

United States Department of Commerce Open Government Plan September 2020 | Version 6.0



FOREWORD

September 2020

We are excited to share the Department of Commerce's (the Department) ninth publication of the Open Government Plan (Plan) with the public.

The release of this 2018-2020 Plan, version 6.0, represents our continued commitment to greater openness, transparency, and accountability, strengthening democracy through driving innovation and economic opportunities, as well as meaningful civic engagement and public participation.

This sixth version of the Plan highlights how we have put our commitment to Open Government into practice. It includes innovative, forward-looking approaches to information access and dissemination, and the adoption of new tools and technology that help enable the principles of Open Government—transparency, participation, and collaboration.

We continue to be a leader in Open Government across the Federal government by encouraging and striving for increased participation and collaboration among our employees, external government agencies, and the American people. Our mission to create the conditions for economic growth and opportunity are achieved with a mindset of openness that is shared by our 13 different bureaus and operating units (BOUs).

This Plan includes progress updates from our BOUs on previously reported Open Government initiatives that support the core mission of the Department. Our "What's New" section describes new and expanded initiatives.

We invite you to visit our Open Government <u>website</u> and encourage you to share your thoughts or suggestions by submitting comments to <u>open@doc.gov</u>.

Sincerely, Dr. Catrina D. Purvis Chief Privacy Officer, and Director, Office of Privacy and Open Government

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Introduction

Open Government is important to the Department's mission to create the conditions for economic growth and opportunity by ensuring fair and reciprocal trade, providing the data necessary to support commerce and constitutional democracy, and fostering innovation of new technologies, products, processes, and services. Through its 13 different bureaus and operating units or BOUs, the Department gathers economic and demographic data to measure the health and vitality of the economy, promotes U.S. exports, enforces international trade agreements, and regulates the export of sensitive goods and technologies. The Department also issues patents and trademarks, protects intellectual property, forecasts the weather, conducts oceanic and atmospheric research, provides stewardship over living marine resources, develops and applies technology, measurements and standards, formulates telecommunications and technology policy, fosters minority business development, and promotes economic growth in communities across the country.

The Department posts regular updates of its Plan at <u>www.Commerce.gov/open</u>. Open Government Plan 6.0 provides an overview of the Department's 2018-2022 Strategic Plan status of programs and assessment of functional areas, which are critical to Open Government. To learn more, follow us on social media:

Facebook (https://www.facebook.com/Commercegov)

YouTube (<u>http://www.youtube.com/user/CommerceNews</u>)

Twitter (https://twitter.com/CommerceGov)

Flickr (https://www.flickr.com/photos/commercegov/)

What's New

T his section of the Plan includes a discussion of some of our new initiatives. For instance, the Department is always looking for new ways to make its data more accessible and useful for the public while protecting privacy. In addition to the large amounts of data and information the Department makes publicly available, for example, at Data.gov, USAspending.gov, FOIAonline, eRulemaking, Regulations.gov, Export.gov, and Grants.gov, much information is disseminated through the agency's websites. New initiatives include:

• The Bureau of the Census' (Census) platform <u>data.census.gov</u> represents a new and improved customer experience by centralizing data access and allowing for a more rapid response to customers. It also creates new opportunities for data visualizations,

maps, and other data displays that data users need. Data users now have more choices and greater flexibility. Data.census.gov represents a new chapter in the Census Bureau's data dissemination approach. The vision for data.census.gov stems from overwhelming feedback that the Census Bureau has received to simplify the way customers get data.

- The Economic Development Administration (EDA) will be launching New Performance Measurements in late 2020. Partnering with SRI International, EDA developed innovative metrics as part of a new performance measurement and program evaluation framework for EDA's non-infrastructure portfolio. EDA piloted the new data collection instruments, designed to collect the new performance metrics, in FY 2019 and plans to implement them in late FY 2020.
- The International Trade Administration (ITA) is introducing industry-specific exporting opportunities to U.S. companies through <u>Top Markets Reports</u>. These industry-specific reports help exporters determine their next export market by comparing opportunities across borders and prioritize efforts that could significantly improve U.S. export performance.
- The Minority Business Development Agency (MBDA) continues efforts to modernize its business development tools and identify advanced technology that can be used to enhance or replace the suite of business development applications that resided on the MBDA portal. MBDA has determined that there are more modern tools that could be used to improve the effectiveness of and ensure a first-class experience for visitors to the portal. Newer tools will provide visitors with access to a virtual space that can be used to grow their businesses and will also allow visitors to tailor the site to their individual business needs. The ultimate vision for the initiative will be to increase Minority Business Enterprises' access to financing and procurement opportunities existing within the public and private sectors.
- The National Oceanic and Atmospheric Administration's (NOAA) Big Data Program (BDP) completed transition from a Cooperative Research and Development Agreement-based (CRADA) business experiment to an operationalized enterprise service. On December 19, 2019, NOAA announced new collaborations with Amazon Web Services, Google Cloud and Microsoft that encompassed the provisions of the CRADA phase, including free public egress provisions, and five (5) petabytes (per contract award) of allocated storage for which NOAA determines which datasets are hosted. In 2019, the BDP received a Best in Class Government Innovation Award, in the category of Public Sector Innovation, which recognizes innovative ways in which the government applies technology to better meet its mission and serve the public.

Additional information and updates on the above initiatives and much more, are available in the "Ongoing Initiatives at the BOUs' (Sub Agencies)" sections of this Plan.

Background

On December 8, 2009, the Office of Management and Budget (OMB) issued Memorandum M-10-06, known as the Open Government Directive to provide guidance on specific actions federal agencies must take to increase transparency, participation, and collaboration in government, and established a requirement for agency publication of an Open



Government Plan. In 2010, the Department published its first Open Government Plan, establishing its commitment to implementing the principles of transparency, participation, and collaboration among Department employees, as well as with other government agencies and the public. Today, in 2020, the Department continues to uphold the principles through Departmental and agency projects and initiatives that align with its mission to create the conditions for economic growth and opportunity.

Program Oversight and the Open Government Senior Leaders Group

T he Department carries out its programmatic responsibilities through its <u>13 bureaus and</u> <u>operating units.</u>

- Office of the Secretary (OS)
- Office of Inspector General (OIG)
- Bureau of Economic Analysis (BEA)
- Bureau of Industry and Security (BIS)
- Bureau of the Census (Census)
- 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)

Each of these BOUs and operating units, through their distinct missions, contributes to the Department's overall objective of promoting economic growth for the nation and providing opportunities for all Americans. These bureaus and agencies are driving Open Government through a wide range of projects and initiatives highlighted in this Plan.

The Department's Director of Open Government continues to provide direction and oversight to the Open Government Senior Leadership (OGSL) group. The OGSL group was established in March of 2010 to promote the integration of Open Government principles into each of the BOUs programs and business lines. Today, the OGSL group, through its designated points of contact, continues to develop and implement best practices and procedures for sharing and providing public access to information, while ensuring appropriate protections for confidentiality, privacy, national security, as well as other restrictions that may be required by law.

Note: The Economics and Statistics Administration (ESA) was consolidated within the Bureau of Economic Analysis. This includes the administrative functions supporting the Under Secretary for Economic Affairs.

Helping the American Economy Grow - An Overview of the 2018-2022 Strategic Plan

Helping the American economy grow is the goal outlined in the <u>Department's Strategic Plan</u> <u>2018-2022</u>. It provides a broad foundation for economic growth and opportunity by focusing on five (5) goals:

- Accelerate American Leadership
- Enhance Job Creation
- Strengthen U.S. Economic and National Security
- Fulfill Constitutional requirements and Support Economic Activity
- Deliver Customer-Centric Service Excellence

Transparency, collaboration, and participation are inherent in the vision laid out in the Department's Strategic Plan. The Department and its BOUs will work together to drive progress in the five (5) goals and priorities, identified above. The Strategic Plan emphasizes that the foundation of the Department's goals is data. Data is what American businesses and communities use to plan investments and identify growth opportunities. Whether it is ITA determining which foreign markets to target, EDA understanding a regional economy, NOAA's weather and climate data helping predict severe events and enabling weather forecasts, or NIST data and models catalyzing advanced manufacturing, the Department's data enables the setting of conditions that enable economic growth. The Department's data enables start-ups, moves markets, protects life and property, and powers both small and multibillion-dollar companies. BEA produces estimates of Gross Domestic Product (GDP), a key indicator of the health of the economy. Census carries

out the constitutionally mandated decennial census, which determines the allocation of billions of federal dollars for states and the drawing of Congressional districts. Data is not only a means of advancing the trade, innovation, and environment goals, it is also a national asset with untapped potential.

Program and Functional Area Updates

Open Data

D ata is at the core of the Department's mission. The Department collects a vast amount of data on the Nation's economy, population, and environment. BOUs continue to identify high value data of interest to the public and make that data accessible and useful so that businesses and communities can use the data for decision-making and accountability, including policymaking, innovation, oversight, and learning. In accordance with the OMB



Memorandum M-10-06, the Executive Order 13642 on Open Data, the overall principles outlined in the Digital Government Strategy, and the OPEN Government Data Act, BOUs publish data and Application Programming Interfaces (APIs) to Data.gov, and on their own website.

In 2018, the President's Management Agenda identified the Cross-Agency Priority (CAP) Goal: Leveraging Data as a Strategic Asset, to develop and implement the Federal Data Strategy. The Federal Data Strategy was released in 2019, followed by an Action Plan released in 2020. By working collaboratively, the Department, along with the Federal Chief Information Officer (CIO), the Chief Statistician of the United States, and executives from the U.S. Small Business Administration and the White House Office of Science and Technology Policy developed specific principles, practices, and actions to deliver a comprehensive, forward-looking Federal Data Strategy to foster economic growth and innovation, make government more effective, and improve transparency and oversight.

In accordance with the Open Data Policy (M-13-13), and the OPEN Government Data Act, the BOUs publish their information online as open data in standardized machine-readable formats, while also safeguarding privacy and security. BOUs continue to ensure information stewardship through the use of open licenses and review of information for privacy, confidentiality, security, or other restrictions prior to release. The OPEN Government Data Act applies to all new information collection, creation, and system development efforts as well as major modernization projects that update or re-design existing information systems. Here are a few links to some of our open data resources:

Bureau of Economic Analysis

Bureau of Industry and Security

Bureau of the Census

Economics and Statistics Administration

International Trade Administration

National Institute of Standards and Technology

National Oceanic and Atmospheric Administration

National Telecommunications and Information Administration

National Technical Information Service

U.S. Patent and Trademark Office

Data.gov

With tens of thousands of datasets ranging from satellite imagery to material standards to demographic surveys, the Department has long been in the business of Open Data.

Privacy

T he Department assigns high priority to privacy considerations for all systems and programs. It recognizes that individual trust in the privacy and security of personally identifiable information (PII) and business identifiable information (BII) is the foundation of trust in the government and the Department in the 21st Century. As an employer, a collector of data on millions of individuals and companies, the developer of information-management standards, and a federal advisor on information management policy, the Department strives to be a leader in best privacy practices and privacy policy.

OMB Memorandum M-13-13 requires departments and agencies to review information assets for privacy, confidentiality, security, or other restrictions on information released. The Department has a robust Privacy Program charged to assist the Department and BOU CIOs with meeting this requirement. The necessary balance between the "presumption in favor of openness" and the duty to protect and safeguard PII and BII is well understood. The Department's Office of Privacy and Open Government (OPOG) works with the General Counsel, Chief Information Officer, and across BOUs to ensure that information is appropriately secured to prevent information loss or erroneous release.

Authorities and requirements for the <u>Department's Privacy Program</u> include:

- The Privacy Act of 1974, 5 U.S.C. § 552a,
- The Federal Information Security Modernization Act (FISMA) of 2014, Public Law No. 113-283,
- US-CERT Federal Incident Notification Guidelines (April 1, 2017),
- OMB Memorandum M-03-22, "Guidance for Implementing the Privacy Provisions of the E-Government Act of 2002" (September 26, 2003),
- OMB Memorandum M-06-16, "Protection of Sensitive Agency Information" (June 23, 2006),
- OMB Memorandum M-11-02, "Sharing Data While Protecting Privacy" (November 3, 2010),
- OMB Memorandum M-16-04, "Cybersecurity Strategy and Implementation Plan (CSIP) for the Federal Civilian Government" (October 30, 2015),
- OMB Memorandum M-17-06, "Policies for Federal Agency Public Websites and Digital Services" (November 8, 2016), and
- OMB Memorandum M-17-12, "Preparing for and Responding to a Breach of Personally Identifiable Information" (January 3, 2017).

The Department's cyber-related (electronic) PII incident reports are submitted to the U.S. Computer Emergency Readiness Team (CERT), as well as the Department's Chief Privacy Officer (CPO) and the Enterprise Security Operations Center (ESOC), within one (1) hour of discovery/detection. If an assessment has been made that a PII breach constitutes a Major incident, the ESOC reports the designation to US-CERT as soon as the Department has a reasonable basis to conclude that such a PII breach has occurred. The ESOC reports all non-cyber related (paper) PII incidents to the CPO within one (1) hour of a confirmed breach. Additionally, the Department produces and submits FISMA Senior Agency Official for Privacy (SAOP) reports in accordance with OMB guidance.

In September 2017, the Department published its <u>Privacy Program Plan</u>, which describes how it provides the public with access to information regarding the Department's privacy program. The Privacy Program Plan is updated annually.

Whistleblower Protection

T he Whistleblower Protection Program is critical to ensuring transparency in government operations. The employees of the Department and its contractors, subcontractors, and grantees perform an important service by reporting what they reasonably believe to be evidence of wrongdoing and the Department does not tolerate retaliation against whistleblowers. Both the Department and BOUs continue to ensure, in consultation with the U.S. Office of Special Counsel (OSC), that employees are informed of their rights and remedies under the prohibited personnel practices and whistleblower retaliation protection provisions of Title 5. The Whistleblower

Protection Act of 2017 provides additional protections to federal employees who are retaliated against for disclosing waste, fraud, and abuse by increasing protections for federal employees, increasing awareness of federal whistleblower protections, and increasing accountability and requiring discipline for supervisors who retaliate against whistleblowers.

The Department's Whistleblower Protection Coordinator within the Office of the Inspector General (OIG), is charged with educating Department employees about their rights and pathways to reporting, and educating Department employees about prohibitions on retaliation for whistleblowing, as well as their rights and remedies if anyone retaliates against them for making a protected disclosure.

The provisions of the Department's nondisclosure policies, forms, and agreements are consistent with, and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive Order relating to (1) classified information; (2) communications to Congress; (3) the reporting to an Inspector General of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety; or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling EO and statutory provisions are incorporated into the Department's agreements and are controlling. See:

- Executive Order No. 13526;
- Section 721 1 of Title 5, United States Code (governing disclosures to Congress);
- Section 1034 of Title 10, United States Code, as amended by the Military Whistleblower Protection Act (governing disclosure to Congress by members of the military);
- Section 2302(b)(8) of Title 5, United States Code, as amended by the Whistleblower Protection Act of 1989 (governing disclosures of illegality, waste, fraud, abuse or public health or safety threats);
- Intelligence Identities Protection Act of 1982 (50 U.S.C. 421 et seq.) (governing disclosures that could expose confidential Government agents);
- The statutes which protect against disclosure that may compromise the national security, including sections 641, 793, 794, 798, and 952 of title 18, United States Code; and
- Section 4(b) of the Subversive Activities Act of 1950 (50 U.S.C. 783(b)).

Websites

The Department leverages its websites for Open Government. A Departmental Web Advisory Council (WAC) ensures policies are in place for consistency and ease of use of all Departmental websites. The internal WAC collection of pages on the Departmental intranet, Commerce Connection, ensures awareness of all mandatory policies and allows web managers and developers

to collaborate on sharing best practices. All Departmental websites must comply with the policies listed on this site, but many had not been updated in years. In 2018, the WAC undertook the extensive task of reviewing, consolidating, and updating all of its web and social media policies to better align with federal requirements. Each BOU CIO is now required to certify annually that all websites comply with the policies published on this site by signing off on a detailed website inventory that reports item-by-item compliance and best practices.

The Department redesigned its web presence, <u>Commerce.gov</u>, to better highlight the Department's mission and <u>2018-2022 Strategic Plan</u>. The new design takes advantage of the <u>U.S. Web Design</u> <u>System</u> to improve the customer experience for all users by exposing a reorganized site architecture through robust navigation menus, creating a new section to highlight how the public can interact with our Department on a wide range of issues, and fully complying with the updated Section 508 Web Content Accessibility Guidelines (WCAG) 2.0 accessibility requirements. Each individual page within the new site includes a simple thumbs-up or thumbs-down feedback widget, making it quick and easy for users to give feedback on the usefulness of the content while allowing for more detailed questions and comments to be sent directly to the website owner.

Many components within the Office of the Secretary, including the Office of Human Resources Management (OHRM) and the Office of Civil Rights (OCR), maintain older websites on legacy content management system (CMS) platforms that are not mobile friendly or fully accessible. Over the coming year, the Office of Digital Engagement will be migrating those sites onto the new Commerce.gov platform so that the public can find all relevant information about the Department within one easy-to-navigate website.

Since 2016, several BOU websites have been redesigned along the principles of customer-first and mobile-friendliness, including <u>BEA.gov</u>, <u>Export.gov</u>, <u>NIST.gov</u>, <u>Census.gov</u> and <u>NOAA.gov</u>.

Transparency

The Department improves transparency by proactively participating in and posting its information publicly at <u>Data.gov</u>, <u>IT Dashboard</u>, <u>Recovery.gov</u>, and <u>USAspending.gov</u>. The Department fully participates in eRulemaking and all of the BOUs at the Department of Commerce use regulations.gov to post proposed and final regulations, and to receive comments from the public. In addition, the Department has a representative from the Office of the General Counsel (OGC) on the Advisory Board for eRulemaking who attends eRulemaking meetings and ensures the Department's view are considered as eRulemaking participants propose and evaluate potential improvements to the <u>regulations.gov</u> and <u>fdms.gov</u> websites. In addition, the Department has a representative from the Office of the Executive Steering Committee for eRulemaking who votes on how the contributions to the eRulemaking budget should be divided among the participating agencies. The Department relies on eRulemaking staff

to keep the public abreast of new developments and improvements to <u>regulations.gov</u>, which is the primary mechanism by which the public accesses and can comment on regulatory actions from across the federal government.

Public Notice

T he Department has an extensive outreach program to ensure the public is informed and up to date on agency actions and business. The outreach programs include public meetings with livestreams, stakeholder meetings, and numerous technology-enabled public engagement forums that promote transparency, participation and collaboration. The Office of Digital Engagement, within the Department's Office of Public Affairs (OPA), specifically focuses on outreach efforts, ensuring effective two-way communications with the public about the Department's services. In addition, the Department is working through the BOUs to enable outreach to the appropriate communities of practice and interest (COPs/COIs) within the various business lines. You can read more about the Office of Digital Engagement in the OS Initiatives section of this document. Public notices about meetings and other notices, such as system of records notices, are also published in the Federal Register.

In 2017, OPA worked closely with Industry and Analysis staff to conduct public outreach efforts surrounding the Section 232 investigations on the effects of imports of steel and aluminum on U.S. national security. On the Department's website, the public could keep up-to-date with developments through the <u>commerce.gov/steel</u> and <u>commerce.gov/aluminum</u> landing pages, which brought together all public notices, searchable documents, reports, press releases, and important links. The BIS website created <u>public comments libraries</u> for both investigations, which together received a total of 292 written submissions, and the two public comment periods were promoted widely through the Department and BIS social media accounts. The Secretary personally convened two (2) public hearings for the investigations in May and June of 2017, which were livestreamed via the Department's <u>YouTube</u> and <u>Facebook</u> channels and have earned 15,450 total video views across both platforms. Below are BOU public outreach links:

Bureau of the Census

Foreign Trade Outreach and Education

Census Advisory Committees

International Trade Administration Office of Advisory Committees

Minority Business Development Agency Advisory Commission on Asian Americans and Pacific Islanders

National Institute of Standards and Technology

NIST Events

- National Oceanic and Atmospheric Administration NOAA Federal Advisory Committees
- National Telecommunications and Information Administration Internet Policy Task Force
- U.S. Patent and Trademark Office <u>USPTO Public Advisory Committees</u>

Records Management

T he Department manages records in accordance with the Federal Records Act. The Department and its bureaus have implemented guidance provided by the National Archives and Records Administration. The Department Chief Information Officer develops and establishes Department policy and standards to implement a Department Records Management Program and works with the National Archives and Records Administration (NARA) to ensure valuable records are carefully maintained for future use. Departmental Records Officers provide regular training to assist agency personnel in meeting their records management responsibilities. The senior officials and political appointees are also briefed on the importance of appropriate records management. Overall, the Department ensures that valuable records are identified, protected, and preserved.

The Department transfers records of permanent historical or archival value to the National Archives. It helps in achieving NARA's mission to protect the rights of all Americans to drive openness, cultivate public participation, and strengthen our nation's democracy by ensuring unhindered citizen access to public information and archival documents.

Authorities and requirements for the Department's Records Management program include:

 Basic Laws and Authorities of the National Archives and Records Administration

 NARA Regulations

 NARA Bulletins

 Managing Government Records Directive (M-12-18)

 Memos to Agency Records Officers

 Records Management FAQs

 White Papers and Reports

Records Management Transfer Guidance

Capstone Training and Resources

Freedom of Information Act (FOIA) Requests



The electronic FOIA tracking system continues to help improve the efficiency of the Department's FOIA program. Designed to provide a more streamlined and transparent system for requesting information, the 3.0 version of FOIAonline was released in 2018. All BOUs, use FOIAonline. This system

allows anyone to submit a FOIA request, correspond with FOIA professionals processing the request, track the status of a request, and download any responsive documents once they are released to the requester. Requesters who provide an email address receive email notifications informing them of when a request has been submitted, evaluated (scope, fee waiver, expedited processing issues), assigned, processed, and closed.

The Department's FOIA professionals also continually review FOIA business processes to determine the need for updates to ensure the program runs efficiently and effectively. The success of the Department's FOIA program is also measured through metrics, such as backlog reduction, age of backlogged requests, and backlog growth, which are reported and discussed on a quarterly basis during venues that include Quarterly FOIA Officer Roundtable meetings and Balanced Score Card reporting to senior management.

The Department continues to enhance response letters using customer service best practices. The <u>Departmental FOIA regulations</u> are published in the Federal Register.

In 2017, the Department published the <u>DOC FOIA Reference Guide</u>. The goal of this Reference Guide is to familiarize FOIA requesters with the specific procedures for making a FOIA request to the DOC. Following the information in the Guide helps requesters receive the information that they are seeking in the shortest amount of time possible. The Reference Guide also includes descriptions of the types of records maintained by different parts of the agency, some of which are readily available through means other than the FOIA.

Information on the Department's FOIA program can be found at <u>Commerce FOIA webpage</u> and/or <u>Electronic Library</u> (Formerly e-Reading Room).

Table 1 - FOIAonline	Core Functionality
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FOIAonline Core Functionality		
Accept Requests Online	 Allow requester to pre-populate their information Provide status to requesters Create communications (i.e. letters via email) between agencies and requesters 	
Track Requests in a Case File	 Process and track FOIA request Break down requests into multiple tasks Multi-track processing (Simple, Complex, Expedited) Track time spent on requests (the list shifts from starting with –ing words to not breaking down, track, assign) Assign case numbers Start and stop the clock according to rules Keep an online folder of all documents related to a request (<i>including notifications to requesters</i>) 	
Manage Deadlines	 Start/Stop the clock Generate backlog reports Monitor workload Notify FOIA professionals based on 10- and 20-day deadlines Close cases when fees are not paid (<i>according to business rules</i>) 	
Calculate Fees	 Track fees and fee waiver processing Generate invoices Deduct what is free of charge (i.e. first 100 pages) Manually adjust recorded time Distinguish between search and review time 	
Research and Upload Records	 Store consultations, referrals, and letters Send tasks to others with instructions about which records to search Upload scanned documents 	
Publish Electronic Records	 Review/sign the case file to approve redactions and fee calculations Issue Partial/incremental releases Send system-generated email notifications to requesters 	
Accept Appeals Online	 Track status and outcome of litigation and appeals Issue supplemental release after appeal Forward copies of processing to Appeals unit 	
Prepare the Annual Report	 Prepare the report in the required format with the required data structure Use dashboards to display these metrics throughout the year, including trends 	
Search and Retrieve	• Searching (including metadata and full-text)	

Proactive Disclosures

A II FOIA Officers routinely review FOIA requests to identify types of frequently requested records and other records of interest for proactive posting. Additionally, the Department continues to proactively post documents responsive to FOIA requests in an electronic format through FOIAonline, an automated online tracking and records management system. Released documents are uploaded to FOIAonline, where they are available to the general public at no cost. Additionally, all FOIA professionals provide guidance and training to encourage proactive disclosures whenever possible. All component subject matter experts (SME) in various business units routinely identify records to be made publicly available.

Congressional Requests

T he Office of Legislative and Intergovernmental Affairs (OLIA) supports the Department's Secretary on matters pertaining to legislative issues, congressional relations, and on the Department's relationship with state, county, municipal, and tribal governments and their associations. OLIA is the focal point within the Department for coordinating all activities involving legislative and congressional relations and activities. The Assistant Secretary for Legislative and Intergovernmental Affairs is delegated authority to provide policy guidance and oversight of Department legislative and congressional relations and activities. The OLIA Assistant Secretary also develops an integrated Department plan to collect, coordinate, and distribute timely and accurate information relating to those relations and activities to the Secretary and the Department. OLIA accomplishes these goals with the support of the legislative affairs offices in the Department's BOUs.

OLIA's authorities rest with a <u>Department Organizational Order (DOO) 10-12</u>, <u>Assistant Secretary</u> for <u>Legislative and Intergovernmental Affairs</u>, which prescribes the top-level organization, authority, functions, and responsibilities of the Assistant Secretary for Legislative and Intergovernmental Affairs and therefore, OLIA.

In addition to the DOO, other OLIA responsibilities and procedures are laid out in <u>Department</u> <u>Administrative Order (DAO) 218-2</u>, <u>Legislative and Intergovernmental Affairs</u>, which details policies and procedures for responding to Congressional and Intergovernmental inquiries and outlines other procedures for OLIA. All of the DAOs can be accessed at the following website: <u>http://www.osec.doc.gov/opog/dmp/daos.html</u>.

Several other DAOs have portions that reference or relate to processes or duties to which OLIA is a party, including:

- <u>DAO 202-334</u>, <u>Details</u>. This DAO has a section on the Department's details to Congressional Committees. Responsible Office: Assistant Secretary for Administration.
- <u>DAO 218-3, Reports to Congress Required by Law</u>. The DAO prescribes the procedures and responsibilities for sending Departmental reports to Congress. In addition, it details clearance and signature authorities. The Assistant Secretary for Legislative and Intergovernmental Affairs is one (1) of the Secretarial Officers responsible for clearing Congressional reports. Responsible Office: OGC.
- <u>DAO 218-1</u>, <u>Legislative Activities</u>. The DAO details the duties and policies of the Department with respect to legislative activities. Responsible Office: OGC.

Declassification

T he Department and BOUs, specifically those with Original Classification Authority (OCA) can declassify documents. The Director of the Office of Security (OSY) is one (1) of the three (3) OCAs within the Department who gives final approval for document declassification. Documents received are reviewed by the subject matter experts. When the declassification has been determined and if the document(s) have historical permanent value, they are transferred to <u>National Archives Records Administration</u>.

The OSY collaborates with NARA to develop schedules for the declassification of records in the National Archives of the U.S. and the presidential libraries to ensure declassification is accomplished in a timely manner. The NARA provides information about the records proposed for automatic declassification. The BOUs consult with the Department's Records Management Officer before reviewing records in their holdings. This ensures that appropriate procedures are established for maintaining the integrity of the records and provides NARA with accurate information about BOU declassification actions when records are transferred to NARA. NARA provides guidance to the Department's Records Management Officer concerning the requirements for notification of declassification actions on transferred records, box labeling, and identification of exempt information in the records.

The OSY is required to submit an Agency Security Classification Management Program Data (SF 311), which is used to collect data from executive branch agencies that create and/or handle classified national security information. The report includes: the number of original classification authorities; number of original and derivatively classified decisions; number of mandatory declassification review requests and appeals; number of pages declassified; number of inspections conducted; and number of classification guides. The information is submitted to the Information Security Oversight Office (ISOO), and is compiled, analyzed, reported, and published in ISOO's annual report to the President. The reports are available in printed format upon request or can be downloaded from the <u>ISOO website</u>.

Most documents are declassified based on their declassification date, or subject to Part 3 declassification, of EO 13526. All classified records that 1) are more than 25 years old, and 2) have been determined to have permanent historical value under Title 44 of the U.S. Code shall be automatically declassified whether or not the records have been reviewed, unless an exception to automatic declassification applies. To the extent practicable, operating units shall adopt a system of records management that will facilitate the public release of documents at the time such documents are declassified based on the automatic declassification provisions of E.O. 13526.

The Department is a Non-Title 50 agency and has no public links or webpages where the public can learn about the agency's declassification program, and/or access declassified material.

Participation

Participation is critical for the Department to achieve its strategic goals. The Department engages with the public and private sectors through a variety of ways and for a variety of reasons. For example, the BOUs actively use their websites, meetings, conferences, social media, Federal Register notices, public forums, focus groups, civic hackathons, and extensive outreach programs to ensure the public, private, and government participation is fulfilling the Department's mission.

There are around 55 <u>Federal Advisory Committees</u> in the Department that are established and operated in accordance with the requirements of the Federal Advisory Committee Act (FACA), which governs the creation and operation of Federal Advisory Committees (FACs). FACA was enacted in 1972 to ensure that advice by the various advisory committees formed over the years is objective and accessible to the public.

Also visit: Federalregister.gov.

Collaboration

T he Department is continually working across the public/private sector (federal, state, local, tribal), and international government to build partnerships. The partnerships afford the development and sharing of best practices which initiate an environment for economic growth and opportunity. To achieve this goal, the use of collaboration tools, public meetings, and feedback efforts, such as website comments and social media are used to identify innovative ways to effectively collaborate.

The Department is continuing to accomplish these objectives by:

• Including processes and best practices that improve and allow effective communication between the Department and the public sector, ensuring openness and transparency is part

of all new programs and initiatives, as well as any updates initiated to existing programs and initiatives;

- Maintaining a leadership role in the Open Government initiatives by building into the information lifecycle best practices that increase the value of information and tools made available to the American public;
- Continuing to build and improve existing partnerships with the public and private sectors, which includes businesses, academia nonprofit organizations, and inter-governmental at federal, state, and local, to broaden input obtained for consideration during the regulatory process; and
- Improving the creation of new online tools and expanding existing tools and processes to enhance public and private sectors' access to the Department's information and services and increase the understanding of funding opportunities.

Open Innovation Methods

T he Department is a leader in innovation. The 2018-2022 Strategic Plan identifies innovation as a key driver of economic advancement. Forward-looking, the Department is placing increased emphasis on the commercial opportunities of space exploration and aquaculture, while our scientists are conducting foundational research in areas ranging from artificial intelligence to quantum computing. USPTO is working to improve the protection of intellectual property so that creators can profit from their inventions. Recently, the Census Bureau's Administrative Data Research Facility received the 2018 Government Innovation Award. Our BOUs continue to provide opportunities for employees, organizations, and communities in the private sector, nonprofit, and academic communities to develop ideas, technologies, products, and services.

The Department, through its strategic sourcing initiative, is streamlining the acquisition process for certain common goods and services (e.g., desktops, laptops, tablets, and software) and gaining volume discounts and better terms and conditions. In addition, as the acquisition of select common support requirements are strategically sourced, the Department benefits from reduced transactional burden, standardized processes, and economies of scale.

Departmental strategies to advance innovation include:

- 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 services;
- Promote effective sharing of spectrum for multiple uses; and
- Leverage unmanned systems, artificial intelligence, cloud computing, and 'omics (the use of advanced methods to analyze material such as deoxyribonucleic acid (DNA), ribonucleic acid (RNA), or proteins) to enable breakthrough science and technology (S&T) applications to help deliver the world's best weather forecasts and to grow the American bioeconomy.

Access to Scientific Data and Publications

BOUs conduct and sponsor research on a wide variety of topics, ranging from research on weather forecasts and earlier warning for natural disasters, to research on capital access for minority-owned businesses.

BOUs publish their research on their websites, as well as in research journals, and various research publication vehicles. Historically, only some BOUs, such as NIST, have research budgets that are above the \$100 million threshold established by OSTP. Those BOUs address this requirement, and their response, in their designated section.

Spending Information

The Department recognizes the importance of transparency in spending. The Department uses the OMB-established <u>USAspending.gov</u> website to post contracts, grants, loans, and other types of spending across the BOUs. The data available on USAspending.gov are provided by the Federal Assistance Awards Data System (FAADS) and the Federal Procurement Data System (FPDS). The Department coordinates implementation of the Digital Accountability and Transparency Act of 2014 (DATA Act) across the BOUs.

Open Source Software

The federal source code policy (<u>M-16-21</u>, Federal Source Code Policy: Achieving Efficiency, Transparency, and Innovation through Reusable and Open Source Software) requires the Department to ensure that new custom-developed Federal source code be made broadly available for reuse across the Federal Government. An example of the Department using and contributing to open source software is illustrated by NOAA. To date, NOAA's efforts have focused on creating a capability for broad sharing of code and content, consistent with the <u>M-16-21</u> objectives and in the general spirit of collaboration and Open Government. In particular, NOAA has established an organization account with GitHub (@noaa.gov) and is in the process of piloting GitHub as a platform for sharing of code and content. In addition to the GitHub account and capability per se, we have also defined NOAA's use cases for GitHub and developed a draft

NOAA policy that provides guidance for how to use GitHub. Also see the USPTO section of this Plan.

Flagship Initiatives

The Department has many outstanding high-profile Open Government flagship initiatives and projects described in this new Plan. As we continue to move forward in implementing the principles of Open Government, we highlight a few flagship and continuing initiatives that we are undertaking to make the Department more transparent, participatory, and collaborative.

OS: Centralized FOIA Record Search Pilot



The purpose of the Centralized FOIA Record Search Pilot is to conduct centralized, faster, and more uniform searches and reviews of emails, utilizing deduplication and analytics. The cloud-based tool alleviates the FOIA/Privacy Act workload/backlogs.

Census: Data.census.gov



T he vision for data.census.gov is to improve the customer experience by making demographic and economic data from the Census Bureau available from one centralized place. This allows the data user to spend less time searching for data and content. Also, the data.census.gov platform is driven by data users with an Agile process built in that allows customers to provide feedback on the site while it is being developed.

NOAA: Big Data Program



T he BDP is an innovative approach to publishing NOAA's vast data resources to facilitate public use of key datasets, allowing users to do analyses of data and extract information without having to transfer and store the massive datasets themselves.

Ongoing Initiatives at the Bureaus and Operating Units (BOUs)

T he Department has published high-value data as part of its scientific, technological, and economic programs. As a result, the Department has been able to establish best practices in the distribution and publication process to meet the needs of an ever-evolving public. The various Open Government initiatives within the BOUs are described in each of the BOU reports that follow.



Office of the Secretary (OS)

Background

OS is the general management arm of the Department and provides the principal support to the Secretary in formulating policy and in providing advice to the President. It provides program leadership for Commerce's functions and provides general supervision over the operating units. It also directly carries out program functions as may be assigned by the Secretary, and provides, as determined to be more economic or efficient, administrative, and other support services for designated operating units. OS consists of the Secretary, certain Secretarial Officers, designated staff immediately serving those officials, and several "Departmental offices" which have Department-wide functions or perform special program functions directly on behalf of the Secretary.

OS Open Government Initiatives

The table below shows a list of initiatives for *OS*.

Table 2 - OS Initiatives

Operating Unit	Project	Status	Estimated Completion
Office of the Secretary	Office of Digital Engagement	Live / Operational	
	FOIAonline FOIA Request Management and Reporting	Live / Operational	
	Centralized FOIA Record Search Pilot	In Progress	8/21/2020

Project – Office of Digital Engagement

The Office of Digital Engagement focuses on outreach efforts, ensuring effective two-way communications with the public about the Department's services. The Office of Digital

Engagement launched a public beta version of the revision to Commerce.gov in 2018 to gather quantitative analytics and qualitative feedback from citizens on the design.

Project – FOIAonline FOIA Request Management and Reporting

Improved request capabilities that include standard request input, improved tracking and reporting.

<u>FOIAonline</u> provides a single interface through which the public can submit requests to the Department or directly to any BOU and provides full tracking and updates with electronic document management. In July 2018, FOIAonline 3.0 was deployed providing users with additional features and improved performance.

Project – Centralized FOIA Record Search Pilot

The Centralized FOIA Pilot Project was developed to respond to some of the most challenging "pain points" facing the Department's FOIA Program, notably:

- <u>Increasing volume of records</u>: The increased use of email and other electronic forms of communication which are frequently requested by the public through FOIA.
- <u>Lack of centralized record repository</u>: Emails and other electronic records are stored by different offices, often through individual accounts, making the process of search and retrieval complicated and time consuming.
- <u>Non-standard processes and toolset</u>: Use of different tools for different stages of process one tool to search, one tool to retrieve, another to review, and another to redact.
- <u>Record conversion</u>: Time intensive manual process to convert documents into standard format, often incompatible with DOC-issued equipment.
- <u>Duplicative work and efforts</u>: No way to identify duplicates, consolidate email conversations, or save work for easy retrieval and reuse.
- <u>Proactive disclosure challenges</u>: No easy way to track frequently requested materials to flag for proactive disclosure as required in the law.

Purpose and Scope

The Relativity Pilot was intended to demonstrate the cloud-based Relativity eDiscovery tool's capability to alleviate the FOIA/PA workload, and specifically to reduce the backlog existing within the following offices:

- Office of the Secretary
- Office of the Deputy Secretary
- o Office of the Chief of Staff
- Office of the General Counsel
- Office of the Executive Secretariat

• Office of Policy and Strategic Planning

The Relativity Platform

Relativity is an electronic discovery software platform, that assists with identifying, collecting, analyzing, reviewing, and producing, electronically stored information (ESI).

Relativity stores and organizes documents from multiple systems, multiple email accounts, and multiple servers in one centralized location.

Relativity as a FOIA Tool

Relativity is a tool that allows FOIA Officers and POCs to efficiently search, review, consult, and redact records – all in one program.

Relativity enables the OPOG FOIA Officers and FOIA Analysts to:

- Manage entire workflow in one tool
- Store records in centralized repository
- Perform and document complex searches
- Deduplication and analytics = fewer records to review
- o Apply consistent redactions
- o Collaborate in real time across offices
- Compile and release records

Impact of Pilot Project Initiative on FOIA Workflow

- <u>One tool</u>: Relativity allows FOIA Officers and POCs to efficiently search, review, and redact records all in one program.
- <u>Centralized repository of records</u>: Records representing 17 offices and 82 Presidential Appointees and Department Leadership – all contained in centralized repository for immediate search, retrieval, and review.
- <u>Search capabilities and advanced analytics</u>: Provide FOIA Analysts with tools to efficiently search and review records, and reduce time spent on review.
- <u>Work is saved for future use</u>: Relativity saves coding and redactions on all documents so that they can be retrieved and leveraged to respond to similar requests, reducing duplicative work.
- <u>Standardized, consistent results</u>: Providing timely responses, consistently.

Beyond FOIA

Relativity can be utilized to maximize the efficiency of any project that requires reviewing and analyzing large volumes of data, from various sources, and in various formats.

Demonstrated impact on Congressional Requests

- Enhanced ability to analyze and respond to Congressional requests for information.
- Through an expansion of the Pilot to the Office of General Counsel, Office of Special Projects.

Increased collaboration with other federal agencies

- Relativity has the ability to impact other components and initiatives:
 - Open Data
 - Proactive Disclosures
 - Records Management

Records Management

- Centralized repository of records
- Automate record collection
- Preservation of original file formats, record relationships, and metadata
- o Capstone approach: Standardize and automatically apply retention policies
- o <u>Resource allocation</u>: Identify records with archival value; cull non-records



Office of the Inspector General (OIG)

OIG seeks to improve the efficiency and effectiveness of the Department's programs and operations through independent and objective oversight. The OIG also endeavors to prevent and detect waste, fraud, and abuse. The OIG carries out its work primarily through audits and investigations of the Department's activities.

The OIG Open Government initiatives contribute to the Departmental Open Government plan by ensuring that the principles of transparency and collaboration are built into OIG policies and operations. To ensure that these principles are supported routinely throughout OIG, certain programmatic functions are dedicated with Open Government commitments and responsibilities. These programmatic functions include positions such as the OIG Records Officer, the OIG FOIA Officer, and positions within the OCIO.

One of the primary ways that the OIG supports the principle of transparency is by routinely posting announcements, significant correspondence, audit and evaluation products, and as appropriate, investigative content to the OIG's public-facing website. To ensure that the OIG operations support the principles of collaboration, OIG regularly reviews our website to ensure that content is easily accessible. The OIG uses the Department's FOIAonline system to process public requests for information, which helps to track FOIA requests, to improve coordination with stakeholders within the Department and with FOIA requesters, and to ensure timely responses to requests for records.

The OIG also supports Open Government activities by continuing to improve records management policies and processes and by reviewing OIG's records management schedules for accuracy. The OIG Records Officer conducts annual training for staff and updates an internal website to increase awareness.

The OIG plans for Open Government activities are highlighted in the below paragraphs and chart.

Open Data

The OIG complies with the Open Data Policy--Managing Information as an Asset Memorandum (OMB M-13-13) by maintaining an "enterprise data inventory" of the OIG publicly available data resources. This is our flagship initiative that supports the departmental plan and Open Government

objectives. As time permits, OIG is also actively categorizing and inventorying its internal digital assets. OIG Records Schedules are periodically reviewed to ensure that the information is maintained in accordance with NARA policy.

Privacy

The OIG OCIO continues to prepare compliance reports such as those required under FISMA. The OCIO actively participates in reviews of the Departmental Privacy Controls implementation approach in conjunction with the NIST. OIG continues to update standard operating procedures to improve the OIG network infrastructure and to meet Departmental requirements. The OIG Security Officer monitors and responds to incidents as needed. The OIG OCIO is also improving security by implementing the administration's priority cybersecurity capabilities. These actions will assist in the protection of the personal information BEA maintains and improves services to OIG customers, both internal and external. The Office of Administration (OA) continues to provide security training to new employees during in-processing and annual computer-based training. Annually, the OIG reviews the OIG PIA to ensure compliance with departmental requirements. The PIA is also reviewed when a new information system is being designed for implementation on the network.

Whistleblower Protection

In accordance with 5 U.S.C. § 2302(c), OIG informs employees of their rights and remedies under the prohibited personal practices and whistleblower retaliation protection provisions of Title 5. OIG's website includes a separate Whistleblower Protection Program page with information and links related to the Whistleblower Protection Act of 1989, as amended, OIG's Whistleblower Protection Coordinator, how to file whistleblower reprisal complaints, and whistleblower protection agency certification. The page includes the phone number and email contact information for the Whistleblower Protection Coordinator. The Coordinator's role is to educate agency employees about prohibitions on retaliation for protected disclosures and inform agency employees who have made or are contemplating making a protected disclosure about the rights and remedies against retaliation for protected disclosures. As part of the strategy to promote awareness, the Coordinator provides training sessions, posts informational posters at agency facilities, and develops brochures for employees as part of the orientation process.

Websites

The OIG's website is accessible by a link on the Department's public-facing homepage and directly at www.oig.doc.gov. The website includes a menu at the top of the page, allowing visitors to access various topics of interest. The website provides access to downloadable PDFs of public audit and investigative reports, audits initiated, correspondence, and Congressional testimony. Information is organized by title, date, and oversight area. The OIG maintains processes to ensure that all posted OIG products to its website are Section 508 compliant in order to make these

materials accessible to individuals with disabilities and the agency is in the process of making the entire website Section 508 compliant. The website also includes a FOIA reading room, as well as information on how to make a request for records. The "Contact Us" page provides information for the webmaster and includes links to the FOIA Officer contact. The OIG periodically reviews the usability of its website by analyzing the results of workgroup studies and by being an active member of the Departmental Web Advisory Council.

Transparency

The concept of transparency is established in OIG routine processes and policy. As required by the Inspector General Act, as amended, the OIG publishes a *Semi Annual Report* to Congress twice yearly. The OIG also publishes an annual "Top Management Challenges" report to address what the OIG deems to be the most serious management and performance challenges facing the Department.

The OIG supports transparency of events concerning the office by sending Tweets using OIG's official Twitter account and by posting comments to its Facebook page. The OIG also participates in transparency by utilizing FOIAonline, a government partnership that provides shared services for FOIA processing.

Public Notice

As stated previously, OIG uses a Twitter account and Facebook page to publicize publications, activities, and job vacancies. Using these popular modes of communication helps support transparency, collaboration, and participation. OIG is increasing customer outreach to stakeholders, citizens, and the media as the number of followers to the posted Tweets and Facebook posts expands. The OIG will continue to use these communication methods to inform the public. The OIG website at www.oig.doc.gov is also used to provide the public with notice of recently released reports and other information and features a prominent "Recent Releases" section to highlight the most recently posted information.

Records Management

An objective of the OIG Records Management Program is to improve records management processes by revising records management policies and OIG disposition processes. In April 2020 OIG's CAPSTONE plan for effectively managing email was approved by NARA. This program will meet the objective of capturing and storing appropriate emails for record keeping purposes. By improving the management of email records and by examining the records management policies, BEA will improve customer service and serve the objectives of Open Government. The OIG will be continuing to improve records management policies.

The OIG Records Officer routinely participates in the Federal Records Officer Network, NARA's Electronic Records Management Automation Working Group and Bi-monthly Records and Information Discussion Group and is the co-chair for the CRAG (Council of the Inspectors General on Integrity and Efficiency Records Administration Group). This activity supports the Open Government activity of collaboration. Further collaborative efforts by the OIG Records Officer include speaking engagements in public forums to educate the general public on records retention and dissemination. The Records Officer provides regularly scheduled training for OIG staff in regard to records retention and availability to ensure records are maintained in accordance with NARA's directives.

Freedom of Information Act Requests

The OIG operates a primarily electronic-based FOIA program that optimizes efficiency in public access to OIG records. All FOIA requests are tracked in the Department's FOIAonline system and, whenever possible, responses are sent via email directly to requesters. In this way, the OIG communicates with the public to provide information on the FOIA program and to encourage transparency and collaboration. The OIG website provides more information on the OIG FOIA program at <u>https://www.oig.doc.gov/pages/Freedom-of-Information-Act.aspx</u>. In addition to FOIA, the OIG proactively discloses items such as *Semi Annual Reports* to Congress; audit, evaluation, and other reports; the OIG top management challenges report on issues facing the Department; congressional testimony, and information on current and planned activities. These materials can be found at <u>https://www.oig.doc.gov/Pages/default.aspx</u>.

Proactive Disclosures

Previously mentioned, upcoming events and activities are posted OIG's Twitter account and Facebook page to alert customers. Posting the Tweets and the Facebook comments notifies the public of weekly activities and alerts them to job announcements within the OIG. The OIG also notifies the public of additions to the external website by posting notice of audits initiated and recent releases in these sections on the OIG homepage. The OIG will continue to review its website to improve customer communications. The OIG FOIA Officer also routinely reviews FOIA requests to identify types of frequently requested records and other records of interest for proactive posting.

Congressional Requests

The OIG has a formal process for reviewing, releasing, and responding to Congressional requests. The Office of the Chief of Staff receives incoming requests, either directly from Congress or via forwarded email from the original OIG recipient. Upon receipt, the Office of the Chief of Staff coordinates with the cognizant OIG offices, including the Front Office, to determine the appropriate response. After the relevant OIG offices have completed the required work in response to the Congressional request, any written product that will be released outside the OIG is

put through the OIG's normal clearance process. The Office of the Chief of Staff coordinates briefings to Members and staff, as appropriate.

Declassification

The OIG follows the Department's "Manual of Security Policies and Procedures" for security of Commerce information. New employees receive briefings from the OSY. However, OIG does not have original classification authority.

Participation

In order to meet OIG's strategic goal to "Develop A Robust Infrastructure To Support A High-Performing OIG", and to continue the improvement of network infrastructure, the OIG has examined the ways to improve its services to the workforce. Some of the ways the OIG is improving its network infrastructure are to leverage technology initiatives, such as Cloud computing and collaborating with industry on improvements in information storage and information sharing. The OIG continues to actively engage in the Department's participation of DHS' Continuous Diagnostics and Mitigation (CDM) program, which provides federal departments and agencies with capabilities and tools that identify cybersecurity risks on an ongoing basis, prioritizes these risks based upon potential impacts, and enables cybersecurity personnel to mitigate the most significant problems first. And finally, the OIG collaborates with industry experts to implement best practices by attending open data meetings of the OCIO Council and encouraging employees to attend networking opportunities to obtain guidance on similar issues that other federal agencies experience.

Collaboration

The OIG will continue to utilize its Twitter account and Facebook page as communication tools with members of the public and other stakeholders. The OIG also provides access to its hotline number on the OIG Twitter.

OIG Open Government Initiatives

The table below shows a list of initiatives for OIG.

Operating Unit	Project	Status	Estimated Completion
OIG	Continue to improve network infrastructure to ensure security of privacy information by analyzing and updating privacy controls		

Table 3 - OIG Initiatives

Operating Unit	Project	Status	Estimated Completion
	Improve records management processes by revising records management policies and OIG disposition processes. In April 2020 OIG's CAPSTONE plan for effectively managing email was approved by NARA.	Ongoing/Continuous	

Project – Continue to improve network infrastructure to ensure security of privacy information by analyzing and updating privacy controls

The OIG's OCIO is improving security by implementing the administration's priority cybersecurity capabilities. These actions will assist the protection of the personal information OIG maintains and improve services to external and internal customers. OIG continues to make use of the Department's leveraging of the DHS CDM program and completed implementation of bandwidth upgrade to all OIG regional offices. OIG is also working towards utilizing more Cloud services to enhance the security, protection of CUI, PII, BII and availability of resources.



Bureau of Economic Analysis (BEA)

Background

BEA is one (1) of the world's leading economic statistics agencies. BEA is charged with the production of some of the Nation's most closely watched economic indicators, influencing decisions made by government officials, businesses, and households. BEA's economic data, which provide a comprehensive, up-to-date picture of the U.S. economy, are key ingredients in critical decisions affecting monetary policy, tax and budget projections, and business investment. The cornerstone of BEA's statistics is the national income and product accounts (NIPAs), which feature estimates of GDP and related measures

In 2000, the Department of Commerce recognized GDP as its greatest achievement in the 20th century, and GDP has been identified as one (1) of the three (3) most influential measures affecting U.S. financial markets. Since the NIPAs were first developed in the aftermath of the Great Depression, BEA has developed and extended its estimates to cover a wide range of economic activities and structural economic changes.

Primary BEA Activities

Today, BEA prepares national, regional, industry, and international accounts that present essential information on such key issues as economic growth, regional economic development, interindustry relationships, and America's position in the world economy.

Transparency and openness have long been hallmarks of the Bureau. BEA publishes all data, research and publications on its website <u>www.bea.gov</u>, along with detailed methodology papers that explain exactly how BEA computes the Nation's key economic indicators. The Bureau makes its subject matter experts directly available to the public, with names, phone numbers, and email addresses published online. Additionally, to ensure transparency, prior to implementing changes to presentations or methodologies, BEA announces and conducts outreach to stakeholders through webinars, in-person briefings, conference calls, presentations at conferences and social media to explain the changes and solicit input on the impact of the changes on data users. As a 2011 New York Times story notes, "The Bureau of Economic Analysis, an arm of the Commerce Department... emphasizes transparency and is uncommonly open to public questions."

The Bureau is continuously exploring ways to further increase openness and transparency regarding its processes and products and devotes substantial resources to educate the public about its data. In recent years, BEA has continued to add to or improve the data retrieval tools on the BEA website, making the Bureau's vast stores of data more accessible, consumable, and shareable.

Open Data

BEA's mission is to promote a better understanding of the U.S. economy by providing the timeliest, relevant, and accurate accounts data in an objective and cost-effective manner. Open data is central to this mission.

BEA's <u>Open Data</u> webpage provides access to BEA's downloadable datasets, online tools, and a public listing of all datasets currently available on the BEA website. This listing includes datasets from all economic program areas of the Bureau, and the various formats in which data are available including interactive web applications and flat, downloadable files.

BEA's website has long made datasets available for download either as static files or via various interactive web applications, such as the <u>Interactive Data Tables</u>, or iTables, that make it easier to access and explore BEA data. In 2017, BEA introduced the <u>BEA Industry Facts data tool</u> to allow data users to easily access and view BEA's statistics on a particular industry all in one (1) place. This new tool sits alongside BEA's <u>Regional Factsheet</u> tool and <u>Country Factsheet</u> tool.

In 2018 BEA deployed a new, modernized website that provides a more intuitive user experience and information architecture centered on the Bureau's data products, in contrast to the previous framework that mirrored the Bureau's organizational structure. Additionally, BEA publishes a blog and utilizes social media to further support its efforts to promote data releases, highlight new data offerings, and provide insight into its data products.

Proactive Disclosures

As a data producing agency, the Bureau proactively publishes or otherwise makes available all data, research, reports, and publications allowable under Federal law or regulation. BEA only restricts access to company confidential, embargoed, or other information protected by law.

Privacy

BEA views privacy and confidentiality of data as paramount, particularly given the vital trust our mission demands from businesses that provide their confidential data to BEA. In addition to standard privacy and confidentiality protections in statute, BEA is also subject the requirements of the Confidential Information Protection and Statistical Efficiency Act and the International Investment and Trade in Services Survey Act, both of which extend additional civil and criminal penalties for violations of confidentiality.
- Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA)
- International Investment and Trade in Services Survey Act (Pub. L. 98-573)

The <u>BEA Web Privacy Policy</u> page hosts links to DOC's Privacy Act and FOIA pages. BEA's website also features <u>A Guide to BEA's Direct Investment Surveys</u>, which includes a section on legal authority and confidentiality.

Whistleblower Protection

On May 15, 2002, President Bush signed legislation called the No FEAR Act (Notification and Federal Anti-Discrimination and Retaliation Act of 2002). This act, which took effect on October 1, 2003, makes federal agencies individually accountable for violations of anti-discrimination and whistleblower protection laws. See the <u>DOC No FEAR Act Policy</u>, which dictates BEA policy.

Websites

BEA maintains one (1) domain, <u>www.bea.gov</u>. Through this website, BEA provides access to its data, information about the methodology used to produce the data, the data release calendar, a blog, as well as an open data portal.

The website complies with the Department's Policies and Best Practices. BEA's website provides a Digital Government Strategy link to make the public aware of these Commerce-wide policies. BEA has also incorporated the tracking code for <u>Analytics.USA.gov</u> within its website and does not restrict data capturing. This allows BEA web usage to be reported as part of the Department of Commerce analytics reported there.

Open Innovation Methods

In 2017, BEA created a new Chief Innovation Officer position to lead development of cross-cutting strategies to better anticipate future customer needs and collaborate with Bureau leadership on a vision to guide innovation and help develop new and enhanced statistical products.

The Bureau's website features a Developers page (<u>www.bea.gov/developers</u>) with various tools to assist programmers and researchers. For programmers, the BEA's data API provides programmatic access to BEA published economic statistics using industry-standard methods and procedures. BEA's data API includes methods for retrieving a subset of BEA's statistical data and descriptive meta-data to make it easier for developers to write programs using the data.

BEA also offers resources in R, described below in the Open Source Software section of this report.

These innovations simplify the use of BEA's data for those writing programs or conducting research and analysis, fostering innovation in these spheres.

Access to Scientific Data and Publications

As a data producing agency, the Bureau proactively publishes or otherwise makes available all data, research, reports and publications allowable under Federal law or regulation. BEA only restricts access to company confidential, embargoed or other information protected by law.

Open Source Software

Because the open source programming language R is widely used for statistical computing and graphics, BEA now offers two tools (available at <u>https://github.com/us-bea/</u>) to make data more readily accessible using this software:

- The bea.R library allows for economic data from BEA's API to be quickly accessed and used in R-friendly formats, requiring only a few lines of code to do so.
- The eu.us.opendata R library provides users access to comparable datasets from the European Union (EU) and United States by tapping into both Eurostat's API and BEA's API.

BEA also posts the online tutorial <u>Guide to Economic Data + Interactive Visualization in R</u> to help data user's access economic data through BEA's R library and create interactive maps.

Spending Information

The Department of Commerce coordinates DATA Act implementation (including the reporting of spending information) at the department management level for smaller bureaus such as BEA.

Participation in Transparency Initiatives

BEA participates in Data.gov, e-rulemaking, IT Dashboard, and USAspending initiatives, and publishes all data allowable under statute. Further, BEA publishes extensive documentation on methodology and procedures, recognizing that the highest level of transparency is necessary to fulfill our mission.

Public Notice

BEA works with the Department's Office of Digital Engagement on ensuring effective two-way communication with the public about the Bureau's initiatives.

<u>Release dates</u> for economic indicators produced by BEA are posted in advance on the agency's website. Information on conferences and meetings is also posted on the website.

The <u>BEA Advisory Committee</u> advises the Director of BEA on matters related to the development and improvement of BEA's national, regional, and international economic accounts, especially in

areas of new and rapidly growing economic activities arising from innovative and advancing technologies, and provides recommendations from the perspectives of the economics profession, business, and government.

Further, with respect to changes in schedules, methodologies or other pertinent information, BEA follows the requirements of OMB Statistical Policy Directives No. 3 and No.4, outlining public notices requirements and dissemination procedures for statistical products.

Records Management

BEA's Administrative Services Division includes a records management specialist who takes lead responsibility for ensuring BEA complies with all applicable record retention and archival regulations.

BEA records are managed throughout their lifecycle. BEA complies with the Managing Government Records Directive (OMB M-12-18). BEA follows National Archives and Record Administration (NARA) Bulletin 2013-02: Guidance on a New Approach to Managing Email Records and uses an approved General Records Schedule (GRS) 6.1: Email Managed Under a Capstone Approach. All transactions between BEA and NARA are conducted through the Electronic Records Archive (ERA).

Freedom of Information Act Requests

The Freedom of Information Act (FOIA) provides the public a means to access Federal agency records, except those excluded or protected under the Act. The <u>Submit FOIA Request</u> link on the <u>Contact Us</u> page of the BEA website connects the public to the Department's FOIA page. This page provides instructions on submitting requests either electronically through the Department's e-FOIA system or in paper form. Requests are coordinated by BEA's dedicated FOIA Officer. All BEA FOIA requests are reviewed and responded to as fully and promptly as allowed and directed by law.

Congressional Requests

BEA works closely with the Department's Office of Legislative and Intergovernmental Affairs to collect, coordinate, and distribute timely and accurate information related to the Bureau's congressional relations and activities. Within the Bureau's Communications Division is a staff member designated as the Bureau's Congressional Affairs Officer.

The BEA website's home page includes a link to <u>Information for Congressional Users</u>, which directs users to a page with the quick-access resources for commonly requested information and data.

The <u>Contact Us</u> page lists the name and contact information for BEA's Congressional Affairs Officer.

Declassification

BEA does not have classification authority. BEA, however, does impose strict embargos on public release of market sensitive information until the specified date and time of release. Authority and procedures for data embargo are provided by OMB Statistical Policy Directives No. 3 and No. 4.

Public Participation

BEA actively reaches out to data users, survey respondents, and other stakeholders at meetings and conferences, both in person and through web conferences. This outreach is vital to guiding the direction of BEA's programs, including its open data initiatives.

The <u>BEA Advisory Committee</u> advises the BEA Director on matters related to the development and improvement of BEA's national, regional, industry, and international economic accounts, especially in areas of new and rapidly growing economic activities arising from innovative and advancing technologies, and provides recommendations from the perspectives of the economics profession, business, and government.

BEA also receives guidance and advice from the <u>Federal Economic Statistics Advisory</u> <u>Committee</u>.

Collaboration

BEA follows the Department's best practices for ensuring effective two-way communication with the public, ensuring openness and transparency.

BEA regularly cooperates with other Federal and non-Federal agencies, the public, and non-profit and private entities to fulfill its mission. BEA sources input data from a spectrum of public and private organizations. It coordinates closely with other Federal statistical agencies through the Interagency Council on Statistical Policy.

Additionally, the Bureau is an active participant and a representative of the United States to the <u>United Nations Statistical Commission</u>, the <u>Organization for Economic Cooperation and</u> <u>Development</u>, and appropriate working groups of the <u>International Monetary Fund</u>.

BEA Open Government Initiatives

The table below shows a list of initiatives for **BEA**:

Operating Unit	Project	Status	Estimated Completion
BEA	Enhancing Communications through Web and Social Media	Ongoing / Continuous	
	New Data Products	Ongoing / Continuous	

Project - Enhancing Communications through Web and Social Media

BEA continues to enhance its use of web and social media tools to make its data more accessible and useful for the public.

After launching our new, modernized and product-centric website in 2018, BEA continues to monitor usage analytics and customer feedback to continuously improve the customer experience.

In addition to using its blog to educate members of the public about how they might use BEA data to better understand the dynamics of the U.S. economy, BEA is also creating innovative video content and improving its social media presence.

Project - New Data Products

BEA is developing new statistics as part of its ongoing effort to better measure the dynamic U.S. economy and give businesses, policymakers, and households additional tools to make informed decisions. These initiatives are in addition to the Bureau's ongoing work to improve the quality, reliability, and timeliness of existing measures by, for example, refining seasonal adjustment methodologies and developing tools to better capture the economic effects of fast-changing technologies.

The Bureau of Economic Analysis continually explores the development of new statistics as part of its mission to provide Americans a timely, accurate, and in-depth understanding of the ever-evolving U.S. economy. BEA is working on innovations that will lead to expanded data in several areas.

Statistics that are new or under development include:

Arts and Cultural Production Satellite Account – BEA released first-of-their kind statistics in March 2018 that show how much arts and culture contribute to the economies of all 50 states plus the District of Columbia. The arts and culture economy includes music, theater, design, museums, historical sites, nature parks, and more, as well as supporting industries such as broadcasting, filmmaking, and publishing. These new statistics add to other annual data on arts and culture, providing a rich, detailed picture of this part of the economy. BEA now produces detailed national and state figures and trends on the arts and culture sector's value added, employment, and compensation, as well as national figures for gross output.

Outdoor Recreation Satellite Account – Official statistics on the role of outdoor recreation in each state's economy are coming in late 2020. Prototype statistics for states were released in 2019, along with a fresh set of national data. These statistics measure the size and growth of the outdoor recreation economy. They measure the economic effects of activities such as biking, boating, hiking, RVing, and skiing and show the extent to which industries like retail trade and manufacturing contribute to the outdoor recreation economy.

County Economies – BEA will now publish the size of every county's economy, with industry detail, each year. BEA's first gross domestic product statistics for counties were officially released in December 2019. Those statistics covered the years 2001 through 2018 and included contributions to GDP by 34 industries, such as manufacturing, retail trade, and health and social assistance. The next county GDP statistics will be released, alongside metropolitan area GDP, in December 2020. These data can answer questions about a county's economic health, which industries are driving its growth, and its economic trends over time.

Digital Economy – BEA is developing tools to better capture the effects of fast-changing technologies on the U.S. economy and on global supply chains. This project seeks to calculate the digital economy's contributions to GDP, improve measures of high-tech goods and services, and offer a more complete picture of international trade. As part of the project, BEA found that the digital economy accounted for 6.9% of U.S. GDP, or \$1.35 trillion, in 2017.

Household Production Satellite Account - What's the value of unpaid work done in the home? Things like cooking, cleaning, watching the kids, and so forth? BEA plans to produce statistics in late 2020 that measure "household production" that took place in 2018. Going forward, BEA will explore the feasibility of producing a set of household production statistics each year. Such unpaid work is not included in BEA's calculation of GDP. This project is part of ongoing efforts at BEA to produce economic measures that go beyond GDP and that measure economic value outside the market economy.

Income Distribution - A new set of statistics will take total U.S. personal income, a primary economic indicator, and measure how it is distributed across households in different income groups over time. BEA plans to release prototype measures in late 2020; after obtaining input

and refining our methodology, BEA will begin publishing new statistics on the distribution of personal income regularly. This project builds on at least a decade of BEA research and will offer insights into how American households share in overall economic growth.

International Trade Statistics – In 2016, BEA expanded its annual statistics on trade in services to cover over 90 counties and country groups (up from 38), giving a more detailed look at how U.S. businesses buy and sell services around the world. In 2020, BEA expanded its quarterly statistics to show similar geographic detail. BEA will also publish more detail about the most dynamic sectors—including research and development, intellectual property, and medical services—in late 2020.

Health Care Satellite Account – A new batch of statistics providing information on how much Americans spent to treat more than 200 specific medical conditions, such as heart attacks and kidney disease, are slated for release this year. These data are part of our Health Care Satellite Account, which is BEA's newest way of analyzing health care spending. Data are broken out by treatment of disease, rather than by place of service, such as a hospital or doctor's office.

Puerto Rico Economic Activity - Prototype statistics on Puerto Rico's consumer spending, business investment, and trade in goods were released in 2019. These statistics are the building blocks to calculate prototype GDP statistics for the island in 2020 if resources are available. With these new data, users can better understand Puerto Rico's economic trends, and they can compare data for Puerto Rico to the nation, states, other U.S. territories, and other countries. The data also can support economic development strategies. BEA produces GDP and related statistics for American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands.

Well-Being - BEA is working on a project to show how existing economic data can be used to measure and analyze Americans' economic well-being. This project offers data users a new tool that looks beyond GDP, which is primarily a measure of production and the economic health of the United States. A series of measures are in development and are expected to be available in 2020.



Bureau of Industry and Security (BIS)

BIS has implemented the three (3) pillars of Open Government principles: transparency, participation, and collaboration. The Bureau's core mission is to protect the security of the United States, which includes national security, economic security, cyber security, and homeland security. The Bureau's credibility within government, with industry, and the American people depends upon its fidelity to these principles. By ensuring an effective export control and treaty compliance system and by promoting continued U.S. strategic technology leadership, the Bureau will advance U.S. national security, foreign policy, and economic objectives. By implementing this Open Government Plan, BIS will adhere to its mission while continuing to strengthen internal collaborations. The BIS website can be found at <u>https://www.bis.doc.gov</u>.

Primary BIS Activities

BIS' primary activity is to identify and mitigate national security risks associated with the export, reexport, or transfer (in-country) of commodities, technology, and software through implementing the Export Administration Regulations (EAR). With the passage of the Export Control Reform Act of 2018, BIS also leads a regular, ongoing interagency process to identify and control the export of emerging and foundational technologies that are essential to the national security of the United States.

The Bureau evaluates and provides all-source information publicly available and governmentprivileged to the interagency export control community to inform adjudication of export control license applications. BIS promotes U.S. exports by preventing the diversion or misuse of items subject to the EAR abroad through end-use checks, outreach, and cooperation with foreign governments. The Bureau identifies potential violations of export control laws and regulations that jeopardize U.S. national security and foreign policy interests; searches, inspects, detains and seizes items to prevent unauthorized exports; and conducts law enforcement investigations that could result in criminal and civil penalties, as well as preventive regulatory actions, thereby encouraging compliance with the EAR.

Following the enactment of the Foreign Investment Risk Review Modernization Act of 2018, the scope of the interagency Committee on Foreign Investment in the United States has grown significantly. As a critical contributor to the Commerce Department's participation, BIS conducts

comprehensive reviews of transactions and provides expert support during policy deliberations on complex cases to ensure that inward foreign direct investment does not threaten national security.

The Bureau advises industry and enforces the anti-boycott provisions set out in the EAR which discourage, and in certain circumstances, prohibit U.S. companies from taking specific actions in support of an unsanctioned foreign boycott, including complying with certain requests to provide information about business relationships with a boycotted country or to refuse to do business with certain persons for boycott-related reasons.

BIS conducts Section 232 investigations under the authority of the Trade Expansion Act of 1962, as amended. The purpose of such investigations is to determine the effect of imports on the national security. Investigations may be initiated based on an application from an interested party, a request from the head of any department or agency or may be self-initiated by the Secretary of Commerce. The Secretary's report to the President, prepared within 270 days of initiation, focuses on whether the importation of the article in question is in such quantities or under such circumstances as to threaten to impair the national security. The President can concur or not with the Secretary's recommendations and act to "adjust the imports of an article and its derivatives" or other non-trade related actions as deemed necessary. More detailed information can be found at <u>Section 232 Investigations Program Guide - The Effect of Imports on the National Security</u>.

BIS ensures continued U.S. technology leadership in industries that are essential to national security such as the Federal Government's Defense Priorities and Allocations System (DPAS) and works diligently to ensure that the U.S. remains competitive in industry sectors and sub-sectors critical to national security. BIS also administers the industrial compliance provisions of arms control and disarmament treaties (e.g., Chemical Weapons Convention).

Open Data

BIS makes a wide range of data and other reference materials available to the public via its website. For example, licensing and country analyses can be found under the data portal section of the website at <u>BIS statistical reports</u>. In addition, BIS publishes advisory opinions regarding the scope and application of the <u>EAR</u>, <u>policy guidance</u>, <u>industrial base assessments</u>, <u>administrative penalties</u>, and <u>highlights of actual investigations of export control and antiboycott violations</u>.

Proactive Disclosures

Information is released to the public on a continual basis through updates directly from the program offices and Frequently Asked Questions (FAQs) on the BIS webpages at <u>www.bis.doc.gov</u>. The webpages provide updates to the EAR with dropdown menus to address specific questions to export counselors; information for small and new-to-export companies; links to the Consolidated Screening List (CSL), which provides a list of parties for which the United States Government maintains restrictions on certain exports, reexports or transfers of items; and the Exporter Portal,

which provides "Everything you need to know about exporting," the BIS Newsroom, and Reporting Possible Violations.

Privacy

BIS implements privacy policies, procedures, and guidance essential to safeguarding the collection, access, use, dissemination, and storage of PII, BII, and Privacy Act information in accordance with the Privacy Act of 1974, the E-Government Act of 2002, FISMA of 2014, and policy and guidance issued by the President and OMB. See <u>Privacy Laws</u>, <u>Policies and Guidance</u> for a complete listing.

Whistleblower Protection

BIS adheres to the Department's guidance regarding the <u>Whistle Blower Protection Program</u>. This program implements protections from unlawful reprisal for those who identify potential wrongdoing in their organizations. The Department's employees receive training upon onboarding and annually on the antidiscrimination and whistleblower protection laws. Both employees and other covered and protected employees may contact the Whistleblower Protection Coordinator at (202) 482-1099 or at <u>wpo@oig.doc.gov</u>.

Websites - Internal

BIS' main public website at <u>http://www.bis.doc.gov/</u> posts regular updates of information for the exporting community as well as other items of interest to the public dealing with BIS programs on a reoccurring basis.

Freedom of Information Act, Electronic FOIA.

Simplified Network Application Process - Redesign (SNAP-R).

System for Tracking Export License Applications (STELA).

Websites - Collaborative

The bureau relies heavily on the Office of the Federal Register and its <u>Federal Register library</u> for public notices, proposed rules, system of records, and the Code of Federal Regulations for publication of regulations, such as EAR.

The Department of State, <u>Directorate of Defense Trade Controls</u> - for the International Traffic in Arms Regulations ("ITAR," 22 CFR 120-130) and The United States Munitions List ("USML," part 121 of the ITAR).

The Census Bureau, <u>Foreign Trade</u> - for Foreign Trade Regulations.

<u>Organization for the Prohibition of Chemical Weapons</u> - to administer the industry compliance program for the Chemical Weapons Convention (CWC).

<u>The Wassenaar Agreement</u> - one (1) of four (4) multilateral export control regimes in which the United States participates on Export Controls for Conventional Arms and Dual-Use Goods and Technologies. The other three regimes are <u>The Australia Group</u>, the <u>Nuclear Suppliers Group</u>, and the <u>Missile Technology Control Regime</u>.

Ongoing Initiatives

BIS training seminars provide an opportunity for the public to learn first-hand from experienced U.S. Government officials about export control policies, regulations, and procedures. BIS offers one- and two-day courses on the EAR as well as in-depth courses on special topics of interest to the exporting community. Instructors are experienced export administration and regulatory policy specialists, engineers, and enforcement personnel from BIS' Washington, D.C. headquarters, field offices, and representatives from other U.S. Government agencies as appropriate.

BIS also offers an extensive library of online training modules and prerecorded webinars which provide access and study at the individual's convenience.

Ongoing initiatives, such as responses to proposed rule comments, BIS seminars, and training are updated on the BIS webpage and available through emails to participants to keep the public abreast of any changes.

A <u>schedule for seminars</u> can also be found on the webpage. There is also a link on this page to sign up for emails to include website and regulatory updates.

Public Notice

Upcoming events, such as conferences and workshops, as well as links to BIS and DOC social media pages (e.g., BIS YouTube page) are posted on the BIS website main page in an effort to keep the public informed of any upcoming changes within the organization and export regulations.

Records Management

BIS has developed a records management plan that has increased the use of electronic filing and decreased the use of paper files. The adherence to the disposition schedule is being met in accordance with the Agency Deposition Profile Report (ADPR). BIS has implemented guidance to meet the future disposition summary as outlined for accessioning or destruction for the next two years to increase bureau savings in storage cost for disposition. Each program office will be provided a listing of the records to be archived when necessary and destroy on an annual basis in order to meet these timelines.

Freedom of Information Act (FOIA) Requests

On the BIS <u>FOIA webpage</u> is a listing of information to provide transparency concerning information on applicable laws, policies, guidelines and resources. The page also provides instructions on how to file, track and appeal a request. Upon receipt of a request, the FOIA Liaison is required to respond to FOIA requests within 20 working days of receipt unless there are unusual circumstances such as: 1) requesting records from field facilities or other separate establishments; 2) examining voluminous records; and 3) the need for consultation with another component or Federal agency. The FOIA Liaison receives requests through the Commerce FOIA online system, email, fax, or regular mail. All FOIA requests are uploaded into the FOIA online system and tracked. The Commerce FOIA Officer is notified upon the completion of submission and visibility of the tracking process and progress of each request is made available to the liaison and the requester or general public, which also has electronic access to the system. Once any responsive records are located, they may be released publicly through the <u>FOIA online system</u>.

Project – FOIA Backlog

BIS is committed to the principles embodied in the FOIA and responds to all requests in an open and transparent manner. BIS defines a "backlogged" request as one that remains pending beyond the statutory 20-day time period. Accordingly, BIS has taken significant steps to improve our FOIA-request processing, as evidenced by our year-over-year improved processing performance.

Additionally, to meet the requirements of E.O. 13392 "Improving Agency Disclosure of Information," BIS has developed a formal FOIA-Backlog-Reduction Plan. The plan documents our ongoing efforts to further develop best practices; provides a roadmap to reduce the backlog of FOIA requests; improves the effectiveness and efficiency of the FOIA program; serves the FOIA-requester community better; and continues BIS' commitment to open government through transparency, participation, and collaboration. The plan has been centered on the following key areas of success:

- Obtaining Leadership Support;
- Routinely Reviewing Processing Metrics;
- Using Resources Effectively;
- Increasing Staff Training and Engagement;
- Increasing Proactive Disclosure; and
- Communicating Effectively with Internal and External Stakeholders.

BIS has increased its number of public FOIA Liaisons to provide additional support to reduce the FOIA backlog. The webpage provides a phone number (202) 482-7893 and email address EFOIARequest@bis.doc.gov to contact the liaisons.

Congressional Requests

BIS organization and organizational charts can be found on the BIS webpage under the "About" tab at <u>https://bis.doc.gov/index.php/about-bis/organization</u>. However, in direct response to any Congressional requests for information, the Bureau's Office of Congressional and Public Affairs, assigned directly to the Office of the Under Secretary and Deputy Under Secretary, would oversee and provide a response. See the <u>BIS organization chart</u>.

Declassification

BIS follows guidance as implemented by DOC, which adheres to that of the Information Security Oversight Office (ISOO). DOC works with the bureau Records Manager in developing a schedule and reporting to ISOO. Once determined that the record has met the allotted timeframe to be declassified, the Records Manager will then assist the program office in reviewing the record to determine if the record will be declassified or if a candidate for exemption.

Transparency, Participation & Collaboration

The public can find general information about BIS at <u>www.bis.gov</u>, which includes current activities, historical records, speeches, and testimony from BIS senior management. The page has a list of Press Releases, notices published in the *Federal Register*, updates on the Section 232 Exclusions Portal, Publications, a link to the eFOIA page, reminders for reporting requirements and much more.

BIS Open Government Initiatives

The table below shows a list of initiatives for **BIS**.

Operating Unit	Project	Status	Estimated Completion
BIS	Website – New to Exporting?	Live / Operational	
	Ongoing Initiatives	Ongoing	_TBD_

Project – Website – New to Exporting

A "New to Exporting?" page was added for the critical information new exporters need to know to comply with U.S. export controls. On this page, BIS also added guidance on Section 232 Exclusions, and a direct email link to reach BIS counselors who can help with the challenges small businesses face.

Project – Ongoing Initiatives

Ongoing initiatives such as responses to proposed rule comments, and regulatory changes as published in the *Federal Register*, are updated on the webpage, and through emails to participants, to keep the public abreast of any changes.



Bureau of the Census (Census)

Census is the federal government's largest statistical agency and is <u>dedicated to providing trusted</u>,

timely and relevant statistical information about the nation's people, places, and economy. This information is critical for government programs and shapes important policy decisions that help improve the nation's social and economic conditions.

The work Census does is based on values and guiding principles aimed to move forward as innovation pioneers, be transparent and accountable to their stakeholders, operate with integrity, and respect their workforce, respondents, and customers. Through its <u>mission</u>, Census promote the open government principles of transparency, participation, and collaboration, while protecting privacy and confidentiality.

Open Data

Census data continues to be a key national resource, serving as a fuel for entrepreneurship and innovation, scientific discovery, and commercial activity. Census participates in <u>data.gov</u> and <u>eRulemaking</u> initiatives. At the end of the second quarter of FY20, Census had posted 300 datasets to inventory.data.gov. Additionally, Census publishes documents that describe input data, <u>methodology</u>, and process for the creation of population and housing unit estimates for various geographies. <u>Design and Methodology Reports</u> that describe the basic design of the <u>American</u> <u>Community Survey (ACS)</u> and details of the full set of methods and procedures are publicly available.

Census continuously identifies and publishes datasets and API to data.gov in accordance with the OMB <u>Memorandum M-10-06</u>, the Executive Order 13642 on open data, and the overall principles outlined in the <u>Digital Government Strategy</u>. It regularly updates and adds information about datasets available for the API through the <u>Developer's Forum</u>. Census Open Data efforts are an extension of their work in open government and the digital government strategy and support their efforts to engage with citizen developers to deliver better services to the American people. Census' data dissemination objectives remain aligned with the principles of open data and the digital government strategy.

Consistent with Foundations for Evidence-Based Policymaking Act of 2018 (Evidence Act), Census continues to make all of their non-sensitive public datasets freely available in machine-readable formats so that they can be leveraged to improve the efficiency and transparency of their operations. Additionally, it has published a comprehensive data inventory at https://api.census.gov/data.html.

Census publishes the majority of its public data on their website, census.gov. <u>Data.census.gov</u> is the new platform designed to improve the customer experience by making data available from one (1) centralized place. Census listened to its customers' feedback for a more simplified way to get data, and designed a platform driven by the data users. This platform will be the search that takes over census.gov to allow users a single place to seamlessly access their public data and digital content.

Census' Center for Enterprise Dissemination Services and Consumer Information (CEDSCI) continues to release updates for use on <u>data.census.gov</u>. These activities align with their strategic objective to increase the visibility and utility of their products and services. Census has focused on actions and measures going forward to further increase the visibility and utility of Census Bureau's products.

Additionally, Census continues to inventory internal datasets that are restricted and not available to the public through their Data Management System (DMS). This internal data includes their survey data, data from reimbursable, and administrative records (ADREC). Public information is inventoried in data.gov.

Participation and Collaboration

Census uses a number of technologies to promote opportunities for public participation in decision-making processes and improve collaboration. It has two chartered advisory committees: the <u>Census Scientific Advisory Committee (CSAC)</u> and the <u>National Advisory Committee on</u> <u>Racial, Ethnic, and Other Populations (NAC)</u>. Committee members represent the nation demographics and specific fields of expertise and aids the Census with its mission and innovation goals. The committees provide sound feedback for their operations, programs, methodologies, technologies, outreach, and current and new developments. Census strives to ensure transparency and openness in all of the advisory committees' activities and proceedings. The public has access to the deliberations, along with time for commentary at all the proceedings, in person or in writing.

At the <u>Census Advisory Committee website</u>, the public can access standard operating procedures, charters, federal register notices, committee recommendations and Census responses, membership bios and contact information, meeting materials, working group guidelines, and other relevant

documentation. The advisory committees' meetings are widely advertised and transmitted via <u>Census Ustream</u>.

In FY20, Census continues to host survey sponsor meetings and create a survey sponsor newsletter for demographic programs, to keep communication lines open with the sponsors. Additionally, there have been several forward-thinking actions and measures discussed to increase the collaboration with reimbursable sponsors.

Additionally, Census data dissemination professionals are actively engaged in providing data workshops, seminars and site visits with state, local, and tribal governments, community-based organizations, small businesses, rural community groups, inner city neighborhood associations, media organizations, national affiliates, and faith-based organizations.

Census continues to improve their collaboration within the bureau, across all levels of Government, and with nonprofit organizations, businesses, and individuals in the private sector. For example, xD is an emerging technologies group at the Census Bureau that partners with federal agencies and universities to improve the delivery of government services using artificial intelligence. Through partnering, Census is using research-driven, practical approaches for delivering experimental AI solutions. Examples of Census' work include building open-source tools to identify and mitigate statistical bias in machine learning implementations, supporting misinformation detection in the 2020 Census, and exploring the future of survey data collection through artificial intelligence.

Consistent with <u>M-11-07</u>, Census collaborated with internal and external stakeholders to streamline their Paper Reduction Act (PRA) process. Census publishes notices informing the public of their collections of information and other activities in the <u>Federal Register</u>. Census posts active and pending collections of information at <u>https://www.reginfo.gov/public/</u>.

Census also continues to explore ways to make participation in their surveys easy. For example, Census created the <u>Geographic Update Partnership Software (GUPS)</u> to assist its partners in the review and collection of geospatial data for the 2020 Census. The GUPS is free software available to over 40,000 state, local, and tribal governments, and it is critical for the acquisition of their partner's boundaries, streets, and addresses.

Census relies on public participation to produce high quality, relevant statistical information. <u>Census Respondent Advocates</u> represent the interests of respondents in Census surveys and censuses. This includes outreach and working with respondents, Congressional offices that have direct interaction with respondents, and other major stakeholders, as well as working to elevate throughout the agency an increased consideration of respondents' needs when they conduct their censuses and surveys. Another way Census promotes participation is during <u>National Sunshine Week</u>. The annual Sunshine Week events offer an opportunity for informal public comments on access to information. Sessions offered during the event highlight all plan components described in <u>M-16-16</u>.

Census continues to identify ways to work more collaboratively and develop partnerships both within and outside of the Census. They foster partnerships with federal, state, local, and tribal governments as well as commercial partners.

Here are a just few examples of their ongoing collaborative efforts:

Externally:

American Indian and Alaska Native Programs

Census has two programs, the Boundary and Annexation Survey (BAS) and the Tribal Statistical Areas Program (TSAP) with tribal governments, designed to collect and maintain a current inventory of all legally defined tribal lands, their boundaries and status. In January 2016, Census and the Bureau of Indian Affairs signed an agreement in support of the BAS.

Local Update of Census Addresses Operation

The Local Update of Census Addresses (LUCA) program is the only opportunity offered to tribal, state, and local governments to review and comment on the U.S. Census Bureau's residential address list for their jurisdiction prior to the 2020 Census. Updates from the LUCA program not only benefit many other Census programs that make use of the address list, but also helps communities plan for future needs.

The Opportunity Project

The Opportunity Project (TOP) catalyzes the creation of new digital tools that use federal and local data to provide families, local leaders, and businesses with information about critical resources, such as jobs, affordable housing, quality schools, and transportation. By providing easy access to curated federal and local datasets, and facilitating collaboration between technologists, issue experts, and local leaders, TOP is transforming government data into digital tools that create more thriving communities and help people solve problems in their everyday lives.

Federal Statistical Research Data Centers

There are currently 29 open Federal Statistical Research Data Center (FSRDC) locations. The FSRDCs partner with over 50 research organizations including universities, non-profit research institutions, and government agencies. The FSRDCs provide qualified researchers on

approved projects with a secure connection to restricted data collected by the Census, the National Center for Health Statistics, the Agency for Healthcare Quality and Research, the Bureau of Labor Statistics, and other federal agencies.

Though there are 29 locations available for use across the country, not all potential FSRDC researchers have easy access to a facility. To address barriers to physical access and increase the use of federal statistical data for research and evaluation purposes, the FSRDC program has designed a pilot project to test the risks and benefits of providing remote access to its centralized computing environment. Since its launching, reports from the field indicate that researchers continue to successfully complete their research.

Civic Hackathons

Census continues to participate in hackathons to challenge civic hackers, programmers, and developers to apply multiple open datasets to address economic, social and sustainability challenges.

Other Agencies and Organizations

Census participates with other agencies in the Interagency Council on Statistical Policy (ICSP) and the Federal Committee on Statistical Methods (FCSM) to assess the needs for new approaches to improve the content, production, confidentiality protection, and dissemination of official statistics.

Census engages universities, think tanks, and international statistical agencies to assess the needs for new approaches to improve the content, production, confidentiality protection, and dissemination of official statistics. In FY20, the Census Bureau, with the ICSP, piloted a one-stop portal that reduces the burden on researchers requesting access to restricted data assets.

Census engages with the DOC Office of Inspector General and the Government Accountability Office (GAO) to receive and address reviews for procedural or programmatic improvements.

Internally:

- Census employees use Skype for Business to collaborate in real time. Skype for Business allows employees to share documents during a chat session, schedule online meetings, and collaborate within Microsoft Office applications.
- Census has approximately 160 SharePoint team sites that are used for division and/or project level information and collaboration on a daily basis.
- Census uses SharePoint web content and document managing system as a tool to increase their options for collaboration. For example, SharePoint is used to manage all Interagency and Other Special Agreements (IOSAs).

Open Innovation Methods

Open innovation methods such as incentive prizes on challenge.gov, citizen science programs, and other crowdsourcing approaches are designed to obtain ideas from and to increase collaboration, with, those in the private sector, non-profit organizations, and academic communities.

Each year, Census participates in the National Day of Civic Hacking. This national event engages citizens to use open government data, code and technology to discover one (1) or many solutions to community issues. Civic hackers can be programmers, designers, data scientists, communicators, civic organizers, entrepreneurs, government employees or anyone who wants to collaborate in order to solve problems that affect the community.

Additionally, Census hosts a Vizathon concept competition, wherein Census staff can generate and submit ideas around data visualizations. On the day of the event, each team presents their data visualizations to a panel of internal and external judges, with awards given to the best visualizations. The goal of Vizathon is to improve employees' abilities to make Census statistics easier to consume and digest, expand the understanding of the latest types of visualizations and tools used to create them, and help encourage Census' staff to develop data visualization skills.

Access to Scientific Data and Publications

Census stays current by making research the basis of everything the Bureau does. <u>The Census</u> researchers explore innovative ways to conduct surveys, increase respondent participation, reduce costs, and improve accuracy. Census analyzes the data they collect and uncover trends that give us a deeper understanding of their complex society.

Open Source Software

Census has an open source policy that encourages the use, development, and release of open source software. Census makes extensive use of open source software and libraries. There are 141 open source products currently approved for use at Census. This includes 112 "pure" open source product versions, and 29 paid open source product versions that are supported by a commercial vendor such as Red Hat Enterprise Linux. These 141 products comprise 16% of all software products approved for use at Census.

To date, Census has released two open source products, CitySDK (no longer in active development) and TOP. Both products are currently available to the public on GitHub, and both will be uploaded to the federal open source repository:

The Opportunity Project is unleashing the power of data and technology to expand economic opportunity in communities nationwide. Census is creating tools that help families, local leaders,

and businesses access information about the resources they need to succeed with a focus on making government data accessible.

Spending Information

Census, through <u>USAspending.gov</u>, provides budgetary and financial information to give taxpayers increased visibility and accountability for activities. Part of Census's mission is a commitment to conduct its work openly. The taxpayer and other stakeholders will be able to analyze actual expenditures against cost estimates for major operations such as the upcoming 2020 Decennial Census, the 2017 Economic Census, and the 2017 Census of Governments. Furthermore, taxpayers and stakeholders can search how much is spent on contracts in their state. The information includes contract data that includes the name of the vendor, type of contract, award dates, amounts awarded, and the state in which the place of performance occurs.

From the perspective of internal management and decision-making, an objective in Census' Strategic Plan is for executive staff to make critical program funding decisions and understand the distribution of costs across business functions. In furtherance of that objective, Census management and staff will have a one-stop shop for quarterly financial information that was previously in multiple databases. For instance, in a user-friendly interface, acquisition personnel will be able to access and analyze historical trends in contract dollars that would otherwise have required a special request from another division at Census. Furthermore, program managers will quickly obtain data on spending in their program areas in order to identify historical trends in five (5)-year cyclical censuses—as funding levels rise and fall—and to plan in anticipation of needs. In addition, the financial data is available by object classes that categorize how Census spends its budget: personnel, information technology, contract services, training, travel, and infrastructure. As such, the ease of access to this reliable web-based tool will contribute to the efficiency and effectiveness of Census as an agency.

The Census Bureau will also align its Information Technology (IT) spending to the industry standard Technology Business Management (TBM) Taxonomy. TBM is a reporting mechanism by OMB as part of the reporting associated with the IT business plans and Exhibit 300s. Budgeting and obligating IT funds by the TBM Taxonomy will allow the Census Bureau to be completely transparent and more effectively communicate to stakeholders the services that our IT investments support.

Privacy

Census remains committed to the principles of transparency and openness while also meeting their responsibilities to privacy compliance. They place stringent requirements on the collection, access, use, dissemination, and storage of PII. Census requires annual data stewardship training that covers IT security awareness, Title 13, Title 26, and Privacy Act responsibilities to reinforce their confidentiality and privacy standards. In addition to quarterly FISMA compliance reports,

Census submits PII breach incident reports to the DOC OPOG. Census also provides periodic reports to federal agencies, and afford physical and IT security reviews where requested, on the applications, protections, integrity, and disposition of data they have provided them.

Census readily makes available to the public information regarding their privacy program. The public can access the following links:

- Data Protection and Privacy
- Online Privacy Policy
- Privacy Impact Assessments
- <u>System of Records Notices</u>
- Oath of Non-Disclosure
- <u>Statistical Safeguards</u>

Additionally, 15 CFR, Part 4, Subpart B, of the Privacy Act, governs how an individual <u>can request</u> <u>access to and amend their records</u>. Census makes submitting a request transparent and easy by providing information and instructions at <u>census.gov</u>.

Annually, Census hosts a Privacy Day event to promote awareness and discussion of current data protection topics, privacy policy, and to generate ideas to help evolve the current policies. The event offers a variety of workshops about important Privacy Act and E-Government Act requirements, as well as tools available for protecting their customer's privacy.

Whistleblower Protection

Census strictly adheres to all anti-discrimination and whistleblower requirements by ensuring all employees complete the mandatory training. Census is fully compliant with the No FEAR Act Policy. Additionally, information provided by the Office of Special Counsel can be accessed from their Equal Employment Opportunity Office Intranet page under the "Whistleblower Protection" section. Broadcast messages are sent annually from the Census Bureau Director to all employees informing them of their rights and remedies. The email includes links to information on additional whistleblower protections, where all employees and contractors should report fraud, waste, and abuse to, and the online complaint form.

Websites

Census continues to take significant steps towards making their data and information more accessible to the public. In March 2020, Census retired American FactFinder (AFF), their primary dissemination tool on census.gov for the past 20 years. In June 2019, Census began to transition to <u>data.census.gov</u>. Data.census.gov is a platform that represents a new and improved customer experience by centralizing data access and allowing for a more rapid response to customers. It also creates new opportunities for data visualizations, maps, and other data displays that data users

need. Data users now have more choices and greater flexibility. As data users search, they will be making direct calls to the data, metadata, and geospatial services in a way that was not done through AFF.

Census continues to create avenues for public participation by soliciting public input and feedback on their website. The vision for data.census.gov stems from overwhelming feedback that they received to simplify the way customers get their data. Census continuously work on the customer experience so that it is not necessary for data users to know special terminology or perform a complicated search to find the data that they need. Census will continue to work towards integrating data.census.gov with the main Census webpage, <u>census.gov</u>, to create a seamless data user experience, where data are accessible using a single search bar.

Additionally, Census recently launched a new version of <u>2020census.gov</u>. The new website adds features, resources and materials to help inform the public about the 2020 Census. The site includes new Statistics in Schools materials, a new webpage to share facts about the 2020 Census, information on applying for jobs, and FAQs. The new Statistics in Schools material will be released throughout the fall and includes classroom activities, updated classroom maps with census statistics, videos for students.

In early 2018, Census replaced its longer Customer Satisfaction (CSAT) survey with a much easier mechanism to get specific feedback for each page on the site. Users can now simply click a thumbs up or thumbs down symbol to indicate if a page was helpful or not. There is then further opportunity to provide specific comments or questions as a follow up to the quick rating. Census also uses Adobe Analytics to measure actions taken by all users, not just the subgroup who respond to the survey, to assess search results, numbers of pages visited, most popular content, paths taken to reach the desired content, etc. Census cross-reference this with the results from other sources for a more complete look at user behavior to inform site improvements.

Through the Census website, they make downloadable <u>American Community Survey (ACS) data</u> <u>files</u>, as well as other materials available to the public. Their website allows the public to <u>explore</u> <u>their data</u> in a variety of ways.

Public Notice

Census.gov remains their main platform for sharing information, collecting feedback, and providing opportunities for participation and collaboration with the public. Census publishes documents, including all public notices, in the Federal Register:

Externally:

• Crowd-sourcing and idea-generating tools;

- Federal Register Notices;
- Social media (Facebook, YouTube, Twitter, blogs etc.);
- Electronic newsletters;
- Webinars/webcasts;
- Video and slide presentations;
- National conferences and other speaking engagements;
- Census Advisory Committees;
- Foreign Trade virtual town halls;
- Stakeholder meetings;
- Focus groups and surveys; and
- Various data tools and applications.

Internally:

Internally, Census uses their Intranet as a platform for keeping Census employees informed and engaging them in Open Government ideas and initiatives. Here are some of the other tools currently in use:

- Idea-generating tools;
- Electronic technology repository for collaboration;
- Director's and Deputy Director's messages (email, video, audio);
- Broadcast messages;
- Conference phone calls, internal chat services, and video teleconferences;
- Training;
- Presentations and workshops for upper management;
- Presentations for the regional offices;
- Town hall meetings with employees;
- Employee newsletter;
- Focus groups; and
- Surveys.

Consistent with the Open Government Directive, Census continues to keep the public informed about its significant activities and business. In order to provide access to a wider audience of stakeholders, 2020 Census Program Management Review meetings continue to be broadcast live on their <u>Ustream</u> channel. Making these meetings available live and archived to all stakeholders (not just those who can) is providing unprecedented opportunities for everyone to learn about details of their plans long in advance of the actual 2020 Census. Along these lines, the <u>Agility in Action</u> report provides the public with updates on how Census is working to minimize burden for American Community Survey respondents, while still allowing the survey to be responsive to emergent issues, keeping content current, and maintaining high quality data.

Records Management

Census continues to move forward with implementing an Email Records Management System (ERMS) that will be compliant with federal records capabilities necessary to capture all inbound and outbound email, social media content such as instant messaging, and electronic documents, and store these records using the cloud for storage. The ERMS project will also incorporate the Capstone approach NARA Bulletin 2013-02 for managing email. Census initiated the ERMS project to address the Records Management solution for their email and internal social media communications as mandated by FISMA. The project also includes support services required to transition, deploy, operate, maintain, safeguard and manage an enterprise-wide email and collaboration environment, and to fulfill the Managing Government Records Directive.

Additionally, the ERMS initiative aligns with the Bureau's Strategic plan of Implementing Electronic Reporting and Administrative Tools. This initiative utilizes electronic instruments such as Sharepoint, eOPF, Transit Benefit Program, and the Decennial Applicant, Personnel and Payroll system to reduce the need for paper, printing requirements, ample storage, maintenance, and retrieval of records by fully leveraging the capabilities of their electronic systems. The initiative will follow the Capstone guidance provided by NARA and the Department, which references the Presidential Memorandum on Managing Government Records signed on November 28, 2011 and the subsequent issuance of the Management Government Records Directive memorandum signed on August 24, 2012 by OMB and NARA. The requirement does away with the traditional print-and-file policies and requires agencies to implement new approaches to manage their documents electronically.

Census has begun work with NARA concerning the archiving of 2020 Census records, and NARA is already working towards the release (in 2022) of the 1950 Census individual records. Although records management under M-16-16 focuses on the agency internal records management processes, Census also contemplates how its information is managed externally. Census' WikiData project takes a proactive approach to ensure that the public gets the most up-to-date data and information on Census. Wikidata powers data and statistics within Wikipedia. The project consists of the development of a system that will connect the Census API to Wikidata and create an opportunity for dynamic, automatically updated Wikipedia articles. Through community engagement with Wikipedia editors, and the development of software tools that allow for synchronization of data, Census will work to ensure that Wikipedia presents the latest Census information.

Freedom of Information Act Requests

In accordance with the Open Government Directive and the Freedom of Information Improvement Act of 2016, Census operates under a presumption of openness, sharing information with the public about their programs and projects.

The ability for customers to know whom to contact for help or service and how to contact those individuals remains important to Census. Census provides contact information for their FOIA staff on their public web site at http://www.census.gov/about/policies/foia/contact.html. Included on their public web site at http://www.census.gov/about/policies/foia/contact.html. Included on their public web site at http://www.census.gov/about/policies/foia/contact.html. Included on this page are the names and contact information for the Chief FOIA Officer and the FOIA Public Liaison. Census also has a Resources page where customers can find a listing of FOIA laws, regulations, and policies, along with links to those documents. Additionally, on the same Resources page, there is a guide named the "United States Census Bureau Freedom of Information Reference Guide," which has more detailed information about the FOIA and how Census' FOIA staff processes requests.

Continuing their focus on the customer, Census has implemented a promotion campaign to expand the awareness of the FOIA both internally and externally. The campaign consists of enhancing the FOIA internal and public facing websites to include a blog page that will house videos on topics related to FOIA. The goal is to utilize more technology that is interactive to increase awareness and education on the FOIA.

Census' FOIA staff continues to review established FOIA business processes for best practices. FOIA staff recently worked collaboratively with the Department of Commerce and the Department of Justice on FOIA trainings for internal and external customers. FOIA staff conduct regular case audits to ensure FOIA professionals are following established FOIA laws, regulations, policies, guidance, and procedures. The audits help with both program compliance and help Census establish staff training needs.

Information about FOIA requests submitted to and fulfilled by Census FOIA professionals are available to everyone with access to the internet through <u>FOIAonline</u>. The FOIAonline system continues to allow Census to provide better case management, audit and tracking capabilities for both Census and the requester community. Detailed information about their FOIA program is available at the <u>Census FOIA home page</u>.

Proactive Disclosures

Census continues to post frequently asked requests in the <u>Freedom of Information Act electronic</u> <u>library</u>. Consistent with the FOIA Improvement Act of 2016, Census continues to take steps towards ensuring openness and transparency by systematically posting material of interest, including 2020 Decennial information, immediately. Census uses FOIAonline as their main tool for managing, tracking, and assessing records fit for public disclosure. Additionally, the FOIAonline system allows the Census to collaborate with agency staff outside of the FOIA office by allowing:

- Departmental FOIA staff to review Census FOIA cases, and task or assign cases;
- Staff to refer misdirected FOIA cases to other DOC BOUs; and
- Staff to send consultation requests to other agencies that use FOIAonline.

As part of a regular process, the Census FOIA staff reviews FOIA online to make a determination on whether or not records requested have been requested in the past. If the records have been previously requested, they are considered "Frequently Requested" and made available to the public through FOIA online.

The following are links to posted material:

- <u>http://www.census.gov/topics.html</u>
- <u>http://www.census.gov/about/policies/foia/foia_library/congressional_correspond</u>
 <u>ence_logs.html</u>
- <u>http://www.census.gov/about/policies/foia/foia_library/policies.html</u>
- <u>http://www.census.gov/about/policies/foia/foia_library/custom_tabulations.html.</u>

Congressional Requests

Census receives congressional inquiries by phone, letter, fax, and via the Internet. The inquiries generally involve constituent-related survey issues, program policies, or requests for program or agency information. The Office of Congressional and Intergovernmental Affairs (OCIA) advises Census' Director, senior executive staff, and program areas on congressional, intergovernmental and tribal affairs, and correspondence management. OCIA also advises Congress and tribal and intergovernmental associations on Census programs and policies and is responsible for responding to Census data inquiries from Congress.Additionally, congressional correspondence logs are processed through the FOIA office and proactively disclosed at Census' FOIA home page.

Declassification

Census does not have statutory authority to classify or declassify information.

Census Open Government Initiatives

The table below shows a list of initiatives for *Census*.

Table 6 - Census Initiatives

Operating Unit	Project	Status	Estimated Completion
Census	Innovation and Operational Efficiency	Live/ Operational	

Operating Unit	Project	Status	Estimated Completion
	Add High Value Datasets to Data.gov	Live/ Operational	
	Improving LED Data Visualization	Ongoing/ Continuous	
	Application Programming Interface	Live/ Operational	
	Implementing the Federal Digital Strategy	Live/ Operational	
	Increasing support for American Community Survey Data Users	Ongoing/ Continuous	
	Agility in Action – A New Research Agenda to Enhance the ACS	Ongoing/ Continuous	
	Improving Demographic Mapping Tools	Ongoing/ Continuous	
	Census Flows Mapper	Live/ Operational	
	TIGERWeb	Live/ Operational	
	Live Webcasting	Live/ Operational	
	Quickfacts	Live/ Operational	
	Census Geocoder	Live/ Operational	
	Response Outreach Area Mapper (ROAM) for 2020 Census	Live/ Operational	
	Map Applications (viewers) for 2020 Census Operations: Type of Enumeration Area Mail Contact Strategies In-Field Address Canvassing Registered LUCA 2020 Participants LUCA Respondents New Construction Program – Registered Entities Participant Statistical Areas Program (PSAP) Registered Participants (Primary PSAP Participant)	Live/ Operational	
	Map Viewer in support of the Committee on Foreign Investment in the United States	Live/ Operational	
	2020 Census Memorandum Series	Live/ Operational	
	Creating a more user-friendly interface for business survey respondents	Live/ Operational	
	Accelerating Economic Indicators	Live/ Operational	FY20
	Construction Modernization	Live/ Operational	

Operating Unit	Project	Status	Estimated Completion
	Making Economic Indicators More Accessible	Live/ Operational	
	Webinar Series	Live/ Operational	
	The Opportunity Project	Live/ Operational	
	Federal Advisory Committees	Ongoing/ Continuous	
	Sunshine Week Event	Ongoing/ Continuous	
	Privacy Day Event	Ongoing/ Continuous	

Project - Innovation and Operational Efficiency

Census implemented the Innovation and Operational Efficiency (IOE) program in 2010 to engage employees in identifying opportunities to increase efficiency and reduce cost in Census operations. With over 4000 ideas submitted since 2010, Project Mangers along with their team members working to bring the ideas to fruition, the IOE program continues to succeed in fostering innovation and empowering employees to submit ideas that turn organizational challenges into solutions.

To date the IOE Program has achieved over 46 million dollars in savings and cost avoidance for Census.

Project - Add High Value Datasets to Data.gov

Census is publishing current datasets to <u>data.gov</u> as identified on a flow basis. Previously published records for Census products are reviewed regularly for date of last update and link validation.

Project - Improving Local Employment Dynamics (LED) Data Visualization

Data visualization tools are an important and necessary means by which statistical information can be made more understandable to data users. Census' Longitudinal Economic Development (LED) partnership (or Longitudinal Employer-Household Dynamics (LEHD) program) has pioneered this effort with its public <u>OnTheMap</u> web application, which allows graphical analysis of the relationship between residence and workplace locations on user-defined maps. The latest version includes additional years of data and functionality, including improvements to the cartography and updating the base geography to Topologically Integrated Geographic Encoding and Referencing (TIGER) 2018.

In February 2020, Census released version 4.4.3 of <u>OnTheMap for Emergency Management</u>. First introduced in 2010, this is a public data tool that provides unique, real-time information on the workforce for U.S. areas affected by hurricanes, floods, wildfires, winter storms, and for federal disaster declaration areas. The most recent release includes 2017 LEHD Origin-Destination Employment Statistics (LODES) data and 2014-2018 ACS 5-year estimates.

Additional applications that have been developed in recent years include QWI Explorer, a tool for analysis of the Quarterly Workforce Indicators (QWI) and J2J Explorer, a tool for analysis of the Job-to-Job Flow statistics (J2J).

QWI Explorer allows data users to explore and analyze measures of employment, jobcreation, earnings, worker turnover, and hires/separations, by different levels of geography, industry, business characteristics, and worker demographics as well as to construct visualizations (charts and tables) comparing, ranking, and aggregating indicators across time, geography, and/or firm and worker characteristics.

Version 1.0 of J2J Explorer was released in November 2019 and provides access to Metropolitan Area tabulations and Earnings indicators, as well as rankings and data normalization functionality. These new data and features add to the existing functionality of the previously available Beta application, which included the ability for users to construct tables, maps, and charts that compare, aggregate, and analyze worker reallocation, including job change, hires and separations from and to non-employment, and characteristics of origin and destination jobs, by worker and firm characteristics.

Additional development work is ongoing to support more lightweight visualization tools for experimental datasets being released by LEHD. The first of these tools is PSEO Explorer, which allows data users to explore and analyze the Post-Secondary Employment Outcomes data (PSEO). PSEO Explorer was released in November 2019 and includes interactive modules for users to visualize <u>earnings outcomes</u> and <u>employment flows</u> for recent graduates of partner colleges and universities. A new, forthcoming tool will allow similar functionality for a dataset on employment outcomes for veterans and expected to be released in the first half of 2020.

Project - Application Programming Interface

Many of their data sets are available via_API. The API lets developers customize Census statistics into Web or mobile apps that provides users quick and easy access from more than 60 popular sets of statistics including:

- ACS 1-Year Data (2011-2018)
- ACS Population Estimates and Projections (2010-2019)
- Planning Database (2015, 2016, 2018-2020)

- County Business Patters and Nonemployer Statistics (1986-2018)
- Economic Indicators (Time Series: various years to present)
- Decennial Census Self-Response Rates (2020-2010)
- And many more...

The API aligns with the federal digital strategy and supports the goals of Open Government by making Census data available in an information-centric and machine-readable format.

Project - Implementing the Federal Digital Strategy

Census continues to work diligently towards a 21st century digital ecosystem. They continue to support the digital government strategy (DGS) through their API's, and in the migration to an "information-centric" content management system (CMS), and improving search and navigation for their website visitors. Census also continues their efforts through increased engagement with the customer through a broad variety of channels (both online and offline) in line with the "customer-centric" tenets of the DGS.

Census's implementation of the DGS is based on the fundamental tenet that information is a strategic public asset that must be managed through the complete lifecycle from data collection through data dissemination. Census will continue to evolve their digital strategy to ensure openness and application interoperability through shared services and to address heightened awareness of the challenge of maintaining security standards and infrastructure for the growing variety of digital efforts being planned.

There are three (3) foundational elements critical to the success of a future Digital Strategy at Census.

- Interoperable systems Improving how their systems exchange data with one (1) another
- Mobile Flexibility Strengthening IT infrastructure through modern, scalable tools and software
- API by Default Policy CIO Publishing consistent standards to enable reuse and savings

Project - Increasing Support for American Community Survey (ACS) Data Users

Every year, Census release one (1)-year and five (5)-year <u>ACS</u> data products. In support of their annual data releases, throughout the year they provide working papers, infographics, data visualizations and other products that use ACS estimates. Each product is accompanied by a news release.

The Outreach and Education Branch (OEB) within the American Community Survey Office (ACSO) provides continuous support to ACS data users by answering data user questions via

email and phone calls, holding educational webinars, and presenting and exhibiting at events across the country to provide information on the ACS and the various tools and resources available to assist data users in accessing and using ACS data. In 2019, the ACS OEB partnered with the Economic Directorate to develop and conduct a series of webinars, centered on particular topics, showcasing data from both Census' economic programs and the ACS.

Project - <u>Agility in Action</u> - A New Research Agenda to Enhance the ACS

Census continues to engage in numerous activities to build and maintain customer support and awareness of, and trust in the ACS. Largely focused on providing a positive experience for customers, Census continues to work to minimize burden for survey respondents while still allowing the survey to be responsive to emergent issues, keeping content current, and maintaining the high quality of data that their country demands and deserves.

Census is committed to demonstrating a high degree of transparency and agility by constantly searching for ways to improve. In recent years, Census has:

- Made changes to ACS survey operations that reduced respondent burden,
- Engaged in several communications efforts to educate the public about the impact of ACS data on communities throughout the United States,
- Conducted numerous ACS research projects and published over 50 papers on their findings,
- Mined the best thinking of subject matter experts in private industry and the National Academy of Sciences,
- Evaluated sources for administrative records and conducted direct replacement tests on the ACS, and
- Collaborated with respondent advocates to champion the needs and concerns of respondents everywhere.

Census accomplished this while ensuring steady operations in engaging 3.5 million households a year with the ACS. This engagement includes providing customer service, encouraging people to fill out the survey, gathering and analyzing the data, and generating multiple data products along with 11 billion estimates free for public consumption.

Census deep and abiding commitment to quality drives them to create a positive survey experience, deliver high quality data, and conduct research to make data-driven decisions that enhance the ACS. They continually evolve survey operations to balance the needs of individual respondents with the need for impactful data in communities throughout the United States.

Census remains agile in launching new research and experimentation with survey protocols while still meeting the multi-tiered demands of survey operations. Census is building on exhaustive research that covers survey protocols ranging from mail packaging to contact modes to public education campaigns and beyond. In the years to come, Census will keep improving by using a multi-pronged approach, focusing on:

- Improving survey materials and the way questions are asked,
- Reducing follow-up contacts,
- Obtaining data from other sources, and
- Removing questions or asking questions less frequently.

Census will continue to do their part to stay agile and pursue every way to improve the respondent experience and enhance the ACS over time.

Project - Improving Demographic Mapping Tools

This project is intended to improve and expand access to demographic survey content via enhanced mapping tool capabilities. Mapping tools for various surveys and programs have already launched while others are in development. Among these are mapping tools for metropolitan/micropolitan geographic areas, language use, small area income and poverty estimates (SAIPE), small area health insurance estimates (SAHIE), international population estimates, and the HIV/AIDS Surveillance database. There are continuous additions, enhancements and integration with other data access methods such as table lookup and visual charting using a standardized framework that reduces one-time customization for each survey or program. New and modern user interface releases were completed for <u>SAIPE</u>, <u>SAHIE</u>, and the <u>International Database</u>.

Project - <u>Census Flows Mapper</u>

The Census Flows Mapper is an interactive on-line mapping and data dissemination tool that provides access to county-to-county migration data from the ACS. The tool substantially expands access to, and understanding of, the number and characteristics of county-to-county migrants. Prior to development of the Census Flows Mapper, the complex county-to-county migration datasets generally were accessible only to expert data users and migration analysts. The Census Flows Mapper provides novice users with the ability to access and utilize complex county-to-county migration data that previously were beyond reach; experienced migration analysts can use the tool for exploratory analysis before delving deeper into the dataset.

The Census Flows Mapper's functionality makes it easy to visualize patterns of migration, as well as to produce multiple maps quickly to compare migration patterns for different counties. The ability to download data for a specific county and flows of interest allows the user the benefit of data tailored to their own analytical needs. The design of the map and the data download also provides information to their users that might otherwise be lost due to disclosure avoidance methodology when providing flow information by detailed characteristics. Having access to the full list of counties involved in any flow interaction with a selected county, and

the ability to see spatial proximity by characteristic, even without the details, provides a wealth of information for both the experienced and novice user.

Project - <u>TigerWeb</u>

TigerWeb has made it easier and more efficient for users to access and view the full range of census geographic areas and features contained within the TIGER database - the Census geographic database. Previously, TIGER data were available only as downloadable files for use in a Geographic Information System (GIS). Customers who lacked access to a GIS could only view census geographic area information on reference maps produced to support specific statistical data releases. To view boundaries and other information for the full range of geographic areas for which the Census tabulates data, a data user would have to access multiple reference map types and series. TigerWeb's on-line map viewer utilizes standard functionality to provide easy and open access to all census geographic areas, boundaries, relationships, and attributes. TigerWeb Web Mapping Service (WMS) and Representational State Transfer (REST) services have made it more efficient for developers to access and consume spatial data for use in their own GIS and for use in applications.

Project - Live Webcasting Public Events

In order to provide greater public access to information about their major programs and activities, Census continues to live broadcast a variety of events. For example, the <u>2020 Census</u> <u>Program Management Review meetings</u>, updates from National Advisory Committees and expert meetings about Income, Poverty and Health Insurance statistics, the Middle Eastern and North African population, and the Secretary's Commerce Data Advisory Council. Additionally, Census webcasts select Department of Commerce activities.

Project - Prepare 2020 Census Operational Plan

Census published the <u>2020 Decennial Census Operational Plan</u> that covers all operations required to execute the Decennial Census. As the initial version of an emerging concept of operations, it reflects and supports evidence-based decision making by describing design concepts and their rationale, identifying decisions still to be made, and describing significant issues and risks related to the implementation of the Operational Plan.

Census continues to release Detailed Operational Plans for each of the operations for the 2020 Census on www.census.gov. Each operation of the 2020 Census will describe detailed operational designs required to execute the 2020 Census. These Detailed Operational Plans complement the 2020 Census Operational Plan, thus, providing the public and other stakeholders the opportunity to review a breakdown of Census' detailed plans.

Each document describes the objectives and procedures for all aspects of each individual 2020 Census operation. Each Detailed Operational Plan will be updated over time to reflect changes in strategies that result from census planning, research, and testing activities. A memorandum accompanying the release of each operation's Detailed Operational Plan is at <u>census.gov</u>.

The first of the series, 2020 Census Detailed Operational Plan for the Address Canvassing Operation, was released to the public in December of 2015.

Project - QuickFacts

QuickFacts continues to be one (1) of the most popular and widely used tools on census.gov. The original vision of this tool has not changed – in one (1) or two (2) clicks, customers of all skill levels get to profiles showing data from across programs. The agency has introduced a completely re-imagined QuickFacts, which can be found in a beta version at <u>www.census.gov/quickfacts</u>. The interactive QuickFacts beta has a number of exciting improvements, including customized tables that let users compare statistics for up to six (6) locations side-by-side. Users can also view data on a map instead of a table. Additionally, in an effort to continue growing the agency's customer base, users can also now embed QuickFacts on their websites and share it in social media. Furthermore, new data has been added. For the first time, QuickFacts now includes profiles for townships and locations in Puerto Rico.

Launched in 2015, to date in 2018, the QuickFacts tool has received more than 7,954,388 visits. Census regularly monitors customer feedback and has made improvements to the search by zip code, table display, data browsing feature, data download feature, and much more.

Project - Census Geocoder

Launched in 2014, the <u>Census Geocoder</u> provides web services for geocoding addresses nationwide. The geocoder uses the publicly available <u>TIGER/Line</u> data as its data repository and makes it available for on demand geocoding.

The geocoder is an address look-up tool that converts your address to an approximate coordinate and returns information about the address range. The geocoder is freely available to all government agencies, as well as the public. The tool allows you to look-up a single address or batch submit up to 10,000 addresses at a time.

Project - Response Outreach Area Mapper

The <u>Response Outreach Area Mapper (ROAM)</u> application was developed to make it easier to identify hard-to-survey areas and to provide a socioeconomic and demographic characteristic profile of these areas using ACS estimates in the <u>planning database</u>. ROAM will help communities tailor their outreach efforts that encourage residents to mail in their census forms. The application launched in February 2018.

Project - Map Applications (Viewers) for 2020 Census Operations

Census has released interactive map applications (viewers) that make data about 2020 Census operations more accessible to the public. The Type of Enumeration Area Viewer shows how households in various geographic areas are invited to respond to the 2020 Census, whether by self-response or by a method that requires a visit from a local Census worker. For self-response areas, the Mail Contact Strategies Viewer helps communities plan for the mailings that their area receives for the 2020 Census. The In-Field Address Canvassing Viewer gives the public information about geographic areas that Census workers must review during an in-person assessment rather than account for from imagery in the office. This decade, Census completed a review of 65% of the nation's addresses in the office, resulting in significant cost avoidance for the 2020 Census. The Local Update of Census Addresses and New Construction Program viewers show the level of government for an area participating in the programs and providing information to improve the Census address list. The Participant Statistical Areas Program viewer shows governments and organizations assisting in defining local data tabulation areas.

Project – Map Viewer in Support of the Committee on Foreign Investment in the United States

The Geography Division worked with the Treasury Department and the Department of Defense to create a map viewer in support of the Committee on Foreign Investment in the United States (CFIUS). CFIUS is an interagency committee authorized to review certain transactions involving foreign investment in the United States to determine effects on national security. CFIUS issued new regulations on February 13, 2020. The map viewer will allow members of the public to enter an address and determine whether their proposed real estate transactions are subject to CFIUS jurisdiction. The map displays geographies such as: urbanized areas and urban clusters provided by Geography Division and based on the 2010 Census; county boundaries provided by Geography Division; and military installations provided by DOD. See https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius/cfius-real-estate-instructions-part-802.

Project - 2020 Census Memorandum Series

The 2020 Census Memorandum Series documents significant decisions, actions, and accomplishments of the 2020 Census Program for the purpose of informing stakeholders, coordinating interdivisional efforts, and documenting important historical changes.

A memorandum generally will be added to this series for any decision or documentation that meets the following criteria:

• A major program level decision that will affect the overall design or have significant effect on the 2020 Census operations or systems;
- A major policy decision or change that will affect the overall design or significantly impact the 2020 Census operations or systems; and
- A report that documents the research and testing for the 2020 Census operations or systems.

For the latest releases, please visit: <u>https://www.census.gov/programs-surveys/decennial-census/2020-census/planning-management/memo-series.html.</u>

Project - Creating a More User-Friendly Interface for Business Survey Respondents

Census business survey respondents will utilize a new interface, the Respondent Portal, when submitting responses electronically. The new system allows respondents to access self-service options, send and receive secure email, and single-sign on to the Internet reporting tool through one (1) centralized portal with one (1) set of credentials.

Previously, respondents were mailed different usernames and passwords for each economic survey for which they were selected. Then, they had to enter the credentials separately to access self-service options (requesting time extensions and viewing filing status), send secure email, or report electronically. Managing separate passwords and navigating through multiple logins was cumbersome for respondents and provided Census with security challenges surrounding the storage and usage of passwords. The new E-Correspondence system provides better customer service to respondents by reducing logins and providing one (1) central portal for reporting.

As Census moves towards all electronic reporting to cut costs and operate more efficiently, E-Correspondence will support the expanded use of online reporting options for all respondents, including the expanded use of email over more costly options such as paper mailing and phone calls. The system is currently in use for a dozen business surveys and will be expanded to support all Economic survey collections.

Project - Accelerating Economic Indicators

Over the past few years, Census has worked to accelerate the release of economic indicators that provide critical information on internal trade, inventories, and services in the U.S. Census revised complex processes and ensured the accuracy of the statistics at the earlier release date, all while continuing to publish critical indicator data on a rigorous schedule. The acceleration of key statistics keeps data users better informed at a time when earlier access to information is needed for data-driven decisions, and improves the accuracy of early estimates of gross domestic product produced by the Bureau of Economic Analysis. The Advanced International Trade release was completed in July 2015, Advanced Economic Indicator Report in July 2016, and the Advance Quarterly Services Report in February 2017. In addition, Census is assessing

the feasibility of accelerating the manufacturing indicators and construction indicator programs.

Project - Construction Modernization

Increasing survey costs, falling response rates, and the demand for more timely and granular measures from data users require the evolution of the way in which Census does business. The Economic Directorate Construction Modernization project seeks to reengineer the measurement approach to the traditional construction surveys by utilizing alternative data sources, developing modeling techniques, and evaluating the use of satellite technology. These approaches would streamline and simplify data collection and processing efforts and result in much needed advancements in the quality, content, and timeliness of current and new data products. A Census Scientific Advisory Committee (CSAC) working group was formed in late 2019 to support this project.

Project – Making Economic Indicators More Accessible

Collaborated with a team at the St. Louis Federal Reserve and the Board of Governors to provide indicator data through their mobile application (FRED). In 2018, Census saw an increase of more than 50% in downloads of indicator data through FRED than in Census' previous America's Economy mobile app. Since the inclusion of the Indicator Programs, they have worked closely with the FRED Team to broaden the use of Census Data. At the close of 2019, the number of downloads for all Census Data within FRED has increased 23.43%. Additionally, there were approximately 43 million API calls for data for all Census Programs and 94 million views of embedded graphs from FRED of Census Programs. Census continues to collaborate to produce even more data and release it through their mobile application as well as seek opportunities to speak at upcoming FRED events to increase the awareness of Census Bureau data.

Project - Webinar Series

The Economic Directorate has continued a series of webinars designed to make the general public more aware of the vast amounts of data the Census Bureau has on vitally important topics. The series endeavors to make the public aware of the full depth of data contained at Census across all directorates. These monthly webinars are also recorded and can be accessed anytime on <u>census.gov</u>. This webinar series, "Exploring Census Data," topics include:

- Transportation
- Finance
- Education
- Economic Geography
- Emerging Technologies

• Hidden Gems

A second series of webinars focuses on data released from the 2017 Economic Census, which highlights data at the state and industry level. These bi-weekly webinars are also recorded and can be accessed anytime on <u>census.gov</u>. This webinar series, "Economic Census Updates."

Project - The Opportunity Project

<u>The Opportunity Project</u> is a process for engaging government, communities, and the technology industry to create digital tools that address their greatest challenges as a nation. This process helps to empower people with technology, make government data more accessible and user-friendly, and facilitate cross-sector collaboration to build new digital solutions.

TOP connects tech developers, local leaders, and non-profits with problem statements on issues like jobs, transportation, and housing, and facilitates user-centered tech development sprints to create new digital solutions.

Federal Advisory Committees

Census follows FACA, which governs the establishment and operation of advisory committees. Currently, their agency has two chartered advisory committees: the <u>Census</u> <u>Scientific Advisory Committee (CSAC)</u> and the <u>National Advisory Committee on Racial,</u> <u>Ethnic and Other Populations (NAC)</u>. Having committee members representing the nation demographics and specific fields of expertise, aids the agency with its mission and innovation goals. The committees provide sound feedback for their operations, programs, methodologies, technologies, outreach, and current and new developments.

Their agency strives to ensure transparency and openness in all the advisory committees' activities and proceedings. The public has access to the deliberations, along with time for commentary at all the proceedings, in person or in writing. Census advisory committee meetings are widely advertised and transmitted via Census Ustream.

<u>Sunshine Week Event</u>

Each year Census hosts events in recognition of National Sunshine Week. National Sunshine Week occurs each year in mid-March, coinciding with James Madison's birthday and National Freedom of Information Day on the 16th. It is a national initiative to promote a dialogue with the public about the importance of open government and freedom of information.

Privacy Day Event

Privacy Day is an annual event that provides a forum for Census employees and contractors to discuss current data protection and privacy policy and to generate ideas to help evolve the current policies. The event offers a variety of workshops about major Privacy and E-

Government Act requirements, as well as other tools available for protecting their customer's privacy.



Economic Development Administration (EDA)

E DA leads the Federal economic development agenda by promoting innovation and competitiveness, preparing American regions for growth and success in the worldwide economy. EDA's investment policy is designed to establish a foundation for sustainable job growth and the building of durable regional economies throughout the United States. This foundation builds upon two key economic drivers - innovation and regional collaboration. Innovation is key to global competitiveness, new and better jobs, a resilient economy, and the attainment of national economic goals. Regional collaboration is essential for economic recovery because regions are the centers of competition in the new global economy and those that work together to leverage resources and use their strengths to overcome weaknesses will fare better than those that do not. EDA encourages its partners around the country to develop initiatives that advance new ideas and creative approaches to address rapidly evolving economic conditions.

As the only federal government agency focused exclusively on economic development, EDA plays a critical role in fostering regional economic development efforts in communities across the nation. Through strategic investments that foster job creation and attract private investment, EDA supports development in economically distressed areas of the United States.

Guided by the basic principle that communities must be empowered to develop and implement their own economic development and revitalization strategies, EDA works directly with local economic development officials to make grant investments that are well-defined, timely, and linked to a long-term, sustainable economic development strategy.

EDA's flexible programs and structure enable nimble operations and allow for innovation and responsiveness to changing economic needs and conditions faced by its local and state government partners. Grants made under these programs are designed to leverage existing regional assets to support the implementation of economic development strategies that advance new ideas and creative approaches to advance economic prosperity in distressed communities.

EDA's economic footprint is wide and its tool box is extensive—including technical assistance, post-disaster recovery assistance, trade adjustment support, strategic planning and research and evaluation capacity, thereby allowing the agency to offer the most effective investment to help communities succeed in the global economy.

Note: EDA has been proposed for elimination in the FY 2021 President's Budget.

Open Data

EDA employs open government standards to help communities develop strategic plans, locate and evaluate regional clusters, explore existing innovation capacity, and maximize the return on infrastructure investments. These include the dissemination of <u>data tools</u> and <u>research reports</u> that EDA makes freely available on its website.

For prospective grantees, EDA makes all funding opportunity notices available on <u>www.grants.gov</u> and its website: <u>https://www.eda.gov/funding-opportunities/</u>. EDA also has a dedicated webpage providing resources for existing grantees, including training on the use of EDA's online grants portal (Grants Online) and links to various grant and performance-related forms (<u>https://www.eda.gov/archives/2016/tools/grantee-forms/</u>). Numerous other resources, such as EDA's major investment programs and investment priorities, EDA's implementing regulations, a summary of EDA performance metrics, Annual Reports from Fiscal Year 2007 to 2018, economic development tools and reports, and a state-by-state directory of economic development resources are also available on <u>www.eda.gov</u>.

In late 2017, EDA partnered with SRI International to develop innovative metrics as part of a new performance measurement and program evaluation framework for EDA's non-infrastructure portfolio. The project uses logic and econometric models to assess the outputs, outcomes, and impacts of EDA's non-infrastructure grants portfolio to help economic development practitioners better understand the impact of such investments on long-term economic outcomes. The report detailing this research can be found here: *Innovative Metrics for Economic Development: Final Report*. SRI International and EDA also developed an operational toolkit for the economic development practitioners' use. The toolkit corroborates the selected metrics, delineates recommended data collection protocols, enumerates various pertinent data sources, and overall proposes a plan for implementation of the system in accordance with the developed econometric model. EDA piloted the new data collection instruments, designed to construct the new performance metrics, in FY 2019 and plans to implement them in late FY 2020.

In addition to the report and toolkit for non-infrastructure grants, SRI conducted a national-level assessment of the impact of EDA infrastructure grants. Using REMI's PI+ model, that generates year-by-year estimates of the effects of a given policy initiative, SRI explored the potential impact of infrastructure grants across three (3) economic outcome variables: employment, wages and salaries, and personal income. The report *Innovative Metrics for Economic Development: Supplemental Report* offers a new lens of analysis for the practitioners looking to maximize the impact of their infrastructure projects.

These and many other innovative economic development data are available on EDA's website (<u>https://www.eda.gov/</u>) and EDA's <u>Performance Measurement and Program Evaluation</u> page.

Proactive Disclosures

In April 2017, EDA opened its Freedom of Information Act (FOIA) reading room to proactively disclose the most frequently requested documents. EDA has already placed over 4,600 pages of materials on the webpage, including responses to two very large FOIAs in 2019 and 2020. The reading room can be found at <u>https://www.eda.gov/foia/disclosures/</u>.

Privacy

EDA takes seriously its responsibilities to protect privacy, including PII and BII information. EDA ensures its employees are adequately trained on privacy requirements and follows DOC procedures for reporting, responding to and mitigating any breaches of PII. EDA does not engage in data mining.

In April 2017, EDA completed construction of new webpages to communicate its privacy policy for the EDA.gov domain (<u>https://www.eda.gov/privacy/policy/</u>) as well as its privacy program (<u>https://www.eda.gov/privacy/</u>). EDA's webpages are now fully compliant with the privacy requirements of Office of Management and Budget Memorandum M-17-06, "Policies for Federal Agency Public Websites and Digital Services" (November 8, 2016). Among those requirements, EDA's privacy program provides an overview of government-wide and Department of Commerce Privacy Act implementation rules and policies on privacy; descriptions of the major privacy laws, policies and guidance; directions on how to make privacy related inquiries; a link to the Privacy Impact Assessment conducted on EDA's IT systems; and information on how EDA does not maintain any Privacy Act System of Records or have any matching notices or agreements.

Whistleblower Protection

EDA strictly adheres to all anti-discrimination and whistleblower requirements. EDA is fully compliant with the Department's No FEAR Act Policy.

Websites

EDA maintains one (1) domain, <u>www.eda.gov</u>. Through this website, EDA disseminates information related to economic development to the public, communities, and prospective and current grantees. The website complies with the Department's policies and best practices. EDA follows the Department's digital strategy, which can be found at: <u>https://www.commerce.gov/page/digital-strategy</u>.

Spending Information

EDA is in compliance with the Digital Accountability and Transparency Act of 2014 (DATA). NOAA is EDA's financial service provider, including entering the financial data into the Commerce Business System (CBS), the Department's financial system. As such, NOAA submits all data on behalf of EDA, including additional financial information to USAspending.gov after undergoing a validation process. EDA transitioned its grants data to the new format in January 2017 and the first upload of additional data was in May 2017. EDA will continue submitting its grant records to <u>USAspending.gov</u> in compliance with the requirements of the DATA Act.

Transparency

EDA actively contributes to and participates in <u>Data.gov</u>, <u>Grants.gov</u>, <u>eRulemaking</u>, IT Dashboard, CFDA.gov, and <u>USAspending.gov</u>.

Public Notice

EDA utilizes a variety of methods to keep the public contemporaneously aware of its initiatives, funding opportunities, programs, resources, and events. The primary tools for this are EDA's <u>Newsroom</u>, the <u>EDA blog</u>, its twitter feed @US_EDA.

Records Management

EDA's records management specialist takes lead responsibility for ensuring EDA complies with all applicable record retention and archival regulations. EDA is following the Department's guidance on moving to electronic records.

Freedom of Information Act Requests

All EDA FOIA requests are reviewed and responded to promptly. EDA does not have a backlog of FOIA requests. Requests may be submitted electronically through the Department's e-FOIA system or directly to EDA or its regions. In April 2017, EDA completed a complete overhaul of its FOIA webpages to more effectively communicate information related to FOIA, how to make FOIA requests, and to implement a FOIA reading room to proactively disclose the most frequently requested documents. EDA has already placed over 4,600 pages of materials in its reading room. General FOIA information can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at https://www.eda.gov/foia/ and the reading room can be found at <a hre

Congressional Requests

EDA handles Congressional requests through its Legislative and Intergovernmental Affairs Division (LIAD). LIAD responds to all incoming communication from Members of Congress and keeps all records of those correspondences and responses. The Office of the Executive Secretariat, a sub-office within LIAD, has primary responsibility for logging in the correspondence, including

the date received, and closing out the action upon completion in the data by design database. The Office of the Executive Secretariat also has responsibility for conducting research and informing the Director of LIAD of any issues related to the subject communication. Finally, the Office of the Executive Secretariat is responsible for obtaining the necessary clearances and signatures.

All correspondence must be closed out within a two (2)-week period, unless special circumstances prevents the completion within that time frame. In those instances, files are documented accordingly, and the Congressional office is contacted.

Declassification

EDA does not have statutory or delegated authority to classify or declassify information. EDA supports the Department's declassification program by providing subject matter expertise when material is presented with EDA mission equities.

Participation

Through resources such as its Economic Development Representatives, EDA works directly with local economic development officials to make them aware of the resources available to them through EDA's various grant programs. EDA also proactively reaches out to prospective and current grantees, stakeholders and local communities directly and at meetings and conferences to help them align community needs with EDA's mission, clarify EDA grant requirements and apprise them of EDA and other Federal economic development funding opportunities.

Additionally, this year EDA requested comments on a complete overhaul of its Trade Adjustment Assistance for Firms program to make them more user friendly. The process was conducted through <u>Regulations.gov</u>.

Collaboration

EDA has been designated by OMB to serve as the federal government's lead integrator for economic development. As the lead integrator of Federal economic development investments, EDA's role is to facilitate planning, collaboration, and coordination among participating Federal agencies to ensure that:

- Federal resources are invested in support of locally-identified strategies and projects designed to produce transformational economic diversification and workforce development outcomes; and
- Multiple Federal economic development resources are successfully aligned and invested to support various projects in discrete, non-duplicative activities.

EDA's vision for Economic Development Integration (EDI) is to improve the Federal government's ability to serve as a constructive partner to local and regional economic development stakeholders. The core components of this vision include:

- <u>Silo-Busting</u>: Removal of the bureaucratic and administrative barriers, and facilitating direct, ongoing communication and collaboration across Federal agencies and program offices.
- <u>Enhanced</u>, <u>Responsive Service Delivery</u>: Responsive to locally identified economic development needs and objectives and providing the necessary level of project support and related guidance.
- <u>Strategic, Integrated Investments</u>: Investing a combination of resources from multiple agency programs in support of high-impact economic development strategies and projects.

For more information on EDI, see <u>https://www.eda.gov/edi/</u> and <u>https://www.eda.gov/edi/what-is-edi.htm</u>.

EDA Open Government Initiatives

The table below shows a list of initiatives for *EDA*.

Operating Unit	Project	Status	Estimated Completion
EDA	Launch of New Performance Measurements	Ongoing	Late 2020

Launch of New Performance Measurements (Late 2020)

In partnership with SRI International, EDA developed innovative metrics as part of a new performance measurement and program evaluation framework for EDA's non-infrastructure portfolio. EDA piloted the new data collection instruments, designed to collect the new performance metrics, in FY 2019 and plans to implement them in late FY 2020.



International Trade Administration (ITA)

TA strengthens the competitiveness of U.S. industry, promotes trade and investment, and ensures fair trade through the rigorous enforcement of trade laws and agreements. ITA works to improve the global business environment and helps U.S. organizations compete at home and abroad.

ITA is the leading U.S. government resource for American companies competing in the global marketplace. ITA's efforts to promote exports and foreign direct investment into the United States supports the nation's sustained economic growth in part by providing actionable information to U.S. companies, foreign buyers of U.S. goods and services, and foreign investors that create jobs in the United States.

Making Public Assets Available

ITA makes its data publicly available through the Trade Developer Portal (TDP) (<u>https://api.trade.gov/apps/store/</u>) a collection of Application Programming Interfaces (APIs) that allow software developers to create web and mobile applications using information produced by ITA and other U.S. government trade promotion agencies.

Currently, ITA has nine (9) APIs available for public use that are sourced from ITA, the Department, and other trade agency data. These APIs provide information about business opportunities, trade events, *de minimis* and VAT amounts, locations of domestic export assistance centers and locations of international offices. ITA's most popular API, released in November 2014, is the Consolidated Screening List (CSL). This API consolidates 10 export screening lists of the Departments of Commerce, State, and the Treasury into a single data feed as an aid to industry for electronic screening of potential parties to regulated transactions.

ITA currently offers nine (9) datasets on the <u>Trade Developer Portal</u>. ITA's Technology, Services and Innovation (TSI), Data Services Team routinely works with customers, responding to questions and assisting where appropriate with their integration efforts. For example, ITA's TSI routinely works with external data customers to assist with the integration of the CSL API directly into their logistics system. During FY20 Quarter 1, ITA's APIs were accessed an average of 27

million times per month, by over 660 monthly users. This is an increase of 24% in API usage and 56% in the number of monthly users from the same time period the previous year.

On October 4, 2019, ITA launched an enhanced TDP. Both the old and new TDP ran concurrently for four (4) months, providing customers with the time required to update their systems to the new way to connect to the APIs. The new TDP adds in many new security features to protect both ITA and ITA's customers.

ITA utilizes a variety of methods to encourage public use, promote public knowledge, and foster innovation. Links to ITA's TDP can be found on a variety of websites, including: <u>export.gov</u>, <u>trade.gov</u>, <u>commerce.gov</u>, and <u>Data.gov</u>.

ITA's outreach and promotional efforts have resulted in several partner organizations integrating data access through TDP into products and services to enhance their business or for their customers. For example, current customers have integrated the CSL API into their customer and logistics systems. This integration provides customers with real-time verification against 10 screening lists, from three (3) different U.S. government agencies, each time they gain a customer or prepare to ship their product. This integration saves companies from performing multiple manual checks, allowing their employees to perform other valuable work and helps to reduce the company's risk of doing business with prohibited entities or without the proper licenses. Several partners and customers have also created mobile apps that are now available in major mobile app stores. Two examples of this are "Export Screening Lists" by Altova GmbH, both are mobile apps available in Apple's AppStore and the Google Play Store.

Steps to Encourage Public Use, Promote Public Knowledge, and Foster Innovation

In addition to providing data as APIs, ITA provides data to the public through a variety of search and analysis tools and data visualizations, such as the <u>Market Diversification Tool</u>, <u>Global Steel</u> <u>Trade Monitor</u> and the <u>FTA Tariff Tool</u>. These tools make complex data more accessible and easily understandable to diverse public audiences.

For example, the <u>Market Diversification Tool</u> combines trade, tariff, and other economic data from a variety of sources (including the World Trade Organization, United Nations, and World Bank) into one (1) easy-to-use tool that helps exporters research their next potential export market. This saves users the time it would take to manually combine the various data sources. But it also adds value to the data by applying an algorithm, developed by ITA economists, to weigh the different indicators and score countries on their opportunities as export markets for a given U.S. product.

The Global Steel Trade Monitor and Comparison Dashboard provide global import and export trends for the top countries trading in steel mill products. Customers can search by the trade flow,

Reporting Country, Partner Country, Product Groups and Quantity or Value in which they are interested. They can also select one (1) of these to do side-by-side comparisons of the data to gain greater insight into the global flow of steel.

The <u>FTA Tariff Tool</u> uses the final tariff schedules from the U.S. free trade agreements, which are in a format that some exporters find challenging to use and can be more than 100 pages long. The tool combines the tariff schedules with the corresponding product-specific rules of origin and presents the data together in a way that allows companies to quickly see how the tariffs on their exports will change as the agreement is implemented.

Data Asset Identification

ITA's TDP publishes data related to U.S. exports. The origins of the TDP platform lie in the <u>export.gov</u> website. The ITA's TDP team considers datasets available from other federal agencies as well as ITA. If a dataset is not yet in an open and structured form and it would benefit U.S. exporters, importers or manufacturers, the TDP team may collaborate with the data's steward to determine the timeline for opening that dataset.

The TDP team also considers data that will bolster its own datasets. For example, ITA and several other trade-related agencies publish information on trade events. The TDP reaches out to the stewards of those datasets to determine if it is available in a structured format and, if not, whether it can be made available in a structured format. The timeline for publishing data in open formats is dictated by several factors, including the structure, quality and reliability of the dataset.

Privacy

ITA completes the annual FISMA report and submits it to the Senior Agency Official for Privacy (i.e., Executive Council for Privacy, through the Department's Chief Privacy Officer). For the breach of PII incident reports, ITA files the initial breach incident reports with the Chief Privacy Officer and the DOC Computer Incident Response Team (CIRT), which maintains a report on all PII breach incidents.

Whistleblower Protection

ITA takes seriously its commitment to the Whistleblower Protection Act. ITA performs the following activities in support of Whistleblower Protection:

- Information about Whistleblower Protection and ITA's commitment to it are included in our periodic New Employee Briefings.
- ITA invites the Office of the Inspector General Ombudsman annually to brief the Office Directors on Whistleblower Protection and to respond to their questions.

- ITA distributes to our entire staff an annual announcement via email from the Deputy Under Secretary reasserting our commitment to Whistleblower Protection.
- Once a year, ITA includes an article in the Office of the Chief Financial and Administrative Officer "News You Can Use" publication, reminding staff about Whistleblower Protection and ITA's commitment to it.
- The Office of the Chief Financial and Administrative Officer intranet site contains a section on Whistleblower Protection so that ITA employees can research the topic independently.

Websites

Previously ITA depended upon a disparate, highly segmented, multi-site approach to serving customers and constituents online. After evaluating the efficacy of continuing this approach or leveraging a more typical best-in-class approach of unifying into one (1) overall website, as well as assessing the requirements of the 21st Century Integrated Digital Experience Act, it was decided to move forward with a best-in-class approach of site unification. In doing so, ITA has established a roadmap for executing on a digital approach that allows for the strategy of 'creating once, publishing everywhere'. This strategy is the basis for a 21st century digital ecosystem that maximizes the capability for increasing awareness of ITA's available products, services and effective means, increasing the efficiency of ITA's export and trade experts' efforts to produce and publish content, insuring the dynamic distribution of the most up-to-date content to website users, continuous data-driven website optimization and future-proofing against shifting digital consumption and channel preferences.

As an adjacent digital distribution effort, ITA will continue to make its information directly available to partners and other interested third parties via open data tools and API keys, further expanding ITA's public engagement to sites that integrate content for the business and export communities outside of ITA's own digital properties.

Transparency

ITA actively contributes to Data.gov. The agency currently has 44 datasets posted to Data.gov. In addition, ITA's business units provide online access to a variety of data, reports, resources, and other critical information that keeps the public up to date on the agency's activities, for example:

- ITA provides access to public versions of documents submitted on the record of Antidumping and Countervailing Duty cases through the <u>ACCESS</u> system.
- The <u>U.S. Foreign-Trade Zones Board</u> staff provides updated information on all existing and potential foreign-trade zones, including announcements of open public comment periods and case status, on the website.

• The Industry Monitoring and Analysis Unit (link: https://beta.trade.gov/gstm) provides detailed statistical analysis about the U.S. and global steel industry on the public website, including 40 written reports on the top global steel exporting and importing countries and an interactive steel trade monitor allowing for public access to information regarding this important sector facing negative impacts in part from global excess capacity.

ITA routinely evaluates the data on Data.gov and the TDP for timeliness, accuracy, and relevancy to API customers. ITA will continue to add new datasets as they become available and retire datasets when they are no longer needed.

Public Notice

ITA utilizes a variety of methods to keep the public aware of its initiatives, trade remedy actions, programs, resources, and events. Below are several examples of existing outreach efforts:

SelectUSA regularly distributes information about its programs, resources, and other events via email blasts and social media. SelectUSA sent emails to more than 74,000 interested parties during the planning stages for the 2019 SelectUSA Investment Summit, recruiting for the event, providing a platform for economic development organizations, and spreading the news about job-creating business investment. SelectUSA's social media account regularly reaches tens of thousands of users, including generating an audience of more than 15 million during the 2019 Investment Summit.

ITA's U.S. Commercial Service, within the Global Markets unit, frequently shares program information with the U.S. business community through its network of over 200,000 email subscribers. In addition, U.S. Commercial Service's staff present at hundreds of local events each year to raise awareness of ITA's programs and services.

Records Management

ITA Records Management Program has embarked on the following initiatives to ensure compliance with M-19-21, the Presidential Directive on Transition to Electronic Records and related NARA regulations:

Expanding Records Management Training with Computer-Based Training

Records Management 101 on-line training is an initiative borne out of a partnership between the FRON and the NARA Records Management training program which prepares staff with the knowledge to accomplish their records management responsibilities, as well as to comply with the applicable records management statutes. All ITA staff completed Records Management 101 training by June 14, 2019.

Revising the ITA Records Management Website

ITA Records Management will revamp its webpage as a one-stop resource for information on ITA's records management program activities, services, policies and procedures. In addition, by accessing the "Hot Topics" link, users will be directed to the NARA YouTube site. This site hosts a number of free on-demand training topics related to managing Federal records and is accessible to all staff.

Updating the Records Control Schedule

ITA is in the process of integrating NARA's updated General Records Schedules into its comprehensive records control manual and revising its programmatic records schedules to ensure they are maintained for the entire record life cycle, as well as to support FOIA, litigation or other investigatory purposes. NARA has approved an extension until December 31, 2020. ITA is on track to meet this deadline.

Freedom of Information Act Requests

ITA has the capacity to analyze, coordinate, and respond to FOIA requests. As reported in the Fiscal Year 2018 FOIA Annual Report, the average number of days to respond to a simple FOIA request was 20 days or less. ITA has reduced its backlog of requests by approximately 40%.

ITA conducts electronic records searches on a network-wide level. This process allows for faster and more comprehensive electronic record searches. To ensure effective processing of FOIAs and increase transparency, ITA's FOIA liaisons and subject matter experts (SMEs) are provided technical support and training regarding FOIA guidelines. In addition, SMEs are trained on best practices for performing searches and provided electronic tools to streamline the redaction process reducing document release time in support of open government and transparency.

• FOIA links:

Description of your staffing and organizational FOIA program http://www.osec.doc.gov/opog/FOIA/FOIA_foiacontacts.html#ita

- Process for analyzing and responding to FOIA request <u>http://www.osec.doc.gov/opog/FOIA/FOIA_requests.html</u> <u>http://www.ecfr.gov/cgi-bin/text-</u> idx?c=ecfr&tpl=/ecfrbrowse/Title15/15cfr4_main_02.tpl
- Links to agency FOIA reports http://www.osec.doc.gov/opog/FOIA/FOIA_reports_annual.html

Proactive Disclosures

ITA has utilized <u>FOIAonline</u> to process all FOIA requests since the beginning of FY2013. If a requestor submits a request other than through <u>FOIAonline</u>, ITA uploads the request into <u>FOIAonline</u> to be processed. Once a request is in the system, the general public has electronic access to what is being requested, where the FOIA request is in the FOIA process, and if responsive records are located and can be released, they are publicly disclosed electronically through <u>FOIAonline</u>.

Congressional Requests

ITA's OLIA webpage (<u>http://trade.gov/olia/</u>) describes the process for analyzing and responding to Congressional requests for information. ITA follows the Department's guidelines related to public disclosure of Congressional requests and agency responses.

Declassification

ITA does not have statutory or delegated authority to classify or declassify information in accordance with E.O. 13526, Classified National Security Information. This authority, referred to as OCA outlined in Part 1 of E.O. 13526, resides with the head of each Executive Branch agency.

ITA supports the Department's declassification program by providing subject matter expertise when material is presented with ITA mission equities. The subject matter expert, normally the Deputy Assistant Secretary for the area, reviews the material and makes a recommendation to the Department for declassification. Those recommendations are approved by ITA's Deputy Under Secretary and forwarded to the Department for final determination and action.

Participation

ITA depends on the continued participation of its public and private sector clients and stakeholders to carry out its mission. ITA assisted over 35,000 companies in FY19 with the vast majority being small and medium-sized enterprises from all 50 states and including urban and rural localities. On average, as a result of ITA's assistance, clients reported that they increased their annual company revenue by 10%. ITA's staff members throughout the world are committed to providing excellent customer service – nine (9) out of 10 clients would likely recommend ITA's assistance. Clients highly value ITA's local and global network of trusted, impartial and dedicated professionals with specialized knowledge and affordable services that otherwise would not be available to them. Delivering on this value while maintaining such high customer service requires the use of a multitude of tools.

ITA is taking advantage of new technologies and communications platforms to get its products and services into the hands of its customers. ITA's business units are also developing new approaches to meeting the needs of our stakeholders. Some prime examples include.

ITA is sponsoring its annual <u>Discover Global Markets (DGM)</u> Business Forum Series in selected cities around the country. In 2021, a DGM is scheduled in Indianapolis, Indiana that will allow attendees to tap into ITA's global expertise, and to explore opportunities in key industry sectors that offer high export potential. The U.S. Commercial Service Global Markets team actively recruits attendees through the <u>export.gov</u> web portal, Twitter, LinkedIn, and Facebook.

ITA organizes the <u>Trade Winds Series</u>, which connects U.S. clients with high-level government officials and businesses in markets around the world, including completed programs in India, Turkey, Poland, Brazil, Mexico, Singapore, Colombia, South Africa, Chile, and Romania with additional mission stops covering regions in Europe, Asia and Latin America. The series has been held annually since 2008 and has provided a forum for business matchmaking and growing U.S. exports to 40 countries. Consisting mostly of small and medium-sized manufacturers, attendees have hailed from 48 states. Since 2008, the Trade Winds program has been attended by more than 1,000 U.S. companies, and generated nearly 7,000 meetings with U.S. commercial service officers and diplomats and more than 4,500 business-to-business matchmaking meetings. Companies have reported more than \$3 billion in sales because of their participation in the program.

Through the <u>Global Teams & Industry Forward Program</u>, ITA is able to create synergy and increase knowledge by capturing worldwide industry expertise to deepen its national industry engagement for the benefit of U.S. exporters in significant exporting sectors: Automotive, Design & Construction, Energy, Franchising, Healthcare, Manufacturing, and Travel & Tourism.

The eCommerce Innovation Lab helps U.S. business adapt and grow in the global digital economy through activities such as identifying export opportunities across the <u>ecommerce sales channels</u> from a concentration on <u>digital strategy development</u>, using Website Globalization Review gap analysis tools, and leveraging online tools developed to build digital capacity across industrial sectors such as the <u>eCommerce Export Resource Center</u> business library.

By bringing international resources, including international expertise and export counseling to rural areas, ITA's <u>Rural Team</u> helps rural companies bring their products to world markets and helps attract foreign direct investment into rural America. The Rural Team members help rural companies leverage ITA staff in more than 100 offices throughout the U.S. and U.S. Embassies and Consulates in over 75 countries all over the world.

Collaboration

ITA has launched a knowledge management initiative that initially aims to provide a platform for broader internal collaboration among the Department and interagency partners related to the creation, use, and distribution of ITA information products.

ITA houses the secretariat for the <u>Trade Promotion Coordinating Committee</u> (TPCC), the interagency committee that supports the Administration's overall trade promotion strategy. The mission of the TPCC is to foster coordination among trade agencies that will make it easier for U.S. exporters to access the information and services they need. The TPCC consists of 20 U.S. government departments and agencies and is chaired by the Secretary of Commerce. Since Congress instituted the TPCC in the early 1990s, the interagency committee has coordinated and developed government-wide priorities for federal trade promotion efforts, including export assistance and financing programs.

Through TPCC efforts, 20 federal agencies are advancing program and policy improvements to provide exporters more tailored assistance and information; streamline export reporting requirements; expand access to export financing; ensure market access and a level playing field; and partner at the state and local level to support export promotion strategies. These efforts will enable more U.S. businesses to capitalize on existing and potential opportunities created by free trade agreements and the U.S. trade agenda.

ITA Open Government Initiatives

The table below shows a list of initiatives for *ITA*.

Operating Unit	Project	Status	Estimated Completion
ITA	Developing a 21st Century Digital Presence to Better Serve Customers	Completed	12/31/2019 (Iteration I)
	Raising awareness of the SelectUSA program and its available services	Live/Operational	
	Market Intelligence Program: actionable market intelligence fed to U.S. exporters via export.gov	In Progress	
	Providing industry-specific information on global market opportunities and challenges	Live/Operational	
	Supporting ITA Data Thru Cloud Services	In Progress	

Table 8 - ITA Initiatives

Operating Unit	Project	Status	Estimated Completion
	Making complex knowledge products available through Office 365 and Salesforce integration	In Progress	

Project – Developing a 21st Century Digital Presence to Better Serve Customers

What's New – Improving communications with the public by utilizing all available online and social media platforms and channels

ITA has launched a new 21st Century digital presence to better serve customers and stakeholders that adheres to the tenets of the 21st Century Integrated Digital Experience Act. ITA has also established a permanent Office of Digital Strategy & Engagement led by a recognized digital expert and positioned within the newly branded Technology, Services and Innovation team responsible for modernizing ITA's entire technology platform.

The new Office of Digital Strategy & Engagement is underway with building out a best-inclass digital technology platform with the flexibility to serve ITA's digital needs for years to come. Additionally, the new digital team is working with Change Management experts from across ITA to execute the organizational change management necessary to unlock the full capabilities of the new digital strategic direction for ITA to better serve customers and stakeholders in the ever-evolving digital landscape.

Project – Raising awareness of the SelectUSA program and its available services

What's New – Expanding online access to the SelectUSA program and Federal government resources to attract and retain business investment in the United States

ITA prioritized efforts to attract and retain business investment in the United States through ITA's SelectUSA program. SelectUSA is the first federal-wide effort to promote and facilitate business investment in the United States as an engine for job growth and economic development. SelectUSA facilitates business investment into the United States by serving two types of clients: U.S. state/regional/local Economic Development Organizations (EDOs), and international companies currently located in the United States or planning to enter the U.S. market.

SelectUSA helps companies of all sizes find the information they need to make decisions, connect to the right people at the local level, and navigate the federal regulatory system. SelectUSA also

assists U.S. EDOs to compete globally for investment by providing information, a platform for international marketing, and high-level advocacy. The SelectUSA program coordinates investment-related resources across U.S. federal agencies and is the single point of contact at the national level to help international and domestic firms grow and invest in the United States.

The SelectUSA's website (<u>www.SelectUSA.gov</u>) provides industry-specific content, features economic market intelligence outlining key reasons why the United States is the premier international investment destination, describes the federal government resources available to businesses looking to invest, and highlights upcoming events hosted by SelectUSA and its partners to promote and facilitate investment in the United States.

A major component of the website includes the publication of new data tools that greatly expand public access to research databases and other resources. These tools enable potential investors, economic development organizations, and the general public to quickly identify opportunities for investment within the United States. The online tools featured on the SelectUSA States website include:

SelectUSA Stats: Created and managed by SelectUSA, the FDI interactive data visualization tool allows companies and EDOs to quickly access and analyze latest available industry, country, and state level FDI data with only a few mouse clicks. https://www.selectusa.gov/selectusa-stats.

U.S. Cluster Mapping Tool: Led by Harvard Business School in partnership with the U.S. Economic Development Administration, this tool maps more than 50 million data points and provides easy-to-access data on industry clusters and innovation hubs. Users can better understand regional economies and local competitive strengths. <u>http://clustermapping.us/</u>.

Assess Costs Everywhere (ACE) Tool: Created by the Department of Commerce's ESA, this tool provides an analytic framework for understanding the full range of costs associated with manufacturing in the United States versus other locations. Users will find links to resources and case studies.

http://acetool.commerce.gov/.

Total Cost of Ownership Estimator: This free online tool helps manufacturers aggregate all their cost and risk factors into one (1) cost for more objective decision-making regarding sourcing and reshoring. <u>http://reshorenow.org/TCO_Estimator.cfm</u>.

Federal Programs Database: This database provides businesses, EDOs, and policy makers a comprehensive collection of programs offered by U.S. government agencies designed to support business in the United States. <u>https://www.selectusa.gov/federal_incentives</u>.

State Business Incentives Database: Powered by the Council for Community and Economic Research, this database is a resource for potential investors to find incentive programs for all 50 states and U.S. territories. <u>http://selectusa.stateincentives.org/?referrer=selectusa</u>.

These online data tools help transform Department of Commerce and private data into easy to use, transparent tools to assist SelectUSA clients.

Project - Market Intelligence Program

What's new – Creating a constant stream of actionable market intelligence fed to U.S. exporters via export.gov.

ITA is leading an effort that will establish a means for developing and sharing actionable market intelligence with U.S. exporter clients via an automated web-based system accessed via export.gov. Drawing on ITA's global network of experts, the Market Intelligence Program will provide a constant stream of short articles enabling U.S. firms to access the most recent information on international market developments, opportunities, and issues. This program will provide a year-round complement to the annually-produced Country Commercial Guides and Top Market Reports.

Project – Providing industry-specific information on global market opportunities and challenges

What's New – Introducing industry-specific exporting opportunities to U.S. companies through Top Markets Reports posted on trade.gov.

ITA's Industry and Analysis (I&A) unit focuses on helping U.S. businesses become more competitive in the global marketplace by ensuring that exporters and federal government trade policy and promotion agencies have access to industry-specific information on global trends and opportunities. To accomplish this, ITA has developed Top Markets Reports. These industry-specific reports help exporters and government agencies prioritize efforts that could significantly improve U.S. export performance.

The Top Markets Series is a market prioritization tool developed to share I&A's sector expertise with clients. The series combines I&A's unique industry knowledge with the on-theground experiences of ITA's Global Markets/Commercial Service international staff and the data analytics of I&A's economists. This helps U.S. firms determine their next international market by comparing opportunities across borders. Top market analysis ranks future export markets within sectors and offers commentary on the opportunities and challenges facing U.S. exporters in key markets.

Internally, ITA uses Top Markets to assess competitiveness within a sector, as well as the opportunities and challenges facing U.S. exporters in key markets. Externally, the primary beneficiaries of Top Markets analysis are small and medium-size enterprises (SMEs). SMEs need to identify the best markets where they can expand sales, grow market share, and minimize risk. They don't need to know where they can export but rather where they should export. Using information from Top Markets, they can identify target markets where they want to dig deeper, investing in more specific market research from the private sector. Additionally, interagency industry-group stakeholders and other non-SME clients rely on the Top Market Series to provide key industry-specific intelligence.

Public versions of Top Markets Series are available at <u>http://trade.gov/topmarkets/.</u> These legacy reports cover 27 industries, from agriculture equipment to technical textiles. In 2020, I&A will begin replacing these static reports with content that relies primarily on data visualization and that is more concise and scalable across IT devices.

Project – Supporting ITA Data through Cloud Services

Previously called, "Improving the Enterprise Data Services Platform (EDSP) to Support Internal Agency Usage", "Supporting ITA Data through Cloud Services" will be built on cloud services, providing ITA with the ability to scale the platform as needed to manage the throughput and associated costs. This platform will support ITA's internal data analysts by providing an easily accessible platform for staff to use for data modeling, wrangling, analyzing, and displaying data. Further, this platform will support the technology modernization efforts within ITA, supplying a single platform for supporting ITA data and making data governance possible.

Data visualizations created using this platform will no longer be static charts and graphs, but rather will be dynamic visualizations that will allow users to select components to view the data in different ways. Many of these dynamic data visualizations will also be shared with the public, embedded directly into ITA's website and incorporated into public reports. This initiative will not only enhance the data visualizations currently available on the website, it will also provide ITA with the ability to add additional visualizations providing U.S. companies with greater insight into the trends in international trade so that they can better choose their next market.

Project – Making complex knowledge products available through Office 365 and Salesforce integration

ITA has expanded upon the Federal CIO's mandate of "Cloud First" and adopted a "Cloud Only" technical architecture. Nearly all information technology (IT) resources required by our workforce now reside in FedRAMP accredited cloud environments. Our target software development platforms for all business needs are Salesforce, Microsoft O365/Azure, and Drupal. Legacy systems are universally hosted in Amazon Web Services (AWS) Infrastructure as a Service (IaaS) while Information Technology Service Management (ITSM) systems are provided by ServiceNow Software as a Service (SaaS). ITA no longer provisions or manages physical servers or maintains a presence in a traditional data center. Developmental Operations (DevOps) are also consolidated in AWS using Team Foundation Server (TFS), AutoRabit, and Atlassian JIRA. Finally, ITA is moving away from Oracle Unified Content Management (UCM) to Drupal for curation of our various web properties.



Minority Business Development Agency (MBDA)

MBDA is an entrepreneurially focused organization committed to wealth creation in minority communities. MBDA was created to foster the growth and global competitiveness of U.S. businesses that are minority-owned.

The MBDA actively coordinates and leverages public and private-sector resources that facilitate strategic alliances in support of its mission. MBDA's vision is economic prosperity for all American business enterprises.

The MBDA provides funding for a network of Minority Business Centers located throughout the Nation. The Centers provide minority entrepreneurs with one-on-one assistance in writing business plans, marketing, management and technical assistance, and financial planning to assure adequate financing for business ventures. The Centers are staffed by business specialists who have the knowledge and practical experience needed to run successful and profitable businesses. Business referral services are provided free of charge. However, the network generally charges nominal fees for specific management and technical assistance services. The Centers are located in areas with the largest concentration of minority populations and the largest number of minority businesses.

Note: The FY 2021 President's Budget proposes that MBDA become a policy office.

Open Data

In 2018, MBDA revised the MBDA Business Center client engagement and client intake forms to enable the sharing and use of minority business data with federal agencies for research purposes. The forms provide notice to minority business enterprises on the collection and use of the data provided to the MBDA Business Centers.

Privacy

The MBDA completed the annual FISMA report and the Federal Agency Data Mining report (Questions 1 and 6 in the FISMA report). These reports were submitted through the Senior Agency Official for Privacy, (i.e., Executive Council for Privacy, through the Department's Chief Privacy Officer). MBDA also provided updated information on the FISMA report regarding privacy

training, PII holdings and SSN use for the agency. For the breach PII incident reports, MBDA files the initial breach incident reports with the Chief Privacy Officer and the DOC CIRT, which maintains a report on all PII breach incidents.

Freedom of Information Act Requests

The MBDA has the capacity to analyze, coordinate, and respond to FOIA requests. As reported in the Fiscal Year 2019 FOIA Annual Report, the average number of days to respond to a simple FOIA request was 65 days. MBDA did not receive complex requests.

The MBDA FOIA Officer requests staff to conduct electronic searches on an office-wide and network level as an alternative of having each person who may have responsive records conduct an electronic search. In addition, MBDA has added one (1) staff person to assist with the document imaging, scanning, and management to reduce time FOIA professionals spend on the administrative activities of the FOIA program. MBDA has attached the President's FOIA Memorandum, the Attorney General's FOIA Guidance, and the Department's FOIA regulations to the MBDA website as a reminder of the presumption of openness http://www.mbda.gov/freedom-information-act-reading-room.

Proactive Disclosures

The MBDA has utilized <u>FOIAonline</u> to process all FOIA requests since the beginning of FY2013. If a requestor submits a request other than through <u>FOIAonline</u>, MBDA uploads the request into <u>FOIAonline</u> to be processed. Once a request is in the system, the general public has electronic access to what is being requested, where the FOIA request is in the FOIA process, and if responsive records are located and can be released, they are publicly disclosed electronically through <u>FOIAonline</u>.

The MBDA is in the early phases of an ongoing initiative to process, analyze and scan previous and current applications submitted by business center grantees for upload on the MBDA website as a proactive disclosure. Grant applications are frequently the subject of FOIA requests.

MBDA Open Government Initiatives

The table below shows a list of initiatives for *MBDA*.

Table 9 -	MBDA	Initiatives

Operating Unit	Project	Status	Estimated Completion
MBDA	Support of SelectUSA.gov Project	Ongoing / Continuous	

Operating Unit	Project	Status	Estimated Completion
	Business Development Tools Modernization Project	In Progress	August 2020

Project – Support of SelectUSA.gov

What's new –Integration of information regarding SelectUSA.gov

The MBDA continues its promotion of SelectUSA.gov initiatives on the MBDA.gov website and participates in all SelectUSA events. MBDA promoted the 2018 SelectUSA Investment Summit on the MBDA.gov website and maintains a blog page that references all SelectUSA activities with active hyperlinks.

Project – Business Development Tools Modernization Project

What's new – Enhancement and redesign of MBDA's business development applications

In MBDA's continuing efforts to modernize its business development tools, MBDA has acquired access to the ITA subscription to the Salesforce cloud-based application for customer relations management. MBDA's access to the salesforce licenses in 2017 continued its use of the customer management system built on Salesforce's platform since 2016. Salesforce use will further the MBDA goals increasing MBE access to financing and procurement opportunities by providing an efficient, and flexible cloud-based solution for monitoring and developing customer relationships.

The MBDA continues to identify advanced technology that can be used to enhance or replace the suite of business development applications that reside on the MBDA portal. Historically, these tools have been used by Minority Business Enterprise's (MBE), and MBDA Business Centers to support activities associated with their business. Although visitors to MBDA's portal actively use these tools, the agency has determined that there are more modern tools that could be used to improve the effectiveness of and ensure a first-class experience for visitors to the site. Newer tools will provide visitors with access to a virtual space that can be used to grow their businesses and will also allow visitors to tailor the site to their individual business needs. The ultimate vision for the initiative will be to increase MBE access to financing and procurement opportunities existing within the public and private sector.



National Institute of Standards and Technology (NIST)

NIST, founded in 1901, is a non-regulatory federal agency within the <u>Department of Commerce</u>. NIST's mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life.

Open Data

The Evidence Act

Public Law 115-435, Foundations for Evidence-Based Policymaking Act of 2018 (The Evidence Act), requires that federal agencies make strategic data assets accessible to the public in machine-readable formats and discoverable through a single, government-wide catalog. The Office of Science and Technology Policy (OSTP) had previously identified research data as a high-value federal asset, and NIST's efforts to make data public began with research data, as discussed below. NIST generates and collects other mission-related data assets that may already be publicly available (see, for example, <u>https://www.nist.gov/tpo</u>), but which are not currently catalogued for discovery through <u>https://data.gov</u>. These assets will be inventoried and, if not already publicly available, will be prioritized by NIST's Chief Data Officer for release.

Public Access to the Results of Federally Funded Research¹

NIST developed a Public Access Plan in response to a February 22, 2013 memorandum from the Executive Office of the President on increasing access to the results of federally funded scientific research. The Plan was approved by the Office of Science and Technology Policy (OSTP) and the OMB in December 2014. NIST staff are required to provide public access to the results of federally funded research under a set of NIST directives that went into effect in

¹ Certain commercial products are identified here, but such identification is not intended to imply recommendation or endorsement by the National Institute of Standards and Technology, nor is it intended to imply that the products are necessarily the best available for the purpose.

2015. Language requiring provision of public access to scientific research results is included in agreements for research supported by NIST through grants, contracts, cooperative agreements, or other awards, including research conducted at joint institutes and federally funded research and development centers, as they come up for renewal. The plan and public comments are available as <u>NISTIR 8084</u>. NIST's Public Access Policy, which was derived from the plan, is available at <u>https://www.nist.gov/open</u>.

NIST has partnered with the National Institutes of Health (NIH) to use the <u>PubMed Central</u> (<u>PMC</u>) repository system to provide public access to full-text peer-reviewed scholarly publications authored by NIST staff, leveraging the well-established search, archival, and dissemination features of PMC. NIST Technical Series publications are available through the Government Publishing Office's (GPO's) <u>govinfo</u>. NIST also has a participation agreement with CHORUS, facilitating access to published papers.

To allow researchers to make data public, NIST has developed an infrastructure through which researchers' data management plans (DMPs) can be linked to records in NIST's Enterprise Data Inventory (EDI). The EDI allows researchers to upload datasets to a secure repository in the cloud, assign digital object identifiers (DOIs), and obtain the necessary review and approval prior to release of information to the public. Information about available data is sent through the Department to <u>https://data.gov</u>. NIST research data is accessible through links on data.gov and through a portal on NIST's website at <u>https://data.nist.gov</u>. Software produced by NIST for research purposes is also discoverable through this portal. Software may be located, for example, in NIST's GitHub repository at <u>https://github.com/usnistgov</u> or on the NIST website.

Membership in CrossRef, DataCite, and ORCiD allows NIST to mint DOIs for authors, NIST Technical Series publications, and datasets, taking advantage of the evolving ecosystem of persistent identifiers that can link funders, authors, and research products.

Recognizing the importance of collaboration for scientific research efforts, NIST's CIO has authorized the use of several collaboration tools for sharing information with internal and external colleagues. Via an internal website, staff now have access to lists of tools that are available and tools that are in the assessment and authorization process, making the assessment and authorization process more transparent.

Improved Access to Archival Materials

NIST, formerly the National Bureau of Standards (NBS), has worked with *The Internet Archive* under an arrangement with the Library of Congress to digitize nearly 25,000 technical reports the agency has published over the last 100+ years. As the publications are digitized, they are made accessible to the public through appropriate sources:

• GPO govinfo, <u>https://www.govinfo.gov/collection/nist</u>

- WorldCat, <u>https://www.worldcat.org/</u>
- *The Internet Archive*, <u>https://archive.org/details/NISTresearchlibrary</u>
- Internet search engines.

Photographs and other materials portraying NBS/NIST history are made available to the public through the NIST Digital Archives, <u>https://www.nist.gov/digitalarchives</u>. Information about and images of the scientific instruments and other artifacts in the NIST Museum collections are also accessible to the public through this site.

Configurable Data Curation System

The NIST Configurable Data Curation System (CDCS), a platform developed to support the Materials Genome Initiative discussed below, provides a means for capturing and transforming data into a structured format that is XML-based and amenable to transformation to other formats so that the data can be shared across academia, the government, and industry. The platform was developed for materials data (Materials Data Curation System, MDCS), but is now also deployed as the NIST Materials Resource Registry (NMRR) as well as the International Metrology Resource Registry (IMRR), a tool for National Metrology Institutes and the International Bureau of Weights and Measures (BIPM) to provide federated discovery and access to the world's knowledge about the science of making measurements.

Proactive Disclosure

To the extent feasible and consistent with law, agency mission, resource constraints, U.S. national, homeland, and economic security, NIST promotes the availability of results of federally funded research in publicly accessible repositories.

NIST has begun an initiative to make NIST directives of significant public interest available on our website.

Privacy

NIST follows departmental guidance from the Office of Privacy and Open Government. NIST's privacy program is described at <u>https://www.nist.gov/privacy</u>, and Privacy Impact Assessments are available at <u>http://www.osec.doc.gov/opog/privacy/NIST-pias.html</u>.

Whistleblower Protection

The NIST follows departmental guidance from the Office of Inspector General.

Websites

Several years ago, as part of an effort to expand dissemination of its research results, NIST implemented Drupal, an open-source CMS, in which content is "tagged" by topic, enabling the public to subscribe to receive new information posted on the website on specific topics of interest such as nanotechnology or energy-related research. Currently, there are more than 240,000 subscribers who receive information on approximately 108 different topics. The NIST website also includes several blogs that allow members of the public to comment or ask questions about posted articles and the CMS includes icons to easily share content from the NIST site with social media websites.

NIST has created sites on YouTube (more than 15,000 subscribers, more than 3 million video views), Facebook (more than 72,000 followers), Twitter (more than 59,600 followers), LinkedIn (more than 48,700 followers), and Instagram (more than 2,300 followers). To ensure that as many people as possible benefit from NIST's work, news of major research results posted on the NIST website is routinely announced through these additional social media sites.

Open Innovation Methods

NIST uses prizes and challenges to stimulate engagement to solve ambitious problems in support of the NIST mission. Many long-standing NIST programs have created challenges by leveraging NIST authorities (e.g., the NIST Organic Act and Federal Information Security Management Act) to bring people together to advance research by providing an evaluation infrastructure; others have a winner who receives public recognition. Examples of recent and ongoing challenges include:

Global City Teams Challenge

NIST Transactive Energy Challenge

Text Retrieval Conference (TREC).

NIST prize competitions, involving the award of cash prizes to winners under Prize Competition Authority (15 U.S.C. 3719, as amended), are managed through NIST's Program Coordination Office. Prize competitions are announced on challenge.gov and program websites. Prize competitions completed or in progress include:

2017 Reusable Abstractions of Manufacturing Processes (RAMP) Challenge

2018 Reusable Abstractions of Manufacturing Processes (RAMP) Challenge

Agile Robotics for Industrial Automation Competition (ARIAC)

Federal Impact Assessment Challenge

NIST the Future of Public Safety Technology 100K Video Series Challenge

NIST Virtual Public Safety Test Environment Challenge

PerfLoc: Performance Evaluation of Smartphone Indoor Localization Apps

The Unmanned Aerial Systems Flight and Payload Challenge

Virtual Reality Heads-Up-Display Navigation Challenge

The Unlinkable Data Challenge - Advancing Methods in Differential Privacy

Differential Privacy Synthetic Data Challenge

Expanding the SIM Card Use for Public Safety Challenge

Haptic Interfaces for Public Safety Challenge

Tech to Protect Challenge

First Responder UAS Endurance Challenge

Automated Streams Analysis for Public Safety (ASAPS) Prize Challenge

CHARIOT Challenge – Advancing First Responder Communications

Access to Scientific Data and Publications

NIST provides public access to scientific data through <u>https://data.gov</u> as well as a data portal on NIST's website, <u>https://data.nist.gov</u>. Publications are available within 12 months of publication through the National Institutes of Health's PubMed Central at <u>https://www.ncbi.nlm.nih.gov/pmc/funder/nist/</u> and through the Government Publishing Office's govinfo at <u>https://www.govinfo.gov/collection/nist.</u>

Open Source Software

Most programming code written at NIST is developed as part of our research programs and is developed to address specific and unique mission-related research problems. NIST openly shares this software through <u>public Github repositories</u> for potential re-use by our stakeholders, including other researchers, and so that our research processes are fully open and transparent. NIST's Open Source Code directive is available from <u>https://www.nist.gov/open</u>.

Spending Information

NIST spending information is available at <u>https://www.nist.gov/about-nist/our-organization/budget-planning</u> and is embedded in Department of Commerce information on <u>USAspending.gov</u>.

Transparency

NIST strives to be consistently open and transparent in its interactions with the public and news media. Information from and about NIST is available on analytics.usa.gov, cfda.gov, challenge.gov, data.gov, grants.gov, ITdashboard.gov, labs.data.gov/dashboard, usa.gov, USAspending.gov as well as on the NIST website and social media, and in news releases, publications, and reports. In some cases, NIST information is embedded in Department of Commerce information.

NIST follows the <u>Department of Commerce Public Communications Policy</u>, which includes explicit approval for research staff to talk with the news media and the public directly – without prior permission from the Public Affairs Office – about the results of their peer-reviewed research.

NIST Public Affairs Office regularly offers communications training to its research staff, including describing this portion of the policy, to ensure that they are committed to broadly disseminating NIST results to a wide variety of audiences. Plain language training is available online and through mentoring and in-person training of NIST employees.

NIST provides a dedicated referral service for phone and email public inquiries during all business hours to ensure that any member of the public may request assistance in locating specialized technical reports or experts or in resolving customer service concerns they may have. The NIST website "Contact Us" page includes several different ways for the public to obtain help with many different types of inquiries. The Public Affairs Office strives to answer general NIST inquiries within 48 hours.

Public Notice

The NIST follows departmental guidance from the Office of Public Affairs.

Records Management

NIST manages its records in accordance with NARA and Department of Commerce regulations, ensuring that records are economically and effectively created to meet business needs, kept long enough to protect rights and assure accountability, and preserved and available for future generations. Records are retained in accordance with NARA-approved records schedules. NIST's records management directives are clear and concise, conveying records management requirements and responsibilities to all NIST staff.

Freedom of Information Act Requests

NIST responds to Freedom of Information Act requests in accordance with Department of Commerce regulations and Department of Justice guidance. NIST emphasizes the importance of transparency of its operations and regularly performs discretionary releases of documents and information that could qualify for exemption from release, but for which there is no foreseeable harm. The NIST FOIA Office works collaboratively with NIST Operating Units to obtain information in response to requests in a timely manner and to encourage proactive disclosure of information.

Congressional Requests

NIST follows Department of Commerce guidance from the Office of Legislative and Intergovernmental Affairs.

Declassification

NIST follows Department of Commerce guidance from the Office of the Secretary.

Participation

NIST has a rich history of connecting our technological advances to the American economy through interactions with stakeholders and the public, some of which are described in an <u>annual</u> report on technology transfer. Technology transfer plays an important role in the Department of Commerce's mission to promote job creation, economic growth, sustainable development, and improved standards of living for all Americans. NIST works in partnership with academia, businesses, state and local governments, other federal agencies, and communities to promote innovation and improve the nation's overall competitiveness in the global economy.

To increase citizen involvement in the development of standards to address new technological challenges, NIST has reached out to stakeholder communities to convene workshops at key locations around the country, organize diverse stakeholder groups, and establish consensus-developing organizations. This strategy has been used successfully for developing standards frameworks for the smart grid sector, critical infrastructure cybersecurity, disaster resilience, and forensic standards.

Framework for Improving Critical Infrastructure Cybersecurity

Starting in 2013, NIST worked with stakeholders to develop a voluntary framework – based on existing standards, guidelines, and practices – for reducing cyber risks to critical infrastructure. The first version of the <u>Framework for Improving Critical Infrastructure</u> <u>Cybersecurity</u> was released on February 12, 2014. Since then, NIST has collected user feedback and experience through Requests for Information and public workshops. NIST also facilitated working sessions on specific technical areas that have been used to enhance the

Framework. On April 16, 2018, NIST published the final Version 1.1 of the Framework for Improving Critical Infrastructure Cybersecurity (Framework). Among other refinements and enhancements, the document provides a more comprehensive treatment of identity management and additional description of how to manage supply chain cybersecurity. Additional details about Version 1.1 are available in the <u>NIST Fact Sheet</u>.

Privacy Engineering

The NIST Privacy Engineering Program (PEP) supports the development of trustworthy information systems by applying measurement science and system engineering principles to the creation of frameworks, risk models, guidance, tools, and standards that protect privacy and, by extension, civil liberties. In January 2017, the PEP reached a major milestone in advancing the development of privacy engineering and risk management processes with the finalization of NISTIR 8062, *An Introduction to Privacy Engineering and Risk Management in Federal Systems*. NISTIR 8062 introduces the concept of applying systems engineering practices to privacy and provides a new model for conducting privacy risk assessments on federal systems. To develop NISTIR 8062 and understand the activities and concepts required for effective privacy engineering, the PEP sought the perspectives and experiences of privacy experts across a variety of sectors in an open and transparent process, including hosting workshops, soliciting public comments, and engaging stakeholders in outreach activities in a broad range of settings.

To help organizations meet the challenge of designing, operating, and using technologies in ways that are mindful of diverse privacy needs in an increasingly connected and complex environment NIST led a public-private partnership to develop a Privacy Framework. The Framework was the result of a robust, transparent, consensus-based collaboration with private and public sector stakeholders that began in September 2018. To develop this tool, NIST released iterative drafts of the Framework and collected feedback through three (3) public workshops, a <u>request for information</u>, a <u>request for comment</u>, five (5) webinars, and many direct interactions with stakeholders. NIST published Version 1.0 of the Privacy Framework on January 16, 2020.

The NIST Privacy Framework was rolled out at a public event at the Center for Strategic and International Studies on February 19, 2020. The Privacy Framework is a voluntary tool intended to help organizations identify and manage privacy risk to build innovative products and services while protecting individuals' privacy. The Privacy Framework approach to privacy risk is to consider privacy events as potential problems individuals could experience arising from system, product, or service operations with data, whether in digital or non-digital form, through a complete lifecycle from data collection through disposal.

Artificial Intelligence (AI)

NIST has been working with the AI community to identify the technical requirements needed to cultivate trust that AI systems are accurate and reliable, safe and secure, explainable, and free from bias. This is important to build trust in AI technologies and to promote the adoption of new AI technologies.

The Plan for Federal Engagement in AI Technical Standards that NIST released in August 2019 (drafted pursuant to the EO on Maintaining American Leadership in Artificial Intelligence) is the product of significant input from other federal agencies and the public. The plan recommends that the federal government "commit to deeper, consistent, long-term engagement" in activities to help the United States speed the pace of reliable, robust, and trustworthy AI technology development. NIST received comments from more than 40 organizations in industry, academia, and government on a <u>draft plan released July 2, 2019</u>. The report lists existing IT standards applicable to AI, and ongoing activities regarding AI standards and related tools. The plan recommends that the federal government bolster AI standards-related knowledge, leadership, and coordination among agencies that develop or use AI; promote focused research on the trustworthiness of AI systems; support and expand public-private partnerships; and engage with international parties.

Organization for Scientific Area Committees

The Organization of Scientific Committees for Forensic Science (OSAC) is an initiative by the National Institute of Standards and Technology (NIST) and the Department of Justice (DOJ) focused on strengthening forensic science in the United States. OSAC provides technical leadership to facilitate the development and promulgation of consensus-based documentary standards and guidelines for forensic science that are fit-for-purpose and based on sound scientific principles. OSAC is uniquely qualified to undertake this mission because of the deep and varied expertise of its members. OSAC consists of more than 560 members and 260 affiliates representing key stakeholder groups, including practitioners, laboratory managers, academic researchers, metrologists, statisticians, human factors experts, accreditation and standards development experts, attorneys, and judges. This diverse group represents federal, state, and local agencies, academic institutions, and private sector entities from all 50 states and more than a dozen nations.

OSAC continues to make steady progress toward its goal of achieving technically sound, consensus-based standards and guidelines. OSAC committees are working on hundreds of discipline-specific and interdisciplinary forensic science standards projects, have posted hundreds of discipline-specific baseline documents to the OSAC website, and have recently identified 92 research and development needs.

Community Resilience Planning Guide
NIST's Community Resilience Planning Guide for Buildings and Infrastructure Systems provides a practical and flexible approach to help all communities improve their resilience by setting priorities and allocating resources to manage risks for their prevailing hazards. Using the Guide can help communities to integrate consistent resilience goals into their comprehensive, economic development, zoning, mitigation, and other local planning activities that impact buildings, public utilities, and other infrastructure systems. The Guide was released in late 2015 and is being supplemented by <u>Guide Briefs</u> with more information on supporting methods and best practices.

Big Data Public Working Group

Big Data is another important area in which NIST is leading public participation in standards development. Although there is broad agreement about the remarkable potential of "Big Data" to spark innovation, fuel commerce, and drive progress, the rate at which data volumes, speeds, and complexity are growing is outpacing scientific and technological advances in data analytics, management, and transport.

NIST is leading the NIST Big Data Public Working Group (NBD-PWG) to develop consensus definitions, taxonomies, reference architectures, and technology roadmaps to accelerate the deployment of robust Big Data solutions. The NBD-PWG, open to the public with active membership from industry, academia, and government, has five (5) subgroups that have developed the NIST Big Data Interoperability Framework (NBDIF). The goal is to create vendor-neutral, technology- and infrastructure-agnostic systems to enable data scientists to perform analytics processing for their given data sources without worrying about the underlying computing environment. The NBDIF has been released in three (3) versions, which correspond to the three (3) stages of the NBD-PWG work with respect to the NIST Big Data Reference Architecture (NBDRA). In Stage 1, we identified the high-level NBDRA key components (seven (7) volumes were published on September 16, 2015). In Stage 2, NIST created the general interfaces between the NBDRA components and enhanced Version 1 content (two (2) new volumes added). For Stage 3, the aim was to validate the NBDRA by building Big Data general applications through the general interfaces. The final version of the nine (9) -volume NBDIF was published in October 2019 by more than 80 contributors from more than 70 organizations.

NBD-PWG is exploring the level of interest from industry, government, and academia in extending the NBDIF for packaging scalable analytics as services to meet the challenges of so much information. These services would be reusable, deployable, and operational for Big Data, High-Performance Computing, and AI machine learning (ML) and deep learning (DL) applications, regardless of the underlying computing environment.

All NBDIF documents are available at https://bigdatawg.nist.gov/.

Education

NIST has several partnerships and programs related to science, technology, engineering, and mathematics (STEM) education and workforce and business development. NIST welcomes postdoctoral associates identified through a competitive program administered by the National Research Council as well as students participating in the Graduate Student Measurement Science and Engineering Fellowship Program, the Summer Undergraduate Research Fellowship (SURF) Program, and the Summer High School Internship Program (SHIP). Additionally, the Professional Research Experience Program (PREP) provides lab experience to undergraduate, graduate, and post-graduate students, and the NIST Summer Institute for Middle School Science Teachers provides instruction in cutting-edge research that is coordinated with a middle school curriculum.

Under the <u>Standards Services Curricula Development Cooperative Agreement Program</u>, recipients work with NIST to integrate instruction related to standards and standardization into undergraduate and graduate curriculums at U.S. colleges and universities. Standards provide industries and innovators with a common language that facilitates trade, simplifies transactions, and enables people to work together toward greater common goals that cut across disciplines and borders. NIST supports the development of standards by identifying areas where they are needed, convening stakeholders, and providing technical and scientific guidance and expertise to help stakeholder groups reach a consensus.

Metrics

Performance related to open government is evaluated through quarterly metrics reported to the Department of Commerce on usage of websites; "posts," "views," and "tweets" on social media; and blog posts. FOIAs that have been closed are reported. Metrics are collected for numbers of purchases of calibration services, Standard Reference Data, and Standard Reference Materials, and customer satisfaction is evaluated via surveys and customer contacts. The numbers of research papers, data, and code published by NIST staff are reported, as are the numbers of Cooperative Research and Development Agreements (CRADAs), patents, licenses, and research associates, participants, and postdocs. This information is included in NIST's annual report to OMB on technology transfer, required by 15 USC 3710(f) and available on line at https://www.nist.gov/tpo/department-commerce.

Collaborations

To meet its mission in the face of rapidly evolving priority areas and a widening stakeholder base, NIST is increasingly partnering with academic, industrial, and governmental institutions. National priorities require the united efforts of diverse participants, and NIST has the unique convening power and technical independence to bring those participants together. Each year, NIST hosts about 2,700 associates and facility users who collaborate with its scientists. NIST works with over

1,300 manufacturing specialists around the country to help small and medium-sized manufacturers improve and grow. NIST has two user facilities available for both proprietary and non-proprietary research. Access to these facilities is generally provided on a first-come, first-served cost-reimbursable basis. Through a Partnership Intermediary Agreement, <u>NIST and the Maryland Technology Development Corporation (TEDCO)</u> work with researchers to turn promising NIST technologies and know-how into high-tech businesses.

In addition, NIST jointly operates research organizations explicitly established to promote the kind of cross-disciplinary collaborations that accelerate research results. NIST hosts as many as 100 conferences, workshops, symposia, and other meetings annually. Many are co-sponsored with other federal agencies, academic institutions, professional societies, or industry groups.

Public Safety Communications Research

Since 2002, NIST's Public Safety Communications Research program (PSCR) has worked to drive innovation and advance public safety communication technologies through cutting-edge research and development. PSCR works directly with public safety stakeholders and extramural researchers to address public safety's urgent need to access the same broadband communications and state-of-the-art technologies that consumers on commercial networks now expect. In February 2012, the enactment of the Middle Class Tax Relief and Job Creation Act marked an unparalleled push toward next-generation technologies for public safety. The legislation contained landmark provisions for the development and build out of the Nationwide Public Safety Broadband Network (NPSBN), a dedicated, interoperable network for emergency responders. The Public Safety Trust Fund (PSTF) was established to support the design and implementation of the Network. The Act charged NIST with utilizing up to \$300 million of PSTF allocations to establish an R&D program to support the development and deployment of NPSBN. PSCR established the Innovation Accelerator Program to drive R&D and transform public safety communications capabilities. PSCR relies on its collaboration with public safety practitioners, fire, police, and EMS, industry, academia, and local, state, and federal agencies to guide R&D initiatives. PSCR works to continuously engage these communities and regularly communicate R&D progress and results through outreach events, conferences, reports, and an online newsletter.

In 2013, PSCR initiated an R&D planning process to determine which technology investments were of highest priority to first responders. Over the course of three (3) days, 150 public safety stakeholders convened to discuss new technology capabilities, feasibility, uniqueness, cost of investment, cost of ownership, and impact. The result was technology roadmaps, which informed the research/technology areas PSCR would pursue; these areas became the research portfolios which comprise PSCR's division structure. To further socialize and validate the R&D Roadmaps with stakeholders, PSCR held Summits; these events and the resulting reports have informed PSCR research initiatives and provided crucial traceability back to public safety requirements and industry analysis.

National Cybersecurity Center of Excellence

NIST's National Cybersecurity Center of Excellence (NCCoE) brings together experts from industry, government, and academia to develop and effectively transfer practical cybersecurity standards, technologies, and best practices to the nation's business sectors. By accelerating dissemination and use of standards, best practices, and integrated tools and technologies for protecting information technology assets and processes, the NCCoE fosters trust in U.S. business sectors and improvements to the overall security of the economy. The NCCoE supports implementation of existing cybersecurity guidelines and frameworks, serves as a technical resource for both public and private sectors, and contributes to the development of cybersecurity practices and practitioners.

Today, the NCCoE has programs working with the health care, energy, financial services, manufacturing, public safety, transportation, and retail sectors. In addition, the center is addressing challenges that cut across sectors, including mobile device security, software asset management, cloud security, identity management, internet of things, data integrity, and secure email.

National Initiative for Cybersecurity Education

Employers are struggling to find workers who have cybersecurity-related skills. The National Initiative for Cybersecurity Education (NICE) is a partnership between government, academia, and the private sector focused on cybersecurity education, training, and workforce development.

On November 13, 2017, the First Annual <u>National Cybersecurity Career Awareness Week</u> began with a kick-off event at the National Cybersecurity Center of Excellence. The event featured experts who spoke about how the cybersecurity community can effectively reach and encourage more students to consider a future career in cybersecurity, how career development strategies can be utilized for college graduates seeking to land their first cybersecurity positions, and how current workers can transition into this exciting field. The National Cybersecurity Career Awareness Week Cybersecurity Challenge was also launched to ignite interest in cybersecurity careers by enabling participants to test drive cybersecurity careers with a free online cybersecurity career exploration platform.

NICE, Burning Glass Technologies, and the Computing Technology Industry Association have developed an interactive map, CyberSeek. Cybersecurity talent gaps exist across the country. Closing these gaps requires detailed knowledge of the cybersecurity workforce in each region. CyberSeek is an interactive heat map that provides a snapshot of supply and demand data for cybersecurity jobs at the state and metropolitan area levels, and career pathways for cybersecurity positions. CyberSeek can be used by students, educators, career counselors, and employers looking to identify or develop skills needed in cybersecurity careers.

Centers of Excellence

NIST has also created Centers of Excellence to provide an interdisciplinary environment where researchers from NIST, academia, and industry collaborate on emerging areas of basic and applied research and innovations in measurement science. The first of these centers, the <u>Center for Hierarchical Materials Design (CHiMaD)</u>, was established in 2013 to accelerate materials discovery and development; provide opportunities to transition new breakthroughs in advanced materials to industry; convene multidisciplinary and multi-sector communities for in-depth discussions; and provide training opportunities for scientists and engineers in materials metrology.

Two Centers of Excellence were established in 2015 after selection through a merit-based competition. The <u>Center for Risk-Based Community Resilience Planning</u> focuses on tools to support community disaster resilience. The center works on developing integrated, systems-based computational models to assess community infrastructure resilience and guide community-level resilience investment decisions. The center also provides a scientific basis for developing resilience metrics and decision-making tools and for evaluating cascading effects that arise in interconnected physical and social infrastructures.

The <u>Center for Statistics and Applications in Forensic Evidence</u> was announced in May of 2015. This center supports NIST's efforts to advance the utility of probabilistic methods to enhance forensic analysis. Working with NIST researchers and partners from four (4) universities led by Iowa State University, the Forensic Science Center of Excellence evaluates and solidifies the statistical foundation for fingerprint, firearm, toolmark, and other pattern evidence analyses, and for multimedia evidence analyses. The center also develops and implements an education and training program to ensure that judges, lawyers, and forensic science investigators can effectively decipher the results of statistical analysis on pattern and digital evidence.

Materials Genome Initiative

The Materials Genome Initiative (MGI) is a multi-agency initiative designed to create new policy, resources, and infrastructure to support U.S. institutions in the effort to discover, manufacture, and deploy advanced materials twice as fast, at a fraction of the cost. It can take 20 or more years to move a material after initial discovery to market because the discovery and optimization of new materials for innovative products is a time-consuming and laborious process, but computational design of materials has emerged as a powerful new tool for materials discovery and optimization. Major efforts in both theory and experiment are needed to provide the data that underlies successful modeling. Given its expertise in the integration, curation, and provisioning of critically evaluated data and models, NIST has assumed a leadership role within the MGI, establishing essential data exchange protocols and the means

to ensure the quality of materials data and models. These efforts will yield the new methods, metrologies, and capabilities necessary for accelerated materials development.

Quantum Economic Development Consortium (QED-C)

The Quantum Economic Development Consortium (QED-C) aims to expand U.S. leadership in global quantum research and development and the emerging quantum industry in computing, communications, and sensing. Quantum technologies take advantage of the unusual rules that govern the behavior of the fundamental building blocks of matter, including electrons, protons, neutrons, and photons. With funding from both the government and private-sector member organizations, the QED-C will determine workforce needs essential to the development of quantum technologies; provide efficient public-private sector coordination; identify technology solutions for filling gaps in research or infrastructure; highlight use cases and grand challenges to accelerate development efforts; and foster sharing of intellectual property, efficient supply chains, technology forecasting, and quantum literacy.

Partnership Facilities

In addition to the Centers of Excellence above, NIST collaborates in partnership facilities with academic institutions and other federal agencies.

Brookhaven National Laboratory

Brookhaven National Laboratory is a multipurpose research institution located on Long Island, New York. In partnership with Brookhaven, NIST develops and disseminates synchrotron measurement science and technology needed by U.S. industry to measure nanoscale electronic, chemical, and spatial structure of advanced materials.

Hollings Marine Laboratory

The Hollings Marine Laboratory (HML) is a joint research facility among NOAA's National Ocean Service, the South Carolina Department of Natural Resources, the College of Charleston, the Medical University of South Carolina, and NIST, with a mission to provide science and biotechnology applications to sustain, protect, and restore coastal ecosystems, with emphasis on links between environmental conditions and the health of marine organisms and humans.

Institute for Bioscience and Biotechnology Research

The Institute for Bioscience and Biotechnology Research (IBBR) exists to foster integrated, cross-disciplinary team approaches to scientific discovery, translational development and education, and to create commercialization relationships and initiatives that serve the

expanding economic base of biosciences and technology in the state of Maryland and across the country.

Joint Center for Quantum Information and Computer Science

The Quantum Information and Computer Science (QuICS) is a partnership between the University of Maryland and NIST to advance research and education in quantum computer science and quantum information theory.

Joint Initiative for Metrology in Biology

The Joint Initiative for Metrology in Biology (JIMB) was established in 2014 as a joint initiative between Stanford and NIST, providing standards-based research and innovation in biometrology. JIMB is now operated by SLAC National Accelerator Laboratory in partnership with NIST. JIMB's mission is to motivate standards-based measurement innovation to facilitate translation of basic science and technology development breakthroughs in genomics and synthetic biology

Joint Institute for Laboratory Astrophysics

The Joint Institute for Laboratory Astrophysics (JILA) is a joint physics institute of the University of Colorado at Boulder and NIST. (The institute was previously known as the Joint Institute for Laboratory Astrophysics, but its current research now spans a wide range of physics topic areas).

Joint Quantum Institute

The Joint Quantum Institute (JQI) is a joint institute of the University of Maryland, NIST, and the Laboratory for Physical Sciences.

National Advanced Spectrum and Communications Test Network

The National Advanced Spectrum and Communications Test Network (NASTCN) is a partnership amongst NTIA NOAA, the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA) and the Department of Defense, and is organizing a national network of federal, academic, and commercial test facilities that will provide the testing, modeling, and analyses needed to develop and deploy spectrum-sharing facilities.

Advanced Manufacturing National Program Office

NIST provides leadership and coordination across federal agencies with programs in advanced manufacturing – including the Departments of Agriculture, Defense, Commerce, Education, Energy, Health and Human Services, and Labor, NASA, and NSF – by leading the interagency

Advanced Manufacturing National Program Office (AMNPO). The AMNPO oversees the planning, management, and coordination of Manufacturing USA[®], which brings together public and private investments to improve the competitiveness and productivity of U.S. manufacturing through a robust network of manufacturing innovation institutes. Each of the 14 Manufacturing USA institutes is a public-private partnership focusing on a specific, promising advanced manufacturing technology area.

The institutes advance domestic manufacturing innovation by creating the infrastructure needed to allow domestic industry and academia to work together to solve industry-relevant manufacturing problems in research and development, technology transition, workforce training, and education. Manufacturing USA has garnered significant attention in the manufacturing sector; two-thirds of the 1900 member organizations are manufacturers and 70% of those are small and medium sized enterprises. Members also include Fortune 50 U.S. manufacturers and top-ranked research and engineering universities.

The AMNPO provides information to the public about Manufacturing USA through a variety of means – especially through the website, <u>www.ManufacturingUSA.com</u>. The website includes <u>news about the institutes</u>, media exposure, announcements of <u>upcoming events</u>, information about <u>program funding opportunities</u>, videos, an archive of <u>reports and policy</u> <u>papers</u>, and guidance about how to engage with the institutes. The AMNPO also releases an <u>annual report on the program's performance</u> and a <u>triennial strategic plan</u>. The AMNPO maintains Twitter and LinkedIn accounts to communicate advanced manufacturing news and successes about Manufacturing USA to the public. Additionally, the AMNPO maintains the <u>Manufacturing.gov</u> website, which contains links to information about U.S. government programs that support advanced manufacturing.

NIST Technology Transfer

NIST regularly works with multiple other organizations through Cooperative Research and Development Agreements. These agreements allow NIST to work directly with other parties through a public-private partnership to achieve specific scientific outcomes. In addition, NIST patents and licenses new technologies developed in our laboratories. NIST regularly organizes technology showcase events to bring together innovative technologies, licensable inventions, research and engineering facilities, small business support resources at the federal and state levels, and sources of funding, all under one (1) roof. NIST also hosts "listening sessions" to hear from local communities about how federal labs can contribute to economic development. Information on NIST technologies available for licensing is on <u>data.gov</u> in a machine-readable format for other parties to use.

NIST regularly conducts economic assessments on the results of our research programs. NIST economic reports and assessments are available on the NIST website at <u>https://www.nist.gov/tpo/reports-and-publications</u>. <u>Technology Transfer partnership activities</u>

<u>across Commerce</u> are described in an annual report. A selection of NIST activities with impacts in industry is provided at <u>https://www.nist.gov/industry-impacts</u>.

Interagency Technology Transfer

NIST has an interagency leadership role in technology transfer as delegated by the Secretary of Commerce. NIST has worked with other agencies to place information on all federal laboratory technologies available for licensing and information on available research facilities and equipment on <u>data.gov</u> in a machine-readable format for other parties to use.

As part of NIST's leadership role, a Return on Investment (ROI) Initiative was begun in FY18 and concluded with the publication of a <u>NIST Green Paper in FY19</u>. Working collaboratively with other agencies, NIST received and analyzed information from the private sector, universities, and other partners to identify critically needed improvements to federal technology transfer efforts. Some findings are now in the process of being implemented through the National Science and Technology Council's Lab-to-Market subcommittee, and milestones are reported publicly through <u>performance.gov</u>. Our goal is to streamline and accelerate the transfer of technology from federal laboratories to promote U.S. economic growth and national security through innovative products and services, and new businesses and industries.

Small Business Innovation Research

Small Business Innovation Research (SBIR) is a highly competitive federal grant program that opens opportunities and encourages U.S. owned and controlled small- and mid-sized businesses to engage in Research and Development (R&D) with commercialization potential.

Manufacturing Extension Partnership (MEP)

The MEP Program is a unique, public-private partnership that delivers comprehensive, proven solutions to U.S. manufacturers, fueling growth and advancing U.S. manufacturing. The MEP Centers in all 50 states and Puerto Rico, which are part of the MEP National Network[™], work with U.S. manufacturers to develop new products and adopt new technologies. MEP National Network services can track with the maturity of a technology as well as help strengthen the business side of a company and can play a pivotal role in helping manufacturers move from concept to market through services in areas such as product design, manufacturing engineering, product concept testing, quality control/management, supplier scouting, and certification. The MEP Program serves as a bridge to other organizations and federal research labs that share a passion for enhancing the manufacturing community. From MEP's inception through FY 2018, the MEP Program has worked with 102,443 manufacturers, leading to \$127.3 billion in cost savings, and it has helped create and retain more than

1,107,346 jobs. Note: MEP has been proposed for elimination in the FY 2021 President's Budget.

NIST Open Government Initiatives

The table below shows a list of initiatives for *NIST*.

Operating Unit	Project	Status	Estimated Completion
NIST	Modernization of Standard Reference Data	Ongoing/Continuous	
	Return on Investment (ROI) Initiative	Completed	
	Improve Website Information Related to Public Access	Completed	
	Make Directives of Public Interest Available on NIST's Website	In Progress	September 2020
	TREC-COVID Challenge	In Progress	TBD
	Develop a Portal for NIST-Developed Code	In Progress	May 2021
	Develop a Research Data Management Framework (RDaF)	In Progress	June 2022

Table 10 - NIST Initiatives

Project – Modernization of Standard Reference Data (SRD) – Ongoing/Continuous

For more than 50 years, NIST has been making standard reference databases available for a broad range of chemical and physical properties for use in many scientific disciplines including biology, chemistry, engineering, forensics, materials science, and physics. Customer expectations for a "useable" data product have changed as technology has evolved. Most of the 100 databases are currently available as searchable tables. NIST is modernizing the look and feel of these databases and incorporating APIs to make the databases easier to use and to allow access to the data through code rather than requiring users to perform multiple manual searches. To date, ten of the SRDs have been revamped with improved user interfaces. NIST also undertook an internal review of the entire SRD portfolio and reclassified and reorganized the collection to make clear which datasets fully satisfied the SRD criteria.

Project – Return on Investment (ROI) Initiative – Completed

Following a Request for Information (RFI) published in the Federal Register and three (3) public forums, a white paper was published that summarizes public comments and

recommendations. This publication is available free of charge from <u>https://doi.org/10.6028/NIST.SP.1234</u>.

Project – Improve Website Information Related to Public Access – Completed

A webpage at <u>https://www.nist.gov/open</u> directs visitors to content that was initially prescribed by OSTP, including NIST's plans for providing public access to results of our research. In addition, it provides information about how to access NIST papers, data, and software, performance metrics, licensing and fair use information, and guidance for external recipients of NIST funds.

Project – Make Directives of Public Interest Available on NIST's Website – In Progress

Currently, only the NIST policy and order for providing public access to results of federally funded research are publicly available, with the understanding that any directive that may be of public interest must be disclosed under the Freedom of Information Act. NIST continues to make progress migrating the existing Administrative Manual subchapters to a directives system as evidenced by a reduction of 39% since 2018. As work progresses with migration, we will make directives available to the public as appropriate.

Project – TREC-COVID Challenge – In Progress

Researchers, clinicians, and policy makers involved with the response to COVID-19 are constantly searching for reliable information on the virus and its impact. This presents a unique opportunity for the information retrieval (IR) and text processing communities to contribute to the response to this pandemic, as well as to study methods for quickly standing up information systems for similar future events. The results of the TREC-COVID Challenge will identify answers for some of today's questions while building infrastructure to improve tomorrow's search systems.

TREC-COVID will follow the <u>TREC</u> model for building IR test collections through community evaluations of search systems. The document set to be used in the challenge is the <u>COVID-19</u> Open Research Dataset (CORD-19). This is a collection of biomedical literature articles that will be updated weekly. Accordingly, TREC-COVID will consist of a series of rounds, with each round using a later version of the document set and a larger set of COVID-related topics. Participants in a round will create ranked lists of documents for each topic ("runs") and submit their runs to NIST. Based on the collective set of participants' runs, NIST will create small sets of documents to be assessed for relevance by human annotators with biomedical expertise. The results of the human annotation, known as relevance judgments, will then be used to score the submitted runs. After all rounds are complete, the final document and topic sets together with the cumulative relevance judgments will comprise

a COVID test collection. The incremental nature of the collection will support research on search systems for dynamic environments.

Project – Develop a Portal for NIST-Developed Code – In Progress

The <u>Federal Source Code Policy</u> is designed to support reuse and public access to customdeveloped Federal source code. It requires that source code developed by or for the Federal government be made available for sharing and re-use. Most of the code produced by NIST is intended for research purposes, and is available via <u>GitHub</u> and in other locations. Using repurposed open source code from the Lawrence Livermore National Laboratory, NIST is currently working to implement the code.nist.gov web portal as a companion site to our data portal, <u>https://data.nist.gov</u>. The code portal will export a code.json file for use by code.gov and allow users to locate and access NIST's code products.

Project – Develop a Research Data Management Framework (RDaF) – In Progress

NIST is working with stakeholders to develop a structured approach to data management, modeled on the process used to develop NIST's Cybersecurity Framework, to enable organizations to optimize use of their data assets. After a thorough review of current guidance, NIST will develop a common language and a basis for coordination across that landscape, developing a framework that describes who needs to do what, why, and when in order to make their data useful and maximize its value.



National Oceanic and Atmospheric Administration (NOAA)

NOAA is an agency that enriches life through science. NOAA's reach goes from the surface of the sun to the depths of the ocean floor, working to keep citizens informed of the changing environment around them.

NOAA's roots date back to 1807, when the Nation's first scientific agency, the Survey of the Coast, was established. Since then, NOAA has evolved to meet the needs of a changing country. NOAA maintains a presence in every state and has emerged as an international leader on scientific and environmental matters. Its mission touches the lives of every American and has a critical role in protecting life and property and conserving and protecting natural resources.

<u>NOAA provides a diverse range of science and services</u>, ranging from daily weather forecasts and severe storm warnings to climate monitoring, fisheries management, coastal restoration, and support for marine commerce. All of these products and services promote economic vitality and affect more than one-third of America's gross domestic product.

NOAA's passionate and dedicated scientists use cutting-edge research, high-tech instrumentation, and a modern IT infrastructure to provide citizens, planners, emergency managers and other decision makers with reliable information they need when they need it.

Recent Accomplishments

In support of the Open Government goals, NOAA has made notable progress in a number of the Open Government functional areas in FY19 and FY20, as highlighted below.

Open Data

NOAA is coordinating, on behalf of the Department of Commerce, the implementation of the Geospatial Data Act (GDA) which was passed into law in 2018. The GDA codifies the committees, processes, and tools used to develop, drive, and manage the National Spatial Data Infrastructure (NSDI) and recognizes responsibilities beyond the Federal government for its development. The GDA reflects growing recognition of the essential role of geospatial data and technology in understanding and managing our world and highlights the need to support their continuing development as critical investments for the Nation. During FY20-21, Commerce is required to

complete an Inspector General audit of GDA compliance, develop seven reports on departmental and thematic geospatial data management activities, create a Commerce geospatial strategic plan, and support a Federal government Report to Congress on GDA activities.

NOAA has a long-standing formal policy (which pre-dates OMB M-13-13) requiring NOAA's environmental data to be managed based upon an end-to-end data lifecycle, and to be "visible, accessible and independently understandable to users". In support of this policy, NOAA has an active Environmental Data Management Committee (EDMC), comprising members from all Line Offices to facilitate and guide the myriad NOAA data producers and data stewards toward effective implementation of the policy. In turn, this effort significantly advances and enables the Open Data agenda for NOAA's environmental information.

On an annual basis, NOAA hosts an Environmental Data Management Workshop to promote awareness, discussion, and problem-solving of NOAA data management activities including data discovery, access services, metadata, usage, citation, "big data" issues, and other relevant topics. The most recent workshop was held in September 2019, with 170 in-person and 80 virtual participants. Planning for the 2020 workshop is now in progress, to be held virtually (due to COVID-19 limitations) August 18-20, 2020.

The NOAA Data Program (NDP), within the Office of the Chief Information Officer (OCIO), supports the Acting Chief Data Officer, encompassing Enterprise Architecture, FOIA, Privacy, PRA/PIA, and Data-related activities Office within the OCIO. The NDP collaborates with the EDMC and others across NOAA to implement the provisions of the Foundations of Evidence Based Policy-Making Act, including the development of a Comprehensive Inventory of NOAA data, and a NOAA Data Strategy; multiple representatives from NOAA participate in the Commerce Data Governance Board. The NOAA Data Program Director serves as EDMC Chair.

The NDP is also home to the Big Data Program (BDP), now operationalized as an enterprise service. On December 19, 2020, NOAA announced new collaborations with Amazon Web Services, Google Cloud and Microsoft that encompassed the provisions of the CRADA phase, including free public egress provisions, and five petabytes (per contract award) of allocated storage for which NOAA determines which datasets are hosted. NOAA has published over 130 datasets through the BDP contract awardees, such as its National Water Model retrospective analysis and GOES 16 and GOES 17 satellite imagery. Many other data sets are under discussion, including coastal water level, genomics, and fisheries catch data. Internal governance of the BDP will be supported by the EDMC, among other internal NOAA organizations. More information available under the Flagship Project section.

The BDP was instrumental in developing a Roundtable on Putting Ocean Data to Use, held on February 10, 2020 in Washington, D.C. The Center for Open Data Enterprise (CODE) led the effort, partnering with NOAA, Ocean Conservancy, Esri, Amazon, and Microsoft. NOAA hoped to: 1) better understand the community's challenges and opportunities in putting its oceans data to

use and 2) advance the ability of the community to use ocean data. BDP Collaborators and users have generally focused on meteorological and satellite data. However, NOAA ocean data, when combined with data from other sources, can become central to the development of the Blue Economy, identifying new opportunities in seafood production, tourism and recreation, ocean exploration, marine transportation, and coastal resilience.

In November 2019, the NOAA Big Data Project received a Best in Class 2019 Government Innovation Award, in the category of Public Sector Innovation, which recognizes innovative ways in which the government applies technology to better meet its mission and serve the public.

Privacy

NOAA instituted its first Role-Based Privacy Training, available through the Commerce Learning Center for all NOAA employees. This training completes a multi-year effort within NOAA to provide training based on the user's role and work responsibilities in handling and protecting PII. Leveraging this training tool will allow NOAA to better prepare its workforce in tailoring training needed for role-based PII collection, use, and protections.

In addition to the Role-Based Privacy Training, NOAA engaged with the Cybersecurity Division to integrate Privacy training into the existing IT Security Awareness Training. This effort, led by the NOAA CIO, will posture users to shift away from a bifurcated data protection effort, and instead incorporate an integrated protection strategy consistent with the intent behind the upcoming NIST Circular 800-53 Rev. 5.

Today, for all NOAA FISMA systems, the compliance for Privacy Threshold Analysis (PTA) completion is at 100%, and NOAA continues to consistently submit its PIAs for DOC approval for each of its FISMA systems, carrying off its prior years successes that brought the program into compliance, and now striving to maintain that consistent compliant posture. This effort has been a hallmark of the collaborative effort between NOAA Privacy and the DOC Office of Privacy and Open Government, and NOAA appreciates the Department's strong posture in accommodating prompt review and approval of NOAA PIAs.

NOAA also executed its first NOAA-wide Privacy Roundtable, with well over 100 attendees. NOAA outlined current Privacy obligations and provided Privacy training and case law. Carolyn Schmidt, with NIST, provided a keynote address, and discussed Privacy program maturation efforts. NOAA hopes to build off of this Roundtable event and hosts additional Privacy events throughout the year.

Additionally, NOAA has rolled out a native Data Loss Prevention (DLP) solution, with customized filter scripts aimed at reducing the amount of Sensitive PII that is transmitted in clear text. As a result of these efforts, NOAA has seen a reduction in email-based Privacy Incidents of more than 95%.

Lastly, NOAA most recently issued its Google PII transmission and storage guidance, leveraging the FedRAMP certification of the Google Enterprise service NOAA utilizes. Based on this detailed guidance, NOAA has been able to effectively adapt to the remote-working environment following the COVID-19 outbreak, while still maintaining proper encryption methodologies are utilized for sensitive data at rest and in transit, consistent with the DOC Electronic Transmission of PII Policy.

Freedom of Information Act Requests

NOAA is currently focusing its efforts on continually reducing its backlog--which has grown following several external program shocks--including the 2019 Hurricane Dorian event, as well as the prior Government furlough in early FY19. Despite these events, NOAA has leveraged contractor support, as well as multiple detailees, to buffer the increased FOIA volume and litigation response.

NOAA has carried out significant training events, including monthly FOIA Legal Experts calls to discuss changes in case law, such as the recent Supreme Court Argus decision regarding Exemption (b)(4). Additionally, NOAA FOIA has continued to carry out FOIA Roundtable events at the Regional Offices to support Line Office efforts at compliance. NOAA has also reduced the backlog and routinely provides FOIAonline and Clearwell training to individual/group FOIA staff. NOAA also provides specialized support to Staff and Line Offices during surge situations. NOAA is currently scheduling a 100% remote Roundtable for all FOIA professionals within NOAA. This will not only satisfy NOAA's annual FOIA training objectives but will also provide leading edge processing methodologies while NOAA's workforce adapts to the work-from-home environment during the COVID-19 outbreak.

NOAA's FOIA program has continued to provide FOIA training for the new SES appointees, so that incoming leadership is aware of their FOIA responsibilities, and are ready to respond to requests in their respective areas of responsibility, and can hit the ground running in leading their staff to excel within their FOIA programs.

Lastly, NOAA is considering establishing an e-Discovery platform as an enterprise service for processing of complex email-based FOIA requests. This advancement will provide a technological solution for FOIA programs at all staff and Line Offices.

Public Notice

NOAA has published public SORNs, including revisions and amendments, since the last reporting period. NOAA also has contributed to the Department-wide SORNs for those notices that directly cover NOAA PII collections. Notably, the following SORNs have been published, amended, or revised, with their respective publication dates:

- Public Affairs SORN: Submitted for Review and Publication.
- NOAA Submitted to the Department of Commerce the proposed abolishment of NOAA-2, 4, 7, 8, and 9.
- NOAA-19, Permits and Registrations for United States Federally Regulated Fisheries, was submitted to OMB for final review and publication.

Websites

After years of managing our organically derived and organizationally focused web presence, 2019 marked a turning point toward a more consolidated and citizen-focused approach. Beginning with the redesign of NOAA's front-door in 2016, NOAA has been working on improved cohesiveness and integration of content for both our mission sites and our corporate presence.

NOAA Fisheries unifies web presence to Acquia's cloud-based Drupal platform

The National Marine Fisheries Service is bringing a four (4)-year project to an end in September 2020, migrating 20 office-level websites into a single national site: <u>www.fisheries.noaa.gov</u>, using a cloud-based content management system.

- The NOAA Fisheries staff evaluated customer feedback and used data from their American Customer Satisfaction Index (ACSI) ratings, identifying average satisfaction ratings of 69% across legacy desktop sites. The new national site enjoys a consistent average ACSI rating of 76% for desktop, 80% for mobile, and traffic continues to increase, particularly with mobile users. Ninety-four percent of visitors have indicated the information is easy to find, 90% said they are likely to return to the site, and 85% would recommend the site to a friend.
- The new system is hosted on Acquia's Drupal 8 secure cloud platform certified by the Federal Risk and Authorization Management Program (FedRAMP) meeting NOAA's cloud requirements.
- Over 300 content contributors access the site to manage and update content. Extensive content review and testing revealed that much of the content was too technical for most audiences. After extensive content review and testing, the important information and resources on the site were evaluated to ensure clarity for each audience segment, providing important information, resources to scientific partners, commercial and recreational fishermen, students and educators, and the public.
- The new NOAA Fisheries site won a 2019 Webby Award (general websites science); 2018 Acquia Engage (for excellence in Drupal); 2019 W³ (for digital excellence); and 2018 Muse (for design).

NOAA Corporate Web Transformation

NOAA has made significant progress transforming its corporate web presence, as described in the NOAA.gov initiative description below.

NOAA Open Government Initiatives

The table below shows a list of initiatives for *NOAA*.

Operating Unit	Project	Status	Estimated Completion
NOAA	NOAA Big Data Partnership	Live / Operational	
	NOAA OneStop Data Discovery and Access Framework	Live / Operational	
	NOAA.gov	Live / Operational	
	Empowering the Public to Contribute to NOAA's Mission through Citizen Science	Live / Operational	
	CrowdMag, Non-traditional Observing of Earth's Magnetic Field	Ongoing / Continuous	
	Crowdsourced Bathymetry	Ongoing / Continuous	
	Climate.gov Portal	Ongoing / Continuous	
	Digital Object Identifiers	Live / Operational	
	Local Climatological Data (LCD)	Live / Operational	
	Integrated Severe Weather Data via GIS Map Interface	Live / Operational	
	Data Visualization Capabilities for Global Summary Data	Live / Operational	
	NOAA Wireless Emergency Alerts (WEA) and Common Alerting Protocol (CAP)	Live / Operational	

Project: Big Data Program (Flagship project)

From April 2015 - May 2019, the <u>Big Data Program</u> explored the feasibility of using publicprivate partnerships to publish NOAA's vast open data resources, and increase their use by incorporating them into cloud-based computing, analytic, and storage services provided by the private sector. This collaboration combined NOAA's tremendous volume of high-quality environmental data and private industry's vast infrastructure and technical capacity to create a sustainable, market-driven ecosystem that lowers the cost barrier to the utilization of NOAA's data. By promoting wider dissemination and lowering the barriers to use, this project demonstrably created new economic opportunities without using additional tax dollars.

The CRADA portion of the Big Data Program ended in May 2019. Subsequent to that, NOAA released a Request for Proposals (RFP) that encompassed the provisions of the CRADA phase

as well as egress concessions and a minimum of five (5) petabytes (per contract award) of allocated storage for which NOAA determines which datasets are hosted. Amazon Web Services (AWS), Google, and Microsoft were awarded BDP contracts based upon their responses to the RFP.

NOAA has published over <u>130 additional datasets</u> through the <u>Big Data Program</u> contract awardees, such as its National Water Model retrospective analysis, GOES 16 and GOES 17 satellite imagery, with many other data sets under discussion, including coastal water level, genomics, and fisheries catch data. The Program has seen expanded use of NOAA datasets on commercial cloud platforms from traditional users, while also witnessing a rapidly expanding small business sector which has embraced the business opportunities provided by having NOAA low latency data products available on highly scalable compute platforms.

These partnerships were originally created through CRADAs with Amazon Web Services (AWS), Google Cloud Platform, Microsoft, IBM, and the Open Commons Consortium. The CRADA collaborators provided NOAA's open data at no net cost to anyone that wants them. This provision was particularly instrumental in allowing interested private third parties to leverage their cloud computing capabilities to develop "big data" value-added products and services which they may monetize. Additionally, the CRADA allowed NOAA to avoid costs for its on-premises data delivery systems, which allowed the BDP to operate at no net cost to the taxpayer.

Early results indicated that the CRADA model is effective for democratizing and increasing access to NOAA open datasets. Over the course of one (1)-year, Amazon Web Services' (AWS) hosting of the complete NOAA Next-Generation Weather Radar (NEXRAD) dataset has generated 2.3 times the dissemination previously seen from NOAA systems and reduced loads on NOAA systems by 50%. Users can now utilize the entire dataset at once without downloading data, and 50% of AWS users are doing just that, allowing AWS to generate revenue to support this service.

Google's hosting of NOAA's Global Historical Climate Network and Global Surface Summary of the Day datasets, that in total are less than 10 gigabytes in size, within Google's BigQuery tool has produced over 1,200,000 gigabytes of data usage in just four (4) months. This vast scale of data dissemination is attributable to the greatly increased accessibility and ease of use of the Google tools by an audience that is much wider than the traditional meteorology community. Google is now hosting NOAA climate forecasts, satellite imagery, weather radar measurements, historical hurricane tracks, and severe weather reports from their BigQuery, Cloud Platform, and Earth Engine tools.

The BDP team cooperatively hosts information sessions with Cloud Service Providers (CSPs) and members of the public using BDP data assets. These involve inviting a NOAA subject matter expert to present on a hosted NOAA datasets and answer questions. The BDP also

regularly presents at scientific and industry conferences to make users aware of the Program and answer questions as to how they can participate. In February 2020, the BDP participated in a Roundtable with the Center for Open Data Enterprise, and other partners, including Ocean Conservancy, Esri, Microsoft, and Amazon, on putting NOAA's Ocean Data to Use. The purpose of the Roundtable was to introduce the CSPs to the Ocean community and develop a list of priority datasets for inclusion on the BDP. Future activities will include User Engagement, to ensure that Users' needs are considered. In addition, the BDP maintains a website containing information on the program, a list of hosted datasets, and contact information for how to get in touch with BDP staff. NOAA also has the BDP contact information listed on CSP dataset description pages as an additional means of getting in touch with program staff. BDP Staff frequently address users' questions/concerns and interact via the NOAA BDP contact email, Github, and social media.

Project: NOAA OneStop Data Discovery and Access Framework

Enabling Users to Discover and Access NOAA Data with OneStop

<u>OneStop</u> provides improved public discovery and access for NOAA data. The 2.0 release in 2019 supports users in finding and accessing over 26,000 archived data collections at NOAA. OneStop is in the process of replacing the existing NOAA Data Catalog to support access to all of NOAA's environmental data. OneStop leverages datasets improved by the Big Earth Data Initiative (BEDI) and includes datasets that have been cloud-enabled by the NOAA BDP. Third-party professional usability testing found that 83% of users preferred the new OneStop User Interface over the current NOAA Data Catalog interface.

OneStop builds on existing portal and web services while also infusing specific innovations to support the breadth and scale of NOAA's Big Data. The project has enabled an Open Data platform for NOAA, with robust storage solutions at the base, supporting interoperable access serviced, world-class metadata management, and standards-based discovery services following the recommendations of the USGEO Data Management Working Group's Common Framework for Earth Observing Data. In addition, OneStop developed and documented best practices for data formats and metadata content so that the various component web services are able to search, discover and display the data and metadata with a high degree of quality, consistency, and visual appeal. The user interface was built to take advantage of the high quality and consistent information presented via the web services to provide a seamless, smooth, and modern user data discovery experience. NOAA OneStop was developed and implemented by the NOAA National Centers for Environmental Information (NCEI).

Project: NOAA.gov

The <u>www.noaa.gov</u> website serves as the primary public face of the NOAA organization. The site logs nearly 100 million visits annually and is consistently one (1) of the top accessed

Federal Websites. The site connects visitors to NOAA's most requested mission-related information through focus area pages, news, and features from across NOAA. In 2019 and 2020 the site continued to evolve and expand to include more program and corporate office content directly hosted within the Drupal 7 content management framework. In 2020, development is underway to upgrade to the Drupal 8 framework, integrate the presentation of the U.S. Web Design System, and continue to expand capabilities to host programmatic information and resources from across the NOAA enterprise.

In addition to the <u>www.noaa.gov</u> site, NOAA.gov has many subdomains providing data, information, and resources across NOAA's mission and corporate focus areas. Many of these subdomains have been in existence for decades. After years of managing our organically derived and organizationally focused web presence, 2019 marked a turning point toward a more consolidated and citizen and customer-focused approach. Beginning with the <u>www.noaa.gov</u> redesign in 2016, NOAA has undertaken a multi-year initiative to transform 98 web domains and their related web sites into a more consistent offering targeting the needs of our public audience, our partners, and our internal staff.

Much of the content has been moved to internal Google sites leaving only content of direct use to citizens, our partners in the private and academic sectors as well as our colleagues in other agencies.

Public content is available on the NOAA.gov platform using Drupal 7 as the foundation providing a consistent presentation, organization, and access to the content by visitors and is easily accessible for content maintenance by managers and editors.

As of April 2020, 72% of the sites have been consolidated with a plan to address the rest by the end of the fiscal year leaving three (3) final domains, one (1) external and two (2) internal.

NOAA.gov as a singular website and a broader domain will continue to mature to meet our mission and customer experience goals. The coming year will bring further transformation and efficiencies, ensuring that NOAA's data and information resources are easy to find and accessible to all.

Project: Empowering the Public to Contribute to NOAA's Mission through Citizen Science

Through citizen science and crowdsourcing, volunteers are able to do more than just read about NOAA science, they are able to contribute to it. While NOAA has a rich tradition of supporting citizen science, the agency is continuing to grow and evolve its portfolio of projects. Coordination within the agency is accomplished through the <u>NOAA Citizen Science</u> <u>Community of Practice</u>, which has grown to include over 200 members since its launch in November of 2013.

At the interagency level, NOAA is an active founding member of the Federal Community of Practice on Crowdsourcing and Citizen Science. Through two seats on the Steering Committee, NOAA has been able to guide the rapid growth of this community. NOAA contributes significantly to CitizenScience.gov, a government-wide hub for information on the field. There are over 50 NOAA projects in the site's catalog and three (3) case studies on NOAA projects in its Toolkit. The Implementation of Federal Prize and Citizen Science Authority: Fiscal Years 2017-18 report from the White House Office of Office of Science and Technology Policy (OSTP) to Congress detailed 86 projects from 14 government agencies, 11 of which came from NOAA. In addition, NOAA's Science Advisory Board reviewed the agency's use of citizen science and issued a report and recommendations for improving the use of citizen science to support data needs for ecosystem-based science. NOAA is using these recommendations to guide next steps for citizen science at the agency.

In 2020 NOAA identified citizen science as a new <u>science and technology focus area</u> and embarked on creating an agency citizen science strategy and implementation plan. The first ever NOAA Citizen Science Workshop was held in April 2020 to help advance collaboration among agency staff. NOAA is committed to being a leader in advancing innovation through public participation

Project: CrowdMag, Non-traditional Observing of Earth's Magnetic Field

The Global Positioning System (GPS) provides accurate point locations, but it does not provide pointing directions. Therefore, the absolute directional information provided by the Earth's magnetic field is of primary importance for navigation and for the pointing of technical devices such as antennas, satellites, and smartphones. In all modern devices, pointing direction is determined by measuring the magnetic field with a vector magnetometer (compass) and comparing the measured vector with a reference magnetic field model. The precision of the resulting directional information crucially depends on the accuracy of the reference model. NOAA's National Centers for Environmental Information (NCEI) develops magnetic reference field models to aid navigation and scientific research. The US Department of Defense, Federal Aviation Administration, NOAA's Coast and Geodetic Survey, US Geological Survey and the US Forest Service use NCEI's World Magnetic Model (WMM) for navigation and charting. NCEI works with technology companies such as Google and Apple to incorporate the magnetic reference models into consumer devices with miniaturized magnetic sensors. Currently, every iOS or Android device comes pre-installed with WMM, bringing WMM to more than one (1) billion devices around the world. NCEI use magnetic data collected by observatories, satellites and ship/airborne surveys to develop magnetic models. However, the available measurements leave gaps in coverage, particularly for shortwavelength (<20 km) anomalies associated with man-made infrastructure ("urban noise") and the magnetic minerals in rocks. ("crustal magnetic anomalies").

In partnership with the Cooperative Institute for Research in Environmental Sciences (CIRES), NCEI started a crowdsourcing project (CrowdMag) to collect vector magnetic data from digital magnetometers in smartphones. The aim is to test whether NOAA can obtain meaningful magnetic data from a large number of noisier measurements thereby filling some of the gaps in the global magnetic data coverage. A phone's magnetometer measures three (3) components of the local magnetic field with a typical sensitivity of about 150 to 600 nanotesla (nT). By combining data from vector magnetometers and accelerometers, the phone's orientation is determined. Using the phone's internet connection, magnetic data and location are sent to NCEI. NOAA checks the quality of the magnetic data from all users and makes the data available to the public as aggregate maps. Currently, the CrowdMag project has about 24,000 enthusiastic users who have contributed more than 31 million magnetic data points from around the world. A preliminary global magnetic model, solely based on CrowdMag data, has been developed and is generally consistent with the large-scale component of models such as the WMM. A unique contribution of the CrowdMag project is the collection of ground level magnetic data in densely populated regions. By binning the data in closely spaced grids, it is possible to create magnetic anomaly maps of urban regions. The "CrowdMag Day" campaign at the University of Colorado during 2017 summer offered an opportunity for several student interns to become scientists for a day. For CrowdMag Day, teams of fellow interns used the CrowdMag app to measure the Earth's magnetic field on a common traverse along Boulder bike paths. Analysis of magnetic data from multiple cell phones provided insights into the data stability of different types of phones. The teams also helped in the understanding of the amplitude and scale of urban infrastructure that can interfere with magnetic signals, specifically bridges, overpasses, underpasses, and intersections.

For more information, see: <u>https://www.ngdc.noaa.gov/geomag/crowdmag.shtml</u>.

Project: Crowdsourced Bathymetry

Bathymetry, defined as the depth and shape of the seafloor, underpins the safe, sustainable, cost effective execution of nearly every human activity at sea. Yet, most of the seafloor remains unmapped and unexplored with less than 18% of the oceans having been directly measured. The vast majority of the data used to compile global seafloor maps are estimated depths derived from satellite gravity measurements which can miss or provide only coarse-resolution depictions of significant features such as seamounts, ridges and canyons. Progress in mapping coastal waters is only marginally better with estimates indicating that 50% of waters shallower than 200 m having been surveyed.

Since 2014, the International Hydrographic Organization (IHO) has focused on encouraging innovative supplementary data gathering and data maximizing initiatives, such as the collection of crowdsourced bathymetry (CSB), to help address these data deficiencies. While CSB data may not meet accuracy requirements for charting, it does hold limitless potential for other uses. These data can be used to identify uncharted features, assist in verifying charted

information, and help fill gaps where bathymetric data are scarce, such as unexplored areas of polar regions, around developing maritime nations, and the open ocean. CSB also has potential uses along shallow, complex coastlines that are difficult for traditional survey vessels to access but may be more frequently visited by recreational boaters. Most ships are inherently capable of measuring and digitally recording the depth in coastal waters and an increasing number of vessels are capable of taking measurements in deeper water, both using existing ship's equipment. The vision is to tap into the enthusiasm for mapping the ocean floor by enabling trusted mariners to easily contribute data to fill the gaps in our current bathymetric coverage.

NOAA chairs the IHO Crowdsourced Bathymetry Working Group and hosts the IHO Data Centre for Digital Bathymetry (IHO DCDB) at NOAA's National Centers for Environmental Information (NCEI). NCEI continues to enhance the DCDB infrastructure to provide archiving, discovery, and retrieval of global CSB and is now working to create a scalable point data store in a cloud environment. By storing and handling CSB as a seamless collection of points, NCEI could ultimately implement services to allow the generation of bathymetric grids, show data density that could guide future data collection efforts, provide statistics on bathymetric measurements, and allow the user to extract and download data from a given area in a user-specified format.

NOAA and the National Geospatial-Intelligence Agency (NGA) are active participants in the IHO CSB Working Group and along with other international scientific and hydrographic experts, recently finalized <u>IHO Publication B-12 – IHO Guidance on Crowdsourced</u> <u>Bathymetry</u>. This guidance document provides volunteer collectors with information about CSB, the installation and use of CSB data loggers, data quality issues, and instructions for submitting the data to the IHO data repository.

The working group is now focusing on developing strategies to encourage various maritime sectors (e.g.: cruise lines industry, regional fishing communities), either already equipped with appropriate technology or outfitted with inexpensive data loggers, to collect bathymetric data as part of their normal operations – in the same way that mariners currently and routinely observe the weather and make other marine environmental observations.

Project: Climate.gov Portal

What's New – In 2019, the Climate.gov team launched a three (3)-pronged initiative to modernize the site:

- 1. Redesign the interface based on user feedback to improve navigation, to make it mobile device-friendly, and to better aggregate content in accordance with users' interests;
- 2. Rebuild the site's back-end architecture to make it more secure, lightweight, and nimble; and

3. To migrate the site to a more robust cloud-hosting platform within NOAA's Web Operations Center.

The redesign and migration are complete and the rebuild is almost done, with public rollout of the new site anticipated in July 2020. Meanwhile, publication of new content continues weekly or monthly in each section of the site, including:

- Timely articles and data visualizations in 'News & Features', such as the popular "Visual Highlights of the 2019 Arctic Report Card;"
- Monthly updated maps in our "Data Snapshots" gallery showing ongoing changes in climate conditions in the U.S. and globally; and
- Dozens of new, classroom-ready educational resources were published in our 'Teaching Climate' catalog.

In the U.S. Climate Resilience Toolkit (CRT), the team unveiled a new, redesigned version of the "Climate Explorer"—a web-based mapping and graphing tool offering downscaled projections for every county in the contiguous U.S. and the boroughs of Alaska. In 2020, NOAA will add Hawai'i and U.S. island territories. NOAA also added two new U.S. region-focused sections, including the Great Lakes and the Upper Midwest.

NOAA Climate.gov (<u>https://www.climate.gov</u>) provides easy online access to authoritative science data and information for a climate-smart nation. Public demand for climate data and information has been growing steadily. Over its 10-year history (FY10-FY19), NOAA Climate.gov averaged 51% annual growth in visits (target was 10%). In 2019, the site received 7.8 million visits.

The site offers three (3) audience-focused sections:

- News & Features a popular-style online magazine for the climate-interested public, covering topics in climate research and science-based applications benefitting society;
- Maps & Data an easy-to-use gateway to help scientists and non-scientists to find and use climate maps and data for their own research and analysis purposes; and
- Teaching Climate a compendium of 662 classroom-ready learning activities and curriculum materials, multi-media resources, and professional development opportunities for formal and informal educators who want to incorporate climate science into their work.

Additionally, to help the nation's communities and businesses build resilience to climaterelated impacts and extreme events, NOAA's Climate.gov team developed and launched the U.S. Climate Resilience Toolkit (<u>https://toolkit.climate.gov</u>). The Toolkit is an interagency partnership operating under the auspices of the U.S. Global Change Research Program. Its primary target audiences are decision makers (e.g., city planners, resource managers, policy leaders, facility managers) and decision services professionals (e.g., analysts and consultants) who oversee or help guide, develop and implement climate adaptation plans. Public demand for the Toolkit's contents has been growing rapidly. Over its 5-year history (FY15-FY19), the U.S. Climate Resilience Toolkit averaged 35% annual growth in visits (target was 10%).

The Climate Resilience Toolkit is a web-based framework that aggregates and contextualizes scientific information, tools, and expertise to help people:

- 1. make and implement climate adaptation plans;
- 2. explore how climate conditions are changing in their location and understand how their valued assets are, or may be, exposed to climate-related hazards; and
- 3. learn what other people are doing to address climate-related hazards similar to the ones they face and learn about funding sources that can help them recover from a disaster and/or mitigate future risks.

The Toolkit offers:

- A 5-step adaptation planning process;
- A library of over 140 real-world case studies showing people taking adaptation actions all across the nation;
- A compendium of over 380 science-based decision-support tools;
- A web-based mapping and graphing tool (Climate Explorer) that helps people visualize climate projections for their county in decision-relevant variables (e.g., temperature, precipitation, heating-/cooling-degree days, and high-tide flooding at 89 locations around the U.S.);
- Ten different Topics sections with summary narratives excerpted from the 4th National Climate Assessment (NCA4) and other authoritative sources;
- Five (5) Regions sections with summary narratives excerpted from the NCA3 and other authoritative sources;
- A library of federal, state, local and tribal reports—including vulnerability assessments and adaptation action plans—from all across the nation;
- A catalog of training courses;
- Maps highlighting the locations of regional and local climate science and service centers that offer expertise and decision-support guidance; and
- A semantic search tool allowing users to search the entire federal government's climate science domain and filter results according to facets of interest.

Project: Digital Object Identifiers

NOAA's observations and forecasts are critical to the nation's commerce, decision-making, and research. When data are utilized for such purposes, it is important to be able clearly cite the data used, much as the author of an article or a book can cite sources. A key element of such citations is a unique identifier. A book can be referenced by its International Standard Book Number (ISBN), whereas an article or data can be referenced by a Digital Object

Identifier (DOI). DOIs have been assigned to journal articles since the early 2000s and are increasingly being assigned to datasets. Once a dataset has been given a DOI, it is possible to use that identifier to navigate directly to an informational web page that describes the data and includes links to obtain the data and detailed documentation. The DOI remains the same even if the data are moved to another web site or organization, so this provides a permanent ID.

As part of its Open Government activities, NOAA continues to assign data DOIs to datasets archived in its National Centers for Environmental Information (NCEI). The NOAA Central Library issues DOIs for NOAA produced publications and reports archived in the <u>NOAA</u> <u>Institutional Repository</u> (NOAA IR). The NOAA Environmental Data Management Committee (EDMC) has issued a Data and Information Citation Procedural Directive with guidelines for citing datasets and publications with DOIs and requirements for obtaining a NOAA DOI. The fundamental requirement is that data are archived at NCEI and NOAA publications are archived in the NOAA IR.

The NOAA DOI project has several benefits:

- It allows users to cite data and publications unambiguously;
- It enables NOAA to track such citations in the scientific literature;
- It encourages submission of data to the archives and publications to the NOAA IR;
- It supports the linkage of publications and data called for in the White House Office of Science and Technology Policy (OSTP) memorandum <u>Increasing Access to the Results</u> <u>of Federally Funded Scientific Research</u>; and
- It enables data producers and NOAA authors to get credit for data and publications they have properly documented and managed for long-term preservation.

NOAA will report at least quarterly the number of DOIs assigned to datasets and technical reports (the total number of NOAA DOIs is 9,900 as of March 31, 2020) and any future metrics or milestones in this initiative.

Project: Local Climatological Data (LCD)

In 2016, NCEI launched one (1) of its most popular datasets, providing updated and improved local climate summaries from several thousand locations. <u>Local Climatological Data</u> help users generate reports (known as LCDs) that summarize climate conditions for more than 2,500 weather stations and airports. LCDs are used widely across sectors from construction and transportation to courts and law offices.

The dynamically generated LCD product is available through the <u>Climate Data Online Data</u> <u>Tools web page</u>. The LCD contains more stations, including military and civilian networks, such as the U.S. Climate Reference Network (USCRN). Stations include those in the United States, U.S. territories, and global military sites totaling 2,551. Many users of LCDs require certification that indicates the record's authentication for particular uses, such as in a court of law.

The product includes hourly observations, associated remarks, and a record of hourly precipitation. The LCD also provides daily summaries of temperature extremes, degree days, precipitation amounts, and winds. Two new variables have been added: the number of days with thunderstorms and the number of days with heavy fog. Tabulations include:

- Maximum, minimum, and average temperature
- Temperature departure from normal
- Dewpoint temperature
- Average station pressure
- Ceiling and visibility
- Weather type
- Wet bulb temperature
- Relative humidity
- Heating and cooling degree days
- Daily precipitation
- Average wind speed and fastest wind speed/direction
- Sky cover and occurrences of sunshine
- Snowfall and snow depth

All data in the LCD are drawn from several datasets archived by NCEI: Global Hourly Data; Global Historical Climate Network–Daily; Global Summary of the Month; and U.S. Normals for 1981–2010.

The online tool allows users to search by country, U.S. state, territory, county, and zip code. A "View Data" feature gives users a quick look at observations for a given day. Orders can be placed for customized time periods from multiple stations. The tool provides access to NCEI station history information and equipment details. Access to the bulk LCD data downloads is available in CSV format. The cloud ready format is much simpler and reflects the archived format. It is expected that the LCD product access points will transition to Common Access in 2020. Please reference the beta version <u>here</u>.

The previously edited historical LCDs, as well as future annual editions, will continue to be available through the <u>Image and Publications System</u>. Monthly editions will no longer be published and will end after the December 2018 data month.

Project: Integrated Severe Weather Data via GIS Map Interface

This initiative provides an integrated map interface for the US, state and county-level storm damage information, lightning strike data, NEXRAD products (such as hail signature) along

with other available severe weather data from NOAA's National Center for Environmental Information (NCEI). A user of the interface may, for example, select a date (a very recent date or for a major historical event) and view the data through one (1) interface. In 2020, the first version of an <u>updated map interface</u> was released.

Dataset Used: Next Generation Radar – or NEXRAD – Level-III point features describing general storm structure, hail, mesocyclone and tornado signatures, National Weather Service (NWS) local storm reports collected from storm spotters (storm events database), summarized lightning strikes from Vaisala's National Lightning Detection Network.

Future enhancement plans include integrating this interface with the Storm Events Database and the Billion Dollar Disaster summary dataset, thus expanding the sources of data available through the interface.

While the proposed integrated map interface is not yet available, the underlying data sources are available in easy-to-use formats from web services and bulk downloads. This enables users to integrate the data in their own programs, such as ArcGIS, QGIS, Excel, and more. This also enables developers to integrate the data into their own analysis.

NEXRAD Level-III-point features describing general storm structure, hail, mesocyclone and tornado signature:

- Web Services: <u>https://www.ncdc.noaa.gov/swdiws/</u>
- Bulk Download: <u>https://www.ncdc.noaa.gov/swdi/csv.html</u>

Storm Events Database:

- Web Access and Services: <u>https://www.ncdc.noaa.gov/stormevents/</u>
- Bulk Download: <u>https://www.ncdc.noaa.gov/stormevents/ftp.jsp</u>

Billion Dollar Disasters:

• Web Access and Services: <u>https://www.ncdc.noaa.gov/billions</u>

Project: Data Visualization Capabilities for Global Summary Data

What's New – Summarized climate conditions are being displayed in a GIS map viewer for key geographic, commercial, and demographic regions. This application represents US interests which will be extended globally upon completion of the project.

As a dynamic mapping application for Global Summary Data from NOAA's National Center for Environmental Information (NCEI), <u>Global Daily Summaries</u> and <u>US Climate Indices</u> displays colorized maps for average, minimum, maximum temperature, and precipitation, snowfall and snow depth for all global locations, for any point in time. This application

provides new capabilities via online services, to include implementation of the following example use cases:

- An agricultural company can view information regarding a recent heavy rainfall event to assist in determining the area's most susceptible to nitrogen-leaching and would require supplemental fertilization for crops.
- The USDA can view temperature data from a recent heat wave to determine regions which are likely to suffer from lower crop yields due to high temperatures.
- In post-storm event analysis (such as a major hurricane), the data can be quickly viewed to correlate damage reports with climatological data.
- Parameters such as temperature, precipitation, and snow depth have visualization capabilities via colorized maps, for all global locations, for any point in time. This includes over 30,000 currently active stations. For example, users are able to select a date (very recent date or for a major historical event) and view a color-plot of the data, such as minimum temperature. Additional station locations are being added to this dataset, to provide better spatial coverage.

US spatial constraints that can be applied include: states, counties, USDA HUCs (two (2), four (4), six (6), and eight (8)), river basins, USDA agriculture regions, climate divisions, climate regions, NCEI agricultural belts, NWA forecast offices, and zip codes.

Dataset Used: Global Historical Climate Network (GHCN)-Daily, comprising daily summary data (e.g., maximum/minimum temperature, precipitation, snowfall) for global locations.

Project: NOAA Wireless Emergency Alerts (WEA) and Common Alerting Protocol (CAP)

What's New – Major Improvements to Life-Saving Public Alerts

Wireless Emergency Alerts (WEA) are text-like emergency messages sent by alerting authorities through the Federal Emergency Management Agency's (FEMA) Integrated Public Alert and Warning System (IPAWS) to cell phones via commercial wireless carriers. WEA is an opt-out service and there is no charge to consumers. NOAA's NWS activates WEA for Tsunami, Tornado, Flash Flood, Hurricane/Typhoon, Storm Surge, Extreme Wind, Snow Squall, and Dust Storms Warnings. NWS activation of WEA has been credited with saving numerous lives.

WEA is a partnership between public safety officials, FEMA, Federal Communications Commission (FCC), the Department of Homeland Security (DHS), and NOAA's National Weather Service (NWS). Each WEA message is geographically targeted to cell phones using cell broadcast technology. Cell broadcast uses radio technology to deliver the alert to cell phones via cell towers which are inside and/or adjacent to the threat area as defined by the alerting authority. The use of radio broadcast technology means WEA is not subject to network congestion as with traditional point to point SMS text messaging.

In December 2019, wireless carriers began rolling out a major geographical targeting enhancement that is capable of delivering WEA messages to cell phones inside the warning polygon with no more than 0.1 of a mile overshoot. This enhancement is a result of significant collaboration among the WEA partners. Wireless industry is increasingly making cell phones available on the market which are compatible with the geotargeting enhancement.

In December 2019, WEA was also upgraded to allow for up to 360 characters in the WEA message, or four (4) times the previously allowed maximum of 90 characters. The upgrade also includes support for Spanish language alerts if provided by alert originators. NWS is taking advantage of the new capability by implementing WEA messages up to 360 characters and Spanish language WEA around Fall 2020.

See https://www.weather.gov/wrn/wea for more information about NWS activation of WEA.

The NWS system which enables NWS activation of WEA is HazCollect Extended. HazCollect Extended ingests NWS' traditional teletype style alerts, parses them into their most atomic parts, reproduces each alert in Common Alerting Protocol (CAP) format, and transmits each CAP message to FEMA IPAWS. CAP is based on Extensible Markup Language (XML) and is an industry standard for the exchange of emergency alert information. FEMA IPAWS is this nation's all-hazard alert aggregator and serves as a gateway to wireless carriers for WEA as well as broadcasters for the Emergency Alert System (EAS), and a variety of other dissemination channels. NWS CAP messages which warrant WEA activation are specifically marked so that IPAWS only passes those alerts to wireless carriers.

However, FEMA IPAWS and WEA are just a couple of the many NWS CAP users. NWS CAP messages are also made available over NWS dissemination channels for consumption by numerous other commercial and non-commercial entities who redistribute these alerts to the general public. See <u>http://alerts.weather.gov</u> for more information about NWS produced CAP.



National Telecommunications and Information Administration (NTIA)

NTIA is the Executive Branch agency that is principally responsible for advising the President on telecommunications and information policy issues. NTIA's programs and policymaking focus largely on expanding broadband Internet access and adoption in America, expanding the use of spectrum by all users, and ensuring that the Internet remains an engine for continued innovation and economic growth.

NTIA has a range of activities to facilitate the public's access to information. NTIA is making Census Current Population Survey Internet use data available in the <u>Data Central</u> section of its website, and has developed an interactive tool to help site visitors find time series data quickly. This information informs efforts to increase broadband access and adoption, thereby supporting economic growth. Other initiatives include updates to the federal spectrum compendium, and ongoing multi-stakeholder policy processes.

Open Data

NTIA publishes datasets and APIs at <u>data.gov</u> and on its websites. The Data Central section of NTIA's website, <u>www.ntia.doc.gov/category/data-central</u>, is home to data and analysis on computer and Internet use in the United States. Data on Federal frequency assignments in the 225 to 6000 MHz bands by agency, band, and radio service are posted at <u>spectrum.gov</u> and <u>https://www.ntia.doc.gov/other-publication/2017/federal-government-spectrum-compendium</u>.

Proactive Disclosures

NTIA publishes on its websites extensive information throughout its grants-making processes, including grant applications, awards documents, and quarterly and annual reports. This supports both the transparency goal as well as providing the public with information that otherwise would have to be obtained through FOIA requests.

Privacy

NTIA OCIO prepares compliance reports such as those required under the FISMA. The NTIA follows departmental guidance from the Office of Privacy and Open Government. The Office of Policy Coordination and Management (OPCM) requires IT security awareness training that covers Personally Identifiable Information to new employees during in-processing, as well as annual computer-based training. A list of available Privacy Impact Assessments is posted at <u>https://www.ntia.doc.gov/page/ntia-privacy-impact-assessments</u>.

Whistleblower Protection

NTIA follows departmental guidance from the Office of Inspector General. NTIA Associate Administrators send reminders to employees that any instance of waste, fraud and/or abuse should be reported to their supervisor, the office head, other Department officials or the OIG, without fear of retaliation. NTIA employees also receive periodic No Fear Act training.

Websites

NTIA uses websites as an effective tool to disseminate information about its programs and activities. The main website is <u>www.ntia.gov</u>; information on grant programs and the BroadbandUSA initiative is at broadbandusa.ntia.doc.gov; telecommunications research and engineering services and technical reports at NTIA's Institute for Telecommunication Sciences are featured at <u>www.its.bldrdoc.gov</u>; and the First Responder Network Authority (FirstNet), an independent authority within NTIA that is deploying a nationwide public safety wireless broadband network, provides extensive information at <u>www.firstnet.gov</u>.

Access to Scientific Data and Publications

NTIA's Institute for Telecommunication Sciences (ITS) performs cutting-edge telecommunications research and engineering with both federal government and private sector partners. As its research and engineering laboratory, ITS supports NTIA by performing the research and engineering that enables the U.S. Government, national and international standards organizations, and many aspects of private industry to manage the radio spectrum and ensure that innovative, new technologies are recognized and effective. ITS has maintained physical archives of its technical reports going back to the 1960s and has been actively engaged in making them available electronically for over a decade.

Increasingly, technology transfer occurs through the publication of software rather than traditional technical reports, and NTIA makes an increasing number of software and data tools available via open-source download. ITS published the first computerized method for radio wave propagation prediction in 1968 and connected its main laboratory and the Table Mountain Field Site and Radio Quiet Zone to the ARPAnet (the predecessor of the Internet) in 1972. ITS software implementations of propagation models and technical data were being disseminated via Internet by the early 1990s on one (1) of the first federal web sites: www.its.bldrdoc.gov, through which

ITS continues to transfer research results to the public. NTIA/ITS has increasingly turned to GitHub to disseminate ITS-developed software, and by FY 2019 had 21 public repositories. While the GitHub open source platform allows more engagement with potential users of the software, the open source paradigm also makes it more difficult to understand the impact of the software. In collaboration with other federal laboratories, ITS continues to explore the development of meaningful impact metrics for GitHub-posted code.

In FY 2017, ITS made public the first important software implementation of a propagation model to be released via the GitHub platform. The C++ implementation of the Extended Hata (eHata) Urban Propagation Model was used to inform regulation, and the repository was forked by the Wireless Innovation Forum (WInnForum), which redistributed it to industry members for use in developing the Spectrum Access Systems (SAS) that will enable spectrum sharing in the 3.5 GHz (CBRS) band using a novel three (3)-tier architecture that includes database-driven opportunistic sharing.

Transparency

NTIA publishes on its websites extensive information throughout its grants-making processes, including grant applications, awards documents, and quarterly and annual reports. The FirstNet Board of Directors webcasts its quarterly meetings, as well as committee meetings. Meetings of the Commerce Spectrum Management Advisory Committee are also webcast, as are all multi-stakeholder process meetings.

Public Notice

NTIA uses its public websites for sharing information and providing opportunities for participation and collaboration with the public. *Federal Register* notices of public meetings and requests for comment are posted on <u>www.ntia.doc.gov</u> and <u>www.firstnet.gov</u>. All comments in public comment proceedings are also posted. Numerous listservs provide announcements of events and activities. NTIA provides links to Twitter, Facebook, YouTube, and LinkedIn accounts, as well as RSS feeds, to publicize its publications and activities.

Records Management

NTIA is in the process of moving from paper to electronic records management in accordance with NARA guidelines.

Freedom of Information Act Requests

FOIA requests to NTIA must be in writing and can be submitted by mail, email, fax, or via the Department's FOIA Online system. NTIA uses FOIA Online as one (1) method for receiving

FOIA requests and for tracking requests. A webpage of instructions on filing a FOIA request as well as contact information is at <u>www.ntia.doc.gov/page/2011/foia-information</u>.

Congressional Requests

NTIA receives congressional inquiries by phone, letter, and email. The Office of Congressional Affairs in the Office of the Assistant Secretary works with the Department's Office of Legislative and Intergovernmental Affairs to respond to inquiries promptly.

Declassification

The NTIA has no original classification authority.

Participation and Collaboration

NTIA uses its public websites for sharing information and providing opportunities for participation and collaboration with the public. *Federal Register* notices of public meetings are posted on <u>www.ntia.doc.gov</u> and <u>www.firstnet.gov</u>. All comments in public comment proceedings are posted. Many public meetings are webcast and opportunities to participate by teleconference are provided. NTIA provides links to Twitter, Facebook, YouTube, and LinkedIn accounts, as well as RSS feeds, to publicize opportunities for participation and collaboration.

NTIA's Institute for Telecommunication Sciences hosts the International Symposium on Advanced Radio Technologies (ISART) that brings together government, academia, and industry leaders for the purpose of collaborating on groundbreaking developments and applications of advanced radio technologies.

NTIA Open Government Initiatives

The table below shows a list of initiatives for *NTIA*.

Operating Unit	Project	Status	Estimated Completion
NTIA	Establishing Online Access to Results of Broadband Survey	Live / Operational	
	Publishing Federal Spectrum Transition Plans	Live / Operational	
	Creating a Federal Spectrum Compendium	Live / Operational	

Table 12 - NTIA Initiatives

Operating Unit	Project	Status	Estimated Completion
	Multi-stakeholder Privacy Policy Process	Ongoing	
	BroadbandUSA	Ongoing	

Project – BroadbandUSA

NTIA launched the BroadbandUSA website -- broadbandusa.ntia.doc.gov -- to inform the public about NTIA's work to expand broadband connectivity through educating, convening and assisting stakeholders. The website serves as a one-stop shop for broadband information around the federal government and makes it much easier for users to find events, webinars and publications they need.

The online portal supplements ongoing BroadbandUSA work to help local and state governments, industry and nonprofits obtain the tools they need to expand broadband connectivity and promote digital inclusion. For example, BroadbandUSA continues to assist information sharing among states through the State Broadband Leaders Network (SBLN). The SBLN provides an invaluable perspective about what is working and the barriers and gaps that persist at the state and local level. At the same time, NTIA also hope they can serve as an important link to communities that may benefit from BroadbandUSA services, which includes technical assistance to state and local governments, industry and non-profits on a range of broadband projects.

Project – Establishing Online Access to Results of Broadband Survey

NTIA has periodically sponsored data collections on Internet use and the devices Americans use to go online as a supplement to the Census Bureau's annual Current Population Survey. The most recent surveys were conducted in October 2009, October 2010, July 2011, October 2012, July 2015, and November 2017. Through this effort, NTIA is examining why people do not use high-speed Internet service and is exploring differences in Internet adoption and usage patterns around the country and across socio-economic groups. NTIA and the Census Bureau release these data in open, Web-based formats, making the survey instruments and associated reports as widely available as possible. The Data Central section of NTIA's website, <u>www.ntia.gov/category/data-central</u>, is home to this data. The Data Explorer tool enables users to select from dozens of metrics tracked over time, as well as a number of demographic characteristics, and charts the requested data in multiple formats.

Project – Publishing Federal Spectrum Transition Plans
In March 2014, the Federal Communications Commission (FCC) adopted rules governing use of spectrum in the 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz bands for Advanced Wireless Services (AWS-3). The FCC, in collaboration with NTIA and the federal agencies, reallocated from federal use to non-federal use the 1695-1710 MHz and 1755-1780 MHz bands. Most of the incumbent federal systems currently using the 1755-1780 MHz band will relocate out of the band, but the FCC's rules also provide for indefinite sharing with a limited number of federal systems. Federal entities have submitted transition plans to NTIA, and NTIA has compiled and consolidated the estimated costs and timelines contained in the agency transition plans. In September 2014, NTIA published on its website the individual agency transition plans, and all plan data spreadsheets in machine readable format. Updated plan data as well as aggregated Frequency/ Location/ Timeline data and aggregated Costs and Timeline data in XML and JSON formats were published in November 2019.

The FCC announced plans for a Citizens Broadband Radio Service CBRS spectrum auction in the 3550-3650 MHz band. The Commercial Spectrum Enhancement Act enables federal agencies to seek reimbursement for transition costs associated with an auction, and these plans must be made public no later than 120 days before the auction begins. NTIA provided initial estimates of sharing costs to the FCC in December 2019. These estimated costs were reviewed by OMB and approved by Congress. The final transition plans are posted on the NTIA website.

Project – Creating a Federal Spectrum Compendium

In April 2014, NTIA published a compendium of federal spectrum use in the 225 megahertz through five (5) gigahertz bands—prime real estate that has prompted the most interest from both federal and commercial users. The compendium contains information for each frequency band in which the federal government has significant operations on an exclusive or shared basis. NTIA's compendium shows agencies need spectrum for crucial tasks ranging from military flight testing to air traffic control to weather forecasting. The band reports provide a band-by-band description of how spectrum is used by federal agencies, the number and type of frequency assignments NTIA has authorized, and the percentage of frequency assignments by category. In addition, the data also feature contour maps showing where federal systems that utilize spectrum are located across the country. The compendium was made available initially in pdf format. NTIA first made the compendium data available in machine readable formats in FY 2015 and NTIA updates the information periodically. In FY 2017, NTIA expanded the compendium with ten new reports and data covering the five (5) through six (6) gigahertz bands.

Project – Multi-stakeholder Processes

In July 2012, NTIA began its first domestic multi-stakeholder privacy policy process, bringing together representatives from technology companies, trade groups, consumer groups, academic institutions and other organizations to develop a code of conduct on mobile application

("mobile app") transparency. A number of companies have adopted or are beginning to implement the code of conduct for mobile app transparency. A second multi-stakeholder process, begun in February 2014, focused on crafting privacy safeguards for the commercial use of facial recognition technology. A third multi-stakeholder process, begun in August 2015, focused on privacy, accountability, and transparency issues concerning Unmanned Aircraft Systems (UAS). NTIA began a multi-stakeholder process in September 2015 concerning the collaboration between security researchers and software and system developers and owners to address security vulnerability disclosure. And finally, NTIA began a multi-stakeholder process in September 2016 on fostering the advancement of the Internet of things.



National Technical Information Service (NTIS)

T raditionally, NTIS has served as the Federal Government Clearinghouse for scientific, technical information (STEI) and data produced by or for Federal agencies (15 U.S.C. 1151 et seq. and 3704b) to the public and industry. NTIS still maintains the world's most comprehensive collection of U.S.-sponsored research. As part of "America's Data Agency," the Department, NTIS helps federal agencies make better decisions about data, with data, to promote American innovation, scientific research, technology transfer and economic growth. Our 21st century mission focus is to provide the support and structure that helps federal agencies to securely store, analyze, sort, and aggregate data in new ways. NTIS along with our Joint Venture program (private-sector partners) works side-by-side with universities, nonprofits and industry professionals to create new ways to experiment with data science technologies that benefit the American public.

NTIS Open Government Initiatives

The table below shows a list of initiatives for NTIS.

Operating Unit	Project	Status	Estimated Completion
NTIS	 National Technical Reports Library (NTRL) Online access to an electronic library of over 3 million bibliographic records (dating from 1964) Links to over 990,000 corresponding full-text reports Coverage from the late 1890's to present (most reports date from the 1970's to present.) Launched Open NTRL on October 1, 2016. Open NTRL is freely available worldwide and includes the following advanced search capabilities: Search by title words Search by source agency Search by author Search limited to documents available in full text Search results providing access to all available full text reports in digital format. 	Addition of born digital documents received Converting legacy content to digital format for inclusion	Ongoing

Operating Unit	Project	Status	Estimated Completion
	 Data Science Platforms Support federal government collection and use of enormous amounts data about everything from weather and climate to statistics on the U.S. economy, population, and demographics to trade statistics by market and industry, including jobs supported by exports Select merit-based Joint Venture Partners (JVP); periodic Federal Register Notices (FRN) Establish team of Data Scientist and Chief Data Officer NTIS receives a request from a federal agency for innovative data services Conduct a merit-based competition among NTIS interested JVPs. Annual Federal Data Summits Federal Data Meeting Data Innovation Day Collaboration with AFCEA, ATARC, and ACT-IAC. 	Onboard Onboard Project Evaluation; Selections Completed Completed Scheduled	2016, 2020 Ongoing Ongoing April 2017 March 2018 Fall 2020

Project – National Technical Reports Library (NTRL)

The NTRL provides access to the largest collection of U.S. Government-sponsored technical reports. There is metadata for more than three (3) million records with links to approximately 990,000 digitized full-text reports. The NTRL provides an open environment for public access to the results of U.S. Government-sponsored basic and applied research.

The development of the NTRL is rooted within NTIS' basic authority to operate a permanent clearinghouse of scientific and technical information as codified in chapter 23 of Title 15 of the United States Code (15 U.S.C. 1151-1157). This chapter also established NTIS' authority to provide products and services in a cost sustainable manner. Federal Agencies are required to provide their research results to NTIS per the American Technology Preeminence Act (ATPA), and the results are available to the public in perpetuity.

Project – Data Science Platforms

The Department's <u>National Technical Information Service</u> has established partnerships with more than 30 organizations through a merit-based process as eligible to be joint venture partners (JVPs). The organizations, which include small and large companies, nonprofits and research groups, are eligible to compete to work with NTIS on groundbreaking data projects conducted for and funded by federal agencies.

The federal government collects an enormous amount of useful data for evidence based decision making about everything from weather and climate to statistics on the U.S. economy, population and demographics to trade statistics by market and industry, scientific advancements to innovation products and services, including jobs supported by exports. However, many barriers exist for efficiently using, sharing, analyzing, and gaining insights from these national data resources, either alone or in combination with non-federal data. "We want to accelerate the data innovation process by quickly connecting private sector experts with agencies striving to create smart cities, deliver critical public services, enhance operational excellence or improve accessibility and interoperability among national data sets," said NTIS Director Avi Bender.



United States Patent and Trademark Office (USPTO)

USPTO is the federal agency for granting U.S. patents and registering trademarks. In doing this, the USPTO fulfills the mandate of Article I, Section 8, Clause 8, of the U.S. Constitution to "promote the progress of science and the useful arts by securing for limited times to inventors the exclusive right to their respective discoveries." The USPTO registers trademarks based on the Commerce Clause of the Constitution (Article I, Section 8, Clause 3). Under this system of protection, American industry has flourished. New products have been invented, new uses for old ones discovered, and employment opportunities created for millions of Americans. The strength and vitality of the U.S. economy depends directly on effective mechanisms that protect new ideas and investments in innovation and creativity. The continued demand for patents and trademarks underscores the ingenuity of American inventors and entrepreneurs. The USPTO is at the cutting edge of the nation's technological progress and achievement.

The USPTO advises the President, the Secretary of the Department of Commerce, and U.S. government agencies on intellectual property (IP) policy, protection, and enforcement; and promotes the stronger and more effective IP protection around the world. The USPTO furthers effective IP protection for U.S. innovators and entrepreneurs worldwide by working with other agencies to secure strong IP provisions in free trade and other international agreements. It also provides training, education, and capacity building programs designed to foster respect for IP and encourage the development of strong IP enforcement regimes by U.S. trading partners.

USPTO Open Government Initiatives

The table below shows a list of initiatives for USPTO.

Table	14 -	USPTO	Initiatives
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Operating Unit	Project	Status	Estimated Completion
USPTO	Improving Transparency	Ongoing/ Continuous	
	Data Visualization Center	Live/ Operational	

Operating Unit	Project	Status	Estimated Completion
	USPTO Open Source Code on Github	Live/ Operational	
	Open Data Program	Live/ Operational	
	FOIA and Congressional Requests	Live/ Operational	
	Improving Participation	Ongoing/ Continuous	
	Regional Offices	Live/ Operational	
	Inventor Resource/Training Programs	Live/ Operational	
	Independent Inventors Conferences	Live/ Operational	
	COVID-19 Resource Center	Live/ Operational	
	Expanding Innovation Hub	Live/ Operational	
	Improving Collaboration	Ongoing/ Continuous	
	Customer Partnership Meetings	Ongoing/ Continuous	
	Artificial Intelligence task force	Live/ Operational	
	Public Advisory Committees	Live/ Operational	

Project: Improving Transparency

Data Visualization Center. The <u>Data Visualization Center</u> is a quick source of USPTO information regarding processing and quality measures in Patents, Trademarks, the Office of Policy and International Affairs, and the Patent and Trademark Trial and Appeal Boards. It is available on the USPTO home page by selecting *Learning and Resources* and subsequently choosing *Open Data and Mobility*. Once there, users have the opportunity to see "dashboards" of specific data from each business unit, updated on a quarterly basis.

Open Source Code on Github. Consistent with the Federal Source Code Policy and in support of Open Government Initiatives, the USPTO continues to publish content on Github. This repository provides source code and artifacts for accessing public patent and trademark data.

Open Data and Research datasets. Open data from the U.S. Government is an important national resource, serving as fuel for innovation, scientific discovery, and commercial activity. It is central to a more efficient, transparent, and collaborative democracy.

The USPTO generates and distributes, both internally and externally, a vast amount of data each day. The USPTO has an enterprise data inventory that includes patent, trademark, and policy-related data that are used by independent inventors, start-ups to large corporations, law

firms, strategic patent analytics companies, academia, government agencies, foreign IP offices (e.g., European Patent Office (EPO), State Intellectual Property Office (SIPO), Korean Intellectual Property Office (KIPO), and Japan Patent Office (JPO)), and the public at large.

The <u>Developer Hub</u> or Open Data Portal enables Intellectual Property researchers, businesses and individuals to easy access IP data via bulk download, targeted search and by APIs.

In FY2019, work focused on improving the USPTO's APIs to provide the public with better access to the USPTO's data through the cloud-based open data portal. The expansion of the USPTO's "API Catalog" included providing bulk search and download capabilities of patent documents, allowing users to search Trademark images with a Trademark image search feature, adding PTAB decision notification, and securing the underlying developer platform and user-experience enhancements.

This work was further expanded through the USPTO's first production deployment of a publicfacing product that uses artificial intelligence for data extraction to unlock a legacy data set called enriched citations. By using artificial intelligence techniques, the USPTO was able to leapfrog its legacy systems to harmonize office action data to that of other international offices, from several years to a few months to delivery. By using these same techniques, the USPTO released to the public another one the most sought-after data sets in the form of 10 million fulltext searchable office actions. The "Office action" is a written notification to the applicant of the examiner's decision on patentability discloses the reasons for any rejections, objections, or requirements. By doing so, the USPTO provided the public with greater insight into the patent evaluation process, allowing users to quickly view information about prior art cited in specific patent application office actions.

Another key deliverable this year was the rapid development of the "Patents 4 Partnerships" platform, going from idea to full public production in <u>10 days</u>. The IP Marketplace Platform provides a voluntary listing of patents and patent application publications indicated as "available for licensing" on external public websites or in the USPTO Official Gazette Notices. The platform enables businesses to easily search for COVID intellectual property information to facilitate the arrival of critical inventions to the market to meet the challenges of this crisis.

In the 4 years Developer Hub has been in production, the volume and breadth of available of data has increased substantially as well as the number of research reports and visualizations if IP data has also increased significantly. To continue to have easy to access open data, Developer Hub was redesigned this year with a more intuitive interface and the USPTO's first Chatbot making the search for data process easier.

To advance research on matters relevant to intellectual property, entrepreneurism, and innovation, the Office of Chief Economist (OCE) releases research datasets to allow for study of the economics of patents and trademarks--an element in the USPTO economics research

agenda. OCE presents these data for the first time in forms convenient for public use and academic research, consistent with the agency's responsibility to make patent and trademark information open and transparent. OCE has developed supplementary documentation providing a comprehensive description of datasets and offering initial findings.

Freedom of Information Act Requests. The USPTO has an excellent capacity to respond to FOIA requests in a timely manner and processed 427 requests in FY17. The USPTO FOIA Office continues to monitor and examine the processing of FOIA requests received each year to determine how FOIA processing can be further improved. The USPTO continues providing additional training to USPTO FOIA personnel, records custodians, and other agency personnel.

Congressional Requests. In addition to a dedicated mailbox, <u>congressional@uspto.gov</u>, for constituent issues, the USPTO redesigned the Office of Governmental Affairs (OGA) webpage to a more useful format. OGA has nine (9) personnel, with one (1) person dedicated to handling Congressional requests. When a request is received, staff consults with Patents or Trademarks accordingly. The OGA director reviews the Congressional query, the researched answer and responds to Congress. The requests are not made public, as they often refer to specific patent applications that are privacy-protected by law for a specific period of time.

Project: Improving Participation

Regional Offices/Outreach. USPTO operates a headquarters and Eastern Regional Outreach Office in Alexandria, Virginia and four additional regional offices across the nation. Combined, these provide inventors, entrepreneurs, and small businesses an USPTO presence in every U.S. time zone. Staff in our offices work closely with intellectual property practitioners and services, startups, and job-growth accelerators. They also collaborate with local science, technology, engineering and mathematics organizations on outreach and educational programing.

Stakeholder Training on Examination Practice and Procedure (STEPP) for independent inventors

STEPP is a three (3)-day, in-person course designed to provide external stakeholders with a better understanding of how and why an examiner makes decisions while examining a patent application. The training is led by patent examination SMEs and the material used within the program is derived from training delivered to patent examiners and other USPTO employees. Participants learn how an examiner is taught to use the Manual of Patent Examining Procedure (MPEP) to make patentability determinations and gain a perspective of an examiner's point of view that may increase their situational awareness and aid in compact prosecution.

Inventors Assistance Center (IAC)

Independent inventors can contact the USPTO's IAC for help on a variety of issues. Staffed by former, experienced Supervisory Patent Examiners and Primary Examiners, the IAC provides patent information and services to the public including assistance with filling out forms and general information on relevant rules, procedures, fees and patent examining policy.

Pro Se Assistance Program

Recognizing that the cost of legal assistance for preparing and prosecuting a patent application is prohibitive for many independent inventors and small business concerns, the USPTO launched the Pro Se Assistance Program, the first of its kind, to help inventors protect their valuable intellectual property. This user group is as diverse as the inventions they seek to protect and include everyone from students to veterans, retirees, and Doctor of Philosophy (PhDs).

This program helps make the U.S. patent system more transparent and reduces obstacles for unrepresented patent applicants. It also enhances assistance to independent inventors and small businesses during the prosecution of their applications, provides targeted support to connect independent inventors and small businesses with relevant IP related resources and information and educates pro se applicants on the patent process and IP resources available.

Patent Pro Bono Program

This program provides under-resourced inventors across the U.S. opportunities to secure legal assistance for their patent needs. Patent practitioners donate their time to help inventors who cannot afford to obtain legal advice on the filing and prosecution of patent applications. Inventors and small businesses that meet certain financial thresholds and other criteria may be eligible for free legal assistance in preparing and filing a patent application. The Patent Pro Bono Program is a nationwide network of independently operated regional programs that match volunteer patent professionals with financially under-resourced inventors and small businesses for the purpose of securing patent protection. Each regional program provides services for residents of one or more states.

Scam Prevention

While the USPTO does not investigate complaints or participate in any legal proceedings against invention promoters/promotion firms, under the <u>American Inventors Protection Act of 1999</u>, the USPTO provides a public forum for the publication of complaints concerning invention promoters/promotion firms. Also, in the forum, the USPTO publishes responses to the complaints from the invention promoters/promotion firms.

USPTO accepts complaints filed against invention promoters/promotion firms and forwards these complaints to the invention promoters/promotion firms for response. As mentioned above, both the complaints and the responses are published in the public forum so that they

will be publicly available. USPTO does not accept complaints submitted under this system if the complainant requests confidentiality.

Patent and Trademark Resource Centers (PTRCs)

Obtaining a patent for an invention without representation can be challenging for independent inventors and small business owners. Although USPTO's internet site hosts a wealth of information about how to navigate through the process, the amount of information and various automated tools available to search for prior art can be overwhelming for a novice.

Authorized by 35 U.S.C. 12, PTRCs disseminate patent information and support the diverse intellectual property needs of the public. PTRCs provide the human touch that is often so very beneficial when helping inventors and small businesses navigate through the patent process and find information, they need to protect their intellectual property.

Law School Clinic Certification Program

The Law School Clinic Certification program allows law students enrolled in a participating law school's clinic program to practice Intellectual Property Law before USPTO under the strict guidance of a Law School Faculty Clinic Supervisor. The program currently consists of students practicing in both patent and trademark law before the USPTO. The program is administered by the Office of Enrollment and Discipline. The Director of the Office of Enrollment and Discipline grants the law students limited recognition to practice before the Office.

Students gain experience drafting and filing either patent applications or trademark applications for clients of the law school clinic. Further, as they are authorized to practice before the USPTO, they gain experience answering Office Actions and communicating with either patent examiners or trademark examining attorneys for the applications they have filed.

Inventors Eye. This quarterly electronic newsletter is for and about America's independent inventor and small business community. Issue features information inventors can use; tips on working with the USPTO; events, organizations and meetings of interest to the inventor community; issues that impact independent inventors and small business owners; and stories about people who have become successful inventors.

Independent Inventors Conferences

USPTO hosts a number of annual conferences that provide a venue for intellectual property and small business subject matter experts to deliver valuable information regarding intellectual property and commercialization best practices that can help attendees be better positioned for success. USPTO also invites participation at these events by representatives of federal and local resources such as the Copyright Office, Small Business Association, Minority Business Development Agency, attorneys from the Intellectual Property Law Associations, and subject matter experts in marketing.

Independent inventors and small business owners are also invited to share their personal experiences, success stories, and best practices for obtaining intellectual property rights without representation.

Women's Entrepreneurship Symposium

The USPTO hosts the Women's Entrepreneurship Symposium to recognize the key role that women play in fostering innovation and entrepreneurship. This event provides an opportunity for the USPTO to provide a platform for IP subject matter experts to share knowledge with women-owned businesses. The event is also a great opportunity for innovators and entrepreneurs, both men and women, to network and interact with officials from USPTO.

Invention-Con

Innovators, small business owners, students, IP lawyers, educators, and entrepreneurs from across the country converge annually at Invention-Con. This two-day event gives inventors, markers, and entrepreneurs the chance to learn how to use your IP to achieve success from accomplished innovators, inventors, entrepreneurs, and business owners. It provides education on resources available to assist throughout the innovation ecosystem as well as valuable information to assist with developing an IP strategy from IP and business experts.

COVID-19 Response Resource Center

The USPTO's COVID-19 Response Resource Center is a central hub for information about the USPTO's efforts and other helpful information in response to the COVID-19 outbreak. It provides a centralized resource about the various actions the USPTO is taking to accelerate innovation, keep our stakeholders informed of recent developments, and promote new technologies.

Expanding Innovation Hub

The Expanding Innovation Hub is designed to be a springboard for inventors and organizations, as well as to inspire the continued conversation about growing the numbers of women and other under-represented people in the innovation economy. It is a one-stop shop for inventors to learn about how to protect their inventions using USPTO resources, and for organizations to learn about best practices to increase participation of under-represented groups within their ranks. On the Hub, there are materials to help inventors learn how to navigate the process, as well as resources to help organizations establish their own mentoring and

community group programs to foster new inventors within their ranks from under-represented communities. The hub can be found at <u>https://www.uspto.gov/initiatives/expanding-innovation.</u>

Project: Improving Collaboration

USPTO has a number of mechanisms that allow the public to participate in the agency's core mission. These programs allow the agency to obtain ideas from and increase collaboration with those in the private sector, non-profit, and academic communities.

Artificial Intelligence Task force. One of the agency's top priorities has been to ensure that the United States maintains its leadership in innovation, especially in emerging technologies such as AI. USPTO has been actively engaging with the innovation community and experts in AI to determine whether further guidance is needed to promote the predictability and reliability of intellectual property rights relating to AI technology and to encourage further innovation in and around this critical area. More information on these efforts can be found at https://www.uspto.gov/initiatives/artificial-intelligence.

Customer Partnership Meetings (CPMs)

One such mechanism is CPMs, which are built upon the engagement of both internal and external stakeholders to provide enhanced communication channels. This provides a valuable opportunity for external stakeholders to meet directly with USPTO representatives in a collaborative forum. CPMs allow USPTO to share plans and operational efforts to better educate and inform stakeholders. These meetings also enable the patent community to share ideas, experiences, and insights as well as discuss patent examination policies and procedures, mutual concerns, and solutions to common problems.

Public Advisory Committees (PACs)

The PACs for the USPTO were created by statute in the <u>American Inventors Protection Act of</u> 1999 to advise the Under Secretary of Commerce for Intellectual Property and Director of the USPTO on the management of the patent and the trademark operations. The PACs consist of citizens of the United States chosen to represent the interests of the diverse users of USPTO. The PACs review the policies, goals, performance, budget, and user fees of the patent and trademark operations, respectively, and advise the director on these matters. Appointments to the PACs are made by the Secretary of Commerce.