



U.S. DEPARTMENT OF COMMERCE

FY 2023 Annual Performance Plan

FY 2021 Annual Performance Report



Innovation, Equity, and Resilience
Strengthening American Competitiveness In the 21st Century

DEPARTMENT AT A GLANCE

HISTORY AND ENABLING LEGISLATION

The Department of Commerce (DOC) was originally established by Congressional Act on February 14, 1903, as the Department of 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

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

BUDGET AUTHORITY

The Department’s FY 2021 enacted budget authority was approximately \$8.9 billion.

WEBSITE

The Department’s Internet address is <https://www.commerce.gov/>

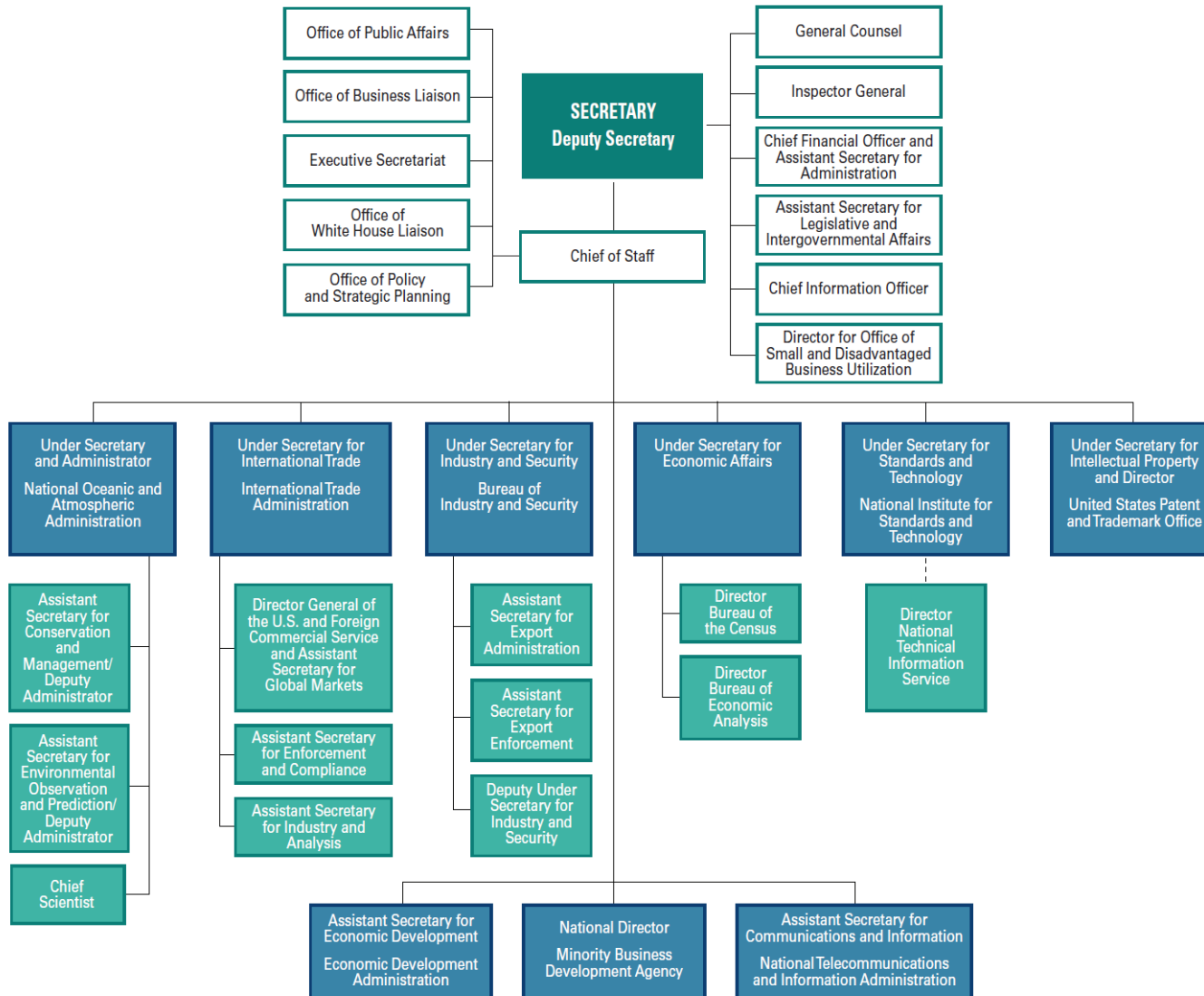
MISSION

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

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

The Government Performance and Results Act (GPRA) and the Modernization Act of 2010 (GPRAMA) require Federal agencies to publish a new strategic plan by the first Monday in February following the year in which the term of the President begins. With the launch of the FY 2023 President's Budget, the Secretary of Commerce will issue a 2022 – 2026 Strategic Plan in accordance with the new Administrations 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.

Political and career leadership in collaboration with representatives across all bureaus developed the Department's FY 2022-2026 Strategic Plan. The plan includes new strategic goals and objectives, Agency Priority Goals, strategies, key performance indicators, and learning agenda questions in line with guidance from the Secretary and the Office of Strategic Planning and Policy. The 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 2021. Second, the Performance Plan sets performance indicator targets for the next two fiscal years. These targets represent the level of performance that core Department programs seek to achieve in the future. Current performance indicators and targets are aligned to the SOs in the Department's next strategic plan. The Departments' APPR will be sent to Congress with the President's Budget. It will report all finalized performance indicator results for FY 2021 and sets finalized targets for FY 2022 and FY 2023 considering the FY 2023 President's Budget and the FY 2022-2026 Strategic Plan. Prior-year APPRs are posted on www.Performance.gov for public view.

PROCESS FOR MONITORING PROGRESS

The Department's Chief Operating Officer, the Deputy Secretary, holds a series of meetings between October and April with the leads for the Strategic Objectives listed in the Strategic Plan. The Deputy Secretary uses these meetings to review data on related performance indicators and progress on milestones. In the spring, the Department conducts its Annual Strategic Review (ASR). The ASR process includes deliberations by multi-bureau Strategic Objective teams. The team meetings foster learning and inform revisions to strategies and performance indicators. In the spring of 2021, the Department conducted the ASR and delivered findings to OMB in June. The FY 2022 ASR process will begin in April 2022.

Bureau 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 various online dashboards and typically reviewed monthly by the various CXOs (e.g., Chief Financial Officer, Chief Human Capital Officer, Chief Acquisition Officer, and Chief Information Officer).

Introduction

ADVANCING PERFORMANCE MANAGEMENT FOR THE DATA-DRIVEN ERA

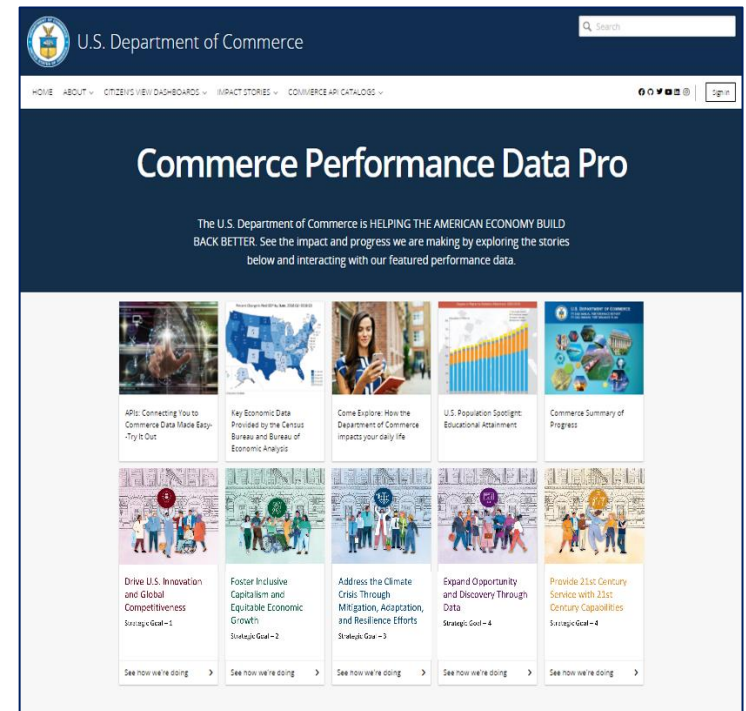
As a premier Federal statistical agency, the Department is striving to lead the way to improve how data is made more easily accessible and useful for the American public. Marking the one-year anniversary of the Foundations for Evidence-Based Policymaking Act (Evidence Act), the Department of Commerce launched [Commerce Performance Data Pro](#), a website that provides citizens an interactive online tool for learning more about the Department, its strategic objectives, and the progress the Department is making. This website is an excellent example of how the Federal Government is making performance data more easily accessible and useful for the American public.

SEEING OUR IMPACT IS EASIER THAN EVER

Using [Commerce Performance Data Pro](#), the American public can easily understand the progress the Department is making by exploring Commerce **Impact Stories** and interacting with the **Citizen's View Dashboards**, charts, key performance indicators (KPIs), and featured datasets. Researchers, businesses, and interested citizens, will appreciate the website's engaging stories and data about the Department's programs that impact daily life. Users can interact with performance data, monitor the Department'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** that summarize progress on the strategic plan and show each bureau's performance
- Access to 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 the Department'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 supports the Department's increased use of program impact and performance data in decision making. This data in this website will also be used to inform the Department's four-year [Learning Agenda](#).

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 performance indicator data on APGs and Cross-Agency Priority (CAP) Goals, which address multi-agency priorities, are also posted to www.Performance.gov. The results achieved during FY 2020 closed out the Administration's reporting on the Department's FY 2021-2022 APGs.

The Department developed a new suite of APGs, as part of the FY 2022 – 2026 Strategic Planning process. These APGs are in line with the priorities of the new Administration. Additionally, in accordance with guidance from OMB, the Department of Commerce is collaborating with the U.S. Department of Agriculture on a Joint Agency Priority Goal related to Broadband. The Department's FY 2022 – FY 2023 APGs are:

- **Ensure all Americans have access to high-speed, affordable, and reliable broadband (Jointly implemented with the U.S. Department of Agriculture):** 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.
- **Increase conservation of America's coastal land and waters:** By September 30, 2023, in support of the America the Beautiful initiative, the National Oceanic and Atmospheric Administration 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 (NERR) to help ensure that nationally significant resources continue to provide economic, social, and environmental benefits for future generations.
- **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 (SME) 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.

CROSS-AGENCY PRIORITY GOALS

The Department of Commerce actively supports the [President's Management Agenda](#) (PMA) and the various Priority Goals that help drive implementation. The Department incorporated the PMA's three priorities: **Strengthening and empowering the federal workforce; delivering excellent, equitable, and secure Federal services and customer experience; and managing the business of government to Build Back Better**. At the time this report was published, no Cross Agency Priority (CAP) Goals were established by OMB. The Department recognizes that the effort to modernize the Federal Government cannot be solely dependent on new resources. In a constrained budget environment, the Department continues to work within existing resources to advance the PMA. The GPRA Modernization Act requires that the CAP Goals be addressed in the agency strategic plan, the annual performance plan, and the annual performance report. The Department will align any CAP goals, plans, and reports to the PMA and the Administrations priorities. For more information refer to www.Performance.gov.

KEY TERMS AND DEFINITIONS IN THE STRATEGIC PLAN AND APPR

The U.S. Department of Commerce Strategic Plans are organized by Strategic Goals, Strategic Objectives, Strategies, and 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 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 performance indicator results and targets are provided in the bureau backup appendices that are part of the Department of Commerce FY 2023 Congressional Budget Justification document.

The following defines terms that are fundamental to Strategic Plans and APPRs:

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 the Department will take to advance its mission.

Strategic Objective – 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 the Department 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. The Department measures and monitors the trend for these indicators.

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

Baseline Value – A 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.

Learning Agenda Questions – Research questions related to the programs, policies, and regulations of the agency that address the Administration's priorities, longstanding challenges, and future priorities that may emerge. Learning Agenda questions come from the Department's Learning Agenda. The Learning Agenda shapes and guides Departmental evidence-building activities.

SUMMARY OF STRATEGIC GOALS AND OBJECTIVES

The following chart summarizes the progress/status of the strategic goals and objectives established in the 2018 – 2022 Strategic Plan. The complete strategic plan can be accessed online at: <https://www.commerce.gov/about/strategic-plan>. The results of FY 2020 **closed out** the formal reporting on these goals and objectives, but the Department completed an assessment for FY 2021 as of 20 January 2021 for transition and final reporting purposes.

Strategic Goal	Strategic Objectives	FY 2018 Status	FY 2019 Status	FY 2020 Status	FY 2021 Status
Goal 1	1.1 - Expand Commercial Space Activities	On Track	Focus for Improvement	Noteworthy Progress	On Track
	1.2 - Advance Innovation	On Track	On Track	On Track	On Track
	1.3 Strengthen Intellectual Property Protection	On Track	On Track	On Track	On Track
Goal 2	2.1 - Increase Aquaculture Production	Focus for Improvement	On Track	Focus for Improvement	Focus for Improvement
	2.2 - Reduce and Streamline Regulations	On Track	On Track	On Track	N/A
	2.3 - Strengthen Domestic Commerce and the U.S. Industrial Base	On Track	On Track	On Track	On Track
	2.4 - Increase U.S. Exports	On Track	On Track	Focus for Improvement	Noteworthy Progress
	2.5 - Increase Inward Investments into the United States	On Track	On Track	On Track	On Track
Goal 3	3.1 - Enforce the Nation's Trade Laws and Security Laws	On Track	Noteworthy Progress	Noteworthy Progress	On Track
	3.2 - Enhance the Nation's Cybersecurity	On Track	Noteworthy Progress	On Track	On Track
	3.3 - Reduce Extreme Weather Impacts	Focus for Improvement	On Track	On Track	On Track
	3.4 - Deploy Public Safety Broadband	Noteworthy Progress	Noteworthy Progress	Noteworthy Progress	Noteworthy Progress
Goal 4	4.1 - Conduct a Complete and Accurate Decennial Census	On Track	On Track	On Track	On Track
	4.2 - Provide Accurate Data to Support Economic Activity	Noteworthy Progress	Noteworthy Progress	Noteworthy Progress	Noteworthy Progress
Goal 5	5.1 - Engage Commerce Employees	On track	Focus for Improvement	Focus for Improvement	Focus for Improvement
	5.2 - Accelerate Information Technology Modernization	On track	On Track	On track	On Track
	5.3 - Consolidate Functions for Cost Savings	On track	On Track	On track	On Track

Introduction

The FY 2022 – 2026 Strategic Plan is based on the priorities of the Administration. The complete Strategic Plan is posted publicly, concurrently with the Congressional Budget Justification. The following table summarizes the goals and objectives established in the new plan.

Strategic Goal	Strategic Objectives
Goal 1 – Drive U.S. Innovation and Global Competitiveness	1.1 - Revitalize U.S. manufacturing and strengthen domestic supply chains
	1.2 - Accelerate the development, commercialization, and deployment of critical and emerging technologies
	1.3 - Increase international cooperation and commerce
	1.4 - Protect national security interests and enforce trade rules
	1.5 - Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship
	1.6 - Improve the Nation’s cybersecurity and protect Federal Government networks
	1.7 - Advance U.S. leadership in the global commercial space industry
Goal 2 – Foster Inclusive Capitalism and Equitable Economic Growth	2.1 - Drive equitable, resilient, place-based economic development and job growth
	2.2 - Build sustainable, employer-driven career pathways to meet employers’ need for talent and to connect Americans to quality jobs
	2.3 - Advance entrepreneurship and high-growth small and medium-sized enterprises
	2.4 - Expand affordable, high-quality broadband to every American
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
	3.2 - Strengthen coastal resilience and advance conservation and restoration of lands and waters for current and future generations
	3.3 - Accelerate development and deployment of clean technologies
	3.4 - Embed climate considerations across Department programs
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
	4.2 - Modernize economic and demographic statistics to better meet business, policymaker, and community needs
	4.3 - Improve Commerce data usability and advance ethical, responsible, and equitable data practices
Goal 5 – Provide 21st Century Service with 21st Century Capabilities	5.1 - Effectively implement new Department of Commerce authorities and investments
	5.2 - Optimize workforce and diversity, equity, and inclusion practices
	5.3 - Equitably deliver exceptional customer experience
	5.4 - Make Department facilities and operations more sustainable and efficient
	5.5 - Modernize mission support processes and infrastructure

DEPARTMENT OF COMMERCE FY 2021 ACCOMPLISHMENTS

The Secretary of Commerce issued a statement highlighting key accomplishments at the Department of Commerce from January 20 through the end of December 2021. The U.S. Department of Commerce also released a [fact sheet](#) highlighting detailed accomplishments from each of the Bureaus. The Secretary of Commerce expressed gratitude toward the “dedicated civil servants who tirelessly execute the Department of Commerce’s mission of expanding America’s global competitiveness” while navigating the work environment during the global pandemic. Key Department of Commerce accomplishments during 2021 include, but are not limited to:

- The Secretary negotiated and helped secure \$65 billion in funding for universal broadband through the Bipartisan Infrastructure Law, with \$48 billion directed to the National Telecommunications and Information Administration (NTIA).
- The Infrastructure Investment and Jobs Act secured permanent authorization for the Minority Businesses Development Agency (MBDA), the only Federal agency dedicated to promoting the growth, development, and resilience of minority-owned businesses.
- Launched six Economic Development Administration (EDA) grant programs that allocate \$3 billion to enhance long-term economic growth opportunities for communities and workers that are too often overlooked.
- Successfully protected national security while removing a major diplomatic irritant with the European Union (EU) and prevented retaliatory tariffs by negotiating modifications to Section 232 steel and aluminum measures that support the viability of U.S. industry and protect thousands of American jobs.
- Helped secure bipartisan Senate passage of the United States Innovation and Competition Act of 2021, which includes funding for America’s domestic semiconductor manufacturing industry.
- In support of the Department’s work to rebuild America’s semiconductor supply chain, the Department issued a voluntary Request for Information to bring transparency around inventory, orders, and bottlenecks in the supply chain and launched an early alert system to help address real-time semiconductor supply chain disruptions linked to COVID-19–related public health developments. Additionally, the Department and the National Economic Council convened semiconductor industry participants throughout the year and made progress in improved communication and trust across the supply chain and improvements in the supply chain practices of chip consumers. Ford and GlobalFoundries have credited the Department convenings for their partnership to produce more chips for Ford vehicles in the U.S.
- Successfully fulfilled the Department’s constitutional mandate by providing the 2020 Census apportionment results to the President and Congress.
- Initiated discussions on an Indo-Pacific Economic Framework, together with the Office of the United States Trade Representative, that will define shared objectives around key areas, such as the digital economy and technology, supply chain resilience, and infrastructure.
- Launched the U.S./EU Trade and Technology Council, which serves as a forum to expand digital collaboration and promote alignment on technology rules based on shared values of democracy, individual rights, and market-oriented growth.

Department of Commerce FY 2021 Accomplishments

- In response to substantial input from the public, the Department issued a new rule imposing export controls on certain cybersecurity items to further prevent use of U.S. technology for malicious cyber activities while facilitating legitimate cybersecurity work.
- Contributed essential data, services, and solutions to address the climate crisis through an upgraded climate.gov website, highlighted the U.S. commitment to address climate change as part of the U.S. delegation to the COP26 climate conference, and initiated a series of listening sessions with private sector industries to further dialogue on how these sectors can better use NOAA's weather and climate data.
- Bolstered the New Blue Economy by coordinating the siting and permitting process for offshore wind projects to support the Administration's clean energy goal of 30 gigawatts of offshore wind by 2030, including by developing a comprehensive interagency approach to mitigate impacts of offshore energy development on fisheries scientific surveys.
- Posted a series of eight Climate and Equity roundtables to listen and learn from vulnerable communities about how the agency can better meet their needs to address climate risks.

The Secretary outlined the priorities for FY 2022 which included strengthening and diversifying America's supply chains, re-imagining America's workforce development programs, addressing the climate crisis, beginning work to provide universal broadband to all Americans, and finding new ways to help women return to the workforce at their pre-COVID-19 levels. The FY 2022–2026 Strategic Plan aligns with these priorities.

- Securing final passage of the U.S. Innovation and Competition Act, which includes \$52 billion for domestic semiconductor production.
- Implementing the President's infrastructure agenda, including making progress toward meeting the President's goal of universal, affordable broadband by the year 2030.
- Investing in the middle class, especially women, through sustainable investments in infrastructure, childcare, and job training to increase the labor force and reduce costs for families.
- Completing distribution of EDA funding from the Coronavirus Aid, Relief, and Economy Security (CARES) Act and American Rescue Plan (ARP) Act, which helps strengthen regional economic growth, support local businesses, and ensures workers are prepared for the jobs of today and tomorrow.
- Increasing clean tech exports to advance the domestic competitiveness of green industries and create jobs.
- Coordinating with allies to define shared goals and objective as it relates to technology and supply chains. This includes releasing a joint statement with U.S. partners highlighting a shared vision for the Indo-Pacific Economic Framework and continued definition of shared goals and objectives through the U.S.-EU Trade and Technology Council.
- Confronting the People's Republic of China (PRC)'s Military-Civil Fusion (MCF) Strategy, human rights abuses, and unfair and market-distorting industrial policies, while leveling the playing field for American companies in the PRC and protecting U.S. technology from unauthorized uses and users. To this end, the Department will continue to work with stakeholders to strengthen compliance with export controls as appropriate, monitor the use of key technologies by the Chinese Government and commercial entities, and vigorously investigate and impose criminal and/or administrative penalties in response to violations.

CARES 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	Amount Obligated (as of September 30, 2021)	Amount Outlayed (as of September 30, 2021)
Economic Development Administration (EDA)	\$1.5 billion ¹	\$1.386 billion, 94.5% ¹	\$428.7 million, 29.2%
National Oceanic and Atmospheric Administration (NOAA)	\$320 million	\$319.9 million, 99.9%	\$235.1 million, 73.5%
National Institute of Standards and Technology (NIST)	\$66 million	\$66 million, 100%	\$54.7 million, 82.9%
Minority Business Development Agency (MBDA)	\$10 million	\$10 million, 100%	\$9.6 million, 96.0%

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	Amount Obligated (as of September 30, 2021)	Amount Outlayed (as of September 30, 2021)
Economic Development Administration (EDA)	\$3 billion	\$7 million, 0.24% ²	\$0, 0%
National Institute of Standards and Technology (NIST)	\$150 million	\$90 million, 60%	\$0, 0%

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](#).

¹ When calculating EDA's CARES Act Percent Obligated and Percent Outlayed, the amount used for the denominator is \$1.467 billion instead of \$1.5 billion due to the \$30 million spent on salaries and expenses and a \$3 million payment to the Department's Office of Inspector General to audit execution of the CARES Act funding. This adjustment applies to the DOC Total Percent values too.

² Likewise, EDA's ARP's Total Budgetary Resources are reduced to \$2.940 billion when calculating percent values due similar adjustments.

Top Management Challenges

The Department is making substantial progress on allocating and managing its CARES Act and ARP Act funding. All bureaus are either on schedule or ahead of schedule. An update on funding deployment and overall status is incorporated into the sections below.

EDA – CARES: \$1.5 billion; ARP: \$3 billion

CARES Act Key Progress and Accomplishments

- CARES Act Notice of Funding Opportunity (NOFO) was published on 7 May 2020, via an update to EDA’s Public Works and Economic Adjustment NOFO originally published in October 2019.
- The first CARES Act grant award was announced on 16 June 2020 and as of 30 September 2021, 1,194 total grants were awarded.
- As of 30 September 2021, EDA obligated 94.5% and outlayed 29.2% 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 or retain 154,144 jobs within nine years of EDA’s investment.
- All CARES Act funds will be obligated by 30 September 2022 and outlayed by 30 September 2027.
- In FY 2021, EDA partnered with Argonne National Labs (ANL) to evaluate the impact of EDA CARES Act funding at the regional level using grantee-reported data and third-party economic indicators.
 - ANL will recommend new metrics to better capture the impact of EDA CARES Act awards.
- To assist with processing CARES Act grants, EDA hired over 75 new term hires throughout six regional offices and Washington, DC headquarters.
- 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 new ARP Act programs on 22 July 2021.
- The first ARP Act grant award was obligated on 24 September 2021 and as of 30 September 2021, 6 total grants were awarded.
 - Based on grantee estimates, these awards are expected to create or retain 300 jobs within nine years of EDA’s investment.
- As of 30 September 2021, EDA obligated \$7 million or 0.24% and outlayed 0% of its ARP Act funding.
- Through 30 September 2021, EDA conducted outreach to potential applicants by holding 10 public webinars for more than 20,000 participants and over 50 webinars for Congressional staff, the U.S. Chamber of Commerce, and the National Association of Development Organizations.
- To better engage stakeholders and potential applicants, EDA created several tools, including [FAQs](#) and [applicant checklists](#).

NOAA – CARES: \$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 September 2021, 6 total grants were awarded.
- As of 30 September 2021, NOAA obligated all 100% and outlayed 73.2% of its Fisheries specific CARES Act funding.
- All remaining NOAA Fisheries funds are expected to be outlayed by October 2022.
- Thirty states/territories and all 54 tribes spend plans are operational.
- The Office of the Chief Financial Officer (OCFO) was allocated \$20 million in CARES Act funding to be used for signage, enhanced COVID-19 testing in NOAA ships, weather equipment, cleaning NOAA facilities, and enhanced IT support for telework.
- The first contract was awarded in May 2020 and as of 30 September 2021, NOAA awarded 179 contracts.
- As of 30 September 2021, NOAA obligated 99.5% and outlayed 85.2% of its OCFO specific CARES Act funding.
- All remaining OCO funds will be outlayed by December 2021.
- No identified instances of waste, fraud, or misuse of funds with NOAA's CARES Act funds. NOAA followed requirements, mitigated review, and approval challenges, and is on track with obligations.

NIST – CARES: \$66 million; ARP: \$150 million

CARES Act Key Progress and Accomplishments

- NISTs Manufacturing Extension Partnership Program (MEP) was allocated \$50 million in CARES Act funding to provide consulting, needs assessments, and other services to assist clients operating in a post-pandemic environment.
- CARES Act NOFO was published on 10 April 2020.
- The first CARES Act grant award was announced on 15 May 2020 and as of 30 September 2021, 51 total grants were awarded.
- As of 30 September 2021, NIST obligated all 100% and outlayed 85.9% of its MEP specific CARES Act funding.
- All remaining MEP funds will be outlayed by December 2021.
- To date, more than 26,000 projects have been completed, which generated \$833 million in sales, \$296 million in total investment, \$103 million in cost savings, and created and retained 13,464 jobs.
- NISTs Manufacturing USA was allocated \$10 million in CARES Act funding to enable grantees to improve production and testing of PPE.
- CARES Act NOFO was published on 30 March and 4 April 2020.
- The first CARES Act grant award was announced on 26 May 2020 and as of 30 September 2021, 2 total grants were awarded.
- As of 30 September 2021, NIST obligated all 100% and outlayed 64.9% of its Manufacturing USA specific CARES Act funding.
- All remaining Manufacturing USA funds will be outlayed by January 2022.

Top Management Challenges

- NIST's partners helped respond to the pandemic by demonstrating disinfectant capabilities of vaporous hydrogen peroxide, enabling production of more than 100 million masks since March 2020 for front-line healthcare workers.
- Teams at Wadsworth Center and MassBiologics developed improved antigen tests for SARS-CoV-2 screening that are used internationally to compare capabilities of antigen tests from different suppliers.
- No identified instances of waste, fraud, or misuse of funds with MEP or Manufacturing USA CARES Act funds. NIST was proactive in executing requirements, mitigated challenges, and met milestones.

ARP Act Key Progress and Accomplishments

- NIST published the ARP Act NOFO/RFA on 26 April 2021 and 24 May 2021.
- The first ARP Act grant was awarded on 13 July 2021 and as of 30 September 2021, 1 total grant was awarded.
- As of 30 September 2021, NIST obligated 60% and outlayed 0% of its ARP Act funding.
- This funding allowed biopharmaceutical manufacturers / suppliers to prioritize analytical technology to improve vaccine access and efficiency.
- Project teams shared study results through 20+ publications and 12 presentations in high-profile forums, with 8 manuscripts pending publication.
- The America Makes award resulted in 144 scholarships awarded, and over 1,000 people trained in industry-relevant AM content across 48 states and over 100 companies, amounting to over 4,000 hours in training.

MBDA – CARES: \$10 million; 2021 Omnibus \$25 million

CARES Act Key Progress and Accomplishments

- CARES Act NOFO was published on 4 May 2020.
- The first CARES Act grant award was announced on 3 June 2020 and as of 30 September 2021, 30 total grants were awarded to 29 grantees.
- As of 30 September 2021, MBDA obligated all 100% and outlayed 96% of its CARES Act funding.
- MBDA served 931,659 small and minority businesses which resulted in 3,268 client success stories and 14,617 positive economic impacts in distressed areas.
- MBDA assisted firms with financial applications, resulting in 1,531 loans awarded with a total value of \$28.9 million.
- No identified instances of waste, fraud, or misuse of funds with MBDA CARES Act funds.
- 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 2021, \$18 million was obligated, \$2.5 million was outlayed, and spending for the remaining \$7 million was pending Departmental clearance at the time this document was published.

FY 2022 TOP MANAGEMENT CHALLENGES

The DOC Office of Inspector General (OIG) identified seven management challenges within the Department for FY 2022. Department Leadership addresses these challenges through the enterprise risk management (ERM) process, strategic planning, and multi-disciplinary program review boards.

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

FY 2022 Management Challenge Identified by DOC OIG	Alignment to Department 2022-2026 Strategic Objectives that Address the Challenge	Official Responsible for Resolving the Challenge
1. Improving the Department’s Cybersecurity Resiliency	SO 1.6 – Improve the Nation’s cybersecurity and protect Federal Government networks	Chief Information Officer, Department of Commerce
2. Maintaining Continuity, Managing Risks, and Leveraging Investments to Improve Satellite Data, Products, and Services	SO 1.7 – Advance U.S. leadership in the global commercial space industry 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 Satellite & Information Services, NOAA Chief Information Officer, NOAA Assistant Administrator for the National Weather Service, NOAA
3. Addressing Departmental Management Matters Involving Acquisitions and Grants	SO 5.5 – Modernize mission support processes and infrastructure	Senior Procurement Executive/Director, Office of Acquisition Management, Department of Commerce
4. Enhancing Capacity to Enforce Fair and Secure Trade	SO 1.3 – Increase international cooperation and commerce SO 1.4 – Protect national security interests and enforce trade rules	Assistant Secretary for International Trade and Director General of the U.S. & Foreign Commercial Service Deputy Assistant Secretary for Export Administration, BIS Deputy Assistant Secretary for Enforcement and Compliance, ITA

Top Management Challenges

FY 2022 Management Challenge Identified by DOC OIG <i>continued</i>	Alignment to Department 2022-2026 Strategic Objectives to Address the Challenge	Official Responsible for Resolving the Challenge
5. Establishing a Strong Framework for Designing the 2030 Census and Improving Operations over Surveys and Employee Background Investigations	SO 4.2 – Modernize economic and demographic statistics to better meet business, policymaker, and community needs	Associate Director for Decennial Census Programs, Census Bureau
6. Meeting Intellectual Property Stakeholder Needs in the Midst of Economic, Technological, and Legal Changes	SO 1.5 – Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship	Deputy Under Secretary and Deputy Director, USPTO
7. Deploying a Nationwide Public Safety Broadband Network	SO 2.4 – Expand affordable, high-quality broadband to every American	Chief Executive Officer, First Responder Network Authority

FY 2022 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 seven FY 2022 management challenges.

1. Improving the Department’s Cybersecurity Resiliency		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Improve the Department’s capability to respond to emerging cyber threats 	<ul style="list-style-type: none"> Review the Cybersecurity and Infrastructure Security Agency’s (CISA) Cybersecurity Incident and Vulnerability Response playbook to identify updates to be made for the DOC Playbook Publish a new DOC Enterprise Cybersecurity Policy and DOC Supply Chain Risk Management and IT Acquisitions handbook (GAO-21-164SU) 	<p>NIST’s Secure Software Development Framework (SSDF) Version 1.1</p> <p>Federal Government Cybersecurity Incident and Vulnerability Response Playbooks</p>
<ul style="list-style-type: none"> Mature the information technology (IT) security program and fulfill the President’s executive order on improving the nation’s cybersecurity 	<ul style="list-style-type: none"> Ensure IT security controls are consistently implemented and enforced by publishing the DOC Enterprise Cybersecurity Policy, controls matrix, standards, and handbooks Identify Legacy systems through Rev 5 implementation and assessment in FY 2022 Manage the security risk of legacy systems that cannot meet the current requirements from the Executive Order (EO) 14028 Reduce the impact of cyber threats through effective identity and access management with the development of the DOC Zero Trust Strategy and the timelines set forth in the roadmap Implement new security requirements and manage challenges with DOC-wide participation Report on FISMA Metrics requirements progress 	<p>Security and Privacy Controls for Information Systems and Organizations</p> <p>SP 800-82 Rev. 2, Guide to Industrial Control Systems (ICS) Security</p> <p>Federal Zero Trust Strategy</p> <p>FY 22 CIO FISMA Metrics</p>

Top Management Challenges

2. Maintaining Continuity, Managing Risks, and Leveraging Investments to Improve Satellite Data, Products, and Services		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Ensure that NOAA polar, geostationary, and space weather satellite missions remain on target for schedule and cost within the program's scope of control. 	<ul style="list-style-type: none"> Successful launch of the GOES-T satellite Key Decision Point C (KDP-C) approval for SWFO-L1 Program to begin implementation Key milestones completed on time for satellite deployments Percentage of data processed and delivered to operational users from NOAA-managed satellites 	https://www.nesdis.noaa.gov/content/our-satellites
<ul style="list-style-type: none"> Conduct trades, analyze, and plan the procurement of future data sources and satellite and ground architecture. 	<ul style="list-style-type: none"> Complete GeoXO Milestone 1 (MS-1) to formally initiate the GeoXO program Complete DOC Milestone 1 (MS-1) to formally initiate the QuickSounder project Complete Space Weather Next (SW Next) Milestone 1 (MS-1)/Key Decision Point 0 (KDP-0) to formally initiate the SW Next program Release Commercial Data RFI to get commercial sector capability requests in space weather 	Not applicable
<ul style="list-style-type: none"> Initiate identification of potential spectrum resource usability issues and spectrum resource priorities for both operational and planned, future spectrum dependent systems. 	<ul style="list-style-type: none"> Review current and planned portfolios of spectrum dependent systems against spectrum bands that are at risk for potential interference Develop capability requirements needed to assess impacts of potential interference for operational spectrum dependent systems and as part of the development process for future systems 	Not applicable
<ul style="list-style-type: none"> Initiate development of a space situational awareness and space traffic management capability. 	<ul style="list-style-type: none"> Leverage analysis of alternatives (AoA) on space situational awareness (SSA) to evaluate strategies to establish a civilian commercial SSA capability. Initiate development of the operational open architecture data repository (OADR). 	Not applicable
<ul style="list-style-type: none"> Develop a cross-NOAA Annual Operating Plan and leverage the cross-NOAA work of the Weather, Water, and Climate Board (WWCB). 	<ul style="list-style-type: none"> Track progress of milestones in the NOAA and WWCB integrated Annual Operating Plan. 	Not applicable

3. Addressing Departmental Management Matters Involving Acquisitions and Grants		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Ensure prudent financial management and oversight of pandemic and disaster relief funding 	<ul style="list-style-type: none"> Strengthen suspension and debarment program and ties with OIG to detect potential fraud earlier Document Acquisition and Grant Management Review findings and ensure corrective action plans are followed as applicable Apply program management practices to track pandemic and disaster relief funding 	<p>https://www.commerce.gov/oam/policy/suspension-and-debarment</p> <p>Acquisition Management Review Procedures Guide</p> <p>Grants and Cooperative Agreements Manual</p>
<ul style="list-style-type: none"> Improve management and oversight of high dollar/high risk contract portfolios, contract execution, and performance 	<ul style="list-style-type: none"> Complete appropriate Milestone Review Board and Acquisition Review Board reviews Maintain and expand application of I-PM tool 	<p>https://www.osec.doc.gov/opog/dmp/daos/dao208_16.html</p> <p>Acquisition Management Review Procedures Guide</p>
<ul style="list-style-type: none"> Improve the management of IT acquisitions and operations 	<ul style="list-style-type: none"> Complete appropriate Commerce Information Technology Review Board reviews Ensure Program Managers responsible for IT programs obtain IT specialization certification Expand number of Contracting Officers with Digital Services specialization certification 	<p>https://www.commerce.gov/page/governance-board-participation-cio</p> <p>https://www.fai.gov/sites/default/files/2017-3-27-FAC-PPM-IT-Comp-Final.pdf</p> <p>FAC-C-Digital Services - Digital IT Acquisition Program</p>
<ul style="list-style-type: none"> Ensure proper contract and grant file maintenance in virtual and other flexible work environments 	<ul style="list-style-type: none"> Meet implementation milestones for new contract writing system and Grants Enterprise Management Solution Document Acquisition Management Review and Grant Management Review findings and ensure corrective action plans are followed as applicable 	<p>https://www.commerce.gov/ofm/bas-homepage/business-applications-solution-bas</p> <p>Acquisition Management Review Procedures Guide</p> <p>Grants and Cooperative Agreements Manual</p>
<ul style="list-style-type: none"> Develop and retain a competent acquisition workforce to support the Department’s mission 	<ul style="list-style-type: none"> Conduct Big A Conference Operationalize The Lab at DOC through targeted training, resource development and coaching Maintain and expand Program Management CoP 	<p>https://www.commerce.gov/oam/calendar/events/big-acquisition-conference</p> <p>https://www.commerce.gov/oam/lab</p>

Top Management Challenges

4. Enhancing Capacity to Enforce Fair and Secure Trade:		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Improve and implement the Section 232 Exclusion Request Portal launched in 2019 	<ul style="list-style-type: none"> Increase in submitted Exclusion Request workload Improvements to the 232 Exclusions Portal Overall rejection or withdrawal rate for filings Information Technology (IT) Improvements Technical improvements to 232 Exclusions Portal to increase efficiency, transparency, ease of use 	Steel and Aluminum Tariffs: Commerce Should Improve Its Exclusion Request Process and Economic Impact Reviews U.S. GAO
<ul style="list-style-type: none"> Track Time from Submissions to Time of Decisions 	<ul style="list-style-type: none"> Processing time for Exclusion Requests with and without Objections 	Not applicable
<ul style="list-style-type: none"> Procedural Changes 	<ul style="list-style-type: none"> Alleviate resource burden on partner agencies, such as eliminating duplicative upload requirements for ITA Recommendations Memos Implement the General Approved Exclusions in the Dec. 14, 2020 Interim Final Rule for items under 123 Harmonized Tariff Codes of the U.S. Finalize review of 232 Exclusions Process Draft Notice of Inquiry for public comment on GAEs 	December 14, 2020 BIS Section 232 Final Rule ("Fourth IFR") (85 FR 81060)
<ul style="list-style-type: none"> Develop Regular Reporting Processes 	<ul style="list-style-type: none"> Develop a regular reporting structure to ensure proper documentation and actions are identified Update Frequently Asked Questions 	BIS Section 232 Exclusions Process FAQs Steel and Aluminum Forms & Supporting Guides
<ul style="list-style-type: none"> Facilitate Joint U.S.-European Union (E.U.) Agreement on Section 232 Exclusion Requests, heading off additional retaliatory tariffs 	<ul style="list-style-type: none"> Replace Section 232 tariffs with tariff-rate quotas. Negotiate global steel and aluminum arrangements that restore market-oriented conditions and address carbon intensity Lift the E.U.'s retaliatory tariffs and suspend disputes before World Trade Organization panels 	Statement from Secretary Raimondo and United States Trade Representative Tai Statement from the EU Joint US-EU Statement
<ul style="list-style-type: none"> Ensure staffing levels for trade programs Build staff expertise for AD/CVD anti-circumvention inquiries to ensure integrity of U.S. trade remedy orders 	<ul style="list-style-type: none"> Fill vacant ITA positions Establish E&C training materials about AD/CVD circumvention 	Congressional Submission - Budget Estimates - Fiscal Year 2021 (commerce.gov)

5. Establishing a Strong Framework for Designing the 2030 Census and Improving Operations over Surveys and Employee Background Investigations		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Conduct Evaluations and Experiments (EAE) to formulate and execute an experimentation program to support early planning and inform the transition and design of the 2030 Census Develop a transition plan and appropriate organizational structures to establish 2030 Census life cycle planning Initiate early planning activities for the 2030 Census, including the monitoring of policy concerns and technological, societal, and public cooperation trends 	<ul style="list-style-type: none"> Conduct preliminary planning for the 2030 Census program proposal 	https://trumpadministration.archives.performance.gov/commerce/APG_commerce_1.html
<ul style="list-style-type: none"> Engage with the OIG to address improvements to ensure the Census’s background check process achieves adequate vetting for all background investigations 	<ul style="list-style-type: none"> Develop an Action Plan when the 2021 engagement report is finalized in early 2022 	Not applicable

Top Management Challenges

6. Meeting Intellectual Property Stakeholder Needs in the Midst of Economic, Technological, and Legal Changes		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<p>Improve efficiency, quality, and timeliness of patent decisions:</p> <ul style="list-style-type: none"> • Ensure examiner excellence measuring and improving timeliness, compliance, and quality • Enhance prior art search by releasing a new AI feature into Patent End-to-End (PE2E) Search • Gather insight into customers' opinions of patent quality to identify areas of opportunity • Study and identify solutions to policy, process, and technology challenges by standing up a Research & Development (R&D) art unit • Establish collaborative patent training process • Ensure timely processing of appeals and contested cases 	<ul style="list-style-type: none"> • Use patent quality data to identify areas for improvement and monitor PTA results • Release new AI search feature into PE2E Search and expand access to examining corps • Increase international work sharing efforts • Provide training and guidance on customer satisfaction • Stand up the R&D art unit • Develop and deliver technical and legal training • Monitor overall average pendency of 6000+ appeals decided annually • Monitor pendency of contested cases • Complete relevant corrective actions 	<p>https://www.uspto.gov/dashboard/patents/</p> <p>https://www.uspto.gov/initiatives/artificial-intelligence</p> <p>https://www.uspto.gov/patents/basics/international-protection/patent-prosecution-highway-pph-fast-track</p>
<p>Ensure proper use of the trademark system:</p> <ul style="list-style-type: none"> • Implement Trademark Modernization Act (TMA) • Boost register protection by improving administrative sanctions program • Strengthen login security for applicants, to mitigate suspicious or fraudulent filings 	<ul style="list-style-type: none"> • Implement TMA nonuse proceedings • Implement TMA response periods • Increase investigative capacity for sanctions • Issue orders for sanctions against large-scale fraudulent filers • Implement Login Id verification by Sept. 30, 2022 	<p>https://www.uspto.gov/trademarks/laws/2020-modernization-act</p> <p>https://www.uspto.gov/trademarks/trademark-updates-and-announcements/orders-issued-commissioner-trademarks</p>
<p>Manage performance of mission-critical services:</p> <ul style="list-style-type: none"> • Create a Lead Product Owner (LPO) position to provide oversight of PTAB IT system transition • Develop AI tools and capabilities in a phased approach to minimize risks • Create tools and policies to encourage greater and more timely information sharing • Improve acquisition planning and enhance contract oversight and performance reporting 	<ul style="list-style-type: none"> • Appoint a Lead Product Owner in FY 2021 • CPC label distributions; examiner tool usage metrics; "offline" relevance metrics • Detailed SME inspections of AI system behavior • Track and monitor the efficacy of acquisition teaming arrangements • Conduct acquisition policy reviews for user understanding and compliance 	<p>https://www.uspto.gov/about-us/organizational-offices/public-advisory-committees/patent-public-advisory-committee-ppac</p> <p>https://www.uspto.gov/initiatives/artificial-intelligence</p> <p>EO 13960 Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government</p>

7. Deploying a Nationwide Public Safety Broadband Network		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Update the FirstNet Authority Investment Policy and Procedures to emphasize the importance of high impact investments on public safety, alignment with the FirstNet Authority Roadmap, and strong financial stewardship Update contract and program oversight processes that incorporate lessons learned and changes in the organization Create a robust program around performance management to include existing Nationwide Public Safety Broadband Network (NPSBN) key performance indicators and FirstNet Authority enterprise performance elements 	<ul style="list-style-type: none"> Receive approval from FirstNet Authority Board for up to \$94 million in available investment resources for network enhancements Operationalize FirstNet Authority Integrated Master Schedule by March 2022 Create or update existing processes around contract and program oversight to incorporate necessary updates and lessons learned by April 2022 Stand up a program management function and associated reporting around performance management of internal performance and the management of the NPSBN KPIs by June 2022 	<p>About The Roadmap First Responder Network Authority (firstnet.gov)</p>

STRATEGIC OBJECTIVES' PERFORMANCE ASSESSMENT AND PLANNING

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

Lead: NIST; Contributing Bureaus: BEA, BIS, Census Bureau, 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

A partner to the U.S. manufacturing sector for more than a century, NIST has a proven track record in delivering useful tools and technical assistance that existing manufacturers and aspiring start-ups need. NIST's measurement research and manufacturing-focused programs provide a foundation that helps the nation's manufacturers invent, innovate, and create new products and services more rapidly and efficiently than their competitors around the world. NIST supports U.S. manufacturing through:

- NIST's Laboratories—including one national user facility—provide industry with precision measurement technologies, tests, protocols, and world class scientific and engineering knowledge. The outputs of the NIST labs include scientific data and methods that are used in the processes, products, and services of nearly every U.S. manufacturing industry, as well as the nation's service sector.
- A public-private partnership, the Hollings Manufacturing Extension Partnership Program (MEP), is a national network of technical assistance centers and offices located in every state. MEP connects small- and medium-sized manufacturers to training, tools, and other resources essential for increasing innovation capabilities, expanding markets, and improving productivity and overall competitiveness.
- The National Advanced Manufacturing Program Office hosted by NIST, provides leadership and coordination for Manufacturing USA. Manufacturing USA enables U.S. manufacturers to rapidly scale up discoveries to create advanced manufacturing products and processes, benefitting entire industry sectors to address national needs.

BIS completed a 100-Day Supply Chain Review of semiconductors and advanced packaging that was mandated by EO 14017. Additionally, BIS requested public comments on the Risks in the Semiconductor Supply Chain to support the President's Supply Chain Disruption Task Force. BIS is also assessing the critical supply chains supporting the U.S. Information and Communications Technology Industry in support of the President's Supply Chain Disruption Task

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

Force and EO 14017. On September 21, 2021, BIS commenced a Section 232 investigation into the effects of neodymium-iron-boron permanent magnet imports on national security.

ITA supports revitalization of U.S. manufacturing and the strengthening of domestic supply chains. For example, ITA recently updated the Free Trade Agreement (FTA) Tariff Tool and launched the Manufacturing Industry Tracker, which consolidates key monthly economic indicators into a single dashboard for American companies to track the health of their industry and their upstream and downstream partners. ITA also provided critical analysis on semiconductor, priority sector, and other supply chain reports required under Executive Order 14017.

ITA also plays a unique role addressing challenges faced by the travel & tourism industry. ITA gained official consensus across relevant USG agencies around language in the Travel Promotion Act that monies in the Travel Promotion Fund (TPF) will remain available to the Corporation for Travel Promotion until expended without fiscal year restrictions. This allows Brand USA to maximize their efforts through FY 2022. ITA's also worked with the Travel and Tourism Advisory Board on recommendations to help the industry recover from the COVID-19 crisis.

In FY 2021, EDA invested over \$275 million in 169 economic development projects (including infrastructure, technical assistance, and planning) to help communities and regions build the capacity for economic development through manufacturing-related activities and meeting other business needs.

MBDA plays a critical role in fostering the growth and global competitiveness of minority-owned manufacturing firms. The agency is collaborating with the national network of NIST MEPs and ITA U.S. Export Assistance Centers to support these firms with access to business development resources and opportunities domestically and abroad in support of E.O. 13985.

In FY 2021, MBDA awarded four Advanced Manufacturing Centers (AMPs) a five-year award totaling \$6.4 million to provide technical assistance, business assistance, and manufacturing assistance to minority business enterprises (MBEs). A primary driver of the AMPs is capacity building. Over the next five years, the agency anticipates contributing at least \$338 million economic impact and 4 thousand jobs to the U.S economy resulting from its four Advanced Manufacturing Centers.

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

Performance Indicator Results and Targets

SO 1.1 Revitalize U.S. manufacturing and strengthen domestic supply chains		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators									
MBDA - Dollar value of contracts facilitated for minority-owned manufacturing businesses ¹	Target	Proposed new				N/A	N/A	N/A	N/A
	Actual	Benchmarking began in FY 2022				\$161 M			
MBDA - Number of jobs created and retained for minority-owned manufacturing businesses ¹	Target	Proposed new				N/A	N/A	N/A	N/A
	Actual	Benchmarking began in FY 2022				839			
MBDA - Dollar value of financing facilitated for minority-owned manufacturing businesses ¹	Target	Proposed new				N/A	N/A	N/A	N/A
	Actual	Benchmarking began in FY 2022				\$26 M			
NIST - Value of advanced manufacturing technology portfolio within Commerce-sponsored Manufacturing USA Institutes	Target	Proposed new				N/A	N/A	\$52 M	\$60 M
	Actual	Tracking will begin in FY 2022				\$473 M			
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 ²	Target	Proposed new					N/A	250	400
	Actual	Tracking will begin in FY 2022							

¹ In FY 2021, MBDA competed and awarded a new five-year grant for the MBDA Business Center (MBC) and specialty center programs. The baseline totals are from the previous program performance cycle and indicators. The grant program will measure the economic benefit of minority businesses that were touched and assisted as a direct result of MBDA's programs and services, including the manufacturing programs.

² This metric was introduced in the FY 2022-2026 strategic plan and does not have historical data. The Department will begin tracking and reporting it in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

FY 2022 increases to NIST's Hollings Manufacturing Extension Partnership (MEP) program and Manufacturing USA program will allow two additional Manufacturing USA institutes to be established. This will facilitate the adoption of new manufacturing technologies, tools, and methodologies that make U.S. manufacturers more competitive. Increases to the MEP program will strengthen operational excellence of the existing network, enable a system-wide reinvigoration of services and capabilities through a formal, multi-year, organizational competition, and provide progressive growth in funding to serve all innovative manufacturing firms. In FY 2022, NIST will also provide additional services to an increased number of companies within critical supply chains and workforce development.

BIS continues to support American leadership in critical technology fields and ensure U.S. Government visibility into the supply chain networks behind the industrial-technology base and corresponding defense, intelligence, and civilian programs. Comprehensive datasets on the health and competitiveness of the U.S. manufacturing and defense industrial base require continuous updates and monitoring. The COVID-19 pandemic had major impacts on the U.S. manufacturing and defense industrial base. Because of the ongoing nature of the pandemic, the full impacts on the U.S. industrial base are still unknown.

Actions to Advance Progress through FY 2023

NIST's advanced manufacturing activities will provide industry with test methods, measurement tools, know-how, and scientific data through targeted research across a broad portfolio, including advanced materials development, advanced sensing, biomanufacturing, and smart manufacturing systems. NIST's efforts will also support the Administration's Executive Order on Ensuring the Future Is Made in All of America by All of America's Workers by enabling the development of a strong U.S. manufacturing base that is essential to economic and national security.

In the post-COVID-19 economy, MEP will serve as the primary source of assistance to growth oriented, U.S.-based small- and medium-sized enterprises so that they are operationally resilient and prepared to respond to critical national needs both immediate and long-term. MEP will continue to build on the National Network's current activities aimed at the manufacturing workforce in the U.S. In partnership with local, state, and other Federal programs, MEP Centers will identify initiatives for recruiting and retaining workers in the manufacturing sector to align with identified needs, priorities and strategies in states and localities as well as in industries and sectors. Additionally, MEP will promote a collaborative environment in which these partners will support the National Network, share best practices, and lead the execution of Center activities to recruit, retrain and retain manufacturing workers.

NIST Manufacturing USA program will continue to coordinate the network of manufacturing institutes, award grants to develop industrial technology roadmaps, and support the current Manufacturing USA institute, the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL).

BIS will continue the neodymium-iron-boron permanent magnets Section 232 investigation with the report being due to the President on June 18, 2022. BIS will also complete its assessment of the critical supply chains supporting the U.S. Information and Communications Technology Industry in February 2022. Additionally, BIS will continue to take steps to further increase the efficiency, ease of use, and transparency of the 232 Exclusions Process. Working

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

with the Office of the United States Trade Representative, the Department will continue to build upon the successful negotiations on Section 232 tariffs that will result in a transition to a tariff-rate quota on steel and aluminum imports from the European Union in January 2022.

ITA will continue to work with the Economic Development Administration on the program design for disbursement of \$750 million to assist communities negatively impacted by the loss of travel and tourism and outdoor recreation during the pandemic. ITA will also provide the critical, sector-level research and analysis to USG agencies and decision makers to fuel supply chain resilience to support U.S. manufacturing.

In 2021, EDA updated its investment priorities to ensure its grant investment portfolio – ranging from planning to infrastructure construction – contributes to local efforts to build, improve, or better leverage economic assets that allow businesses to succeed and regional economies to prosper and become more resilient. The manufacturing investment priority seeks to encourage economic development projects that enhance job creation, business expansion, technology, capital upgrades, and productivity growth in manufacturing. This includes efforts that contribute to the competitiveness and growth of domestic suppliers or to the domestic production of innovative, high-value products and production technologies.

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

Lead: 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 NIST laboratory programs work at the frontiers of measurement science and standards development to drive technological innovation that strengthens the economic and industrial competitiveness of the United States. The NIST laboratories address increasingly complex measurement challenges, ranging from the very small (quantum devices) to the very large (vehicles and buildings), and from the physical (resilient infrastructure) to the virtual (advanced communications). As new technologies develop and evolve, NIST's measurement research and services remain central to innovation, productivity, trade, national security, and public safety.

- **Quantum Science:** NIST is a leader in basic and applied research in quantum science. To advance American leadership in quantum computing, NIST initiated a process to solicit, evaluate, and standardize one or more quantum-resistant public-key cryptographic algorithms.
- **Artificial Intelligence (AI):** In 2021 with NIST's leadership, the Interagency Standards Policy Committee established a new AI subcommittee to bring together standards executives and practitioners from across government to discuss challenges and opportunities in AI standardization.
- **Advanced Communications:** NIST is helping to build the crucial measurement infrastructure for emerging wireless systems for 5G and beyond. NIST engineers have recently presented a new flexible, portable measurement system called SAMURAI (Synthetic Aperture Measurements of Uncertainty in Angle of Incidence) to test 5G devices across a wide range of signal frequencies and scenarios.
- **Semiconductors:** NIST conducted research on semiconductors since the late 1940s. Among recent research advances, NIST researchers and an industry colleague adapted a novel, low-cost microscopy method to detect nanoscale contaminants during manufacture of semiconductor devices.
- **Technology Transfer:** The Technology Partnerships Office (TPO) leads technology transfer processes that NIST researchers use to develop innovations from concept to practical application. NIST, in partnership with the National Institutes of Health and the Interagency Working Group for the Bayh-Dole Act, is working on the rebuild of the Interagency Edison reporting system for extramural inventions.

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

Through its grants portfolio, EDA invests in economic development projects (including infrastructure, technical assistance, and planning) geared toward promoting the design, development, and implementation of innovative technologies. In FY 2021, EDA invested close to \$12.5 million in 18 economic development projects that support the design, development, or implementation of innovations in information technology. EDA also invested close to \$69.3 million in 103 economic development projects that foster the introduction or acceleration of a new products into the marketplace.

MBDA provided Inner City Innovation Hub grants to fund two programs with universities that support technical and management education to entrepreneurs and start-up businesses with innovative products and services in inner city areas with high concentrations of underserved communities and minority-owned businesses. These grants provide access to collaborative workspaces for minority business owners to convene and connect to incubators, accelerators, and coworking spaces. The grants will also provide access to university-focused technology, artificial intelligence, technology, research, mergers, and acquisitions. One of the grantees will develop the Aerospace Innovation Hub designed to engage, support, develop, and scale regional minority business enterprises that address the aerospace industry's needs, problems, and challenges.

Performance Indicator Results and Targets

SO 1.2 Accelerate the development, commercialization, and deployment of critical and emerging technologies									
Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
NIST - Relative citation impact of NIST-authored publications	Target	1.60	1.60	1.30	1.30	1.30	Exceeded	1.30	1.40
	Actual	1.66	1.62	1.59	1.57	1.57			
NIST - Number of businesses using NIST research facilities	Target	325	325	325	300	300	Exceeded	300	350
	Actual	442	450	486	530	492			
NIST - International adoption of NIST Quantum SI Standards	Target	N/A	3	4	5	10	Exceeded	10	15
	Actual	N/A	3	5	8	12			
NIST - Number of U.S. Government staff trained to effectively coordinate, participate, and influence technical standards development¹	Target	<i>Proposed new</i>					N/A	300	400
	Actual	<i>Tracking will begin in FY 2022</i>							

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NIST - Number of participants at outreach events, hosted by NIST to identify opportunities for engagement and influence in critical and emerging technology standards development¹	Target	<i>Proposed new</i>	N/A	200	300
	Actual	Tracking will begin in FY 2022			

EDA - Number of new technologies licensed or brought to market as a result of EDA-sponsored activities¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022			

¹ These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

The Department made substantial progress in its work to accelerate innovation in the critical and emerging technologies and the Strategic Objective is on track. However, the U.S. is in a highly competitive environment. Many other countries are outspending the U.S. by orders of magnitude, threatening to outpace U.S. ability to maintain technological leadership that has implications for national security. To remain a leader both in R&D and the technology implementation, the U.S. will require increased investment and innovative partnerships with the private sector and academia to expand R&D efforts, apply innovative methodologies, and build and modernize the necessary research infrastructure. The proposed CHIPS for America Act demonstrates that Congress recognizes the semiconductor industry’s critical role in America’s future. However, key strategic and operational challenges persist:

- NIST’s ability to maintain and modernize its facilities and infrastructure fell behind due to inefficient processes and competing priorities.
- Chinese companies have increased their participation in international standards development. Although participation is not necessarily an indicator of influence in technical standards outcomes, it does appear that this is part of a broader effort by China to gain more influence in areas that the U.S. historically dominated.

Actions to Advance Progress through FY 2023

NIST will prioritize its R&D efforts in critical and emerging technologies including quantum science, AI, advanced communications, and semiconductors to continue to provide the measurement science and standards infrastructure necessary to support innovation. NIST continually seeks ways to maximize the relevance and quality of its scientific research and the dissemination of the results. To ensure achievement of its targets, NIST will:

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- Support world class research capabilities in measurement science, forming the foundation of the global system of weights and measures and enable innovation.
- Work with stakeholders across its programs to ensure NIST's research programs and capabilities are well-matched to their needs.
- Improve the efficiency and effectiveness of operations and facilities supporting its scientific research.

ITA's Standards Attaché and Digital Attaché programs will identify where greater U.S. participation in technical standards needs to take place. Additionally, ITA's Market Development Cooperator Program (MDCP) will provide grants for non-profit industry groups to address trade barriers, support U.S. participation in technical standards development, generate exports, and enhance industry competitiveness. Finally, ITA will support development and implementation of engagements with allies and other likeminded foreign partners to promote long-term semiconductor industry innovation and supply chain resilience.

By supporting and promoting collaborative innovation ecosystems, EDA's innovation and entrepreneurship grant programs will continue equitably promote technology development and commercialization efforts. The grant programs will also support start-up companies in bringing innovative products to market. Additionally, through its Technology-Based Economic Development investment priority, EDA will encourage economic development planning or implementation projects that foster regional knowledge ecosystems that support entrepreneurs and startups. This will include the commercialization of new technologies that create technology-driven businesses and high-skilled, well-paying jobs of the future.

STRATEGIC OBJECTIVE 1.3 – Increase international cooperation and commerce

Lead: ITA; Contributing Bureaus: BEA, Census Bureau, 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

International Trade Administration (ITA)

In FY 2021, ITA responded to nearly 185,000 inquiries from over 31,600 U.S. exporters, 86 percent of which were small and medium-sized enterprises (SMEs). On average, U.S. exporter clients reported an increase of \$2.3 million or nearly 5 percent in annual revenue due to ITA's assistance. ITA facilitated nearly \$72 billion in U.S. exports supporting over 347,000 American jobs through export promotion, commercial diplomacy and advocacy, and the reduction, removal, and prevention of trade barriers around the world. ITA also began supporting a new set of Market Development Cooperator Program agreements for the first time since 2016.

ITA focused on foreign direct investment and business expansion in the U.S. and assisted over 11,700 unique clients in FY 2021. These clients were investors from 122 international markets and economic development organizations from 56 U.S. states and territories. Over the same period, SelectUSA assisted over 155 investment outcomes (e.g., deals) valued at over \$20 billion. These client-verified investments supported over 31,000 American jobs.

ITA's National Travel and Tourism Office (NTTO) worked with the Travel and Tourism Advisory Board on recommendations to help the industry recover from the COVID-19 crisis. ITA is supporting economic recovery of the travel and tourism industry, including working with the Economic Development Administration on the program design for disbursement of \$750 million to assist communities negatively impacted by the loss of travel and tourism and outdoor recreation during the pandemic.

ITA gained official consensus between the Department, the Office of Management and Budget, and the U.S. Department of The Treasury around language in the Travel Promotion Act that monies in the Travel Promotion Fund (TPF) will remain available to the Corporation for Travel Promotion (Brand USA) until expended without restrictions based on fiscal years. This is particularly important, as Brand USA is unable to secure matching funds from non-Federal sources at the full level of funds available in the TPF because of the COVID-19 pandemic on the travel and tourism industry. For the first time since the

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Travel Promotion Act was passed, the full \$100 million outlined in the Travel Promotion Authority was not collected through Electronic System for Travel Authorization fees and Brand USA's partners have been unable to provide cash or in-kind contributions at normal levels due to their own financial hardships. This consensus work allows Brand USA to maximize their efforts across FY 2021 and FY 2022.

Economic Development Administration (EDA)

In FY 2021, EDA invested over \$164 million in 96 economic development projects (including infrastructure, technical assistance, and planning) to help communities and regions build their capacity for economic development through supporting export-related activities and business needs. These grants will help develop or improve community assets that businesses need to succeed. Moving forward through FY 2023, EDA's Exports & FDI Investment Priority will encourage economic development projects that enhance or build community assets to support growth in U.S. exports and increased foreign direct investment.

National Institute of Standards and Technology (NIST)

NIST Manufacturing Extension Partnership (MEP) ExporTech™ helps companies to expand into global markets by developing international growth plans customized for their business. The program helps small and medium-sized companies navigate export growth, develop export plans, and connect to a range of experts in sales and distribution channels, market intelligence, financing and payment, logistics, legal, and compliance. ExporTech™ is deployed using local MEP centers and the U.S. Commercial Service's U.S. Export Assistance Centers, as well as other partners including District Export Councils, state trade offices and other Federal, state, and local partners.

Performance Indicator Results and Targets

SO 1.3 Increase international cooperation and commerce									
Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
ITA - Number of commercial diplomacy and advocacy written impact narratives (WIN)	Target	330	240	240	450	490	Exceeded	490	N/A
	Actual	459	479	470	575	580			
ITA - Number of investment clients assisted	Target	2,400	3,500	3,040	6,500	6,500	Exceeded	6,500	6,500
	Actual	6,671	6,850	6,471	6,921	11,721			
ITA - Number of investment promotion written impact narratives (WIN)	Target	73	123	108	127	130	Exceeded	135	145
	Actual	68	148	127	115	155			

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ITA - Number of export clients assisted	Target	28,000	24,000	30,000	3,000	35,000	Met	35,000	N/A
	Actual	30,110	33,086	29,557	31,249	31,641			

MBDA - Dollar value of international contracts facilitated for minority-owned exporters ¹	Target	Proposed new				N/A	N/A	N/A	N/A
	Actual	Benchmarking began in FY 2022				\$316 M			

MBDA - Number of jobs created and retained for minority-owned exporters ¹	Target	Proposed new				N/A	N/A	N/A	N/A
	Actual	Tracking will begin in FY 2022				1,107			

MBDA - Dollar value of financing facilitated for minority-owned exporters ¹	Target	Proposed new				N/A	N/A	N/A	N/A
	Actual	Tracking will begin in FY 2022				\$102 mil			

ITA - Number of underserved community clients assisted ²	Target	Proposed new				N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022						

¹ In FY 2021, MBDA competed and awarded a new five-year grant for the MBDA Business Center (MBC) and specialty center programs. The baseline totals are from the previous program performance cycle and indicators. The grant program will measure the economic benefit of minority businesses that were touched and assisted as a direct result of MBDA's programs and services, including the exporter programs.

² This metric was introduced in the FY 2022-2026 strategic plan and does not have historical data. The Department will begin tracking and reporting it in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

In FY 2021, ITA rose to the challenge of providing needed assistance during a global pandemic to tens of thousands of U.S. exporters, particularly small and medium-sized enterprises, and inward investment clients by pivoting to the virtual delivery of counseling, services, and events. ITA facilitated over \$90 billion in increased U.S. exports and foreign direct investment into the United States, supporting nearly 380,000 jobs across the country. ITA will continue its digital transformation efforts in FY 2022-2023 to tackle the challenge of connecting American companies and localities to foreign buyers and investors

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during a pandemic. Additionally, ITA will face the continued challenge of balancing scarce resources to promote U.S. exports and inward investment while aggressively pushing back on a rising tide of foreign trade barriers and actions by malign actors, particularly the People's Republic of China, that impede the competitiveness of U.S. industry and erode U.S. economic security.

In response to the Department's FY 2022-2026 Strategic Plan and in alignment with the President's Management Agenda, ITA's executive leadership proposed a new Agency Priority Goal (APG) for FY 2022-2023 focused on increasing the number of small and medium-sized enterprises assisted, especially in underserved communities, and a review of key performance indicators to ensure that the bureau continues to be fully responsive to the Administration's priorities as well as to the American public.

Actions to Advance Progress Through FY 2023

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

- Conduct outreach to U.S. businesses, workers, and trade associations to raise awareness of ITA's market access, as well as its trade enforcement and compliance responsibilities. Then, ITA will identify industry trade problems in these areas and promote ITA resources and efforts available to address them.
- Support economic recovery of SMEs from the impact of COVID-19 by engaging foreign buyers, partners, and decisionmakers to maintain and build business relationships through virtual platforms.
- Assist investors as well as states and localities to facilitate increased investment in American communities.
- Identify, respond, and pursue export and investment opportunities.
- Reestablish and continue trade discussions with trade partners as well as communications with clients.
- Accelerate hiring and deliver training to address critical skills gaps.

Major internal and external factors that will impact progress include global operational challenges caused by the COVID-19 pandemic, such as:

- Delays in filling resource and skills gaps overseas with locally engaged staff positions.
- Postponement and cancellation of major international and domestic business events, including the Annual Select USA Investment Summit.

Due to COVID-19, ITA revised key actions to align with program constraints and postponed major events. For example, for the first time in its history, the 2021 SelectUSA Investment was held virtually in June 2021. ITA likewise continues to successfully adapt other in-person services, programs, and events to virtual delivery across the world. ITA will fulfill its mission support functions through the innovative use of technology, judicious use of taxpayer funds, and a commitment to operational excellence.

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

Lead: 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

In FY 2021 and 2022 (to date), BIS published rules implementing multilateral controls on six emerging technologies and one rule implementing a unilateral control. Additionally, BIS implemented military end-use controls to prevent exports that would enhance the military capability of countries with interests contrary to the United States (e.g., the People's Republic of China, Russia, Venezuela, and Burma). In December 2020, BIS amended the Export Administration Regulations (EAR) by adding a new, illustrative Military End User (MEU) list with a first tranche of 102 entities. In January 2021, BIS implemented restrictions on shipments to Military Intelligence End Users' (MIEU), clarified that license requirements for specific U.S. persons activities apply even when the items at issue are not subject to the EAR, established restrictions on transactions intended to circumvent license requirements for listed entities, and expanded the scope of activities subject to chemical and biological weapons or rocket systems and unmanned aerial vehicles end-use controls. In March 2021, BIS added Burma to the list of countries subject to MEU and MIEU restrictions. All these actions enhance national security by reducing the risk that exports, re-exports, and transfers (in-country) of items subject to the EAR contribute to the military capability of China, Russia, Venezuela, or Burma.

Specific to trade agreements compliance, in FY 2021, NOAA supported the U.S.-Mexico-Canada Agreement's (USMCA) implementation by representing the Department in the Interagency Environment Committee on Monitoring and Enforcement, contributing to the 2021 USMCA Chapter 24 First Annual Report to Congress, supporting the first USMCA Environment Committee and Free Trade Commission meetings, and detailing a USMCA environment attaché from NOAA Fisheries to Mexico City. In the areas of trade agreement negotiations, trade barriers, and export enforcement, in FY 2021, NOAA represented U.S. environment equities in trade agreement negotiations; advocated for strong fisheries subsidies disciplines at the World Trade Organization; facilitated trade agreement implementation, including supporting USMCA compliance; and addressed seafood trade barriers on an ongoing basis. ITA's trade enforcement activity is at a historic high, consistent with the Administration's goal of free, fair, and reciprocal trade. Through October 31, 2021, ITA was administering 633 antidumping (AD) and countervailing duty (CVD) orders, an increase of 55 percent since early 2018. During FY 2021, ITA initiated 44 new AD and CVD investigations and, as of October 31, 2021, was conducting 51 AD/CVD investigations. Through its Trade Agreements Compliance Program, ITA successfully closed 41 compliance cases, protecting U.S. export opportunities by ensuring that foreign governments honored U.S. rights under trade agreements.

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

ITA expanded its Committee on Foreign Investment in the United States (CFIUS) team, fully implementing Foreign Investment Risk Review Modernization Act (FIRRMA) requirements. ITA coordinates Department inputs to CFIUS and shared market analysis and other industry-specific research with CFIUS agencies

ITA worked with the Office of the United States Trade Representative (USTR) on issues including responses to the European Union's (EU) Airbus Subsidy; the proposed Digital Services Tax in France, Austria, India, Italy, Spain, Turkey, and the United Kingdom; and the Section 301 investigation of China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation. ITA also analyzed products requesting COVID-19 exclusions and tracked trade trends on 90 percent of the U.S. tariff schedule covered by the tariff action. ITA also conducted economic analysis for USTR to assess the damage to the U.S. economy for the Section 301 cases against Vietnam (illegal logging and currency manipulation).

ITA is working to strengthen international coordination and increase participation in standards development organizations. ITA is also working to develop shared positions in intergovernmental standards-setting bodies and principles that correspond to shared democratic values and fundamental rights. ITA is co-leading the Technology Standards Working Group under the Trade and Technology Council (TTC), working to identify standards activities of mutual interest to the United States and EU, and supporting the Technology Standards Development Working Group of the Quad.

Performance Indicator Results and Targets

SO 1.4 Protect national security interests and enforce trade rules		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators									
BIS - Number of actions resulting in a deterrence or prevention of a violation, and cases resulting in a criminal or administrative charge	Target	1,200	1,200	1,200	1,500	1,600	Exceeded	1,600	1,600
	Actual	1,832	1,777	1,802	1,667	2,018			
BIS - Percentage of licenses requiring Information Triage Unit report completed by Export Enforcement within ten Executive Order days of referral	Target	90%	90%	90%	90%	90%	Exceeded	90%	90%
	Actual	96%	88%	94%	93%	94%			
BIS - Number of end-use checks	Target	850	850	1,020	1,020	830	Exceeded	830	830
	Actual	1,089	1,042	1,171	987	1,030			

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ITA - Percentage of antidumping and countervailing duty (AV/CVD) determinations issued within statutory and/or regulatory deadlines	Target	91%	91%	91%	91%	91%	Exceeded	N/A	N/A
	Actual	97%	98%	99%	99.5%	99%			

ITA - Number of trade agreements compliance cases resolved successfully	Target	34	35	36	37	38	Exceeded	38	N/A
	Actual	36	39	37	30	41			

BIS - Percentage of licenses requiring interagency referral referred within nine days	Target	98%	98%	98%	98%	98%	Met	98%	98%
	Actual	94%	93%	91%	92%	92%			

For more information, please see our new public website: [Commerce Performance Data Pro](https://www.commerce.gov/commerce-performance-data-pro).

Strategic Conclusions and Recommendations

While accomplishing its mission, BIS faces challenges, including the number of qualified personnel (policy and licensing officials and enforcement agents) and the relative difficulty of recruiting individuals with the necessary expertise. BIS would also benefit from expanded authority to address U.S. persons' activities supporting military, national intelligence, and national police in countries of national security concern, as well as implementing an effective asset forfeiture program.

Actions to Advance Progress Through FY 2023

BIS will continue to engage with other U.S. Government agencies, industry, academia, and the public to identify emerging and foundational technologies that should be subject to new or expanded export controls. Once identified, BIS will participate in international export control regime meetings to have these controls adopted and ensure that its internal processes take a maximum of three months to prepare implementing rules. BIS will ensure that its technical advisory committees provide guidance on emerging and foundational technologies and on evolving export challenges on a quarterly basis. Additionally, BIS will work with allies and partner countries on topics of mutual interest and continue to engage with other U.S. Government agencies and Congress to enhance and refine its regulatory and enforcement authorities.

NOAA will continue to represent U.S. environmental interests, including marine litter and fisheries, among others, in trade agreement and trade framework engagements; continue to advocate for strong fisheries subsidies disciplines at the World Trade Organization; facilitate trade agreement implementation and engage in free trade agreement and trade and investment committee (TIC)/trade and investment framework agreement (TIFA) environment working groups and environmental cooperation mechanisms; and address seafood trade barriers as they arise.

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

Major internal and external factors that will impact progress include global operational challenges caused by the COVID-19 pandemic, such as foreign governments shifting their funding, as well as attention, to medical emergency needs and tolling of deadlines within some AD/CVD proceedings.

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

Lead: 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

In October 2020, the USPTO implemented a revised patent examiner performance appraisal plan that gives examiners a roadmap to achieve enhanced quality, requiring certain indicia indicative of exemplary work in the areas of search, clarity of the written prosecution record, and principles of compact prosecution to attain higher quality ratings. The USPTO also started tracking patent pendency by measuring Patent Term Adjustment (PTA), or overall adherence to statutorily defined time frames. The USPTO met these time frames in 83 percent of all office actions mailed in FY 2021 and maintained an average total pendency of 23.3 months, consistent with FY 2020. After FY 2021, the USPTO will focus on optimizing PTA time frames, which provide a more refined description of pendency than traditional pendency metrics.

Trademark filings surged to unprecedented levels through the first half of FY 2021 before gradually subsiding. An overall 30 percent increase in filings for FY 2021 resulted in a delay in processing times for applications. The USPTO is addressing the backlog created by the surge by hiring and training new trademark examining attorneys and support staff to help process the applications and by identifying and deploying IT solutions to increase efficiencies in key areas.

The USPTO trains audiences on best practices in Intellectual Property (IP) protection and enforcement. In FY 2021, the USPTO conducted 250 training programs through its Global Intellectual Property Academy (GIPA), including programs coproduced with the USPTO's regional offices, serving over 17,800 individuals. Approximately 57 percent were patent, trademark, and copyright officials; prosecutors; police; customs officials; and policy makers from the United States and 131 other countries, including intergovernmental organizations. Approximately 43 percent of all attendees were representatives of U.S. small and medium-sized enterprises (SMEs); IP practitioners; and IP owners and users.

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

The International Trade Administration (ITA) provides information and programs for rights holders, including through the interagency STOPfakes program. The STOPfakes program makes available a digital resource center (www.STOPfakes.gov) that provides guidance and country-specific information for rights holders and businesses seeking to export, as well as specialized business consultation opportunities. In person STOPfakes Roadshows, conducted with ITA's U.S. Export Assistance Centers (USEACs) and more than 10 partner agencies, were paused during the pandemic but are expected to resume in FY 2022.

The USPTO continues to work toward global IP harmonization. In FY 2021, the USPTO established work-sharing agreements with Mexico and Cambodia and signed memoranda of understanding with India and Costa Rica to cooperate on several activities pertaining to securing, using, and enforcing IP rights. The USPTO and ITA also continue working with China to implement better IP protections for trade secrets and patents in accordance with the Economic and Trade Agreement between the Government of the United States of America and the Government of the People's Republic of China (Phase One), signed on January 15, 2020. USPTO and ITA participate robustly in United States Governmentwide trade policy processes to improve international IP protections and enforcement practices available to U.S. rights holders. These include bilateral and multilateral negotiations and dialogues, as well as annual country review processes such as Special 301.

The USPTO continues to work to increase access to the IP ecosystem for all. The USPTO launched in December 2020 the National Council for Expanding American Innovation, which was rebranded in October 2021 as the Council for Inclusive Innovation (CI²). This includes representatives from industry, academia, non-profit, and government, CI² will assist the USPTO in developing a comprehensive national strategy to build a more diverse and inclusive innovation ecosystem. The USPTO is also taking steps internally to improve the accessibility of its information, for instance, through a redesign of the [Inventor and entrepreneur resources](#) and [Patent basics](#) webpages. These busy hubs provide centralized access to a variety of USPTO resources and information as well as an orientation to the patent and trademark application processes for new and novice customers.

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

Performance Indicator Results and Targets

SO 1.5 Promote accessible, strong, and effective intellectual property rights to advance innovation, creativity, and entrepreneurship									
Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
USPTO - Average processing time for trademark applications (months)	Target	12.0	12.0	12.0	12.0	12.0	Exceeded	13.5	13.5
	Actual	9.5	9.6	9.3	9.5	11.2			
USPTO - Percentage of prioritized countries for which intellectual property country teams have made progress on at least three of the four performance criteria	Target	75%	65%	66%	66%	66%	Exceeded	66%	N/A
	Actual	100%	100%	66%	100%	100%			
USPTO - Patent statutory compliance: Statute 35 USC 101	Target	98.0%	97.0%	97.0%	97.0%	97.0%	Exceeded	94.0%	94.0%
	Actual	96.5%	96.8%	97.7%	97.7%	98.3%			
USPTO - Patent statutory compliance: Statute 35 USC 102	Target	95.0%	95.0%	95.0%	95.0%	95.0%	Met	94.0%	94.0%
	Actual	94.4%	95.2%	94.2%	94.3%	95.1%			
USPTO - Patent statutory compliance: Statute 35 USC 103	Target	93.0%	93.0%	93.0%	93.0%	93.0%	Met	91.0%	91.0%
	Actual	92.4%	92.0%	98.9%	88.9%	90.7%			
USPTO - Patent statutory compliance: Statute 35 USC 112	Target	92.0%	93.0%	93.0%	93.0%	93.0%	Met	92.0%	92.0%
	Actual	92.6%	92.9%	91.0%	90.6%	92.2%			
USPTO - Percent compliance with required patent review timeframes for all mailed actions	Target	N/A	N/A	N/A	81%	84%	Met	80%	80%
	Actual	N/A	N/A	N/A	83%	83%			

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

USPTO - Percent compliance with required patent review timeframes for remaining inventory	Target	N/A	N/A	N/A	88%	86%	Met	87%	88%
	Actual	N/A	N/A	N/A	88%	86%			

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

Average first action pendency, a traditional pendency metric, increased by over two months in FY 2021. This increase was largely because of the COVID-19 pandemic on the agency, such as the provision of additional leave flexibilities to USPTO employees for COVID-19—related situations and a decline in the use of overtime. As USPTO continues to focus on PTA timeframes, the agency will ensure that the oldest applications are addressed, which it anticipates will negatively affect average first action pendency during FY 2022. USPTO is also evaluating whether further adjustments to examination time may benefit patent quality and improve average first action pendency.

Businesses at home and abroad are becoming more and more aware of the value and benefits of a U.S. trademark registration. Along with a historic surge of new trademark filings, the USPTO also saw in recent years an increase in bad faith applications for registration. The result was a growing backlog, longer application wait-times, and a register that is increasingly cluttered, with fewer trademarks available for future applicants, increasing their search costs and time. An operational assessment conducted after the close of FY 2021 concluded that the performance of trademark examining attorneys and support staff was remarkable as compared to previous years, and that the pendency goal would have been met without the extraordinary filings and the pandemic. The inventory of unexamined applications more than doubled since last year as the economic recovery continues, so pendency will further increase before returning to normal pre-pandemic levels. Given the high degree of ongoing uncertainty around future filing levels, USPTO will proceed cautiously to ensure it does not over-hire as it works to address the backlog.

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 component of fueling that economic engine. Currently, publicly available data regarding the participation rates of women and minorities in the IP system is limited. However, the information that does exist indicates that women and minorities are underrepresented as inventors named on U.S. granted patents.

Actions to Advance Progress Through FY 2023

The USPTO will continue to focus on PTA timeframes, which will reduce the number of patent term adjustments issued and provide applicants with improved predictability. Reducing the number of patent term adjustments issued provides consistent pendency for all applications, reduces uncertainty in the marketplace, and ensures that patents expire and become available to the public at the statutorily defined time of 20 years from filing. Additionally, the new patent examiner performance appraisal plan and its effects are being continuously monitored. The Office established a team of experts who will

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identify options for strategically providing additional examination time to ensure the time allocated is sufficient for current examination responsibilities across different technology areas and account for the needs of underrepresented groups, first-time filers, independent inventors, and small businesses. Promising options will be piloted in FY 2022 and FY 2023. The USPTO will also improve patent examiners' access to prior art by enabling examiners to leverage artificial intelligence to retrieve both U.S. and foreign patent documents.

Providing the timely service customers have come to expect, while maintaining the integrity of the trademark register, remains a top priority for the USPTO. The agency continues to explore ways to respond to the dramatic increase in trademark filings experienced in FY 2021. New trademark application filings are expected to continue to increase by about 63 percent, or 457,000 application classes, by FY 2025 compared to FY 2020. To keep pace with the workload and continue to improve its operations, the USPTO will increase the number of examining attorneys and support resources. Trademarks will also leverage artificial intelligence and robotic process automation to increase consistency and introduce new efficiencies into the trademark examination process. Additionally, implementation of the Trademark Modernization Act, enacted in December 2020, is set for early FY 2022, and will provide the USPTO and trademark owners with additional tools to address the increased incidence of improper and fraudulent behavior, including by canceling registrations that have not been shown to be in use for commercial purposes.

ITA will drive the interagency STOPfakes initiative, which channels talent and resources of various U.S. Federal agencies to U.S. businesses and consumers, helping them to respect and protect intellectual property rights through Roadshows, webinars, and digital content.

The USPTO will provide training to foreign government agencies and capacity building to a variety of audiences to promote protection and enforcement of American innovators and creators' IP in the United States and abroad. Progress continues toward cooperative agreements with the IP offices in Laos, Moldova, Egypt, Tunisia, Qatar, Saudi Arabia, and Taiwan to improve IP systems and enforcement of IP rights. The USPTO will also expand its IP attaché presence at U.S. embassies by FY 2023, working with stakeholders to determine the optimal location for the 14th post. ITA will continue to 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 develop additional digital resources and educational programming.

The USPTO will work with the CI² to develop a comprehensive national strategy to build a more diverse and inclusive innovation ecosystem and will expand the USPTO's presence to better deliver IP education and information to underserved communities. The USPTO will continue to take steps to improve the data available to identify and address inequities in use of America's IP system.

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

Lead: 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 the Department’s lead agency on cybersecurity issues. Through internal research and collaboration with the private sector, academia, standards development organizations, other Government agencies, and national and international stakeholders, NIST is addressing current and future measurement research that supports the Nation’s cybersecurity. In FY 2021, NIST received and responded to cybersecurity mandates from the Administration and Congress on topics including supply chain security and workforce development. NIST addresses current cybersecurity challenges through:

- Foundational Cybersecurity Research: NIST is preparing for the future IT environment by developing new measurement technologies to characterize, evaluate, and ultimately improve the performance and reliability of IT systems and systems that use IT. Example research areas include cryptography and research into post-quantum encryption technologies.
- Applied Cybersecurity R&D: NIST is accelerating IT innovation through the development and applications of measurements and related technology tools. This includes overcoming technical barriers to IT innovation and applications of IT to advance NIST’s broader mission.
- Standards Development and Technology Transfer: NIST is ensuring the products of its research are available to all and promote U.S innovation and industrial competitiveness, enhance economic security, and improve the Nation’s quality of life. NIST accomplishes this by catalyzing the development of IT cybersecurity and privacy standards, building communities of interest, communicating the outputs of its work to stakeholders, and promoting open data access.

In FY 2021, the Department made substantial progress in providing industry and government with robust cybersecurity standards and best practices, shaping cybersecurity policy, and delivering resources and research to help address the Nation’s pressing cybersecurity challenges. Under Executive Order (EO) 14028 on Improving the Nation’s Cybersecurity, NIST was directed to develop resources to enhance software supply chain security and initiate cybersecurity labeling programs for software and consumer Internet of Things (IoT) products. NTIA was directed to publish minimum elements for a

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software bill of materials (SBOM). NIST continues meeting [its EO deadlines](#) through a series of publications, workshops, and public comment periods. NTIA published [minimum elements for an SBOM](#) to help create a more transparent and secure software supply chain.

Selected cybersecurity accomplishments for FY 2021 include:

- BIS implemented a new export control on certain types of digital forensics and law enforcement monitoring tools that can be used for law enforcement and that can be misused for human rights abuses.
- BIS amended its export controls on items with cryptography to reduce the regulatory requirements for exports of computers, telecommunications equipment and software that include cryptographic functionality.
- BIS published a rule that expanded its ability to review license applications, including license applications for cybersecurity items and human rights concerns.
- BIS participated in an interagency group that studied emerging surveillance technologies and issued a report identifying current and possible future controls on surveillance technologies.
- BIS processed approximately 1,700 export licenses seeking to export various cybersecurity items.

Performance Indicator Results and Targets

SO 1.6 Improve the Nation's cybersecurity and protect Federal Government networks		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators									
NIST - Cumulative number of collaborators on National Cybersecurity Center of Excellence (NCCoE) projects	Target	N/A	123	140	205	320	Exceeded	340	440
	Actual	N/A	176	190	294	396			
NIST - Number of companies and organizations exposed to National Cybersecurity Center of Excellence (NCCoE) produced cybersecurity guides and other products	Target	N/A	5,500	6,000	10,000	12,500	Exceeded	13,500	15,000
	Actual	N/A	7,710	8,995	12,100	13,121			
NIST - Number of resources derived from the Cybersecurity Framework	Target	N/A	70	80	150	175	Exceeded	185	190
	Actual	N/A	94	133	159	179			

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NIST - Increased industry adoption of NIST cybersecurity standards, guidelines, and practices ¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

¹ These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

Targeted cyberattacks can have swift and wide-reaching impact, as demonstrated by the temporary shutdown of the Colonial Pipeline in May 2021, which provides fuel for much of the U.S. East Coast. Reports estimate that the cost of cybercrime to U.S. corporations alone reached nearly \$1 trillion in 2020. The U.S. Government responded to these threats and charged NIST with operating key cybersecurity initiatives under the recent Executive Order on Improving the Nation’s Cybersecurity, an answer to the SolarWinds attack. Robust cybersecurity is essential to U.S. national and economic security and can be a market differentiator that helps U.S. industry exceed in global markets.

NIST must also carry out critical cybersecurity responsibilities under laws including the National Defense Authorization Act of 2021, Federal Information Modernization Act of 2014, Internet of Things Cybersecurity Improvement Act of 2020, NIST Small Business Cybersecurity Act, and Cybersecurity Enhancement Act of 2014. However, cybersecurity threats continue to evolve so engagement with Department leadership and coordination of efforts across bureaus will help ensure that the Department timely delivers the products and services needed to strengthen U.S. cybersecurity.

Actions to Advance Progress Through FY 2023

NIST

- Engage stakeholders through additional workshops, publish final updates to key cybersecurity supply chain publications (including the Secure Software Development Framework and NIST SP 800-161), issue guidance and guidelines on enhancing software security, and initiate consumer labeling pilots to complete responsibilities under EO 14028.
- Announce finalist algorithms for the Post-Quantum Cryptography Standardization Process to help ensure continued protection with emerging threats.
- Issue a request for information on updating the NIST Cybersecurity Framework and scoping the National Initiative for Improving Cybersecurity in Supply Chains (NIICS) to align with stakeholder needs and changing threat environment.

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- Hold workshops on NIICS efforts to help organizations to build, evaluate, and assess the cybersecurity of products and services in their supply chains.
- Hold a lightweight cryptography workshop supporting NIST's lightweight cryptography standardization process.
- Finalize Cybersecurity Framework profiles for election systems and ransomware to provide targeted guidelines in areas of need.
- Hold a genomics cybersecurity workshop.
- Publish final NIST Special Publication 800-53A, guidelines for assessing security and privacy controls.
- Develop privacy workforce resources aligned with the NIST Privacy Framework.
- Engage in international standards developing organizations to ensure alignment with NIST cybersecurity and privacy guidelines.

BIS

- In October 2021, BIS published an interim final rule with a delayed effectiveness date, which would implement the Wassenaar Arrangement to control certain types of penetration testing and cyber surveillance tools. BIS will evaluate public comments on the rule and implement the controls in a way that protects U.S. national security without undermining legitimate cybersecurity activities.
- In November 2021, BIS added companies to its Entity List, including the NSO Group, that were involved in the export or reexport of spyware and exploits. BIS will continue to evaluate whether other companies involved in the export of cybersecurity items contrary to U.S. national security and foreign policy should be added to the list.
- BIS will evaluate new export controls on new cybersurveillance technologies, including those identified by the interagency group.
- BIS will work with international partners at the Wassenaar Arrangement to evaluate new controls and modification of existing controls on cybersecurity items.

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

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

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 took steps to improve the safety of commercial space activities as Earth’s orbits become increasingly congested with traffic and debris. The Department demonstrated a prototype open data platform that, when fully operational, will be capable of providing civil and commercial satellite operators with Space Situational Awareness (SSA) services to improve the safety of their operations. The Department advocated for the economic interests of the U.S. commercial space sector in the development and release of three White House space policies, including a new [United States Space Priorities Framework](#). The Department engaged in dialogue with U.S. space companies and co-hosted (with the Department of Homeland Security) two symposia focused on improving the cybersecurity of commercial space systems. Through NOAA, the Department awarded its first contracts for commercial radio occultation satellite data in support of operational weather forecasting.

Performance Indicator Results and Targets

SO 1.7 Advance U.S. leadership in the global commercial space industry		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
NOAA - Number of space policy–related decision processes, rulemakings, statements, or other governmental activities influenced or led by the Department	Target	10	10	16	16	18	Met	20	20
	Actual	N/A	N/A	16	16	18			

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NOAA - Number of workshops, reports, and other tools produced to facilitate growth and advancement of the U.S. commercial space industry ¹	Target	1	1	4	3	N/A	N/A	6	7
	Actual	1	1	4	3	5			

NOAA - Milestones achieved toward establishment of space situational awareness (SSA) services for civil and commercial stakeholders ¹	Target	N/A	10%	25%	30%	N/A	N/A	40%	50%
	Actual	N/A	10%	25%	N/A	N/A			

¹ These metrics do not have a target for FY 2021 because they were temporarily discontinued. They have targets for FY 2022 and FY 2023 because they were relaunched as part of the Department's FY 2022–2026 Strategic Plan.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

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 across the bureaus to implement the commercial space guidance issued by the President and National Space Council. The Department is promoting the United States as the country of choice for commercial space activities in the face of competitive financial incentives and regulatory environments overseas. The Department's initiative to create a civil Space Situational Awareness capability continues to progress from idea to reality, with widespread support from industry and building momentum in Congress. Sustaining this effort is critical to ensuring continued space safety and stability as Earth's orbits become increasingly congested by thousands of new objects per year, including the debris field from Russia's anti-satellite test in November 2021.

Actions to Advance Progress Through FY 2023

- **Support Commercial Space Situational Awareness** – NOAA will develop a cloud-based open architecture data repository (OADR) providing space situational awareness (SSA) services blending government and commercial data and software for civil and commercial stakeholders. Additionally, NOAA will develop a proving ground to provide an environment to support further public-private collaboration for applications and algorithm development to advance space science and technology.
- **Improve Space Regulations** – Continue to advocate for U.S. industry interests in ongoing rulemaking processes affecting commercial space

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activities, including exports, and support and participate in efforts to define a new mission authorization framework for novel activities in space.

- **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. Support the continued 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 National Space Council** - NOAA will support the Department leadership's participation in the activities and tasks of the National Space Council.

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

Lead: EDA; Contributing Bureaus: BEA, Census Bureau, 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

Through its diverse programs, the Department of Commerce continues to play a critical role in helping to create the conditions for equitable, resilient, place-based economic development in communities across the nation.

The Economic Development Administration (EDA) promotes equitable economic growth, innovation, and competitiveness among regional markets in the U.S. Through its grant programs, EDA funds planning, technical assistance, large-scale construction projects, revolving small-business loan funds, and various other economic development activities which contribute to local efforts to create the conditions that allow businesses to succeed and regional economies to prosper and become more resilient. In FY 2021, EDA invested close to \$983.1 million in 821 economic development projects to help communities and regions become more resilient and less susceptible to economic disruptions. EDA also invested close to \$118.2 million in 139 economic development projects that support expanding or emerging industry clusters that play critical roles in regional economies. Additionally, EDA updated its [investment priorities](#) to make equity central to its mission. As part of this update, EDA published [definitions](#) related to its investment priorities to help its customers better understand how it defines equity through the lens of underserved populations and geographies. EDA created a method for identifying projects that demonstrate a clear intent to benefit underserved populations and geographies, allowing for improved tracking of investments and anticipated outcomes in these communities.

The National Institute of Standards and Technology's (NIST) Hollings Manufacturing Extension Partnership (MEP) drives economic development and job growth by working with small and medium-sized manufacturers to help create and retain jobs and sales, increase profits, and save time and money. Centers focus on meeting manufacturer's short-term needs, but in context of overall company strategy. Centers provide services to manufacturers through open programming such as training, conferences, and meetings. NIST also coordinates the Manufacturing USA network of sixteen institutes. By coordinating Federal resources and programs, Manufacturing USA enhances technology transfer in U.S. manufacturing industries and helps companies

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overcome technical obstacles to scale up new technologies and products. Finally, NIST’s Baldrige Performance Excellence Program oversees the nation's only Presidential award for performance excellence while offering criteria, assessments, tools, training, and a community for those dedicated to helping organizations improve. In addition to traditional awards in manufacturing, healthcare, education, and nonprofit sectors the Baldrige Cybersecurity Excellence Builder was introduced in 2019 to promote adoption of best practices in cybersecurity.

NOAA enhanced its OceanReports tool to better inform siting of wind energy projects. NOAA also enhanced its support for the marine transportation sector by adding a new Physical Oceanographic Real-Time System (PORTS®) in Valdez, Alaska; collecting approximately 36,000 square nautical miles of hydrographic survey data; and establishing the Marine Navigation Website to provide a one-stop-shop for users to access navigation data. Approximately 90 percent of priority U.S. commercial fish stocks are managed within their annual catch limits, which are set by NOAA to ensure the long-term biological and economic sustainability of U.S. fisheries. NOAA selected the first two aquaculture opportunity areas (AOAs) for analysis to expand economic growth in coastal and rural areas. NOAA obligated \$600 million of fisheries assistance funding under the CARES Act and FY 2021 appropriations to coastal and marine fishery participants in states, tribes, and territories.

In June 2020, BEA and NOAA released the first official statistics on the marine economy, covering GDP, output, compensation, and employment for the years 2014-2019. These statistics show that the marine economy accounted for 1.9 percent of GDP in 2019 and that it is growing faster than the overall national economy.

Performance Indicator Results and Targets

SO 2.1 Drive equitable, resilient, place based economic development and job growth Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
NOAA - Number of protected species designated as threatened, endangered, or depleted with stable or increasing population levels	Target	30	30	30	30	26	Met	24	24
	Actual	30	30	30	28	28			
NOAA - Fish Stock Sustainability Index score measuring the sustainability and economic competitiveness of the Nation’s fisheries	Target	754.0	763.0	760.5	777.0	791.0	Met	787.0	797.0
	Actual	756.6	757.5	758.5	788.5	791.0			
EDA - Percentage of EDA Customer Effort Score rated easy or very easy ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							

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EDA - Estimated jobs created and retained for grants made in underserved populations and geographies¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

EDA - Private investment funds leveraged from grants made in underserved populations and geographies¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

¹ These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

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Strategic Conclusions and Recommendations

Coinciding with increased funding from disaster supplemental and pandemic response related appropriations, EDA increased the number of resiliency focused projects over the last 5 years. In FY 2017, EDA invested close to \$93.4 million in 486 projects that help communities and regions become more resilient and less susceptible to economic disruptions. In FY 2021, this increased to close to \$983.1 million in 821 projects.

Healthy shorelines and ocean resources are a substantial source of protection and resilience from coastal hazards, as well as recreation, food security, and climate mitigation. The need to harness information gleaned from the ocean and coasts to support strategic infrastructure, economic investments, and to sustainably enhance the services that the ocean and coasts provide for the benefit of society is increasing. The Status of the U.S. Fisheries report for 2020 shows 92 percent of the stocks managed are not subject to overfishing and 80 percent are not overfished. Forty-seven U.S. marine fish stocks have been rebuilt since 2000. Ending overfishing and rebuilding stocks supported \$238 billion of commercial and recreational sales and 1.7 million jobs in 2018. This shows that the U.S. fishery management system is achieving its long-term sustainability goals. However, warming waters have already led to rapid shifts in fish species distribution that have impacted whole fishing communities. The challenge moving forward will be to provide the science needed to further integrate climate change considerations into an ecosystem approach to fisheries management and to model and forecast the effects of changing ocean conditions and habitats on fish stocks and seafood productivity. The Blue Economy is the sustainable growth of existing ocean uses. It can be supported by the emergence of new economic opportunities associated with the collection and analysis of information from U.S. oceans, coasts, and Great Lakes (the Ocean Enterprise). NOAA completed a study that determined that the number of U.S. businesses engaged in the Ocean Enterprise grew by around 300 companies since 2015 to a total of 814 in 2020, with a corresponding increase in total employment. NOAA should continue to provide science, products, and services to support a variety of Blue Economy markets that have demonstrated increasing demand, including renewable energy and water quality.

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NOAA's continued contributions to offshore wind siting decisions and consultations will support the Administration's energy agenda. NOAA should also continue its work to manage National Marine Sanctuaries (NMS) and the National Estuarine Research Reserve System (NERRS), which attract tens of millions of visitors and billions of dollars in revenue for local economies each year.

Actions to Advance Progress through FY 2023

EDA is working with The Census Bureau's Social, Economic, and Housing Statistics (SEHSD) Division to create a public facing modeled dataset, with an accompanying tool, that can be used for assisting stakeholders in making determinations on EDA's equity and underserved investment priorities, particularly for High Poverty Areas (HPAs). This will better track and effectively target these communities. EDA also partnered with Argonne National Labs (ANL) to create a tool called the National Economic Resilience Data explorer which provides stakeholders demographic and economic indicators to better understand the socio-economic composition of their communities and determine eligibility for EDA grants. ANL will continue working to improve the design of the tool and add other relevant indicators. EDA will go through the PRA process for its customer satisfaction surveys, to make them better aligned with the Department. EDA will continue to make investments that support equitable, place-based economic development and growth.

NOAA will enhance collection of foundational data for mapping and charting, develop additional data visualization and integration tools to support marine transportation, and advance science to inform the siting of offshore wind and aquaculture facilities. Additionally, NOAA will conduct outreach and engagement activities for the National Marine Sanctuary System and the National Estuarine Research Reserve System to support recovery in diverse coastal communities. NOAA will reduce uncertainty in stock abundance estimates for living marine resources through advanced ocean sampling and data processing. NOAA will develop an online Fishing Community Adaptation Toolkit to help fishing communities evaluate risks and adaptation options for a changing climate. Through collaboration between NOAA and the tech industry, the Global Seafood Data System will provide advanced machine learning and artificial intelligence to identify trends, incidents, and practices that expose Illegal, Unreported, and Unregulated (IUU) fishing practices and shipments.

BEA and NOAA will continue to produce updated marine economy statistics to guide understanding of the Department's progress.

ITA will provide official travel and tourism statistics to support communities with data (such as demographics, participation in activities like outdoor recreation, and visited urban and rural locations) to inform travel and tourism marketing decisions.

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

Lead: 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

In FY 2021, The Economic Development Administration (EDA) invested close to \$190.0 million in 134 economic development projects (including infrastructure, technical assistance, and planning) that support regional workforce training efforts that identify critical local workforce needs. These efforts enable job seekers to secure industry-recognized credentials and employment in high-demand industries within their community. Additionally, EDA launched the Good Jobs Challenge, a new program funded via the American Rescue Plan, to create and implement industry-led training programs. The programs are designed to provide skills and connect unemployed or underemployed workers to existing and emerging job opportunities.

The National Institute of Standards and Technology (NIST) has a range of programs that support workforce development to meet industry’s need for talent:

- National Initiative for Cybersecurity Education (NICE) promotes an ecosystem of cybersecurity education, training, and workforce development. NICE is a partnership between government, academia, and industry that builds upon existing successful programs and facilitates innovation to increase the supply of qualified cybersecurity workers.
- The Hollings Manufacturing Extension Partnership (MEP) National Network helps companies with an extensive range of workforce resources that address all stages of the employee lifecycle including strategic talent planning, recruitment and talent acquisition, customized training for entry-level workers, leadership coaching and development, organizational culture, employee engagement, and succession planning.
- NIST plays a key role in developing the next generation of scientists and engineers through a range of academic programs for postdoctoral researchers, middle school science teachers, as well as graduate and undergraduate students.

Strategic Goal 2: Foster Inclusive Capitalism and Equitable Economic Growth

Performance Indicator Results and Targets

SO 2.2 Build sustainable, employer driven career pathways to meet employers' need for talent and to connect Americans to quality jobs		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators									
EDA - Total number of workers placed through the Good Jobs Challenge ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
EDA - Number of workers from underrepresented populations placed through the Good Jobs Challenge ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
EDA - Number of workers trained through Department of Commerce initiatives ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
EDA - Number of workers from underrepresented populations of workers trained through Department of Commerce initiatives ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
EDA - Estimated private investment funds leveraged as a result of EDA investments in workforce projects ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							

¹ These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Goal 2: Foster Inclusive Capitalism and Equitable Economic Growth

Strategic Conclusions and Recommendations

Coinciding with increased funding from disaster supplemental and pandemic response related appropriations, EDA increased awards in FY 2021 for projects that support regional workforce training efforts by 122 percent, versus FY 2020.

Actions to Advance Progress through FY 2023

As the Federal Government pursues an equitable economic recovery, the Department of Commerce has a leading role to play in helping American workers re-enter the labor market and pursue high quality career pathways. The Department of Commerce is in a unique position to make investments that lead Americans, including Americans from underserved communities to high quality jobs in key growth sectors. Through its efforts to facilitate the creation of strong workforce development systems, the Department will ensure that education and training programs are directly aligned with the economic development and business needs of a given region. By devoting time and resources to workforce development, the Department can help regions create the infrastructure needed to be economically competitive.

Through the Good Jobs Challenge, EDA is investing \$500 million in sector partnerships. The program also includes funds for the wrap-around services Americans need to successfully complete workforce training programs. The program includes three phases:

1. System Development: Help establish and develop a regional workforce training system comprised of multiple sector partnerships
2. Program Design: Develop skills training curriculum and materials, and secure technical expertise needed to train workers
3. Program Implementation: Implement non-construction projects to provide workforce training and connect workers with quality jobs, including wrap-around services

In addition to investments like the Good Jobs Challenge that directly fund workforce training programs, the Department has and will continue to invest in capacity-building and infrastructure projects. EDA's [Economic Adjustment Assistance](#) (EAA) and [University Center](#) programs are investing in capacity-building projects to support regional workforce systems. EDA's EAA and Public Works programs are investing in training facilities to support regional workforce systems. EDA will continue to make investments that will support the development of a robust workforce.

NIST announced the expansion of resources on CyberSeek.org at the NICE symposium in November 2021. The enhancements to CyberSeek include updates to the supply and demand data as well as the addition of a Cybersecurity Education and Training Providers Locator with information on more than 1,000 academic institutions and training providers that are helping learners acquire knowledge and skills in cybersecurity. A group of MEP Centers, using strategic competition funding, are piloting a program called Smart Talent to address challenges such as lack of skilled labor, high labor costs, slow training processes, and worrisome rates of employee turnover. Developed by MEP National Network workforce solutions experts, Smart Talent helps manufacturers attract talent, engage existing employees, and enhance training and development capabilities to lower operating costs, improve productivity, and realize growth. In 2019 NIST funded a study to examine the return on investment (ROI) of credentials, which are not routinely required

Strategic Goal 2: Foster Inclusive Capitalism and Equitable Economic Growth

or used as a major factor in hiring or promotion decisions in manufacturing. This research will give manufacturers a better understanding of how credentials can serve as an important resource in identifying skilled workers. The final report will help advance equity in operations and production aspects of manufacturing.

The Census Bureau's Center for Economic Studies includes several labor economists who conduct cutting-edge research on their own and in partnership with leading academics. Much of the research takes advantage of the Census Bureau's unique datasets. The Center for Economic Research includes the Longitudinal Employer-Household Dynamics (LEHD) program which uses state and Federal administrative datasets to create statistics on employment, earnings, and job flows at detailed levels of geography and industry for different demographic groups. LEHD data is also helpful to track workforce trends across the country. Recently, LED's Post-Secondary Employment Outcomes (PSEO) product was launched, which provides information on the typical income of individuals who complete college degrees and earn certificates.

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

Lead: EDA; Contributing Bureaus: Census Bureau, 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

In total in FY 2021, the Economic Development Administration (EDA) invested over \$258 million in 297 grants to help build community and regional capacity for entrepreneurship and innovation. These grants will help develop and improve the resources and systems businesses need to start and thrive in their ecosystems.

The National Institute of Standards and Technology's (NIST) Hollings Manufacturing Extension Partnership (MEP) advances entrepreneurship by providing U.S. manufacturers with information and tools needed to improve productivity, assure consistent quality, accelerate the transfer of manufacturing technology, and infuse innovation into production processes and new products. Additionally, NIST advances entrepreneurship by promoting and reporting on the overall strength of Federal efforts in technology transfer, including a critical role in coordinating Federal Government activities, convening the Interagency Working Group for Technology Transfer, and serving as the "host agency" for the Federal Laboratory Consortium.

The US Patent and Trademark Office (USPTO) aims to increase access to the intellectual property (IP) ecosystem for all. The USPTO improved the accessibility of its information, for instance, through a redesign of the [Inventor and entrepreneur resources](#) and [Patent basics](#) webpages. The USPTO also trained audiences on best practices in IP protection and enforcement. In FY 2021, the USPTO conducted 250 training programs through its Global Intellectual Property Academy, serving over 17,800 individuals. Approximately 43 percent of all attendees were representatives of U.S. small and medium-sized enterprises (SMEs), IP practitioners, or IP owners and users. Additionally, the USPTO launched in December 2020 the National Council for Expanding American Innovation, which was rebranded in October 2021 as the Council for Inclusive Innovation (CI²). With representatives from industry, academia, non-profit, and government, CI² will help USPTO develop a comprehensive national strategy to build a more diverse and inclusive innovation ecosystem.

Strategic Goal 2: Foster Inclusive Capitalism and Equitable Economic Growth

Performance Indicator Results and Targets

SO 2.3 Advance entrepreneurship and high growth small and medium sized enterprises		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators	Target	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Actual	7%	10%	1%	18%	28%			
EDA - Percent growth in new businesses applications ¹	Target	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Actual	7%	10%	1%	18%	28%			
NIST - Growth in workforce services provided to small to midsized U.S. manufacturers ²	Target	Proposed new					N/A	50	100
	Actual	Tracking will begin in FY 2022							
NIST - Growth in technology services provided to small to midsized U.S. manufacturers ²	Target	Proposed new					N/A	2,000	3,000
	Actual	Tracking will begin in FY 2022							
NIST - Growth in number of small to midsized manufacturers participating in MEP knowledge sharing events ²	Target	Proposed new					N/A	400	500
	Actual	Tracking will begin in FY 2022							
EDA - Total sum of funding secured by entrepreneurs as a result of activities sponsored by EDA investments ²	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
EDA - Percentage of EDA awards that support entrepreneurship in underserved communities and regions ²	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							

¹ This metric was introduced in the FY 2022-2026 strategic plan. It has historical data because it is drawn from existing Census data. EDA will begin setting targets in FY 2023.

Strategic Goal 2: Foster Inclusive Capitalism and Equitable Economic Growth

² These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

In FY2021 EDA updated its investment priorities to further support the Department of Commerce priorities to increase American competitiveness. Among those, the technology-based economic development priority is focused on supporting efforts that foster regional knowledge ecosystems that support entrepreneurs and startups, including the commercialization of new technologies, that are creating technology-driven businesses and high-skilled, well-paying jobs of the future. Under its Build to Scale Program, EDA's Office of Innovation and Entrepreneurship (OIE) deployed \$36.5 million, matched by more than \$40 million in non-Federal funding, across 50 grants that unlock investment capital, catalyze entrepreneurship, and enable regional technology-centric economies that increase U.S. competitiveness in diverse industries such as aerospace, agtech, blue economy, bioscience, advanced manufacturing, and health technology.

The success of efforts that support entrepreneurship are difficult to measure, as is entrepreneurship itself. Entrepreneurs each face unique and often winding paths, especially those that found companies that grow rapidly. The contributing bureaus measure their activities and outputs, which enables them to monitor and ensure that they deploy their funding and provide their services equitably and in service of inclusive economic growth. To determine impact, the contributing bureaus should continue to refine and collect relevant metrics, conduct experiments, and work better and more consistently with Commerce and other statistical agencies to leverage data products like Census's Business Dynamics Statistics.

Actions to Advance Progress through FY 2023

EDA will grow programs that successfully enable technology entrepreneurs, leverage evidence to create new and redesign existing programs, and equip its partners to build on that evidence while delivering programs. The Build to Scale Program (B2S) and STEM Talent Challenge will deploy service design techniques to gather feedback from applicants, grantees, beneficiary entrepreneurs, and other stakeholders. This feedback will guide a redesign for FY 2023 to improve program impacts and customer experience, ultimately increasing entrepreneurs' access to support and capital. Building on its Industry Challenge pilot program in 2020, the B2S program will build and grow partnerships with other Government agencies with deep science and technology portfolios to align commercialization efforts. The B2S program will also better enable grantees to build evidence by making available parallel experimentation and evaluation funding. EDA will continue to focus on increasing entrepreneurs' access to capital through its Revolving Loan Fund program.

Through new national competitions such as the Build Back Better Regional Challenge and the the Good Jobs Challenge, EDA will increase the number of large, coordinated cluster investments that require regional collaboration upfront and that build the infrastructure and platforms on which technology

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entrepreneurs thrive. This will increase American competitiveness and productivity in the industries of today and the future. EDA will support these regions not only through grant funding but also by building communities through which regions can share lessons learned and technology ecosystems can interconnect.

EDA will reconstitute the National Advisory Council on Innovation and Entrepreneurship (NACIE), a body of private sector, nonprofit, and academic leaders charged with identifying and recommending solutions to drive the innovation economy. This includes growing a skilled STEM workforce and removing barriers for entrepreneurs providing innovative technologies into the market. Through their expertise and networks, NACIE will advise the Department on how it can craft policies to increase diversity in entrepreneurship, support emerging science and technologies, develop, and expand workforce initiatives, and improve R&D commercialization.

To combat the impact of the global pandemic, the NIST MEP program will place a special emphasis on manufacturer and supply chain resilience to ensure that MEP Centers nationwide can provide technical assistance that prepares manufacturers to be ready for change and helps manufacturers adapt. The MEP program will also continue to provide supplier scouting services for government agencies, original equipment manufacturers, prime contractors and other entities seeking to increase the robustness of their domestic supply chains

The USPTO will work with the CI² to develop a comprehensive national strategy to build a more diverse and inclusive innovation ecosystem and expand presence to better deliver IP education and information to underserved communities.

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

Lead: NTIA; Contributing Bureaus: Census Bureau, 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

The Department made progress to expand affordable, high-quality broadband through the following major activities:

Reviewed hundreds of applications and awarded nearly \$34 million to support equitable deployment, access, and adoption of broadband. NTIA received more than 700 applications requesting more than \$9.1 billion from three grant programs with \$1.5 billion in combined funds available. In November FY 2022, NTIA announced its first three awards to deliver nearly \$1.4 million to tribes for broadband planning and use and adoption projects. To support the immense demand for broadband and build the capacity of interested applicants, NTIA provided technical assistance to a wide breadth of stakeholders, including through workshops, webinars, and direct assistance.

In FY 2021, EDA funded 30 broadband projects for a total of nearly \$32.5 million to serve as integral tools to help communities and regions build the capacity for economic development. The projects are designed to support broadband deployment based on the individual needs of communities, including studies, planning activities, technical assistance on the deployment of technologies based on broadband, and the funding of broadband infrastructure.

Led cross-Federal coordination and tracking efforts to promote economic development and broadband expansion. NTIA continues to lead broadband interagency coordination efforts, including through co-chairing the Federal Funding Workstream of the American Broadband Initiative. Additionally, NTIA meets weekly to coordinate with the United States Department of Agriculture (USDA) and the Federal Communications Commission (FCC) to ensure that Federal funding is efficiently allocated to provide maximum benefit to U.S. residents and further the Broadband Interagency Coordination Agreement (BICA), signed in June 2021. EDA also serves as an active participant in the Federal Funding Workstream and added information on its investments to NTIA's National Broadband Availability Map (NBAM) to facilitate coordinated grant making.

In December 2021, NTIA published its first annual ACCESS Broadband Report highlighting the newly established Office of Internet Connectivity and

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Growth's (OICG) accomplishments over the past year and investments in Federal broadband support programs and Universal Service Fund (USF) programs. The report was developed in coordination with 13 Federal agencies comprising 55 total programs. The report summarizes the Federal broadband investment landscape, outlines the current state of measuring investments and connection across Federal broadband support and USF programs, and provides recommendations to improve efforts to track broadband spending and outcomes.

The FirstNet authority continues to oversee the public safety broadband network. The FirstNet Network buildout and Band 14 deployment, surpassing 95 percent of the nationwide coverage target ahead of schedule, provides first responders with bandwidth and mission-critical connectivity nationwide to include hard-to-reach or remote locations like rural areas and tribal lands. As of October 2021, more than 18,500 public safety agencies subscribed to FirstNet with more than 2.8 million devices connected to the network. The FirstNet Authority enhanced the network core by preparing for 5G capabilities and expanding FirstNet's deployables fleet, allowing users access to 5G mmWave spectrum in a growing number of regions and continuing to provide flexible, on-demand coverage during emergencies and events.

Performance Indicator Results and Targets

SO 2.4 Expand affordable, high quality broadband to every American		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators	Target	<i>Proposed new</i>					N/A	<i>\$2.7 B</i>	<i>\$5 B</i>
	Actual	<i>Tracking will begin in FY 2022</i>							
NTIA - Total amount of Department of Commerce grant funds obligated for broadband-related programs ¹	Target	<i>Proposed new</i>					N/A	<i>N/A</i>	<i>N/A</i>
	Actual	<i>Benchmarking will begin in FY 2022</i>							
NTIA - Total number of locations (i.e., households or institutions) physically connected to broadband infrastructure through grant programs administered by the Department ¹	Target	<i>Proposed new</i>					N/A	<i>N/A</i>	<i>N/A</i>
	Actual	<i>Benchmarking will begin in FY 2022</i>							
NTIA - Total number of households, institutions, or individuals that participated in digital inclusion initiatives provided through grant programs administered by the Department of Commerce ¹	Target	<i>Proposed new</i>					N/A	<i>N/A</i>	<i>N/A</i>
	Actual	<i>Benchmarking will begin in FY 2022</i>							

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NTIA - Total number of households or institutions that have received broadband through grant, loan, and subsidy programs administered by the Federal Government¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

NTIA - Estimated number of jobs created or retained through Department of Commerce investments in broadband infrastructure and digital inclusion programs¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

¹ NTIA introduced its KPIs for strategic objective 2.4 to measure its progress in implementing the Infrastructure Investment and Jobs Act (IIJA), passed in November 2021. The KPIs do not have any prior year data because the IIJA broadband grants that underpin these KPIs did not have any funds available to award prior to FY 2022. NTIA plans to begin reporting baseline data and setting targets for most of the KPIs during Summer 2022 as IIJA implementation accelerates.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

Progress must account for a time lag between fund announcements, awards, and programmatic outcomes. It will take multiple years to report on, let alone achieve, many the key performance indicators outlined for Strategic Objective 2.4. The time between when funding guidelines are announced, when applications are awarded, and when outcomes are achieved can be multiple years. This is particularly true in the case of broadband deployment, where it can take many years to build infrastructure to expand broadband availability within a region. To account for this lag while reporting on progress, NTIA recommends the following actions to support regular communication on progress:

- Begin with reporting on funds invested and share updates on outcome-based measures over time. In the initial years of its awards, to support transparency of funds and quickly communicate on progress, NTIA will share information on the amount of grant funds obligated and expended for broadband-related programs. As funds are awarded and projects make progress toward objectives after what is likely to be multiple years, NTIA will begin to track the outcome-based measures. These measures will include the number of households or institutions physically connected to broadband infrastructure and the total number of households, institutions, or individuals that participated in digital equity initiatives administered by the Department of Commerce.
- Point to NTIA activities to promote effective, efficient use of funds. Congress made historic investments in broadband programs in recent months

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and years. The Department's broadband-related programs at NTIA and EDA must ensure that funds further the goal of expanding affordable, high-quality broadband to U.S. residents through a deliberative process that directs funds fairly and equitably. These efforts require substantial coordination with Federal and state partners. NTIA will share updates on efforts to coordinate with Federal partners, including the FCC and USDA, to promote efficient use of Federal funds.

- Share updates on stakeholder engagement to communicate progress. Many of the broadband programs require the Department to engage with stakeholders and beneficiaries as part of a participatory process. The Infrastructure Investment and Jobs Act requires NTIA to use a very deliberative process to support planning and ensure that investments are going to those who need them most. NTIA will share updates on its stakeholder engagement efforts, particularly with states and territories, to point to progress toward its strategic objectives.

Actions to Advance Progress through FY 2023

NTIA and EDA will continue to administer funds through existing broadband-related grant programs. NTIA anticipates new awards to come in the upcoming fiscal year, with additional awards for the Tribal Broadband Connectivity Program (TBCP), and first awards for the Broadband Infrastructure Program (BIP), and the Connecting Minority Communities (CMC) Pilot Program. Additionally, with passage of the Infrastructure Investment and Jobs Act, NTIA is preparing to add \$2 billion in additional funding for the TBCP and to stand-up new programs providing \$46 billion to expand broadband access and use.

NTIA will support successful implementation of grant projects by launching post-award monitoring and technical assistance program. Measures will be designed in coordination with ACCESS Broadband requirements to track Federal spending and desired programmatic outcomes, including the number of U.S. residents connected to broadband because of Federal spending. NTIA will provide post-award technical assistance to support awardees in meeting their timelines and programmatic objectives.

NTIA will Engage state and Federal partners to prepare for state broadband planning. In support of two new NTIA broadband programs—the Broadband Equity, Access, and Deployment (BEAD) Program and the State Digital Equity Grant Programs (both Planning and Capacity programs)—NTIA will execute a multi-faceted State and Territory outreach and technical assistance program which will result in the submission of 5-year State and territory action plans for BEAD and State Digital Equity Plans. As part of this engagement, all 56 States and Territories will publish publicly and submit to NTIA a five-year Broadband Action Plan that outlines the means and mechanisms by which each resident would have access to high-speed, affordable broadband and a State Digital Equity Plan that outlines how the state will promote digital equity. Through FY 2023, each quarter, NTIA will hold up to 15 sessions to support broadband capacity development.

Continue to maintain, invest, and evolve the nationwide public safety broadband network. The initial five-year buildout of the FirstNet network is expected to be completed by early 2023. The FirstNet Authority will continue to maintain vigorous contract oversight to ensure delivery on the Nationwide Public Safety Broadband Network. The program will prepare for the technological evolution of the network, while continuing to make improvements in areas such as coverage and resilience. Planning will be guided through a robust investment process that incorporates public safety's

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operational needs, while aligning with the FirstNet Authority Roadmap, strategic plan, and Board oversight. The FirstNet Authority continuous engagement with public safety and industry, will drive further innovation in the market and will lead to the deployment of next generation capabilities and services, including full 5G capabilities, for the Nation's first responders.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

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: 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

Through the following activities, NOAA made progress toward building a weather and climate ready nation, whose prosperity, health, safety, and continued growth benefit from a shared understanding of and collective action on climate change.

Service Equity

NOAA conducted an equity assessment of key services and programs to identify potential barriers that underserved communities and individuals may face. NOAA selected the three programs and services below to assess: (i) the National Sea Grant College Program (Sea Grant), (ii) the Sea-Level Rise Viewer and associated products, and (iii) various programs that contribute to a more Weather-Ready Nation. Additionally, the National Weather Service (NWS) used Social Science to initiate a Service Equity Assessment of severe weather impacts in underserved areas to identify gaps in service delivery.

Flood Inundation Mapping

NOAA is poised and ready to implement stakeholder-requested, real time Flood Inundation Mapping (FIM) services leveraging National Water Model and River Forecast Center forecasts, in communities nationwide. NOAA recently completed its FY 2018/2019 and FY 2020/2021 Agency Priority Goals (APG) to improve flood-related decision support services by demonstrating a new flood inundation mapping (FIM) capability, downstream of River Forecast Center service locations across much of the Continental U.S. (CONUS) and using high resolution National Water Model forecasts for the full domains of West Gulf River Forecast Center (WGRFC) and the Northeast River Forecast Center (NERFC) domain.

Partnerships

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

NOAA continues to conduct outreach and expand its partnerships with government, industry, academic, and non-profit organizations. For example, NOAA's National Weather Service (NWS) recently released its Partnership Strategy, which establishes goals to improve the overall NWS partner experience and develops new ways of leveraging and using partnership capabilities to help realize the NWS vision for a Weather-Ready Nation.

Climate-Smart Communities

NOAA developed a new public-private partnership, the Climate-Smart Communities Initiative, to scale up and accelerate training and the pace of resilience-building in communities across the Nation utilizing the [U.S. Climate Resilience Toolkit](#). The Climate-Smart Communities Initiative will allow NOAA to work with more communities across the Nation to co-produce and operationalize lasting and equitable climate resilience plans, prioritizing underserved communities that are particularly vulnerable to a changing climate.

Regional Climate Services

NOAA's Regional Climate Services (RCS), including the Regional Climate Centers (RCC), work with local, state, and regional partners to deliver place-based climate science and information products and services to help people make informed decisions. 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.

Response to Executive Orders on Tackling the Climate Crisis at Home and Abroad

NOAA continues to diligently work in response to the Administration's Executive Orders to combat the climate crisis. New NOAA efforts include a redesigned Climate.gov website that uses artificial intelligence (AI) to provide timely and accurate climate data and a joint report with the White House Office of Science & Technology Policy (OSTP) and the Federal Emergency Management Agency (FEMA) that addresses ways in which the Federal Government will improve access to climate tools and services.

New Partnerships on Climate

NOAA recently announced it is awarding more than \$171 million in five-year grants to more than 70 research projects focused on improving environmental justice, advancing climate models, improving flood impact resilience planning, and advancing the use and understanding of ocean observations to enhance climate modeling. NOAA also partnered with the Census Bureau on The Opportunity Project, which will bring together government, industry, universities, nonprofits, and communities to develop new data-driven tools that will enable decision makers to accelerate equitable resilience-building across the nation.

Providing Global Leadership on Climate

NOAA displayed its leadership in climate service delivery on the global stage by participating in the recent United Nations Climate Change Conference (COP26), where the agency emphasized its commitment to deliver the science, data, and solutions that help the world address the climate crisis.

Artificial Intelligence

NOAA created an AI model to emulate radiative transfer parameterization within a model which performs 100 to 1000 times faster than the existing method, allowing NOAA to run the parameterization more often and at higher resolution to improve environmental forecasts.

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Cloud

NOAA launched Advanced Weather Interactive Processing System (AWIPS) from the Amazon Web Services cloud platform to experiment with different datasets, configurations, etc. and help pioneer the efforts to move AWIPS and associated components into the cloud. Additionally, NOAA is running a 9-member ensemble Rapid Refresh Forecast System in the cloud, providing a path forward for future cloud use to run experimental and retrospective cases.

Advanced uses of Uncrewed Systems (UxS)

NOAA and partners sailed an autonomous vehicle into a hurricane, providing unprecedented data, and images and flew an autonomous sampling device 75,000 feet into the atmosphere and safely retrieved it. These technologies can revolutionize the way that NOAA observes and understands the environment and transform the way the bureau fulfills its mission.

NOAA upgrades Climate.gov

Climate.gov is the nation's leading online resource for advancing climate literacy and building resilience to climate impacts. The redesign uses an artificial intelligence platform to improve upon Climate.gov's search tool, allowing queries based on location so that users can find city and state-specific maps and data, ensuring climate information is accessible and relevant to all audiences. The new Climate.gov also uses the artificial intelligence platform to better integrate and cross-link content to highlight all available resources sitewide that are relevant to each visitor's unique interests.

Fleet Recapitalization

During FY 2021, NOAA continued acquisition of two General Purpose Oceanographic Ships through a Navy assisted acquisition. The Navy and NOAA teams conducted the design evaluations of three competing contractors and selected one contractor for the multi-year Detail Design and Construction. The new ships will incorporate advanced capabilities for NOAA climate science.

Aircraft Recapitalization

NOAA continued its acquisition of a new Gulfstream G550 aircraft. Phase 2 Modifications (fabrication and certification) were awarded in mid-FY 2021, and the Preliminary Design Review was held in June 2021. The G550 is a replacement for NOAA's current Gulfstream G-IV but offers enhanced data collection technologies including those for advanced climate data. The acquisition of a new King Air aircraft was also completed in FY 2021, and that aircraft is operational. This platform was outfitted with remote sensing equipment to measure snow water equivalent data for flood, river level and water supply forecasts.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

Performance Indicator Results and Targets

SO 3.1 Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts									
Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
NOAA - Annual number of OAR R&D products transitioned to a new stage (i.e., development, demonstration, or application)	Target	65	65	65	125	80	Exceeded	85	85
	Actual	65	66	65	104	85			
NOAA - Number of StormReady communities (cumulative)	Target	N/A	N/A	N/A	N/A	3,337	Exceeded	3,406	3,466
	Actual	2,750	3,060	3,191	3,297	3,346			
NOAA - Number of TsunamiReady communities (cumulative)	Target	N/A	N/A	N/A	N/A	216	Exceeded	221	221
	Actual	203	210	216	216	221			
NOAA - Customer satisfaction with NWS services, as measured by the American Customer Satisfaction Index	Target	N/A	N/A	80	80	81	Met	81	81
	Actual	82	85	86	86	81			
NOAA - Number of climate-smart communities enabled for resilience planning	Target	<i>Proposed new</i>				N/A	N/A	20	50
	Actual	<i>Tracking will begin in FY 2022</i>				1			
NOAA - Percentage of the continental U.S. population served by flood inundation mapping services ¹	Target	<i>Proposed new</i>				N/A	N/A	0%	10%
	Actual	<i>Tracking will begin in FY 2022</i>							

¹ These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

NOAA is off to a strong start toward achieving Strategic Objective 3.1. Using results and recommendations from the Service Equity Assessment, a Service Equity Framework and Action Plan is being developed and will address recommendations from the assessment. This will enhance NOAA's ability to deliver timely service to all communities, including those that are historically underserved.

NOAA is aware of the challenge listed in the OIG's Top Management and Performance Challenges Report addressing the additional resources expected for FY 2022. It will require coordination across NOAA to ensure the best return on investment and avoid the risk associated with an uncoordinated effort.

Actions to Advance Progress through FY 2023

Flood Inundation Mapping (FIM)

NOAA plans to begin operational implementation of the real time Flood Inundation Mapping (FIM) services demonstrated for the Northeast River Forecast Center (NERFC) and West Gulf River Forecast Center (WGRFC) domains as part of the FY 2020/2021 APG and the FY 2018/2019 APG, respectively.

Focus on Service Equity

Based on recommendations from the Service Equity Assessment, the NWS will develop a Service Equity Framework and Action Plan that will build upon the recommendations from the assessment. The NWS also plans to use the Centers for Disease Control and Prevention's Social Vulnerability Index to target StormReady, TsunamiReady, and Weather-Ready Nation Ambassadors outreach in socially vulnerable communities.

Convene Partner Meetings & Implement Work Plan of NWS Partnership Strategy

The NWS completely redesigned partner meetings to allow for direct NWS leadership engagement as well as partner-to-partner engagement using break-out groups, scenario exercises, live polling, and inviting partners to speak on panels and contribute to meeting content and design. The NWS envisions implementing an annual work plan to focus partnering efforts each year to meet the goals of the new NWS Partnership Strategy.

Regional Climate Services

NOAA will expand the Regional Climate Services (RCS) to enable NOAA to better articulate user needs for prioritization, improve development and delivery of operational regional information, and support engagement experts to showcase user needs by sector, geography, and timescale. NOAA also proposed to re-invigorate the State Climate partnership, and to train the local forecast office focal points on NOAA's climate assets available at local levels.

Climate Smart Communities

NOAA plans to launch a new, four-year Climate-Smart Communities Initiative (CSCI) designed to scale up, accelerate, and reduce the cost of climate

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

resilience-building, inclusively and equitably, in hundreds of communities across the United States. The CSCI will help bring the commercial market for climate adaptation and resilience services to maturity through a public-private partnership that connects community decision-makers with technical resources and expertise for the purpose of co-developing finance-ready resilience plans that are equitable and guided by the best-available science.

Enhancing the Nation's Regional Integrated Sciences and Assessments (RISA) Network

NOAA plans to continue building out a robust NOAA RISA program that will address demand for regional capacity for climate adaptation through a better equipped, comprehensive, place-based network of experts tied to the local needs and implementation realities of constituents.

R&D High Performance Computing (HPC) capacity

NOAA plans to develop and deliver the next generation modeling systems for weather and climate prediction. With this investment, NOAA will be able to deliver continually improved products and services, such as the comprehensive, integrated, and unified models of the Earth system that can greatly improve predictions of extreme weather events like hurricanes, fires, windstorms, flash flooding, and other climate events at sub seasonal-to-seasonal timescales.

Global-Nested High-Resolution Model

NOAA plans to develop a global-high-resolution atmospheric model with a 3km or below resolution to improve NOAA's understanding and prediction of extreme events on all time scales beginning at 2 weeks.

Marine Ecosystem Responses to Climate Change

NOAA plans to provide decision-makers with the information and tools they need to prepare for changing oceans and Great Lakes, reducing climate impacts, and increasing the resilience of living marine resources (LMRs) and the communities that depend on them.

Providing Climate Change Projections out to 2050 to Inform Risk Management

NOAA plans to develop standardized and accessible climate projections with society-relevant data delivery services to improve climate risk information equity and assist decision making across a wide range of stakeholders and economic sectors.

Precipitation Prediction Grand Challenge

NOAA plans to enhance the skill of precipitation predictions across weather and climate timescales in a research environment and for potential transition to operations.

Increased Aircraft Operations

NOAA plans to meet current and growing demands for airborne data requirements resulting from climate-induced changes by increasing staffing and flight hours. As climate change results in floods and droughts, spurs more frequent and more intense hurricanes, alters the distribution of fisheries, and threatens coastal resources, scientists and decision-makers increasingly require data from NOAA aircraft to inform products and services for the Nation.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

Increased Ship Days at Sea

NOAA plans to increase Ship Days at Sea (DAS), improving the utilization of the NOAA fleet in support of NOAA's growth in data collection requirements.

Increase Aircraft Recapitalization Program

NOAA's The new Gulfstream G550 airframe is scheduled to be in the modification phase during FY 2023 and a second G550 aircraft is planned with FY 2023 requested funding. To further the aircraft recapitalization program, a Twin Otter and another King Air may be used to continue improvements required for technology advances and data collection greatly impacting climate science.

Implementing the next-generation satellite architecture system

NOAA will establish the LEO Weather Satellites (LEO WS) Program, and Space Weather Next (SW Next) Programs as the next steps in implementing the next-generation architecture recommendations in accordance with the National Satellite Observing System Architecture study.

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

Lead: 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

The impacts of climate change are already being felt across sectors and in locations where major cities and associated ports provide disproportionate economic benefits to the American way of life. Climate-induced impacts and events are costly and destabilize coastal industries and population centers. Additionally, healthy coastal ecosystems and marine resources provide substantial protection from coastal hazards, as well as recreation benefits, food security, and the removal and storage of greenhouse gases. NOAA recognizes the imperative to transition to a more sustainable model of science-based management and conservation of coastal and ocean resources.

NOAA expanded and improved its coastal inundation tools and outlook capabilities, including the State of High Tide Flooding and Annual Outlook Report, [High Tide Flooding Map](#), [seasonal high tide bulletin](#), [Adapting Stormwater Management for Coastal Floods](#) tool, and [Coastal Inundation Dashboard](#). The National Fish and Wildlife Foundation (NFWF), in partnership with NOAA, announced a request for proposals under the 2021 National Coastal Resilience Fund to invest up to \$34M in projects that strengthen natural systems, which will reduce coastal inundation and enhance fish and wildlife habitats. NOAA also distributed more than \$78M in FY 2021 funding to state Coastal Zone Management (CZM) programs to address local priorities for coastal management. Additionally, NOAA reviewed its [Sea Level Rise Viewer](#) and associated tools and training to identify barriers that impede its use by underserved communities. Actions are now underway to reduce those barriers.

NOAA efforts to forecast, detect, and mitigate the impacts of Harmful Algal Blooms (HABs) progressed meaningfully. The [Florida harmful algal bloom respiratory forecast](#) now includes over 20 Gulf Coast beaches and will encompass the Florida panhandle and Texas beaches. NOAA deployed new sensors in Maine and Rhode Island to detect HAB toxins that can contaminate shellfish and alert managers when they reach critical levels. Additionally, the U.S. Army Corps of Engineers is now deploying NOAA-funded technology to control some forms of HABs.

NOAA expanded areas under protection in National Marine Sanctuaries (NMS) by 1,066 square miles. This expansion includes the new Wisconsin Shipwreck Coast NMS and the Flower Garden Banks NMS in the Gulf of Mexico. Important features protected in these new areas include 14 coral reefs and banks, as well as 36 shipwrecks important to U.S. maritime cultural heritage.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

NOAA improved its tools to support responses to oil and chemical spills. These efforts include a digital warehouse for environmental data ([DIVER](#)) and a mapping tool for responders (and [ERMA](#)®) that integrates currents and weather data and Environmental Sensitivity Index maps. These tools expedited more effective and timely responses to spills and hurricanes, enabling faster recovery of natural resources and the economies that depend on them.

NOAA Sea Grant brings together experts in coastal processes, hazards, climate change, and urban planning to support cutting-edge research and outreach. After Utqiagvik, Alaska experienced widespread and costly damage from a fall storm in 2017, Alaska Sea Grant researchers facilitated a shoreline community monitoring effort. Researchers used collected data to develop a coastal geomorphic change model for Utqiagvik to inform the community on the risk of erosion and flooding, allowing them to better prepare for storm events.

EDA established a resilience-oriented investment priority focused on resilience-building and enforcing projects including, but not specific to, resilience in coastal areas. Additionally, EDA established an investment priority that encourages environmental sustainability-focused economic development projects, which can also benefit coastal areas and general conservation efforts.

EDA made grants in support of resilience and environmental sustainability in FY 2021 in areas including, but not specific to, coastal areas.

Performance Indicator Results and Targets

SO 3.2 Strengthen coastal resilience and advance conservation and restoration of lands and waters for current and future generations Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
		NOAA - Number of communities that utilize Digital Coast	Target	5,500	5,500	5,000	5,000	5,000	Exceeded
	Actual	7,040	6,903	6,678	6,608	6,017			
NOAA - Percentage of U.S. coastal states and territories demonstrating annual improvement in resilience capacity to weather and climate hazards	Target	66%	71%	77%	77%	77%	Exceeded	55%	60%
	Actual	69%	74%	77%	83%	94%			

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

NOAA - Number of Sea Grant tools, technologies and information services that are used by NOAA's partners/customers to improve ecosystem-based management ¹	Target	N/A	N/A	N/A	N/A	N/A	N/A	200	200
	Actual	N/A	200	200	192	172			

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 ¹	Target	Proposed new					N/A	591,981	593,681
	Actual	Tracking will begin in FY 2022							

¹ These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

NOAA's unique position allows it to provide a full suite of science-based products and services to support state, local, and tribal efforts to understand and adapt to changing risk at the coast. NOAA has proven expertise in delivering authoritative climate science, tools, training, and technical assistance to communities. To maximize the impact of its efforts, NOAA must strengthen engagement and collaboration with other Federal Agencies, particularly related to the translation of Federal science to application, both within and outside the Federal Government. NOAA will best strengthen these connections via the White House National Climate Task Force Interagency Working Group for Coastal Resilience and relevant National Science and Technology Council subcommittees.

Actions to Advance Progress through FY 2023

Efforts to expand the geographic coverage of NOAA information, as well as incorporate artificial intelligence and uncrewed systems, will accelerate NOAA's ability to provide enhanced information, tools, and training for coastal resilience. NOAA will expand its grants to CZM programs in states and territories, establish regional coastal resilience communities of practice, and conduct equity assessments to uncover barriers and constraints to increasing

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

service to underserved and minority communities. NOAA will also use its designation processes to evaluate potential new areas for protection, including a proposed Lake Ontario NMS and National Estuarine Research Reserves in Wisconsin and Louisiana. Additionally, NOAA will provide forecasts of HABs, pathogens, and hypoxia forecasts and will transition HAB detection and monitoring products to help communities identify and measure HAB toxicity.

Sea Grant Builds Resilient Coasts: Expanding Local and Regional Coastal Resilience Capacity and Community Assistance

NOAA plans to expand Sea Grant's research and engagement, in coordination with partners, to make coastal communities more resilient to natural hazards and changing conditions. Examples of this work include understanding local risks and needs, filling critical information gaps through cutting-edge research and data collection with communities, and expanding the use of decision-making tools. Additional examples include developing and implementing solutions with stakeholders, including underserved communities, and essential partnership coordination and information sharing.

Sea Grant's Service Equity: Assessing and Integrating Diversity, Equity, and Inclusion Actions to Support Underserved Communities

NOAA plans to expand extension agents and other staff and services that support underserved communities. This proposal complements the increase requested for Sea Grant to expand research and engagement to make coastal communities more resilient to natural hazards and changing conditions.

Resilience and Environmentally Sustainable Development Investment Priorities

EDA developed an investment priority that encourages economic development projects to build economic resilience to and long-term recovery from economic shocks. EDA also developed an investment priority that helps address the climate crisis through the development and implementation of green products, green processes, green infrastructure, green places, and green buildings. Projects supported by these investment priorities can include, but are not limited to, projects aimed at strengthening coastal resilience and advancing conservation and restoration of lands and waters. These investment priorities lay the groundwork for future investments in these areas and is in line with this strategic objective.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

STRATEGIC OBJECTIVE 3.3 – Accelerate development and deployment of clean technologies

Lead: 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

Formulated strategies promote the development and deployment of clean technologies to accelerate global decarbonization efforts and position the U.S. industry for future success in a net-zero economy. Planned strategies involve the following:

- Lead clean tech industry export promotion and trade mission programming efforts.
- Enhance advocacy for U.S. clean tech companies.
- Increase role in clean tech international standards development and intellectual property protection.
- Attract FDI to grow the domestic clean tech industrial base.
- Align commercial dialogues and initiatives to target regions presenting near-term opportunities.
- Identify the needs of emerging clean tech sectors and position the U.S. industry for future success.

Performance Indicator Results and Targets

SO 3.3 Accelerate development and deployment of clean technologies		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
ITA - Number of International Trade Administration client outreach activities to U.S. clean tech companies¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
ITA - Value of clean tech Written Impact Narrative statements¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

The strategies formulated for this newly developed strategic objective align with both the mission of ITA and the broad, long-term outcomes that the U.S. Department of Commerce aspires to achieve. Efforts toward implementing this Strategic Objective are underway and ITA will report further on progress in the upcoming fiscal year. Future recommendations will further strengthen the impact of this Strategic Objective.

Actions to Advance Progress through FY 2023

Executive Order (EO) 14008: Tackling the Climate Crisis at Home and Abroad emphasizes the importance of linking efforts to tackle climate change to create new American jobs and benefiting the U.S. economy. The EO also directs agencies to develop strategies to integrate climate considerations into their international engagements. In response to this EO, the International Trade Administration (ITA) will align trade promotion and competitiveness work with the Special Presidential Envoy for Climate and other Federal agencies. The Secretary of the Department of Commerce will direct the development of the U.S. Clean Technologies Export Competitiveness Strategy. This is a key trade promotion policy effort that will align ITA and U.S. Government resources toward the goals identified in the EO. ITA conducted outreach to inform U.S. industries about the U.S. Clean Technologies Export Competitiveness Strategy development, including engagements with over 100 private sector entities. ITA received nearly 50 comments in response to a request for comment published in the Federal Register.

STRATEGIC OBJECTIVE 3.4 – Embed climate considerations across Department programs

Lead: 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

To date, the Economic Development Administration (EDA) has:

- Incorporated climate into its investment priorities under the Environmentally Sustainable Development investment priority. The inclusion of this investment priority exemplifies EDA's commitment to highlighting the potential effects upon and interplay with climate change posed by future infrastructure projects.
- Added language on resilience (including climate resilience) in its American Rescue Plan Act (ARPA) NOFOs.
- Added climate-related language to the Environmental Narrative Template. This revised document has been in use since late-June 2021, with a general expectation that all applicants for ARPA projects will use this new narrative.
- Begun research on relevant tools and resources that should be included in the Comprehensive Economic Development Strategies (CEDS) Content Guidelines related to incorporating climate resilience into economic development strategic planning. Ideally, this research will result in actionable guidance that requires the CEDS planning process to account for climate resilience, thereby leading to more climate-conscious regional economic development.

The Office of Sustainable Energy and Environmental Programs (OSEEP) enhanced its online training program to include multi-series training, including Climate Literacy. In FY 2021 and early FY 2022, OSEEP averaged 300 attendees per training session.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

Performance Indicator Results and Targets

SO 3.4 Embed climate considerations across Department programs		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
NOAA, OS, TBD - Number of people engaged through education, awareness activities, or intergovernmental coordination from the DOC Climate Action Plan ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
EDA - Investments supporting environmentally sustainable development ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

The Department will promote 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 will also ensure it is positioned to help companies turn the emerging demand for climate-friendly technologies into a competitive advantage for U.S. manufacturers and entrepreneurs.

Actions to Advance Progress through FY 2023

- BEA will advance economic accounting related to the environment and climate to better understand the interplay between climate work and the U.S. economy.
- BIS will identify areas in their core practices and programs that can incorporate climate considerations, including developing outreach strategies on export control awareness and compliance for companies focused on climate related solutions and technologies.

Strategic Goal 3: Address the Climate Crisis Through Mitigation, Adaptation, and Resilience Efforts

- Census will conduct additional analyses to better understand the effects of climate change on businesses and communities, then share learnings from those analyses with relevant stakeholders, including other bureaus.
- EDA will require all applicants proposing infrastructure projects to consider impacts from climate in the project design. EDA will also identify new avenues to incorporate climate considerations into their work (e.g., through NOFOs, trainings, and CEDS Content Guidelines).
- ITA will prioritize clean technology in the national export strategy and in engagement with the Trade Promotion Coordinating Committee, as part of its work to coordinate the export promotion and export financing activities of the U.S. Government.
- MBDA will review its programs and practices to identify opportunities to further embed climate considerations into its work.
- NIST will establish a dedicated process to coordinate, elevate, and enhance its climate work and identify additional opportunities for collaboration with other bureaus to advance the Department's knowledge of climate solutions.
- NTIA will review its programs and practices to identify opportunities to further embed climate considerations into its work.
- NOAA will establish a NOAA Climate Council to oversee, coordinate, and strengthen its various offices' work on climate. It will conduct an inventory of its current climate work, and conduct listening sessions with external stakeholders on their use of NOAA's climate data, tools, and services. Then, based on those inputs, NOAA will identify and enhance areas for improvement related to climate data, tools, and services.
- The USPTO will explore the potential to accelerate review of patent applications related to environmental quality, energy conservation, renewable energy development, greenhouse gas emission reduction, or other climate related topics.

Strategic Goal 4: Expand Opportunity and Discovery Through Data

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

Lead: 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

The [Foundations for Evidence-Based Policymaking Act of 2018](#) (Evidence Act) and White House circulars and memoranda direct the Federal Government to make decisions using the best available evidence. Released on January 20, 2021, [Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government](#) directs Federal agencies to evaluate whether their policies produce racially inequitable results. It also directs agencies to make the necessary changes to ensure underserved communities are properly supported. Agencies need data for these assessments and to track if actions to increase equity achieve their objectives. Federal data are available to measure community resilience to natural and economic disasters, but this data may not provide the detail and currency needed to track conditions in small, underserved geographies. The Department will conduct research to identify useful existing data available at the state level, academic institutions, or nonprofits. The Department will also develop strategies for refining available data to better meet assessment needs.

The Evidence Act requires a new agency Strategic Plan be developed in the first year of the four-year presidential cycle and published in February of the second year. Beginning in FY 2022, the Evidence Act also requires a Learning Agenda or strategic evidence-building plan be published. The Learning Agenda focuses attention on the evidence needed to solve big problems and is a plan for identifying and addressing policy questions relevant to agency's programs, policies, and regulations. It identifies short- and long-term strategic questions that may address how, how well, and how should programs, policies, and regulation's function. Additional questions may inform or assess agency's operations such as human resources, grant-making, and internal processes. The Learning Agenda addresses Administration priorities and information needs, as well as long-standing challenges and future priorities that may emerge. The Commerce Learning Agenda was drafted in FY 2021-2022 and supports the key strategies of this goal. The Department will release the Learning Agenda in FY 2022.

In August 2021, the [Commerce Data Strategy](#) was published. It describes the vision, scope, and goals to effectively manage, share, and maximize the value of the Department's data assets. The Commerce Data Strategy Action Plan aligns with the Data Strategy and defines the activities for implementing the Data Strategy goals. The Action Plan was drafted in FY 2021-2022 with public release anticipated in FY 2022. Through the Data

Strategic Goal 4: Expand Opportunity and Discovery Through Data

Strategy and the Data Strategic Action Plan, the Department aspires to demonstrate leadership as America’s Data Agency. The Department will improve data governance, promote equitable access and responsible data use, amplify coordination of data-related activities, and foster a culture of learning to spur innovation. The Data Strategic Action Plan serves as a roadmap to implement the Commerce Data Strategy for FY 2021-FY 2022. The Data Strategy and Action Plan support mechanisms to increase collaboration, and sharing of expertise, best practices, and data.

Performance Indicator Results and Targets

SO 4.1 Implement evidence based decision making within the Department of Commerce to increase program and policy impact Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
		OUSEA – Milestones met toward implementation of the Evaluation Plan and Learning Agenda ¹	Target	Proposed new					N/A
	Actual	Benchmarking will begin in FY 2022							
OUSEA - Stakeholder satisfaction with datasets identified, created, or modified to support operations ¹	Target	Proposed new					N/A	75%	75%
	Actual	Benchmarking will begin in FY 2022							
OUSEA - Number of new high-frequency or experimental data programs developed ¹	Target	Proposed new					N/A	2	3
	Actual	Benchmarking will begin in FY 2022							
OUSEA - Percentage of requests for access to data processed within target timeframes ¹	Target	Proposed new					N/A	75%	80%
	Actual	Benchmarking will begin in FY 2022							

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Goal 4: Expand Opportunity and Discovery Through Data

Strategic Conclusions and Recommendations

OUSA is on track to successfully complete the Commerce Learning Agenda and the Commerce Data Strategy Action Plan with public release in FY 2022. The Department gathered stakeholder input to the Learning Agenda through Listening Sessions, a Federal Register Notice published December 3, 2021 and a free, public event called [The Opportunity Project Summit: Open Innovation for All](#). The Department also requested public input on how the Department should engage with communities and experts as the Learning Agenda is executed. The Department of Commerce will focus research on evaluation needs and relevant data in FY 2022.

Actions to Advance Progress through FY 2023

Research will identify existing data and to develop strategies for refining available data to better meet assessment needs. Approaches will include foundational fact finding and literature review, algorithms that identify data used in research (see [Coleridge Initiative](#)), and evaluation staff surveys on data needs. Additional research focused on the Department of Commerce evaluation needs will be conducted in FY 2022. Interviews will be conducted with internal experts on analytics and evaluation, and current and potential users of the Department's data. Staff will research enabling technology and case studies. New goals and strategies will be developed based on the outcomes and conclusions of these research efforts.

A continued emphasis on input from stakeholders, the public, and underserved communities to the Commerce Learning Agenda, will result in projects that use qualitative research to gather feedback through surveys, interviews, workshops, and focus groups. This work will create a foundation for research on the impact of efforts in response to community needs and identified service gaps. Collecting stakeholder and public input will be scheduled throughout FY 2022-2024.

Upon publication of the Commerce Learning Agenda in 2022, activists, businesses, and nonprofits will offer ideas, suggestions, and possible collaborations. The Department intends to use this dialogue to improve the Learning Agenda and operations. Publishing this first Department of Commerce Learning Agenda is an important step toward a more evidence-based and community-centered government.

The Commerce Data Strategic Action Plan outlines a two-year execution timeline applying to FY 2021- 2022 with a separate Action Plan to be developed for FY 2023-2024 in the Commerce Data Strategy, after additional strategic direction is outlined. The immediate goals will support establishing mechanisms to increase collaboration, and sharing of expertise, best practices, and data.

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

Lead: Census Bureau; 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

Post-Secondary Employment Outcomes (PSEO)

Census increased partnerships with higher education institutions and systems resulting in an expansion of Post-Secondary Employment Outcomes (PSEO). PSEO is an experimental data product which provides earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution. With the recent expansion, PSEO now includes data on 534 institutions, which cover approximately 21 percent of all college graduates.

Economic Census

Census released all data products from the 2017 Economic Census on time, featuring new information on products and services based on the North American Product Classification System (NAPCS) as well as new e-commerce statistics. Planning and preparation for the 2022 Economic Census is well underway. Machine learning and natural language processing techniques will automate industry and classification coding, which will reduce respondent burden and improve the efficiency of analytical review.

Business Formation Statistics (BFS)

Census accelerated the quarterly Business Formation Statistics to a monthly product that provides timely and high frequency information on business formations at the national, regional, and state with industry detail levels.

Small Business Pulse Survey (SBPS)

Census completed six phases of the Small Business Pulse Survey and started data collection for a seventh phase. Census continues to adjust content to measure the changing nature and the effect of the coronavirus pandemic on the Nation's small businesses and capture the impact of other major disruptive localized events such as hurricanes.

Strategic Goal 4: Expand Opportunity and Discovery Through Data

New Measures of Technology

Census released new products from the Annual Business Survey (ABS), Annual Capital Expenditure Survey (ACES), and Annual Survey of Manufactures (ASM) to measure business adoption of nascent technologies like machine learning, robotics, automation, and artificial intelligence as well as indirectly measure the impact on employment and productivity.

New Total Manufacturing Estimate

Census released a monthly total manufacturing estimate. Previously, separate economic reports were issued on durable and non-durable goods. This improvement brings the reports together for a combined advance release. More timely manufacturing estimates benefit BEA's estimates of Gross Domestic Product.

Current Population Survey (CPS)

Census started preliminary work on an Internet self-response mode for the Current Population Survey (CPS). Census is outlining the Internet instrument and is working to add the instrument to the bureau's Data Ingest and Collection for the Enterprise (DICE) system for development. Census also conducted testing and research on wording and mode interactions.

Electronic Health (EHealth)

Census matures its EHealth initiative, designed to identify existing gaps in Federal statistics which can be filled by enhancing health records with the bureau's unique assets. The bureau delivered a report of findings to EHealth's inaugural research partner, the Utah State Department of Health (DoH), which documented a successful effort to append demographic information from the American Community Survey to Emergency Department patient records provided by the Utah DoH. This work was conducted securely under the legal authority of Title 13, with all records anonymized and used strictly for the purposes of producing disclosure-reviewed statistics. Additional efforts are underway with the University of North Carolina, Stanford University, the American Board of Family Medicine, the Department of Health and Human Services Agency for Healthcare Research and Quality, and others.

Household Pulse Survey (HPS)

Census provides near real-time data informing on the impacts the pandemic 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 are widely used and cited by Federal and state agencies, academics, and the media to guide response and recovery efforts on employment and employment income, consumer behavior, housing and food security, educational disruption, access to healthcare, and mental health.

National Experimental Wellbeing Statistics (NEWS)

Census is working on the NEWS project to use administrative and survey data to improve estimates of income and poverty statistics (including their dynamics). This project addresses biases in survey data including increasing nonresponse, measurement error, and misreporting using data from the Internal Revenue Service, Social Security Administration, other state and Federal Government agencies, and third-party data providers. This builds on

Strategic Goal 4: Expand Opportunity and Discovery Through Data

years of research on measurement error and bias in survey data. Most recently, knowledge from this project enabled the Census Bureau to develop alternative weights for the CPS Annual Social and Economic Supplement and the American Community Survey to address nonresponse bias caused by pandemic-related data collection disruptions.

Community Resilience Program (CRE)

Census develops and builds the Community Resilience Program (CRE). Since the initial experimental release in June 2020, the program transitioned to a full production program, releasing updated statistics in August 2021. Additionally, the program expanded its offerings by supplementing its estimates with other Census Bureau data regarding equity and associated considerations. These equity supplement data were published with an accompanying data tool that allows users to determine equity considerations for geographies of interest. Regarding stakeholder development, the CRE Program partnered with both the Federal Emergency Management Agency (FEMA) and the Economic Development Administration (EDA). FEMA now uses CRE data in their response to natural disasters and events specifically related to the COVID-19 pandemic. FEMA used CRE data to determine the best areas to send their mobile vaccination units in January 2021. EDA entered into an agreement with the CRE Program to explore ways of incorporating CRE data into their investment strategy decision-making.

Concurrent release of national, state, and industry GDP

BEA accelerated quarterly releases of Gross Domestic Product (GDP) by state to become the first statistical agency in the world to release industry, state, and national GDP (third estimate) simultaneously, providing a comprehensive picture of the U.S. economy all at one time.

Measurement of pandemic economy

BEA produced statistics, tables, and detailed methodology documents showing the measurement and effect of Federal pandemic response programs (CARES Act, December 2020 stimulus, and the American Rescue Plan) on GDP, national, and state level personal income and government finances. BEA also continued to produce weekly reports using daily credit card data to measure the effects of the COVID-19 pandemic on consumer spending.

Puerto Rico GDP

BEA released the first official statistics measuring GDP for Puerto Rico, providing an important measure of the territory's economic performance.

Marine and Space Economy Satellite Accounts

BEA produced the first official Marine Economy statistics covering 2014-2019 and new preliminary Space Economy statistics covering 2012-2018, highlighting the importance of these two sectors to U.S. economic performance.

Income Distribution

BEA updated statistics on personal income distribution for 2017 and 2018, while including a new disposable personal income distribution measure, providing another method of understanding how income is distributed across the United States.

Strategic Goal 4: Expand Opportunity and Discovery Through Data

International Trade Administration (ITA)

ITA's National Travel and Tourism Office (NTTO) developed a data visualization program called the COVID-19 Travel Industry Monitor to track the current state of the travel industry and follow the industry on its path toward eventual recovery. Included in this system are travel-related macroeconomic statistics (e.g., exports and imports, leisure and hospitality employment, and revenue); travel industry metrics (e.g., international travel volume, Transportation Security Administration throughput, and hotel occupancy); and traveler sentiment data (e.g., vacation intentions and small business). ITA uses this Monitor to guide travel-related policy discussions. NTTO developed additional data visualization tools (e.g., the I-94 Visitor Arrivals Monitor and the *Survey of International Air Travelers* [SIAT] Inbound Survey) and is currently developing additional Monitors that cover air traffic to and from the U.S., travel exports and imports, characteristics of outbound air travelers, and the economic impact of travel in the U.S.

Performance Indicator Results and Targets

SO 4.2 Modernize economic and demographic statistics to better meet business, policymaker, and community needs		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators									
Census - Percentage of milestones met in developing Census information technology (IT) enterprise to enhance collection, processing, and dissemination of data	Target	100%	100%	100%	100%	100%	Met	85%	85%
	Actual	100%	74%	100%	100%	100%			
Census - On-time delivery of data products from the High Frequency Data program that measure the impact of significant events in near-real time¹	Target	Proposed new					N/A	85%	TBD
	Actual	Tracking will begin in FY 2022							
Census - Percentage of new or expanded priority data products achieved¹	Target	Proposed new					N/A	80%	TBD
	Actual	Tracking will begin in FY 2022							

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

Strategic Goal 4: Expand Opportunity and Discovery Through Data

For more information, please see our new public website: [Commerce Performance Data Pro](#).

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.

Actions to Advance Progress through FY 2023

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.

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.

New Content

Census will include new content related to the pandemic on multiple surveys to help measure the impact of COVID-19. Additionally, Census will explore adding demographic characteristics of business owners, like gender, race, and ethnicity, to existing products.

Alternative Data Sources

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

Differential Privacy

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

Strategic Goal 4: Expand Opportunity and Discovery Through Data

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.

Electronic Health (EHealth)

Census will expand the electronic health (EHealth) initiative by: 1) presenting findings from the Utah Department of Health working paper, 2) distributing the initial set of University of North Carolina tables in appropriate forums (some journal and conference submissions and acceptances have already taken place) and beginning discussions on the next phase of the partnership, 3) ingesting data from the American Board of Family Medicine and Stanford to build an observational cohort from primary care clinical registry data linked to individual level data at the U.S. Census Bureau (such linkages will allow the Census Bureau to assemble life course individual patient measures), and 4) continuing research on healthcare providers. Following discussions with EHealth stakeholders, the Census Bureau launched a cross-directorate effort to develop a high-quality frame of medical facilities and providers through access to the Business Register and external data sources. This work leverages resources unique to the Census Bureau and is expected to fill a key gap in the understanding of the structure and characteristics of health care delivery in the U.S.

Community Resilience Program (CRE)

Census will foster its existing relationship with both FEMA and EDA. Given the CRE provides granular population estimates that support disaster work, and with appropriate funding, Census will extend models to other needs, develop historical estimates, complete further validations, and publish new estimates and research. EDA invested in these data as a tool to distribute recovery monies directly to communities. The CRE will continue to develop this tool. Multiple Federal agencies are working with the Census Bureau to use the CRE for their response to Executive Orders for underserved areas and the CRE will continue to explore these additional partnerships.

Global value chains

In 2021, BEA entered a three-year reimbursable agreement with the National Science Foundation's National Center for Science and Engineering Statistics to produce new data on global value chains to support a better understanding of U.S. competitiveness and to address data gaps on high-

Strategic Goal 4: Expand Opportunity and Discovery Through Data

tech and knowledge-intensive industries. The first set of trade-in-value-added results will be released in late Fall 2021 with efforts to expand the project through calendar year 2022.

Digital economy

Over the past several years, BEA made progress on a digital economy satellite account. The focus of work in FY 2022 includes the recording and valuation of data as an asset, measurement of cloud computing, digital intermediary platforms, digital trade, and development of digital supply-use tables.

Income distribution

BEA will release updated statistics on national income distribution along with detailed methodology documents, as well as a working paper with experimental statistics measuring income distribution by state for the first time.

Expanded international investment statistics

BEA will publish new statistics starting in December 2021 on the direct investment income; financial transactions; positions of U.S. resident special purpose entities (SPE); U.S. legal entities with no or little employment or physical presence; and statistics on U.S. debt positions by currency, sector, and maturity. The new statistics fulfill a commitment to the International Monetary Fund's Taskforce on Special Purpose Entities and the G20 Data Gaps Initiative.

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

Lead: 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

The Evidence Act requires agencies to establish an agency Data Governance Body, to be chaired by the Chief Data Officer, with participation from relevant senior-level staff in agency business units, data functions, and financial management. The primary goal of the Commerce Data Governance Board (CDGB) is to “ensure that the Department’s data is fully leveraged as a strategic asset.” The CDGB is the governing body at the Department tasked with implementing the Evidence Act, creating agency guidance for its implementation, and coordinating and preparing associated deliverables to the Office of Management and Budget and Congress. The CDGB addresses principles and guidance for appropriate data practices, and it leverages partnerships and stakeholder engagements to continuously improve data access and usage. In August 2021, the CDGB published the [Commerce Data Strategy](#) which describes the vision, scope, goals, and objectives for establishing a foundation to effectively manage, share, and maximize the value of the Department’s data assets. The Commerce Data Strategy reemphasizes the responsibility of leaders at the Department to ensure data is comprehensive, consistent, credible, and appropriately accessible to all.

The CDGB also drafted the Commerce Data Strategy Action Plan, which defines the activities for implementing the Data Strategy goals. Through the implementation of the Data Strategic Action Plan, the Department will continuously improve coordination and planning for data initiatives. The Department will employ holistic strategies to transparently maximize the use of data assets by all sectors and the public through data governance best practices. The Data Strategy Action Plan is currently under review, with public release anticipated in FY 2022.

Strategic Goal 4: Expand Opportunity and Discovery Through Data

Due to the decentralized nature of the Department, the CDGB initiated Departmentwide working groups to complete specific activities. On April 10, 2020, the CDGB established the data Inventory Working Group to coordinate and complete a comprehensive data inventory of open datasets from all Department bureaus and offices. Similarly, on June 9, 2020, the Maturity Assessment and Data Skills Working Group (MADSkills) was established to conduct a Departmentwide aggregated assessment of the maturity of bureau data programs and staff data skills and develop an associated Gap Closure Strategy. The Commerce Geospatial Working Group was established in November 2020 to provide leadership on Commerce’s geospatial data assets and respond to the requirements of the Geospatial Data Act of 2018. Lastly, the CDGB established the Innovation Working Group (InnoWG) in October 2021 to bolster the Department’s ability to innovate across the data life cycle and expand the use and accessibility of all Department data. The InnoWG will leverage stakeholder engagement from Learning Agenda listening sessions, responses to the Federal Register Notice, and public input from [The Opportunity Project Summit: Open Innovation for All](#) to inform their plans and provide focus to their innovative activities to continuously improve data access and usage.

Additionally, the Department initiated a Scientific Integrity Working Group to establish a policy that ensures the integrity of the scientific process within the Department, the integrity of activities used to inform management and policy decisions, and universal confidence in the quality, validity, reliability, ethical conduct, and transparency of the Department’s science. It also denotes the Department’s commitment to a culture of support for employees, which are its principal science asset. The working group established a [Scientific Integrity Commons](#) to communicate its progress.

Performance Indicator Results and Targets

SO 4.3 Improve Commerce data usability and advance ethical, responsible, and equitable data practices		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators	Target	Proposed new					N/A	75%	TBD
	Actual	Benchmarking will begin in FY 2022							
OUSA - Percentage of milestones met in the Commerce Data Strategic Action Plan ¹	Target	Proposed new					N/A	80%	TBD
	Actual	Benchmarking will begin in FY 2022							
OUSA - Percentage of milestones met in improving Commerce data tools based on user feedback ¹	Target	Proposed new					N/A	80%	TBD
	Actual	Benchmarking will begin in FY 2022							

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

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For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

OUSEA is on track to successfully complete the Commerce Learning Agenda and the Commerce Data Strategy Action Plan and publicly release them in FY 2022. Stakeholder input to the Learning Agenda was gathered through listening sessions, a Federal Register Notice published Dec. 3 and a free public event called [The Opportunity Project Summit: Open Innovation for All](#). The Department will use this information to inform innovative ways to continuously improve data access and usage. The CDGB will continue to implement the activities in the Commerce Data Strategy Action Plan that inform modernizing Commerce's data ecosystem through public release of the Commerce Data Hub, building capacity to manage data through data skills training, improving efficient data sharing through Departmentwide data sharing agreements and leveraging the NOAA Big Data Program, and increasing the usability of the Department' data and science for climate-related research through continued collaboration and coordination across the bureaus and offices.

Actions to Advance Progress through FY 2023

The Department of Commerce will raise the standard for responsible and trusted data. The Department will also lead the development and implementation of holistic strategies to transparently maximize the use of data assets by all sectors and the public. As a leader in data practices, the Department will implement the Commerce Data Strategic Action Plan that outlines a two-year execution timeline applying to FY 2021- 2022. The Department will also develop a separate Action Plan for FY 2023-2024 after additional strategic direction is provided by the Office of Management and Budget.

The immediate goals will develop principles and guidance on data practices, continuously improve data access and usage, and further develop standards that lead to trustworthy AI. This work will increase public trust in the Department and empower communities to use data to drive positive change. Standards development will include engagement with communities of experts through workshops, solicitation of comments, requests for information, and dissemination of publications, datasets, and frameworks.

The Department will advance ethical, responsible, and equitable practices in gathering data. In collaboration with experts on the Federal paperwork reduction requirements, it will test approaches to increase feedback from underserved communities. The Department will use the information it gathers to develop policies and programs that deliver resources and benefits equitably, then assess its approaches to refine those policies and programs.

To strengthen scientific and data integrity, the Department will build upon the Commerce Data Hub to improve data findability, accessibility, and usability. The Scientific Integrity Working Group will establish a policy that ensures the integrity of the scientific process within the Department, the integrity of activities used to inform management and policy decisions, universal confidence in the quality, validity, reliability, ethical conduct, and

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transparency of the Department's science. The CDGB will establish a Commerce Data Ethics Framework, then develop appropriate guidance. Participation in the Interagency Equitable Data Working Group will ensure the Department is in alignment with other Federal Agencies regarding equitable data.

Strategic Goal 5: Provide 21st Century Service with 21st Century Capabilities

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

Lead: 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

In March 2020, Congress enacted the Coronavirus Aid, Relief, and Economic Security (CARES) Act to support Americans in need. The CARES Act appropriated nearly \$2 billion in supplemental funds to four Department of Commerce bureaus: Economic Development Administration (EDA); National Oceanic and Atmospheric Administration (NOAA); National Institute of Standards and Technology (NIST); and the Minority Business Development Administration (MBDA). In 2021, Congress enacted the American Rescue Plan (ARP) Act which appropriated over \$3 billion in supplemental funds to two Department of Commerce bureaus: EDA and NIST. Also, in 2021, MBDA received an additional \$25 million of COVID-19 relief funds that was outside of the CARES or ARP Acts.

In FY 2021, 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 the Office of Management and Budget (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 2022.

Strategic Goal 5: Provide 21st Century Service with 21st Century Capabilities

Performance Indicator Results and Targets

SO 5.1 Effectively implement new Department of Commerce authorities and investments Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
OAM - Percentage of dollars awarded using high-risk contracting authorities	Target	46.9%	46.9%	46.9%	46.9%	46.9%	Exceeded	46.9%	46.9%
	Actual	46.9%	46.9%	24.0%	20.0%	19.1%			
OAM - Percentage of obligations to small disadvantaged businesses and socioeconomic small businesses	Target	40.0%	37.2%	39.0%	39.0%	33.0%	Exceeded	39.0%	N/A
	Actual	41.3%	46.1%	42.9%	43.5%	46.5%			
OAM - Percentage of obligations to Ability One	Target	N/A	N/A	N/A	N/A	1.00%	Exceeded	1.50%	1.50%
	Actual	0.39%	0.42%	0.34%	0.88%	1.14%			
OFM - Audit opinion score	Target	1	1	1	1	1	Met	1	1
	Actual	1	1	1	1	1			
OS - Number of repeat significant deficiencies remaining	Target	1	1	1	1	1	Met	1	1
	Actual	2	2	1	1	1			

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Goal 5: Provide 21st Century Service with 21st Century Capabilities

Strategic Conclusions and Recommendations

As of Q4 FY 2021, 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 managed funds.

The strategies within this strategic objective demonstrate the Department's commitment 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.

Actions to Advance Progress through FY 2023

In November 2021, the Infrastructure Investment and Jobs Act (IIJA) appropriated \$48 billion in supplemental funds to the National Telecommunications and Information Administration to expand broadband to communities in the U.S. The IIJA Act also appropriated nearly \$3 billion to NOAA to improve coastal habitats and increase climate resilience.

The Performance Excellence Office and Commerce Infrastructure Coordination Working Group will coordinate to provide additional oversight and ensure effective and transparent use of current funds from the CARES and ARP Acts and new funds from the IIJA Act. These efforts will integrate existing performance management and oversight protocols as well as design new operations to increase efficiency.

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

Lead: 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

The Department recruits and hired People with Disabilities (PWD) and People with Targeted Disabilities (PWTD), by utilizing non-competitive hiring authorities and alternative recruitment sources. HR Offices provided applicants information about disability employment programs, opportunities, and the hiring process, including points of contact for reasonable accommodations. The Department provided training to hiring managers on the use of hiring authorities that take disability into account. The Department adopted the Federal-wide goals for the workforce of 12 percent for PWD onboard and 2 percent for PWTD onboard. The Office of Civil Rights (OCR) provided State of the Agency and quarterly briefings to senior leadership to communicate these goals and progress in reaching targets. The Department has over 70 active Affinity and Employee Resource Groups that serve as a source of communication for employees on work-life balance, training, and career development and for leadership to help with its recruitment, retention, and sponsorship activities.

OCR expanded the First-Generation Professionals (FGP) Initiative by cultivating its Community of Practice for Federal employees, agencies, and FGPs to collaborate, share best practices, promote events, and discuss challenges. Additionally, Special Emphasis Program Managers hosted over 30 events with over 9,000 participants during FY 2021. The OCR also hosted 7 virtual Listening Sessions to support and provide a safe place for employees to work. In September 2021, the Department stood up the Commerce DEIA Council. As of November 2021, the DEIA Council met twice and established 8 committees that focus on an equity theme or demographic. Department leadership conducted town halls to announce the creation of the council and a series of listening sessions to gauge employee and stakeholder priorities.

The Department's 2020 Federal Employee Viewpoint Survey (FEVS) overall Employee Engagement Index (EEI) score increased to 76 percent, 4 percentage points above the 2020 score. The Department ranked 5th in the Partnership for Public Service's Best Places to Work in the Federal

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Government and maintained a top five ranking for nine consecutive years. The Department also ranked second in the COVID-19 overall category, measuring the extent that employees feel their organization supported their mental and physical well-being during the pandemic, provided the resources they needed to work, had leaders who communicated effectively, prioritized their welfare, and successfully delivered on their mission.

The Department of Commerce revitalized the use of the White House Leadership Development Program (WHLDP), a 1-year development opportunity available to GS-15 employees, resulting in 2 employee selections. Guidance and logistical support were provided to the Office of the Chief Information Officer (OCIO) to launch Departmentwide trainings. This resulted in 740 employee training completions to date for 4 of the 15 sponsored courses completed in the fourth quarter. Development opportunities were provided across the Department to enhance leadership skill sets.

During FY 2021, the Census Human improved their succession planning survey to a more secure platform with enhanced reporting. The survey identified succession pipelines and reduced the time to recruit and backfill leadership positions. Additionally, Census launched a Competency Working Group (CWG) to update the enterprise competency dictionary to identify and include any skills that are needed to execute on strategic initiatives. Census identified competency-based training plans and reduced strategy gaps for the planning of the 2030 census.

Census worked with OPM to create a data science occupational series to attract and retain this emerging and critical skill set for the future of Census work. To accomplish this goal, the bureau collaborated with various Government agencies to create competency models that describe the work of data scientists. They also outlined career paths and opportunities for employees who specialize in data science to excel in this growing career field.

NIST used a recruiting tool to attract candidates to apply to vacancies. Hiring managers diversified and increased quality of their applicant pools by searching for candidates using LinkedIn's advanced search filters. Additionally, NIST piloted an augmented writing tool to build inclusive job announcements for vacancies on USAJOBS since May 2021. NIST used Direct Hire Authority to reduce vacancy backlog and hiring timelines.

NIST hired a DEIA Director to champion an approach to impact workplace diversity and inclusion, proactively respond to areas of concern, and ensure employees are treated fairly and equitably. The bureau also established an Ombuds program to provide staff with an informal avenue to address workplace issues and create a respectful environment supportive of constructive conflict management. The NIST Steering Group for Equity in Career Advancement secured COACH, an organization based at the University of Oregon, to conduct a study of promotion disparity among female and minority employees in the STEM fields. Leadership is reviewing the study recommendations for actionable areas.

NIST expanded leadership and employee development offerings and enhanced learning in a virtual environment. The Employee Assistance Program presented workshops on managing stress in a pandemic to approximately 600 staff. NIST also implemented revised telework and new remote work policy to provide flexibility to employees.

NOAA used direct hire and special hiring authorities and held the first sponsored and managed virtual career fair. The fair was advertised via social media, employee networks, and the bureau's relationships with minority-serving institutions resulting in over 1,400 attendees. Moreover, NOAA educated staff about the Leadership Competencies Development Program (LCDP) recruitment cycle by partnering with the NOAA Employee Resource

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Groups in the process. As a result, they had the most diverse cohort in NOAA's 20-year history of the program; 25 percent of their new cohort is minority compared to the previous high for the program, which was 13 percent.

NOAA developed a robust Leadership Competencies Development Program (LCDP) Improvement Plan. LCDP led weekly team strategy meetings over six months and briefed NOAA leadership. Many recommendations were received and implemented for the LCDP 12 cycle. As a result, 44 applicants were GS-11/12 equivalents and 3 of them were selected. No supervisors submitted objections, as opposed to 5 objections in the last cycle. Of the new cohort, 26 percent were from underrepresented minority groups, doubling the results of NOAA's DEIA efforts from the last recruitment cycle.

NOAA launched a new employee development and networking platform called Leveraging Abilities, Needs, Talents, Energies and Resources Network (LANTERN) on OPM's Open Opportunities, to build an agile, highly skilled workforce by offering in-person and remote opportunities. LANTERN has 777 community members, 211 opportunities, and 341 applicants, 157 of whom have undertaken an opportunity. Applicants increased by 80 percent and those who undertook an opportunity increased by 50 percent compared to the last NRAP cycle. Additionally, the second virtual NOAA Leadership Seminar (NLS) was delivered to introduce executive core qualifications (ECQs) and build leadership competencies in the workforce. The NLS had over 1,300 attendees, a 68 percent increase in participation over the previous year.

NOAA developed a junior and mid-level leadership development program to address the leadership development of lower graded employees and created a Performance Talk Podcast series to build a culture that maximizes employee performance and enhances mission delivery. Additionally, NOAA formed a community of practice in NOAA's Mentoring Program to improve mentee and mentor learning experiences, expanded Virtual New Employee Orientation for NOAA employees, established Monthly New Employee Forums, provided Manager Refresher Trainings and workshops, and partnered with the Office of Inclusion and Civil Rights to improve D&I of participants. Also, NOAA conducted the first assessment of telework by job series in nearly a decade to identify and expand usage of telework during and after the pandemic.

USPTO has three initiatives underway to ensure that PWD's have sufficient opportunities for advancement: USPTO's Diversity Program will stand up an Agency-wide D&I Council which will incorporate the current Disability Advisory Council; USPTO will establish relationships with disability-friendly institutions, such as Gallaudet and the Rochester Institute of Technology to increase the number of Schedule A applicants and hires for MCOs; and USPTO will improve hiring manager education to ensure managers have the tools needed to optimize disability recruitment.

ITA launched a comprehensive succession planning program, with an emphasis on knowledge management, that focuses on capturing and transferring critical knowledge from leadership and technical experts in critical roles to develop future generations of leaders across the Bureau. In March 2021, ITA launched the Diversity and Inclusion Advisory Council (DIAC). The DIAC collaborates with ITA's Human Capital office and reports directly to the ITA Management Council. The DIAC operates in accordance with a Charter, with emphasis on access, equity, and equality and a focus on the following functional areas: Recruitment and Outreach, Development, Retention and Succession, and Reaching More Diverse Customers.

Strategic Goal 5: Provide 21st Century Service with 21st Century Capabilities

Performance Indicator Results and Targets

SO 5.2 Optimize workforce and diversity, equity, and inclusion practices Performance Indicators		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
OHRM - Permanent attrition rate	Target	7%	7%	7%	7%	7%	Exceeded	7%	7%
	Actual	7%	5%	5%	5%	6%			
OHRM - Candidate quality index	Target	70%	70%	70%	70%	70%	Met	70%	70%
	Actual	54%	57%	60%	60%	68%			
OHRM - Average number of days to hire for all hires	Target	65	65	65	65	65	Not Met	65	65
	Actual	89	92	105	97	96			
OHRM - Federal Employee Viewpoint Survey (FEVS) employee engagement index score	Target	69%	71%	71%	73%	74%	TBD	75%	76%
	Actual	71%	71%	73%	76%	TBD			
OCR - Time to respond to EEO complaints	Target	Proposed new					N/A	45	40
	Actual	Tracking will begin in FY 2022							
OCR - Number of Inclusion, Special Observances, and Special Emphasis Programs	Target	Proposed new					N/A	9	14
	Actual	Tracking will begin in FY 2022							

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

For more information, please see our new public website: [Commerce Performance Data Pro](#).

Strategic Conclusions and Recommendations

- The Department will focus on implementing the DEIA plan, leading succession planning efforts, evaluating strategies to improve hiring timeline and employee engagement, and working through any human capital challenges resulting from the COVID-19 pandemic.
- Census will ensure the agency is prepared to lead the global statistical community into the future. The bureau is committed to creating quality human capital programs that advance the enterprise and foster a culture of diversity, equity, and inclusion.
- For NIST, vulnerabilities include the view that NIST's workforce is not sufficiently diverse, especially at the senior levels. Although leadership made a strong commitment to address this threat and build a more diverse and inclusive culture, change takes time to occur. Additionally, succession planning will be crucial to ensure NIST has the talent pipeline for continued mission delivery.
- NOAA faces some challenges in corporately implementing promising HR practices that optimize employee experience, market-leading customer experience, and a reputation for leading change as part of a hybrid workforce culture. Hiring from anywhere in the U.S. and territories is the biggest initiative the bureau believes should be supported for the greatest results.

Actions to Advance Progress through FY 2023

Departmentwide

- The Department will conduct quarterly hiring timeline reviews with the CHCO, Deputy CHCO, and Principal HR Managers, to identify areas for improvement. Servicing HR Offices will identify and implement strategies to improve hiring timeline delays, based on OPM's 80-day standard.
- Enterprise Services (ES) will provide a full-service Talent Acquisition solution where processing for recruiting and hiring actions are conducted by ES. The platform will improve time to fill, provide hiring managers insight into recruitment status, and increase quality of hires.
- The Department will restore the Chief Diversity Officer position to lead workforce diversity measures and implementation of new plans across all bureaus. A chief goal will be to expand and enhance outreach to a more diverse pool of job candidates, with a focus on STEM positions.
- The Department will deploy a Departmentwide Recognition Program for individuals, managers, and organizations that further DEI and EEO principles. By FY 2023, it is anticipated that bureau winners will compete for the department-level awards. The criteria will align with existing laws and Executive Orders on EEO, diversity, equity, and inclusion guidelines and mandates.
- The Department will deploy a Departmentwide, automated tracking system for reasonable accommodation (RA) requests. The automated tracking system will increase accessibility, speed, uniformity, and transparency in the RA process. The system will provide an accurate and efficient method for submitting, tracking, monitoring, and reporting RA requests from initialization to final disposition.

Census:

- Develop and implement Human Capital Programs and initiatives aligned with Transformation Blueprint in accordance with Census Transformation Project Plan.
- Engage in bureau preparation and transition activities to support the successful transition to the new Talent Acquisition Solution.

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- Engage with the Census Human Capital Council through the CWG to make recommendations by Q4 of FY 2022 and to update and modernize the Enterprise Competency Dictionary by the end of FY 2023.

NIST

- NIST will hire a strategic recruitment coordinator to encourage and actively seek highly qualified candidates from more diverse sources. Designing a methodology to analyze and communicate timely applicant flow data to NIST leadership to monitor the success of efforts. One risk is that it is optional for applicants to provide their demographic information when applying for Federal positions.
- NIST will establish a unified bureau HR vision and data strategy to define roles and responsibilities across key partners and stakeholders. Demand for workforce data to study D&I issues increased substantially. Employee privacy needs creates challenges in providing this data.

NOAA

- NOAA plans to make the organization a preferred employer, lower attrition, raise the skill level of the workforce, create a more diverse workforce, and create opportunities that will maintain high performing employees.
- Allow for duty station negotiable hiring to support highly skilled and diverse hiring options. Lean forward and attract younger demographics.
- Adopt best workplace flexibility practices for pilots and permanent expansion.
- Expand the Performance Talk podcast series to increase exposure and reach out to a larger audience on performance culture matters.
- Develop a knowledge transfer methodology to capture and share expertise across NOAA.
- Support D&I initiatives (webinars, town halls, listening sessions, events, affinity groups, etc.) to foster a diverse and inclusive workforce.
- Implement an electronic performance management system to streamline processes and enhance reporting capability.
- Continue to provide tools on performance culture, performance alignment, and performance coaching to assist managers in achieving the desired organizational culture.
- Develop a leadership and management curriculum to support current and future supervisors in successfully managing a hybrid workforce.
- Explore ways to stand-up a change management practice to provide the NOAA workforce with the tools they need to navigate change by leveraging key behaviors (i.e., resilience, adaptability, emotional intelligence, etc.).
- Continue developing and deploying project management tools and training to support employees' leadership journey (e.g., planning, scheduling, sharing information, budget management, leading teams, etc.).

STRATEGIC OBJECTIVE 5.3 – Equitably deliver exceptional customer experience

Lead: 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

During FY 2021 and early FY 2022, Census.gov and its premier data platform, data.census.gov continued to improve to provide a better customer experience, based on user feedback and in alignment with the 21st Century IDEA. Additionally, the Census Bureau launched a [Data for Equity resources hub](#) and established a Data for Equity Working Group to support public and private sector organizations nationwide looking for data to measure and benchmark their own diversity, equity, and inclusion initiatives and progress. Lastly, for FY 2022, the Census Bureau was designated by OMB as the Department of Commerce’s second High Impact Service Provider (HISP), joining USPTO. As a HISP, the agency selected two High Impact Services (HISs) for which to assess and monitor customer experience (CX) and develop an Action Plan for improvements based on customer feedback data.

At the start of FY 2021, Patents received Congressional approval to reorganize its structure. Patents created a new Office of Patent Stakeholder Experience, which formally aligned the customer experience function, stakeholder education, and five of the largest seven 7 patents contact centers for streamlined support service delivery. For FY 2020, 9,414 patents employees (new and existing) received the “Introduction to Customer Experience” training and in FY 2021, 403 employees received this training as part of their onboarding process. Throughout FY 2021, the USPTO formed two new labs that will apply human-centered design principles and practices to solve policy, process, and technology challenges.

- Patents’ Design Lab will research topics related to policy and process to identify possible interventions, pilot those interventions, study the effectiveness of those interventions, and then make recommendations about those interventions to Patents’ leaders.
- The new Innovation Lab within the Office of the Chief Information Officer will prototype solutions to solve customer and employee needs, test their efficacy, and then work with OCIO developers to scale the solutions. OCIO envisions future collaboration between these labs to address people, process, and technological needs.

Based on lower customer satisfaction scores on the website, USPTO reviewed both quantitative and qualitative data and redesigned the Trademark Basics section of the website. The development process integrated customer experience research, diverse staff expertise, usability testing, and plain

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language principles to better meet the needs of customers who are new to intellectual property and the trademark filing process. Website satisfaction score amongst trademark customers increased by 3 points to 69.5 on a 100-point scale from FY 2020 to FY 2021 (Q1-Q3). Customer feedback and satisfaction scores are routinely collected along much of the trademark customer journey, including website, authenticated login, filing system, response letters from the office (i.e., office action), primary contact center, and outreach. Several surveys are in development to fill measurement gaps along the journey. USPTO also conducted usability testing on redesigned prototypes of an authenticated login and Trademark Basics section of the website. Customer feedback from this testing directly led to prototype improvements prior to launching.

The USPTO completed a new Paperwork Reduction Act (PRA) generic clearance to allow for more rapid development of CX research information collections and allowing public reporting and accountability for performance.

Performance Indicator Results and Targets

SO 5.3 Equitably deliver exceptional customer experience		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Census, USPTO, TBD - Percentage of customers who indicate positive satisfaction with designated priority services ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
Census, USPTO, TBD - Percentage of customers who indicate they were treated fairly when using designated priority services ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
Census, USPTO, TBD - Percentage of customers who indicate the employees they interacted with were helpful ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							

¹The Department is collecting data for each of these metrics based on Federal Customer Experience (CX) Policies and Guidelines such as OMB Circular A-11 and Executive Order 14058. Key Performance Indicators on CX will collect customer transaction data for priority services on satisfaction, transparency, and employee helpfulness. The internal reporting structure for these KPIs is under development.

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Strategic Conclusions and Recommendations

To implement a service-focused CX improvement plan, Department agencies all require these foundational CX capabilities: Targeted service-level feedback collection, AI-assisted data analysis tools, CX research and analysis expertise, and CX/UX rapid prototyping, design, and testing experience. Enabling and developing either bureau or shared Department resources in analytics, research, and customer-focused design and product management should be a focus for the Department to provide the foundational capabilities to deliver on the customer experience requirements in the 21st Century IDEA, OMB A-11 Section 280, and the President's Management Agenda.

Details of customer experience foundational capabilities:

- Targeted Feedback Collection: Targeted usage and feedback collection for the specified service from the users who are or should be using this service across all the service touchpoints and channels.
- Data Analysis Tools: AI-assisted tools for organizing data and extracting trends from these data at scale.
- CX Research Expertise: CX researchers experienced in identifying gaps in in-house analytics, developing equity-structured study plans, and leading original quantitative and qualitative customer research, from focus groups and surveys, to journey mapping, service blueprinting, usability testing and human-centered design (HCD).
- CX Analysts: Experienced CX analysts capable of developing insights and recommendations from these feedback and research data
- CX/UX Design and Testing: CX/UX designers and product managers well-versed in rapid prototyping, where user feedback is incorporated from the initial concept from the HCD workshop through design iterations and multiple rounds of UX testing into a final, tested design of an improved service or product.

Patents seeks to expand its point-of-service touchpoint measures to:

- Have more actionable insights into where experience can be improved.
- Study the efficacy of examiners' responses to applicants' arguments to optimize the communications.
- Modify its CX surveys to include trust as a key metric rather than confidence.

Trademarks seeks to address gaps identified in the FY 2021 Trademark CX Capacity Assessment to OMB:

- Expand how customer research findings are shared outside of the team that conducted the research to increase understanding of the customer experience across internal teams.

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- Clarify definitions of the user needs and experiences USPTO is responsible for delivering and organize delivery around these, rather than internal organizational silos (e.g., collaboration on IDEA Act requirements, CX council or alignment across the organization, and cross-functional reports on experience measures).

Actions to Advance Progress through FY 2023

HISP Planning

For the remainder of FY 2022, new and existing High Impact Service Providers within the Department—USPTO and the Census Bureau— will need to complete their OMB CX Annual Capacity Assessment by the end of February and develop specific HISP Action Plans to improve their two designated High Impact services starting in FY 2023.

HISP Reporting

Department HISPs will also need to put into place by the end of Q1 FY 2023 enhanced data collection capabilities to meet the new OMB requirement to collect and report customer feedback quarterly for the specific designated service, not just at the enterprise level.

CX Training

With new CX mandates coming from the President’s Management Agenda, the revised OMB Circular A-11 Section 280 guidance, and this Department of Commerce Strategic Objective, the Department and its member agencies will need to develop customer experience training for leaders and staff by the end of FY 2022 and begin rolling out in FY 2023 to build both awareness of customer experience and spur involvement.

Make it easier for pro se patent applicants to find the front door

Patent applicants who choose to file an application themselves and go through the patent process unassisted are called “pro se” inventors. They often remark in survey feedback and outreach that they have trouble knowing where to start their patent journey.

Make it easier for pro se inventors to get the right help at the right time

Pro se applicants who are navigating the patent application process alone often need additional support from Patents but don’t know who can help them or which resource is appropriate to use at which stage in their application journey. They call Patents for help, but many reach the wrong area for their inquiry, leading to user frustration.

Ensure application readiness for substantive patent examination

Project is designed to assist applicants with correcting issues at time of filing that may lead to longer prosecution and reduced quality.

Improve the TEAS initial application form prototype

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Customer feedback indicates difficulty understanding and navigating the current initial application form, particularly for small business owners and entrepreneurs.

CX Capacity Building

Customers need easy-to-understand information and services to better protect their trademark rights through Federal registration.

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

Lead: 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 (E.O.) 14057, Catalyzing Clean Energy Industries and Through Federal Sustainability and E.O. 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.

The Department's vision for success in enhancing preparedness for and resilience to the climate crisis through operations, comprising areas that also benefit sustainability, mitigation, and environmental justice, includes:

- Use of the Department's power of procurement to create equitable economic opportunities as well as invest in and maintain climate-ready, resilient, and sustainable facilities, products, and services.
- The Promotion of e-advancements of a climate-resilient economy and sustainable growth to create market opportunities (both domestic and abroad), new businesses, advanced technologies, and quality jobs.
- Continuous improvement in the accuracy of the Department's energy and water consumption data and real property portfolio through data validation, evaluations, and assessment of facilities.
- The continued development of a pipeline of projects and energy and water conservation measures (ECMs) with potential for performance contracting through Energy Savings Performance Contracts (ESPCs) and Utility Energy Services Contracts (UESCs).
- The pursuit of energy and water efficiency upgrades concurrently with all construction and major renovation projects and ensuring master plans and design guides incorporate sustainable and climate-resilient parameters.
- Department recognition of employees for outstanding performance in implementing exceptional programs that help the Department achieve

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its mission while reducing greenhouse gas emissions, improving energy and water conservation and environmental performance. This is conducted through the Department’s Sustainability, Energy, and Environmental Ambassadors program and the Energy and Environmental Stewardship Awards.

- No-cost, engaging Department wide training to maintain a knowledgeable, effective, and climate-literate workforce. Topics include climate adaptation and resilience; sustainability; energy, water, and waste reduction; and environmental compliance.

Performance Indicator Results and Targets

SO 5.4 Make Department facilities and operations more sustainable and efficient		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators									
OFEQ - Renewable energy plus non-electric renewable energy used (as a percentage of total electricity use)¹	Target	7.50%	7.50%	7.50%	7.50%	7.50%	Exceeded	7.5%	N/A
	Actual	23.40%	26.80%	26.00%	13.80%	10.70%			
OFEQ - Number of fleet vehicles converted to or replaced by fully electric or hybrid	Target	9	16	10	11	9	N/A	25	N/A
	Actual	9	16	10	11	9			
OFEQ - Annual investment in sustainable and climate-resilient design measures, energy and water efficiencies, and clean energy use²	Target	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Actual	N/A	\$18.6 M	\$0.184 M	\$7.4 M	\$26.0 M			

¹ In FY 2017-2019, Bureaus and operating units purchased renewable energy credits to account for both electrical and thermal energy loads, per a clean energy metric. Renewable energy credits have decreased due to the deployment of more on-site renewable energy, budgets, and less personnel on site in FY 2020-2021 due to the COVID-19 pandemic.

² The Department will begin setting targets for this KPI in FY 2023 and beyond per EO 14057 and anticipated implementation instructions. Investments from FY 2017-2021 varied due to renovation schedules, construction schedules, and task orders for energy savings performance contracts.

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Strategic Conclusions and Recommendations

Even though NOAA has the most facilities in the Department, NIST is the largest consumer of energy and water due to its large research and laboratory-based campuses in Gaithersburg, Maryland, and Boulder, Colorado. The majority of NIST space is used for laboratory research and associated utility support. Laboratory space poses a particular challenge for meeting energy and water reduction goals due to tight research criteria, energy and water intensive research, and heating, ventilation, and air conditioning (HVAC) requirements. This includes temperature, humidity, particulate air cleanliness, air circulation exchange, clean filtered electric power source, and dampened vibration requirements. To illustrate the elevated energy intensity in NIST general purpose laboratories, the intensity level is 38.7 kilowatt-hours (kWh) per square foot in laboratory space and 16.33 kWh/sf in the administrative spaces, which is 42 percent lower.

The Department's focus on energy intensity reductions and increasing renewable electricity have provided positive outcomes in reducing Scope 1 and 2 greenhouse gas emissions. In FY 2020, the Department reduced its Scope 1 and 2 greenhouse gas emissions from previous years due mostly to the implementation of NIST's 7.9-megawatt (MW) Combined Heat and Power (CHP) system and 4.4-MW solar array at the Gaithersburg campus. Since NIST facilities represent the most energy intensive facilities in the Department, these projects have substantially impacted the Department's overall greenhouse gas emissions.

Actions to Advance Progress through FY 2023

- The Department anticipates more reductions in greenhouse gas emissions in upcoming years due to planned future renovations at NIST, NOAA, HCHB, NTIA, and USPTO facilities, with planned energy efficient upgrades to existing equipment and building envelopes. Additionally, two large projects at NIST will facilitate substantial greenhouse gas emissions reductions from the Department.
- The Department will meet the renewable electricity statutory requirements primarily through the purchase of Renewable Energy Certificates (RECs). In FY 2021, the Department slightly increased the consumption of renewable energy due to existing solar installations, as well as a commitment to purchasing RECs to offset energy consumption at facilities where on-site renewable projects are not viable. In FY 2022, the Department has the potential to install more solar panels and add battery storage at the NIST Radio Station Kauai.
- One of the Department's top five priorities for FY 2022 is to continue to assist Operating Units in developing pipelines for energy efficiency projects that can be used when either direct investment or performance contracting opportunities arise. This will provide OUs with measured, planned actions to improve energy efficiency of Department facilities and reduce costs and deferment of mission funds on higher utility bills.

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- To further the goals outlined in E.O.s 14057 and 14008 to electrify the Federal motor fleet, the Department anticipates investments to be made in vehicle (EV) and EV charging infrastructure purchases within the owned vehicle fleet or as part of a transition to GSA's leased fleet. This investment would complement a parallel GSA investment in EVs for Federal agencies with leased vehicles in the GSA fleet and Department of Energy funding to provide fleet electrification technical assistance to Federal agencies through the Federal Energy management Program.

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STRATEGIC OBJECTIVE 5.5 – Modernize mission support processes and infrastructure

Lead: 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 2021 the Department made substantial progress in instilling an ethos of strategic partnership between mission support functions and mission areas, assessing legacy systems, and prioritizing investments to put the Department on a path to eliminate technical debt and modernize systems, processes, and platforms.

The Department leverages Software Asset Management (SAM), and Technology Business Management (TBM) strategies to enable substantial progress in cost transparency, automation, and efficiency. These efforts support the shift from low value work to high value work through modernized reporting methods and tools, including automating reporting, driving better collaboration, identifying shadow IT, and identifying opportunities to drive cost savings. Improvements across the core Federal Information Technology Acquisition Reform Act (FITARA) reporting areas (Agency CIO Authorities, Transparency and Risk Management, IT Cybersecurity/FISMA, Datacenter Optimization, Software Licensing, Modernizing Government Technology, Transition to EIS) further drive efficiencies across the Department.

The Department manages strategic IT investments to modernize the Department's IT portfolio and establish the foundation for a more modern, agile, and strategic IT environment, including: driving the Business Applications Solution (BAS) project activities to deploy the Software-as-a-Service (SaaS) integrated solution that includes financial management and business applications to modernize the Department's financial management system, acquisition, property (Personal, Real & Fleet), and Enterprise Data Warehouse (EDW); implementing Data Loss Prevention across SharePoint, OneDrive and Email to protect sensitive data against misuse and unauthorized access; and successfully transitioning the NOAA N-WAVE as the Department's ISP and TICAP provider.

The Department launched its acquisition innovation lab (The Lab), a forum designed to facilitate the use of innovative and underused acquisition

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techniques and smart program management tools throughout the acquisition and program lifecycle. The Lab will deliver training, resources, and coaching to inspire, connect, and empower the acquisition workforce to improve mission outcomes by applying innovative techniques. Additionally, the Department is sponsoring an FY 2022 cohort to take the Digital IT Acquisition program training to further expand the number of Contracting Officers with the Digital Services specialization. For FY 2022 the Department set an aggressive internal goal of obligating at least 16 percent of procurement spent with small, disadvantaged businesses and pledged at 1.5 percent of procurement spent with Ability One.

The Enterprise Services (ES) business model uses shared resources, standard processes, innovative sourcing strategies, and technology advancement to drive higher performance, operational efficiencies, and improved customer service for the Department. By integrating dispersed business support functions into a single, service delivery within ES, bureaus and operating divisions are allowed to fully dedicate staff and resources to their inherent mission function. This standardized approach to acquisitions, human resources, and managed printing foster enhanced capacity for continuous innovations and improvements as well as accurate processing of personnel pay and benefits actions.

In FY 2021, ES provided customers with Human Resources Services Delivery (HRSD) services, which offered HR services to over 22,000 users within Department Serviced Bureaus. HRSD was implemented to create one government-owned instance of ServiceNow and modernize mission support processes and infrastructure. ES worked extensively with customers to design HRSD, which went live between May and July of 2021. It now provides 87 distinct HR Services targeted to Employees, Bureau Managers, and HR Professionals. ES also launched Enterprise Services Portal 2.0, which provided a refreshed user interface to all ES customers, further advancing ES's goal to deliver an exceptional customer experience. Additionally, ES delivered the Office of Acquisition Management (OAM) Purchase Card Program, which implemented the General Services Administration's (GSA) SmartPay Program for Government commercial purchase cards and is used by all the Department bureaus. ES continued to manage monthly releases, coordinating across vendor development teams and ES stakeholders to facilitate change request approval, development, testing, and deployment. Between January 2021 and October 2021, ES successfully released 182 technology changes into production environments which included requested changes directly from customers.

Major Accomplishments:

- ES Acquisitions consistently models high efficiency output in the percentage of awards processed in 120 days exceeding the aggressive FY 2021 target, 95 percent with a FY 2021 actual, 98 percent, 130 out of 132 processed within 120 days.
- ES Acquisitions obligated 61 percent of contract awards to small businesses exceeding the 33 percent small business utilization targets across all subcategories within the Department.
- ES Acquisitions team successfully put in place 5 new strategic sourcing vehicles providing enhanced mission support efficiencies to Department-serviced bureaus.
- ES HR added a new HR Specialist role to the ES HR Federal team to provide additional Quality Assurance oversight for the Talent Acquisition (TA) team. This senior advisor will provide expert guidance and oversight of vendor operational work activities and delivery of TA services.

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Performance Indicator Results and Targets

SO 5.5 Modernize mission support processes and infrastructure		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2021 Status	FY 2022	FY 2023
Performance Indicators									
OAM - Number of employees with Federal Acquisition Certification for Program and Project Managers (FAC-P/PM)	Target	206	248	322	368	392	Exceeded	433	N/A
	Actual	265	293	327	374	434			
OAM - Percentage of normal priority Procurement Action Requests (PAR) completed on time	Target	N/A	98%	98%	98%	98%	Met	98%	98%
	Actual		97%	92%	97%	98%			
OAM - Percentage of workforce credentialed in innovative acquisition techniques ¹	Target	Proposed new					N/A	25	50
	Actual	Benchmarking will begin in FY 2022							
OAM - Percentage of workforce trained in innovative acquisition techniques ¹	Target	Proposed new					N/A	350	400
	Actual	Benchmarking will begin in FY 2022							
OCIO - Improve the Department's Federal Information Technology Reform Act (FITARA) score: employee rating for internal service quality ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							
OCIO - Percentage of FISMA-reportable systems adopting NIST SP 800-53 Rev. 5 Security Controls ¹	Target	Proposed new					N/A	N/A	N/A
	Actual	Benchmarking will begin in FY 2022							

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OCIO - Percentage of on-time, on-budget deployments of BAS, GEMS, Talent Acquisition systems¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

OCIO - Percent of application services migrated to Cloud-Based platforms¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

OCIO - Number of employees with Federal Acquisition Certification for Program and Project Managers (FAC-P/PM)¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

OS - Percent reduction of service level agreement timelines due to process reengineering¹	Target	<i>Proposed new</i>	N/A	N/A	N/A
	Actual	<i>Benchmarking will begin in FY 2022</i>			

¹These metrics were introduced in the FY 2022-2026 strategic plan and do not have historical data. The Department will begin tracking and reporting them in FY 2022.

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Strategic Conclusions and Recommendations

Well-designed Federal processes and modernized acquisition and information technology infrastructures are critical to improving trust in government and ensuring equitable access to services. Therefore, they are critical to U.S. social, political, and economic well-being. Stream-lined processes and modern infrastructures enable the Federal Government to provide quality services, disseminate knowledge, facilitate greater productivity and advancement, decrease risk, inform decision-making, decrease costs, etc. The private sector raised standards for processes. Progress was made in the public sector, which shows instances of process design excellence. Still, unnecessary complexity, legacy IT systems, and fragmented responsibility for approaches are still the norm. This costs time, money, credibility, and turnover. Modernization efforts to cut red tape, increase job satisfaction, and use the best technology, would address challenges, and create opportunities for substantial acquisition savings through economies of scale. The Department will work to create a future-proof foundation for rapid organizational progress, agility, relentless innovation, and IT that is secure and empowers employees to add high-value.

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Enterprise Services uses enabling technology service design to promote integration and enable data-sharing between systems and Department entities. Enterprise Services moved the ES ServiceNow platform to the Department's Identity Credential and Access Management solution, enabling single sign-on and ease of use for customers. Additionally, ES enabled web services integration with Treasury's HRConnect, providing near real time communication between HRConnect and HRSD. Without compromise to service quality or security, ES seeks to streamline processes, reduce inefficiencies, automate reporting, and pursue opportunities to make systems easier to use.

Actions to Advance Progress through FY 2023

In FY 2022 and FY 2023, the Department will drive modernization and strengthen strategic partnerships between mission support and mission areas.

The Department will leverage the Non-recurring Expense Fund to support transformative enterprise modernization efforts. These include the BAS project, replacing legacy procurement, asset, and financial management systems with a modern, enterprise solution; and replacement of the Grants Enterprise Management Solution (GEMS) with a modernized enterprise solution that enables grants management missions more effectively. The Cyber Security Reserve Fund will enable comprehensive, enterprise-wide modernization and updates to the Department's cyber security infrastructure.

In FY 2022 the Department will award the Commerce Acquisition for Transformational Technology Services (CATTS) contract, a modernized acquisition vehicle developed to provide a single vehicle to enable strategic IT modernization investments across all Department mission areas.

The Department will continue to mature the Departmentwide Enterprise Architecture Program (EAP), which plans, and executes EA guidance, governance, and methodologies within the Department to ensure that all IT efforts support and contribute to the Department's mission. Current EAP operations include the use of an enterprise IT governance process, the EA future state and roadmap, consolidated reference models, and Departmentwide standards publishing.

In FY 2022, the Department will undertake a comprehensive review to identify, validate, and assess Departmentwide legacy IT systems that are beyond End-of-Life (EOL) to update the Department's Modernization Candidate list; this new list will inform budget priorities in future years.

Given the complexity of Federal Human Resources processes and required knowledge of Federal laws and policies, ES increased the Federal team's HR subject matter expert roles to provide enhanced vendor management oversight and accountability. Specifically, the above-mentioned HR Specialist will provide additional expertise to further support the ES HR Quality Assurance capacity. Inherent in the addition of the new HR QA role will be the ability to keep abreast of current policies, regulations, emerging trends, and technological changes to coordinate the application and implementation of new guidance and assure general consistency in interpretation and delivery of ES HR services. ES IT enabling technology is used to translate customer needs into improved capabilities for customers, directly supporting the achievement of SO 5.5. The ES CEM team introduced a

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customer performance dashboard several years ago and continues to refine the tool as a mechanism to quantitatively measure, track, and report ES service provider and customer performance. One aspect of the ES HR QA role will be to assess TA performed services for accuracy, timeliness, and compliance with service level agreements (SLAs), Federal rules, and regulations. This additional strategic action will also advance progress in the elimination of potential service discrepancies and operational inefficiencies.