U.S. DEPARTMENT OF COMMERCE

FY 2021 Annual Performance Plan
FY 2019 Annual Performance Report

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.

ENACTED BUDGET

The Department's FY 2019 enacted budget was approximately $11.4 billion.

WEBSITE

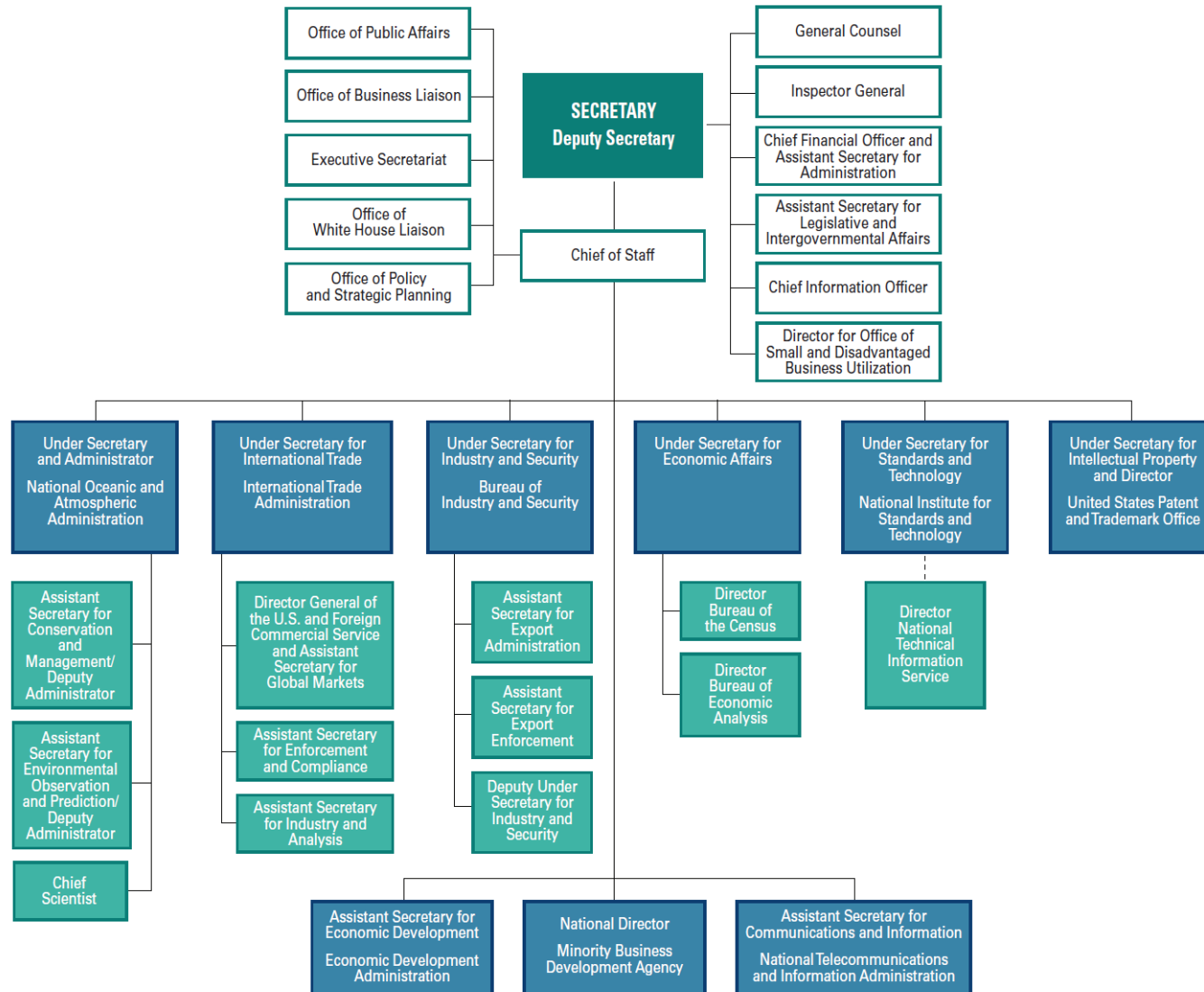The Department's Internet address is https://www.commerce.gov/.

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

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Office of Public Affairs
Office of Business Liaison
Executive Secretariat
Office of White House Liaison
Office of Policy and Strategic Planning

SECRETARY
Deputy Secretary

Chief of Staff

General Counsel
Inspector General
Chief Financial Officer and Assistant Secretary for Administration
Assistant Secretary for Legislative and Intergovernmental Affairs
Chief Information Officer
Director for Office of Small and Disadvantaged Business Utilization
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Under Secretary and Administrator
National Oceanic and Atmospheric Administration
- Assistant Secretary for Conservation and Management/Deputy Administrator
- Assistant Secretary for Environmental Observation and Prediction/Deputy Administrator
- Chief Scientist

Under Secretary for International Trade
International Trade Administration
- Director General of the U.S. and Foreign Commercial Service and Assistant Secretary for Global Markets
- Assistant Secretary for Enforcement and Compliance
- Assistant Secretary for Industry and Analysis

Under Secretary for Industry and Security
Bureau of Industry and Security
- Assistant Secretary for Export Administration
- Assistant Secretary for Export Enforcement
- Deputy Under Secretary for Industry and Security

Under Secretary for Economic Affairs
- Director Bureau of the Census
- Director Bureau of Economic Analysis

Under Secretary for Standards and Technology
National Institute for Standards and Technology
- Director National Technical Information Service

Under Secretary for Intellectual Property and Director
United States Patent and Trademark Office

Assistant Secretary for Economic Development
Economic Development Administration

National Director
Minority Business Development Agency

Assistant Secretary for Communications and Information
National Telecommunications and Information Administration

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 rules and timetable established by the Office of Management and Budget (OMB).

Prior to FY 2018, 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 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 2019, the Department conducted the OMB-required Annual Strategic Review (ASR) of progress implementing the Strategic Plan. The ASR findings were delivered to OMB in May. Subsequently, Department leadership met with OMB principals to review progress.

This document is the Department's Annual Performance Plan and Report (APPR). It includes performance indicator results for FY 2019 and targets for FY 2020 and FY 2021 based on the FY 2021 President's Budget. The Department's APPR is posted on www.Commerce.gov and 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 is sent to OMB in May. 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 initiatives (e.g. Human Resources, Acquisition, Financial Management, etc.) are tracked on an online dashboard and reviewed at monthly meetings with the Chief Financial Officer/Assistant Secretary for Administration (CFO/ASA). The various CXO Councils (e.g. Chief Financial Officer, Chief Human Capital Officer, and Chief Information Officer) also review performance metric dashboards.

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 new 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 WAY 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 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 site'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.
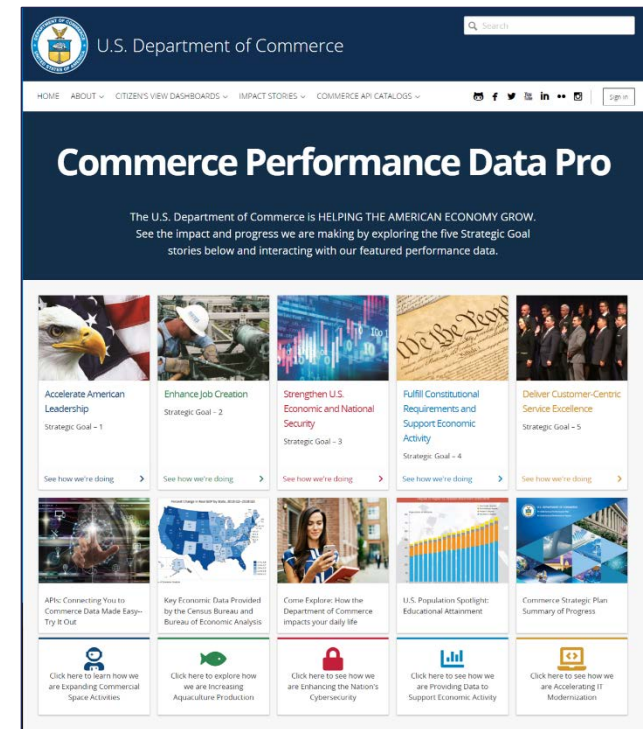
AGENCY PRIORITY GOALS

The GPRAMA requires agencies to establish Agency Priority Goals (APG). APGs set two-year targets for initiatives that are significant and would benefit from a 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 2018 – 2019 APGs are in the related Strategic Objective sections of this report. **All the critical Department APG targets were met or exceeded as of the end of FY 2019**. The Census Bureau reported one milestone was delayed, but the delay had no appreciable impact on the progress or quality of the Decennial Census. Quarterly performance indicator data on APGs and Cross-Agency Priority (CAP) Goals, which address multi-agency priorities, are posted to www.Performance.gov. The Department's FY 2018 – FY 2019 APGs were:

- **Remove Foreign Trade Barriers:** ITA will facilitate fair competition in international trade for U.S. firms and workers by improving the number of trade barriers reduced, removed, or prevented by 10 percent annually in fiscal years 2018 and 2019.
- **Accelerate Patent Processing:** By September 30, 2019, the U.S. Patent and Trademark Office will reduce patent pendency to less than 15 months for first action pendency and less than 24 months for total pendency from the end of the fiscal year 2017 results of 16.3 months and 24.2 months, respectively.
- **Mitigate Flood Impacts by Demonstrating Improved Decision Support Services to Emergency Managers:** By September 30, 2019, NOAA National Weather Service will improve decision support services by demonstrating a new flood inundation mapping capability serving 25 million people, which is 8 percent of the U.S. continental population, residing in flood-vulnerable freshwater basins and delivering an enhanced excessive rainfall outlook product that extends the lead time of high risk predictions from two to three days.
- **Prepare to Conduct a Complete and Accurate 2020 Decennial Census:** The U.S. Census Bureau will prepare to conduct a complete and accurate 2020 Decennial Census U.S. population count by conducting the 2018 End-to-End Census Test and analyzing and incorporating the results, initiating In-Field Address Canvassing by September 30, 2019, and designing for optimal self-response with a nationwide target of 60.5% in 2020.

The Office of the Secretary began the process of developing APGs for FY 2020 – FY 2021 in January 2019. The Department's APG topics for FY 2020 – FY 2021 are:

- **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.
- **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.

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 of the Agenda. 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 progress is reported on CAPs co-led by Commerce executives. 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 June 2019, RTI International delivered a report to NIST on Overview and Analysis of Technology Transfer from Federal Agencies and Laboratories. In September 2019, NIST published the FY 2016 Federal Technology Transfer Report. NIST also actively engages its lab scientists in creating awareness of commercialization opportunities and holds discussions with venture capitalists about how to accelerate the commercialization of federal research.

The Department of Energy aligned its acquisition regulations with the Stevenson-Wydler Technology Innovation Act and funded 12 projects for its "Practices to Accelerate the Commercialization of Technologies" initiative. Several public forums were held or attended, notably, the InnovationXLab Summit for AI and Blue Tech Week. In November 2019, AUTM was awarded a $16 million grant to collaborate with the Federal Laboratory Consortium to improve and support Federal Laboratory Technology Transfer.

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. In April 2019, 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 the Data, Accountability, and Transparency 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 newsletter and on the public website: https://strategy.data.gov. Several forum and feedback sessions were 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, teaching leaders how to use data for decision making, and using data to improve accountability.

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; and
- Portfolio Management – Organize programs and projects to support agency strategic goals and review the structure annually. Establish standards and use integrated governance data/dashboard tracking, to inform acquisition, project, and program decisions.

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

FY 2020 TOP MANAGEMENT CHALLENGES

The DOC Office of Inspector General (OIG) identified eight management challenges within the Department for FY 2020. 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 2020 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 2020 action plans are provided in the charts below and include high level milestones and links to additional public information.

FY 2019 Management Challenge Identified by DOC OIG	Alignment to Department 2018-2022 Strategic Objectives that Address the Challenge	Official Responsible for Resolving the Challenge
1. Conducting an Accurate 2020 Census Enumeration While Realizing Expected Efficiency and Estimated Cost-Effectiveness	SO 4.1 – Conduct a Complete and Accurate Decennial Census	Associate Director for Decennial Census Programs, Census Bureau
2. Ensuring the Success of Current and Future Satellite Programs	SO 3.3 – Reduce Extreme Weather Impacts	Deputy Assistant Administrator, National Weather Service, NOAA
3. Deploying a Nationwide Public Safety Broadband Network (NPSBN)	SO 3.4 – Deploy Public Safety Broadband	Chief Executive Officer of the First Responder Network Authority
4. Managing an Increasing Demand for Intellectual Property 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

FY 2019 Management Challenge Identified by DOC OIG *continued*	Alignment to Department 2018-2022 Strategic Objectives to Address the Challenge	Official Responsible for Resolving the Challenge
6. Refining Processes and Enhancing Capacity for Trade Enforcement Efforts	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. Effectively Managing the Significant Increase in Disaster Relief Funding to EDA	SO 2.2 – Reduce and Streamline Regulations SO 5.1 – Engage Commerce Employees	Deputy Assistant Secretary for Regional Affairs, EDA
8. Preparing the Acquisition Workforce to Administer and Monitor Departmental Resources	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

FY 2020 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 eight FY 2020 management challenges.

1. Conducting an Accurate 2020 Census Enumeration While Realizing Expected Efficiency and Estimated Cost-Effectiveness		
Key Actions	**Performance Indicators / Milestones**	**Links to Key Public Updates and References**
- Update the Census Bureau Risk Management Program System and implement management reviews and quality controls. - Identify and include potential cost overruns related to space acquisition activities as part of any contingency funding for the 2020 Census - Strengthen controls for use of contracts and blanket purchase agreements - Update the 2020 Life-Cycle Estimate informed by testing and actual costs - Update the 2020 Census Integrated Master Schedule	- Conduct 2020 Census - Deployment of non-CEDCAP systems - Release Apportionment Counts to the President of the United States - Release census data below the state-level for use in redistricting efforts - Release census data products for use by the public - Close remaining RCCs and ACOs - Complete Post-Enumeration Survey (PES) operations - Continue preliminary planning for 2030 Census program proposal	https://www.performance.gov/commerce/APG_commerce_3.html

2. Ensuring the Success of Current and Future Satellite Programs

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Ensure that the polar weather satellite program remains on cost and on schedule. • Maintain programmatic schedule for the Space Weather Follow On (SWFO) L1 mission to take advantage of 2024 partner-provided launch opportunities for maintaining continuity of space weather observations. • Conduct trades, analyze and plan the procurement of future data sources and satellite architecture.	• Baseline Life-Cycle Cost and schedule for Polar Follow-On/ JPSS-3 and -4 satellite missions. • Release SWFO-L1 Spacecraft Request for Offer • Approval of the Milestone Decision Memorandum for the SWFO Program. • Based on responses from the 2019 Broad Agency Announcement and availability of funding, award study contracts to industry for the next generation of space architecture in geostationary and low-Earth orbits.	https://www.nesdis.noaa.gov/content/our-satellites

3. Deploying a Nationwide Public Safety Broadband Network (NPSBN)

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Deploy and ensure sustainability of NPSBN • Secure public safety participation • Ensure successful performance of contract awarded to implementing contractor • Ensure effective and efficient use of fees the implementing contractor provides annually to the FirstNet Authority • Strengthen operational controls	• Percentage of coverage achieved versus the planned coverage • Annual actual public safety adoption rate vs. adoption targets established by the contract • Contract delivery milestones implemented • Investment process created that includes feedback from external stakeholders and is vetted thorough established procedures • Develop records management procedures and standard operating procedures for fee review process; improve risk management process	https://www.firstnet.gov/resources https://about.att.com/story/2019/firstnet_footprint_expansion.html

4. Managing an Increasing Demand for Intellectual Property Rights		
Key Actions	**Performance Indicators / Milestones**	**Links to Key Public Updates and References**
• At the beginning of FY 2021, fully implement adjustments in patent examination time, patent application routing, and a new patent examiner performance appraisal plan (PAP) • Issue Patent Trial and Appeal 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 • Improve patent application pendency by continuing to hire and train patent examiners in appropriate areas • Increase transparency and collaboration between agency personnel and external stakeholders • Perform random audits of trademark registrations to strengthen the integrity of the trademark register. • Cybersecurity and Systems Performance/ Monitoring • Update business Continuity/Disaster Recovery resources	• Provide additional examination time based on attributes of individual patent applications • 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 precedential and informative decisions to inform the public • Monitor PTAB Motion-to-Amend Pilot Program to ensure patent owners have opportunities to amend claims and issue final rule clarifying burdens applicable in the amendment process • Complete 5,000 audits or 2.7% of planned post- registration filings • Integrate Continuous Diagnostics Mitigation (CDM) with DHS Dashboard • Migrate systems to Remote Backup Storage- As-a-Service and Infrastructure and Application Readiness	https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/precedential-informative-decisions https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/new-pilot-program-concerning-motions https://www.uspto.gov/patent/initiatives/uspto-patent-application-initiatives-timeline https://www.uspto.gov/patent/laws-and-regulations/examination-policy/updates-patent-examination-time-application-routing https://www.uspto.gov/trademark

5. Continuing to Improve the Department's Cybersecurity Posture

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• Continue to ensure successful continuous monitoring on its high-impact systems • Improve the hiring and retaining efforts for a robust IT security workforce within DOC	• Integrate Enterprise Cybersecurity Monitoring and Operations (ECMO) programs with Continuous Diagnostics and Mitigation (CDM) activities using CDM dashboard to increase enterprise continuous monitoring visibility • Establish working group to develop ongoing cybersecurity continuous monitoring baseline requirements for bureau's with high risk information systems • Perform cybersecurity workforce analyses to identify staffing and proficiency / competency gaps and create action plans to close gaps	https://www.dhs.gov/cdm https://www.chcoc.gov/content/guidance-identifying-addressing-and-reporting-cybersecurity-work-roles-critical-need

6. Refining Processes and Enhancing Capacity for Trade Enforcement Efforts

Key Actions	Performance Indicators / Milestones	Links to Key Public Updates and References
• 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	• Fill vacant ITA positions • Sustain BIS/ITA workforce supporting Section 232 exclusion request process • Review of 5 DAS areas	FY2020 ITA Congressional Budget Submission https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius

7. Effectively Managing the Significant Increase in Disaster Relief Funding to EDA		
Key Actions	**Performance Indicators / Milestones**	**Links to Key Public Updates and References**
• Establish and initiate Disaster Supplemental Implementation (DSI) team structure to ensure a comprehensive oversight and implementation • Recruit and train sufficient staff with appropriate proficiency (initial tranche) • Develop and execute systems to support funds disbursement, management, oversight and internal controls • Acquire and establish technology-based capacities and performance metrics to implement, track and evaluate Disaster Supplemental awards • Develop outreach and communications strategy and materials to showcase Disaster Recovery support activities to internal and external stakeholders	• Formation of DSI teams • Conduct end-of-year hiring surge • Provide guidance on special procedures related to disaster funds • Develop and implement enhanced internal controls • Create public-facing award data tracker	None

8. Preparing the Acquisition Workforce to Administer and Monitor Departmental Resources

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

• Develop / maintain a competent acquisition workforce to maximize cost savings:
  • Continue to reinforce competency training through the Big A conference
  • Seek resources to establish a procurement innovation lab (PIL) at Department of Commerce modelled on the Department of Homeland Security PIL
  • Seek resources to accelerate providing Digital IT Acquisition Professional (DITAP) training to the procurement workforce
• Improving effectiveness in the planning and governing of NOAA's ship fleet recapitalization acquisitions: NOAA proceeding with an acquisition process under an interagency agreement with the Navy for 2 NOAA AGOR Variant vessels
• Improving contract administration to ensure proper contract closure: address contract closeout in all AMRs conducted by the Department; issue notice to workforce reminding them of Departmental policy and available training resources
• Improve control of contract and grant file management: address file completeness in all AMRs and GMRs conducted
• Training CORs and other contract administrators in accordance with regulatory requirement and contract terms: provide
	• Workforce:
	  • Conduct Big A conference;
	  • DOC PIL program and funding proposal submitted as part of the budget formulation;
	  • Funding request submitted to establish an annual Commerce DITAP cohort as part of the budget formulation
	• Ship Acquisition: Key acquisition milestones completed on time
	• Contract Closeout: document AMR findings and follow corrective action plans as applicable
	• File management: AMR and GMR findings documented and corrective action plans followed as applicable
	• COR Training: COR training session provided in conjunction with Big A conference
		http://www.osec.doc.gov/oam/archive/big-a-acquisition-conf.html
		
		https://www.dhs.gov/pil
		
		https://www.whitehouse.gov/wp-content/uploads/2018/05/fac_c_digital_services_05_12_18.pdf
		
		https://www.omao.noaa.gov/find/media/documents/noaa-fleet-plan-building-noaas-21st-century-fleet-0
		
		http://www.osec.doc.gov/oam/acquistion_management/policy/commerce_acquisition_manual_cam/documents/CAM%201304.804%20Contract%20Closeout%20(Final).pdf
		
		http://www.osec.doc.gov/oam/acquistion_management/policy/commerce_acquisition_manual_cam/documents/CAM_1372-000_Acquisition_Management_Review_Procedures.pdf
		
		http://www.osec.doc.gov/oam/acquistion_management/policy/commerce_acquisition_manual_cam/documents/CAM%201301.670(Jan2012).pdf

additional COR specific training at the Big A training conference and throughout the year		

STRATEGIC OBJECTIVES' PERFORMANCE ASSESSMENT AND PLANNING

STRATEGIC OBJECTIVE 1.1 – Expand Commercial Space Activities

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

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

Focus Area for Improvement

In FY 2019, the Office of Space Commerce led a Department-wide campaign to advance industry engagement and advocacy, regulatory streamlining, and policy development and implementation. The Office's staffing expanded, via cross-bureau assignments and contractor hires, to support DOC's future role in providing space situational awareness (SSA) to commercial operators. The Office made significant strides in preparation for this role. OSC:

- Established a continuous DOC presence in DOD's existing SSA operations center
- Developed a roadmap for the DOC role transition
- Accessed a cloud-based data management platform to demonstrate SSA data dissemination/fusion concepts
- Collected information on commercial SSA capabilities and future regulatory requirements
- Promoted international norms for space safety

- Engaged industry in continuous dialogue about these efforts

The Office organized a series of public events on key elements needed to grow the U.S. space economy, including <u>financial investment</u>, <u>risk mitigation</u>, <u>safety and sustainability</u>, and <u>support from DOC</u>.

The Secretary/Deputy Secretary participated in three meetings with the National Space Council. The Office of Space Commerce coordinated the implementation of DOC-related decisions/actions. These include rulemakings on <u>space export controls</u> and <u>commercial remote sensing</u>, publication of a <u>report on space spectrum needs</u>, and participation in White House working groups to develop new space policies and positions.

The Office of Space Commerce also supported the Federal Communications Commission's (FCC) decision to <u>waive licensing requirements for Galileo satellite receivers</u> and to re-scope an orbital debris rulemaking. The Office of Space Commerce led international engagements including U.S. delegations to the United Nations Committee on the Peaceful Uses of Outer Space, <u>U.S.-Thai civil space dialogue</u>, and U.S.-EU working group on GNSS market access.

Through NOAA, DOC advanced its efforts to partner with commercial space firms. This included <u>contract awards for Round 2 of its Commercial Weather Data Pilot</u> and <u>solicitations for commercial solutions to fulfill elements of its future satellite architecture</u>.

Through NIST, DOC released a <u>study estimating the economic benefits of GPS technology</u>.

Through BEA and USPTO, DOC initiated long term efforts to measure and track the U.S. space economy.

Through MBDA, DOC issued grants to promote <u>minority business involvement in space commerce</u>.

Additionally, the USPTO provides intellectual property protection that supports innovation and drives technological progress in space-related industries. This helps transform traditional space markets and create new markets.

Performance Indicator Results and Targets

SO 1.1 – Expand Commercial Space Activities Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	*FY 2020*	*FY 2021*
NOAA - Number of space policy related decision processes, rulemakings, statements, or other governmental activities influenced/led by Commerce (new)	Target	*Revised performance indicator. FY 19 values derived from previous indicator.*				*16*	Met	*16*	*20*
	Actual					*16*			
NOAA - Number of external stakeholder requests for support fulfilled *(new)*	Target	*New performance indicator. Baseline values not established, but targets are set*						*40*	*80*
	Actual								
NOAA - Milestones achieved in transitioning Space Situational Awareness functions to DOC (new)	Target	*Revised performance indicator. FY 19 values derived from previous indicator.*				*10%*	Met	*25%*	*50%*
	Actual					*10%*			
NOAA - Number of workshops, reports, and other tools produced to facilitate growth and advancement of the U.S. commercial space industry	Target	*N/A*	*1*	*1*	*1*	*4*	Met	*4*	*6*
	Actual	N/A	1	1	1	4			

For more information, please see the <u>Strategic Objective 1.1 Story</u> on our new public website: Commerce Performance Data Pro

Strategic Conclusions and Recommendations

The Department is effectively leveraging staff and resources from across the bureaus to implement the Strategic Objective. Establishing new metrics to measure the impact of Commerce efforts is a priority. The Department stands ready to support new initiatives from the National Space Council.

The aim is to create a permissive, light touch regulatory environment for U.S. industry and promote the United States as the flag of choice for commercial space activities.

The Department's initiative to create a civil Space Situational Awareness/Space Traffic Management (SSA/STM) capability is focused in four areas: 1) developing a transfer landing team for Vandenberg Air Force Base; 2) engaging industry across a wide range of activities; 3) developing an open architecture data repository, starting with the DoD authoritative catalog, where companies can demonstrate innovative capabilities; and 4) capturing international leading practices and standards for the SSA/STM mission. All these inputs will help identify regulatory actions that stimulate U.S. industry and/or space safety and stability.

Actions to Advance Progress through FY 2021

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 regulations affecting space export controls and satellite remote sensing.
- Develop new proposals for authorizing space activities not currently overseen by federal regulatory agencies.
- Work with the Department of Defense to develop requirements that would 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 is able to 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, 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, 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 radio spectrum is available for critical government missions and growing private sector demand. NOAA is collaborating with multisector partners to advance new ocean science and technology focus areas: unmanned systems, 'omics, artificial intelligence, and cloud computing. This will grow the blue economy and deliver the world's best weather forecasts.

Quantum Science

Scientists at NIST made several breakthroughs this past year in the measurement and control of quantum systems. To enable the U.S. to fully capture the benefits of this transformational technology, NIST is establishing the Quantum Economic Development Consortium (QEDC) in partnership with SRI International. The Consortium consists of over 50 interested industry members. It will support precompetitive R&D, such as quantum device design and prototyping. QEDC will also coordinate public and private investments, determine workforce needs, and build out the research infrastructure needed to grow this industry.

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 to biometrics. On August 10, 2019 NIST released a plan for prioritizing Federal agency engagement in the development of standards for AI.

NOAA is working to expand the application of AI in every NOAA mission area by improving the efficiency, effectiveness, and coordination of AI development and usage across the agency. Data exploitation capabilities are increasing exponentially with improved data from scalable consolidated satellite architecture, unmanned systems, and commercial data sources. As such, AI methods will enhance the quality and timeliness of NOAA science, products, and services.

USPTO is developing AI tools to facilitate a variety of tasks, including classification and patent and trademark examination. The USPTO is reviewing patent and trademark policies and procedures to ensure AI innovations are properly protected and incentivized. USPTO is engaging with technical experts and intellectual property (IP) stakeholders to determine whether existing IP laws encourage innovation or whether new forms of IP protection are needed.

Advanced Manufacturing

NIST research in advanced materials, smart manufacturing, microelectronics, and robotics provides manufacturers with tools to increase efficiency and competitiveness. The award-winning data is used by over 57 organizations and 200 users each month. The toolkits have been downloaded over a thousand times.

Spectrum Availability

NTIA's spectrum management operations ensure federal agencies have enough access to spectrum to conduct 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 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 ways to share the 3100-3550 MHz band commercially while protecting Department of Defense (DoD) mission critical capabilities.

Unmanned Earth System Observation

NOAA is expanding innovative, cost-effective unmanned systems to improve the effectiveness and safety of observing operations for weather prediction, earth system monitoring, and oil and chemical spill response. Unmanned Systems will provide innovative, safe, cost-effective, and compliant services

across the agency.

'Omics

NOAA is expanding research in 'omics, a suite of leading-edge methods used to analyze materials such as DNA and RNA 'omics will revolutionize monitoring and understanding the biological communities of the oceans and Great Lakes. It will also make transformative advancements in the quality and timeliness of NOAA science, products, and services.

Intellectual Property (IP)

Predictable and reliable IP rights are critical for creating new jobs and driving technological progress across all industries. IP protection supports innovation in vital areas that improve the quality of life for people, such as health care, AI, food production, and energy exploration. IP protection encourages innovation in disruptive technologies. Autonomous vehicles and speech recognition, which use AI, can make everyday life more safe, convenient and agreeable. To support increased investments and opportunities in the US economy, from independent inventors to multinational corporations, the USPTO has increased patent and trademark quality, while reducing the pendency of patent and trademark applications.

Digital Commerce

The USPTO enhanced its website resources for inventors and entrepreneurs, to provide information by geographical region. The site identifies resources, including those at the USPTO Regional Offices, pro bono opportunities, and other assistance that make filing for a patent or a trademark easier and more affordable.

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. For example, 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.

NOAA will migrate suitable IT services to commercial cloud computing environments to reduce costs, improve efficiency, provide unlimited seamless scalability, and maintain high levels of security. Cloud represents a transformative technology that will improve general operational IT services. It will also ensure many of NOAA's outputs, from observations, data, and numerical weather prediction are available to end user products. This availability will better serve the public and more effectively enable mission results.

Grant Funding

In FY 2019, EDA invested approximately $151.6 M in 120 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.

Performance Indicator Results and Targets

SO 1.2 – Advance Innovation Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
NIST - Number of businesses using NIST research facilities	Target	225	275	325	325	300	Exceeded	300	300
	Actual	444	435	442	450	491			
NIST - Citation Impact of NIST Publications	Target	1.5	1.5	1.6	1.6	1.3	Exceeded	1.3	1.3
	Actual	1.7	1.8	1.66	1.62	1.69			
NIST - International Adoption of NIST Quantum SI Standards (new)	Target	N/A	N/A	N/A	3	4	Exceeded	5	6
	Actual	N/A	N/A	N/A	3	5			
NTIA - Percentage of spectrum assignments transitioned on time, based on approved plans (new)	Target	N/A	N/A	N/A	80%	75%	Exceeded	DISC	DISC
	Actual	N/A	N/A	N/A	92%	96%			
NTIS - Number of new public-private projects (or Government – Industry projects) entered into under the Joint Venture (JV) Authority per year (new)	Target	N/A	N/A	N/A	5	5	Exceeded	10	15
	Actual	N/A	N/A	N/A	10	15			
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			NA	98	122	Met	108	TBD
	Actual			109	136	120			
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			NA	$86.60	$136.80	Exceeded	$136.44	TBD
	Actual			$96.20	$151.00	$151.60			

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 U.S. exports and economic security.

Actions to Advance Progress through FY 2021

NIST

NIST continues to prioritize its R&D efforts in quantum science, artificial intelligence, advanced manufacturing, and advanced communications. This allows NIST to continue providing the measurement science and standards infrastructure necessary to support innovation. NIST continually seeks ways to maximize the relevance and quality of its scientific research as well as the dissemination of the 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

NOAA announced new strategies to dramatically expand the agency's application of four emerging technologies. These four strategies will improve the development and usage of the technologies across the agency and will allow NOAA to dramatically expand these applications.

- NOAA's Unmanned Systems Strategy will provide a framework for efficient, safe, cost-effective, and compliant Unmanned Systems services across

the agency and enhance capabilities through partnerships.

- Artificial Intelligence Strategy will reduce the cost of data processing and provide higher quality, more timely scientific products and services.
- NOAA 'Omics Strategy will provide a framework to advance the application of 'omics across NOAA's current organizational structure and will effectively implement 'omics with partnerships across NOAA, federal agencies, and extramural research and commercial communities.
- NOAA's Cloud Strategy - will leverage cloud services to make NOAA data more accessible to customers.

NTIA

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

NTIA will: 1) certify approximately 600 spectrum-dependent systems; 2) approve over 150,000 radio frequency assignments; 3) coordinate several hundred satellite actions with foreign governments and domestic operators to bring satellite systems into use; and 4) 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.

Additionally, NTIA will facilitate early access to transition spectrum bands by making at least one contact with licensees per quarter to ensure that 80 percent or more of designated spectrum assignments are transitioned on time. NTIA will submit its next annual report to Congress under the Commercial Spectrum Enhancement Act in the third quarter of FY 2020.

Pursuant to the MOBILE NOW Act of 2018, NTIA will: 1) complete and submit its report on the analysis of the 3.10-3.55 GHz band to determine the feasibility of accommodating commercial wireless services; 2) continue to work closely with the Federal Communications Commission and other federal agencies to identify and make available an additional 255 MHz of spectrum for commercial wireless services; 3) complete a report on providing incentives for federal entities to relinquish or share spectrum with commercial users; and 4) provide recommendations on the changes needed to the spectrum relocation fund to cover the cost of sharing spectrum with unlicensed radio technologies or licensed by rule operations.

NTIA will lead federal agencies at the International Telecommunication Union (ITU) World Radiocommunication Conference (WRC) in early FY 2020. The ITU WRC is the treaty-status forum that sets up spectrum regulations for international operations. The WRC is the culmination of three years of study and preparation. NTIA is on track for a successful WRC. NTIA will coordinate critical spectrum issues along the borders with Canada and Mexico to prevent harmful interference.

NTIA will continue to develop the wireless testbed to test distributed radio frequency (RF) sensing applications under real-world conditions. A NTIA website that offers authorized users near real-time data visualization will be available in October 2020.

NTIA will continue to develop policy advice on emerging technologies through FY 2020.

NTIA will continue to serve as a member of the Organization of Economic Cooperation and Development's (OECD) Expert's Group on AI, which is currently developing policy principles for adoption and trust in AI through FY 2020.

NTIS

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 – NTIS is assisting in:
    - Establishing an initial data services capability to support accessing DoD data across multiple networks.
    - 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 continue to advance the President's Malaria Initiative (PMI). PMI is a historic U.S. Government effort to lead the fight against malaria by developing a system for efficient data integration, analytics, and dissemination. The system would 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.

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 United States Patent and Trademark Office (USPTO) is committed to issuing reliable and predictable Intellectual Property (IP) rights to spur job creation, entrepreneurship and innovation in the United States. The U.S. patent and trademark systems are crown jewels of the nation's economy, culture, and history. Protecting IP is vital to maintain the incentives for research and development, creating quality jobs, driving our economic prosperity, and providing important benefits to society. The USPTO also works to educate the public on the importance of IP to American entrepreneurs and businesses. The USPTO strives to provide strong, reliable, and predictable IP rights. Additionally, USPTO has been designated as a federal "High Impact Service Provider" and as a HISP is participating in a government wide effort to improve the experience of the public when using the bureaus' processes.

Patent Reliability and Timeliness

Throughout FY 2019, the USPTO made significant progress on strategic imperatives that are important to innovation, and intellectual property (IP) protection in the United States. In January 2019, the USPTO clarified guidance on subject matter eligibility. The revisions increased consistency in assessment of what subject matter is patent eligible and what is within a judicial exception. This increased predictability of findings on subject matter eligibility. An additional focus was improving patent examiners' ability to identify the best prior art and promote compact prosecution i.e., minimize rework. Identifying the best prior art is necessary to issue patents with appropriately scoped claims that can withstand challenges over time. Locating the best prior art can at times be challenging due to the ever-accelerating publication of prior art and the many ways in which prior art can be stored and accessed. The USPTO is working on several initiatives to help examiners locate the best prior art, including:

- Increased training on proper search techniques and strategies
- Providing additional resources to examiners

- Piloting new processes, such as collaborative search efforts
- Working with foreign IP offices to help improve searching skills
- Exploring new technologies, such as artificial intelligence (AI) tools

The USPTO's Patent organization met their FY 2018-2019 Agency Priority Goal (APG) of accelerating patent processing by reducing patent application pendency to less than 15 months for first action pendency and less than 24 months for total pendency. By the end of FY 2019, the USPTO achieved 14.7 months for first action pendency and 23.8 months for total pendency. The APG was exceeded due to employee efforts to improve analyses, streamline processes, and clarify approaches that benefit current and future patent applications. These efforts included complex data analysis to better prioritize applications without sacrificing quality, and process revisions that accelerate the overall patent examination.

Trademark Quality and Timeliness

The USPTO's Trademark organization reduced new application pendency from 3.4 months to 2.6 months. The USPTO also met its pendency goals for first and final actions for the 13th consecutive year. The Trademark organization is committed to improving the quality of trademark application examination and ensuring all examiners have the knowledge, and skills to perform their jobs well. To raise the bar, the Trademark organization instituted its Exceptional Office Action initiative. It emphasizes comprehensive excellence in office actions and expands on the existing first and final action standards for correct decision-making. The program is voluntary and the percentage of application reviews meeting the criteria increased by 18.5%.

 IP Training

The USPTO trains foreign officials and U.S. stakeholders on best practices in IP protection and enforcement. USPTO's Global IP Academy (GIPA) trained over 9,000 people in FY 2019, more than twice the annual target of 4,500. Training recipients included domestic IP rights owners, users, and foreign officials (such as, patent, trademark, and copyright officials; judges; prosecutors; police; customs officials; and IP policymakers).

ITA is a training partner with USPTO. ITA provides IP outreach such as STOPFakes.gov roadshows, personal outreach, and materials such as Industry Specific brochures. Seventy minority businesses took part in this outreach.

Digital Economy Intellectual Property Protection

In close coordination with 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 kicked off this initiative to maximize the economic value of federal investments in science and technology. This effort directly supports the President's Management Agenda (PMA). Its goal is to accelerate private sector commercialization of government research. Initial activities during 2019 included a kickoff symposium in April, four public forums across the U.S. (May through June), and a public Request for Information to glean ideas from all sectors.

Performance Indicator Results and Targets

SO 1.3 – Strengthen Intellectual Property Protection Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
USPTO - Patent Average First Action Pendency *APG - 15 months by 2019	Target	15.7	15	15	15	15	Exceeded	16.2	15.4
	Actual	17.3	16.2	16.3	15.8	14.7			
USPTO - Patent Average Total Pendency *APG - 24 months by 2019	Target	26.4	24.2	24.2	24	24.2	Exceeded	23.0	23.5
	Actual	26.6	25.3	24.2	23.8	23.8			
USPTO - Trademark Average First Action Pendency (months)	Target	2.5-3.5	2.5-3.5	2.5-3.5	2.5-3.5	2.5-3.5	Met	2.5-3.5	2.5-3.5
	Actual	2.9	3.1	2.7	3.4	2.6			
USPTO - Trademark Average Total Pendency (months)	Target	12	12	12	12	12	Exceeded	12	12
	Actual	10.1	9.8	9.5	9.6	9.3			
MBDA - Number of minority businesses receiving information on intellectual property protection	Target	120	120	120	120	150	Exceeded	250	250
	Actual	147	143	143	151	175			
USPTO - Number of people, including foreign government officials and U.S. stakeholders, trained on best practices to protect and enforce intellectual property	Target	6,300	5,000	5,000	5,000	4,500	Exceeded	5,000	5,000
	Actual	5,283	4,975	4,134	7,242	9,854			

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 the 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, the process for assigning applications to examiners (application routing), and the evaluation of examiner performance. Full implementation of these updates will occur at the beginning of FY 2021. In addition, Trademark organization examiners' performance requirements were updated in critical areas, including production, workflow, and quality criteria. The USPTO is also gathering customer feedback and using the information to improve processes and tools.

Actions to Advance Progress through FY 2021

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. 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 Patent and Trademark organizations. Monitoring and updating the models are ongoing activities and central to USPTO operations.

In addition to core functions, FY 2020/2021actions to achieve Strategic Objective 1.3 include:

- Training Stakeholders about intellectual property principles and relevant processes.
- Update processes that support Patent Examination.
- Continue to hire examiners, as needed, in appropriate patent and trademark areas.
- Strengthen the integrity of the trademark register through random audits of trademark registrations.
- Continue to enhance USPTO IT capabilities for both the Patents and Trademarks business areas and maintain effective legacy systems during the transition to newer, faster, and more reliable servers. These enhanced capabilities include implementing core electronic examination tools for document management and searching, improving interactions for filing, searching, payment, and communication; and doing business with the USPTO more convenient and more secure.
- Further accelerate Lab-to-Market to maximize U.S. innovation from government-funded research.
- Attend 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

On-Track

Expediting Permitting

NOAA led the interagency working group that developed and published a draft work plan for the Federal Aquaculture Regulatory Task Force in the Federal Register. The plan set three goals to address the Federal strategic goal of improving regulatory efficiency and predictability for domestic freshwater and marine aquaculture under existing laws and regulations.

Ocean Reporting Tool for U.S. Ocean Industries

OceanReports analyzes U.S. ocean "neighborhoods" for the best sites for aquaculture and other industry use. It integrates information from 100 data sources. By providing one-stop, fast, open access to data and spatial reports, OceanReports will save public dollars, cut industry costs, reduce permitting timelines, and help ocean and coastal users and resource managers better manage U.S. ocean space. OceanReports was developed through a partnership between NOAA, the Bureau of Ocean Energy Management, and the Department of Energy.

NOAA Strategic Aquaculture Science Plan

This plan is currently under development. It will bring a "One-NOAA" approach to identify key research priorities, target advances (from 2020 to 2024), and direct efforts to support a domestic marine aquaculture industry. This plan is scheduled to be completed in FY 2020 and will complement an interagency plan being developed by OSTP (see below).

Performance Indicator Results and Targets

SO 2.1 – Increase Aquaculture Production Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
NOAA - Number of projects advanced that improve the efficiency and predictability of the federal permitting process *(new)*	Target	*New performance indicator. Baseline values and targets not established*				*N/A*	N/A	*21*	*33*
	Actual					16			
NOAA - Annual number of aquaculture research projects completed that address key production challenges *(new)*	Target	*New performance indicator. Baseline values and targets not established*				*N/A*	N/A	*57*	*73*
	Actual					57			
NOAA - Number of fishermen, seafood processors and aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety *(new)*	Target	*New performance indicator. Baseline values established and FY 2020 target set.*				*15,000*	Exceeded	*15,000*	*0**
	Actual	62,200	40,243	19,900	17,796	23,000			

*Sea Grants are not funded in the FY 2021 Congressional Budget Justification

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 2021

Efficient Permitting

The Department will continue to work with the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, other federal agencies, and coastal states to develop a more efficient and predictable federal marine aquaculture permitting process. Commerce will also support legislative efforts to provide NOAA unambiguous authority for aquaculture permitting in federal waters. This will create a more predictable and timely permit review process.

Implementation of National Aquaculture Science and Regulatory Plans

NOAA and the White House OSTP interagency Subcommittee on Aquaculture will continue implementation of the National Aquaculture Act of 1980 by completing and implementing the National Strategic Plan for Federal Aquaculture Research (2020-2024) and the Strategic Plan to Improve Aquaculture Regulatory Efficiency. These plans seek to document Federal science and technology opportunities and priorities for aquaculture. They will also provide interagency science and technology coordination to improve regulatory efficiency, research and technology development, and economic growth.

Regional Research and Testing

A Programmatic Environmental Impact Statement is being developed for the Pacific Islands Region. It will analyze the potential environmental impacts of a proposed offshore aquaculture management program. Regional pilot projects (e.g., seaweed farming and offshore aquaculture) will continue to be established and expanded.

Aquaculture Demonstration, Training and Permitting

One key project seeks to increase steelhead trout and blue mussel production in New England commercial scale offshore aquaculture. This project will increase U.S. seafood production through aquaculture training and deployment of the AquaFort (AF) system at a permitted site offshore. The two-year program will recruit fishermen and farmers from Maine, New Hampshire, and Massachusetts to participate in workshops and daily operations of farming steelhead trout and blue mussels.

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 2019 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.

Performance Indicator Results and Targets

SO 2.2 – Reduce and Streamline Regulations Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	*FY 2020*	*FY 2021*
OS - Number of deregulatory actions issued that address recommendations by the Regulatory Task Force	Target	*N/A*	*N/A*	*7*	*25*	33	Not Met	*10*	
	Actual	N/A	N/A	7	14	18			
OS - Total cost savings from deregulatory actions	Target	*N/A*	*N/A*	*$1.1M*	*$750k*	$3.13M	Exceeded	*$0*	*TBD*
	Actual	N/A	N/A	$1.1M	$49.8M	$3.91M			
NOAA - Average number of days to complete informal ESA Section 7 consultations *(new)*	Target	*New performance indicator. Baseline values established and targets set*				50	Exceeded	*50*	*50*
	Actual	122	122	53	45	40			

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 has made significant progress to reduce and streamline regulations. During the past two years, many of the most feasible opportunities for reduction and streamlining have been identified and action taken. Going forward, this objective will focus on ensuring that for any new regulation the Department may propose, at least two regulations will be repealed.

Actions to Advance Progress through FY 2021

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

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 the 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.

BIS conducted the following Section 232 investigations and industrial base survey and assessment activities in FY 2019:

- Two titanium sponge related surveys to support the Section 232 investigation on the effect of imports on national security. One on producers and melters of titanium sponge and the other on end users of melted titanium products. The Secretary forwarded the final investigation and recommendations to the President for possible action.

- Two uranium surveys to support the Section 232 investigation on the effect of imports on the national security. The survey included companies representing all phases of uranium production and nuclear power electric utilities. Based on the investigation, the President created a National Security Council working group to target issues identified in the report findings and recommendations.

BIS also provided the following targeted data cuts and analysis to interagency partners. The data was in support of the ongoing industrial supply chain, workforce, foreign sourcing and dependency, and emergency production surge activities. Interagency interest focused primarily on telecommunications, semiconductors, printed circuit boards, and propulsion suppliers:

- Department of Defense regarding the product and service areas, financial viability, and employment of critical suppliers
- Department of Justice related to foreign investment, foreign sourcing, and cyber security
- Department of Health and Human Services (medical devices and pharmaceuticals) and Department of the U.S. Army (ground vehicles and related systems) to support their ongoing industrial supply chain, foreign sourcing and dependency, and emergency production surge activities

Additionally, BIS started the following industrial base studies and completed the initial phases in FY 2019:

- Software Integration in Information Network Systems and Critical Infrastructure – the survey was approved by Office of Management and Budget (OMB) for distribution to 1,000 companies.
- U.S. Air Force (USAF) Industrial Base Sustainment and Readiness for all USAF aircraft systems and related supply chains. The draft survey is being field tested before being sent to OMB for eventual distribution to 15,000 suppliers and sub-contractors.

Autos and Auto Parts Section 232 Report

ITA took the lead on coordinating data and economic analyses needed for the report. This included the use of BIS auto survey data collected under the BIS mandatory survey authority. The analysis needed for this investigation included numerous CGE analyses and work to disaggregate the default sector into separate vehicles and parts sectors, which demonstrated the impact of those imports on the economy and national security. This analysis assisted the Secretary in recommending, to the President, how best to meet the Nation's economic and security needs.

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

Following six months of intense focus and diligence, TA/I&A can now report current international U.S. air traffic faster than ever before. Data delivery time decreased from a minimum of 16 days to 5 days, while improving the quality of the data. 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 crunches the numbers to help 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 a picture of which markets should be further researched.

Amplify the Economic Value of Recreational and Commercial Fisheries

Forty-five U.S. marine fish stocks have been rebuilt since 2000, the highest level of sustainability in recent years. Ending overfishing and rebuilding stocks supports U.S. fisheries' economic contribution, which exceeded $212 billion in 2016, and supports communities and marine ecosystems. The Status of the U.S. Fisheries report for 2018 shows 91 percent of the stocks managed are not subject to overfishing and 82 percent are not overfished. This shows that the U.S. fishery management system is achieving its long-term sustainability goals.

Broadband

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 also 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.

Development of Post Quantum Encryption standards

NIST announced the second round of 26 quantum resistant algorithms on January 30, 2019. NIST completed the second phase to identify standards for post-quantum cryptography and announced the down-selected algorithms at a workshop on August 22, 2019.

Bureau of Economic Analysis (BEA) website

BEA created and launched a new external, topic-driven website that makes it easier for users to find data and provides information about BEA's statistics. Users can now access statistics by topic, geography, and other means. To better connect with a diverse customer base, including non-economists, plain language content was developed for a wide range of topics. Topics include how major economic barometers are calculated, what they measure, and how they can be used. A Learning Center was created on the new website. It provides plain language information about BEA's major statistics as well as other resources. BEA expanded the channels for customers to connect with other customers, including subject matter experts.

Grant funding

EDA made 282 grants, totaling almost $178.2 million during FY 2019, to communities and regions. The grants were awarded to help build community and regional capacity for entrepreneurship and innovation. These grants will 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 is unique in the federal government and 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.

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 United States. This includes delivering IP information and building advocacy for the value of IP. The work of the Regional Offices enhances the public's understanding and knowledge of how IP and the products and services, that the USPTO offers, support the innovation ecosystem.

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 expand outreach to inventors who file patent applications without the assistance of 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.

Performance Indicator Results and Targets

SO 2.3 – Strengthen Domestic Commerce and the U.S. Industrial Base Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
BIS - Number of industrial base surveys, data, and analysis distributed to federal agencies and critical sector (new)	Target	New performance indicator. Baseline values not established, but targets are set				2	Exceeded	2	2
	Actual					4			
NOAA - Fish Stock Sustainability Index (FSSI) 2.0	Target	749	758	754	763	760.5	Not Met	777 [1]	788.5 [1]
	Actual	761.5	754	756.5	757.5	758.5			

[1] Target for FSSI 3.0 start in FY2020

		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status	FY 2020	FY 2021
NOAA - Percent of Stocks For Which Catch is below the Specified Annual Catch	Target	79.5%	81%	82%	83%	84%	Exceeded	89.70%	90.70%
	Actual	89.7%	90.7%	91.9%	90.2%	88.3			
NTIA - Impact of NTIA providing broadband support (new)	Target: K-12 Community Anchor Institutions (CAIs)	New performance indicator. Baseline values established and targets set				7,000	Exceeded	7,700	7,700
	Target: K-12 Students					3,150,000		3,400,000	3,400,000
	Target: Hospitals					1,250		1,350	1,350
	Actual: K-12 Community Anchor Institutions (CAIs)	N/A	N/A	N/A	6,300	7,000			

	Actual: K-12 Students	N/A	N/A	N/A	2,875,000	3,200,000			
	Actual: Hospitals	N/A	N/A	N/A	1,150	1,500			
NTIS - Total investment by the Federal Government on new public-private projects (or Government – Industry projects) entered into under the Joint Venture (JV) Authority per year (new)	Target	N/A	N/A	N/A	*$2.5M*	*$3.0M*	Exceeded	*$10M*	*$20M*
	Actual	N/A	N/A	N/A	$9.2M	$34.8M			
EDA - Number of economic development grants made to communities and regions to help build the capacity to support the manufacturing-related activities and needs of businesses.	Target			N/A	*311*	*211*	Exceeded	*254*	*TBD*
	Actual			*345*	234	282			
EDA - Dollar amount of economic development grants made to communities and regions to help build the capacity to support the manufacturing-related activities and needs of businesses.	Target			*NA*	*$137.80*	*$110.60*	Exceeded	*$160.4*	*TBD*
	Actual			$153.20	$122.90	$178.2			

For more information, please see the <u>Strategic Objective 2.3 Story</u> 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 2021

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 evolve, providing more capacity, better-informed recommendations on license applications, and more highly 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.

NOAA Actions

- Ensure 80 percent compliance of fisheries import trade activities with trade agreements and policies.
- Reduce fish bycatch and mortality in commercial fisheries (currently ~12 percent), address post-release mortality in recreational fisheries, and support their reductions through communication networks and mapping tools.
- Augment capacity, quality, and accuracy of surveys by using emerging technologies to collect valuable information (e.g. unmanned systems, remote sensors). Add 20 percent more vessels using electronic logbooks for reporting. Add 20 percent more vessels using electronic monitoring.
- Initiate reviews of current fishery allocations when any of the allocation triggers (time-based, public interest-based, or indicator-based), established by the Regional Fishery Management Councils, are met.
- Develop guidance and infrastructure requirements for an integrated data sharing system to collect and manage fishery information internally and with partners.
- Complete one recovery plan and publish two revised and two draft recovery plans. Continue implementing all plans to improve the status of Endangered Species Act (ESA) listed species.
- Timely consultations and authorizations for all Federal agencies' proposed actions, per the ESA Section 7, will be provided.

NIST Actions

NIST will continue to analyze algorithms provided as part of NIST's Post Quantum Encryption Standards project. NIST will present on round 2 of the competition in Q3 of FY 2020 and Round 3 is scheduled to being 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 in their efforts 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, ITA, MBDA, NIST, EDA

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

On-Track

In FY 2019, ITA responded to over 112,000 inquiries from more than 29,500 U.S. exporters, 77% of which were small and medium-sized enterprises. On average, U.S. exporter clients reported an increase of $2 million, or 10%, in annual revenue due to ITA's assistance. Overall, during FY 2019, ITA facilitated $88.9 in U.S. exports supporting over 463,000 jobs in the United States.

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

In FY 2019, ITA reduced, removed, or prevented 142 trade barriers and exceeded its annual target of 136. The annual economic impact of these accomplishments is estimated at $14.4 billion in U.S. exports.

Advocacy Deals

In FY 2019, ITA helped facilitate 102 signed foreign procurement contracts with an estimated U.S. export content of $52.8 billion. This represents a steady pursuit of global procurement opportunities for U.S. companies and a 5% increase in U.S. contracts signed over FY 2018.

Indo-Pacific Strategy

The U.S. Department of Commerce remains at the forefront of the U.S. effort to build business ties in the Indo-Pacific region. A business delegation to Thailand, Vietnam, and Indonesia included deal signings worth $2.7 billion for U.S. companies in Vietnam.

The Department's Access Asia outreach program connects American firms with commercial opportunities in Indo-Pacific markets. In FY 2019, it executed 25 U.S. events where Commerce professionals informed and counseled more than 1,000 U.S. company participants. Discover Global Markets (DGM) is the Department's largest annual domestic conference and was held in Salt Lake City, UT (Dec. 10-12, 2018). This conference further strengthened Indo-Pacific business connections and had over 330 attendees from 36 U.S. states and foreign buyers from 7 countries.

In May 2019, Trade Winds Indo-Pacific, the largest annual U.S. trade mission, brought 100 U.S. companies to India and Bangladesh; many of whom were exploring the region for the first time. The mission provided close to 500 matchmaking meetings for the U.S. companies in 7 Indian cities and in Dhaka, Bangladesh. The Department recently added a dedicated regional Standards Attaché in Jakarta, Indonesia. This was done to advocate for U.S. and international standards and to counter the proliferation of EU and Chinese standards

Since the launch of the Indo-Pacific Strategy in July 2018, ITA has assisted over 9,500 U.S. companies to do business in the region. This resulted in U.S. exports and foreign investment of $42 billion and $19.3 billion respectively and supported an estimated 245,000 American jobs.

United States- Mexico-Canada Agreement (USMCA)

In FY 2019, ITA conducted over 100 USMCA outreach events designed to educate U.S. companies on the benefits of the agreement and help strengthen U.S. manufacturing and cross-border supply chains.

Prosper Africa

A U.S. Government delegation to Maputo, Mozambique participated in the Africa Business Summit and the African Investment Forum in South Africa. Prosper Africa, the new strategy for increasing trade and investment in Africa, was launched and the. President's Advisory Council on Doing Business in Africa (PAC-DBIA) was announced. A historic agreement between Anadarko Petroleum and the Government of Mozambique was signed for an integrated LNG project in northern Mozambique. In September, the Export/Import board authorized a direct loan of up to $5 billion to support the development and construction of the Mozambique LNG project, using U.S. goods and services.

Discover Global Market (DGM)

ITA's 18th annual DGM event took place in Houston, TX (Sept. 30-Oct. 2, 2019) and focused on Oil & Gas, Energy & Electricity Infrastructure opportunities across the Middle East and Africa. It convened more than 200 U.S. companies and 100 foreign officials and executives from the public and private sectors of Ethiopia, Ghana, Kenya, Morocco, Nigeria, South Africa. It also had several attendees from other regional markets who came seeking U.S. suppliers and partners. U.S. attendees had the opportunity for one-on-one meetings with ITA's Commercial Diplomats posted in the U.S. Embassies across Africa, heard from the Department's Deputy Secretary and U.S. companies successfully operating in the region, held site

visits, and engaged with senior foreign officials to discuss project opportunities.

Deal Teams

In FY 2019, ITA successfully 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.

Early-Warning System (EWS)

To support the Administration's priority of creating a clear and level playing field for U.S. companies abroad, ITA developed an early-warning system (EWS) that seeks to identify and eliminate non-tariff barriers (NTBs) before they become official foreign trade policies and regulations. Through the EWS, ITA trains staff in its U.S. and overseas offices on how to identify potential and current trade barriers. Once a barrier has been identified, ITA leverages Salesforce technology to build a team of experts across its programs and develop a strategy to either prevent an NTB from being implemented or to remove or reduce the barrier. After successfully piloting the EWS in Brazil in FY 2018, ITA rolled the program out to its Western Hemisphere region in FY 2019. The rollout helped resolve 42 NTBs worth $2.6 billion to U.S. industry.

Trade Facilitation

In 2019, ITA and the Department's Commercial Law Development Program (CLDP) led a trade facilitation customs program in the Northern Triangle (Guatemala, El Salvador, Honduras, Costa Rica). This program resulted in the four countries coming into compliance with WTO's Agreement on Trade Facilitation and saved U.S. exporters over $520 million.

Online Tools for Exporters

During FY 2019, ITA continued developing and improving online tools for U.S. Exporters through its eCommerce Innovation Lab and Exporter Portal. These tools aim to maximize ITA's digital service delivery, engage and serve more U.S. exporters, and improve efficiency for staff and businesses. The tools support the President's Management Agenda Goals of improving customer service, IT modernization, and replacing low value with high value work.

Further, ITA Released its newly developed Market Diversification Tool that can help companies identify potential new export markets using basic information about their current trade patterns.

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

In FY 2019, the U.S. Economic Development Administration (EDA) invested over $75.7 million in 57 economic development projects (including infrastructure, technical assistance, and planning). This investment helped communities and regions build their capacity for economic development

through supporting export-related activities and business needs.

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

In FY 2019 the MBDA Export Centers generated $585 million in awarded transactions and 1,230 jobs. MBDA also helped minority owned businesses secure $3.1 billion in contracts and $1.6 billion in financing.

Efforts that supported this success included:

- A new Joint Statement with ITA (base agreement) in FY 2019 to reignite partnership engagement and to strengthen outreach to the minority business enterprise (MBE) community. The original MOU was signed in 1998.

- Increased funding from $750K to $1 million for each of its four Export Centers located in Chicago, Miami, San Antonio and Sacramento to further support U.S. export promotion and to help MBEs expand their global footprint.

- Collaboration with ITA at the headquarters level and USEAC's to assist MBEs with exports and leverage synergies to compliment resources.

- Export Center participation in the Discover Global Markets (DGM) event held in Houston, Texas (Sept. 30-Oct. 2, 2019) which focused on Prosper Africa and Doing Business in Africa. MBDA also a played a key role at the Africa Global Women's Roundtable during the DGM.

- A Global Markets Roundtable at the 2019 National Minority Enterprise Development Week Conference held in Washington, DC (September 8-14, 2019). This event was held in partnership with the U.S. Chamber of Commerce. There was also a Global Business to Business (B2B) Matchmaker event.

- Collaboration with ITA to conduct a Mexico City Business Development mission. A total of 60 strategic B2B matches were facilitated during this mission. As a result, ISI Automation International, a MBDA client who participated, secured a $13.5 million deal.

Performance Indicator Results and Targets

SO 2.4 – Increase U.S. Exports Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
ITA - Number of U.S exporters assisted	Target	23,000	23,000	28,000	24,000	30,000	Met	30,000	35,000
	Actual	25,029	28,692	30,110	33,086	29,557			
ITA - Percentage of U.S. exporter clients that achieved their export objectives	Target	71%	73%	75%	74%	74%	Exceeded	78%	78%
	Actual	73%	78%	78%	81%	78%			
ITA - Number of Commercial Diplomacy/Advocacy Written Impact Narratives (WINs)	Target	250	300	330	240	300	Exceeded	450	490
	Actual	287	472	459	479	470			
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			NA	68	84	Not Met	51	TBD
	Actual			75	93	57			
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			NA	$75.5	$96.2	Not Met	$68.1	TBD
	Actual			$83.8	$106.8	$75.7			

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 nearly 13 percent of our nation's GDP.[1]
- U.S. exporting companies grow faster, are more productive, and are less likely to go out of business than non-exporting companies. [2]

Actions to Advance Progress through FY 2021

ITA will continue to 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
- America Crece
- USMCA Implementation
- Discover Global Markets 2020
- Deal Teams
- Early Warning System
- Brexit/U.S.-UK trade and investment discussions
- U.S.-China trade and investment discussions
- U.S.-India Commercial Dialogue
- U.S.- Korea Commercial Dialogue
- U.S.-Japan Economic Dialogue
- U.S.-Argentina Commercial Dialogue
- U.S.-Nigeria Commercial & Investment Dialogue
- U.S.-Qatar Strategic & Economic Dialogue
- U.S.-Tunisia Economic Dialogue

In addition, ITA will continue improving its operational tools (e.g. the Overseas and Domestic Resource Allocation Models) and develop new tools to

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[1] http://data.worldbank.org/indicator/NE.EXP.GNFS.ZS

[2] Rasmussen, Chris, (2017): "Jobs Supported by Exports 2016: An Update". Office of Trade and Economic Analysis, International Trade Administration, U.S. Department of Commerce.

meet organizational challenges, effectively manage costs, and better align organizational capabilities to export strategy.

MBDA will commission research and author white papers that identify challenges/barriers and offer solutions that provide opportunities to strengthen government and private sector supply chains, access to capital and boost exports for minority business enterprises (MBEs).

MBDA will partner with private sector and other government organizations to promote and provide stand-alone events that connect MBEs with export opportunities and will continue to serve on DOC Interagency working groups related to export promotion, Prosper Africa, and other international trade initiatives.

MBDA will continue to coordinate with ITA on trade missions and client referrals and encourage its partner networks to leverage the resources offered by ITA that help MBEs seeking to expand their global footprint including market intelligence, commercial diplomacy, practical advice and business tools, and resources.

STRATEGIC OBJECTIVE 2.5 – Increase Inward Investment into the United States

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

Key Strategies:

- Advocate globally for the United States 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 2019, ITA achieved 127 investment promotion WINs totaling an estimated $18.5 billion and supporting over 24,000 American jobs.

SelectUSA Investment Summit

In June 2019, ITA organized the sixth annual SelectUSA Investment Summit, the nation's premier event for promoting foreign direct investment (FDI) into the United States. The 2019 Summit attracted more than 3,100 attendees, including 1,200 global business representatives from 79 international markets, over 700 economic development professionals, and approximately 200 service providers from 49 states and territories. Four Cabinet secretaries spoke at the event.

SelectUSA formally launched the SelectUSA Tech program at the Summit, where over 100 early-stage tech companies from more than 25 markets participated and exhibited their products to an audience of venture capitalists, private equity firms, and economic developers at the event. Four new investment projects were announced onsite, worth more than $85 million. 65 international companies signed the Pledge to America's Workers, committing to creating more than 900,000 workforce development opportunities.

Reinvesting in the USA Report

SelectUSA released its fourth original research report, *Reinvesting in the USA: A Case Study of Reshoring and Expanding in the United States,* at the 2019 SelectUSA Investment Summit. Some case study participants shared lessons learned and successes in a public panel discussion. The following are

findings from the report:

- Key drivers of reinvestment include a company philosophy of "Make it in the USA", increased design control, and enhanced operational efficiencies.
- Shared challenges to reinvestment include workforce sourcing and doing business in uncertain regulatory and trade policy environments.
- Highlighted benefits of reinvestment activity include stronger supplier and community partner connectivity, increased innovation capability, and enhanced intellectual property protections.

International Road Shows

ITA completed four international road shows in key FDI markets. These events connected U.S. economic development organizations with overseas investors and took place in Italy, Brazil, Spain and Portugal. Over 40 economic development organizations participated in the four road shows.

Deepened SelectUSA Engagement Across ITA

SelectUSA continued to increase ITA's international and domestic field engagement in investment promotion. The first ever SelectUSA Annual meeting trained over 100 investment promotion champions from around the world on the latest FDI trends, SelectUSA policies, and best practices in investment promotion. SelectUSA also proactively worked to develop over 40 individual country market plans that informed GM-wide strategic plans and budget planning.

Updated State-Owned Enterprises (SOE) Policy

SelectUSA implemented its new State-Owned Enterprise (SOE) Policy that expands the breadth of SelectUSA Services offered to clients in competitive market-based economies.

Promoting the Impact of FDI in the United States

SelectUSA hosted five press conferences in coordination with ITA, U.S. economic development teams, and international companies, earning more than 100 stories in 84 international outlets. The program shared an average of five new investment project announcements every week on social media. This helped provide publicity for and give credit to economic development organizations across the country.

MBDA Collaborated with ITA in Supporting and Participating in SelectUSA to Promote FDI in the U.S.

MBDA's Chicago Export Center held a SelectUSA event in Chicago from June 13 – 15, 2019. The goal of this event was to bring in Foreign Direct Investors interested in investing in minority business enterprise (MBEs) projects in the U.S. or purchasing merchandise from MBEs (i.e., Hotels & Medical Equipment). There was also a presentation on Opportunity Zones (OZs) to highlight them as investment opportunities to the FDIs in attendance.

MBDA conducted a panel on OZs at the 2019 SelectUSA Investment Summit. The panel promoted FDI in OZs as a lucrative investment. The Forum featured representation from the White House, National Urban League and the Economic Innovation Group.

MBDA has participated in SelectUSA as an exhibitor and presenter for the past five years. MBDA continues to promote opportunities for foreign direct investors to consider investment in minority-owned corporations.

EDA Helped Communities and Regions to be Better Positioned for FDI

In FY 2019, the U.S. Economic Development Administration (EDA) invested over $70.2 million in 39 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 Performance Indicator		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
ITA - Number of investment clients assisted	Target	1,600	1,760	2,400	3,500	3,800	Exceeded	6,500	6,500
	Actual	1,651	6,072	6,671	6,850	6,471			
EDA-Number of economic development grants made to communities and regions to help build the capacity to attract FDI.	Target			NA	31	35	Exceeded	35	TBD
	Actual			34	39	39			
EDA - Dollar amount of economic development grants made to communities and regions to help build the capacity to attract FDI.	Target			NA	34.5	$43.6	Exceeded	$63.2	TBD
	Actual			$38.4	$48.4	$70.2			

For more information, please see the Strategic Objective 2.5 Story on our new public website: Commerce Performance Data Pro

Strategic Conclusions and Recommendations

ITA targeted training sessions and support to domestic and overseas staff in strategic markets to increase results. Leveraging regional state and EDOs to conduct focus groups and solicit feedback is also effective.

Emphasis should also be on developing new data resources and tools for businesses looking to invest in the United States and EDOs seeking to attract investment into their localities.

Action to Advance Progress through FY 2021

ITA will lead the Department's Strategic Objective 2.5 Increase Inward Investment into the United States through actions such as:

- Host the 2020 SelectUSA Investment Summit, with increased emphasis on the new SelectUSA Tech program and official Spinoff events.
- Conduct five to six SelectUSA Road Shows (including Italy, Brazil, and others TBD).
- Advise and facilitate the Investment Advisory Council as it provides suggestions to the Secretary of Commerce on how to increase FDI and U.S. business expansion.
- Lead the Interagency Investment Working Group meetings and examine meaningful policy interventions designed to improve the U.S. investment climate.
- Create and facilitate FDI training and certification for in-market staff.
- Pilot reverse investment mission programs featuring key industries.
- Renew focus on SelectUSA Tech programming via interagency participation in large-scale events, including CES and Web Summit. Cooperate with interagency partners on this effort.
- Modernize SelectUSA's website and develop new client self-service content such as interactive data visualizations, FDI blogs, and industry-specific deeper dives.
- Launch ThinkUSA – A new initiative that brands best-in-class FDI thought leadership with actionable policy interventions.
- Establish strategic partnerships to expand the reach of SelectUSA services and resources (e.g., investor guide).
- Apply ITA's commercial, industry, and market expertise across its industry engagement activities to foster investment opportunity awareness for key industries, including semiconductors, nuclear fuel, energy storage, and 5G/6G.

MBDA will contribute to Department's Strategic Objective 2.5 through actions such as:

- Collaborate and coordinate with ITA to support and participate in SelectUSA to promote FDI in the U.S. by leveraging the Agency's unique 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
- 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

Executive Summary of Progress

Noteworthy Progress

Antidumping (AD)/Countervailing Duty (CVD) Investigations

In FY 2019, ITA initiated 58 new AD/CVD investigations and 13 new anticircumvention inquiries, an increase of 11.5 percent and 92.3 percent. This included anticircumvention inquiries of corrosion-resistant steel products from China and Taiwan. For the first time Commerce self-initiated anticircumvention inquiries based on its own monitoring of trade patterns. This action was also the Department's first self-initiation of multi-country anticircumvention inquiries. ITA anticipates a continued upward trend in new AD/CVD investigations and anticircumvention inquiries. In FY 2020 ITA expects domestic manufacturers to file a significant number of petitions and requests for relief from duty evasion schemes. In FY 2019, ITA enforced 496 AD/CVD orders against unfairly traded foreign goods. This represented an increase of over 60 percent since the end of FY 2014. Over the past five fiscal years, ITA also averaged 61 new AD/CVD investigations initiated annually; an increase of almost 110 percent over the previous five-year period.

Trade Agreements Compliance

Through its Trade Agreements Compliance Program, ITA successfully closed 37 compliance cases, exceeding the FY 2019 target of 36. 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.

Trade Barriers and Export Enforcement

ITA exceeded its Agency Priority Goal target for FY 2019. There were 142 foreign trade barriers reduced, removed, or prevented, which exceeded the FY 2019 target of 136.

BIS Export Enforcement reached its FY 2019 goal of 1,200 actions resulting in a deterrence or prevention of a violation and cases resulting in a criminal or administrative charge. This was a record-breaking year for export enforcement. BIS imposed the largest regulatory penalty in BIS history for the second consecutive year. The Export Control Reform Act (ECRA) was also passed and further codified the enforcement efforts of this national security agency.

Foreign Investment Risk Review Modernization Act (FIRRMA)

DOC began preparing to meet obligations under FIRRMA in August 2018. FIRRMA strengthens the ability of the Committee on Foreign Investment in the United States' (CFIUS) to review transactions that could present national security concerns. In FY 2019, DOC met the Administration's call for prompt implementation by engaging in Treasury-led rulemaking and participating in the pilot program authorized in the legislation. DOC advanced 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.

Review and Remedy of Intellectual Property Rights Violations under Section 301

Commerce supports the U.S. Trade Representative's (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 Administration 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 United States placed retaliatory tariffs on over 400 products worth $7.5 billion in response to the EU's subsidies on large civil aircraft. ITA analyzed and researched products for inclusion on the retaliation list. ITA created a system to rank the appropriateness of each preliminary product and recommended products if the damage estimate changed.

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)

- Negotiations continue, on an MOU with India's National IP Office, designed to enhance IP protection and enforcement. In addition, a new USG umbrella Science and Technology Agreement was signed with the Government of India.
- Cooperative agreements designed to improve IP systems and enhance enforcement of rights were concluded with the IP office of Indonesia and the Customs Organization in Oceania. In addition, negotiations of similar agreements continue with the IP offices of Taiwan, Tunisia, Eurasia, Mexico, and Bhutan. Work plans with the IP offices of the Philippines and Vietnam have been agreed to by all parties.
- The USPTO continues its active engagement of other trademark offices around the world through the "TM5." The TM5 is comprised of the USPTO, the China National Intellectual Property Administration, the European Intellectual Property Office, the Japan Patent Office, and the Korean Intellectual Property Office. The group comprises the world's five largest trademark offices and accounts for about half of all trademark applications filed worldwide. The TM5 works to promote cooperation and collaboration among its members. Members exchange information on practices and programs that facilitate increasingly user-friendly and interoperable trademark systems.

Tariff Exclusion Requests

The Commerce Department 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 10, 2019, Commerce received 143,597 steel and aluminum tariff exclusion requests / resubmissions and 77,541 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.

Performance Indicator Results and Targets

SO 3.1 – Enforce the Nation's Trade Laws and Security Laws Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
ITA - Trade barriers removed, reduced, or prevented (annual) *APG	Target	70	75	80	126	136	Exceeded	130	130
	Actual	41	110	115	138	142			
ITA - Number of trade agreement compliance cases resolved successfully	Target	32	33	34	35	36	Exceeded	37	38
	Actual	24	33	36	39	37			
BIS - Number of actions resulting in a deterrence or prevention of a violation, and cases resulting in a criminal or administrative charge[1]	Target	1,000	1,000	1,200	1,200	1,200	Exceeded	1,500	1,600
	Actual	1,442	1,717	1,832	1,777	1,802			

[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 also 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

Targets set for FY 2019 under the Strategic Objective 3.1 have been met. 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. ITA continued challenging itself to execute Sections 232 and 301 demands in expected timeframes. Demand may divert resources from foreign trade barrier and compliance work. Though ITA and BIS have begun planning for FIRRMA implementation.

Actions to Advance Progress through FY 2021

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.

Additionally, 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.
- 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.

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 more precisely identify likely violators of the antiboycott regulations. OAC will continue to monitor emerging boycott activity and legislation to assess and prepare for any potential impact on the antiboycott program.

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 like encryption and work to ensure that emerging technologies like the Internet-of-Things (IoT) and artificial intelligence (AI) are secure. In collaboration with stakeholders, 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, NTIA ensures equities of innovation, economic growth, and 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, intellectual property, and personnel. It also offers cybersecurity services to the Department and other federal agencies.

In FY 2019, the Department made significant progress in providing industry and government with robust technical standards and cybersecurity best practices. This drove and 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 190 industry partners to address cybersecurity challenges. These challenges impacted multiple industry sectors including financial services, energy, public safety, and transportation, reaching almost 9,000 companies and organizations.

- NIST is leading the development of a draft <u>Privacy Framework</u>, complementing the successful <u>Cybersecurity Framework</u>, which has the potential to dramatically change the national dialog on privacy risk management.
- NIST's world leadership in cryptography will ensure continuation of globally interoperable encryption while addressing the largest threat to encrypted data in generations. NIST completed the second phase of an initiative to identify standards for post-quantum cryptography. NIST also announced 26 down-selected algorithms for post-quantum encryption at a Post-Quantum Cryptography workshop on August 22, 2019.
- NIST initiated a process to solicit, evaluate, and standardize lightweight cryptographic algorithms that are suitable for use in constrained environments where the performance of current NIST cryptographic standards is not acceptable. On October 7, 2019 NIST announced the publication of <u>NIST Internal Report 8268</u>, *Status Report on the First Round of the NIST Lightweight Cryptography Standardization Process.*
- NTIA advocated for policies in U.S. Government interagency discussions on cyber and national security matters that promote strong security, continued innovation, and economic growth in the ecosystem. Policies included secure 5G networks, incident response, terrorism online, vulnerability coordination, and countering botnets.
- NTIA completed a 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).
- NTIA developed policies and implementation strategies and coordinated with interagency, international, and private sector partners to address security concerns impacting the information and communications technology supply chain.
- 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 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
NIST - Number of collaborators on NCCoE projects (new)	Target	N/A	N/A	N/A	123	140	Exceeded	205	215
	Actual	N/A	N/A	N/A	176	190			
NIST - Number of resources (e.g., guidance documents) from the Framework for Improving Critical Infrastructure Cybersecurity (new)	Target	N/A	N/A	N/A	70	80	Exceeded	150	175
	Actual	N/A	N/A	N/A	94	133			
NIST - Number of organizations exposed to NCCoE produced cybersecurity products (new)	Target	N/A	N/A	N/A	5,500	6,000	Exceeded	10,000	11,500
	Actual	N/A	N/A	N/A	7,710	8,995			

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 ensure that Commerce continues the timely delivery of products and services needed to strengthen U.S. cybersecurity.

Actions to Advance Progress through FY 2021

NIST

NIST will prioritize 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:

- Develop and issue the Privacy Framework: a tool for improving privacy through enterprise risk management to help organizations better manage

privacy risks, foster the development of innovative approaches to protecting individuals' privacy, and increase trust in products and services.

- Develop and issue the IoT Cybersecurity Core Features Baseline, a baseline of cybersecurity features that manufacturers may voluntarily adopt for IoT devices they produce.
- Produce practical implementations that enable organizations to apply and enforce security and privacy policies in cloud environments consistently, repeatably, and automatedly.
- Develop open-source implementations and demonstrations of various attacks and defenses on a mock Artificial Intelligence system.
- Complete round 2 of the Post Quantum Cryptography algorithm identification and selection process.
- Update Special Publication 800-161, *Supply Chain Risk Management Practices for Federal Systems and Organizations.*
- Publish draft of Lightweight Cryptographic Protocol Standard.
- Review and update NIST Current Digital Signature Standards.
- Update strategic plan for National Institute for Cybersecurity Education.
- Update cybersecurity workforce framework for National Institute for Cybersecurity Education.

NTIA

- Participate in at least four major interagency policy workstreams, including the Cyber Response Group, the Vulnerabilities Equities Process, and other National Security Council-led processes. This will affect effective policy development and efficient coordination across the Department.
- 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.
- Overcome barriers to usage of software bills of materials (SBOM), to increase the usage of SBOM's across the ecosystem.
- Drive industry attention and action on problems of botnets and Internet-of-Things security.
- Lead the development of strategies and processes to address concerns about security risk in the information and telecommunications supply chain, including 5th Generation wireless networks.

NOAA

- Implement an Internal Risk Mitigation Program to reduce opportunities for loss of NOAA intellectual property.
- Implement a Consolidated Cloud Applications information system to centrally manage information security of NOAA's Software as a Service cloud solutions.

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)

The FY 2018-2019 APG to Mitigate Flood Impacts by demonstrating Improved Decision Support Services to Emergency Managers was met and completed on time. The National Weather Service (NWS) has demonstrated a new flood inundation mapping capability. It serves 25 million people residing in flood-vulnerable freshwater basis. Additionally, the excessive rainfall outlook product extends the lead time of high-risk predictions from two to three days. Emergency Managers can use this information to pre-position resources, ensure the security of critical infrastructure, and recommend evacuations for better protection of life and property. https://www.performance.gov/commerce/APG_commerce_2.html

New Weather Model

NOAA's flagship weather model, the Global Forecast System (GFS), received a significant upgrade to include a new dynamical core called the Finite-Volume Cubed-Sphere (FV3). This upgrade will drive global numerical weather prediction into the future with improved forecasts of severe weather, winter storms, and tropical cyclone intensity and track.

Satellites

In FY 2019, two satellites, NOAA-20/JPSS-1 and GOES-17/GOES-S, became fully operational.

NIST Evaluations

- NIST dispatched teams across the country to evaluate infrastructure failures as a result of natural disasters, including both hurricanes and wildfires.
- NIST launched a multi-year effort to study how critical buildings and emergency communication systems performed in Puerto Rico during Hurricane Maria. This effort will lead to recommendations to improve building codes, standards, and practices to make communities more resilient to hurricanes and other disasters.

Human Capital

To help evolve the organization, the NWS completed implementation of a GS 5-12 progression for forecasters. This career ladder will help recruitment and retention by allowing meteorologist advancement to the GS-12 level without having to change stations.

Partnerships

The NWS organized and facilitated two partner meetings utilizing new formats to more closely collaborate with America's weather industry.

Recapitalization

NOAA awarded contracts for aircraft purchases which will be used in supporting tropical cyclone forecasts, atmospheric research, remote sensing, and other NOAA missions. NOAA also awarded the Preliminary/Contract Design for a General-Purpose Oceanographic Ship. This was a major move forward to recapitalize the NOAA fleet.

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 investments, three accomplishments were releasing an RFI, successfully running FV3 in the cloud, and making model code available on GiTHub.

NOAA Big Data Project (BDP)

The BDP exceeded the proposed target of 60 datasets served through BDP Collaborators. It also won a Best in Class Public Sector Government Innovation Award.

Harmful Algal Bloom (HAB)

NOAA developed a respiratory forecast that helps beachgoers in Pinellas County, FL, especially those with asthma and other chronic lung diseases, know the daily severity of airborne red tide toxins at area beaches during red tide events.

Performance Indicator Results and Targets

SO 3.3 –Reduce Extreme Weather Impacts Performance Indicator		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
NOAA - American Customer Satisfaction Index	Target	*NWS does not provide targets for this indicator*				80	Exceeded	80	80
	Actual	80	82	82	85	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

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.

Unmanned Systems Operations

NOAA requires a common approach and methodology to manage a wide variety of Unmanned Systems, evaluate emerging Unmanned Systems technologies, and determine where opportunities exist to more cost-effectively carry out NOAA mission-critical activities. NOAA is in the process of developing an Unmanned Systems Strategic Plan and program office. This plan and office will provide centralized management and standardization of safety, training, inspections, and operational reviews, consistent with NOAA's priorities and data needs. These efforts will consider the current and anticipated evidence from multiple NOAA Line Offices, industry, and outside partnerships.

Actions to Advance Progress through FY 2021

APG

Building on the success of the FY 2018-2019 APG, the NWS will improve its flood related decision support services by expanding the demonstration of a new flood inundation mapping capability to additional portions of the U.S. continental population residing in flood-vulnerable freshwater basins. Emergency Managers will use this information to more effectively mitigate flood impacts by prepositioning resources, ensuring critical infrastructure (e.g., hospitals, evacuation routes, etc.) are viable, and ordering evacuations.

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 small-scale and high impact weather events.

Fire Spread

NIST will develop a Structure-to-Structure Fire Spread Database. The database will be useful for modeling structure-to-structure fire spread for a wildland-urban intermix (WUI) fire and identify vulnerabilities for primary residential homes from auxiliary structures. This fire risk database will inform decision-making on structure design, separation distances, and exterior materials, for homeowners and communities at risk of WUI fires. This will be a priority due to the threat of WUI fires becoming more prevalent with increasing periods of drought.

Recapitalization

NOAA will continue with the Navy assisted acquisition for NOAA General Purpose Oceanographic Ships under a Preliminary Design competition phase. NOAA's on-going aircraft acquisitions will continue. Deploying the ships and aircraft, after their modifications for scientific data collection, will enhance the agency's observation and environmental data-gathering capabilities.

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

FirstNet Authority

Nationwide Public Safety Broadband Network Adoption and Expansion

As of October 2019, more than 9,800 public safety agencies throughout the U.S. have subscribed to the FirstNet Nationwide Public Safety Broadband Network (NPSBN). Subscribing agencies have access to 75 FirstNet-dedicated deployable network assets. These assets provide reliable LTE coverage and increased capacity to support scenarios from disaster to critical incidents and planned events. As of November 2019, NIST has certified 161 devices for use on the FirstNet network consisting of rugged handhelds, smartphones, In-vehicle Routers, hotspots, tablets, Internet of Things, and laptops. FirstNet network deployment remains ahead of its 2023 coverage goal. As of the end of FY 2019, AT&T reported the network buildout reached more than 65% of its planned coverage and is available in 650 markets across the U.S. Per the NPSBN contract, the FirstNet Authority is obligated to verify and validate AT&T's progress to buildout the Band 14 network – including the achievement of rural milestones - to ensure that the 60,000 public safety agencies across the nation have access to advanced communications capabilities.

FirstNet Authority maintains strong contract management and oversight to validate AT&T's contractual obligations and ensure public safety is receiving quality NPSBN services. Contract performance is monitored and measured through regular reviews of contract deliverables, key performance indicators, on-site reviews at pre-determined intervals throughout the period of the NPSBN contract, substantive monthly program reviews, and timely receipt of payments to the FirstNet Authority, per the terms and conditions of the NPSBN contract.

FirstNet Authority Roadmap

On August 13, 2019, the FirstNet Authority released a Roadmap[3] for the future of FirstNet, the nationwide public safety broadband network. The Roadmap is 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 Roadmap builds on the organization's nationwide engagement with public safety to gather feedback on the most important communications capabilities for their missions.

For example, in FY 2019, the FirstNet Authority conducted over 1,100 engagements reaching over 33,000 stakeholders in 56 states and territories across disciplines. These 1,100 engagements included over 75 engagements with tribal stakeholders and over 150 engagements with federal stakeholders. Informed by these engagements, the FirstNet Authority developed prioritized technology areas to ensure the Roadmap reflects their specific communications needs. Additionally, the Roadmap incorporates industry trends through market research and outreach to private sector, academia, and industry associations. The FirstNet Authority Roadmap will be used to guide the FirstNet Authority's efforts with stakeholders across public safety, the industry ecosystem, government, and its NPSBN partner.

Network Investment

In FY 2019, the FirstNet Authority developed and executed a structured, transparent, and rigorous investment process that drives disciplined investment of the FirstNet Authority's financial resources. As a result of the investment process, the FirstNet Authority presented investment opportunities during the September 2019 Board Meeting for approval. The FirstNet Authority Board approved investments in the following areas: 1) Expansion of the FirstNet fleet of deployables and 2) Initial generational upgrades to the FirstNet Core to enable 5G network capabilities.

The FirstNet Authority has since initiated the procurement process to implement the approved investments in accordance with the Federal Acquisition Regulations, Department of Commerce, and FirstNet Authority policies and procedures. This is a significant achievement and shows the success of FirstNet's innovative and sustainable business model, which allows public safety to help shape the future of their network.

NIST

NIST performs critical research and development (R&D) to ensure the success of FirstNet. Specifically, NIST performs the following:
- Assists with the development of standards, technologies, and applications to advance wireless public safety communications.
- Documents public safety's wireless communications technical requirements.
- Accelerates the development of the capability for communications between currently deployed public safety narrowband systems and the NPSBN.
- Establishes a research plan and directs research that addresses the wireless communications needs of public safety entities beyond what can be provided by the current generation of broadband technology.

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[3] FirstNet Authority Roadmap: https://firstnet.gov/network/roadmap

- Accelerates the development of mission critical voice, including device-to-device "talkaround" capability over broadband networks, public safety prioritization, authentication capabilities, and standard application programing interfaces for the NPSBN.
- Accelerates the development of communications technology and equipment that can facilitate the migration of public safety narrowband communications to the NPSBN.
- Convenes working groups of relevant government and commercial parties to achieve these requirements.

In FY 2019, NIST coordinated with the Department of Homeland Security (DHS) to evaluate bridging system interface (BSI) and gateway technologies. This effort investigates traffic-control schemes that exploit variable modulation and coding. This is a feature that long-term evolution (LTE) enhances with respect to its 3G predecessors. The schemes differ based on the proportion of low- and high-priority users preempted. The goals are to demonstrate that network coverage can be restored significantly depending on traffic-control schemes, investigate the tradeoff between the three schemes, and perform a sensitivity analysis to confirm the effectiveness of the schemes across different traffic scenarios.

NTIA

Between July 2013 and February 2018, 54 total states, territories, and the District of Columbia spent $74.7 million in State and Local Implementation Grant Program (SLIGP) funds planning for the NPSBN. Activities included stakeholder outreach and engagement, consultation with the FirstNet Authority, data collection, and other planning projects.

In 2018, NTIA used the unobligated funds from the original SLIGP to create a new grant program called SLIGP 2.0. This now supports States' and territories' efforts to continue planning for the NPSBN during the FirstNet deployment phase. In March 2018, NTIA awarded a first round of SLIGP 2.0 funding of $12.6 million to 46 States and territories. Early in FY 2019, NTIA awarded a second increment of funding totaling $20.6 million to the SLIGP 2.0 grantees. With this second round of funds, a total of $33.3 million is available for SLIGP 2.0 grantees.

Early in FY 2020, NTIA began reviewing extension requests from SLIGP 2.0 grantees to allow for period of performance changes ranging from one month to thirteen months of additional time to complete project activities. The extension notifications are being awarded on a rolling basis beginning in November 2019. SLIGP 2.0 end dates will be staggered at the end of fiscal quarters from March 31, 2020, to March 31, 2021.

MBDA

MBDA will encourage 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 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	*FY 2020*	*FY 2021*
NTIA - Percentage of public safety adoption targets achieved	Target	*New performance indicator for FY 2020. Baseline values not established, but targets are set.*				*N/A[1]*	*N/A*	*~50% of 2022 Target[2]*	*60% of 2022 Target[3]*
	Actual					*N/A[1]*			

NTIA - Percentage of planned coverage achieved	Target	*New performance indicator. Baseline values not established, but targets are set.*				*20% of 2023 Target[4]*	Met	*60% of 2023 Target*	*80% of 2023 Target*
	Actual					20%			

Year to year progress for both metrics is cumulative, not annual.

[1] NPSBN contract adoption targets will be available to report on in 2020.

[2] NPSBN contract adoption targets for 2020 are based on targets established for 2022.

[3] The FirstNet Authority established an internal planning adoption target of 60% for 2021, representing a 10% increase over the previous year.

[4] NPSBN % of planned coverage achieved is based on 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

Guided by the organization's FY 2019-2022 Strategic Plan, the FirstNet Authority made strategic progress in all five of its key objectives: positive sentiment, successful contract performance, recognized differentiation, enablement across government, and organizational effectiveness. Extensive engagement with public safety across all levels of government informed the FirstNet Authority Roadmap. This Roadmap will be used to guide NPSBN investments and establish new, innovative partnerships with government and industry to advance broadband communications for public safety. As the FirstNet Authority implements and evolves operational priorities in FY 2020 and FY 2021, corresponding objective measure data will be collected and analyzed to track strategic progress and to inform future operations and direction.

The FirstNet Authority regularly monitors the organization's operational performance to assess growth and improvement opportunities. A robust enterprise risk management and internal controls program helps identify key areas of focus for the organization. Assessments, evaluations, FirstNet Authority, and NPSBN performance also help identify focus areas. Finally, the FirstNet Authority's close partnerships and collaboration with Department of Commerce bureaus and offices throughout FY 2019, strengthened the processes necessary to achieve this strategic objective.

Actions to Advance Progress through FY 2021

The FirstNet Authority's operations and programmatic activity will focus on achieving the FY 2020-2021 Rural Wireless Broadband for Public Safety APG and the following actions through FY 2021:

NPSBN Adoption and Expansion

Continued deployment of Band 14 across rural and non-rural geographies of the 56 states and territories; increased adoption and use of the NPSBN by public safety; continued evolution of the Band 14 enabled device ecosystem to meet the evolving needs of public safety; and the continued evolution of FirstNet products and services to serve the needs of public safety.

Reach rural and non-rural Band 14 buildout, in accordance with the NPSBN contract terms and conditions, by March 2021. Continue to monitor and oversee the NPSBN buildout in accordance with contract terms and public safety needs. Refine and enhance the FirstNet Authority's contract performance and oversight processes, informed by OIG and GAO recommendations and government best practices. Implement corrective action plans, strengthen contract controls, and support transparent and data-driven decision making.

FirstNet Authority Roadmap

Refine the Roadmap in collaboration with public safety, industry, government, and AT&T by continuing to incorporate perspectives gained through stakeholder engagement and collaboration efforts. Prioritize the FirstNet Authority's efforts in a manner that positively impacts public safety's critical communications needs.

Conduct technology market research to assess technology trends and advancements. Particularly those that have public safety applications and support the Roadmap. Collaborate with public safety to cultivate the public safety technology ecosystem. Collaborate with industry and government partners to achieve the FirstNet Experience for public safety. Work across all levels of government to integrate the FirstNet Experience with public safety and broadband-related initiatives.

By FY 2021, make the FirstNet Experience Program fully operational and continue to mature all elements of its offerings in partnership with public safety and industry.

Network Investment

Guided by Roadmap opportunities that reflect public safety wireless broadband communications needs, identify and develop future proposals for reinvesting back into the network.

STRATEGIC OBJECTIVE 4.1 – Conduct a Complete and Accurate Decennial Census

Contributing Bureaus: OS, Census

Key Strategies:

The Census Bureau is implementing 4 key innovation areas while putting security controls in place to protect the confidentiality of data. The innovations will:

- 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 have been taken into account. The 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.

Research and Testing

Throughout the decade, research and testing has iteratively influenced and improved the design of the decennial census. The final 2020 Census Operational Plan reflects the final design.

Expert Input

The Census Bureau actively seeks expertise from the public and private sectors to help guide the implementation of the 2020 Census.

Milestones and Challenges

In-Field Address Canvassing data collection was completed in October FY 2020.

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, is a challenge. However, more than 32,000 people were hired, trained, and deployed in every county throughout the nation. The 2020 peak recruiting campaign was launched. This will allow for hiring up to 500,000 people for the second major field operation.

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 will be the first to offer three ways to self-respond: via the internet, on paper, or by phone.

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**
2015	Preliminary design for key components to achieve cost and quality goals	N/A
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 the majority 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	Target
2021	Release apportionment counts to the President of the United States; Release census data below the state-level for use in redistricting efforts; Release census data products for use by the public; Close remaining RCCs and ACOs; Complete Post Enumeration Survey operations; Continue preliminary planning for 2030 Census program proposal	Target

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 2021

- Focus on achieving the <u>FY 2020-2021 Conduct a Complete and Accurate 2020 Decennial Census APG</u>
- Deploy the CEDCaP and non-CEDCaP systems for FY 2020 operations by FY 2020 Q4.
- Launch the integrated communications campaign, which includes delivering the final version of the Media Plan 2.0 and the deployment of census.gov.
- Complete the self-response data collection including internet, mail, and phone by FY 2020 Q4.
- Conduct Nonresponse Follow-up (NRFU) data collection by FY 2020 Q4.
- Release apportionment counts to the President of the United States by FY 2021 Q1.
- Deliver and confirm receipt of the 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.
- Complete Post-Enumeration Survey (PES) operations including: PES person follow-up field data collection, person follow-up re-interview, and final housing unit follow-up to measure the accuracy.

STRATEGIC OBJECTIVE 4.2 – Provide Accurate Data to Support Economic Activity

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

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

Gross Domestic Product (GDP)

BEA released the 2018 Comprehensive Updates of the GDP Accounts and the Industry Accounts, featuring the publication of the 2012 Benchmark Input-Output Tables. Major features include the incorporation of newly available source data, improved seasonal adjustment, and innovations in measuring the prices of software, medical equipment, and cellphones.

New GDP by County Statistics

BEA published new, official GDP statistics for the nation's 3,100-plus counties. This included contributions from 34 industries.

Economic Census

Census released the first results from the 2017 Economic Census. Data releases will continue in FY 2020 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.

New Statistics on Key Sectors of the Economy

BEA released new statistics on the economic impact of <u>outdoor recreation</u> and <u>arts and culture</u> in the economies of all 50 states. In addition, BEA coordinated with NTIA to publish a new dataset highlighting the importance of the <u>digital economy</u>.

New Annual Business Survey (ABS)

Census and MBDA released estimates from the first <u>ABS</u>, which provides information on business ownership, characteristics of already-established and new businesses, and new data on minority business enterprises and nascent technologies, such as artificial intelligence (AI) and robotics.

Joint Venture Partnerships

NTIS Innovative data science capabilities and technologies help combine data, increase data interoperability, and improve citizen-services delivered in collaboration with industry, universities, and non-profits.

American Community Survey (ACS)

Census released social, economic, and housing data on schedule. The ACS provides vital information on a yearly basis about the United States 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

Census issued a <u>beta product</u> that provides timely and high frequency information on new business applications and current and projected employer business formations in the United States.

Marine Economy

NOAA released new annual updates of the <u>Economics: National Ocean Watch</u> dataset. This report provides statistics on the number of business establishments, employment, wages, and GDP for six economic sectors that are directly dependent on the resources of the ocean, coasts, and Great Lakes. Resources such as living resources, tourism and recreation, marine transportation, marine construction, offshore mineral extraction, and ship and boat building.

Great Lakes Activities

NOAA released annual updates on the economic contribution of Great Lakes activities to the national economy as part of the Economics: National Ocean Watch dataset.

GDP for Puerto Rico

BEA released prototype statistics for major components of GDP, including consumer spending, business investment, and international trade in goods. This was done by working closely with the Puerto Rican government and private data providers in Puerto Rico.

New Measures of Technology

Census introduced questions on robotics, AI, and other automation technologies in several surveys to directly measure the adoption of these technologies and indirectly measure their impact on employment and productivity.

Income Distribution

BEA launched an initiative aimed at producing prototype measures of the distribution of personal income.

Performance Indicator Results and Targets

SO 4.2 – Provide Accurate Data to Support Economic Activity Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
Census / BEA - Release economic indicators on time (number of scheduled releases issued on time)[1]	Target	N/A	N/A	N/A	190	185	Met	190	190
	Actual	N/A	N/A	N/A	192	185			
BEA - Reliability of GDP index (percent of GDP estimates that are statistically reliable)[2]	Target	83%	83%	85%	85%	85%	Exceeded	85%	85%
	Actual	92%	89%	90%	92%	94%			
BEA - Milestones met in releasing new economic indicators (new)	Target	N/A	N/A	N/A	Complete Milestone	100%	Met	100%	100%
	Actual	N/A	N/A	N/A	Completed	100%			

[1] Target in FY 2018 forward reflects total planned data releases from the Census Bureau (typically 120) and BEA (typically 70). For FY 2019, the target and actual have been lowered to reflect the impact of the partial government shutdown on BEA releases.

[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."

SO 4.2 – Provide Accurate Data to Support Economic Activity
Performance Indicator: Milestones met in releasing American Community Survey estimates on schedule

Year	Census Milestone	Actual
2015	ACS data products released on schedule	Met
2016	ACS data products released on schedule	Met
2017	ACS data products released on schedule	Met
2018	ACS data products released on schedule	Met
2019	ACS data products released on schedule	Met
2020	ACS data products released on schedule	Target
2021	ACS data products released on schedule	Target

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 2021

Outdoor Recreation

BEA will collect public feedback on prototype state-level outdoor recreation statistics and will publish finalized data and methods by late FY 2020.

Digital Economy

BEA and NTIA will collect public feedback on initial measures of the <u>digital economy</u>. They will also work to develop a Digital Economy Satellite Account that includes all goods and services related to the digital economy.

Marine Economy

BEA and NOAA will review and refine prototype national-level estimates of <u>ocean-dependent economic activity</u> in the United States. This will provide more accurate and complete national-level statistics than the <u>Economics: National Ocean Watch</u> dataset. For the first time, it will also capture ocean-related government services, power generation, marine research and education, and blue technology activities.

Small Business Activity

BEA will expand and improve on experimental estimates of small business activity, ultimately developing more detailed and comprehensive measures of GDP by business size and industry.

GDP of Puerto Rico

BEA will gather public feedback on the initial <u>Puerto Rico GDP statistics</u>, refine the underlying data sources and estimation methods, and begin investigating ways to measure other components of GDP—like government spending and net exports of services.

Income Distribution

BEA will publish preliminary measures of the <u>distribution of personal income</u> and its major components for 2007–2016, gather public feedback to improve the underlying sources and methods, identify current-period indicators, and release the first full set of prototype results by the end of 2020.

Technology

Census will issue new measures of technology, including statistics on the adoption of technologies such as robotics and AI.

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 implement key 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.

Post-Secondary Employment Outcomes (PSEO)

Census will partner with universities to expand measures of post-secondary employment outcomes by providing earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution.

STRATEGIC OBJECTIVE 5.1 – Engage Commerce Employees

Contributing Bureaus: OS, All bureaus

Key Strategies:

- Align human capital with new strategic plan
- Improve talent management
- Improve the customer experience
- Address Equal Employment Opportunity (EEO) diversity and inclusion principles through a First-Generation Professionals initiative

Executive Summary of Progress

Focus Area for Improvement

Align human capital with the new strategic plan

- Strategic Objective 3.3 strategy to evolve the National Weather Service has been supported by a workforce planning model. The planning model produced a new position schematic and an approach to updating the schematic. The model is a pilot for other Commerce workforce planning efforts.
- Strategic Objective 3.4 strategy to operate a nationwide public safety broadband network included a redesign of the position distribution and structure for the FirstNet organization. The new structure was fully implemented.
- Strategic Objective 5.2 strategy to modernize and consolidate information technology included the development of a new workforce plan for IT and cybersecurity.

Improve Performance Management

- The newly designed training course "Maximizing Employee Performance" (MEP) was taken by nearly 90% of the 7,000 managers and supervisors at DOC. Pre- and post-evaluations showed an increased understanding of how-to better conduct performance evaluations.
- Both the MEP Advisors Program and the Information Resource Center projects are on-track.

- The new performance management training program is available to managers and supervisors online and through in-person workshops. Participation is being tracked to ensure all staff who manage individual performance benefit.
- The Performance Excellence Office launched the first public-facing Federal on-line dashboard of Strategic Plan accomplishments and progress. The dashboard presents the information by Strategic Objective and by bureau and includes narrative on significance. The website provides a portal for all DOC API data sets https://performance.commerce.gov/ and sets a new standard for how Cabinet-level Departments communicate their impact to U.S. citizens.
- The Office of Acquisition Management (OAM) inaugurated the first cohort of DOC acquisition professionals to participate in the Digital IT Acquisition Professional training and thereby obtain FAC-C-Digital Services specialization.

Launch the First-Generation Professionals (FGP) 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.

- OCR established an interagency agreement with the U.S. Census Bureau to explore the need for the initiative. The Census Bureau published the Qualitative Research on Barriers to Workplace Inclusion for First Generation Professionals report in May 2019. This was the first federal report on this topic and the findings supported the initial hypothesis posited by OCR.
- OCR successfully executed an inaugural Summit that had over 500 registrants, 100 waitlisted, and approximately 400 attendees. Over 20 federal agencies and numerous public and educational organizations were represented.

Enhance sustainability initiatives

- The Office of Facilities and Environmental Quality (OFEQ) recognized three DOC employees for exceptional service in federal energy and water management programs at the Feds Spotlight Awards presentation at Energy Exchange.
- OFEQ implemented a new recognition program called the Department of Commerce Sustainability, Energy, and Environmental (SEE) Ambassadors. The SEE Ambassador allows individual Department employees to be recognized for outstanding performance in implementing exceptional, cost saving projects and/or programs that help the Department achieve its missions, while improving energy and water conservation and environmental performance.

Improve the customer experience

- OFEQ created and implemented a Customer Self-Service Portal. The portal provides a web-based self-service platform that processes customer requests for building services (i.e. movers, pest control, etc.), maintenance issues (i.e. HVAC, plumbing, electrical), space management (i.e. renovations, refurbishments), conference room reservations, and vehicle reservations. This will provide better metrics in addition to enhancing service capability.
- Commerce bureaus have, or are standing up, Customer Relationship Management Systems. These systems track customer interactions and preferences. They are invaluable for assuring follow up and for determining the information and services in demand.
- Census, BEA and ITA are moving data sets and data analysis tools online.
- Commerce's High Impact Service Provider, USPTO, has developed detailed customer experience maps as a critical tool for service improvement.
- The USPTO contains two High-Impact Service Providers- the Patents and Trademarks business units. Those business units are responsible for maturing customer experience and reporting progress toward customer experience (CX) maturity to the general public via the Office of Management and Budget. In order to achieve their CX maturity efforts, both Patents and Trademarks have hired CX Administrators and developed CX Strategic Plans with employee and customer feedback. The CX plans include goals and milestones focused on key principles such as "bring customers to the center of all we do." In addition, the Trademark organization has hired web strategists, plain language writers, and implemented touchpoint user surveys to collect feedback on the customer experience.
- The four USPTO regional offices in Silicon Valley, Denver, Dallas, and Detroit improve the customer experience by providing more readily available resources, information, programs, and services to inventors and entrepreneurs located in the offices' regions.
- USPTO improved the customer experience by expanding the capabilities of the MyUSPTO homepage. USPTO expanded the Patent Pro Bono Program and continued to support the Law School Clinic Certification Program. 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 provided customer support to patent applicants through the Pro Se Assistance Center and the Office of Innovation Development which provide support services to inventors who file patent applications without the assistance of 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. They are authorized by 35 U.S.C. 12 to disseminate patent and trademark information and support a wide range of intellectual property needs of the public.

A principal challenge for Strategic Objective 5.1 is change management. Realigning human capital, increasing performance accountability, and systematically improving service require culture change and changes in what and how work is done. The challenge is addressed by tying individual performance plans more directly to the strategic plan, increasing communication on performance management, and building customer feedback buttons into websites and tools. Implementation of the new Customer Experience section of OMB Circular A-11 Part 6 will also support Strategic Objective 5.1.

Performance Indicator Results and Targets

SO 5.1 – Engage Commerce Employees Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
OS - Employee Engagement Index- Federal Employee Viewpoint Survey	Target	67%	67%	69%	71%	71%	Exceeded	73%	73%
	Actual	68%	69%	71%	71%	73%			
OS - New Inclusion Quotient Index- Federal Employee Viewpoint Survey	Target	66%	64%	64%	66%	66%	Exceeded	68%	68%
	Actual	63%	63%	66%	66%	67%			
OS - % of high-volume processes with feedback tools	Target	N/A	100%	100%	100%	100%	Met	100%	100%
	Actual	N/A	100%	100%	100%	100%			
OS - % of DOC Indicator Targets met or exceeded	Target	N/A	N/A	N/A	75%	75%	Exceeded	75%	75%
	Actual	N/A	85%	88%	83%	88%			

For more information, please see the Strategic Objective 5.1 Story on our new public website: Commerce Performance Data Pro

Strategic Conclusions and Recommendations

Critical hiring and workforce planning are included in the FY 2019 Risk Profile. Focus will be on implementing the DOC Human Capital Operating Plan to mitigate the risk. Intensive efforts are in place to reduce the cycle time for hiring and increase candidate quality.

Creating better citizen service tools to the web is a priority.

Actions to Advance Progress through FY 2021

Develop a Department approach to assess workforce schematics, particularly considering new technology supporting operations, and execute the approach in all bureaus.

Identify and fill skill gaps in mission-critical occupations.

Establish a web-enabled capability for bureaus to use in planning and supporting talent management requirements.

Monitor and track Federal Employee Viewpoint Employee Engagement Index (EEI) scores as part of a Government-wide initiative to increase the scores of the lowest scoring units, by 20%, by 2020.

Leverage the online Commerce Learning Center to improve knowledge management, communicate with staff, and capture additional data to assess human capital needs and performance.

Establish real-time supervisor support for performance management.

STRATGEIC 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**

The Department's Office of the Chief Information Officer (OCIO) is the primary IT authority with fiduciary and operational responsibility for the management of IT assets and services across the DOC organization. This is stipulated by FITARA and Presidential Executive Order.

The primary challenge inhibiting progress is establishing an agile methodology to address new IT business requirements and technologies. Additionally, there is a need to sustain technical expertise and governance tools to support integration and operation of Department-wide services.

Reduce Legacy IT Across DOC

The OCIO continues to work with the Office of the Chief Financial Officer to develop a funding strategy to replace legacy systems. Several bureaus have used their working capital funds to begin comprehensive efforts.

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. Only the Bureau of Industry and Security has not completed their migration.

Technology Business Management (TBM)

The Department continues to make progress within our TBM, Capital Planning and Investment Control (CPIC) reporting framework. Commerce is ahead of schedule for CPIC TBM reporting as established by OMB and has reported out in additional cost pools for FY 2018. 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 securing information. In response, the Commerce CIO was designated as the Senior Agency Official for CUI, a Department-wide working group developed policies and procedures, awareness and end-user training was conducted for all Commerce employees and contractors, and self-inspection and guidance procedures were established for owners and operators of IT systems that process, store, and transmit CUI information.

Continuous Diagnostics and Mitigation Program

In 2012, the Department of Commerce funded and began initial deployment of the Enterprise Cybersecurity Monitoring and Operations program, also known as ECMO. In conjunction with the Department of Homeland Security (DHS), the Department is now enhancing its program by leveraging DHS's Continuous Diagnostics and Mitigation program.

Trusted Internet Connections Access Provider (TICAP)

The goal of TIC is to document existing public Internet connections on government networks and to limit the number of public Internet access points. This effort is being made so that data coming in and out can be monitored and analyzed more effectively. DOC bureaus have begun negotiations with NOAA to move their TIC to the NOAA TICAP.

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. Throughout FY 2019, the USPTO performed an assessment of its IT systems, infrastructure, and processes, and embarked on twenty initiatives to stabilize, modernize, and better govern its IT processes. Among the first improvements was to move

one of its most critical systems, 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.

Through FY 2021, the USPTO will continue to evaluate its IT systems in terms of their importance to mission achievement, their stability, and adaptability risks. The USPTO plans to identify those IT systems that are 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.

Business Application Solution (BAS)

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. The DOC initiative will be a model for other federal agencies.

Established a BAS DOC and Treasury Integration Plan to provide a framework that outlines and defines collaboration and integration. This ensures adherence to the financial management objectives of the Quality Service Management Operation (QSMO).

Received internal program approval from the Commerce IT Review Board (CITRB) and Acquisition Review Board (ARB). The Management Review Board (MRB) approved the Milestone Decision Authority (MDA) for Milestone 2. This approval provided the authority for the BAS Request for Proposal package released on August 6, 2019. Proposals were received from interested vendors in October 2019.

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 United States Treasury and OMB.

Freedom of Information Act (FOIA)

The Office of Privacy and Government automated and transformed the Department's antiquated FOIA process. This work 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. The "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 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	*FY 2020*	*FY 2021*
OS - Trusted Internet Connection Capabilities - ensure NOAA TIC service meets TIC 2.0 requirements	Target	*100%*	*100%*	*100%*	*100%*	*100%*	Met	*100%*	*100%*
	Actual	83%	85%	98%	98%	98%			
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	100%	96%	96%	96%	96%			

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 2021

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 Department will affect 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

Executive Summary of Progress

On-Track

The Department of Commerce established Enterprise Services (ES) in order to provide high-quality, administrative transactional services in a cost-effective manner. ES was already on the path to achieve CAP Goal 5: Sharing Quality Services, before it was a CAP Goal. ES has paved the way for a true Shared Quality 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.

ES is also achieving CAP Goal 6: Shifting from Low-Value to High-Value Work. Prior to ES, staff across the Department were diverting time and energy to mission-support functions. Since ES began assuming responsibility for administrative transactional services, the Department's mission-focused staff are better able to dedicate their time to mission-related business.

The Department has a robust Strategic Sourcing program for nearly a decade. ES now has full authority and accountability for the Strategic Sourcing program. It offers a wide range of skillfully negotiated contracts for goods and services across the Department. By demonstrating economies of scale, ES can successfully negotiate lower prices for common buys from the Department's vendor partners. This shows the Department's progress and success on CAP Goal 7: Category Management – Leveraging Common Contracts and Best Practices to Drive Savings and Efficiencies. Without the Department's Strategic Sourcing program, each of the Bureaus would be required to negotiate their own individual contracts with vendor partners. This would mean losing the benefits of economy of scale, that ES provides.

Performance Indicator Results and Targets

SO 5.3 – Consolidate Functions for Cost Savings Performance Indicators		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Status as of FY 2019	FY 2020	FY 2021
OS - Reduced Operating Costs (new)[1]	Target	*New performance indicator for FY 2020. Baseline values and targets not established.*					N/A	*N/A*	*N/A*
	Actual								
OS - Percentage of Normal Priority Personnel Action Requests (PARs) Completed on Time	Target	*N/A*	*N/A*	*N/A*	*98%*	*98%*	Met	*98%*	*98%*
	Actual	N/A	N/A	N/A	97%	92%			
OS - Percentage of Request-to-Award Acquisition Transactions Completed in 120 Days or Less	Target	*N/A*	*N/A*	*N/A*	*100%*	*100%*	Met	*100%*	*100%*
	Actual	N/A	N/A	N/A	100%	100%			
OS - Percentage of Managed Print Service Calls at Commerce Headquarters Answered in One Hour or Less	Target	*N/A*	*N/A*	*N/A*	*95%*	*95%*	Exceeded	*95%*	*95%*
	Actual	N/A	N/A	N/A	100%	98%			

[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. Timeline has since been delayed.

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 will transition services when performance and cost savings result. 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.

Actions to Advance Progress through FY 2021

The Department is on the right trajectory as it prepares for FY 2021. ES will continue to provide the current range of HR transactional services, as well as best-in-class acquisition and Strategic Sourcing services.

The Department will introduce stringent Service Level Agreements (SLAs). These SLAs will establish the mandated requirements for our vendor partners regarding timeliness and accuracy and provide an efficient and effective way to assure best-in-class vendor performance. The SLAs will provide a real-time barometer of how well the Department's vendor partners are performing. This will assure that ES is nimble and responsive if performance falls below the levels mandated by the SLAs.

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