



U.S. DEPARTMENT OF COMMERCE

FY 2020 ANNUAL PERFORMANCE REPORT

FY 2022 ANNUAL PERFORMANCE PLAN



DEPARTMENT AT A GLANCE

HISTORY AND ENABLING LEGISLATION

The Department of Commerce (DOC) was originally established by Congressional Act on February 14, 1903 as 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 2020 enacted budget authority was approximately \$15.2 billion.

WEBSITE

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

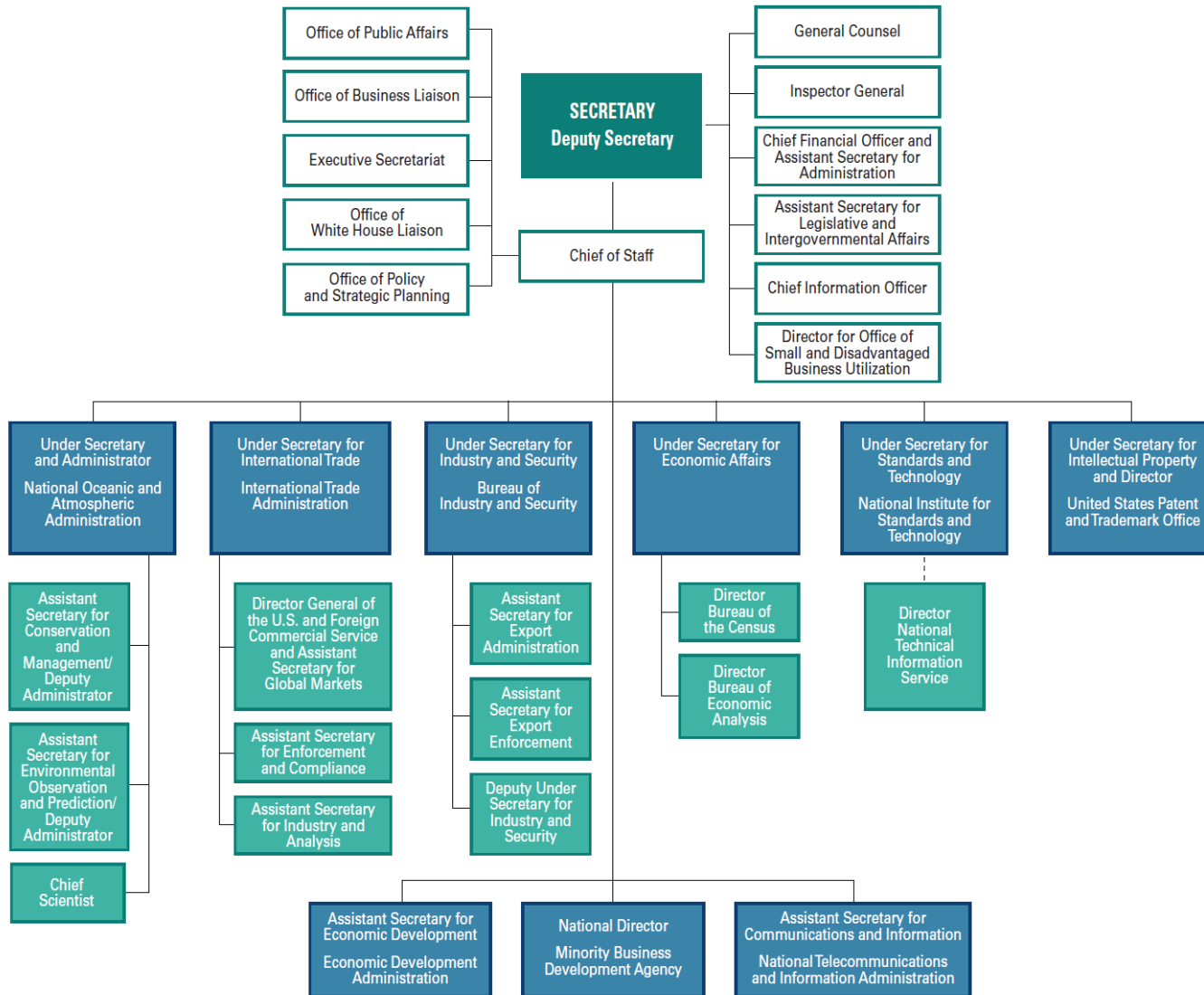
MISSION

The Department of Commerce creates the conditions for economic growth and opportunity.

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)
- 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 that federal agencies publish a new strategic plan by the first Monday in February following the year in which the term of the President begins. In February 2018, the Secretary of Commerce issued a 2018 – 2022 Strategic Plan in accordance with 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 bringing agency representatives together to discuss their plans as they evolved. A team of representatives from across all bureaus in collaboration with the Office of the Secretary developed the Department's 2018 – 2022 Strategic Plan. The Secretary and his Office of Strategic Planning and Policy made final decisions on the plan's structure, content, and emphasis. In the spring of 2020, the Department conducted the Annual Strategic Review (ASR) of progress achieved during FY 2020 to implement the Strategic Plan. The ASR findings were delivered to OMB in June.

This Department's Annual Performance Plan and Report (APPR) document serves two purposes. First, the Performance Report, provides detailed performance information on each Strategic Objective (SO) in the Department's 2018 – 2022 Strategic Plan. These key performance indicators and milestones and show the results that were achieved during FY 2020 and close out the Administration's reporting on the Strategic Plan. Second, the Performance Plan sets performance indicator targets for the next two fiscal years. While these targets currently align to the 17 SOs listed in the Department's 2018 – 2022 Strategic Plan, they represent the level of performance that core Commerce programs seek to achieve in the future. However, these performance indicators and targets will be realigned to the SOs in the Department's next strategic plan. Additionally, the Department APPR is supplemented by bureau "backups" with additional performance measures that are bureau specific. However, this backup material will be included as part of the bureau FY 2022 Congressional Budget Justifications. FY 2021 and 2022 performance indicator targets and planned actions, included in this report, may be revised based on the finalized FY 2022 Congressional Budget Justification. Outyear targets will be revisited at this time and as needed. This APPR and prior years 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). A summary of findings was sent to OMB in June. The ASR process includes deliberations by multi-bureau Strategic Objective teams. The team meetings foster learning and inform revisions to strategies and performance indicators.

Bureau-level 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 on a monthly basis by the various CXOs (e.g. Chief Financial Officer, Chief Human Capital Officer, Chief Acquisition Officer, and Chief Information Officer).

ADVANCING PERFORMANCE MANAGEMENT FOR THE DATA-DRIVEN ERA

As a premier Federal statistical agency and co-lead of the President's Management Agenda Data Goal, 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 new website that provides citizens an interactive online tool for learning more about the Department, its strategic objectives, and the progress Commerce is making. This website is an excellent example of how the Federal government is making performance data more easily accessible and useful for the American public.

SEEING OUR IMPACT JUST GOT EASIER

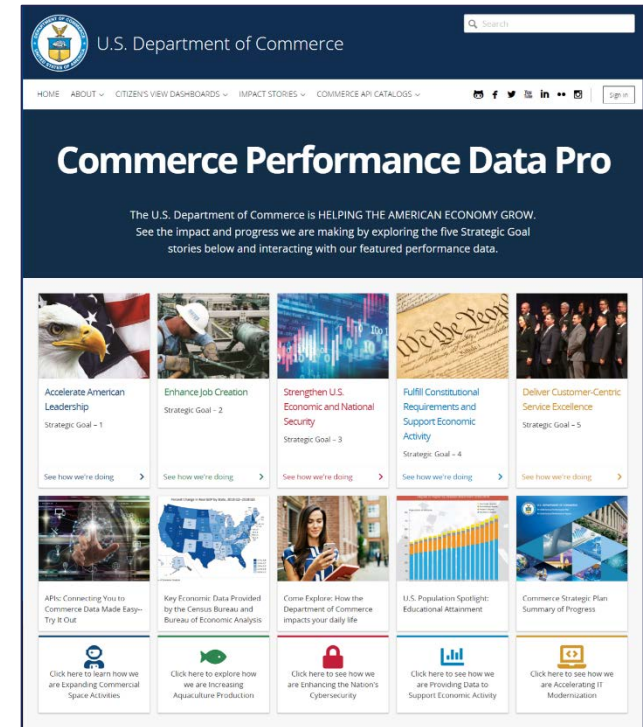
Using [Commerce Performance Data Pro](#), the American public can easily understand the progress the Department is making by exploring our Commerce **Impact Stories** and interacting with the **Citizen's View Dashboards**, charts, key performance indicators (KPIs), and featured datasets. Researchers, 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 our performance data, monitor our 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 our 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 our strategic plan and show each bureau's performance
- Access to more than 150 **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.



AGENCY PRIORITY GOALS

The GPRAMA requires agencies to establish Agency Priority Goals (APG). APGs set two-year targets for initiatives that can drive significant 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. Available data on the FY 2020 – 2021 APGs are in the related Strategic Objective sections of this report. As of Q4 2020, one out of five APGs was assessed as not on track. The results achieved during FY 2020 close out the Administration's reporting on the Department's five APGs. 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 Department's APGs are:

- **Conduct a Complete and Accurate 2020 Decennial Census:** The U.S. Census Bureau will conduct a complete and accurate 2020 Decennial Census U.S. population count by executing for optimal self-response with a nationwide target of 60.5% in 2020, delivering apportionment counts to the President by December 31, 2020, and releasing counts for redistricting by April 1, 2021.
- **Increase the Economic Impact of U.S. Trade:** The Department of Commerce International Trade Administration (ITA) supports jobs for American workers and strengthens U.S. economic and national security by facilitating U.S. exports and inward investment. In fiscal years (FY) 2020 and 2021, ITA will increase the dollar value of U.S. exports and inward investment facilitated by 10 percent annually, while ensuring that over 75 percent of U.S. exporter clients assisted are small and medium-sized enterprises (SMEs).
- **Mitigate Flood Impacts by Demonstrating Improved Decision Support Services to Emergency Managers:** By September 30, 2021, NOAA National Weather Service will improve its flood related decision support services by expanding the demonstration of a new flood inundation mapping capability to at least an additional 10% of the U.S. continental population residing in flood-vulnerable freshwater basins.
- **Rural Wireless Broadband for Public Safety:** The Department of Commerce will increase the public's safety by providing first responders with access to a nationwide wireless broadband network. By September 30, 2020, the Department's FirstNet Solution will allow the public safety community to serve an additional 8.9 million people within the rural population by providing coverage reaching 55% of the entire rural population. By September 30, 2021, the Department will ensure the FirstNet Solution will provide coverage reaching 60% of the entire rural population. As of September 2019, the FirstNet Solution allows the public safety community to serve ~45% of the rural population, or ~23 million of the ~51 million people who constitute the Nation's rural population.
- **Space Situational Awareness:** The increasing number of objects and participants in space present new threats that inhibit the growth of space commerce. To better track objects in orbit and predict where they will be at any given time, the Department of Commerce, as directed by the President per [Space Policy Directive 3](#) and in partnership with the Department of Defense and the commercial industry, will coordinate the development and implementation of a modern space situational awareness (SSA) capability. The Department's Office of Space Commerce will achieve SSA initial operational capability by 30 September 2021.

CROSS-AGENCY PRIORITY GOALS

The Department of Commerce is actively supporting the President's Management Agenda (PMA) and the Cross-Agency Priority (CAP) Goals that help drive implementation. 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 Cross-Agency Priority Goals be addressed in the agency strategic plan, the annual performance plan, and the annual performance report. Therefore, the following directs the reader to the sections of this report where CAPs are discussed and summarizes actions on CAPs co-led by Commerce executives. The results achieved during FY 2020 close out the Administration's reporting on Department's contribution to the PMA and CAP Goals. For more information refer to www.Performance.gov.

CAP Goals Co-Led by the Department of Commerce:

- [Lab-to-Market](#)
- [Data, Accountability, and Transparency](#)
- [Improve Management of Major Acquisitions](#)

Other CAP Goals Contributed to by the Department:

- IT Modernization
- 21st Century Workforce
- Improving Customer Experience
- Sharing Quality Services
- Low to High Value Work
- Category Management
- Results Oriented Grants
- Getting Payments Right
- Federal IT Spending Transparency
- Modernize Infrastructure Permitting
- Security Clearance and Credentialing

Lab-to-Market

Responsible Official: Under Secretary of Commerce for Standards and Technology, Director of National Institute of Standards and Technology, U.S. Department of Commerce.

CAP Goal Highlights: The Lab-to-Market CAP Goal aims to accelerate the transition of federal innovations from lab to market. Action plans include evaluating ways to reduce the administrative and regulatory burden on federal laboratory partners and increasing entrepreneurship in the federal research and development (R&D) workforce. Other strategies include analysis and assessment of the technology transfer activities.

In 2020, NIST launched the second round of the Technology Maturation Accelerator Program that funds proposals from the NIST Laboratories to accelerate the maturation of emerging technologies with significant commercial promise. The program funds projects that improve the Technology Readiness Level (TRL) of early-stage technologies, for which feasibility has been demonstrated in the laboratory, towards a higher TRL prototype. NIST also actively engages its lab scientists in creating awareness of commercialization opportunities and holds Tech Transfer 101 Training: A Scientist's Perspective on Tech Transfer.

To kick off FY 2020 in October 2019, NIST issued the U.S. Department of Commerce's (DOC) [2018 Annual Report on Technology Transfer](#). The report describes the outcomes of transfer efforts from DOC's three research laboratories — NIST, the National Oceanic and Atmospheric Administration (NOAA) and the National Telecommunications and Information Administration's (NTIA) Institute for Telecommunication Sciences (ITS), and it shows an increase in several transfer activities over the past five years.

This CAP Goal also aims to increase return on investment (ROI) from federally funded R&D. ROI is currently upwards of \$150 billion government-wide, annually. NIST released an [ROI Initiative Green Paper](#) that discussed 15 findings on maximizing ROI from government-funded research, based on stakeholder inputs. The paper is a result of NIST's [Return on Investment Initiative for Unleashing American Innovation](#). Next steps include developing proposed updates to the Bayh-Dole Act regulations and the Stevenson-Wydler Act, encouraging private investment through Presidential Innovation Fellow's assessments, enhancing interagency collaboration to support the R&D innovation ecosystem, exploring a new job series for Federal technology transfer professionals, raising public awareness of federally funded R&D, and [completing studies on data, software, and apps to expand the definition of technology transfer](#).

Data, Accountability, and Transparency

Responsible Official: Deputy Secretary, U.S. Department of Commerce

CAP Goal Highlights: The purpose of this CAP Goal is to use data strategically to grow the economy and make federal operations more effective and transparent. The goal aims to make data more useful to the public and federal employees by creating a well-designed data strategy and infrastructure. In June 2019, Principles and Practices and Proof Points were published in the Federal Data Strategy (FDS) newsletter and on the public website: <https://strategy.data.gov>. DOC established the role of Chief Data Officer (CDO) and Commerce Data Governance Board (CDGB) with monthly meetings that include the creation of multiple working groups to ensure delivery of FDS milestones. Several forum and feedback sessions were also hosted. These sessions brought together thought leaders from government, academia, and private industry. Use cases on emergent data methods and practices for the [Data Incubator Project](#) were selected and opportunities to fund prototypes are being explored. In December 2019, the 2020 Action Plan was published and the roll out of the complete Federal Data Strategy framework began.

Quality data can transform the economy and increase public trust in the federal government. However, sharing incorrect or incomplete data will have the opposite effect. Quality control is a challenge, and current laws and policies on data management and evaluation are inconsistent and/or conflicting. Continued progress on this goal will require driving change to data policy, people, processes, and platforms. The CAP action plan includes establishing policies on data governance, making useful data available to the public faster, and using data to improve accountability / decision making by leaders.

Frictionless Acquisition (Previously: Improve Management of Major Acquisitions)

Responsible Official: Senior Procurement Executive, U.S. Department of Commerce

CAP Goal Highlights: The purpose of the CAP Goal is to increase the quality of program management for major acquisitions. Well executed project management supports completing key projects on time, on budget and on specifications. There are three core strategies to satisfy the requirements of Appendix V of OMB Memorandum [M-18-19](#), Improving the Management of Federal Programs and Projects through Implementing the Program Management Improvement Accountability Act (PMIAA):

- Talent – Ensure program and project managers have appropriate credentials and training
- Governance – Make sure each agency has an Acquisition Program Management Improvement Officer (PMIO), integrated acquisition and program/project management review functions, and a Program Management Principals (PMP) Council to improve agency practices, the workforce, and high-risk programs.

OMB and DOC developed a maturity model to track agency advancement in these key areas. As of December 2019: approximately 150 acquisition professionals were certified in digital IT; PMIO's were designated for each agency; the second bi-annual PMP Council meeting took place on September 24, 2019; several internal portfolio reviews were conducted; and internal decision-making and dialogue with OMB continued to improve.

KEY TERMS AND DEFINITIONS IN THE STRATEGIC PLAN AND APPR

The U.S. Department of Commerce Strategic Plan 2018 – 2022 is 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' APPR.

Within this draft 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 2021 Congressional Budget Justification document.

The following defines terms that are fundamental to federal 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 17 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.

Performance Indicator – 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.

SUMMARY OF STRATEGIC GOALS AND OBJECTIVES

The following chart summarizes the strategic goals and objectives established in the 2018 – 2022 Strategic Plan and the status of their progress during FY 2020 compared to the past two prior years. The complete strategic plan can be accessed online at: <https://www.commerce.gov/about/strategic-plan>.

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

CARES 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 November 30, 2020)
Economic Development Administration (EDA)	\$1.5 billion ¹	\$815.2 million ²
National Oceanic and Atmospheric Administration (NOAA)	\$320 million	\$311.5 million
National Institute of Standards and Technology (NIST)	\$66 million	\$66 million
Minority Business Development Agency (MBDA)	\$10 million	\$10 million

OMB Memorandum [M-20-21](#), Implementation Guidance for Supplemental Funding Provided in Response to the Coronavirus Disease 2019 (COVID-19) directs agencies that received CARES Act appropriations to leverage and continue to employ existing financial transparency and accountability mechanisms wherever possible. The Department is making significant progress on allocating and managing its CARES Act funding. An update on CARES Act funding deployment and status is incorporated into the sections below.

EDA - \$1.5 billion

Key Progress and Accomplishments

In FY 2020, EDA obligated \$9.9 million administering the CARES Act funding and awarded over \$805.3 million in CARES Act funding to 796 projects across the US. These included over \$12.7 million in 6 projects, that are, according to recipient estimates, expected to create and or retain 2,509 jobs and leverage over \$223.5 million in private investment. EDA also obligated close to \$792.6 million in 790 awards to support planning, research, technical assistance, access to capital, or other activities that are essential for communities to respond to the economic impact of COVID-19, as well as successful economic development and job creation in the future.³

¹ Of this amount, \$1.467 billion was available for funding grants, \$30 million was available for salaries and expenses and \$3 million was given to the Department’s Office of Inspector General to audit execution of the CARES Act funding.

² The EDA data provided herein should be viewed as a snapshot of the data available at the time of the data request and are subject to any changes, or updates as reflected within future reports and data requests. This includes, but is not limited to, revisions to the number, dollar amount, program classification and estimated impacts of specific grant awards.

³ The EDA data provided herein should be viewed as a snapshot of the data available at the time of the data request and are subject to any changes, or updates as reflected within future reports and data requests. This includes, but is not limited to, revisions to the number, dollar amount, program classification and estimated impacts of specific grant awards.

CARES ACT Implementation

In FY 2020, EDA obligated 56% of its CARES Act appropriation available for funding. EDA is still accepting and reviewing applications for CARES Act assistance to help communities prepare for and respond to COVID-19. To assist with this effort, EDA filled over 70 new positions to increase its capacity to process CARES Act grants. EDA is on track to obligate all CARES Act funding by FY 2022.

NOAA - \$320 million

Key Progress and Accomplishments

NOAA Fisheries - \$300 million

In the CARES Act, Congress authorized NOAA Fisheries to distribute aid to help marine fisheries affected by the COVID-19 crisis. Twenty-nine states, tribes, and/or territories submitted spend plans for CARES Act funding and 25 representing \$190 million in assistance were approved. Four spend plans are currently under review and one additional spend plan is still outstanding. As of early January 2021, NOAA distributed approximately \$80 million to fishery participants.

Office of the Chief Financial Officer - OCFO - \$20 million

Of the \$20 million allocated for OCFO, \$11.5 million was obligated as of December 2020. Funds are distributed in the following categories: Telework/IT (enhanced telework surge), Staffing (support mission essential personnel), Mission Support (continuity of operations and service delivery), and Cleaning (in accordance with CDC guidelines). Funds were used for signage, enhanced COVID-19 testing in NOAA ships, weather equipment, cleaning NOAA facilities, and enhanced IT support for telework. The remaining funds available, will continue to be obligated according to plan.

NIST - \$66 million

Key Progress and Accomplishments

NIST distributed \$50 million through Manufacturing Extension Partnership (MEP) awards as of June 30th. This funding enabled various MEP centers to assist the COVID-19 response across the nation by supporting companies with the production, distribution, and FDA approval processes of critical medical supplies. For example, the CT MEP identified 48 manufacturers who repurposed their operations to produce Personal Protective Equipment (PPE) and connected those suppliers with 1400 supply requests.

NIST also distributed \$10 million in Manufacturing USA grants as of June 30th. This funding assisted grantees in improving testing and production of PPE, assessing methods for rapid cleaning of clinical spaces, developing contact tracing technology, and enabling quick production of therapeutics. Awards were made to institutes such as NIMBL, America Makes, LIFT, Advanced Robotics for Manufacturing, and BioFabUSA.

Lastly, NIST made significant improvements to COVID-19 testing using the additional \$6 million funding for Laboratory Programs. NIST experts rapidly developed a new reference material to assist the development and validation of qPCR tests commonly used to detect coronavirus. As of November 1, NIST shipped over 125 units of material to labs worldwide. NIST also developed a technique to increase the sensitivity of qPCR test results by up to 10-

fold. In addition, NIST is engaged in several national and international efforts aimed at further improving measurements for detecting coronavirus – including partnerships with FDA, CDC, and NIH.

MBDA - \$10 million

Key Progress and Accomplishments

MBDA awarded funds to 30 grantees, including 25 existing MBDA Business Centers and 5 national minority chambers of commerce. As a result, MBDA was able to serve over 187,000 minority businesses and assist nearly 2,000 small and minority businesses.

FY 2021 TOP MANAGEMENT CHALLENGES

The DOC Office of Inspector General (OIG) identified seven management challenges within the Department for FY 2021. The Department is also working to identify challenges through processes that produce an inventory of “Mission Critical Programs and Activities” and a Risk Profile. These processes consider OIG findings, recommendations of the Government Accountability Office, past performance, and the insights and expertise of DOC staff. Deliberations are multi-level and require involvement and approval by the Department executive councils. Outcomes inform the Department’s strategic planning, enterprise risk management (ERM), and topics for multi-disciplinary program review boards.

The challenges covered in this section are based primarily on the OIG FY 2021 Top Management and Performance Challenges. However, they also reflect other internal assessments. The challenges are addressed by Strategic Objectives and the related strategies and action plans that reflect the complexity of the subjects. Alignment to the Strategic Plan and highlights of FY 2021 action plans are provided in the charts below and include high level milestones and links to additional public information.

FY 2021 Management Challenge Identified by DOC OIG	Alignment to Department 2018-2022 Strategic Objectives that Address the Challenge	Official Responsible for Resolving the Challenge
1. Establishing a Solid Foundation for 2030 Decennial Research and Testing and Ensuring That the Census Bureau Adequately Vets Candidates for Employment	SO 4.1 – Conduct a Complete and Accurate Decennial Census	Associate Director for Decennial Census Programs, Census Bureau
2. Addressing Risks and Progressing Toward a New Architecture for Satellite Systems	SO 3.3 – Reduce Extreme Weather Impacts	Assistant Administrator for Satellite & Information Services, NOAA
3. Deploying a Nationwide Public Safety Broadband Network (NPSBN)	SO 3.4 – Deploy Public Safety Broadband	Chief Executive Officer, First Responder Network Authority
4. Strengthening Confidence in Intellectual Property (IP) Rights	SO 1.3 – Strengthen Intellectual Property Protection SO 5.2 – Accelerate Information Technology Modernization	Deputy Under Secretary and Deputy Director, USPTO
5. Continuing to Improve the Department’s Cybersecurity Posture	SO 3.2 – Enhance the Nation's Cybersecurity SO 5.2 – Accelerate Information Technology Modernization	Chief Information Officer, Department of Commerce

Management Analysis of Top Management Challenges

FY 2021 Management Challenge Identified by DOC OIG <i>continued</i>	Alignment to Department 2018-2022 Strategic Objectives to Address the Challenge	Official Responsible for Resolving the Challenge
6. Refining Processes for Trade Remedies Against Imports That Threaten to Impair National Security	SO 2.3 – Strengthen Domestic Commerce and U.S. Industrial Base SO 2.4 – Increase U.S. Exports SO 3.1 – Enforce the Nation’s Trade and Security Laws and Objective	Deputy Assistant Secretary for Export Administration, BIS Deputy Assistant Secretary for Enforcement and Compliance, ITA Principal Deputy Assistant Secretary for Industry and Analysis, ITA
7. Improving Management and Oversight of Contracts and Grants	SO 5.1 – Engage Commerce Employees SO 5.3 – Consolidate Functions for Cost Savings	Senior Procurement Executive/Director, Office of Acquisition Management, Department of Commerce

Management Analysis of Top Management Challenges

FY 2021 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 2021 management challenges.

1. Establishing a Solid Foundation for 2030 Decennial Research and Testing and Ensuring That the Census Bureau Adequately Vets Candidates for Employment		
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://www.performance.gov/commerce/APG_commerce_3.html

2. Addressing Risks and Progressing Toward a New Architecture for Satellite Systems		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Ensure that our 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"> JPSS-2 and GOES-T Pre-Environmental Reviews Conduct Space Weather Follow On (SWFO) Program System Requirements Review (SRR), System Design Review (SDR), and Mission Design Review (MDR). 	https://www.nesdis.noaa.gov/content/our-satellites
<ul style="list-style-type: none"> Conduct trades analyses and plan the procurement of future data sources and satellite and ground architecture. 	<ul style="list-style-type: none"> Conduct Geostationary Extended Observations Mission Concept Review / program formulation. Procure/use commercial radio occultation data SmallSat Sounder Pathfinder Concept Initiation. Conduct NESDIS Ground Enterprise Study Cycle 1 to analyze alternatives for NOAA’s Satellite Ground Services. Operationalize cloud infrastructure for product generation and archive workflow functions. 	https://www.nesdis.noaa.gov/content/our-satellites
<ul style="list-style-type: none"> Achieve initial operating capability of the Open Architecture Data Repository (OADR) 	<ul style="list-style-type: none"> Begin test phase of an OADR that incorporates DOD, commercial, and other datasets with modern analytic and visualization technologies on a state-of-the-art cloud-based platform. Develop space safety standards / best practices, drawing on extensive work by SDOs and others—highlighting gaps and overlaps, especially for emerging space missions Incorporate current / emerging commercial capabilities / business practices to modernize the nation’s SSA system. Host industry meetings to update on DOC plans and receive feedback Work with government, industry, and academia to develop format, security, and validation standards for data inclusion in the OADR. 	

Management Analysis of Top Management Challenges

3. Deploying a Nationwide Public Safety Broadband Network (NPSBN)		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> • Maintain effective engagement with public safety through targeted engagement strategies • Implement FirstNet Authority Roadmap activities to guide programs and investments in the network • Ensure the successful performance of the NPSBN contract • Ensure effective and efficient use of annual fees to the FirstNet Authority to upgrade and modernize the NPSBN • Strengthen operational controls through a comprehensive organizational program and performance management process • Integrate the Authority’s audit management and internal control functions to efficiently assess enterprise operations and compliance 	<ul style="list-style-type: none"> • Percentage of coverage achieved versus the planned coverage • Annual public safety adoption rate vs. adoption targets established by the contract • Update and release the FirstNet Authority Roadmap annually • Engagements aligned to Roadmap, Investment and Contract Oversight needs • Funds are tracked/monitored through Capital Investment Plan and appropriately re-invested in the Network • Contract delivery milestones met on time or as agreed to in the contract • Review, update, and communicate procurement and contract oversight policies and procedures annually • Track performance metrics/indicators and conduct program management reviews monthly to assess operational plan implementation • Identify and track program risks, and report enterprise risks to the Department quarterly. • Timely approved Fee review 	<p>Quarterly meetings of the FirstNet Authority Board (https://firstnet.gov/about/board/meetings)</p> <p>The FirstNet Authority Roadmap (https://firstnet.gov/network/roadmap)</p> <p>FirstNet Authority Reports (https://firstnet.gov/newsroom/resources/reports)</p>

4. Strengthening Confidence in Intellectual Property (IP) Rights		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> • Improve patent application pendency by hiring and training patent examiners in appropriate areas. • Increase transparency and collaboration between agency personnel and external stakeholders. • Issue Patent Trial and Appeals Board (PTAB) decisions to meet all statutory deadlines • Continue to revise and/or establish processes and procedures to ensure PTAB proceedings are fair, balanced, consistent, and transparent • Continuously monitor revenue trends. Identify risks early to facilitate execution of contingencies if needed. • Strengthen the integrity of the trademark register by performing random audits of trademark registrations • Cybersecurity and Systems Performance/ Monitoring • Ensure business Continuity/Disaster Recovery 	<ul style="list-style-type: none"> • Prepare systems to implement adjustments to baseline examination time and application routing • Identify areas with higher rates of pendency and target hiring in those areas, as needed. • Provide educational opportunities and guidance to external stakeholders • Continue to issue PTAB precedential and informative decisions to inform the public. • Monitor overall average pendency of more than 6,000 appeals decided annually, as well as appeals in the Fast-Track Appeals Pilot Program, which is limited to 125 appeals per quarter and 500 appeals per year. • Implement new identity management product Alternate Processing Site (APS) backup storage as a service Data Center relocation and alternate processing site • Increased public cloud usage 	<p>www.uspto.gov/patent/initiatives/uspto-patent-application-initiatives-timeline</p> <p>www.uspto.gov/patent/laws-and-regulations/examination-policy/updates-patent-examination-time-application-routing</p> <p>www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/precedential-informative-decisions</p> <p>www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/fast-track-appeals-pilot-program</p> <p>www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/new-pilot-program-concerning-motions</p> <p>www.uspto.gov/trademark</p> <p>www.uspto.gov/about-us/performance-and-planning <i>(NOTE: The FY 2020 Performance and Accountability Report (PAR) contains year-end financials for 2020; an updated financial forecast will be provided in the FY 2022 Budget, which should be published in February 2021).</i></p>

Management Analysis of Top Management Challenges

5. Continuing to Improve the Department's Cybersecurity Posture		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Address vacancies and succession planning for key cybersecurity positions by implementing IT intern programs to establish a cybersecurity talent pipeline 	<ul style="list-style-type: none"> Percentage of critical vacancies filled 	<p>National Cyber Strategy (September 2018): Develop a Superior Cybersecurity Workforce https://www.whitehouse.gov/wp-content/uploads/2018/09/National-Cyber-Strategy.pdf</p>
<ul style="list-style-type: none"> Mature management of Controlled Unclassified Information 	<ul style="list-style-type: none"> Establish bureau-level policy Identify an electronic marking tool Establish incident management procedure 	
<ul style="list-style-type: none"> Provide cost-effective perimeter protection to Department of Commerce organizations via the Multi-Agency Trusted Internet Connection Access Provider services 	<ul style="list-style-type: none"> Number of organization components onboarded 	
<ul style="list-style-type: none"> Protect NOAA intellectual property and information in cloud environments by implementing a Cloud Access Broker Security Broker solution as a NOAA-wide cybersecurity service 	<ul style="list-style-type: none"> Staged approach to routing and DLP enablement User Acceptance Test and Report Transition CASB Contract to Cloud Utility Cloud Utility Contract JPSS Onboarding 	
<ul style="list-style-type: none"> Establish a minimum baseline for security Policies and procedures Educate users through annual cybersecurity training Monitor access and performance 	<ul style="list-style-type: none"> Completed (Policy established by Q3 FY 2019) Monitor Bureau compliance with the policy (ongoing and quarterly reviews) Proportion of workforce successfully completing the training by the deadline. Quarterly reviews 	

6. Refining Processes for Trade Remedies Against Imports That Threaten to Impair National Security		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> • Ensure staffing levels for trade programs. • Build staff expertise for the self-initiation of AD/CVD anti-circumvention inquiries. • ITA and BIS will hire more CFIUS staff. • Increase security clearances / position sensitivity level designations for staff. • Establish internal SOPs for increased caseload management. 	<ul style="list-style-type: none"> • Fill vacant ITA positions. • Sustain BIS and ITA workforce supporting Section 232 exclusion request process. • ITA continues building CFIUS staff and coverage. • Review of 5 DAS areas. 	<p>FY 2021 ITA Congressional Budget Submission</p> <p>https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius</p>

Management Analysis of Top Management Challenges

7. Improving Management and Oversight of Contracts and Grants		
Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
<ul style="list-style-type: none"> Ensure effective oversight and monitoring of the Department's management of emergency and disaster relief funds 	<ul style="list-style-type: none"> Strengthened suspension & debarment program / relationship with OIG to detect fraud earlier Documented Acquisition Management Review and Grant Management Review findings and follow corrective action plans 	<p>Suspension and Debarment</p> <p>Acquisition Management Review Procedures</p>
<p>Managing Contract & Program Performance:</p> <ul style="list-style-type: none"> Train CORs and contract admins in line with regulatory and contract terms: provide COR = training at Big A conference and through the year Enhanced oversight of enterprise-wide contracts administered by ES 	<ul style="list-style-type: none"> Conduct COR training session in conjunction with Big A conference Conduct regular oversight meetings with Enterprise Service-Acquisition leadership 	<p>Commerce Acquisition Manual</p>
<p>Developing & Retaining a Competent Acquisition Workforce to Support the Department's Mission:</p> <ul style="list-style-type: none"> Reinforce competency training at Big A Seek resources to establish procurement innovation lab (PIL) at DOC modelled on the Department of Homeland Security PIL Seek resources to provide Digital IT Acquisition Professional training to procurement workforce 	<ul style="list-style-type: none"> Conduct Big A conference Complete stand-up activities to establish DOC PIL program in FY22 if funded Funding request submitted to support an annual Commerce DITAP cohort as part of the budget formulation 	<p>Education, Training, and Outreach</p> <p>Procurement Innovation Lab (PIL)</p> <p>Memo on Federal Acquisition Certification in Contracting Core-Plus Specialization in Digital Services</p>
<p>NOAA Governance & Oversight:</p> <ul style="list-style-type: none"> In-depth management reviews of mission critical programs (i.e., Aircraft and ship acquisitions) Review dashboards on acquisition's overall status Develop detailed dashboard breakouts on budget, cost, schedules, issues, and risks <p>DOC Governance & Oversight:</p> <ul style="list-style-type: none"> Mandatory review of major milestones for aircraft and ship recapitalization program Review milestones by OAM and Senior Procurement Executive before moving acquisition to next phase 	<ul style="list-style-type: none"> Regular program reviews conducted by PMC on each NOAA ship & aircraft recapitalization program. Frequency determined by NOAA DUS-O Milestones for aircraft and ship acquisition: Concept Initiation, Project Initiation Approval, Project Approval, Project Implementation Approval, Project Delivery Management plans are required at specific times in the life cycle for each ship and aircraft acquisition by the DOC/OAM framework. Contents customized for every acquisition's unique requirements. 	<p>Office of Marine and Aviation Operations (OAMO)</p>

STRATEGIC OBJECTIVES' PERFORMANCE ASSESSMENT AND PLANNING

STRATEGIC OBJECTIVE 1.1 – Expand Commercial Space Activities

Contributing Bureaus: OS, NOAA, BEA, ITA, NTIA, MBDA, USPTO, Census

Key Strategies:

- Expand and elevate the Office of Space Commerce to have direct line of reporting to the Secretary, giving it a stronger voice to advocate for the U.S. commercial space industry
- Actively participate in the National Space Council to advance American Leadership in commercial space activities
- Support innovative American space companies to transform traditional space markets and create new ones
- Develop new capabilities to provide space situational awareness data and services to the public
- Drive and implement regulatory reform in remote sensing and export controls, and develop strategies for radio frequency spectrum allocation that supports U.S. space competitiveness
- Promote space weather and earth weather innovation, including support for NOAA commercial weather data pilots
- Deepen understanding of global space economy trends, including data sets and tools useful to U.S. industry

Executive Summary of Progress

Noteworthy Progress

Expanding and Elevating the Office of Space Commerce (OSC)

In FY 2020, the Office of Space Commerce led a Department-wide campaign to advance space industry engagement and advocacy, regulatory streamlining, and policy development and implementation. The Office's staffing expanded via cross-bureau assignments and contractor hires. The Secretary testified before Congress and supported legislative proposals in support of the expansion and elevation of OSC. The Department sponsored a congressionally mandated, independent study that reaffirmed OSC as the best agency to provide space situational awareness support to commercial space operations.

Space Situational Awareness (SSA)

DOC made significant strides in preparation for its future role providing space situational awareness (SSA) to commercial operators. In addition to these

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

efforts, the Department:

- Established the first instantiation of its cloud-based platform to disseminate public SSA data
- Maintained a continuous DOC presence in DOD’s existing SSA operations center
- Promoted international norms for space safety and signed a declaration of intent to cooperate with the French space agency on SSA matters
- Engaged industry in continuous dialogue about these efforts

National Space Council Participation

The Secretary participated in the May 2020 meeting of the National Space Council, where he [announced](#) the publication of new remote sensing licensing rules. The OSC prepared responses to three Space Council tasks to the Secretary, supported the Deputy Secretary in Space Council decision processes, and represented DOC at other White House deliberations on space issues. Such deliberations led to the release of Presidential Executive Orders on [“Strengthening National Resilience Through Responsible Use of Positioning, Navigation, and Timing Services”](#) and [“Encouraging International Support for the Recovery and Use of Space Resources,”](#) Space Policy Directive-5 ([Cybersecurity Principles for Space Systems](#)), a [strategy paper on Moon/Mars development](#), the Artemis Accords for lunar cooperation, and other documents. OSC also participated in international engagements led by the Space Council, including the [U.S.-Japan Comprehensive Dialogue on Space](#).

Supporting Innovative Space Companies

DOC engaged in dialogue with U.S. space companies to understand and support their business needs. The Secretary [hosted an event](#) on American space startups and how the government can leverage their innovation and participated in ribbon-cutting ceremonies for innovative space companies. ITA’s SelectUSA program successfully attracted foreign space firms to open facilities in the United States. EDA issued a matching grant for development of a space innovation hub in Maine. USPTO provided intellectual property protection that supported innovation and drove technological progress to transform traditional space markets and create new markets. DOC planned to host the second annual Space Enterprise Summit at USPTO, but the event was postponed to 2021 due to the pandemic.

Regulatory Reform

Through NOAA, DOC published its [final rule streamlining the licensing of commercial remote sensing satellite systems](#), significantly improving U.S. industry competitiveness and fulfilling the President’s direction under Space Policy Directive-2. Through BIS and OSC, DOC continued efforts to streamline export control regulations that hamper international business. Through NTIA, DOC took actions to [oppose](#) and [impose a stay](#) on the FCC’s order authorizing terrestrial wireless operations that would cause harmful interference to GPS users. DOC coordinated with other nations and the United Nations to promote common approaches to the authorization and supervision of private activities in space.

Promoting Weather Innovation

NOAA advanced its efforts to partner with commercial space firms on weather innovation. NOAA released its [assessment of the Commercial Weather Data Pilot Round 2](#) and issued a solicitation in support of its [first commercial radio occultation satellite data buy in support of operational weather forecasting](#). NOAA made [contract awards to engage the commercial sector](#) in producing new concepts for NOAA’s future space-based observation architecture, and

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

solicited ideas for [future commercial data pilots](#). NOAA also participated in a new Working Group for Interagency Coordination of Commercial Weather Data to pursue common approaches across the government to purchasing space-based commercial weather data.

Understanding Space Economy Trends

Through BEA, DOC publicly kicked off its long term [efforts to measure and track the U.S. space economy](#), building definitions and models in collaboration with space stakeholders in industry and academia.

Performance Indicator Results and Targets

SO 1.1 – Expand Commercial Space Activities Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
NOAA - Number of space policy related decision processes, rulemakings, statements, or other governmental activities influenced/led by Commerce	Target	N/A			16	16	Met	20	20
	Actual				16	16			
NOAA - Number of workshops, reports, and other tools produced to facilitate growth and advancement of the U.S. commercial space industry	Target	1	1	1	4	4	Not Met	5	6
	Actual	1	1	1	4	3			
NOAA - Milestones achieved in expanding capabilities (including staff) and transitioning SSA functions to DOC	Target	N/A			10%	25%	Met	50%	75%
	Actual				10%	25%			

For more information, please see the [Strategic Objective 1.1 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

The Department achieved substantial performance gains and met most of its targets. One target was missed due to the constraints of the pandemic. The Department is effectively managing staff and resources across the bureaus to implement the Strategic Objective and the commercial space guidance

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

issued by the President and National Space Council. The Department is successfully promoting the U.S. as the country of choice for commercial space activities while other nations vie for a share of the more than \$400 billion space economy with competitive financial incentives and regulatory environments.

The Department's initiative to create a civil Space Situational Awareness capability is quickly progressing 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.

Actions to Advance Progress through FY 2022

Subject to congressional appropriations, the Department intends to:

- Expand the Office of Space Commerce staff through new hires, contractors, and staff assignments from other bureaus and agencies.
- Publish and implement streamlined space export control regulations.
- Implement new proposals for authorizing space activities not currently overseen by federal regulatory agencies.
- Work with the Department of Defense to support a seamless transfer of responsibility to Commerce regarding provision of space situational awareness data and services to the public.
- Develop improved understanding of developments and trends in the global space economy, including data and tools for U.S. industry.
- Support new National Space Council initiatives and Space Policy Directives.

USPTO

The USPTO will track patents granted for space-related technologies and analyze the data for useful trends related thereto in collaboration with OSC.

STRATEGIC OBJECTIVE 1.2 – Advance Innovation

Contributing Bureaus: OS, ITA, NIST, NOAA, NTIA, NTIS, USPTO, EDA

Key Strategies:

- Promote research, applications, and standards for quantum computing
- Promote research, applications, and standards for artificial intelligence
- Enhance precision measurements and standards to drive innovation in advanced manufacturing
- Strengthen the competitiveness of America’s manufacturing base through technology development and deployment
- Lead the development of measurements and standards to facilitate digital commerce, wireless technologies, and autonomous vehicles
- Ensure spectrum is available for federal government and commercial activities
- Promote effective sharing of spectrum for multiple uses
- Promote cutting-edge ocean science and technology to strengthen the blue economy

Executive Summary of Progress

On Track

The Department, working in partnership with industry and state and local governments, provides the foundation for American innovation. NIST performs advanced research in quantum science, artificial intelligence, advanced manufacturing, and Internet-of-Things (IOT) based technologies. NTIA ensures that radio spectrum is available for both critical government missions and growing private sector demand. NOAA is collaborating with multisector partners to advance ocean science and technology focus areas: uncrewed systems, 'omics, artificial intelligence, cloud computing, and data to grow the blue economy and deliver the world's best weather forecasts.

Innovation Policy Support

ITA Conducted innovation policy discussion with Argentina in the *U.S.-Argentina Forum on Innovation and Creativity for Economic Development* in November of 2020 with plans for more in-depth discussion in the next meeting session. ITA also updated presentations and visual aids to support the United States Trade Representative (USTR) in addressing innovation policy issues.

Quantum Science

NIST is a leader in basic and applied research in quantum science. Some of the most fundamental quantum research in the world is carried out in partnerships between NIST and top institutes, such as [JILA](#), the [Joint Quantum Institute \(JQI\)](#) and the [Joint Center for Quantum Information and Computer](#)

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

Science (QuICS).

In FY 2020, scientists at NIST made continual breakthroughs in the measurement and control of quantum systems. NIST's Nobel Prize winning group initiated a project to demonstrate a potentially compact scalable quantum repeater, one of the roadblocks to quantum networks. NIST also initiated an effort to demonstrate a compact optical clock that could provide a backup to GPS.

Artificial Intelligence

NIST scientists are working to address the measurement and standards needs of this transformational technology. They apply artificial intelligence (AI) and machine learning (ML) approaches to multiple technology areas from advanced materials, genetics, robotics, to biometrics. Novel computational paradigms for AI include establishing metrics and benchmarks for AI hardware, foundational analysis of the computational capacity of a physical system, and analysis and development of algorithms for brain-like spike-based computation.

The USPTO is developing AI tools to facilitate a variety of tasks, including tools to assist with patent and trademark examination. USPTO is working on a patent search system prototype that uses sophisticated AI capabilities to assist patent examiners with performing patent searches. Also, USPTO is creating an auto-classification system that uses AI to classify patent applications into specific technology groupings based on common subject matter, where classification assists in routing the application to the most appropriate examiner in patent search. The USPTO is reviewing patent and trademark policies and procedures to ensure AI innovations are properly protected and incentivized.

On October 6, 2020, the USPTO released a report titled "Public Views on Artificial Intelligence and Intellectual Property Policy" that cataloged stakeholder views on the impact of AI on IP policy. Also, in October 2020, the USPTO released its report titled "Inventing AI: Tracing the diffusion of artificial intelligence with U.S. patents." This latter report confirmed that AI is increasingly important for invention, diffusing broadly across technologies, inventor-patentees, organizations, and geography.

Advanced Manufacturing

NIST's research labs and extramural programs continue to advance the frontiers of U.S. manufacturing. NIST provides technical support to the nation's manufacturing industries as they strive to out-innovate and outperform the international competition. For more details on NIST's involvement in advanced manufacturing visit <https://www.nist.gov/manufacturing>.

In 2020, NIST scientists developed a new method of [3D-printing gels and other soft materials](#). Some future structures made with this approach could include flexible injectable electrodes to monitor brain activity, biosensors for virus detection, soft micro-robots, and structures that can emulate and interact with living cells and provide a medium for their growth.

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

Spectrum Availability

NTIA's spectrum management operations ensure federal agencies have enough access to spectrum to conduct both their current and future missions. NTIA certified approximately 290 spectrum-dependent systems required to support national security and emergency communications, approved over 75,000 radio frequency assignments to authorize the federal systems to operate, and coordinated hundreds of satellite actions with foreign governments and domestic operators to bring satellite systems into use. To create new opportunities for innovation while protecting U.S. government requirements, NTIA is analyzing potential ways to share the 3100-3550 MHz band with commercial use while protecting DoD mission critical capabilities.

NIST and its partners from across the government and industry are enabling generation of validated data and models for use by the spectrum sharing community. These validated models enable more efficient spectrum use and are essential to accurately characterize wireless interference, signal propagation, and overall systems performance. These models will enable policy makers to manage spectrum more effectively, vendors to develop better wireless transmitters and receivers, and operators to understand in what environments they can deploy.

Engineering Biology

NIST is performing research in 'omics to develop a better understanding of human and environmental health. The research is focused on the development of reference materials and methods that allow for the comparison of results from different instruments and institutions. Some of the 'omics under investigation at NIST include metabolomics, proteomics, and developing multi-omics for the gut microbiome. The research performed provides tools that increase the understanding of markers of disease states and lead to the accelerated development of personalized medicine.

Intellectual Property

Predictable and reliable intellectual property rights are critical for creating new jobs and driving technological progress across all industries. Intellectual property protection supports innovation in vital areas from curing cancer, and exploring space, to improving the quality of life for people around the world. USPTO continues to optimize patent and trademark reliability and timeliness while strengthening intellectual property protection.

Data Access and Analytics

NTIS advanced the President's Management Agenda (PMA) by helping agencies deliver mission critical services more efficiently. Working with joint venture partners, NTIS continued to push innovations in AI, streamline data access and interoperability, and incorporate process automation technologies. NTIS and the DoD's Joint Artificial Intelligence Center (JAIC) are working together to accelerate the delivery, scale, and synchronization of DoD's AI efforts.

Grant Funding

In FY 2020, EDA invested over \$229.4 million in 131 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.

Promote Cutting-Edge Ocean Science and Technology

In FY 2020, NOAA released a set of [strategies](#) to expand the agency's application of Artificial Intelligence, uncrewed systems, 'omics, cloud computing, and data. Coordination of these strategic efforts cross-NOAA and with partners will deliver higher quality and more timely products and services and enhance

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

data exploitation and knowledge discovery for the broader community. These strategies will accelerate the implementation of the most effective science and technology applications and will drive innovation to advance NOAA’s mission to protect life and property and grow the American Blue Economy.

Performance Indicator Results and Targets

SO 1.2 – Advance Innovation Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
<u>NIST - Number of businesses using NIST research facilities</u>	Target	275	325	325	325	300	Exceeded	300	300
	Actual	435	442	450	491	526			
<u>NIST - Relative citation impact of NIST- authored publications</u>	Target	1.5	1.6	1.6	1.3	1.3	Exceeded	1.3	1.3
	Actual	1.80	1.66	1.62	1.69	1.57			
<u>NIST - International Adoption of NIST Quantum SI Standards</u>	Target	N/A	N/A	3	4	5	Exceeded	10	10
	Actual	N/A	N/A	3	5	7			
<u>NTIS - Number of new public-private projects (or Government – Industry projects) entered into under the Joint Venture (JV) Authority per year</u>	Target	N/A	N/A	5	5	10	Exceeded	8	5
	Actual	N/A	N/A	10	15	13			
<u>EDA - Number of economic development grants made to communities and regions to help build the capacity for economic development through manufacturing-related activities and meeting other business needs</u>	Target		N/A	98	122	108	Met	118	TBD
	Actual		109	136	120	131			

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

SO 1.2 – Advance Innovation Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
EDA - Dollar amount of economic development grants made to communities and regions to help build the capacity for economic development through manufacturing-related activities and meeting other business needs	Target		N/A	\$86.60	\$136.80	\$136.44	Exceeded	\$149.70	TBD
	Actual		\$96.20	\$151.00	\$151.60	\$229.43			

Notes: EDA’s targets are calculated as the best estimate of future performance, based on prior performance and the most up-to-date data available. For a variety of reasons, including dynamic local economic circumstances, programmatic initiatives, and ongoing target calibration, the calculated targets are subject to fluctuate from one year to the next. The indicator above was developed in accordance with the proposed 2018-2022 Strategic Plan and measured for the first time in 2018. The target for 2018 was determined based on actual results from 2017.

For more information, please see the [Strategic Objective 1.2 Story](#) on our new public website: Commerce Performance Data Pro

Strategic Conclusions and Recommendations

The Department is making significant progress in its work to Advance Innovation, 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 our ability to maintain technological leadership. For example, the U.S. Government’s estimated \$200 million annual allocation in quantum research is matched by the European Union’s 10-year investment of €2 billion and dwarfed by China’s \$10 billion investment in a quantum computing center.

China is aggressively investing in other industries, such as AI and Advanced Manufacturing. Focus on AI is evidenced by a flurry of publications and patents, and a stated goal to grow China’s AI industry to \$150 billion by 2030. In the area of Advanced Manufacturing, China is aiming to increase its domestic content of core materials to 40% by 2020 and 70% by 2025, thus threatening the U.S. exports and economic security.

To remain a leader both in R&D and the implementation of these technologies for the benefit of the U.S. economy 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 COVID-19 global pandemic has potentially impacted innovation in China and the U.S., as well as other countries. Full impact of the pandemic on global science and technology enterprises in quantum science, AI, advanced manufacturing, and IOT technologies is yet to be seen.

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

Actions to Advance Progress through FY 2022

NIST prioritizes its R&D efforts related to industries of the future to provide the measurement science and standards infrastructure necessary to support innovation. These efforts include quantum science, artificial intelligence, advanced manufacturing, and advanced communications. NIST seeks ways to maximize the relevance and quality of its scientific research and dissemination of results. To ensure achievement of its targets, NIST will continue to:

- Support research efforts to apply fundamental physics to measurement and development of practical Quantum International System of Units (SI) devices, and dissemination of those technologies
- 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
- Support the Manufacturing USA Program by overseeing the planning, management, coordination, and congressional reporting of the Program
- Focus National Cybersecurity Center of Excellence on projects that address cybersecurity challenges and technology gaps, impacting businesses, organizations, and industry sectors

NOAA will develop Strategic Implementation Plans to address goals within the recently released NOAA science and technology Strategies: Artificial Intelligence, Uncrewed Systems, 'Omics, Cloud Computing, and Data. NOAA will also continue to:

- Expand innovative, safe, cost-effective, and compliant **Uncrewed Systems** services and enhance capabilities through partnerships.
- Expand **Artificial Intelligence** to reduce the cost of data processing, provide higher quality and more timely scientific products, and services.
- Expand research and application of **'Omics**, a suite of leading-edge methods used to analyze materials such as DNA, RNA, or proteins, to improve the efficiency, effectiveness, and coordination of 'omics development and usage across the agency and with partners.
- Migrate suitable IT services to commercial **Cloud Computing** environments to reduce costs, improve efficiency, provide unlimited seamless scalability, and maintain high levels of security.
- Dramatically accelerate the use of **Data** across the agency and with other key partners, maximize openness and transparency, deliver on mission, and steward resources while protecting quality, integrity, security, privacy, and confidentiality.

NTIA will continue to perform its spectrum management, planning, and policy responsibilities to ensure both government and industry have enough access to maintain US economic prosperity and national security. NTIA will:

- Certify approximately 600 spectrum-dependent systems
- Approve over 150,000 radio frequency assignments
- Coordinate several hundred satellite actions with foreign governments and domestic operators to bring satellite systems into use
- Support operations associated with disasters. Subject to available funding, NTIA will re-engineer processes for spectrum authorizations, improve data accuracy and integrity, and implement advanced spectrum sharing analysis and efficiency evaluation tools.

Per the October 2018 Presidential Memorandum, NTIA will develop the implementation plan for the National Spectrum Strategy, submit its annual spectrum repurposing initiatives report to the White House, and provide guidance, collect data, and report on current spectrum usage and future

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

spectrum requirements for federal agencies. Pursuant to the MOBILE NOW Act of 2018, NTIA will complete and submit its analysis of the 3.10-3.55 GHz band to determine the feasibility of accommodating commercial wireless services. NTIA will also work closely with the Federal Communications Commission to identify / make available an additional 255 MHz of spectrum for commercial wireless services, complete a report on providing incentives for federal entities to relinquish or share spectrum with commercial users, and provide recommendations for changes to the spectrum relocation fund to cover costs of sharing spectrum with unlicensed radio technologies or licensed by rule operations.

NTIS will expand its interagency data science innovation projects to enhance citizen-services, advance our nation's security in AI, serve veterans, recoup taxpayer funds, advance health and safety, protect critical infrastructure, and increase commercialization of federally funded research and development.

NTIS works alongside the DoD's Joint AI Center (JAIC) in four separate mission areas of the JAIC:

- Infrastructure – assisting in establishing an initial data services capability to support accessing DoD data across multiple networks and providing Cyber Security Support for AI/ML Security and Domain Networking Extensions.
- Intelligent Business Automation (IBA) – understanding the business needs of the DoD community for IBA and providing a high-level conceptual framework for meeting those needs.
- Cybersensing – understanding high-level requirements and helping address multiple facets of applying AI to problems such as enhanced network discovery and user activity monitoring.
- Joint Warfighting – assessing how to leverage AI to enhance the use of systems to improve combat operations.

NTIS will advance the President's Malaria Initiative (PMI), which fights against malaria by developing a system for efficient data integration, analytics, and dissemination. The system will enable medical experts and PMI staff to perform cross-sector and interdisciplinary analyses.

NTIS will continue to partner with the Department of Homeland Security (DHS), Cybersecurity and Infrastructure Security Agency (CISA), and the National Risk Management Center (NRMC) to identify, analyze, prioritize, and counter high-consequence digital threats to facilitate secure critical infrastructure.

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

STRATEGIC OBJECTIVE 1.3 – Strengthen Intellectual Property Protection

Contributing Bureaus: OS, ITA, MBDA, NTIA, NIST, USPTO

Key Strategies:

- Strengthen the protection of intellectual property
- Optimize patent reliability and timeliness and trademark quality and timeliness

Executive Summary of Progress

On Track

The USPTO issues reliable and predictable intellectual property (IP) rights to spur job creation, entrepreneurship, and innovation. Protecting IP is vital to maintaining the incentives for R&D, creating quality jobs, and driving economic prosperity. The USPTO also works to educate American entrepreneurs and businesses on the importance of IP.

The Coronavirus Aid, Relief, and Economic Security Act (CARES Act) allowed the USPTO to temporarily extended deadlines for filing patent and trademark documents and paying certain fees. The USPTO also instituted several initiatives to promote research related to COVID-19. At the same time, several new programs and initiatives were set up, which included temporary relief for patent and trademark applicants affected by the pandemic. These programs improved the quality and efficiency of patent and trademark examination.

For patents, the COVID-19 Prioritized Examination Program lets small and micro entities accelerate prosecution for inventions that are subject to FDA approval for use in treating COVID-19, at no charge. For applications in this program, the USPTO plans to issue final decisions within six months of filing, depending on applicant response times. To support research related to COVID-19, the USPTO launched the Patents 4 Partnerships website. This site provides a repository of patents and applications related to COVID-19 and creates a platform for connecting patentees and potential licensees.

For trademarks, the COVID-19 Prioritized Examination Program lets brand owners petition to advance initial examination of applications for certain medical products and services to combat the COVID-19 virus. Qualifying COVID-19 medical-related goods and services may include vaccines, diagnostic tests, ventilators, and personal protective equipment that prevent, diagnose, treat, or cure COVID-19 and are subject to approval by the U.S. FDA. The USPTO waived the fee for such petitions. If a petition is granted, the application is immediately assigned to an examining attorney for review. This expedites examination by about two months. Applicants typically receive a first Office action about five weeks after their petition is granted.

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

The USPTO launched the National Council for Expanding American Innovation (NCEAI), aimed at expanding invention and entrepreneurship in the U.S. The NCEAI is composed of high-level leaders from the federal government, industry, academia, professional / nonprofit organizations, venture capitalists, and independent inventors, who are committed to increasing opportunities for innovation. The NCEAI helps the USPTO develop a long-term, comprehensive national strategy to build a diverse and inclusive innovation ecosystem by increasing participation demographically, geographically, and economically.

Patent Reliability and Timeliness

By the end of FY 2020, the USPTO achieved 14.8 months for first action pendency and 23.3 months for total pendency. This goal was exceeded due to employee efforts to improve analyses, streamline processes, and clarify approaches that benefit patent applications. These efforts included complex data analysis, to better prioritize applications without sacrificing quality, and process revisions that accelerated overall patent examination.

In FY 2020 the USPTO established that 90% of total performance and total inventory would be within statutory timeframes set by Patent Term Adjustment (PTA) compliance, by the end of FY 2025. The statutory timeframes are 14 months from the filing date of an application to the mailing date of a first Office action; four months to respond to an amendment; four months to act on a decision from the Patent Trial and Appeal Board; four months to issue a patent after payment of the issue fee; and 36 months from the filing date of an application to the issue date of a patent. USPTO's efforts toward short-term average pendency goals and long-term PTA compliance goals are critical for optimizing application pendency and increasing predictability of the patent application process. For FY 2020, total PTA compliance for all mailed actions was 83.2% and total PTA compliance for all remaining inventory was 87.8%.

The USPTO now issues final decisions faster than last year's 23.8 months and significantly faster than in recent years. Examiners' exceptional resilience and diligence are critical to the agency's ability to exceed its goal despite the challenges presented by the COVID-19 pandemic.

Patents introduced a new patent search system that provides examiners with increased access to prior art and is developing an AI-based tool that can integrate with the new search system to help examiners find more relevant prior art. Quality improvement is supported by training programs for examiners. The organization developed an updated performance appraisal plan for examiners at the start of FY 2021. These updated plans provide a roadmap for enhanced patent quality, including an increased focus on search and clarity of the written prosecution record. These changes are accompanied by a new process for assigning applications to examiners by matching their expertise with the technologies in the patent application.

Patents reorganized senior management teams to integrate examination and non-examination groups. These changes will foster improved teamwork, sharing of diverse perspectives, facilitate cross-training, provide enhanced developmental opportunities, and balance the number of employees within the deputy commissioners' reporting chains. As a result of the reorganization, the responsibility for ensuring patent quality is shared by all Deputy Commissioners for Patents, not just overseen by a single Deputy Commissioner for Patent Quality. This enables a better focus on patent quality. The USPTO collaborates with IP offices around the world to accelerate the prosecution of patent applications that are cross-filed in multiple countries.

Trademark Quality and Timeliness

The Trademarks organization had an impressive year with several new milestones, despite the challenges of a global pandemic. Entirely electronic processing of trademark applications rose to 88.7%. This leads to more efficient processing, fewer errors, and more cost-effective transactions for USPTO

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

customers. The gains made in efficiency throughout the application cycle enabled Trademarks to successfully exceed pendency and quality targets for the 15th consecutive year even though trademark applications increased by 9.6% and COVID-19 forced a dramatic shift in agency operations. Trademarks also advanced several initiatives to mitigate suspicious filings, fraudulent filings and specimens, and counterfeit products. The organization launched a joint anti-counterfeiting campaign with the National Crime Prevention Council focused on educating the IP community about the threats of non-genuine products. It also worked to improve the integrity of the register through post-registration audits to validate marks in use. USPTO implemented a rule that requires U.S.-based representation for applicants, registrants, or parties to a trademark proceeding. The rule took effect in August 2019. Analysis from this fiscal year, shows that it positively impacted the filing behavior of foreign applicants, registrants, and parties before the Trademark Trial and Appeal Board.

IP Training

The USPTO trains foreign officials and U.S. stakeholders on best practices in IP protection and enforcement. The USPTO's Global IP Academy (GIPA) trained over 10,675 people in FY 2020. This is more than twice the annual target of 5,000. Training recipients included domestic IP rights owners and users as well as foreign officials. GIPA's capacity for e-learning supported a successful pivot to all-remote delivery of its programs in mid-FY 2020. This included developing the technological capability to run virtual international meetings with simultaneous interpretation.

ITA contributes to outreach and training through management of the inter-agency STOPfakes initiative. The initiative channels talent and resources of various U.S. Federal agencies to U.S. businesses and consumers, including minority businesses, helping them to respect and protect IP rights. In FY 2020, the STOPfakes program trained over 1,650 individuals on intellectual property rights and protection.

Digital Economy Intellectual Property Protection

In close coordination with the USPTO, other Commerce bureaus (ITA, NIST, and NTIA) took part in multiple U.S. government delegations to the G20 Digital Economy Task Force. The outcome included strong IP protection provisions in the G20 Digital Economy Ministerial Declaration.

Return on Investment Initiative

NIST is making progress on the Return on Investment Initiative (ROI) and 15 key findings from the new "[green paper](#)" on maximizing U.S. innovation from government-funded research. This effort directly supports the President's Management Agenda and the Lab-to-Market Cross Agency Priority (CAP) goal. The green paper findings are addressed in the proposed legislation, that was delivered to Congressional Committee in 2020. Notice of Proposed Rule Making is expected to be published later in 2020.

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

Performance Indicator Results and Targets

SO 1.3 – Strengthen Intellectual Property Protection Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
<u>USPTO - Patent Average First Action Pendency</u>	Target	15	15	15	15	16.1	Met	14.8	14.7
	Actual	16.2	16.3	15.8	14.7	14.8			
<u>USPTO - Patent Average Total Pendency</u>	Target	24.2	24.2	24	24.2	23.7	Met	DISC	DISC
	Actual	25.3	24.2	23.8	23.8	23.3			
<u>USPTO - Trademark Average First Action Pendency</u>	Target	2.5-3.5	2.5-3.5	2.5-3.5	2.5-3.5	2.5-3.5	Met	2.5-4.5	2.5-4.5
	Actual	3.1	2.7	3.4	2.6	3.0			
<u>USPTO - Trademark Average Total Pendency</u>	Target	12	12	12	12	12	Exceeded	12	12
	Actual	9.8	9.5	9.6	9.3	9.5			
MBDA - Number of minority businesses receiving information on intellectual property protection	Target	120	120	120	150	2,000	Exceeded	2,500*	2,500*
	Actual	143	143	151	175	45,433*			
<u>USPTO - Number of people, including foreign government officials and U.S. stakeholders, trained on best practices to protect and enforce intellectual property</u>	Target	5,000	5,000	5,000	4,500	5,000	Exceeded	5,000	5,000
	Actual	4,975	4,134	7,242	9,854	10,688			
USPTO -Total PTA Compliance, Mailed Actions (new)	Target					81%	Exceeded	84%	85%
	Actual					83%			
USPTO - Total PTA Compliance, Remaining Inventory (new)	Target					88%	Met	86%	87%
	Actual					88%			

*Due to COVID-19, the agency enhanced social media efforts to optimize reach to stakeholders. In partnership with ITA, MBDA used social media to promote STOPfakes.gov and associated training. This attributed to the large increase in reach to their social media and website.

Management Analysis of Strategic Goal 1 – Accelerate American Leadership

For more information, please see the [Strategic Objective 1.3 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

The USPTO is improving its processes, customer experience, and outreach efforts in collaboration with other bureaus and organizations, such as ITA. At the beginning of FY 2020, the USPTO updated patent and trademark examination processes to provide more predictable and reliable patent and trademark rights to stakeholders. These updates revised the time allotted for the examination of patent applications, application routing, and the evaluation of examiner performance. Full implementation of these updates will occur at the beginning of FY 2021. In addition, Trademarks examiners' performance requirements were updated in critical areas. The USPTO gathers customer feedback and uses the information to improve processes and tools.

Actions to Advance Progress Through FY 2022

USPTO services are funded solely by customer fees. Since service requests are often received in one fiscal year and fulfilled in a subsequent year, multi-year planning and budgeting is required. The USPTO relies heavily on indicators of global and domestic economic activity, policies and legislation, process efficiencies, and trends in applicant behavior to forecast workload and fee collections. These workload variables affect production models used by the Patents and Trademarks organizations. Monitoring and updating the models are ongoing activities and central to USPTO operations.

In addition to core functions, future actions to achieve Strategic Objective 1.3 include:

- Training stakeholders about IP principles and relevant processes
- Updating processes that support patent examination
- Continuing to hire examiners, as needed, in appropriate patent and trademark areas
- Strengthening the integrity of the trademark register through random audits of trademark registrations
- Enhancing IT capabilities for Patents and Trademarks organizations and maintaining effective legacy systems during the transition to newer, faster, and more reliable systems
- Further accelerating “Lab-to-Market” to maximize U.S. innovation from government-funded research
- Attending the Eighth Triennial Section 1201 Rulemaking Proceeding, where NTIA will support exemptions that protect copyright interests and promote innovation and economic growth

STRATEGIC OBJECTIVE 2.1 – Increase Aquaculture Production

Contributing Bureaus: OS, NOAA

Key Strategies:

- Create a more predictable and timely permit review process and allow businesses to begin operation more rapidly, thus accelerating the growth of the U.S. seafood industry
- Support research, outreach, and extension programming to advance marine aquaculture

Executive Summary of Progress

Focus Area for Improvement

Aquaculture Opportunity Areas

Per the Executive Order on Promoting American Seafood Competitiveness and Economic Growth of May 7, 2020, NOAA selected the first two regions of the country where Aquaculture Opportunity Areas (AOA) will be designated. An AOA is a defined area in federal or state waters that is evaluated to determine its potential suitability for aquaculture. AOAs will enhance sustainable domestic seafood production and encourage aquaculture in areas compatible with a broad range of environmental, economic, social, and cultural considerations. The first two regions are Gulf of Mexico and Southern California, in which exact locations of the first two AOAs will be identified.

OSTP Draft Regulatory and Research Plans

NOAA and the White House Office of Science and Technology Policy interagency Subcommittee on Aquaculture completed drafts of two inter-agency plans to support domestic aquaculture development: The National Strategic Plan for Federal Aquaculture Research (2020-2024) and the Strategic Plan to Improve Aquaculture Regulatory Efficiency. The science plan seeks to document Federal science and technology opportunities and priorities for aquaculture. The regulatory plan outlines actions Federal agencies plan to take within their existing statutory authorities and budgetary resources to improve the efficiency, predictability, and timeliness and reduce the costs of reviewing, approving, monitoring, and enforcing regulatory requirements for commercial marine aquaculture ventures. These plans are currently with the NSTC for review.

Real-time Detection of *Vibrio* for Oyster Aquaculture

Researchers built a sensor to detect when bacteria that live on oysters become pathogenic and can cause illness in humans, informing aquaculture operations, production planning, and management.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

New Methods Resulted in Increased Blue Mussel Production

Large-scale culture methods for blue mussel seed production in Maine and the Northeast in experimental laboratory and field trials resulted in an increase in sustainable blue mussel production by assisting research that identifies limitations to commercial aquaculture expansion.

Adapting to Changes Necessitated by the COVID-19 Pandemic

NOAA provided funding through its Sea Grant programs to help hard-hit suppliers of seafood survive COVID-19. The programs helped develop direct marketing strategies and create online resources to connect consumers directly with seafood producers. These efforts included educating consumers about seafood preparation and benefits of consumption. Also, several programs utilized funding to purchase farmed shellfish for restoration activities. This helped commercial fishermen and aquaculture producers sell their product, allowing them to maintain revenue streams during the pandemic.

Ecology and Oceanography of Harmful Algal Blooms

NOAA completed integrated modeling of the harmful genus *Pseudo-nitzschia spp.* to support ecosystem prediction and environmental management in the southern California current system. A draft final report, website content, executive and technical briefing materials, and other appropriate products on potential management ramifications of this modeling effort were developed. In addition, workshops were conducted with executive managers and lead technical staff of stakeholder agencies, and final products were refined based on management needs.

Entanglement Simulator

The Virtual Reality Simulator 1 (mussel longlines with right and humpback whale) was developed to assess entanglement risk of protected species and will serve as an important tool in support of sustainable expansion of offshore aquaculture.

Performance Indicator Results and Targets

SO 2.1 – Increase Aquaculture Production Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
NOAA - Number of Aquaculture projects advanced that improve the efficiency and predictability of the federal aquaculture permitting process	Target	<i>New performance indicator. Baseline values and targets not established</i>			N/A	21	Exceeded	31	29
	Actual				16	26			
NOAA - Annual number of aquaculture research products completed that address key production challenges	Target	<i>New performance indicator. Baseline values and targets not established</i>			N/A	57	Met	61	119
	Actual				57	53			

Management Analysis of Strategic Goal 2 – Enhance Job Creation

SO 2.1 – Increase Aquaculture Production Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
NOAA - Number of fishermen, seafood processors and aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety	Target	New performance indicator. Baseline values established and FY 2019 target set. FY 2020 target not set			15,000	15,000	Not Met	0	0
	Actual	40,243	19,900	17,796	23,000	12,950			

For more information, please see the [Strategic Objective 2.1 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

The Department of Commerce has identified increasing aquaculture production as one of its key strategic objectives to increase the nation’s seafood supply, improve our trade balance with other nations, and create jobs.

Actions to Advance Progress through FY 2022

Aquaculture Opportunity Areas

NOAA will select the third and fourth regions for the next AOA and complete siting analyses, maps, and suitability analyses for at least five commercial finfish and shellfish aquaculture projects located in federal waters of the West, Northeast, and Gulf of Mexico. NOAA will develop programmatic environmental impact statements (EIS) for each of the first two AOAs once selected, with a target of completing the EISs within two years of identification. These actions are mandated by the Executive Order (E.O.) on Promoting American Seafood Competitiveness and Economic Growth, signed on May 7, 2020. Note this schedule is slower than that directed in the E.O., but it is what is realistically achievable with resources anticipated for FY 2021 and FY 2022.

Implementation of National Aquaculture Development Plan

NOAA and the White House OSTP interagency Subcommittee on Aquaculture will complete and implement a National Aquaculture Economic Development Plan, the National Strategic Plan for Federal Aquaculture Research (2020-2024), and the Strategic Plan to Improve Aquaculture Regulatory Efficiency. Together, these plans will comprise an updated National Aquaculture Development Plan that will also provide interagency science and technology coordination to improve regulatory efficiency, research and technology development, and economic growth. They represent continued implementation of the National Aquaculture Act of 1980.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

Building Capacity for Land-Based Atlantic Salmon Aquaculture in the U.S.

To help build capacity for the rapidly expanding Atlantic salmon aquaculture industry, NOAA funded the Recirculating Aquaculture Salmon Network (RAS-N), a national public-private consortium aimed at facilitating the growth of environmentally sustainable and economically feasible Atlantic salmon production. RAS-N works closely with US stakeholders to establish a holistic hub of knowledge that integrates past, current, and future research, as well as economic analysis, extension, outreach, education, and workforce training. In FY 2022, the RAS-N consortium will develop a consensus road map/strategic plan and demonstration projects that will help policymakers, federal agencies and industry identify and responsibly allocate resources to promote an economically and environmentally sustainable land-based U.S. Atlantic salmon industry.

Collaboration through the Seaweed Hub

NOAA established collaborative, industry-specific programs to plan for and appropriately focus the next generation of aquaculture investments while enhancing the synthesis and transfer of past research advances. These programs are commonly referred to as hubs. The National Seaweed Hub to serve as a science-based, non-advocacy resource for the domestic seaweed industry. The Hub will bring together seaweed stakeholders from across the country in stakeholder-driven work groups guided by Sea Grant Extension professionals to find a path forward in addressing challenges, finding solutions to needs, and pursuing opportunities for growth.

Promoting Great Lakes Aquaculture

The Great Lakes Aquaculture Collaborative (GLAC) is a three-year project that seeks to foster relevant, science-based initiatives that support aquaculture industries in the Great Lakes region that are environmentally responsible, competitive, and sustainable. It will identify research needs; quantify consumer demand for desired species, attributes, labeling, and production processes; identify policy-related challenges and opportunities; and generate a compilation of science-based recommendations for environmentally responsible, competitive, and sustainable aquaculture in the Great Lakes region. This work will be completed in FY 2022.

STRATEGIC OBJECTIVE 2.2 – Reduce and Streamline Regulations

Contributing Bureaus: OS, All bureaus

Key Strategies:

- Review agency regulations and remove or modify rules that unnecessarily burden businesses and economic growth
- Review and streamline permitting processes while achieving statutory objectives
- Facilitate a One Federal Decision timeline

Executive Summary of Progress

On Track

The Department’s Regulatory Reform Task Force met twice in FY 2020 to identify deregulatory actions and monitor progress. Throughout the year, the Department’s Regulatory Reform Officer, an appointee within the Office of the Secretary, works closely with the heads of all bureaus to identify potential deregulatory actions and feasible timelines for completion.

NOAA continued to improve the efficiency and timeliness of endangered species consultation. We maintained time to complete informal consultations below the regulatory standard of 60 days, at an average of just 43 days. The number of formal consultations exceeding statutory deadlines decreased by more than 50 percent from, 74 to 36. We also completed 55 percent more MMPA incidental take authorizations than in FY 2019.

Performance Indicator Results and Targets

SO 2.2 – Reduce and Streamline Regulations Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
OS - Total cost savings from deregulatory actions	Target	N/A	\$1.1M	\$750k	\$3.13M	0	Exceeded	\$2.018M	\$2.018M
	Actual	N/A	\$1.2M	\$46.8M	\$3.91M	\$2.31M			

Management Analysis of Strategic Goal 2 – Enhance Job Creation

OS - Number of deregulatory actions issued that address recommendations by the Regulatory Task Force	Target	N/A	7	25	33	45	Not Met	25	25	
	Actual	N/A	7	14	20	30				
NOAA - Average number of days to complete informal ESA Section 7 consultations	Target	<i>New performance indicator. Baseline values established and targets set</i>				50	50	Met	45	45
	Actual	122	53	45	40	43				
NTIS - Yearly average number of days required to complete public-private projects (or Government-Industry projects) entered into under the Joint Venture Authority	Target	N/A	N/A	120	110	100	Exceeded	90	90	
	Actual	N/A	N/A	157	126	32				

For more information, please see the [Strategic Objective 2.2 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

The Department made significant progress to reduce and streamline regulations and is on track to meet this objective. During the past three years, the Department well exceeded the Administration’s directive in Executive Order 13771 that for any new regulation the Department may propose, at least two regulations will be repealed.

The key performance indicator (KPI), that reflects the biggest impact on regulated stakeholders, is related to the cost-savings achieved through deregulatory actions. Over the past 4 years, this metric has exceeded its target. In fact, in FY 2018 alone, this KPI exceeded its target by a factor of approximately 46 to 1 and in FY 2020, the total cost savings was double what was planned.

The Department will continue to engage with stakeholders to evaluate regulations ripe for reform or streamlining. The Department also remains focused on its mission to promote U.S. commerce at home and abroad and will continue to improve and streamline regulations it issues.

Actions to Advance Progress through FY 2022

- The Department’s Task Force for Regulatory Reform will meet periodically to consider and evaluate potential deregulatory actions in the bureaus.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

- The Department will continue to work closely with the White House Office of Information and Regulatory Affairs (OIRA) to properly calculate future years' total cost savings.
- The Department will work quickly to issue proposed rules for deregulatory actions currently on the Unified Regulatory Agenda's list of long-term actions.
- NOAA will complete more programmatic consultations to expedite the permit review process.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

STRATEGIC OBJECTIVE 2.3 – Strengthen Domestic Commerce and the U.S. Industrial Base

Contributing Bureaus: OS, All bureaus

Key Strategies:

- Expand broadband infrastructure and access
- Promote digital commerce and internet governance
- Increase the understanding and use of Commerce data in partnership with industry (also see Strategic Objectives 3.3 and 4.2)
- Build trust in digital commerce through strong encryption standards (also see Strategic Objective 3.2)
- Amplify the economic value of recreational and commercial fisheries
- Promote and support a strong and sustainable manufacturing and defense industrial base
- Build community and regional capacity for entrepreneurship and innovation (also see Strategic Objective 1.2)

Executive Summary of Progress

On Track

Defense Industrial Base

The Bureau of Industry and Security (BIS) works with the Department of Defense and other agencies to measure the health and competitiveness of the U.S. Defense Industrial Base. This is done by conducting at least two industry sector surveys and assessments per year, as well as Section 232 investigations on the effect of imports on national security. These assessments provide stakeholders with a single, consistent source of information and highlight interdependencies between agencies and programs. Together BIS and ITA gather information on U.S. industries including employment, foreign sourcing and dependencies, capital expenditures, cybersecurity, supply chain risk, trade statistics, technical information on the products being investigated, and develop plans to implement recommendations.

In FY 2020, BIS conducted four industrial base surveys. This included a survey to aid in the Section 232 investigation on laminations for stacked cores for incorporation into transformers, stacked and wound cores for incorporation into transformers, electrical transformers, and transformer regulators; a survey to aid in the Section 232 investigation on imports of vanadium; a survey of the Air Force supply chain network; and a survey of the Information and Communications Technology (ICT) industry.

In FY 2020, BIS provided data cuts and analysis based on previous BIS surveys. Examples of targeted data cuts and analysis provided to U.S. agencies:

- NSC/WH regarding supply chain data on the health and competitiveness of U.S. companies affiliated with the space economy

- U.S. Navy regarding Navy programs and operations
- U.S. Department of Health and Human Services regarding foreign sourcing and dependencies in the U.S. healthcare sector and prospects for domestic-only sourcing of personal protective equipment, vaccines, and therapeutics

Free Trade Agreement Tariff Tool

ITA's Industry & Analysis updated the FTA Tariff Tool to include USMCA tariff treatment and new rules of origin. The FTA Tariff Tool is an online search tool that allows the user to search for the tariff treatment and rules of origin for U.S. FTAs.

ITA's Travel & Tourism Tracking System

ITA's National Travel & Tourism Office, with input from the Travel and Tourism Advisory Board, developed a tracking system to monitor 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, travel industry metrics, forward-looking indicators, and traveler sentiment data. NTTO is using this dashboard to guide policy discussions on travel-related policy questions within the Travel and Tourism Advisory Board.

ITA Improved I-92 International-U.S. Air Travel Methodology

TA/I&A now reports current international U.S. air traffic faster than ever before. Data delivery time decreased from 16 days to 5 days, while improving data quality. Monthly travel reports, provided by the Department of Homeland Security and reprocessed by ITA's National Travel & Tourism Office, reflects the overall health of the U.S. international air markets. Over a period of six months, ITA developed programs for processing the Department of Homeland Security's recently modified file structures. This resulted in an improved system with better quality and timelier delivery. This innovation helps inform the Bureau of Economic Analysis' estimates of international air passenger fares, which are used in the calculation of the balance of trade.

ITA Developed and Released the Market Diversification Tool

ITA's Market Diversification Tool uses basic information about current trade patterns to help companies identify potential new export markets. The user enters the products they make and the markets they currently export to, and the Market Diversification Tool helps them identify and compare the markets they may want to consider. The tool is user-friendly and flexible. It allows users to tailor the search to fit their needs. It brings together product-specific trade and tariff data and economy-level macroeconomic and governance data to provide which markets should be further researched.

Amplify the Economic Value of Recreational and Commercial Fisheries

Forty-seven U.S. marine fish stocks were rebuilt since 2000. Ending overfishing and rebuilding stocks supported \$244 billion of commercial and recreational sales and 1.74 million jobs in 2017. The Status of the U.S. Fisheries report for 2019 shows 93% of the stocks managed are not subject to overfishing and 81% are not overfished. This shows that the U.S. fishery management system is achieving its long-term sustainability goals.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

BroadbandUSA

NTIA's BroadbandUSA provided support to more than 1,000 communities through its regional events, workshops, educational webinars, and technical assistance activities. To create a new broadband map, NTIA worked with federal agencies, state governments, and industry to find innovative approaches to collecting data on broadband availability. NTIA promoted digital commerce and government through a year-long, statutorily mandated consultation with the U.S. Copyright Office. This collaboration identified new opportunities for innovation in the online ecosystem. To build trust in digital commerce, a new multi-stakeholder process increased software security by improving visibility into third-party software imbedded in products and is developing a new framework for privacy.

NTIA also served as the co-chair of the American Broadband Initiative (ABI). In April 2020, the progress report on the 2019 agency actions was released. It outlined the Administrations' vision for how the federal government can encourage the expansion of broadband access and actions to increase private-sector investment in broadband. NTIA also supported state and local organizations on their broadband policies and programs. This included over 100 technical assistance engagements. Participation in the National Broadband Availability Map (NBAM) increased from 8 states to 22 states. NTIA partnered with USDA's Rural Utilities Service (RUS) to leverage the NBAM for its Reconnect Program that invests approximately \$500 million in federal funds to broadband deployment. NTIA commissioned the 15th edition of its Internet Use Survey in November, in partnership with the U.S. Census Bureau, and solicited public input into future surveys to ensure the ability to compare the state of Internet use in America before and after the COVID-19 pandemic.

New explanatory information on the pandemic's impacts on BEA's economic statistics

BEA launched a wide range of communications tools to further the public's understanding of how the economic impact of COVID-19 can be traced throughout the bureau's indicators. More information including the expanded explanatory notes and technical information from press releases, papers, blogs, FAQs and new data tables are available in one consolidated place on BEA's website: <https://www.bea.gov/recovery>.

Grant Funding

In FY 2020, EDA invested over \$166.3 million in 250 projects to help build community and regional capacity for entrepreneurship and innovation. These grants are intended to help develop and improve community assets that businesses need to succeed.

BIS On-time On-Scope

100% of Industrial Base assessments have been completed within the timeframe set forth in the Memorandum of Understanding between BIS and the survey sponsoring agency or entity.

NIST Post Quantum Encryption Standards project on schedule

As part of its effort to develop quantum resistant cryptography, NIST completed the first round of cryptographic analysis of Quantum Resistant Algorithms. NIST is working to update the Federal Information Processing Standards (FIPS) 140, *Security Requirements for Cryptographic Modules*, as called for in the U.S. American Technology Council (ATC) Modernization report.

National Technical Information Service (NTIS) Joint Venture Partnership

Under the Joint Venture Partnership (JVP) authority, initially authorized in 1988, NTIS facilitated mission critical data projects through 15 new interagency support agreements to assist Federal agencies in leveraging data as a strategic asset to address mission outcome. The JVP program gives NTIS the ability to leverage leading, innovative companies to its government customers to solve complex data challenges. NTIS continues to apply data science innovation in areas such as artificial intelligence (AI), machine learning, and predictive analytics.

Expand Availability of Resources for Entrepreneurship and Innovation Throughout the United States

The USPTO enhanced its website resources for inventors and entrepreneurs to provide focused information by geographical region. Organized by region and state, the site identifies resources, pro bono opportunities, and other assistance to make filing for a patent or a trademark easier and more affordable. This ultimately results in strong legal protection for an invention or a brand.

In FY 2020, the USPTO launched the National Council for Expanding American Innovation (NCEAI) aimed at expanding invention, innovation, and entrepreneurship in the U.S. The NCEAI is composed of high-level leaders who are committed to increasing the opportunities for Americans to participate in innovation. The NCEAI aims to help the USPTO develop a long-term national strategy to build a more diverse and inclusive innovation ecosystem by encouraging participation demographically, geographically, and economically. The USPTO will document progress toward these goals through updates such as our “Progress and Potential” report on women inventor-patentees. On September 14, 2020, the USPTO hosted the inaugural meeting of the NCEAI, where council members shared best practices and input that will help the USPTO craft its national strategy.

The USPTO has regional offices and resources in Dallas, Detroit, Denver, Silicon Valley, and Alexandria, VA. These offices strengthen domestic commerce by providing resources, information, programs, and services to benefit and encourage growth of our innovation-based economy. The USPTO regional offices provide IP related resources to further entrepreneurship and innovation throughout the U.S.

The Patent Pro Bono Program matches qualified, financially under-resourced inventors and small businesses with volunteer patent practitioners for patent application preparation and prosecution services. The USPTO Law School Clinic Certification Program provides pro bono patent and trademark legal services to individuals and small businesses throughout the country. The USPTO also provides customer service to patent applicants through the Pro Se Assistance Center and the Office of Innovation Development, which assists inventors who file patent applications without a registered patent attorney.

The Patent and Trademark Resource Centers Program administers a nationwide network of public, state, and academic libraries, designated as Patent and Trademark Resource Centers, to disseminate patent and trademark information and support the wide range of intellectual property needs of the public.

MBDA Policy Papers to Identify Challenges/Barriers and Offer Solutions

In FY 2020, MBDA implemented its Office of Policy Analysis and Development to support its policy and research on minority-owned businesses. MBDA also commissioned research and white papers to identify challenges/barriers and offer solutions. Three research and policy papers were developed:

- *The Contribution of Minority Business Enterprises to the U.S. Economy*
- *The Impact of Emerging Technologies on the Structure of the U.S. Economy and Implications for Minority Business Enterprises*

Management Analysis of Strategic Goal 2 – Enhance Job Creation

- *Keys to Unlocking Business Development in Indian Country*. Additionally, two stand-alone reports were developed: *Indigenous Business Development and Policy Efforts: A Comparison of Policies Across the United States and Organization for Economic Co-Operation and Development (OECD) Countries*, and a *State of Minority Business Report*.

Access to Capital Research

The following reports were commissioned by the National Association of Investment Companies (NAIC) as part of a grant from MBDA to explore today's marketplace by examining the demand for capital among diverse entrepreneurs and sharing best practices for growth equity investing with diverse businesses: “*Access to Capital: Accelerating the Growth of Diverse and Women-Owned Businesses, The Trillion Dollar Opportunity*” and “*The State of Growth Equity for Minority Businesses: A river of Capital flowing past our communities*”. MBDA will also develop a report focused on minority business resiliency due to the impacts of COVID-19.

Performance Indicator Results and Targets

SO 2.3 – Strengthen Domestic Commerce and the U.S. Industrial Base Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
BIS - Number of industrial base surveys, data, and analysis distributed to federal agencies and critical sector	Target	2	2	2	2	2	Exceeded	2	2
	Actual	2	3	3	3	7			
NOAA - Fish Stock Sustainability Index (FSSI) NOTE: FY 2016-18 are FSSI 2.0. FY 2019 and beyond are FSSI 3.0.	Target	758	754	763	760.5	777	Exceeded	791	802.5
	Actual	754	756.6	757.5	758.5	788.5			
NTIS - Total investment by the Federal Government on public-private projects (or	Target	N/A	N/A	\$2,900,000	\$3,000,000	\$10,000,000	Exceeded	\$20,000,000	\$30,000,000

Management Analysis of Strategic Goal 2 – Enhance Job Creation

SO 2.3 – Strengthen Domestic Commerce and the U.S. Industrial Base Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
Government-Industry projects) entered into under the Joint Venture Authority	Actual	N/A	N/A	\$9,200,000	\$34,800,000	\$20,844,247			
NOAA - Percent of Stocks For Which Catch is below the Specified Annual Catch Limit	Target	81.0%	82.0%	83.0%	84.0%	89.7%	Not Met	89.4%	90.3%
	Actual	90.7%	91.9%	90.2%	88.3%	89.3%			
NTIA - Impact of NTIA providing broadband support	Target: K-12 Community Anchor Institutions (CAIs)	<i>New performance indicator. Baseline values established and targets set.</i>			7,000	7,700	Met	7,700	7,700
	Target: K-12 Students				3,150,000	3,400,000		3,400,000	3,500,000
	Target: Hospitals				1,250	1,350		1,350	1,500
	Actual: K-12 Community Anchor Institutions (CAIs)	N/A	N/A	6,300	7,000	7,000			
	Actual: K-12 Students	N/A	N/A	2,875,000	3,200,000	3,200,000			
	Actual: Hospitals	N/A	N/A	1,150	1,500	1,500			

Management Analysis of Strategic Goal 2 – Enhance Job Creation

SO 2.3 – Strengthen Domestic Commerce and the U.S. Industrial Base Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
EDA - Number economic development grants made to communities and regions to help build the capacity to support the innovation-related activities and needs of businesses	Target		N/A	311	211	254	Met	225	TBD
	Actual		345	234	282	250			
EDA - Dollar amount of economic development grants made to communities and regions to help build the capacity to support the innovation-related activities and needs of businesses	Target		N/A	\$137.80	\$110.60	\$160.40	Exceeded	\$149.70	TBD
	Actual		\$153.20	\$122.90	\$178.20	\$166.34			
MBDA - Policy papers related to minority businesses (new)	Target	N/A	N/A	N/A	N/A	N/A	Exceeded	3	3
	Actual	N/A	N/A	N/A	3	3			

Notes: EDA’s targets are calculated as the best estimate of future performance, based on prior performance and the most up-to-date data available. For a variety of reasons, including dynamic local economic circumstances, programmatic initiatives, and ongoing target calibration, the calculated targets are subject to fluctuate from one year to the next. The indicator above was developed in accordance with the proposed 2018-22 Strategic Plan and measured for the first time in 2018. The target for 2018 was determined based on actual results from 2017.

For more information, please see the [Strategic Objective 2.3 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

Strategies to strengthen the U.S. industrial base are effective and supply chain research is increasing national security.

In collaboration with the U.S. Regional Fishery Management Councils and other key partners, NOAA is making progress toward increasing seafood

production and exports, reducing the seafood trade deficit, and ensuring U.S. fishermen are not disadvantaged by illegal or unregulated fishing and unfair trade practices.

Actions to Advance Progress through FY 2022

BIS Actions

BIS will continue its partnership with the Department of Defense, the intelligence community, other interagency partners, and industry trade associations to highlight results of BIS activities on industry challenges including cybersecurity, supply chain, workforce issues, and foreign sourcing and dependencies. In addition, data analysis will continue to provide more capacity, better recommendations on license applications, and more focused public outreach.

ITA Actions

Continued modernization and improvements of public-facing digital services platforms. They include TradeStats Express, for digital delivery of state and national merchandise trade data, and Trade Policy Information Systems (TPIS) which dynamically generates summary trade data for national and UN merchandise. In early FY 2021, ITA released its Metropolitan Export series on a new Tableau-based platform that enhances user experience while also enabling faster backend updates and delivery of enhanced features in the future. ITA is modernizing its web and data content for several industry offices, including the National Travel & Tourism Office; the Office of Textiles, Consumer Goods, & Apparel; and Office of Transportation and Machinery. These enhancements are scheduled to be completed and unveiled to the public in FY 2021.

NOAA Actions

- Develop, implement, monitor, and adjust (if required) Annual Catch Limits (ACLs) and Accountability Measures (AMs).
- Negotiate bilateral arrangements and trade agreements with other countries to promote management and trade of global fisheries consistent with the policies required of U.S. fishermen.
- Conduct / expand fishery-independent surveys; develop advanced sampling technologies to enhance data collection for stock assessments; improve timely delivery of fish stock assessments to fishery managers; and further implement next-generation stock assessment framework.
- Provide safe and high-quality monitoring in 65 fisheries nationwide, with a goal of maintaining high-priority observer programs, expanding observer coverage in existing fisheries, and implementing new observer programs for fisheries identified with monitoring needs related to bycatch and protected species interactions by supporting approximately 73,000 observed sea days.
- Expand implementation of an integrated Bioeconomic Length-structured Angler Simulation Tool, the Social Indicator Toolbox, and FishSET—a spatial economics toolbox; assess the economic performance of fisheries; and predict the cost/benefits of stock rebuilding programs.
- Improve population dynamics/assessment/management model development and data analysis tools to support fisheries science programs and improve data dissemination and sharing of integrated data and analyses both internally and externally.
- Perform fishery-independent assessments of reef fish abundance and life history characteristics of economically and ecologically important reef fish species in shelf and upper slope waters from Cape Lookout to Cape Canaveral.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

- Conduct groundfish / plankton surveys in state and Federal waters, inshore and offshore longline surveys, and reef fish surveys in offshore waters.
- Reduce mortality of and harm to Species in the Spotlight.

NIST Actions

NIST will continue to analyze algorithms provided as part of NIST's Post Quantum Encryption Standards project. NIST presented on round 2 of the competition in Q3 of FY 2020 and Round 3 is scheduled to be in FY 2021.

NTIS Actions

NTIS will continue to work alongside the Department of Defense Joint AI Center (JAIC) to provide data driven services with its joint venture partners to assist the JAIC in scaling their capabilities.

NTIS will continue to support FDA's Center for Drug Evaluation and Research (CDER) to improve bioresearch monitoring compliance using data analytics and automation to enhance effectiveness of drug site assessments. NTIS will continue to partner with the VA OIG to develop a predictive data analytics and modeling program to predict potential fraud and address systemic issues across the VA ecosystem.

NTIS will continue to grow its Data Accessibility Services by supporting the Social Security Administration and Department of Education to provide timely, individually customized information to blind and visually impaired citizens via braille, audio CDs, text-readable versions, and large-print formats.

STRATEGIC OBJECTIVE 2.4 – Increase U.S. Exports

Contributing Bureaus: OS, BEA, Census, EDA, ITA, MBDA, NIST

Key Strategies:

- Reduce the costs and complexities of exporting to enable more U.S. companies to become successful exporters
- Connect more U.S. companies—especially small and medium-sized businesses—to foreign markets and prescreened buyers
- Advocate for the selection of U.S. firms in foreign government procurements through Commerce-led interagency efforts
- Address government actions and policies that impede exports of U.S. goods and services
- Provide economic development grants to communities and regions through support of bottom-up, export-related strategies and needs of businesses

Executive Summary of Progress

Focus Area for Improvement

In FY 2020, ITA responded to nearly 145,000 inquiries from 31,249 U.S. exporters, 92% of which were small and medium-sized enterprises. On average, U.S. exporter clients reported an increase of \$2.3 million, or 10%, in annual revenue due to ITA's assistance. ITA facilitated \$87.6 billion in U.S. exports supporting over 457,000 jobs in the U.S. through export promotion, commercial diplomacy/advocacy, and the reduction, removal, and prevention of trade barriers around the world.

Addressing Foreign Government Policies and Actions Impeding U.S. Exports

In FY 2020, ITA reduced, removed, or prevented 176 trade barriers and exceeded its annual target of 130. The annual economic impact of these accomplishments is estimated at \$25 billion in U.S. exports.

Advocacy Deals

In FY 2020, ITA facilitated 102 signed foreign procurement contracts with an estimated U.S. export content of \$25 billion. This represents a steady pursuit of global procurement opportunities for U.S. companies despite the global economic downturn because of COVID-19.

Indo-Pacific Strategy

The Department of Commerce remains at the forefront of the U.S. effort to build business ties in the Indo-Pacific region. Since the first Indo-Pacific Business Forum in July 2018, ITA assisted over 13,000 U.S. companies in the region facilitating over \$73 billion in U.S. exports and supporting over 380,000

Management Analysis of Strategic Goal 2 – Enhance Job Creation

American jobs. During the same period, ITA facilitated over \$37 billion in foreign direct investment from the Indo-Pacific into the U. S. nearly 50,000 American jobs and assisting over 4,000 Indo-Pacific clients considering investment in the U.S.

In FY 2021, ITA plans to lead the first Asia EDGE energy trade mission to Indonesia, Vietnam, and Thailand. ITA also plans to organize the Asia EDGE Summit, an inaugural meeting of the Energy Industry Working Group Network under the U.S. government's Indo-Pacific energy initiative Asia Enhancing Development and Growth through Energy (**Asia EDGE**). These bilateral working groups address regional and local market constraints and facilitate U.S. energy-related exports, by leveraging ITA trade promotion services and other strategic U.S. government tools and programs.

APEC Priority Projects

ITA leads a proactive, multilateral conversation aimed at promoting the adoption of trade-enabling emerging technology approaches in the Asia-Pacific region. The first, helps APEC examine the policy landscape for telehealth, document emergency policy changes during the crisis to enable telehealth solutions, and facilitate a discussion on how to further integrate telehealth to improve healthcare delivery in the future. Secondly, ITA leads a 5-year cybersecurity policy workstream in APEC, the objective of which is to promote a risk-based approach to cybersecurity within APEC and to demonstrate U.S. leadership in this space.

United States-Mexico-Canada Agreement (USMCA)

ITA participated in ten outreach events educating stakeholders on how to comply with the USMCA. Subject-matter experts participated in 15 USTR-led USMCA trilateral and bilateral committee meetings focused on Customs and Trade Facilitation, Small and Medium-Sized Enterprises, and Rules of Origin. ITA also engaged with the business community to discuss its concerns about Mexico's and/or Canada's compliance with the USMCA. In FY 2020, ITA represented Commerce on the Interagency Committee on Trade in Automotive Goods and participated in the review process of the major automakers' Alternative Staging Plans to phase in compliance with the agreement's automotive rules of origin.

U.S.-India CEO Forum

Commerce's Secretary Co-Chaired a U.S. India CEO Forum call with India's Minister of Commerce and Industry to discuss bilateral strategic collaboration opportunities across several sectors in a post-pandemic world. The CEO's sent recommendations to the two governments which are undergoing review.

Prosper Africa

Prosper Africa interagency coordination and support continued with a PAC-DBIA meeting held to deliberate and adopt recommendations on the USG's implementation. The U.S. and Kenya launched trade negotiations toward a Free Trade Agreement.

As a result of the U.S.-Nigeria Commercial Investment Dialogue (CID), ITA and the Nigerian Investment Promotion Council (Nigeria's lead for the CID) successfully resolved or are engaged in several commercial diplomacy cases on behalf of U.S. companies. The two agencies have also created a "sector lab" as a platform to routinely address key commercial diplomacy issues.

Discover Global Market (DGM)

DGM is the largest annual export promotion event held in the U.S. The hybrid in-person and virtual format featured the Commerce Secretary, Governor of Indiana, and Commerce Assistant Secretary as keynote speakers. The digital event drew 500 participants from over 40 countries including 290 U.S. companies and EDOs from 39 states / territories. It included 85 foreign buyers, 6 foreign ministries, and 49 foreign investors.

Deal Teams

In FY 2019, ITA led interagency deal teams that included the State Department, Overseas Private Investment Corporation (OPIC), U.S. Trade and Development Agency (USTDA), U.S. EXIM Bank, and other federal and state partners. These deal teams provided U.S. exporters with comprehensive U.S. Government aid and secure U.S. export deals. In the Western Hemisphere, the work of the teams resulted in deals for American companies' worth over \$2 billion dollars. In Brazil alone, U.S. companies won over \$300 million in energy and construction projects.

In FY 2020, ITA led interagency deal teams at embassies across the globe. Deal teams provide U.S. exporters with comprehensive U.S. government support to compete and win major deals in international markets. In February 2020, ITA formalized the global deal team structure by establishing the DC Central Deal Team with the Department of State. This high-level, interagency deal team includes engagement and support from over a dozen U.S. trade and economic agencies, including the U.S. International Development Finance Corporation (DFC), the U.S. Trade and Development Agency (USTDA), and the Export-Import Bank of the U.S. DC Central directed the establishment of additional embassy-based deal teams, which now function at more than 150 overseas posts, collectively tracking nearly 1,200 deals worth about \$1 trillion dollars. Since February 2020, deal team collaboration resulted in 66 wins.

Market Development Cooperator Program (MDCP)

In 2020, ITA announced 10 new partnerships designed to create or sustain U.S. jobs by increasing or maintaining the export of American goods. The 10 awardees under the Department of Commerce's 2020 Market Development Cooperator Program (MDCP) will leverage more than \$2.7 million in financial and technical assistance from ITA to reduce barriers to U.S. products in foreign markets. MDCP projects generate \$359 in American exports for every \$1 of MDCP awards made, and, in an average year, MDCP projects create or sustain more than 17,000 American jobs.

Miscellaneous Tariff Bills (MTBs)

ITA reviewed and analyzed over 3,500 Miscellaneous Tariff Bill petitions from U.S. industry. ITA's analysis informed the International Trade Commission's MTB report to Congress. The Department of Commerce is tasked with deciding for each petition as to whether domestic production of a product subject to a petition exists in the U.S. and, if so, whether a domestic producer objects to the petition. The Secretary delivered Commerce's findings in a report to the U.S. ITC, the House Ways and Means Committee, and Senate Finance Committee on April 10, 2020.

Export Trading Company Act (ETCA)

The Office of Trade Policy & Analysis (TP&A)/Office of Trade and Economic Analysis (OTEA), in collaboration with OGC, administers the ETCA. ETCA allows companies to form Export Trading Companies for purposes of jointly exporting their products and services. There are over 2,000 participating ETCA companies with reported export sales that support over 100,000 jobs. About seven people in TP&A and 1-2 attorneys in OGC administer the ETCA program. The programs members reported exports of \$20.3 billion in FY 2020.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

Online Tools for Exporters

During FY 2020, ITA unveiled online tools for U.S. Exporters, including the launch of ITA’s first-ever unified digital presence in adherence with the 21st Century Integrated Digital Experience Act. The tools and focus support the President’s Management Agenda Goals of improving customer service, IT modernization, and replacing low value with high value work. Further, ITA updated its FTA Tariff Tool to include tariff commitments and rules of origin for USMCA. Continued educational efforts for this tool and the Market Diversification Tool, released last year, can help companies identify potential new export markets using basic information about their current trade patterns.

In FY 2020 the Census Bureau developed an interactive application called the Global Market Finder (GMF). The platform helps companies identify the largest overseas export markets for their product. The tool presents the most up-to-date international trade export statistics in an easily consumable format to pinpoint pockets of opportunity in a competitive marketplace. The GMF utilizes the most current, granular, and modern source data to provide time series information with customization and visualizations to help stakeholders make informed decisions. This tool complements ITA’s Market Diversification Tool, which combines trade data with tariff, macroeconomic, and logistics information to rank potential export markets to consider.

BEA New Expanded and Detailed Data on Services Trade

BEA culminated a multiyear initiative in FY 2020 to improve and expand the bureau’s trade in services statistics to include more detail on some of the most dynamic service areas including R&D, IP, and financial, medical, computer, and information services. In addition to expanded industry detail, BEA expanded the geographic coverage of its quarterly trade in services statistics from 38 countries to 90. These expanded new data provide further insights into American competitiveness, trade promotion, and market development.

Census and New Products on Exports

Starting in July 2020, the Census Bureau released the new “Preliminary: U.S. Exports to China of Selected Schedule B Commodities for Monitoring the U.S.-China Economic Trade Agreement” report. This report provides monthly export data for selected Schedule B commodities under the U.S.-China Economic and Trade Agreement (US-China ETA 2020). The report provides seasonally adjusted statistics for the reference month and is disseminated around the 25th day of every month. To access the first report, visit the release page.

In response to the COVID-19 crisis, the Census Bureau provided detailed export data of Personal Protective Equipment (PPE) from the Electronic Export Information (EEI). ITA used this data to support the Secretary of Commerce’s responsibilities in promoting national defense regarding the prioritization and allocation of scarce or threatened medical supplies for domestic use through monitoring both the domestic and foreign supply chain.

EDA Economic Development Grants Support Export-related Activities and Business needs

In FY 2020, EDA invested over \$134.8 million in 68 economic development projects (including infrastructure, technical assistance, and planning). This investment helped communities and regions build their capacity for economic development by supporting export-related activities and business needs.

MBDA Promotes U.S. Exports through its Export Centers Network and Strategic and Cooperative Partnerships

In FY 2020 the MBDA Export Centers generated \$3.37 billion in awarded transactions and 3,057 jobs. MBDA also helped minority owned businesses secure

non-export transactions totaling \$3.8 billion in contracts and \$765 million in financing and 24,260 jobs.

MBDA Promotes U.S. Exports through its Export Centers Network and Strategic Cooperative Partnerships

Efforts that supported this success include:

- Continuation of funding of the four MBDA Export Centers located in Chicago, Miami, San Antonio, and Sacramento to further support U.S. export transactions and to help minority business enterprises (MBEs) expand their global footprint.
- Active collaboration with 20+ Trade Promotion Coordinating Committee Agencies and a strong contributor to the International Trade Administration's U.S. Export Assistance Centers and HQ initiatives, to assist MBEs with exports and leveraging synergies.
- Per the Prosper Africa Initiative, MBDA took a leadership role in executing the work needed to increase trade between the U.S. and Africa.
- The agency was a key contributor to the success of the Inaugural Women's Global Trade Empowerment Forum helping women's economic empowerment and providing women business leaders the tools, skills, and connections to utilize new export opportunities seizing upon the implementation of the U.S. Mexico Canada Agreement (USMCA).
- MBDA provided 5 Business Center Counselors for the formation of the USMCA pilot program. The Counselors work included promoting exports, providing technical assistance, and expanding reach within SME's and MBEs across the U.S. for successful exporting to Mexico and Canada.
- Collaboration with ITA to conduct a Senegal Business Development mission in December 2019. As part of the agenda, the delegation had business-to-business (B2B) linkages daily throughout the seven-day mission and high-level engagements with diplomats in-country.
- Expanded reach to recruit new clients and add-on exporting tools through partnerships such as Export Import Bank, the Food Export Association, the North American Small Business International Trade Educators (NASBITE), and the U.S. Foreign-Trade Zones Board.
- Held a virtual Global Markets Panel at the 2020 National Minority Enterprise Development Week Conference on September 15, 2020. More than 5,400 participants joined the conference.
- Partnered with ITA to promote the StopFAKES.gov Roadshow designed to deliver critically important information about IP to audiences such as MBEs, start-ups, entrepreneurs, small and medium-sized businesses, independent creators, and inventors. Through this partnership, ITA provided Intellectual Property training to 107 minority-owned businesses in FY 2020 through its STOPfakes program.

NIST Promotes U.S. Exports by Supporting U.S. Manufacturers

NIST's Manufacturing Extension Partnership (MEP) provides the federal government funding for the [MEP National Network™](#), comprised of 51 MEP Centers located in all 50 states and Puerto Rico, and its over 1,400 trusted advisors and experts at approximately 375 MEP service locations. [ExporTech™](#) is a national export assistance program helping companies enter or expand in global markets. Jointly offered by the NIST Manufacturing Extension Partnership and the U.S. Commercial Service of the U.S. Department of Commerce, ExporTech™ applies a structured export strategy development process that assists companies to accelerate their growth. It is the only national program where each company develops a written export plan, that is vetted by a panel of experts upon completion. ExporTech™ efficiently connects companies with a wide range of world-class experts to help navigate the export sales process. The result is that companies rapidly expand global sales and save countless hours of effort. Since the program's inception, 1,183 companies have participated, and the program has generated a total of \$600 million of new sales to date.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

In FY 2020 the Census Bureau provided data to companies looking to expand abroad or into new markets. Working closely with ITA, SBA, and the Export-Import Bank, partnership webinars were conducted to share information about government resources available, from financing to finding new buyers.

Performance Indicator Results and Targets

SO 2.4 – Increase U.S. Exports Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
<u>ITA - Number of U.S exporters assisted</u>	Target	23,000	28,000	24,000	24,000	30,000	Exceeded	35,000	35,000
	Actual	28,692	30,110	33,086	29,557	31,249			
<u>ITA - Percentage of U.S. exporter clients that achieved their export objectives</u>	Target	73%	75%	74%	74%	78%	Exceeded	78%	78%
	Actual	78%	78%	81%	78%	80%			
ITA - Number of ITA-facilitated foreign government actions benefiting U.S. companies and industry	Target					450	Exceeded	490	490
	Actual					575			
ITA - Dollar Value of U.S. Exports and Inward Investment Facilitated (Billions) <i>*APG</i>	Target					118	Not Met	115	N/A*
	Actual					105			
ITA - Percentage of U.S. Exporter Clients That are Small and Medium-Sized Enterprises <i>*APG</i>	Target					75%	Exceeded	75%	N/A*
	Actual					92%			
	Target	300	330	240	240	DISC	DISC	DISC	DISC

Management Analysis of Strategic Goal 2 – Enhance Job Creation

SO 2.4 – Increase U.S. Exports Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
ITA - Number of Commercial Diplomacy/Advocacy Written Impact Narratives (WINS)	Actual	472	459	479	470	DISC			
EDA - Number of economic development grants made to communities and regions to help build the capacity to support the export-related activities and needs of businesses	Target		N/A	68	84	51	Exceeded	61	TBD
	Actual		75	93	57	68			
EDA - Dollar amount of economic development grants made to communities and regions to help build the capacity to support the export-related activities and needs of businesses	Target		N/A	\$75.50	\$96.20	\$68.20	Exceeded	\$121.32	TBD
	Actual		\$83.80	\$106.80	\$75.70	\$134.80			

*This metric directly contributes to ITA’s two-year APG for FY 2020 and FY 2021.

Notes: EDA’s targets are calculated as the best estimate of future performance, based on prior performance and the most up-to-date data available. For a variety of reasons, including dynamic local economic circumstances, programmatic initiatives, and ongoing target calibration, the calculated targets are subject to fluctuate from one year to the next. The indicator above was developed in accordance with the proposed 2018-22 Strategic Plan and measured for the first time in 2018. The target for 2018 was determined based on actual results from 2017.

For more information, please see the [Strategic Objective 2.4 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

ITA’s research, evaluation, and evidence-gathering support the following:

- U.S. exports of goods and services are an important part of the U.S. economy, accounting for 12 percent of our nation’s GDP.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

- U.S. exporting companies are more productive and pay higher wages than non-exporting companies.⁴

ITA supports jobs for American workers and strengthens U.S. economic and national security by facilitating U.S. exports and inward investment. In FY 2021, ITA will increase the dollar value of U.S. exporter clients and inward investments facilitated by 10 % annually, while ensuring over 75% are small and medium enterprises. The Agency Priority Goal (APG) is aligned with the President’s FY 2021 Budget as well as the Secretary’s priorities articulated in the Commerce 2018-2022 Strategic Plan. Due to the COVID-19 pandemic, ITA did not achieve its planned 10% annual increase in the dollar value of U.S. exports/inward investment facilitated. However, ITA exceeded its 75% target with 92% of U.S. exporter clients assisted being SME’s. ITA achieved \$105 billion in economic impact, representing 89% of its target goal of a 10% annual increase in the dollar value of U.S. exports/inward investment facilitated.

Actions to Advance Progress through FY 2022

ITA will support U.S. exports, especially from small and medium-sized enterprises (SMEs), and will play a critical role in revitalizing the U.S. economy as the nation recovers from the COVID-19 pandemic. ITA’s global network of industry, trade, and investment experts, located in 118 cities in 76 countries and in 106 locations across the U.S., have ramped up virtual services and is well positioned to help U.S. entities increase exports and attract investment in an increasingly challenging environment. Through the execution of SO strategies and IT improvements, ITA anticipates assisting more U.S. SME exporters.

ITA will actively lead strategic business-driven initiatives to promote U.S. exports, especially from small and medium-sized U.S. companies (SMEs), and level the playing field for American-made products and services in foreign markets. Examples of key ITA planned initiatives include:

- Access Asia
- Prosper Africa
- USMCA Implementation
- Discover Global Markets 2020
- Deal Teams
- Brexit/U.S.-UK trade and investment discussions
- U.S.-India Commercial Dialogue
- U.S.- South Korea Commercial Dialogue
- U.S.-Japan Commercial Dialogue
- U.S.-Argentina Commercial Dialogue
- U.S.-Nigeria Commercial Dialogue
- U.S.- France Commercial Dialogue
- U.S.- Germany Commercial Dialogue
- U.S.- Czech Republic Commercial Dialogue

⁴ Riker, David (2015): “Export-Intensive Industries Pay More on Average: An Update.” Office of Economics, U.S. International Trade Commission.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

- U.S.- Brazil Commercial Dialogue
- U.S.- Sweden Commercial Dialogue
- U.S.- Norway Commercial Dialogue

Modernization of ITA’s IT systems will improve the efficiency and effectiveness of customer assistance. In addition, ITA will improve its operational tools (e.g., the Overseas and Domestic Resource Allocation Models) and develop new tools to meet organizational challenges, effectively manage costs, and better align organizational capabilities to export strategy.

For FY 2021, ITA will continue its evidence-based approach to evaluate the relative impact of exporters assisted by ITA and relative profile of ITA clients. These evidence activities are to efficiently support U.S. exports—especially from SMEs—and play a critical role in strengthening the U.S. economy.

In FY 2021, MBDA will continue its evidence-based approach to commission and conduct research and author white papers that identify challenges/barriers and offer solutions for minority business enterprises. MBDA will lay the foundation for data related to minority business exporting and manufacturing. MBDA will generate updated fact sheets on minority business employer and non-employer firms. MBDA will also develop three reports focused on minority business resiliency due to the impacts of COVID, Opportunity Zones and regulatory reform in Indian country, and smart cities analysis to support minority business growth.

Management Analysis of Strategic Goal 2 – Enhance Job Creation

STRATEGIC OBJECTIVE 2.5 – Increase Inward Investment into the United States

Contributing Bureaus: OS, BEA, ITA, MBDA, EDA

Key Strategies:

- Advocate globally for the U.S. as the premier destination for investment
- Provide tailored assistance to investors and states and localities to facilitate increased investment in U.S. communities
- Lead coordination of investment promotion across the U.S. Government and key partners

Executive Summary of Progress

On Track

Facilitate Job-Creating Investment in the United States

In FY 2020, ITA achieved 115 investment promotion WINS totaling an estimated \$17.7 billion and supporting over 14,000 American jobs.

SelectUSA Investor Guide

In June 2020, ITA published its first-ever SelectUSA Investor Guide. This guide is an initial primer that covers topics most frequently posed to SelectUSA by international businesses interested in the U.S. Highly qualified professionals, who regularly advise foreign investors, drafted each chapter. The guide includes chapters on an Investment Checklist, Immigration, Business Structure, Taxes, Workforce, and FDI Restrictions. Each Investor Guide chapter was featured in a public facing webinar. This document continues to grow as more chapters are added on an annual basis.

SelectUSA Virtual Engagement

Due to COVID, in-person events such as the FY 2020 SelectUSA Investment Summit and SelectUSA Road Shows were postponed. ITA dedicated significant time and resources to pivot from in-person to virtual activities. 40 virtual events were delivered in FY 2020. This virtual activity surpassed expectations broadening SelectUSA's client reach with a cumulative total of over 5,500 participants. In FY 2020, virtual service delivery helped SelectUSA deliver services to clients in 53 U.S. states and territories and in a record-breaking 98 economies.

Deepened SelectUSA Engagement Across ITA

SelectUSA continued to increase ITA's international and domestic field capacity in investment promotion. In FY 2020 SelectUSA launched two training programs: the SelectUSA Foundations Certificate Program and the SelectUSA Practioners Certificate Cohort. The SelectUSA Foundations Certificate provides five one-hour modules of self-paced training where the learner can understand how to engage in SelectUSA. At the end of FY 2020, 67 staff

Management Analysis of Strategic Goal 2 – Enhance Job Creation

completed the SelectUSA Foundations program and hundreds more are expected to complete the training in FY 2021. The SelectUSA Practitioners Certificate program offers a more in-depth exploration of investment promotion best practices with an estimated 30 to 40 hours of virtual industry training. At the end of FY 2020, representatives from each region in ITA’s Global Markets earned 49 SelectUSA Practitioners Certificates.

ITA increased engagement with the U.S. field staff by broadening SelectUSA service delivery. The new domestic service delivery framework created an embedded, part-time SelectUSA Regional Champion role in each U.S. field region to facilitate and reinforce investment promotion service delivery.

SelectUSA and Reshoring Critical Supply Chain Industries

ITA leveraged its Investment Interagency Working Group (IIWG) contacts and internal research capacity to identify manufacturing supply chain critical industries into which FDI attraction could have an impact on multiple economic and national security goals. SelectUSA identified federal financing and other federal programs that are available to companies seeking to reshore operations to the U.S. These programs were shared with U.S. EDOs as tools to attract supply chain critical investment projects.

MBDA Collaborated with SelectUSA to Promote FDI in the U.S.

MBDA helped to promote a SelectUSA webinar on the L-1A and L-1B Intracompany Transferee classifications. The webinar was hosted by SelectUSA and USCIS to provide a brief overview of the eligibility requirements and applications

EDA Helped Communities and Regions to be Better Positioned for FDI

In FY 2020, EDA invested over \$53.3 million in 29 economic development projects (including infrastructure, technical assistance, and planning) to help communities and regions build the capacity to attract foreign direct investment.

Performance Indicator Results and Targets

SO 2.5 – Increase Inward Investment into the United States		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
<u>ITA - Number of investment clients assisted</u>	Target	1,760	2,400	3,500	3,040	6,500	Exceeded	6,500	6,500
	Actual	6,072	6,671	6,850	6,471	6,921			
<u>EDA - Number of economic development grants made to</u>	Target		N/A	31	35	35	Not Met	26	TBD

Management Analysis of Strategic Goal 2 – Enhance Job Creation

SO 2.5 – Increase Inward Investment into the United States		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
<u>communities and regions to help build the capacity to attract FDI</u>	Actual		34	39	39	29			
<u>EDA - Dollar amount of economic development grants made to communities and regions to help build the capacity to attract FDI</u>	Target		N/A	\$34.50	\$43.60	\$63.20	Not Met	\$47.97	TBD
	Actual		\$38.40	\$48.40	\$70.20	\$53.30			

Notes: EDA’s targets are calculated as the best estimate of future performance, based on prior performance and the most up-to-date data available. For a variety of reasons, including dynamic local economic circumstances, programmatic initiatives, and ongoing target calibration, the calculated targets are subject to fluctuate from one year to the next. The indicator above was developed in accordance with the proposed 2018-22 Strategic Plan and measured for the first time in 2018. The target for 2018 was determined based on actual results from 2017.

For more information, please see the [Strategic Objective 2.5 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

SelectUSA’s work in ITA will continue to attract and retain job-creating business investment in the U.S. Virtual service delivery and proactive remote outreach are essential to promote the U.S. as a premiere investment destination. Leveraging client and staff networks to conduct focus groups and solicit feedback is important to improve SelectUSA service delivery. Another focus will be developing new data resources and tools for businesses looking to invest in the U.S. and EDOs seeking to attract investment into their localities. By continuing to scale SelectUSA Service delivery throughout ITA’s domestic and international footprint, SelectUSA will expand its reach and attract more high-quality investment to the U.S.

ITA supports jobs for American workers and strengthens U.S. economic and national security by facilitating U.S. exports and inward investment. In FY 2021, ITA will increase the dollar value of U.S. exporter clients and inward investments facilitated by 10% annually, while ensuring over 75% are small and medium enterprises. Due to the COVID-19 pandemic, ITA did not achieve its planned 10% annual increase in the dollar value of U.S. exports/inward investment facilitated. However, ITA exceeded its 75% target with 92% of U.S. exporter clients assisted being SME’s. ITA achieved \$105 billion in economic impact, representing 89% of its target goal of a 10% annual increase in the dollar value of U.S. exports/inward investment facilitated.

Action to Advance Progress through FY 2022

- Host the 2021 SelectUSA Investment Summit, with increased emphasis on the new SelectUSA Tech program, deeper engagement with the EDO community, and enhanced opportunities to enable investors to achieve their investment goals.
- Host a robust series of virtual engagements such as virtual tours, webinars, and remote matchmaking.
- Advise and facilitate the Investment Advisory Council to provide suggestions on how to increase FDI and U.S. business expansion.
- Modernize SelectUSA’s website and develop self-service content like interactive data visualizations, FDI blogs, and industry-specific deep dives.
- Implement and facilitate FDI training and certification for in-market staff.
- Lead the Interagency Investment Working Group and examine meaningful policy interventions designed to improve the U.S. investment climate.
- Create user-friendly data and research products for in-market staff to share directly with clients.
- Renew focus on SelectUSA Tech programming via interagency participation in large-scale events, including CES and Web Summit.
- Establish strategic partnerships to expand the reach of SelectUSA services and resources.
- Continue evidence-based approach to assess SelectUSA’s impact and services roll-out to verify and quantify the impact of SelectUSA Services on potential investors’ likelihood to invest as well as the magnitude of scaling SelectUSA service delivery.
- Collaborate / coordinate with ITA to support / participate in SelectUSA to promote FDI in the U.S. by leveraging the Agency’s diaspora equities.
- Continue to present before the ITA network to promote partnership opportunities.
- Continue to engage in all ITA efforts that target FDI.
- Participate in upcoming SelectUSA Summit(s).

STRATEGIC OBJECTIVE 3.1 – Enforce the Nation’s Trade Laws and Security Laws

Contributing Bureaus: OS, BIS, ITA, NOAA, USPTO

Key Strategies:

- Enforce U.S. trade laws to defend American manufacturers, workers, and farmers from unfair trade
- Monitor and ensure compliance with trade agreements
- Strengthen U.S. economic and national security by facilitating U.S. exports and inward investment
- Protect sensitive American technology and uphold sanctions through a strong export control system
- Assess foreign direct investment impacts on national security
- Improve international intellectual property protections and enforcement

Executive Summary of Progress

Noteworthy Progress

Antidumping (AD)/Countervailing Duty (CVD) Investigations

In FY 2020, domestic manufacturers filed 114 new AD/CVD petitions and ITA initiated 104 new AD/CVD investigations. Both were all-time highs and represent increases of 215 and 179 percent, respectively. Also, in FY 2020, ITA initiated seven anti-circumvention inquiries and issued 25 preliminary and/or final determinations in anti-circumvention inquiries. ITA anticipates a continued upward trend in new AD/CVD investigations and anti-circumvention inquiries. In FY 2021 ITA expects domestic manufacturers to file a significant number of petitions and requests for relief from duty evasion schemes. At the conclusion of FY 2020, ITA enforced 540 AD/CVD orders against unfairly traded foreign goods. This represented an increase of over 70% since the end of FY 2015. Over the past five fiscal years, ITA averaged 70 new AD/CVD investigations initiated annually: an increase of almost 85% over the previous five-year period.

Trade Agreements Compliance

The Department has a statutory mandate to monitor and seek compliance with trade agreements. As such, ITA investigates non-tariff barriers that may indicate country non-compliance with multilateral, regional, and/or bilateral agreements. ITA encourages offending governments to seek voluntary compliance so enforcement actions are not necessary. This year was challenging for agreements compliance due to staff shortages, a global pandemic, and a resulting travel ban that prevented compliance teams from using traditional venues like the World Trade Organization (WTO) to pursue foreign government compliance. Despite these unprecedented challenges, ITA’s Trade Agreements Compliance Program successfully closed 30 compliance cases. This represents facilitation of an estimated \$2 billion worth of U.S. exports and protection of agreement benefits in key overseas markets.

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

In FY 2020, NOAA supported the USMCA's entry into force by assisting in the establishment of the Interagency Environment Committee on Monitoring and Enforcement and by establishing a detail position for a NOAA attaché in Mexico City, to support trade agreement compliance.

Trade Barriers Reduced, Removed, or Prevented

ITA also exceeded the trade barrier component of its FY 2020 APG. There were 176 foreign trade barriers reduced, removed, or prevented, which exceeded the FY 2020 target of 140.

Export Enforcement

BIS Export Enforcement reached its FY 2020 goal of 1,500 actions resulting in a deterrence or prevention of a violation and cases resulting in a criminal or administrative charge. This year the number of civil penalties was nearly double that of FY 2019.

NOAA worked to combat illegal, unreported, and unregulated (IUU) fishing and reduce export barriers. This was accomplished by working with the U.S. Trade Representative (USTR) to negotiate disciplines at the WTO to reduce harmful fisheries subsidies.

Committee on Foreign Investment in the United States

As of November 19, 2020, CFIUS reviewed 175 cases totaling over \$280 billion in 2020. The team engages with interagency CFIUS members on CFIUS cases and declarations as well as ensures the expanded CFIUS jurisdiction, pursuant to the Foreign Investment Risk Review Modernization Act of 2018 (FIRRMA), is addressed. DOC continues to meet obligations under FIRRMA, including successful implementation of new CFIUS regulations that became effective in February 2020. Efforts address ongoing national security concerns about incoming foreign investments in U.S. businesses. The team also analyzes key issues concerning foreign investment screening. DOC is implementing plans to build a new Sensitive Compartmented Information Facility to support ITA's expanded CFIUS team. DOC also made progress on determining FTE requirements to meet the expected increase in CFIUS cases under FIRRMA for ITA and BIS. This includes establishing a new Office of Investment Security to coordinate DOC's inputs as a statutory member of CFIUS.

Review and Remedy of Intellectual Property Rights Violations under Section 301

Commerce supports USTR's review of objectionable Chinese intellectual property rights, technology transfer practices, and identification of appropriate remedies. Through ITA, USPTO, NTIA, and other bureaus, Commerce contributed information and expertise to USTR's program, pursuant to Section 301 of the Trade Act of 1974. During trade remedies phases of investigations, ITA informed policy with expertise on tariff options, domestic economic impact, and stakeholder concerns. ITA analyzed and researched over 4,200 tariff subheadings for inclusion in the final Section product lists subject to retaliatory tariffs. ITA participated in a landmark trade public hearing that lasted over seven days with 325 stakeholders and 55 panels.

EU Airbus Subsidy Trade Action under Section 301

The U.S. placed retaliatory tariffs on over 400 products worth \$7.5 billion in response to the EU's subsidies on large civil aircraft. ITA worked with USTR to develop a list of products for inclusion in a retaliation list and participated in the TPSC's public hearing on proposed retaliatory tariffs. While the tax was not repealed, France agreed to temporarily suspend collection of the tax and is working with the U.S. to reach an agreement on addressing challenges to the international tax system at the OECD.

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

France Digital Services Tax Action under Section 301

USTR recently concluded an investigation into France’s digital services tax to determine whether it discriminates against U.S. based digital companies including Google, Facebook, and Amazon. ITA is working with USTR to develop a list of products for inclusion in a retaliation list.

Advances in Intellectual Property Rights (USPTO)

Discussions on a Memorandum of Understanding (MOU) designed to facilitate cooperation in the field of IP with India’s nodal IP agency and the Department for Promotion of Industry and Internal Trade (DPIIT) are complete. Cooperative agreements designed to improve IP systems and enhance enforcement of rights were concluded with the IP offices of Saudi Arabia, Brazil, Mexico, and Bhutan. In addition, negotiations on similar agreements continue with the IP offices of Israel, Laos, Moldova, the Philippines, Taiwan, Thailand, the African Regional Intellectual Property Organization, and the International Criminal Police Organization (INTERPOL). Work plans with the IP offices of the Philippines, Thailand, and Vietnam were agreed to by all parties.

The USPTO engages with other patent and trademark offices around the world through the IP5, TM5, and ID5. The IP5 is comprised of the USPTO, the China National Intellectual Property Administration, the European Patent Office, the Japan Patent Office, and the Korean Intellectual Property Office. The TM5 and ID5 are comprised of the USPTO, the China National Intellectual Property Administration, the European Union Intellectual Property Office, the Japan Patent Office, and the Korean Intellectual Property Office. The groups comprise the world’s five largest patent and trademark offices and account for about 90% of all patent applications, 80% of all design applications, and half of all trademark applications filed worldwide. The IP5, TM5, and ID5 promote cooperation and collaboration among their members, which exchange information on practices and programs that facilitate user-friendly and interoperable patent, trademark, and design systems. The USPTO supports the monitoring of compliance with trade agreements by participating in reviews of foreign country laws.

Tariff Exclusion Requests

The Department of Commerce concluded that imported steel and aluminum threaten to impair national security and acted. Presidential Proclamations 9704 and 9705 order Section 232 imposed tariffs on imports of steel and aluminum products. As of November 30, 2020, Commerce received 271,045 steel and aluminum tariff exclusion requests/resubmissions and 159,920 objections, rebuttals, and surrebuttals to exclusion requests. ITA and BIS staff review these submissions. Exclusion requests are granted for a period of one year after which another request must be submitted.

Other Investigations

ITA analyzed and researched the solar panel and large residential washer industry as part of Section 201 safeguard investigations. These trade actions are in the middle of four years of tariff remedies for solar cells and large residential washers. ITA continues to periodically review the effects that these remedy actions have on the solar panel and washer industries.

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

Performance Indicator Results and Targets

SO 3.1 – Enforce the Nation’s Trade Laws and Security Laws Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
<u>ITA - Trade barriers removed, reduced, or prevented (annual)</u> *APG	Target	75	80	126	136	130	Exceeded	130	130
	Actual	110	115	138	142	176			
<u>ITA - Number of trade agreement compliance cases resolved successfully</u>	Target	33	34	35	36	37	Not Met	38	38
	Actual	33	36	39	37	30			
<u>BIS - Number of actions resulting in a deterrence or prevention of a violation, and cases resulting in a criminal or administrative charge¹</u>	Target	1,000	1,200	1,200	1,200	1,500	Exceeded	1,600	1,600
	Actual	1,717	1,832	1,777	1,802	1,667			

¹ The number and type of preventive enforcement actions conducted, include: detentions of suspect exports, seizures of unauthorized shipments, industry outreach, issuance of warning letters, recommended denials of license applications based on enforcement concerns, and recommendations for parties to be added to the BIS Entity List and Unverified List. This measure includes Office of Antiboycott Compliance (OAC) Advice Line inquiries resulting in prevention or deterrence.

For more information, please see the [Strategic Objective 3.1 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

ITA’s ability to meet targets on foreign trade barriers and compliance with trade agreements is dependent on foreign government willingness to voluntarily end barriers or come into compliance. Due to the COVID-19 pandemic, coupled with an ITA travel ban and reduced staffing, foreign governments’ attention was distracted from compliance work. ITA compliance teams were unable to pursue critical activities and traditional engagements in venues throughout the world. ITA closed 30 agreements compliance cases which was more than the revised projection of 28.

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

Current agreements compliance targets for FY 2021 and FY 2022 were established when historic and reliable trend data was not available. ITA now has 6 years of actual agreements compliance case data and recommends that compliance targets be revised to update current estimates using actual trend data. The recommendation is to revise the FY 2021 target of 38 to 36 and make a similar adjustment to the FY 22 target if trend analysis supports this. ITA continued to execute Sections 232 and 301 in expected timeframes. Demand may divert resources from foreign trade barrier and compliance work. ITA and BIS have successfully adapted their processes for FIRRMA implementation, which occurred in February 2020.

Actions to Advance Progress through FY 2022

In 2021, ITA will enforce the AD/CVD trade laws, identify trade barriers, negotiate strong trade agreements, enhance the Automated Commercial Environment AD/CVD Portal, aid U.S. companies facing obstacles in export markets, and self-initiate AD/CVD circumvention inquiries. Also, ITA will:

- Achieve more visibility on the complete suite of ITA services to solve stakeholder trade problems. Establish a dedicated team to investigate and develop strategies that address circumvention and duty evasion of AD/CVD measures.
- Analyze foreign company pricing practices, foreign government subsidies, and U.S. industry and market conditions. This will allow for self-initiation of AD/CVD circumvention inquiries when indications point to the most appropriate and effective tool to address unfair pricing and subsidization.
- Increase ITA intake of trade barriers affecting U.S. industry.
- Identify and pursue alternative means in lieu of travel to engage with foreign governments on agreements compliance.
- Analyze product-specific exclusion requests for the Section 232 cases on steel and aluminum. Complete all remaining exclusions requests submitted in the regs.gov platform. Address all new requests submitted in the computer portal developed by ITA.
- Review public comments regarding the proposed tariff response to China's policies and practices.
- Continue to engage on FIRRMA discussions to assess projected future case load and associated resource need.
- Continue process of developing a retaliation list for digital services tax case.
- Continue analysis of solar panel and washer industry to determine effects of remedy.

For FY 2021, ITA will advance its evidence-based approach to assess efficacy of its efforts in trade enforcement and compliance. Evidence activities are designed to learn how the configuration and deployment of resources correlate to results in trade law enforcement and trade agreements compliance.

BIS's Export Enforcement will focus on national security objectives including countering weapons of mass destruction proliferation, countering support to terrorism, and preventing unauthorized military end-use of U.S. items. Additionally, Export Enforcement's Office of Antiboycott Compliance (OAC) prioritizes smart investigative research to identify likely violators of the antiboycott regulations more precisely. OAC will monitor emerging boycott activity and legislation to assess and prepare for any potential impact on the antiboycott program.

NOAA will represent U.S. environment equities, including marine litter and fisheries, among others, in trade agreement negotiations; continue to advocate for strong fisheries subsidies disciplines at the WTO; facilitate trade agreement implementation, including detailing a NOAA attaché to Mexico City to support environmental compliance under the USMCA; and continue to address seafood trade barriers as they arise.

STRATEGIC OBJECTIVE 3.2 – Enhance the Nation’s Cybersecurity

Contributing Bureaus: OS, NOAA, NTIA, NIST

Key Strategies:

- Provide industry and government with robust technical standards and cybersecurity best practices
- Drive cybersecurity policy in government and industry
- Convene stakeholders to develop and drive adoption of cybersecurity best practices

Executive Summary of Progress

Noteworthy Progress

NIST works to secure the digital environment through programs that bridge foundational and applied cybersecurity research and development. They address topics from encryption to identity management and work to ensure that emerging technologies like the Internet-of-Things (IoT) and artificial intelligence (AI) are secure. NIST develops publicly available standards, roadmaps, and technical guidance that enhance the Nation’s cybersecurity.

NTIA engages on a broad range of cybersecurity policy issues, by working with both government and private sector stakeholders to ensure that the equities of innovation, economic growth, and an open Internet are factored into cybersecurity policy decisions.

NOAA delivers products and services that support the commercial and safety interests of America regarding weather, environment, and the blue economy. NOAA protects its data, networks, equipment, IP, and personnel. It offers cybersecurity services to the Department and other federal agencies.

In FY 2020, the Department made significant progress in providing industry and government with robust technical standards and cybersecurity best practices. This shaped cybersecurity policy in government and industry and brought stakeholders together to adopt cybersecurity best practices.

Through the National Cybersecurity Center of Excellence (NCCoE), NIST worked with 294 industry partners to address cybersecurity challenges impacting multiple industry sectors including financial services, energy, public safety, and transportation reaching 12,100 companies and organizations.

[The NIST Privacy Framework: A Tool for Improving Privacy through Enterprise Risk Management](#), provides a useful set of privacy protection strategies for organizations that wish to improve their approach to using and protecting personal data. The Framework received wide adoption from financial, healthcare, information technology, and public sectors, as well as trade associations.

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

Selected accomplishments for FY 2020 include:

- NIST announced candidate algorithms that will advance to the third round of the NIST Post-Quantum Cryptography Standardization Process as part of NIST’s effort to solicit, evaluate, and standardize one or more quantum-resistant public-key cryptographic algorithms.
- NIST published SP 800-53 rev 5: [Security and Privacy Controls for Information Systems and Organizations](#) representing a multi-year effort to develop the next generation of security / privacy controls needed to support the Federal Government and each sector of critical infrastructure.
- NIST provided validation of cryptographic modules to Federal Information Processing Standard (FIPS) 140-3, [Security Requirements for Cryptographic Modules](#), to provide Federal agencies with a security metric to use in procuring equipment.
- NIST released Special Publication (SP) 800-207, [Zero Trust Architecture](#), which discusses cybersecurity paradigms that move defenses from static, network-based perimeters to focus on users, assets, and resources.
- NTIA completed public comment process on consumer privacy policy, which included examining intersections with national cybersecurity policies.
- NTIA convened a multi-stakeholder process on software component transparency to identify and promote a cross-sector vision and best practices for software supply chain security and a "software bill of materials" (SBOM).
- NOAA awarded a new integrated contract to Leidos for cybersecurity services at the NOAA Cyber Security Center, that hosts the Department’s Enterprise Security Operations Center providing Department wide oversight over cybersecurity incidents and operations.
- NOAA developed a cloud IT security strategy to maintain the confidentiality, integrity, and availability of NOAA data.
- Completed a gap analysis to establish an Internal Risk Mitigation Program to reduce opportunities for loss of NOAA intellectual property.
- Established a NOAA IT intern program and join the Partnership for Public Service cyber talent initiative to create a pipeline for cybersecurity talent.

Performance Indicator Results and Targets

SO 3.2 – Enhance the Nation’s Cybersecurity Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
NIST - Number of collaborators on NCCoE projects	Target	N/A	N/A	123	140	205	Exceeded	320	340
	Actual	N/A	N/A	176	190	294			
NIST - Number of resources derived from the Cybersecurity Framework	Target	N/A	N/A	70	80	150	Exceeded	175	185
	Actual	N/A	N/A	94	133	159			

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

SO 3.2 – Enhance the Nation’s Cybersecurity Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
NIST - Number of companies and organizations exposed to NCCoE produced cybersecurity guides and other products	Target	N/A	N/A	5,500	6,000	10,000	Exceeded	12,500	13,500
	Actual	N/A	N/A	7,710	8,895	12,100			

For more information, please see the [Strategic Objective 3.2 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

Engagement with Department leadership and coordination of efforts across the Department will help ensure that Commerce continues to deliver in a timely fashion the products and services needed to strengthen U.S. cybersecurity.

Actions to Advance Progress through FY 2022

NIST will prioritize its research and standards efforts in cybersecurity through internal research in partnership with the private sector, academia, standards development organizations, other government agencies, and national and international stakeholders. Planned NIST efforts include:

- Issue updated parameter specifications for the Post Quantum Cryptography Round 3 algorithms
- Host Lightweight Cryptography workshop (virtual)
- Publish final Special Publication 800-53 Revision 5
- Update Special Publication 800-161, Supply Chain Risk Management Practices for Federal Systems and Organizations
- Review and Update NIST Digital Signature Standard
- Publish Final Adversarial Machine Learning Taxonomy and Terminology
- Develop and issue Guidance on Preparing a Secure Evolution to 5G
- Issue updated National Institute for Cybersecurity Education (NICE) cybersecurity workforce framework
- Issue updated NICE strategic plan
- Develop / issue Cybersecurity Profile for the Responsible Use of Positioning, Navigation, and Timing Services as directed in Executive Order 13905
- Develop and issue a federal profile for securing the Internet of Things (IoT)

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

NTIA will:

- Initiate, facilitate, and/or conclude at least three stakeholder processes by the end of FY 2021.
- Build on work in software component transparency to focus on awareness and adoption, as well as overcome barriers to usage of software bills of materials (SBOM), to increase the usage of SBOMs across the ecosystem.
- Drive industry attention / action on continuing work to address the problems of botnets and Internet-of-Things security in the Internet ecosystem.
- Address concerns on security risk in information / communications telecommunications supply chain, including 5th Generation wireless networks.
- Lead the U.S. government's efforts to enhance 5G vendor diversity to reduce barriers for new market entrants, increase the diversity of vendors offering 5G network equipment and services, and promote the development of open, interoperable networks.
- Partner with the Executive Office of the President in implementing the National Strategy to Secure 5G per the Secure 5G Act including leading industry engagement on market incentives and vendor diversity.
- Build a program for sharing supply chain risk information with telecommunications suppliers and providers and partner with federal government agencies to evaluate foreign investment risks to the nation's telecommunications networks.
- Lead the U.S. government's work to develop a policy response regarding architecture proposals on alternatives to Internet Protocols

NOAA will:

- Continue implementation of an Internal Risk Mitigation Program with assistance from Carnegie Mellon University Software Engineering Institute via an IAA to reduce opportunities for loss of NOAA intellectual property.
- Continue to make progress on NOAA's Controlled Unclassified Information (CUI) implementation plan to ensure proper handling of NOAA's CUI.
- Add Software as a Service (SaaS) cloud solutions to its information system to provide cost-effective management of information security.
- Continue NOAA Cyber Security Center transformation activities for people, processes and technology and more fully integrate Artificial Intelligence and Machine Learning to improve cyber analytic capabilities.
- Mature NOAA Supply Chain Risk Management (SCRM) Program and develop specific SCRM policy to supplement Departmental policy.
- Establish a High Value Asset (HVA) Program within the NOAA Cyber Security Division to manage compliance of NOAA HVAs more effectively.
- Roll-out of the Cloud Access Security Broker (CASB) services to protect NOAA information from unauthorized access and manage additional SaaS and IaaS cloud instances implemented by NOAA.
- Migrate additional bureaus to NOAA's TICAP services to provide cost-effective perimeter protection and improved security information.
- Establish a talent pipeline to address vacancies and succession planning for key cybersecurity positions by expanding the number of Pathways students and recent graduates hired via the NOAA IT Fellowship Program and participation in the Partnership for Public Service CTI.

STRATEGIC OBJECTIVE 3.3 – Reduce Extreme Weather Impacts

Contributing Bureaus: OS, NOAA, NIST

Key Strategies:

- Evolve the National Weather Service to deliver better forecasts, earlier warnings, and clearer communication of high-impact weather and water events
- Strengthen partnerships with America’s weather industry and other members of the weather, water, and climate enterprise
- Deploy the next generation of satellites, aircraft, ocean-going ships, and observation and data gathering systems
- Develop and deploy next-generation environmental observation and modeling systems to make informed planning, resources management, and investment decisions

Executive Summary of Progress

On Track

Agency Priority Goal (APG)

In FY 2020, major milestones were achieved ahead of schedule in furthering the Agency Priority Goal to mitigate flood impacts by demonstrating improved decision support services to emergency managers. NOAA successfully initiated and expanded the Flood Inundation Mapping (FIM) demonstration using the National Water Model (NWM) guidance and the River Forecast Center (RFC) official forecast for Northeast River Forecast Center (NERFC) domain. This expanded demonstration, included FIM downstream from NOAA’s NWS official Advanced Hydrologic Prediction Service (AHPS) river forecast locations throughout the CONUS. NOAA is currently working on the internal validation of FIM techniques. Emergency Managers will use this information to mitigate flood impacts more effectively by prepositioning resources, ensuring critical infrastructure (e.g., hospitals, evacuation routes, shelters, etc.) are viable, and ordering evacuations.

Reliable Severe Weather Response during Pandemic

During multiple severe weather outbreaks and the COVID-19 pandemic, NOAA continues to provide expert, timely, and actionable weather information to emergency managers, water resource managers, and other government agencies at the state, local, and tribal levels. The unprecedented 2020 Atlantic Hurricane Season (as of Nov 19, 2020) saw 639 tropical cyclone advisories issued (average 322), 30 named storms (average 12), 13 hurricanes (average 6), and 6 major hurricanes (average 3). This year, 12 systems made landfall in the Atlantic, 6 tropical storms and 6 hurricanes. The 2020 Fire Season (as of Nov

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

23, 2020) called for a response of 186 Incident Meteorologist (IMET) missions (avg 115) with 1 IMET currently deployed. Working together, whether at home or in the office, NOAA employees provided consistent and accurate messaging and alerts days to minutes before the storms, saving lives.

Public Release of Modeling Code with Community Support

NOAA released Version 1 of the Unified Forecast System (UFS) weather model to the community through github.com (public version) and NOAA Virtual Lab (developer's version). Version 1 of the UFS, also called the NEMS FV3GFS Modeling System, allows users to easily configure the model on a variety of computational platforms and run forecast experiments with pre- and post-processing tools. This is a critical step towards a true community modeling framework that will advance weather modeling skill and international leadership in numerical weather prediction. Further details about the release are available on the Unified Forecast System website <https://ufscommunity.org/>.

Implementation of Operational Secure Ingest Service

In FY 2020, NOAA successfully implemented the Operational Secure Ingest Service (OSIS) as the first operational use of the NESDIS Common Cloud Framework (NCCF). The NCCF allows NOAA to utilize data and observations from an increasingly capable and diverse array of partner and commercial systems and take current hardware and software to a cloud-enabled framework to generate products and services.

Expanding our Supercomputing Capacity

NOAA awarded a contract for the Weather and Climate Operational Supercomputing System which provides a significant upgrade to computing capacity, storage space, and interconnect speed. This increase to high-performance computing will triple the capacity and double the storage and interconnect speed when it becomes fully operational in 2022. This upgrade keeps the agency's supercomputing capacity at 40 petaflops which is on par with other leading weather forecast centers around the world. The increase allows NOAA to unlock possibilities for better forecast model guidance through higher-resolution and more comprehensive Earth-system models, using larger ensembles, advanced physics, and improved data assimilation.

NIST Resilient Communities and Infrastructure

In FY 2020, NIST continued to strengthen the resilience of communities and infrastructure against weather and other natural hazards. With input from local and state government officials, NIST researchers developed the [Economic Decision Guide Software \(EDGE\\$\) tool](#). This is a platform-independent web app that provides a standard and easy-to-use method of evaluating and comparing different community projects to improve resilience. For community planners weighing options — whether to build a levee or add green space to reduce flooding in a neighborhood, for example — EDGE\$ could reveal key economic insights about which choice would be a better fit.

NIST also awarded a renewal of a \$20 million cooperative agreement to Colorado State University (CSU) to continue the work of the [Center for Risk-Based Community Resilience Planning](#). The center brings together NIST researchers and partners from 13 universities to develop computer and field study tools, best practices, and guidance to help local governments decide how to best invest resources intended to lessen the impact of extreme weather and other hazards on communities and to recover rapidly. A significant result of the center's efforts is IN-CORE — the Interdependent Networked Community Resilience Modeling Environment. Released in December 2019, this tool enables community resilience planners to model the physical and socio-economic systems of a community and assess the effectiveness of measures aimed at minimizing post-disaster disruption and recovery time. Through the Center NIST is conducting a longitudinal field study on Lumberton, N.C., following Hurricanes Matthew and Florence. This research led to development of novel survey instruments that integrate physical, social, and economic community impacts.

Partnerships

NOAA organized and facilitated three Partners meetings with representatives from NOAA's weather, water, and climate enterprise, utilizing a customer relationship management tool to organize, distribute, and track communications with over 620 individuals representing over 270 organizations. NOAA developed a high-level NWS Partner Strategy, outlining how NWS will support and develop partnerships. The strategy outlines how NWS can clarify and leverage roles and capabilities of partners to respond to demand for actionable weather, water, and climate information and expand public-private partnerships that fast-track innovations, strengthen relationships, eliminate barriers, and promote best practices to focus on continuous improvements.

Ships & Aircraft Recapitalization

NOAA continued acquisition of two General Purpose Oceanographic Ships with Navy assistance under an interagency agreement. Preliminary Designs by three competing contractors were completed on time. NOAA evaluated the designs to select one contractor for the multi-year Detail Design and Construction. The aircraft recapitalization awarded Phase 1 Modification (airframe design and parts procurement) for the NOAA Gulfstream G550.

Uncrewed Systems (UxS)

NOAA Office of Marine and Aircraft Operations (OMAO), in collaboration with NOAA Research and a NOAA UxS Executive Oversight Board, provided over \$3 million to projects evaluating emerging technologies and carrying out NOAA's mission-critical activities. More than 50 projects applied, requesting \$18 million. With UxS funds, programs across NOAA will use UxS to assess protected species, develop under-ice ecosystem observations, perform ecosystem monitoring, survey hydrologic and storm damages, validate satellite data, collect data on coastal change, and improve hurricane intensity prediction.

Earth Prediction Innovation Center (EPIC)

NOAA made a significant investment in Community-based Earth System Modeling through the Unified Forecast System (UFS). In addition to making these investments, the RFI release led to successfully running FV3 in the cloud and making model code available on GitHub.

Hazard Services Weather Forecast Application

NOAA checked a new hazardous weather forecast application for winter weather watches/warnings/advisories into NWS AWIPS Baseline Repository. This Hazard Services version 2 which focuses on long-duration winter weather hazards (e.g., blizzards, winter storms, ice storms, and wind chill hazards) and phase 1 Hazard Simplification messaging and consolidation process of Hydrology hazards.

Hurricane Forecast Dropsonde

NOAA transitioned dropsonde drift data into NWS operational models to improve hurricane forecasts. A fundamental problem for hurricane assimilation is that dropsondes capture the release point instead of the observation point. This leads to small errors in the environment around a storm, which can result in unacceptable errors at the inner core of a storm. Researchers conducted a large retrospective analysis of over 300 cases with data that has been processed by a newly developed algorithm to account for dropsonde drift.

NOAA Big Data Program (BDP)

The NOAA BDP transitioned into an operational phase during FY 2020. The low-cost contracts with Cloud Service Providers (CSPs) Amazon Web Services, Google Cloud Platform, and Microsoft Azure represent long term commitments to the BDP; provide over 15PB of storage allocation; and ensure no cost egress for all NOAA data in the BDP. This partnership improves service for users because the data is ready for analysis and provides platform tools and

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

other features to analyze data. In FY 2020, the BDP hit 132 cumulative datasets being served to the public via the cloud service providers. This far exceeded the anticipated 100 datasets and provided an opportunity for startups and large businesses to innovate and expand capabilities of NOAA data.

Harmful Algal Bloom Forecasting (HABs)

NOAA's respiratory forecast for Pinellas County, Florida, expanded to include Sanibel Island, informs beachgoers of the severity of airborne red-tide toxins, which is particularly important for those with respiratory conditions. The forecast is part of NOAA's ecological forecasting initiative, aiming to deliver accurate and timely forecasts to coastal managers and the public.

Florida Keys Coral Restoration

NOAA and its partners announced a decades-long coral reef restoration effort, Mission: Iconic Reefs. This groundbreaking approach represents one of the largest investments ever to revitalize the Florida Keys' diverse and economically valuable marine ecosystem on an unprecedented scale.

Performance Indicator Results and Targets

SO 3.3 –Reduce Extreme Weather Impacts Performance Indicator		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
NOAA - American Customer Satisfaction Index	Target	<i>NWS does not provide targets for this indicator.</i>			80	80	Exceeded	80	80
	Actual	82	82	85	86	86			

Note: Scores are based on public opinion; scores in the 80s are considered excellent by the CFI Group.

For more information, please see the [Strategic Objective 3.3 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

NOAA is on track to successfully complete the demonstration of new flood inundation mapping capabilities to additional portions of the U.S. continental population residing in flood-vulnerable freshwater basins by September 30, 2021. Emergency Managers use this information to mitigate flood impacts more effectively by prepositioning resources, ensuring critical infrastructure (e.g., hospitals, evacuation routes, etc.) are viable, and ordering evacuations. Additional resources will be needed to operationalize this capability to provide real-time flood inundation mapping across the U.S.

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

Research and Forecasting

Continued focus and leadership is required to fully utilize the most promising outputs of NOAA research and development and evolve the NWS. Its processes for identifying research and development activities that best support operations need to be strengthened.

Uncrewed Systems (UxS) Operations

NOAA requires a common approach and methodology to manage a wide variety of Uncrewed Systems, evaluate emerging Uncrewed Systems technologies, and determine where opportunities exist to effectively carry out NOAA mission-critical activities. NOAA completed an Uncrewed Systems Strategic Plan and is developing a program office to centralize management and standardization of safety, training, inspections, and operational reviews, consistent with NOAA's priorities and data needs. These efforts consider evidence from multiple NOAA Line Offices, industry, and outside partnerships.

Actions to Advance Progress through FY 2022

Research and Forecasting

NOAA Research will establish a Tornado Warning Improvement and Extension Program (TWIEP) to develop and test changes that could extend tornado warning lead times to reduce the loss of life and economic losses from tornadoes. NOAA's National Mesonet Program (NMP) will retain the highest priority data sets within the current program and procure non-federal data to improve NWS forecasts and timely decision support for weather events.

Updated Hourly Weather Models

NOAA Research will transition Rapid Refresh (RAP) v5 and High-Resolution Rapid Refresh (HRRR) v4 model codes to NWS operations. The RAP v5 model and HRRR v4 model provide many enhancements to the data assimilation, model, and post-processing formulations that result in significant improvements to nearly all forecast aspects, including upper-air, surface, cloud and precipitation, and thunderstorms.

Hurricane Forecast Nest Framework

NOAA Research will develop a nest framework in FV3-based Global Forecasting System (GFS) as part of the Hurricane Analysis and Forecast System (HAFS), which is key to improving size and intensity predictions of hurricanes.

Improved Aerosols Model

NOAA Research will implement aerosol chemistry in the FV3-based Global Forecasting System (GFS) by using aircraft observations collected during the Atmospheric Tomography Mission (ATom) to improve the FV3GFS-Aerosols model.

Recapitalization: Aircraft and Ships

NOAA will continue with the Navy assisted acquisition for two NOAA General Purpose Oceanographic Ships (Class A). One contractor will be selected in FY 2021 under the design competition for the multi-year Detail Design & Construction phase, producing a FY 2024 delivery of the first-Class A ship. The

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

future NOAA ships for Class B Charting & Surveying, and another Class C for Assessment and Management of Living Marine Resources, will both continue development of their acquisition activities.

In FY 2021, NOAA's on-going aircraft acquisitions will deliver a new and modified King Air aircraft and award the Gulfstream G550 aircraft Phase 2 Modification (airframe design along with FAA certification and NOAA Acceptance testing) for a planned G550 initial operational capability in FY 2024. Deploying these new ships and aircraft after their modifications for scientific data collection, will enhance the agency's observation and environmental data-gathering capabilities.

Initiate the LEO Weather Satellites Program

NOAA intends to initiate a Low Earth Orbiting (LEO) Weather Satellites program that will ultimately serve as the follow-on to the Polar Weather Satellite (PWS) program. LEO Weather Satellites will be responsive to the Congressional direction to improve weather forecasting and prediction capabilities. NOAA proposes to prove out a new "smallsat" architecture via demonstration missions that will complement the existing operational PWS program. Through timely innovation using rapid technology infusion, and an increase in data diversity by adding orbits, this will result in both improved value and cost savings.

STRATEGIC OBJECTIVE 3.4 – Deploy Public Safety Broadband

Contributing Bureaus: OS, NTIA, NIST, MBDA

Key Strategies:

- Deploy, maintain, and operate a nationwide public safety broadband network

Executive Summary of Progress

Noteworthy Progress

Nationwide Public Safety Broadband Network Adoption and Expansion

The FirstNet Authority ensures efficient utilization of the 700 MHz Band 14 public safety broadband spectrum in support of the Nationwide Public Safety Broadband Network (NPSBN). Since October 2019, the FirstNet Network added more than 4,700 public safety agencies and organization subscribers and about 730,000 device connections. A total of about 14,500 public safety agencies and more than 1.7 million FirstNet devices were connected since the March 2017 launch. AT&T continues to accelerate its nationwide deployment of Band 14, with 80% of the contracted Band 14 buildout now completed. This is well ahead of schedule. The dedicated FirstNet deployable fleet saw nearly 600 requests by public safety between October 2019 and August 2020. The fleet supported public safety missions for emergency and planned events, offering on-demand / expanded access to the network during response and recovery efforts. This included over 60 deployables used to support COVID-19 related responses across the nation. The FirstNet Authority also created a robust ecosystem for FirstNet devices and applications, resulting in over 150 apps in the FirstNet App Catalog and over 170 devices with Band 14 access.

FirstNet Authority Stakeholder Engagements, Roadmap, and Network Investment

The FirstNet Authority held 1,250 engagements nationwide with all public safety disciplines in all states and territories, reaching over 30,000 stakeholders. This included over 300 FirstNet Authority Roadmap-focused engagements addressing a wide range of broadband communications needs leveraging targeted industry leadership, expert interviews, and market research. The culmination of these efforts resulted in an updated Roadmap that reflects industry trends, drivers, and advancements to ensure the network evolves with new technologies. The Roadmap will serve as an expression of where the FirstNet Authority will focus its efforts over the next five years to evolve and improve public safety broadband communications.

The FirstNet Authority established an investment process that drives disciplined investment of FirstNet’s financial resources back into the Network. Following this framework, the FirstNet Authority received Board approval to pursue \$218 million in investments towards two Roadmap priority areas—the Core (Initiate Core Generational Upgrade) and Coverage (Enhanced Deployable Capability). These initiated network investments will help ensure subscribers have the additional coverage, capacity, and access to the latest 5G technology needed during emergencies and events as adoption of the

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

network increases. 5G technology upgrades will enable the FirstNet Network to keep up with industry evolution and the competitive landscape. The FirstNet deployable fleet will expand to help meet the increasing demand for these assets from public safety.

NIST

NIST’s Public Safety Communications Research Division (PSCR) drives innovation and advances public safety communication technologies through cutting-edge research and development (R&D). PSCR works directly with first responders and industry to meet public safety’s urgent need to access broadband communications and state-of-the-art technologies that commercial network consumers now expect. In FY 2020, NIST PSCR:

- Advanced testing and validation capabilities for mission critical voice (MCV) creating a combined set of measurement tools that will improve LTE modeling and simulation capabilities. These mission critical test cases will be incorporated into 3GPP standards.
- Supported the transition from Land Mobile Radio (LMR) systems to LTE communications systems by providing data on the performance of systems against key performance requirement like voice quality / intelligibility, access delay, end to end access time, and probability of access / retention.
- Influenced standards bodies such as 3GPP to ensure public safety communications requirements incorporated in new standards, devices, and applications. PSCR continues to verify and maintain a list of certified devices for FirstNet.

NTIA

In 2018, NTIA awarded \$33.3 million in grant funds to 46 States and territories to plan the implementation of NPSBN. Activities include developing policies and agreements to increase data sharing between existing public safety systems, identifying and planning for the transition of applications, software, and databases into the NPSBN, and identifying potential public safety users of the NPSBN. In FY 2020, NTIA awarded period of performance extensions ranging from one to thirteen months. SLIGP 2.0 end dates are staggered at the end of fiscal quarters from March 31, 2020, to March 31, 2021.

MBDA

MBDA encourages minority business enterprises to compete for FirstNet contract opportunities to strengthen broadband in underserved communities.

Performance Indicator Results and Targets

SO 3.4 – Deploy Public Safety Broadband Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
NTIA - Percentage of public safety adoption targets achieved	Target	N/A			N/A ¹	50%	Exceeded	60%	100%
	Actual					69%			
NTIA - Percentage of planned coverage achieved	Target	N/A			20%	60%	Exceeded	80%	95%
	Actual	N/A	N/A	20%	20%	80%			

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

¹ Per the terms of the NPSBN contract, adoption targets begin in IOC-3 and therefore will not be available to report on in FY 19.

² Per the terms of the NPSBN contract, % of adoption targets met for 2020 are based on the targets for 2023.

³ Per the terms of the NPSBN contract, % of planned coverage achieved is based on the targets for 2023.

⁴ Per the terms of the NPSBN contract, % of planned coverage achieved is based on the targets for 2023.

For more information, please see the [Strategic Objective 3.4 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

In addition to maintaining vigorous contract oversight and investing in the Network, the FirstNet Authority identified the following recommendations in accordance with its strategic objectives and priorities:

- Implement robust data collection and analysis capabilities and baseline our contract and public safety data
- Enhance engagement with public safety, industry and academia, and government agencies
- Continue to evolve and update the FirstNet Authority Roadmap
- Drive innovation to gain differentiation that focuses on public safety needs through collaboration with government and industry partners

The FirstNet Authority monitors and tracks risks that may impact the success of this strategic objective. This includes spectrum renewal and NPSBN program reauthorization and ensuring that future network investments support public safety's broadband communications needs and guided by the Roadmap. These risks represent opportunities to adjust the Authority's operations to support the long-term success of this strategic objective.

Actions to Advance Progress through FY 2022

Nationwide Public Safety Broadband Network Adoption and Expansion

- Manage and oversee NPSBN contract compliance and technical validation and verification to include deployment in rural and non-rural geographies in 56 states and territories, and public safety adoption progress to ensure successful contract execution prior to milestone payments.
- Refine and enhance contract performance, oversight, and controls in line with OIG and GAO recommendations and government best practices.
- Provide state-of-the-art technical environment to enable demonstrations and analysis of end-to-end public safety user experience of the NPSBN.
- Make significant progress with FirstNet Network adoption and expansion beyond already achieved FY 2021 targets.

FirstNet Authority Stakeholder Engagements, Roadmap, and Network Investment

- Engage with public safety community to establish a two-way information exchange regarding network performance, operational best practices to include trainings and demonstrations, roadmap planning, and potential investment priorities.
- Engage industry and academia to generate interest in researching, developing, and enhancing products and services for public safety.

Management Analysis of Strategic Goal 3 – Strengthen U.S. Economic and National Security

- Collaborate with Federal Executive agencies on public safety broadband communications policies and programs that further support the public safety communications use of wireless broadband communications. (e.g., 700 MHz spectrum usage along the border)
- Continue to define long-term technology vision for the FirstNet Authority Roadmap and establish the organization as a recognized thought-leader and major voice for the future of public safety wireless technologies and standards.
- Execute the FirstNet Authority Roadmap, reflecting public safety wireless broadband communications needs, and identify and develop future proposals for reinvesting back into the network.

NIST

- Continue development of software defined radio (SDR) technologies for implementation in 3GPP standards-based LMR to LTE solutions.
- Seed commercial implementation of standards-based LMR to LTE interworking function.
- Commercialize standards-based/radio-over-IP LMR to LTE products from existing DHS SBIR.

STRATEGIC OBJECTIVE 4.1 – Conduct a Complete and Accurate Decennial Census

Contributing Bureaus: OS, Census

Key Strategies:

- Eliminate the need to physically canvass every census block
- Enable people to respond via multiple modes (internet, paper, and telephone)
- Improve the efficiency and effectiveness of the 2020 Census by utilizing federal and state information, and information from third parties
- Reduce staffing, infrastructure, and brick and mortar footprint for the 2020 Census

Executive Summary of Progress

On Track

Lessons Learned and Collaborations

The Census Bureau evaluated prior decennial census operations to determine what worked well and what could be improved. Lessons learned from the 2018 End-to-End Census Test were considered. The Census Bureau worked closely with the Government Accountability Office (GAO) and the Office of Inspector General (OIG). Action plans based on their recommendations and lessons learned have been developed and implemented. Operations routinely refresh and reissue strategic program documentation based on lessons learned, test results, and other feedback.

Research and Testing

Throughout the decade, research and testing has iteratively influenced and improved the design of the decennial census.

Expert Input

The Census Bureau actively seeks expertise from the public and private sectors to help guide the implementation of the decennial census.

Milestones and Challenges

99.98% of all housing units and addresses nationwide were accounted for in the 2020 Census as of the end of self-response and field data collection operations on Oct. 15, 2020. In all states, the District of Columbia, and the Commonwealth of Puerto Rico, more than 99% of all addresses were accounted for, and in all but one state that number tops 99.9%.

67% were accounted for through self-response to date, with the remainder being accounted for through the Nonresponse Followup (NRFU) operation. This is an improvement over the 2010 Census self-response rate of 66.5%.

Management Analysis of Strategic Goal 4 – Fulfill Constitutional Requirements and Support Economic Activity

The Secretary of Commerce stated that “the 2020 Census faced challenges like no other decennial census in living memory.” “Achieving these metrics in the face of severe weather events and a global pandemic is a testament to the determination and ingenuity of the hundreds of thousands of dedicated women and men who worked on the 2020 Census.”

Due to the COVID-19 outbreak, the Census Bureau adjusted 2020 Census operations to:

- Protect the health and safety of the American public and Census Bureau employees
- Implement guidance from federal, state, and local authorities regarding COVID-19
- Ensure a complete and accurate count of all communities

Recruiting and Assessment

Planning for the Decennial Census requires balancing funding constraints and data accuracy against an official schedule fixed by statute. Hiring and recruiting needed staff, in an increasingly competitive environment with reduced levels of unemployment in the labor market, was a challenge. However, the recruiting goals were met. People were hired, trained, and deployed in every county throughout the nation.

Accessibility

The 2020 Census program has a Language Support Plan. Online questionnaires and non-questionnaire materials in 13 languages, were successfully produced. The 2020 Census was the first to offer three ways to self-respond: via the internet, on paper, or by phone.

Management Analysis of Strategic Goal 4 – Fulfill Constitutional Requirements and Support Economic Activity

Performance Indicator Results and Targets

SO 4.1 – Conduct a Complete and Accurate Decennial Census		
Performance Indicator: 2020 Decennial Census planned operational efficiencies and program milestones met		
Year	Census Milestone	Actual
2016	Conduct testing of self-response strategies; Conduct one field test: (field staff management and operations control); Prove in approach to field management processes and systems; Conduct research and testing on approaches for supporting non-English; Conduct feasibility test of field operations; Conduct testing of Group Quarters design	Completed
2017	Complete 2016 address canvassing test; Conduct a nationwide mail-out test of self-response; Begin building of partnership database in FY 2017 and begin planning of 2020 Integrated Communications	Completed
2018	Finalize the Language Support Plan and non-English questionnaires and non-questionnaire materials; Implement LUCA for the 2020 Census; Conduct Self-Response operations for 2018 End-to-End Test; Deliver 2020 Census Questions to Congress; Open 2020 Regional Census Centers; Identify space, sign leases, and design/buildout Wave 1 and Wave 2 Area Census Offices; Complete Authorization to Operate process related to the 2020 Census on schedule with less than 15% of Plans of Action and Milestones exceeding completion date	Completed
2019	Conduct the In-Field Address Canvassing Operations; Open Area Census Offices; Ensure 2020 Census Architecture and IT Roadmap reflects the latest Census System Design; Deliver Updated 2020 Operational Plan; Complete Authorization to Operate process related to the 2020 Census as schedule with less than 15% of Plans of Action and Milestones exceeding completion date	Completed
2020	Conduct 2020 Census; Deployment of non-CEDCaP systems	Not Completed*
2021	<i>Release Apportionment counts to the President of the U.S; Release census data below the state level for use in redistricting efforts; Release Census data products for use by the public; Close remaining ACOs; Complete Post Enumeration Survey operations</i>	
2022	<i>85 percent of key activities completed on schedule</i>	

* As a result of delays due to COVID-19 and then subsequent court orders, Self-response and field data collection operations for the 2020 Census concluded on October 15, 2020.

For more information, please see the [Strategic Objective 4.1 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

The decennial census continues to integrate innovations and improvements using a data-driven approach. One of the highest priorities of the program is

to ensure the security of an increasingly systems-based design.

Actions to Advance Progress through FY 2022

- Release apportionment counts to the President of the United States
- Deliver and confirm receipt of official P.L. 94-171 Redistricting Data Summary Files in each state, the District of Columbia, and Puerto Rico by the majority and minority parties currently holding office in the legislature as well as by any established redistricting commissions
- Release data products for use by the public
- Close Area Census Offices (ACOs)
- Conduct Post-Enumeration Survey operations
- Release 100% of all evaluation, assessment, and experiment reports
- Release 100% of all data products scheduled
- Release estimates of Post-Enumeration Survey operations
- Close Regional Census Centers
- Complete Post-Enumeration Survey operations

*Due to impact delays of COVID-19, potential schedule delays and operational adjustments are expected.

STRATEGIC OBJECTIVE 4.2 – Provide Accurate Data to Support Economic Activity

Contributing Bureaus: OS, BEA, Census, MBDA, NOAA, NTIS, ITA

Key Strategies:

- Disseminate social, economic, housing, and demographic information about the U.S. population
- Provide a timely and accurate portrait of the nation’s economy
- Develop new data products and services that capture the dynamic U.S. economy

Executive Summary of Progress

Noteworthy Progress

Accelerated Releases of Gross Domestic Product (GDP)

BEA accelerated quarterly GDP by industry and GDP by state statistics so that they are released nearly simultaneously with the third estimate of national GDP. Together, these statistics give data users a more complete story of what happened in the national economy each quarter.

Economic Census

Census released all the 2017 Economic Census [Geographic Area Series product](#), exceeding the target to release 70% of the detailed data by September 30, 2020. Data releases will continue in FY 2021 and will feature new information on products and services based on the [North American Product Classification System](#) (NAPCS) as well as new [e-Commerce](#) statistics.

American Community Survey (ACS)

Census released social, economic, and housing data on schedule. The ACS provides vital information on a yearly basis about the U.S. and its people helping local officials, community leaders, businesses, and the public plan. The ACS informs decisions based on changes taking place in communities.

Business Formation Statistics (BFS)

Census issued an experimental data [product](#) that provides weekly information on new business applications at national, regional, and state levels in the U.S. The BFS provides real-time information on business entrepreneurs during the pandemic. Census demonstrated its agility by moving these statistics from a quarterly to a weekly data product. Also, Census released a data visualization combining BFS data with the Department of Labor's weekly unemployment insurance data.

Management Analysis of Strategic Goal 4 – Fulfill Constitutional Requirements and Support Economic Activity

Marine and Great Lakes Economy

NOAA and BEA released the [Ocean Economic Prototype](#) covering the period of 2014-2018. These statistics measure ocean-dependent activities' contributions to the U.S. economy, using methodology consistent with BEA's core statistics, such as gross domestic product. These are the most comprehensive and accurate ocean statistics produced at national level in the U.S. with measures for ten sectors and over 40 industry groups.

NOAA released the annual [national](#) and [regional NOAA Report on the U.S. Marine Economy](#) based on the [Economics: National Ocean Watch](#) (ENOW) dataset (2005-2017) for six sectors at national, state, and county levels. Both the Ocean Economy Statistics and the ENOW include marine activity in the Great Lakes, the Chesapeake Bay, the Puget Sound, and international seaports located miles from the coast. These statistics support coastal managers and communities in planning and decision-making, help businesses make investment and hiring decisions, and aid U.S., state, and local policymakers.

International Travel & Tourism Statistics

ITA's National Travel and Tourism Office (NTTO) collected, analyzed, and disseminated international travel and tourism statistics for the U.S. Travel and Tourism Statistical System in FY 2020, including:

- *Survey of International Air Travelers (SIAT)* - The official comprehensive national traveler survey of visitors to and from the U.S.
- *Non-Resident Arrivals Database (I-94)*: The Non-Resident Arrivals Database which is the official estimate of international visitation to the U.S.
- *Travel & Tourism Satellite Accounts*: The federal government's official estimate of the contribution travel and tourism makes to U.S. economy.
- *Annual Forecast Database*: Projects international inbound travel volume to the U.S. for the next five years and economic variables by market.

GDP for Puerto Rico

BEA released [new measures](#) of GDP for the Commonwealth of Puerto Rico for the years 2012-2018 that are comparable with GDP for the U.S., states, and other U.S. territories. This was done by working closely with the Puerto Rican government and private data providers in Puerto Rico.

New Measures of Technology

Census released [new products](#), in cooperation with the private sector and academia, focusing on nascent technologies to directly measure the adoption of these technologies and indirectly measure their impact on employment and productivity.

Income Distribution

BEA published updated prototype measures of the [distribution of Personal income](#) and new measures of the distribution of disposable personal income for 2007-2018 consistent with the bureau's measures of GDP.

Outdoor Recreation

BEA released official measures of [outdoor recreation activities](#) on a state-by-state basis that will be produced on a regular, ongoing basis.

Management Analysis of Strategic Goal 4 – Fulfill Constitutional Requirements and Support Economic Activity

Small Business Sector

BEA released updated experimental estimates of [small business activity](#), including statistics on small business wages, employment, and gross output. Census provided high frequency data about the challenges small businesses are facing due to COVID-19. The [Small Business Pulse Survey](#), an email-only collection, released data tabulations and user-friendly visualizations that are disseminated in near real-time as experimental data products.

Minority Owned Businesses

MBDA fully implemented its newly established Office of Policy Analysis and Development to support its policy and research on minority-owned businesses. Part of the office's mission is to commission research and white papers to identify challenges, barriers, and offer solutions. As a result of efforts in FY 20 20, three research and policy papers were developed (pending final clearance for release):

- The Contribution of Minority Business Enterprises to the U.S. Economy
- The Impact of Emerging Technologies on the Structure of the U.S. Economy and Implications for Minority Business Enterprises
- Keys to Unlocking Business Development in Indian Country

Also, two stand-alone reports were developed (pending final clearance for release): *Indigenous Business Development and Policy Efforts: A Comparison of Policies Across the United States and Organization for Economic Co-Operation and Development (OECD) Countries*, and a *State of Minority Business Report*.

Access to Capital Research

Partially funded by a grant from MBDA, the National Association of Investment Companies (NAIC) commissioned the following reports to explore today's marketplace by examining the demand for capital among diverse entrepreneurs and sharing best practices for growth equity investing with diverse businesses: "[Access to Capital: Accelerating the Growth of Diverse and Women-Owned Businesses, The Trillion Dollar Opportunity](#)" and "[The State of Growth Equity for Minority Businesses: A river of Capital flowing past our communities](#)".

Employment Outcomes

Census leveraged the Post-Secondary Employment Outcomes (PSEO) methods to release a similar product on [Veteran Employment Outcomes](#) (VEO), providing experimental statistics on labor market outcomes for recent Army veterans.

Use of Alternative Data Sources

Census released a new experimental data product, the [Monthly State Retail Sales](#) (MSRS) report, providing modeled estimates of monthly, state-level retail sales. This blended data product combines Monthly Retail Trade Survey data, administrative data, and third-party data. Previously these data were only available at the national level.

BEA released new [daily spending statistics](#) using payment card data to better understand the rapid shifts in economic conditions due to the COVID-19 pandemic. These new data help inform the bureau's early official estimates of consumer spending that feed into GDP.

Management Analysis of Strategic Goal 4 – Fulfill Constitutional Requirements and Support Economic Activity

Performance Indicator Results and Targets

SO 4.2 – Provide Accurate Data to Support Economic Activity Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
Census - Release economic indicators on time (number of scheduled releases issued on time) ¹	Target	N/A	N/A	N/A	120	120	Met	120	120
	Actual	N/A	N/A	N/A	120	118			
BEA - Reliability of GDP index (percent of GDP estimates that are statistically reliable) ²	Target	83%	85%	85%	85%	85%	Exceeded	86%	86%
	Actual	89%	90%	92%	92%	95%			
BEA - Milestones met in releasing new economic indicators	Target	N/A	N/A	100%	100%	100%	Met	100%	100%
	Actual	N/A	N/A	100%	100%	100%			

¹ Target in FY 2018 forward reflects total planned data releases from the Census Bureau (120) and BEA (70).

² Formerly referred to as the “accuracy of GDP index.” Because accuracy is typically assessed against some “true” or benchmark value that does not exist for GDP, BEA has renamed this measure to emphasize that it rates the performance of revised GDP estimates over time, most typically associated with “reliability.”

For more information, please see the [Strategic Objective 4.2 Story](#) on 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.

Actions to Advance Progress through FY 2022

GDP of Puerto Rico

BEA will gather public feedback on the prototype [Puerto Rico GDP statistics](#), refine the underlying data sources and estimation methods, and release official GDP for Puerto Rico statistics by end of FY 2021.

Income Distribution

BEA will collect public feedback on the prototype distribution of personal income statistics and will publish official measures by December 2020.

Impacts of COVID-19

BEA will develop new explanatory content on key economic indicators that spotlight the [impact of the COVID-19 pandemic](#) on the U.S. economy.

Technology

Census will issue new measures of technology with statistics on the adoption of technologies like robotics and AI, for the Annual Survey of Manufactures.

American Community Survey (ACS)

Census will continue to strengthen the ACS with exhaustive research that covers topics ranging from messaging to public education campaigns.

New Principal Economic Indicator

Census will work with the Office of Management and Budget to designate the Business Formation Statistics as a new principal economic indicator.

Annual Economic Surveys

Census will provide recommendations from the National Academies of Sciences' report on Reengineering the Census Bureau's Annual Economic Surveys.

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.

Redesign and Acceleration of Key Economic Indicators

Census will research new methods and techniques to redesign and accelerate the construction indicator. This will better measure changes in construction activity. Census will release 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 which is also beneficial to BEA's estimates of GDP.

STRATEGIC OBJECTIVE 5.1 – Engage Commerce Employees

Contributing Bureaus: OS, All bureaus

Key Strategies:

- Align human capital with strategic plan
- Utilize the Federal Employee Viewpoint Survey to gauge conditions for employee engagement
- Promote the use of Employee Resource Groups and Affinity Groups across the Department
- Promote Equal Employment Opportunity (EEO) and diversity and inclusion (D&I) principles through Special Emphasis Programs (SEPs) and the First-Generation Professionals (FGP) initiative.
- Improve talent management
- Improve the customer experience

Executive Summary of Progress

Focus Area for Improvement

Align Human Capital with Strategic Plan

The Department closed out its Human Capital Operational Plan (HCOP) as of September 30, 2020 and developed a new HCOP for FY 21. The HCOP describes how the Department will execute the human capital strategies in the DOC Strategic Plan and Annual Performance Plan. The FY 21 HCOP is a one-year operational plan identifying milestones and metrics to help support the identified human capital goals and Federal Workforce Priorities.

The U.S. Patent and Trademark Office (USPTO) implemented the 2018 - 2022 USPTO People Plan, a human capital framework that supports the agency's ability to maintain a high performing organization. The plan centers on the three pillars of employee effectiveness: Lead, Engage, and Enable, and is aligned with the USPTO's overarching Strategic Plan. The USPTO strives to generate motivation and commitment to a shared mission and vision, establish practices that enhance commitment and effort, and provide employees with what they need to do their jobs.

Utilize the Federal Employee Viewpoint Survey to Gauge Conditions for Engagement

In December 2019, the Department was ranked the 4th Best Place to Work in the Federal Government based on the 2019 Federal Employee Viewpoint Survey (FEVS) results. As part of a Government-wide initiative, OHRM took a deep dive into the 2018 FEVS EEI scores for all sub-units within the Department to identify the bottom 20% scores. Bureaus were asked to work with the identified units to develop action plans and target a 20% increase by the 2020 FEVS scores, with a focus on improving EEI scores that are 65% or less. As a result, approximately 75% of the sub-units

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

identified, improved in the 2019 FEVS EEI scores and 61% of those improvements were five percentage points or higher. About 15% of all identified sub-units met or surpassed their 2020 goal.

The National Oceanic and Atmospheric Administration (NOAA) used the 2019 FEVS to guide discussions on how to make NOAA an employer of choice, especially among females and minority communities. NOAA utilized the Table Group and McKinsey and Co. to conduct organizational health surveys due to OPM's delay of the 2020 FEVS administration to make strides toward improving employee engagement overall.

The National Institute of Standards and Technology (NIST) implemented the Employee Viewpoint Survey Analysis and Results Tool (EVS ART) to help leaders analyze the FEVS data and develop actionable plans to improve employee satisfaction. The EVS ART enables leaders to drill down into survey data to better interpret the results. The tool offers heat maps and color-coded index measures that allow leaders to compare data, see where scores fall below a certain threshold, and identify opportunities for improvement. The goal is to make the data easier to analyze and more accessible so the focus can be spent on developing targeted action plans.

The Office of Inspector General (OIG) used the FEVS as a starting point for its own assessments of employee engagement, which are in turn the basis for organizational development. OIG made a series of improvements in FY 20 that resulted in a significant reduction in employee turnover. OIG engaged the National Academy of Public Administration (NAPA) to help formulate concrete and productive actions to enhance the employee experience at OIG. NAPA's actions included an additional survey, focus groups, and interviews with individual employees. This resulted in an action plan that was introduced to employees and holds OIG senior management and leadership accountable for concrete actions and goals. OIG also surveyed and engaged its workforce on the range of issues that the pandemic has presented including technological support, maintaining social ties while working remotely, and how lessons learned about working remotely can support post-pandemic employee engagement.

Promote use of Affinity and Employee Resource Groups across the Department

The Department has over 70 active Affinity and Employee Resource Groups. Affinity and Employee Resource Groups serve as a source of communication for employees on work/life balance, training, and career development, while partnering with the Office of Civil Rights and leadership to help with its recruitment, retention, and sponsorship activities. The roles within these groups provide employees a connection to the organization's commitment to diversity and employee engagement. As employees witnessed a national health and social crisis in FY 20, the groups felt more compelled than ever to stay connected to its members and the workforce and hosted different professional and social activities, including the following:

- The Herbert C. Hoover Building (HCHB) Engagement, Diversity, and Inclusion Council (EDIC) received official approval of eight new Affinity and Employee Resource Groups in FY 20: Commerce PRIDE, DOC-HQ-Asian American Pacific Islander's, HCHB Federally Employed Women, HCHB Women Commercial Officers, HCHB Veteran's Group, HCHB Differing Abilities, HCHB Presidential Management Fellows (PMF) Advisory Council, and HCHB Parents Group.
 - The Women Commercial Officers Employee Resource Group hosted monthly virtual coffee sessions to discuss representation in mission-critical occupations, attrition rates, FEVS results, pay disparities, and more.

- The HCHB PMF Advisory Council partnered with OS/OHRM to host the Department’s first virtual PMF Orientation.
- The Commerce Veteran’s group hosted their monthly Vet’s Talk.
- The Commerce Pride group began their monthly events with virtual social trivia night.
- The EDIC members collaborated with the Office of Civil Rights to host seven virtual Listening Sessions to provide a safe place for employees to share their stories surrounding the social unrest.
- NIST established the Parents Network to build an empowering working environment that connects parents to one another and promotes healthy work-life balance strategies throughout the various stages of parenthood.
- The NOAA Director for the Office of Human Capital Strategy (OHCS) met with the co-chairs of each Employee Resource Group and Affinity Group to identify specific needs for each unique community. These meetings will now take place semiannually to ensure OHCS effectively partners and delivers on needs identified by the groups and the communities they represent. Additionally, the NOAA Executive Resources Division (ERD) led efforts within OHCS to continue its collaboration with the NOAA Office of Inclusion and Civil Rights to promote leadership development and opportunities.
- USPTO had 29 officially recognized employee groups in FY 2020. These groups are known as Voluntary Employee Organizations (VEOs)—including 18 Affinity Groups – that champion the principles of Diversity and Inclusion by creating opportunities for information sharing, learning, cultural and intellectual exchange, and open dialogue. These employee-led, voluntary peer organizations are open to all employees and are formed around a shared interest or common goal. In FY 2020, the USPTO Diversity Program, in concert with its Affinity Groups, offered the following for its employees, among other activities:
 - Engagement in the Time of Telework Initiative weekly virtual events and activities
 - Lunchtime Listening Sessions
 - Eight flagship events (six of them virtual) to coincide with Special Emphasis Months and major historical events
 - Disseminated D&I-related news and employment opportunities to Affinity Group members and networks via the Diversity@PTO newsletter
 - 2020 USPTO Virtual Community Day
 - Season 2 of the Diversity Download Podcast
 - Toolkit for Establishing Affinity Groups for the USPTO’s Expanding Innovation site
 - 2021 Diversity Program Wall Calendar: “12 Ways to Become a Better Ally in 2021”
 - Launched an Employee Groups site on the USPTO intranet and develop an “Employee Groups at the USPTO” brochure

Improve Talent Management

In FY 2020, OHRM worked to improve current reporting and processes around HR data analytics by automating quarterly HRstat reports (required by Title 5, CFR, Part 250) and developing a Workforce Assessment Dashboard to be reviewed by the Chief Human Capital Officer and HR Directors on a quarterly basis. Workforce metrics reviewed include attrition, candidate quality, employees in mission critical occupations versus non-mission critical occupations, hiring timeline, people with disabilities onboard, staffing targets, veteran hires, among others.

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

The Department of Commerce developed a framework to evaluate the bureaus' succession planning management and practices. The assessment will provide essential data regarding the current state of the Department's succession planning and enable leadership to identify needs, assess resources across the Department, and identify opportunities to provide guidance and support. The succession planning strategy and implementation plan resulting from this assessment will assist DOC and each bureau in moving into "developing" and "leading" maturity levels.

A Workforce & Succession Planning Community of Practice (CoP) was developed to foster cross-bureau collaboration on existing succession planning programs, best practices, and challenges; accomplish succession planning goals as defined in the Human Capital Operating Plan or by the Department's Management Council; conduct mission-critical occupation validation; and inform the effort to develop and implement a comprehensive succession planning strategy. The CoP will be considered successful if it creates opportunities for data and knowledge sharing and collaborations across bureaus; enables validation of MCOs; makes strides towards the development of competencies and other tools/resources; and provides the program team with input as they develop a succession planning strategy that allows DOC to build and maintain a robust leadership & talent pipeline.

The Skillssoft Leadership Development Program, an additional catalog of training resources for managers and supervisors, was successfully launched in FY 2020. This online learning and development tool support leadership development efforts of the larger bureaus and provides resources to create similar offerings within the smaller bureaus.

The NIST Mentoring Program was launched in FY 2020. This program helps NIST federal employees find their niche in the organization, build strategic relationships, and gain a broader perspective of NIST's mission and future. In FY 2020, 75 mentee-mentor pairs (150 federal NIST employees) participated in the program. The program is expected to increase to 100 pairs in FY 21.

NIST offered the popular Leadership for All (L4A) training series, which offers the opportunity for every employee to take leadership training courses providing the skills and knowledge that support the NIST mission. L4A makes content from the NIST Leadership Development Programs available to the entire staff. In FY 2020, 282 people attended 10 L4A courses. These courses received an overall rating of 4.73/5.0.

NIST established a Referral Bonus Award to recognize Federal NIST employees who refer and bring new talent to NIST for hard-to-fill positions or positions where NIST has encountered difficulty in recruiting high quality candidates. Language is included in the vacancy announcement to indicate the position is eligible for the Award. The Award may be granted as a dollar amount (a maximum of \$1,000) or time off (up to 8 hours). The employee receives the Award if the preferred candidate is selected and brought on board. This new award was implemented at NIST on October 1, 2020.

NOAA's Consulting Services Division (CSD) conducted Pre-Recruitment Strategic Consultations with each NOAA Hiring Manager to review and select the best recruitment avenue to fill positions. They also participated in NOAA outreach events in partnership with the Office of Inclusion and Civil Rights where they searched for candidates to fill mission-critical occupations and other vacant positions. NOAA attended over 10 outreach events in FY 2020, promoting its mission and encouraging diverse talent to consider NOAA as an employer of choice.

NOAA's ERD worked with leadership officials on conducting tailored organizational analyses with customers. These analyses include classification and position management practices for updating current position descriptions and for establishing new positions based on new mission requirements. The talent management workflow processes and decision points, pertaining to the Operating Executive Resources Board and the Council of NOAA Fellows, were refined to better identify highly qualified candidates through enhanced evaluation and selection criteria. ERD led efforts to apply an HR Competency model and skill gap analysis to identify and close staff skill gaps. This resulted in aligning the work performed through the division operational framework while being able to identify measurable decision points for accountability.

The NOAA Quality Assurance and Accountability Division (QAAD) collaborated with the Commerce Accountability Division on streamlining and updating checklists for HR audits conducted by the Department. QAAD quarterly audits of contractor recruitment actions, recruitment incentives, and management control reviews led NOAA's OHCS to pass all internal and external audits.

USPTO developed a website specifically dedicated to improving talent management. The website contains a wealth of talent management resources for various audiences such as information on workforce planning, onboarding, organizational development, career development and mentoring, employee engagement, employee retention, and succession planning. The website is expected to go live in January 2021. Additionally, the USPTO HR Office transformed one of its existing teams into a Talent Management Division for the agency.

Improve the customer experience

The Chief Learning Officer's Council collaborated with the Enterprise Services Contract-Support Team to enhance the Commerce Learning Center (CLC). The efforts included revamping the log-in, welcome, and landing pages. These enhancements led to increased user interactions with CLC and provided customers with quick access to learning job-related information, technical training, and educational opportunities.

The *CD-326, Recommendation for Recognition* form, is a DOC form that NIST uses for the submission and processing of Cash-In-Your-Account, Special Act, and Time Off awards. Prior to February 2020, the CD-326 submission process was paper-based, requiring customers to fill out a paper form, manually gather signatures, and submit the form in PDF format to OHRM via email. On February 14, 2020, NIST successfully went live with a new ServiceNow application that automates this process. Now, customers fill out a form in ServiceNow, all necessary signatures are gathered electronically, and the request is automatically submitted to HR upon completion of the signatures. This resulted in improved process efficiency. NOAA's OHCS developed several new and innovative virtual processes that allowed the organization to continue HR activities throughout the COVID pandemic. For example, NOAA shifted to a virtual onboarding and orientation process to ensure the safety of the staff and new employees. Rather than focusing on NOAA headquarters, OHCS conducted onboarding activities for the entire nation. From March 30-September 30, over 600 employees went through this new employee orientation, a nearly 400% increase over the previous year.

NOAA converted various training opportunities to a virtual format allowing for more attendees. For example, the NOAA Leadership Seminar (NLS) under a non-virtual process would have reached approximately 80 people. Under the virtual process, NLS had over 800 attendees at various sessions. Also, NLS opened to all grade levels for the first time, which expanded leadership opportunities across NOAA. The shift to a virtual NLS resulted in significant cost savings, avoiding nearly \$100K in costs, not including the savings in travel costs for the in-person event.

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

NOAA's OHCS activated its expanded Emergency Response Team (ERT) as soon as the COVID-19 pandemic was declared a national emergency. The ERT team achieved the following:

- Created a special webpage, accessible by all NOAA employees, devoted to sharing key information in a clear and organized format for all major COVID-19 events. This website now serves as NOAA's central source of information concerning various orders, advisories, alerts, health protocols, and policy guidance.
- Provided experienced HR expertise to the NOAA Reintegration Task Force by providing HR professionals to each of the seven sub-task groups composed of representatives from each NOAA Line and Staff Office. The Task Force refined protocols, processes, and procedures as the epidemic developed and spread for application to all NOAA personnel located in hundreds of NOAA facilities across the nation.
- Created a streamlined process and tripled resources dedicated to investigating claims of sexual assault and sexual harassment in support of the DAO-202-955, *Allegations of Harassment Prohibited by Law*. As a result, the investigation process in FY 2020 was decreased from an average of 166 day to 64 days.

In July 2020, ITA launched a Succession Planning initiative to anticipate current and future talent needs, retain specialized or institutional knowledge, and support employee learning and development opportunities. In connection to its *You Spoke, We Listened, We Acted* initiative, ITA pursued team-wide communications, training, and employee engagement events to ensure that staff feel included and heard. ITA also continues efforts to attract talent from diverse communities and promote awareness of cultural sensitivity, including a "Hiring Checklist" that U.S. Field hiring managers are encouraged to consult. U.S. Field and HQ staff members are also to receive a "True Colors" virtual training.

Address EEO and D&I through the First-Generation Professionals Initiative

The FGP initiative is a first-of-its kind diversity initiative. It addresses barriers faced by low-income, First Generation Professionals who are building professional careers without the model of a parent or caregiver who worked in a professional capacity. The Office of Civil Rights (OCR) was instrumental in establishing the FGP employee resource group (ERG) in the Department. The FGP ERG will partner with OCR to facilitate the improvement of Department operations, personnel management, and employee engagement for employees who are first generation professionals.

The FGP initiative brought about the launch of the FGP Community of Practice (CoP), an inter-agency workgroup focused on addressing challenges and mitigating institutional barriers that impact the professional acumen of first-generation professionals. The FGP CoP supports and empowers first generation professionals to achieve their full potential and close career ascension gaps by providing peer-to-peer coaching, career development training, and other tools / information via the resource library on the Office of Management and Budget (OMB) Max Federal Community website.

In FY 2020, the FGP initiative was lauded by the Office of Personnel Management (OPM) as a notable practice in D&I in the federal government and the EEOC as a cutting-edge D&I Initiative.

OCR launched the Pilot First Generation Professionals Academy (FGPA) for Emerging Professionals. This Academy takes a coordinated, proactive, and intentional approach to address the challenges that first-generation, low-income emerging professionals may face as they leave the college campus

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

and enter the workforce. The FGPA is a bridge between academic institutions’ initiatives to help first-generation, low-income students thrive and succeed in college and Federal agencies’ efforts to help working first-generation professionals thrive and succeed in the workplace. As part of the launch of the FGPA, a series of webinars on federal career opportunities and professional development topics for FGP students was provided.

Performance Indicator Results and Targets

SO 5.1 – Engage Commerce Employees Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
OS - Employee Engagement Index-Viewpoint Survey	Target	67%	69%	71%	71%	73%	TBD	73%	74%
	Actual	69%	71%	71%	73%	TBD			
OS - % of high-volume processes with feedback tools	Target	100%	100%	100%	100%	100%	Met	100%	100%
	Actual	100%	100%	100%	100%	100%			
OS - % of DOC Indicator Targets met or exceeded	Target	N/A	N/A	75%	75%	75%	TBD	75%	75%
	Actual	85%	88%	83%	88%	TBD			

For more information, please see the [Strategic Objective 5.1 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

Succession planning will continue to be of focus in FY 21, along with implementing the DOC Human Capital Operating Plan, evaluating efforts to improve hiring timeline and employee engagement, and working through any human capital challenges resulting from the COVID-19 pandemic.

Actions to Advance Progress through FY 2022

- Continue to monitor and track FEVS results for improvement areas and to maintain/increase employee engagement scores.
- Finalize and publish DAO 202-252 *Establishing Affinity Groups* to provide a Department-wide policy for employees to establish more groups and allow active groups to continue their efforts in assisting with the Department’s recruitment, retention, and cross-bureau training efforts.
- Complete the Department’s current state of succession planning assessment; engage bureaus to identify needs and gaps; build and validate a Department-wide succession planning strategy; and develop a 12-month implementation roadmap.
- Develop a competency model for SES profile and future solution prototype.

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

- Leverage the CLC, the Department's enterprise-wide online learning solution, as a critical tool that continues to increase learning and development opportunities Commerce-wide.
- OCR will expand the key strategy to include Special Emphasis Programs (SEPs), in addition to the FGP initiative. SEPs are an integral part of EEO and D&I. Their purpose is to ensure that agencies take affirmative steps to provide equal opportunity to everyone in all areas of employment and eliminate discriminatory practices and policies. Through various initiatives, the programs address the unique concerns of specific groups in achieving diversity, inclusion, and equality of opportunity in recruitment, hiring, development, training, and advancement.

STRATEGIC OBJECTIVE 5.2 – Accelerate Information Technology Modernization

Contributing Bureaus: OS, All bureaus

Key Strategies:

- Reduce the Percentage of Legacy IT Across DOC
- Achieve 100% Email in the Cloud Across DOC
- Increase Technology Business Management (TBM) Use Across All Bureaus
- Employ Best Practices in Data Security

Executive Summary of Progress

On Track

Reduce Legacy IT Across Department of Commerce

The Department prioritized two projects, Business Application Solution and Grants Enterprise Management Solution, to modernize and reduce legacy systems in the financial, acquisition, property, and grants management segments.

Grants Enterprise Management Solution (GEMS)

The GEMS program was established to acquire an enterprise solution for managing grants across DOC and its grant-making bureaus, and address automation needs. Market research indicated there were no viable commercial-off-the-shelf (COTS) solutions available that addressed the full grants lifecycle. The Department determined that legacy systems refresh would not meet requirements. The Department determined that a custom-built solution would run counter to the Presidential Management Agenda (PMA), Office of Management and Budget (OMB), and DOC policy.

Two Federal Shared Service providers offer potential solutions to DOC needs. The GEMS Governance Board sponsored an intensive analysis of the two candidate systems, GrantSolutions and Electronic Research Administration (eRA). Both systems are available from the Department of Human and Health Services (HHS) as Federal Shared Service and both would satisfy all policy requirements. DOC is hosting a decision-making process with the three-primary grant-making bureaus and the cross-service bureaus. Based on this process, DOC will recommend the Federal Shared Service that will satisfy DOC's core grants management functions.

Business Applications Solution (BAS)

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

The Business Applications Solution (BAS) project provides an integrated suite of financial management and business applications. DOC received OMB approval to pursue a commercial Software-as-a-Service (SaaS) solution for modernizing BAS. This initiative will be a model for other federal agencies. A BAS DOC and Treasury Integration Plan outlines and defines collaboration and integration. This ensures adherence to the financial management objectives of the Quality Service Management Operation (QSMO). Monthly meetings with QSMO to review project status, are conducted.

Awarded contract on April 24, 2020 to Accenture Federal Services for: system implementation, integration and interfaces, program and project management services, operations and maintenance services, and Software as a Service (SaaS) system support services, including hosting. Since the award, the project has commenced the implementation phase, completing the global design for core applications, and beginning the common solution requirements. In FY 2021, the project will complete the common solution design and deploy the asset management solution to all bureaus.

Statistical Production Modernization Program

The Bureau of Economic Analysis statistical production modernization program enables economists to spend fewer hours performing table checking and verification of data transfers between systems. Because of this initiative, BEA retired over 600 legacy programs.

Email in The Cloud

Almost 100% migration to cloud email has been achieved. The Bureau of Industry and Security (BIS), the last remaining bureau to complete the migration, is currently in the process of migrating from Email System (Exchange on-premise) to Microsoft Office 365 Exchange Online, with anticipated completed by the end of the second quarter, FY 2021.

Technology Business Management (TBM)

The Department continues to make progress within our TBM, Capital Planning and Investment Control (CPIC) reporting framework. The Office of the Secretary (OS), engaged in implementing the TBM Taxonomy from formulation to execution, including developing and implementing a system to aggregate all cost into the accurate Cost Pool, IT Towers, and TBM services. This data now can be used for FOLIO/CPIC submission along with data/cost driven decision-making. OS is also working to establish TBM governance and create ties into the IT service catalog to have a clear mapping of the services and cost provided to the bureaus. The Census Bureau is utilizing the TBM services framework to consolidate mission and enterprise requirements, plan, budget and govern IT services, and improve service and security.

Controlled Unclassified Information (CUI)

Executive Order 13556 establishes a uniform program for managing and controlling unclassified information in accordance with law, regulation, or Government-wide policy. In response, the Commerce CIO was designated as the Senior Agency Official for CUI, a Department-wide working group. CUI developed policies and procedures and awareness, conducted end-user training for all Commerce employees and contractors, and established self-inspection and guidance procedures for owners and operators of IT systems that process, store, and transmit CUI information.

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

USPTO Stabilization, Modernization, Governance

At the end of the prior fiscal year, the USPTO decided to undertake significant efforts to strengthen the various IT legacy system components, in addition to prioritizing modernization efforts. The first improvement moved the Patent Application Location Monitoring (PALM), off an aging server and onto new servers that are 10 times more reliable, 100 times faster, and consume less than half of the power consumed by the prior server. The USPTO also retired the 20-year-old legacy fee payment system and deployed a next-generation fee processing system.

ITA Digital Transformation

ITA adopted a new IT Strategic Plan laying out the digital transformation vision and goals to strengthen ITA’s ability to increase the competitiveness of U.S. companies. ITA demonstrated its ability as a nimble, customer and future-focused digital organization by continuing the modernization of its legacy systems, reaching 76% complete, and delivering mission-enabling solutions. These solutions include a new uniform, best-in-class website, a new Teams solution providing staff seamless remote collaboration capabilities, a new TAS e-filing application, a modernized steel and aluminum import monitoring system, an early-stage global leads solution, a 3x improvement in the speed of international-US air-traffic reporting, optimized CRM reporting, and a new hiring dashboard.

U.S. Treasury Outlay Application

The Office of Budget (OB) developed and integrated a new application supporting the Office of Management and Budget MAX Applications interface. This enhancement provided a more efficient, user-friendly application interface for the 12 Commerce Bureaus. The application maintains the integrity and accuracy of the data reported to the U.S. Treasury and OMB.

Freedom of Information Act (FOIA)

The Office of Privacy and Government automated and transformed the Department’s antiquated FOIA process. This relieved the Immediate Office of the Secretary (IOS) of intensely burdensome manual record searches. This was a “First” for the Department and marked a tremendous milestone in modernizing and improving Department wide FOIA processing capabilities. Relativity software reduced records requiring hands-on review by 58%.

Performance Indicator Results and Targets

SO 5.2 – Accelerate Information Technology Modernization Performance Indicator		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
OS - Trusted Internet Connection Capabilities - ensure NOAA TIC service meets TIC 2.0 requirements	Target	100%	100%	100%	100%	100%	Met	100%	100%
	Actual	85%	98%	98%	100%	100%			

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

OS - Continuous Monitoring - Ongoing near real-time awareness and assessment of information security risks to support risk management decisions	Target	95%	95%	95%	95%	95%	Exceeded	95%	95%
	Actual	96%	96%	90%	96%	100%			

For more information, please see the [Strategic Objective 5.2 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

DOC will develop a long-range funding strategy for IT Modernization. Technology Business Management best practices will be used to maximize the benefits of investments in modernization and security.

Actions to Advance Progress through FY 2022

Staff will refine the new Commerce.gov website to make it more user friendly, visually engaging, and rich in information. The Bureau of Industry and Security will migrate to cloud base e-mail.

The USPTO will continue to enhance its IT capabilities for both the Patents and Trademarks business areas and maintain effective legacy systems during the transition to modern applications. Improvements will be implemented in core electronic examination tools for document management and searching; interactions for filing, searching, payment, and communication; and convenience and security when conducting business with the USPTO. The USPTO will continue to evaluate its IT systems in terms of their importance to mission achievement, stability, and adaptability risks. The USPTO plans to identify IT systems best suited for the first wave of high-availability and failover capabilities. They will also identify a second wave of systems based on relative importance and stabilization risk.

Throughout FY 2021, ITA will continue to fulfill its mission through the innovative use of technology, judicious use of taxpayer funds, and a commitment to operational excellence focused on seven priority initiatives, including establishing a foundational enterprise architecture program, completing all IT modernization projects, improving Tasking & Tracking management, enhancing digital analytics & marketing, migrating to DOC Centers of Excellence, improving the IT capability request process, and streamlining government expenditure on conferencing capabilities.

The Department will deploy a new Business Applications Solutions system that integrates financial management activities. The Business Applications Solution (BAS) project will deploy a Software-as-a-Service (SaaS) integrated suite of financial management and business applications. This will

modernize the Department's financial, acquisition, property, and Enterprise Data Warehouse (EDW) and Business Intelligence (BI) reporting solution. It will include data from BAS systems, Personal/Real/Fleet Property, Grants, Travel, and HR/Payroll, etc.

STRATEGIC OBJECTIVE 5.3 – Consolidate Functions for Cost Savings

Contributing Bureaus: OS, All bureaus

Key Strategies:

- Continue deploying enterprise service models for purchasing and human resources functions when cost savings exist
- Leverage cutting-edge technology to enhance the customer’s experience
- Continue to pursue business process improvements implementing best practices in a Shared Services environment

Executive Summary of Progress

On Track

The Department of Commerce established Enterprise Services (ES) to provide high-quality, administrative transactional services in a cost-effective manner. ES was well on the path to achieve cross-agency priority (CAP) Goal 5: Sharing Quality Services, before it was formally introduced as a key component of the President’s Management Agenda, directing agencies to shift time, effort, and funding from low to high-value work through the elimination of unnecessary requirements, burden reduction, optimization, streamlining and workload automation. ES paved the way for a true Shared Services model for the Department by creating a new model of service delivery for human resources (HR) transactional services and by assuming responsibility for full-lifecycle acquisition services—to include Strategic Sourcing.

In 2016, payroll, benefits, and personnel action request (PAR) processing were migrated from many disparate offices across the Department into ES. ES streamlined and enhanced related processes and technology. Simultaneously, ES introduced an on-line portal to make submission and tracking of personnel actions transparent and easy to track. ES recently re-competed these processing services to further streamline and improve service delivery, which will result in anticipated cost avoidance of \$21.9 million over 6 years, realizing a return on investment in 2.4 years.

Simultaneously, ES is building and implementing an innovative new Talent Acquisition solution which is expected to be fully operational by January 2022. This solution will combine federal recruiting and hiring experts from some of the foremost HR providers with streamlined, automated new processes, all built on a platform of cutting-edge technology. It will deliver a full-service recruitment and hiring solution to the Department. It will encompass application tracking, onboarding, candidate assessment and cognitive recruitment tools. This new technology will contribute to the OCIO’s IT modernization goals and reduce the Department’s average cost-per-hire by 26%. ES expects to deliver this innovative, enhanced solution at a \$63.3 million cost avoidance to the Department, realizing a return on investment in 3.11 years.

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

The Department had a robust Strategic Sourcing program for nearly a decade. ES now has full authority and accountability for the Department’s Strategic Sourcing portfolio. This portfolio provides fast and cost-effective common buys across the bureaus (laptops, cell phones, furniture, etc.). The Strategic Sourcing program benefits the bureaus by negotiating contracts with economies of scale, thereby driving down the price per item or service. In FY 2020, the Strategic Sourcing program saved the Department over \$80 million. This performance is indicative of the Department’s progress and success on CAP Goal 7: Category Management – Leveraging Common Contracts and Best Practices to Drive Savings and Efficiencies.

Performance Indicator Results and Targets

SO 5.3 – Consolidate Functions for Cost Savings Performance Indicators		FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	Status as of FY 2020	FY 2021	FY 2022
OS - Reduced Operating Costs (new) ¹	Target	New performance indicator for FY 2020. Baseline values not established, but targets are set.			N/A	-15%	Not Met	-15%	-15%
	Actual					0			
OS - Acquisition Cost Avoidance ²	Target	N/A	\$22,100,000	\$22,100,000	\$50,000,000	\$50,000,000	Exceeded	\$95,000,000	\$100,000,000
	Actual	N/A	\$45,200,000	\$48,900,000	\$85,400,000	\$86,500,000			
OS - Acquisition Customer Satisfaction ³	Target	N/A	90%	90%	95%	95%	Exceeded	97%	97%
	Actual	N/A	100%	100%	100%	100%			
OS - Personnel Action Requests ES Accuracy ⁴	Target	N/A	N/A	98%	99%	99%	Not Met	98%	98%
	Actual	N/A	N/A	91%	83%	80%			

¹ Source: Enterprise Services Business Case February 2018; Operating cost reduction target is dependent on implementing the scope (services and participation levels) in the planned timeline as outlined in the ES Business Case. This target was not able to be realized for FY 2020 due to the delayed approval to proceed with the award of the contract for Talent Acquisition until the end of FY 2020.

² Cost avoidance is cost not incurred due to improved business processes that reduce redundancy and eliminate unnecessary waste. It is cost that would have been incurred under previous business processes that have been improved to use funds for other efforts including directly supporting the mission. You can acquire more per dollar than you could prior. Source: Executive Dashboard

³ Source: Acquisition Customer Satisfaction Surveys

⁴ Measures the accuracy of processing ES personnel action requests. Mistakes found during the Quality Assurance Audit included the following: incorrect job code provided, incorrect veterans’ info provided, and incorrect NOA code used. Source: Executive Dashboard. The transition to the new

Management Analysis of Strategic Goal 5 – Deliver Customer-Centric Service Excellence

PAR, PAY, BEN service provider is expected to improve these Quality Assurance / Quality Control issues and improve PAR processing accuracy. While the current indicator was not met in FY 20, PAR accuracy increased by 14% over the last four pay periods (PP19-PP22).

For more information, please see the [Strategic Objective 5.3 Story](#) on our new public website: Commerce Performance Data Pro.

Strategic Conclusions and Recommendations

The Department is well positioned to transition the delivery of administrative services to ES. Actions on Strategic Objective 5.3 support three Cross-Agency Priority Goals in the President's Management Agenda: Improving Customer Experience, Sharing Quality Services, and Shifting from Low-Value to High-Value Work.

Enterprise Services is building and implementing an innovative new Talent Acquisition solution which is expected to be fully operational by January 2022 and will allow bureaus to transition from low value to high value work. This solution will deliver a full-service recruitment and hiring solution to the Department, encompassing application tracking, onboarding, candidate assessment, and cognitive recruitment tools. The Department currently has more than 20 legacy HR systems. This new technology will significantly contribute to the OCIO's IT modernization goals and reduce the Department's average cost-per-hire by 26%. ES expects to deliver this innovative, enhanced solution at a \$63.3 million cost avoidance to the Department, realizing a return on investment in 3.1 years.

In 2016, payroll, benefits, and personnel action request (PAR) processing were migrated from several disparate offices across the Department into ES. As part of this migration, ES streamlined and significantly enhanced related processes and technology. Simultaneously, ES introduced an online portal to make submission and tracking of personnel actions transparent and easy to track.

ES recently re-competed these processing services to further streamline and improve service delivery which will result in an anticipated cost avoidance of \$21.9 million over 6 years, realizing a return on investment in 2.4 years.

Actions to Advance Progress through FY 2022

The Department is on the right trajectory as it prepares for FY 2022 with the actions taken as noted in the preceding section.