popular tool for finding Census Bureau data. This enabled the roughly 30,000 daily mobile users of QuickFacts to access data more quickly, resulting in a 53% increase in its mobile page experience score.

For more information on the Census Bureau's CX action plans, visit performance.gov.

At the conclusion of FY 2023, the White House nominated the International Trade Administration (ITA) as the Department's third HISP and one of only 4 newly announced HISPs across the Federal Government. In FY 2023, ITA established five core functions of its CX program: strategy, organizational culture, customer understanding, service design, and performance measurement. To build in-house capacity and a culture of customer-centricity, ITA recruited and graduated 35 CX Champions from an extensive training program. ITA researched its customers to inform the design of a Voice of the Customer program and develop customer personas. ITA conducted a customer needs inventory with business unit stakeholders to clarify DX Platform requirements and created a digital service blueprint. This blueprint identified systemic issues and recommendations to improve client and employee

experience (EX) on trade.gov. Further, ITA conducted a CX Maturity assessment with a broad cross section of ITA staff to determine CX awareness and identify existing CX efforts. The data will help prioritize focus areas as ITA develops a roadmap to improve its CX maturity. ITA also began redesigning the bureau's intranet in line with knowledge management and EX principles. ITA engaged stakeholders across the organization to better understand how employees' access, gain, and use information to serve clients and provide deliverables. ITA applied the Collaborative, Learning, and Adaptive framework established by the U.S. Agency for International Development to co-design solutions to improve processes and outcomes as well as integrate continuous learning into the organization.

In FY 2023, the National Oceanic and Atmospheric Administration (NOAA) conducted eight in-depth training sessions to socialize tools, best practices, and case studies through NOAA's CX Resource Portal. Over 200 unique participants attended these sessions, with 82% of participants reporting they were likely to use the introduced tools. NOAA also completed three pilot programs to enhance signature climate services, focusing on user needs for the Heat.gov portal and integrating equity in the Climate Resilience Toolkit. These pilots are part of NOAA's effort to integrate CX tools into priority climate projects and programs.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	USPTO	Percentage of customers who indicate the employees they interacted with were helpful (Patents)	—	—	—	—	85%	82%	Exceeded	75%	75%
Current/ Recurring	USPTO	Percentage of customers who indicate the employees they interacted with were helpful (Trademarks)	—	—	—	—	86.0%	75.0%	Exceeded	75.0%	75.0%
Current/ Recurring	USPTO	Percentage of customers who indicate positive satisfaction with designated priority services (Trademarks)	—	—	—	—	80.0%	70.0%	Exceeded	70.0%	70.0%

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	USPTO	Percentage of customers who indicate positive satisfaction with designated priority services (Patents)	—	—	—	—	82%	82%	Met	70%	70%
Proposed new	USPTO	Percentage of customers who trust USPTO to grant patents and register trademarks in accordance with U.S. laws and regulations.	—	—	—	—	—	—	N/A	65%	65%

Strategic Conclusions and Recommendations

To equitably deliver exceptional customer experience, the Department requires both foundational and mature CX capabilities. With three HISPs, the Department has identified actions to strengthen CX capabilities for six high-volume, customer facing programs. For example, the USPTO plans to further develop and implement CX initiatives across its operations. This includes providing comprehensive CX training, enhancing capacity to assess customer needs accurately, and ensuring a consistently positive experience for all its customers. However, CX and EX principles and practices are still maturing throughout the enterprise. For example, many Department websites require improvements to comply with the 21st Century IDEA. Addressing this issue is crucial for improving public access and enhancing the overall digital experience offered by the Department. The Department will pursue improvements to its marketing technology stack, including potentially identifying and leveraging savings generated from the implementation of shared license technologies. This approach aligns with efficient resource management and cost-effectiveness.

By developing a comprehensive CX strategy, establishing CX governance, creating a motivated Departmental CX Community of Practice, and developing a shared CX resource library, the Department can further mature its CX culture and equip employees with the skills to ensure responsive CX across all customer channels. These strengthened skillsets and culture can enable the Department to deliver on the CX requirements in the 21st Century IDEA, OMB A-11 Section 280, Executive Order 14058, and the President's Management Agenda.

Actions to Advance Progress through FY 2025

Develop CX Strategy, Establish Governance, and Build a Community of Practice

The Office of the Secretary's Performance Excellence Council acquired contracted support to develop the Department's CX culture and ensure that offices and bureaus have the CX skillsets they need. In particular, the Department will develop a comprehensive CX strategy to embed CX competencies across the Department, establish a robust Community of Practice and governance framework, and deliver specialized CX training. This will equip the Department's CX practitioners with the necessary standards and skills to effectively engage customers, reengineer services based on HCD principles, and accurately measure customer satisfaction. A key component of this strategy will involve regular convenings of the Community of Practice. This community will not only enable the sharing of CX resources but also offer a platform for CX strategic partners and stakeholders to collaborate and exchange best practices.

Mature the Department's Technology Tools and Improve Website DX

The OCIO will develop and implement a new marketing stack of technologies. This will evolve the overall Customer Experience technology maturity to the customer-centric level as defined by GSA's Center of Excellence. The OCIO will also leverage the OMB M-23-22: Delivering a Digital-First Public Experience guidance and will collaborate with the OMB to finalize the list of public-facing websites, establish key indicators for essential attributes, and formulate action plans. This initiative will ensure that the Department's websites effectively meet the diverse needs of its customers and provide accessible information and support.

HISP Actions

USPTO will develop a CX governance plan that will provide CX support and training across all business units. Additionally, USPTO intends to enhance employee skills through training in CX concepts, principles, and HCD. USPTO will also further enhance the Patent Center using by conducting usability testing of wireframes prior to development, enabling feedback through forms and surveys, and analyzing customer support tickets to identify current pain points. USPTO will also further enhance the Trademark Center beta application by involving customers through HCD practices. These practices include usability testing, closed beta volunteer participation, and feedback collection at different stages. USPTO will use a survey of the legacy system to inform the design of the Trademark Center beta and analyze customer support tickets to identify current pain points. Through these efforts, USPTO will also provide multiple channels for its customers to provide feedback.

The Census Bureau will field test the Current Population Survey Internet-self-response option in collaboration with the U.S. Department of Labor's Bureau of Labor Statistics. Once available, this will enable 60,000 monthly households to respond conveniently online, reducing the need for in-person or phone interviews. Additionally, Census will improve the search functionality of census.gov and data.census.gov. Identifying and correcting the most impactful data discoverability concerns by improving the search functionality on the Census Bureau website will enable the hundreds of thousands of data seekers who visit the sites every month, mainly those unfamiliar with Census Bureau data, to find their needed Federal statistics more quickly and easily.

As a new HISP, ITA will meet its HISP requirements by conducting its first capacity assessment, identifying two designated services, developing customer feedback surveys, and establishing mechanisms for reporting customer feedback.

STRATEGIC OBJECTIVE 5.4 – Make Department facilities and operations more sustainable and efficient

Lead Bureau: Office of the Secretary
Contributing Bureaus: All Bureaus

Key Strategies:
- Reduce greenhouse gas emissions and increased use of renewable energy at Department facilities
- Maximize conversion of the Department's Federal vehicle fleet to electric vehicles
- Enhance sustainable acquisitions and electronic stewardship across procurement, acquisitions, IT, and facilities
- Institute a culture of sustainability across all Departmental functions

Executive Summary of Progress

The Department is committed to fulfilling the vision set forth in Executive Order 14057: Catalyzing Clean Energy Industries and Through Federal Sustainability and Executive Order 14008: Tackling the Climate Crisis at Home and Abroad. Through leadership and action, the Department will integrate equitable climate considerations into all aspects of the Department's missions, policies, operations, facility management, real property, acquisitions, and use of resources.

In FY 2023, the Department reduced greenhouse gas emissions and increased renewable energy use at Department facilities by exploring increasing carbon pollution-free electricity (CFE) usage through utility partnerships and installing CFE systems at owned facilities. This included developing case studies and guidance for Bureaus/Operating Units for planning and implementing CFE and net zero emissions projects. Guidance was provided for purchasing energy attribute certificates (EAC) in situations where direct CFE generation or purchasing options are not feasible, in line with Executive Order 14057 guidelines. By the end of FY 2022, 38.3% of the Department's total annual electricity usage was sourced from grid supplied CFE.

NOAA applied for a Department of Energy Assisting Federal Facilities with Energy Conservation Technologies (AFFECT) Grant to make its Global Monitoring Laboratory in Mauna Loa, HI net zero emissions. This project aims to develop a case study for remote/island facilities and is already being pursued by other similar sites like the Global Monitory Laboratory in American Samoa.

The Department maximized conversion of its Federal vehicle fleet to electric vehicles by prioritizing zero-emission vehicle (ZEV) acquisitions, considering factors like inventory, industry availability, and existing charging infrastructure. 25 ZEVs were acquired using existing funds for additional EVSE site assessments and infrastructure.

Acquisitions and electronic stewardship across procurement, acquisitions, IT, and facilities were sustainably enhanced by presenting a sustainable acquisitions award as part of the Department's Chief Acquisition Officer award program at the Big A Acquisition Conference.

The Office of Sustainable Energy and Environmental Programs (OSEEP) held eight online training courses in FY 2023, as part of its web-based training and education program with multidisciplinary series including Climate Literacy, Sustainability 101, Environmental Compliance, and Technical Development. Trainings and educational series were offered to all Department employees through the Commerce Learning Center and recorded for future use. In FY 2023, over 1000 Department employees registered/attended training sessions on topics such as Executive Order 14057 Implementing Instructions, ZEV Workplace Charging, and the Smart Labs Program.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	DM	Renewable energy plus non-electric renewable energy used (as a percentage of total electricity use)	26.0%	13.8%	10.7%	14.5%	21.0%	7.5%	Exceeded	7.5%	7.5%
Current/ Recurring	DM	Number of fleet vehicles converted to or replaced by fully electric or hybrid	10	—	11	9	3	25	Not Met	21	34

Strategic Conclusions and Recommendations

The Department's vision for building an organization prepared for the climate crisis using carbon pollution-free electricity (CFE), zero-emission vehicles, and net zero emission buildings, includes the following steps:
- Harnessing the Department's procurement power to create equitable economic opportunities and invest in and maintain climate-ready, resilient, and sustainable facilities, products, and services.
- Prioritizing improvement in the accuracy of energy, water, and waste data, as well as real property portfolio assessments thorough data validation and evaluations. Replicating successful projects at similar facilities throughout the Department's portfolio through the development of

project templates and centralized contracting opportunities using direct funding, performance contracting, and grants where feasible (e.g., The Department of Energy's Assisting Federal Agencies with Energy Conservation Technologies Grant Program).

- Pursuing energy and water efficiency upgrades, sustainable design, climate-resilient features, and electric vehicle supply equipment, concurrently with all construction and major renovation projects and ensuring master plans and design guides incorporate sustainable and climate-resilient parameters.
- Recognizing Department employees for outstanding performance in implementing exceptional projects or programs that help the Department achieve its mission while reducing greenhouse gas emissions, improving energy and water conservation and environmental performance through the Department's Sustainability, Energy, and Environmental Ambassadors program and the Energy and Environmental Stewardship Awards.
- Providing no-cost, engaging Department-wide training on climate adaptation and resilience; sustainability; energy, water, and waste reduction; and environmental compliance topics to maintain a knowledgeable, effective, and climate-literate workforce.

Actions to Advance Progress through FY 2025

In FY 2024 and FY 2025, the Department will develop case studies for net zero emissions facilities in four common facility categories: remote/island locations, administrative facilities, data centers, and weather stations. These case studies will serve as implementation models for other Department facilities when funding becomes available.

The Department plans to convert 1,457 fossil fuel vehicles to ZEVs, comprising 1,217 light-duty vehicles and 240 medium and heavy-duty vehicles, by FY 2035. Additionally, 1,457 level 2 charging stations will be installed. This strategy will include deploying ZEVs at both leased and federally owned sites, considering site utility limitations and prioritizing locations with environmental justice impact. The Department will develop the Commerce Acquisition Manual (CAM), aligned with the Federal Acquisition Regulation (FAR) 23.103 on Sustainable Acquisitions. This manual is set to be effective from December 4, 2023.

STRATEGIC OBJECTIVE 5.5 – Modernize mission support processes and infrastructure

Lead Bureau: Office of the Secretary
Contributing Bureaus: All Bureaus

Key Strategies:
- Accelerate information technology (IT) modernization
- Advance equity and accountability in mission-focused acquisition, procurement, and grant execution
- Eliminate service duplication and operational inefficiencies across the Department's dispersed mission support functions by integrating them into the Enterprise Services (ES) model
- Monitor compliance with all Federal cybersecurity standards and establish systems to identify emerging vulnerabilities
- Simplify and incorporate enabling technology in core processes

Executive Summary of Progress

In FY 2023, the Department's Chief Information Officers issued the Department's Technical Statement of Direction (TSD) Part II, aligning areas across Commerce and setting a clear direction for progress. The Department's Office of the Chief Information Officer (OCIO) undertook several initiatives supporting IT monitoring and compliance with all Federal cybersecurity standards and establishing enterprise-wide systems to identify vulnerabilities in agency networks.

- **Deployment of a Department-wide ZTA:** Aligned with the Department's ZTA Strategy, foundational capabilities for enterprise ZTA were implemented, including a standardized EDR tool deployed at eight Bureaus, a new Enterprise Identity Management System (IDMS) to support for Single Sign-on, and the selection of a Zero Trust Network Architecture solution. This supports the Department's TSD initiative #2 Zero Trust Architecture and the Department's FY 2023-2025 Cybersecurity Strategy Strategic Goal #1: Architect the Future of DOC Cybersecurity.
- **Successfully transitioned all Bureaus from E3A to the CISA PDNS Resolver Service.** Completion of this effort enabled CISA to detect and prevent cyberattacks targeting Federal civilian Executive Branch agency networks. This supports the Department's FY 2023-2025 Cybersecurity Strategy Strategic Goal #2: Strengthen the Department's Cybersecurity Posture.
- **Implemented Department's Risk and Vulnerability Assessment and managed Vulnerability Disclosure Program.** This supports TSD initiative #1 Commodity Consolidation: Leveraging Vulnerability Identification and Disclosure, and Penetration Testing services, the Department's FY 2023-2025 Cybersecurity Strategy Strategic Goal #2: Strengthen the Department's Cybersecurity Posture and compliance with M-20-32, Improving Vulnerability Identification, Management, and Remediation, Binding Operational Directive (BOD) 20-01, Develop and Publish a Vulnerability Disclosure Policy requirements.

- **Matured the Department's ECDM program:** The Department's OCIO improved and matured its ECDM capabilities, by improving the data quality pertaining to the Bureaus' Vulnerability and Asset Enumeration data and its delivery to CDM agency and Federal dashboards. This accomplishment supports the TSD initiative #1 Commodity Consolidation: Leveraging Vulnerability Identification and Disclosure, and Penetration Testing services, the Department's FY 2023-2025 Cybersecurity Strategy Strategic Goal #1: Architect the Future of DOC Cybersecurity and; compliance with BOD 23-01, Improving Asset Visibility and Vulnerability Detection on Federal Networks; the Office of Management and Budget Memoranda M-23-03, Fiscal Year 2023 Guidance on Federal Information Security and Privacy Management Requirements.
- **Matured the Department's enterprise cybersecurity policy framework:** In FY 2023, the Department's OCIO released several standards and handbooks to update cybersecurity policies, establish standards, and secure the Department's data, systems, and networks. Additionally, a memo on compliance with National Institute of Standards and Technology Special Publication 800-53 Revision 5 was released, targeting completion by December 31, 2023. These actions support Strategic Goal #3: Modernizing Cybersecurity Program Management.

The Department implemented an SMS/MMS message archiving platform as proof of concept and deployed it to the Office of the Secretary. Additionally, a Request for Proposal to upgrade the headquarters' cellular network to 5G, aligning with the ZTA initiative for network infrastructure modernization. An Enterprise Architecture software platform with data normalization software was procured to provide a comprehensive library of Enterprise Architecture, AI, and Technology Business Management documentation and artifacts.

Enterprise Services (ES) modernized mission-enabling processes and infrastructure through its shared services in Acquisition, HR, and IT. Since transitioning to an internal Federal TA servicing HR Office in July 2022, over 1,990 recruitment actions resulted in over 1,000 EODs. In January 2023, a new Onboarding team was established to manage the entire onboarding process, successfully onboarding over 800 new hires since January 2023.

ES hosted career fairs for ITA and BIS, leading to the hiring of over 110 employees. These first ever career fairs supported the Secretary's' program priorities including Committee on Foreign Investment in the U.S. (CFIUS) and Information and Communications Technology and Services (ICTS) for ITA and BIS respectively.

ES awarded 64% of contracted dollars to Small Businesses and 41% to Small Disadvantaged Businesses, exceeding the Department's goals of 39% and 20.9% respectively. Additionally, ES exceeded small business goals for all other subcategories of small business including 8a, Women Owned Small Business, HUBZone, Veteran Owned Small Business, and Service-Disabled Veteran Owned Small Business. Driven by greater usage of the Strategic Sourcing Portfolio, the total dollar value of awards processed in FY 2023 was $822 million, exceeding the previous high of $672 million processed in FY 2022 by 22%. The Strategic Sourcing portfolio provided the Department with $145 million in cost avoidance in FY 2023, an increase over $98 million in cost avoidance in FY 2022.

ES implemented the Faces-to-Spaces Facilities Module to support flexible workspace capabilities. The Federal Acquisition Certification for Contracting Officer's Representatives (FAC-COR) project, an automated workflow for FAC-COR certification requests, was also introduced to streamline application and approval processes.

In FY 2023 the Department Office of Acquisitions Management (OAM):

- Established a DEIA sub-working group under the Department's Grants Council to advance equity and improve access and opportunity for all communities, while focusing on underserved, overburdened, and disadvantaged communities.
- Issued the Department's Financial Assistance DEIA Quick Reference Guide to assist the Department's grant-making bureaus in creating more equitable opportunities for underserved and disadvantaged applicants, focusing on the Notice of Funding Opportunity (NOFO) and the accompanying Merit Review process.
- A Department of Commerce Debriefing Guide was released to highlight best practices and encourage transparent communication with offerors to address barriers to doing business with the Department.
- Exceeded OAM goals for obligating dollars to small and small disadvantaged business concerns.
- Conducted an Acquisition and Financial Assistance Conference attended by over 1,379 people from across the department and focused on the critical role the procurement and financial assistance communities play in executing the department's programs, including CHIPs and BEAD. The conference was an opportunity to both educate and recognize the contributions of the Department's workforce.
- Drafted a Fraud Waste and Abuse Strategy document to address the risk associated with increased program spending.
- Established a risk dashboard for the Department risk profile.
- Released an updated Acquisition Framework Guidebook 2.0 for the predictive PM methodology. The framework included grant programs which are typical in large above base programs.

BIS successfully migrated the Commerce USXPORTS Exporter Support System and its entire application suite to the Microsoft Azure Government cloud platform. The BIS Connect user research project, aimed at engaging with the export community, achieved over 1,000 stakeholder touchpoints. BIS launched a pilot for modernized data analysis and sharing tools, including Power BI and Snowflake data curation solutions.

The U.S. Census Bureau transformed its approach from primarily relying on surveys for statistical data products to utilizing a variety of data sources, including survey, administrative, and other previously collected data. This transition responds more effectively to the nation's evolving needs. To support this new model, Census is developing a modern business ecosystem built around four key innovations, all supported by a transition to cloud infrastructure:

- **Data Ingest and Collection for the Enterprise (DICE)** simplifies data collection processes.
- **The Frames Program** enhances the innovative use of data.
- **The Enterprise Data Lake (EDL)** centralizes data management and processing, for efficient data access and use.
- **Census Enterprise Dissemination Services and Consumer Innovation (CEDSCI)**increases data accessibility.

In FY 2023, the top three key accomplishments related to the four initiatives of the Business Ecosystem:

- In September 2023, Census successfully launched the first survey using DICE and EDL technologies. This was a public dress rehearsal for the new Annual Integrated Economic Survey (AIES) which consolidates seven existing annual business surveys into a single, streamlined survey instrument. The AIES targeted 8,300 U.S. businesses.
- Accelerated delivery of core cloud infrastructure services by merging segmented IT groups into a single Secure Cloud Team, establishing core Financial Operation system capabilities, and developing a comprehensive inventory of systems and a system decommissioning strategy.
- Strengthened cybersecurity with modern data protection and privacy approaches including zero trust capabilities and architectures. In alignment with the Department Cybersecurity Strategy, the Census Bureau renewed its Cybersecurity and Privacy Strategy covering FY 2024 – 2026, representing the commitment to securing the future through innovation and resilience.

The FirstNet Authority (FNA) initiated the transition of its general support services (GSS) network to a Zero Trust Network Access Pilot, moving away from the vice Zscaler Security Service edge application. This transition started with the implementation of Palo Alto firewall appliances and kicking off the Zero Trust Network Access Pilot. This transition eliminated implicit trust policies and continuously validated every stage of digital interaction for greater IT security.

FNA upgraded all teleconferencing equipment to Microsoft Surface Hub enhancing digital collaboration by integrating with Microsoft Teams and eliminating the need for interoperability software. FNA also migrated GSS network from Center for Information Security (CIS) Benchmarks to Defense Information Systems Agency Security Technical Implementation Guide standards, hardening IT assets and balancing functionality with information security.

ITA exceeded the FY 2022-2023 Agency Priority Goal (APG) partly by the capture of digital clients assisted for the first time ever via an Internet Protocol address matching solution and value-added digital content created across the organization. APG digital milestones were completed on schedule by transitioning ITA's web presence on www.trade.gov from a privately managed cloud exclusively supported by ITA to a FedRAMP-certified, partner-managed, web hosting service. These modernizations ensured easier content management and updates, enhanced ITA's web platform stability and security, and delivered a 58% increase in savings on maintenance costs. Additional accomplishments include the launch of an Events Management platform to improve ITA's external client experience; the replacement of legacy technology; the automation of tracking and reporting of bureau goals; the release of a new case management and filing system in support of the Office of the Executive Secretariat that greatly enhances the speed by which filing can be submitted, the number and size of files included in filings, and automation of the workflows necessary for the successful resolution of cases; and the launch of the first bidding cycle in the modernized human capital application system to advertise and manage assignments for ITA Foreign Service Officers; the optimization of user experience; and the successful decommission of the legacy application.

The adoption of the scaled agile framework improved IT product delivery, resource effectiveness, and staff engagement. ITA also improved its electronic records management operations and compliance status. For example, ITA achieved a 37% increase in its Records Management Self-Assessment and

improved its Federal Electronic Records and Email Maturity standing. ITA supported 14 Federal employees as they completed their Records Liaison Officers Certification, transferred 3,150 boxes of records to the Federal Records Center, responsibly destroyed 144 boxes of records eligible for destruction, and implemented a capstone approach to email records retention policy in support of OMB Memorandum 23-07. The capstone approach reduced the burden on individual end-users, enabled ITA to systematically eliminate temporary email, and reduced the amount of email that has no further value in being stored. In collaboration with stakeholder feedback, ITA also developed an automation tool to streamline and simplify purchasing and administrative processes, such as its purchase card program. An electronic tool is under development to reduce cardholder purchasing burdens and redundancies, and to enhance tracking and accountability. An electronic approval process for Form 2086 was similarly developed to reduce cardholder burden and streamline administrative processes. ITA also optimized the digitalized transmission of electronic approval and documentation utilizing SharePoint.

NOAA added more than 13 petaflops of computing capacity across Oak Ridge (Gaea, C5) and Mississippi State University (Orion, Hercules); implemented Customer Relationship Management software to track customer engagement, streamline dataset on-boarding process, and manage data delivery issues and inquiries; and established the Alaska Region Technology Interchange Consortium with a focus on influencing change to statewide broadband access and drive establishment of the Alaska Peering exchange / Trusted Internet Connection.

NTIA outsourced Tier 0 Help Desk and introduced Service Portal for greater transparency and transitioned to cloud-based authentication to provide greater visibility and no dependency on device connection to corporate networks.

In FY 2023, USPTO retired a total of 35 product components, compared to an initial target of retiring at least 10 components. USPTO also increased the number of product components using the cloud by 10 components, compared to an initial target of three components.

Performance Indicator Results and Targets

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Proposed new	DM	Number of workforce trained in innovative acquisition techniques	—	—	—	430	538	400	Exceeded	450	450
Current/ Recurring	DM	Percentage of Acquisitions with a cumulative value over $250K Completed in 120 Days or Less	100%	100%	96%	95%	96%	95%	Exceeded	95%	95%

Class	Bureau	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	DM	Percentage of on-time, on-budget deployments of BAS, GEMS	—	—	—	—	100%	100%	Met	100%	100%

Strategic Conclusions and Recommendations

The Department will follow the TSD directives to optimize operations and make continuous progress as the Department's IT organizations mature and the Cyber Security challenges multiply. The Department faces challenges related to resource requirements, change management, and competing and occasionally incompatible priorities. Another widespread challenge is the skills gap between a workforce trained for the On-Premises environment and one trained for a cloud-based/SaaS environment. Building on the progress made toward completion of TSD initiatives in the coming years will alleviate many of those difficulties and prepare the Department for not just tackling future challenges but seizing future opportunities as well.

The Department may face hurdles in maintaining post-deployment ZTA capabilities that could lead to coverage gaps if some bureaus do not fully commit or funding falls short. Continuous engagement with Bureau CIOs and CISOs is crucial to address these challenges. ECDM is contending with rising software costs while working to consolidate hardware/software management across the Department for better visibility and control.

Efforts are underway to make the Department's SMS/MMS message archiving solution vendor-agnostic. Additionally, progressing the 5G engineering engagement, conversion project, and the security certification and ATO for the Enterprise Architecture software platform is essential. The Department plans to establish baseline cost estimates for bureau-provided commodity services to document cost savings from consolidated service delivery. Support for Enterprise Services-Acquisitions in developing an enterprise vehicle will simplify the management and procurement of commodity IT. In FY 2024, ES will implement a classification tool and Position Description (PD) library in USA Staffing, providing a repository of approved PDs for customer use. ES Acquisition will launch the Acq Hacks program to enhance efficiency and promote employee participation and inclusion. The ServiceNow platform will be upgraded to the latest release to streamline processes and enhance customer experience.

The Department's OAM will:
- Maintain its partnership with the Department's OSDBU and MBDA to raise workforce awareness about industry sources, outreach techniques, market research tactics, and procurement strategies that encourage the inclusion of new entrants and small businesses.
- Conduct the Big A Acquisition and Financial Assistance conference to educate the workforce on programs and initiatives, emphasizing their role in supporting Administration-priority programs related to infrastructure, domestic sourcing, equity, and climate.
- Aim to meet or exceed its targets for obligating dollars to small and small disadvantaged businesses and reduce high-risk contracting.

- Work with the DEIA sub-working group of the Department's Grants Council to mature the Quick Reference Guide and to strengthen the department's approach to advancing equity and expanding access and opportunity for all communities, with emphasis on underserved, overburdened, and disadvantaged communities.
- Expand the Department risk dashboards to include gap analyses and leverage of AI tools.
- Complete an update of the adaptive framework and guidebook.

BIS challenges include reduced staffing levels from slow onboarding of IT contractors due to the lengthy security process and slow hiring process. Meanwhile, technology solutions rapidly change requiring constant skill set updates for staff. The slow rollout of network due to supply chain delays negatively impacted the EIS transition and BIS cannot decommission an expensive data center without disconnecting existing MTIPS, MPLS, and T-1 circuits unless and until replacement connectivity is received.

The Census Bureau's shift to Business Ecosystem technology involves not only the development of new technology infrastructure and applications, but a collaborative, approach that impacts the Census workforce, business processes, resource management, and relationships with stakeholders who request services and work with the Bureau's public data. As a result, the largest challenge Census faces is overall change management that not only oversees technology teams that deliver new technology capabilities but coordinates with directorates on how to balance current stakeholder commitments while transitioning toward new technology and processes.

FNA modernization involves maintaining existing processes and infrastructure while planning, testing, and eventually transitioning to the new ones. The overlap of these parallel processes and the need for end-user involvement during the transition pose organizational change management challenges.

ITA faced challenges in its ability to fully meet the demands for program automation, supply chain, and competences in cybersecurity, artificial intelligence, and technologies. A more streamlined work scope may be required with certain products and services scaled back, potentially impacting the depth of the user experience. The ability to introduce advanced technologies could be hampered, potentially limiting improvements in user engagement including mobile responsiveness and usability enhancements. Balancing competing priorities necessitates astute resource allocation decisions to ensure a coherent innovation and digital strategy. Implementing robust cybersecurity measures may face challenges, which can affect user data protection.

NOAA Citizen Science and Data Analytics faces unique challenges associated with large-scale datasets that include but are not limited to crowdsourcing, data capture, management, analysis, curation, search, sharing, querying, privacy, data transfer and delivery, knowledge discovery, and predictive analysis.

A focus on cloud technology enables further efforts in resilience, security, and emerging technology. USPTO is choosing to make the cloud the primary means to achieve more IT security and greater IT resilience. The cloud enables better, faster, and less expensive results for other initiatives that support security and resilience, such as zero trust, cyclical and efficient remediation of vulnerabilities, data security, etc.

Actions to Advance Progress through FY 2025

The Department will progress with the 13 initiatives in the DOC TSD Part II to enhance further advancement in core IT competencies and accelerate digital transformations. FY 2024-2025 plans to deploy Departmentwide ZTA capabilities include:

- Implementation of Endpoint Detection and Response (EDR) capabilities across the Department's Bureaus.
- Expansion of Identity Management System capabilities.
- Deployment of a ZTA Secure Access Service Edge capabilities to strengthen networks and system access.
- Deployment of data encryption and tagging capabilities to protect sensitive information.

The Department will advance ECDM capabilities, remediate visibility gaps, update the cybersecurity policy framework, and ensure compliance with mandates.

The Department will develop and implement a new marketing technology stack and the evolution of CX technology maturity to a customer-centric level as defined by GSA's Center of Excellence. This supports DOC TSD initiative #1 Commodity Consolidation.

The Department will complete a generative AI pilot project to draft and classify Position Descriptions. Identify further projects and products that can leverage AI to enhance the Department's efficiency, customer service, and product quality.

The Department will establish baseline cost estimates for commodity services as provided by the Bureaus for use in documenting cost savings from consolidated commodity service delivery, and support Enterprise Services-Acquisitions in development of an enterprise vehicle to simplify the management and procurement of commodity IT.

BIS migrated all circuits that will continue service beyond this fiscal year. All other circuits will be disconnected as soon as the installation and configuration of the replacement circuits is complete. BIS will leverage collaborative resources via participation on the Department's CIO Council and Federal Wide CIO-Council Innovation Committee, coordinate MOU of service engagement between OS-OCIO and BIS-OCIO, and heavily participate in the Department's CATTS 10 Year IDIQ vehicle award process. BIS will roll out modern connectivity solutions, including Zscaler for zero trust network architecture, CloudFlare for web application protection and CDN, Azure Virtual Desktop for modern access to BIS applications, Okta for external customer single sign-on solution, and Microsoft Purview for data governance. BIS will cultivate additional collaborative relationships with Industry partners such as Snowflake, Microsoft, etc.

In August 2023, the Census Bureau established a phase two plan for the Business Ecosystem, which has three focus areas. First, developing technology and processes that support the Bureau's transition from a survey focused to a statistical product focused agency. Second, delivering technology that will support ongoing survey work as outlined and planned for in the DICE onboarding schedule. Third, increasing data accessibility and efficiency by moving

data and systems from siloed on-premises locations to being co-located in the cloud. Specific deliverables that are planned for the upcoming year include:

- AIES will transition from dress rehearsal into full production in March 2024.
- Special Census will go into production in June 2024.
- Automating secure cloud infrastructure capabilities and deploying cloud Financial Operations tools for teams across the Bureau to optimize their cloud usage and manage their cloud costs.

FNA will implement IPv6 on the GSS network, transition to the Windows 11 operating system during planned end-user equipment lifecycle refresh in compliance with IT security requirements and implement an enterprise-wide password management system to facilitate user compliance with ever-increasing password complexity requirements.

ITA will pursue enhancements in continuous process improvements, modernization, cybersecurity/zero trust maturity, artificial intelligence, and operations and maintenance. To enable effective management and governance, ITA will partner with executives and management across the Bureau to adopt the Scaled Agile Framework in FY 2024 and beyond.

NOAA will establish the NOAA Cloud Center of Excellence, develop Trusted Internet Connection 3.0 architecture, and provide guidance to enable NOAA utilization of Artificial Intelligence tools and related technologies.

NTIA will continue multi-year cloud transition and optimization of services.

USPTO believes cybersecurity is a reality of modern IT and business management. USPTO will protect systems and data against ever increasing levels of digital attacks. Securing systems against cybersecurity breaches ensures the business continuity of operations and facilitates trust in the integrity of the IP data USPTO protects. An effective cybersecurity program results in customer trust, data integrity and data protection, business continuity, avoidance of costs from system down-time, and avoidance of costs from restoration/recovery including labor costs, and it stops bad actors and economic harm.

As a digital agency, USPTO will ensure that IT solutions are keeping pace with customer and USPTO workforce needs. USPTO will explore and deliver new capabilities, including the cloud, AI, and others, directly supports the ongoing pursuit of secure and resilient solutions that drive USPTO business outcomes.