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Secretary's Message

'm excited to present the U.S. Department of Commerce's 2018–2022 Strategic Plan. It sets out the priorities I've established for the Department and informs the public about our important work.

The Department of Commerce has one overarching purpose: **Helping the American Economy Grow**.

American workers and businesses operate in a rapidly changing and increasingly competitive world. To address these challenges, we have developed bold new strategies to accelerate and promote U.S. economic growth and opportunity.



Knowing that innovation is a key driver of economic advancement, we are placing an 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. Our patent professionals are also working to improve the protection of intellectual property so that creators can profit from their inventions.

U.S. businesses must export more, and our workers deserve a level playing field. Enforcing our trade laws to ensure that trade is free, fair, and reciprocal is a top priority of the Department. We are also joining with all federal agencies in cutting red tape that drives up costs and puts American workers and businesses at a disadvantage.

To maintain America's leadership in next-generation technologies, we are making important advances in data, cybersecurity, and encryption technology. Our economists and statisticians are improving Commerce data that American businesses and communities use to plan investments and identify growth opportunities. Every level of the Department will be engaged to ensure that we conduct the most accurate, secure, and technologically-advanced decennial census in history.

Finally, teams across the Department are working to keep Americans safe by predicting extreme weather events earlier and more accurately, preventing sensitive technology from getting in the hands of terrorists, rogue regimes, and strategic competitors, and deploying a nationwide public safety broadband network that allows better coordination among first responders.

Thank you to every employee at the Department and to our industry and government partners for your dedication to our mission.

Thank you,

Wilbur Ross

William Poss

U.S. Secretary of Commerce

Commerce Overview



Mission

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

History and Enabling Legislation

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

Location

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

Employees

As of January 2018, the Department had approximately 47,000 employees.

Headquarters Offices and Bureaus

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





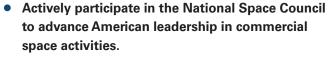
Expand Commercial Space Activities

The scientific discoveries resulting from space exploration have created new industries and technologies that improve our lives, our economy, and our national security. Technological advancement of commercial space activities has created profitable opportunities. However, current government regulations are an impediment to the commercial space sector. We will advocate for the industry to ensure the United States remains the leader in space commerce.

Strategies

Expand the Office of Space Commerce.

The Office of Space Commerce is the lead federal agency for the advancement of commercial space activities. It acts as an industry advocate within government, promoting commercial space opportunities, and coordinating space commerce policy issues within the Department while maintaining close cooperation with the National Space Council. We will elevate the Office of Space Commerce to have direct line of reporting to the Secretary, giving it a stronger voice to advocate for the U.S. commercial space industry.



Through close coordination with the commercial space sector, we will learn what government actions and policies are needed for the industry to flourish. We will promote a robust and responsive U.S. industry that is the world leader in space commerce.

Support American companies operating in space.
We will focus on regulatory reform needed for the
U.S. commercial space industry to lead human
creativity and advancement in space, and remain
the preferred destination for commercial space
business activity.



- Office of Space Commerce action plan milestones achieved on time
- Number of major national space policy decision processes, events, and industry engagements
- Number of tools (e.g., workshops, reports, requirements) developed by the Office of Space Commerce to facilitate commercial space entry into the marketplace



Strategic Objective 1.2 Advance Innovation

Economists agree that innovation drives economic growth, creates jobs, raises wages, and helps Americans lead better lives. The United States has long led the world in innovation and technological advancement. To ensure that our country remains the global leader, we must innovate more and faster than the rest of the world. As a department, we are conducting foundational research and creating standards in areas such as quantum computing, artificial intelligence (AI), advanced manufacturing, and self-driving cars. We work closely with industry to create the necessary conditions for innovation in the public and private sectors. We are managing radio spectrum for the latest advances in wireless technology and helping federal agencies meet critical data priorities through joint venture partnerships.

Strategies

Promote research, applications, and standards for quantum computing.

Enabled by precision measurement and control of subatomic phenomena, quantum science will underpin the next generation of advances in computing, energy storage, and advanced materials. Scientists at the National Institute of Standards and Technology (NIST) are harnessing unique and emergent properties of a broad class of quantum phenomena and accelerating the development of the building blocks of quantum applications.

Promote research, applications, and standards for artificial intelligence.

Al promises advances such as driverless cars, smart buildings, automated health diagnostics, and improved security monitoring. Yet, there is widespread concern about reliability. As a trusted, rigorous, non-regulatory research organization, NIST will develop AI data standards and best practices, and deliver tools that address performance and reliability concerns, thereby accelerating innovation.

Enhance precision measurements and standards to drive innovation in advanced manufacturing.

By using more reliable measurement tools and bringing laboratory precision to the factory floor, U.S. industry will produce next-generation technology. NIST will continue to prioritize measurement research in manufacturing processes and advanced materials.



Strengthen the competitiveness of America's manufacturing base through technology development and deployment.

The competitiveness of U.S. manufacturers will be boosted by partnerships that increase investments in technology development and build new connections throughout the supply chain. NIST will continue to partner with industry; universities; and federal, state, and local governments to accelerate the transfer of manufacturing technology and expertise to help manufacturers overcome shared technical challenges. We will also help communities and regions better identify and position assets to help manufacturers succeed.

 Lead the development of measurements and standards to facilitate digital commerce, wireless technologies, and autonomous vehicles.

The "internet of things" will connect all kinds of devices, generate a wealth of data, and enable major advances. However, robust interoperability and security are critical to success. NIST will develop new standards and guidelines to relieve network congestion and device interference, increase cybersecurity, and facilitate interoperability.

 Ensure spectrum is available for federal government and commercial services.

Radio spectrum is a valuable, finite resource necessary to efficiently carry out critical federal government functions (i.e., national security) and foster growth in the commercial wireless industry. Through advanced spectrum research, measurement, and assessment, the National Telecommunications and Information Administration will make spectrum available for mission-critical government services in the most efficient and effective manner, while also making more spectrum available to industry.

 Promote effective sharing of spectrum for multiple uses.

Using cutting-edge research and technology—and in close consultation with stakeholders—we will develop and refine plans for how spectrum is shared between government and industry to support the latest advances in wireless technology.

- Number of businesses using NIST research facilities
- Citation impact of NIST publications
- International adoption of NIST Quantum SI standards
- Percentage of spectrum assignments transitioned on time, based on approved plans

Strengthen Intellectual Property Protection

Maintaining a strong, high-quality, and balanced IP system lies at the core of innovation. IP protection promotes innovation because it permits a return on investment. The U.S. Patent and Trademark Office (USPTO), in coordination with agencies across the Department, works to protect IP both in the United States and abroad by providing strong and effective rights, and encouraging the development of follow-on innovation. We will continue to achieve the highest quality of patent and trademark examination to maintain industry confidence in their validity and durability.

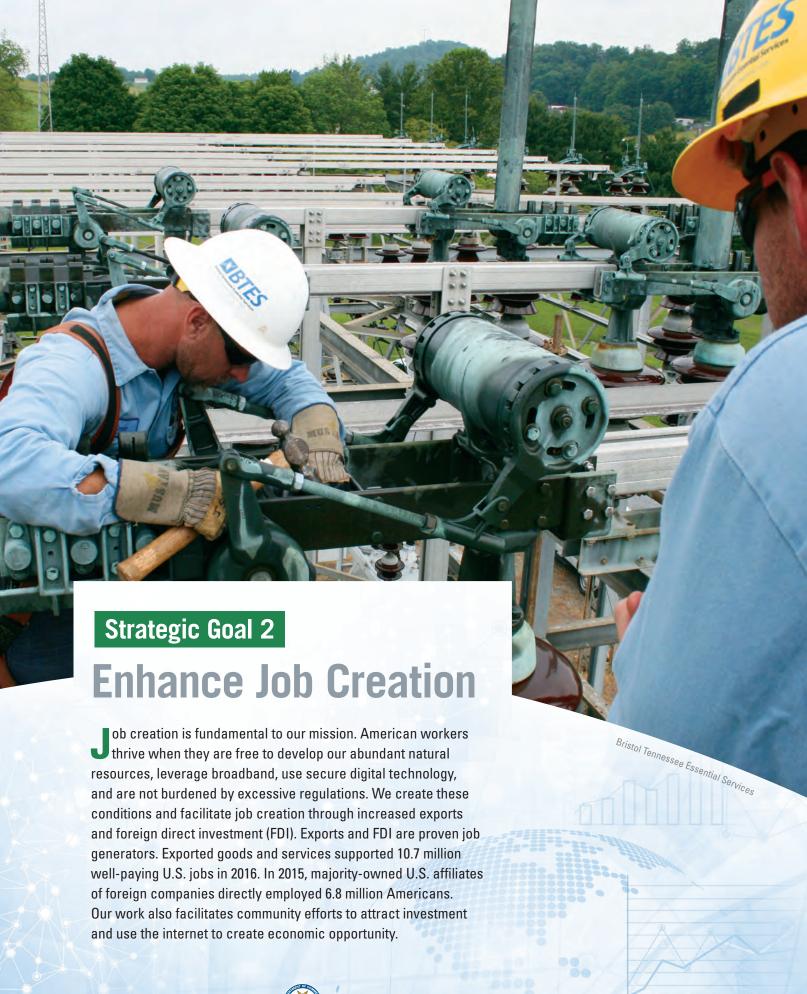
Strategies

- Strengthen the protection of intellectual property. American innovators and creators need enforceable IP rights to profit from their innovation and creativity. Our IP system needs to be efficient and cost-effective. USPTO, the International Trade Administration, and the Minority Business Development Agency work with innovators, creators, businesses, and universities to increase the effectiveness of the U.S. IP system domestically and abroad.
- Optimize patent and trademark quality and timeliness.

A critical component of creating jobs and investment is the protection of IP through the timely issuance of quality patents and trademark registrations. USPTO will improve and optimize patent processing timelines through process improvements and by aligning examination capacity with projected demand.



- Accelerate Patent Processing By September 30, 2019, the USPTO will reduce patent pendency to less than 15 months for first action pendency and less than 24 months for total pendency from end of fiscal year 2017 results of 16.3 months and 24.2 months, respectively (APG) ★
- Number of minority businesses receiving information on intellectual property protection
- Number of people, including foreign government officials and U.S. stakeholders, trained on best practices to protect and enforce intellectual property



Increase Aquaculture Production

Aquaculture is the fastest growing form of food production in the world. Marine aquaculture in the United States contributes to seafood supply, supports commercial fisheries, and has great growth potential. We will help it grow faster by reducing regulatory burden and driving aquaculture research. A strong U.S. marine aquaculture industry will serve a key role in U.S. food security and improve our trade balance with other nations.

Strategies

Provide a one-stop shop for federal approval of marine aquaculture permits.

We will work with the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, other federal agencies, and coastal states to streamline federal marine aquaculture permitting. This will create a more predictable and timely permit review process, and allow businesses to begin operation more rapidly, thus accelerating the growth of the U.S. seafood industry.

Support research to advance marine aquaculture.

In collaboration with industry, we will support research to advance commercial-scale marine aquaculture production. We will implement pre-competitive commercial scale demonstration facilities in collaboration with—and co-funded by—industry and coastal seafood communities. These pilot programs will facilitate the commercial viability of marine aquaculture production. The National Oceanic and Atmospheric Administration (NOAA) will use aquaculture research to remove production bottlenecks related to siting, disease, genetics and genomics, hatchery seed stock, and feed availability.



- Reduction in time to review, consult, or approve permits
- Percentage of target research advances accomplished

Reduce and Streamline Regulations

Regulations that are unnecessary and burdensome are harmful to the economy. They increase the time and cost of doing business, and therefore increase prices and kill jobs. When it takes years for federal agencies to approve new plants and facilities, it takes years before people are working there. If infrastructure development is delayed, public service is reduced and access needed for private-sector growth is reduced. Accelerating the development of new manufacturing plants and equipment, and infrastructure improvements are fundamental to our mission. We will be at the forefront of federal efforts to reduce regulations and shorten the timeframe for federal review of projects.

Strategies

 Review agency regulations and remove or modify rules that unnecessarily burden businesses and economic growth.

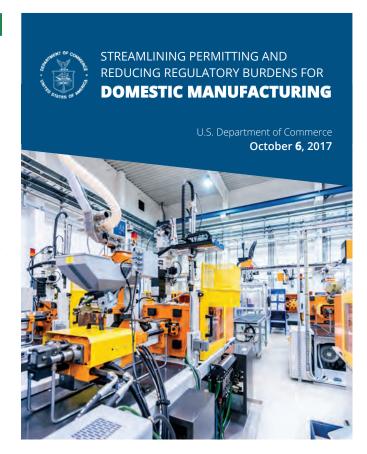
Excessive business regulations add to the cost of doing business, raising prices, and reducing wages. We are supporting the implementation of Executive Order 13771 by reviewing regulations to identify and modify or repeal rules that add burden and costs without adding much value.

 Review and streamline permitting processes while achieving statutory objectives.

Inefficient and cumbersome permitting approval processes create lengthy and uncertain timelines for new energy and infrastructure projects, thus harming the economy and preventing job growth. We are working to remove overreaching, and duplicative regulatory burdens on permitting processes.

Facilitate a One Federal Decision timeline.

Before construction can begin on a major project, it typically must comply with numerous federal statutes overseen by multiple federal agencies. This can be a lengthy and cumbersome process to navigate causing time delays and cost increases. We will support the execution of Executive Order 13807, which directs one lead agency to coordinate permitting timetables for all federal reviews and authorizations, and holds all participating agencies accountable for adhering to timetables.



- Number of deregulatory actions issued that address recommendations by the Regulatory Task Force
- Total cost savings from deregulatory actions



Strengthen Domestic Commerce and the U.S. Industrial Base

To be competitive, U.S. businesses must capitalize on technology and proven best practices. Through locations across the country, the Department provides services crucial to deploying connectivity, data, and information to businesses and communities. By expanding broadband access, we facilitate e-commerce in rural areas. We provide increasing amounts of economic, scientific, and social data to drive informed business decisions. Decades of successful fisheries management will be employed to reduce America's \$14 billion seafood trade deficit. The Department strengthens and protects the U.S. manufacturing and defense industrial base to ensure economic viability and national security. Our business assistance programs help build community and regional capacity for economic development.

Strategies

 Expand broadband infrastructure and access, and promote digital commerce and internet governance.

We act as a trusted partner with the public and private sectors to assess and help meet local broadband needs in underserved areas of our country. By advocating for market-driven policies and multistakeholder initiatives, we help reduce regulatory barriers and support online commerce, greater employment opportunities, and improved quality of life.

 Increase the understanding and use of Commerce data in partnership with industry.

Relevant economic, demographic, patent, and weather data are a vital competitive advantage for U.S. business. We will enhance our understanding of businesses' evolving information needs and develop new data and information products to continue growing that advantage. We will increase awareness of Commerce data and partner with the private sector to increase its capacity to scale and deliver data services, thus improving the public's ability to visualize and leverage our data.

 Build trust in digital commerce through strong encryption standards.

The economic potential of e-commerce and the internet cannot be realized without data security. We will continue to advocate for robust encryption,



and lead internationally with the National Institute of Standards and Technology's (NIST) cryptographic standards development, including standards for the "internet of things," lightweight devices, and quantum computing environments.

Amplify the economic value of recreational and commercial fisheries.

NOAA will ensure that fisheries and their habitats are managed to optimize sustainable commercial harvest and recreational opportunities while conserving marine resources for future generations. We will ensure U.S. fishermen are not disadvantaged by illegal or unregulated fishing, unfair trade practices by other nations, or deceptive labeling of seafood products.



Promote and support a strong and sustainable manufacturing and defense industrial base.

We protect and enhance the competitive position of U.S. businesses in an increasingly global environment. The Bureau of Industry and Security will utilize our unique authority to conduct surveys and assessments of defense-related technologies, and to monitor economic and trade issues vital to the U.S. industrial base.

Build community and regional capacity for entrepreneurship and innovation.

Sustained, locally-driven investment in community assets needed by businesses will result in high-quality jobs, greater investments, and increased prosperity. We will support local efforts to create and implement viable strategies to build community and regional capacity for job growth.

- Projected economic impact of broadband projects
- Time-to-market for new information products and services
- Fish Stock Sustainability Index (FSSI)
- Number of industrial base surveys, data, and analysis distributed to federal agencies and critical sectors



Increase U.S. Exports

Exporting provides clear economic benefits to businesses, workers, and communities. However, compared to other industrialized nations, U.S. firms under-export and are under-represented in foreign markets. Exports accounted for only 12 percent of U.S. gross domestic product (GDP) in 2016 compared to 16 percent for Japan, 28 percent for the United Kingdom, and 46 percent for Germany. Of the U.S. companies that do export, 58 percent exported to only one market in 2015. Strengthening export capabilities is a crucial strategy to reduce the \$505 billion trade deficit our country experienced in 2016. With offices and expertise in 108 U.S. locations and 78 foreign markets, the Department is uniquely positioned to help U.S. companies overcome the challenges of exporting their goods and services.

Strategies

 Reduce the costs and complexities of exporting to enable more U.S. companies to become successful exporters.

Many small and medium-sized business are unable to dedicate the resources required for international expansion. By engaging with foreign governments, the International Trade Administration (ITA) helps U.S. companies navigate the complexities of exporting. We also are focusing on lowering the burden for U.S. goods crossing borders into World Trade Organization member countries. We work with communities and regions to build the capacity to support the export-related needs of businesses.

 Connect more U.S. companies—especially small and medium-sized businesses—to foreign markets and prescreened buyers.

Many U.S. companies, especially small firms, have limited access to reliable and affordable information about business opportunities overseas. ITA helps U.S. businesses close deals internationally by providing actionable market intelligence, information on the mechanics of exporting, market entry strategies, guidance on overcoming barriers, and information on trade financing options. Recognizing that companies need to move fast in a global and digital economy, we will enable U.S. companies to access this information and exporter services through self-service options on our websites. We will also help communities and regions identify and better prepare their assets to help businesses export successfully.



 Advocate for the selection of U.S. firms in foreign government procurements through Commerce-led interagency efforts.

Worldwide competition for large-government contracts is fierce, with many contracts resulting in billions of dollars in sales. With global infrastructure investment expected to reach \$90 trillion during the next 15 years, we will advocate globally for the selection of U.S. suppliers in foreign government procurement opportunities. We will provide dedicated advocacy support to U.S. companies competing for foreign civilian and defense government procurements.



 Address government actions and policies that impede exports of U.S. goods and services.

By working with U.S. industry and our global network of experts, ITA tracks and aggressively addresses foreign government policies and practices that could create trade barriers that impede U.S. exports. We engage foreign governments and U.S. industry in support of international standards as alternatives to country-specific technical regulations. For example, NIST's Notify U.S. service enables U.S. stakeholders to report proposed foreign government technical regulations that may impede U.S. exports or violate trade agreement obligations.

- Number of trade assistance clients assisted
- Percentage of trade assistance clients that achieved their export objectives
- Percentage of clients highly likely to recommend trade assistance services
- Annual dollar value impact of clients receiving trade assistance
- Number of advocacy cases resulting in a signed contract for a U.S. business



Increase Inward Investment Into the United States

According to United Nations' statistics on global FDI, the United States was the world's largest recipient of foreign investment from 1985–2016. However, the U.S. share of global FDI declined from nearly 40 percent in 1999 to 24 percent in 2016. Working with economic development organizations across the country, we advocate for the United States as the world's premier investment destination. ITA's SelectUSA program is the only federal program dedicated to facilitating high-impact business investment into the United States.

Strategies

 Advocate globally for the United States as the premier destination for investment.

Our domestic and global network brings together foreign investors and U.S. economic development organizations. We conduct investment promotion events overseas and domestically to demonstrate the United States' competitiveness and desire for high-impact international business investment. Our signature investment promotion event, the SelectUSA Investment Summit, is our nation's highest-profile event dedicated to attracting FDI.

 Provide tailored assistance to investors and states and localities to facilitate increased investment in U.S. communities.

Historically, individual U.S. regional, state, and local economic development organizations have had to compete directly with large-scale efforts by other nations to attract business investment. Now we help investors connect to the right people at the local level and navigate the federal regulatory system. We assist communities and regions in developing strategies to attract FDI and provide a platform to extend investment promotion globally.

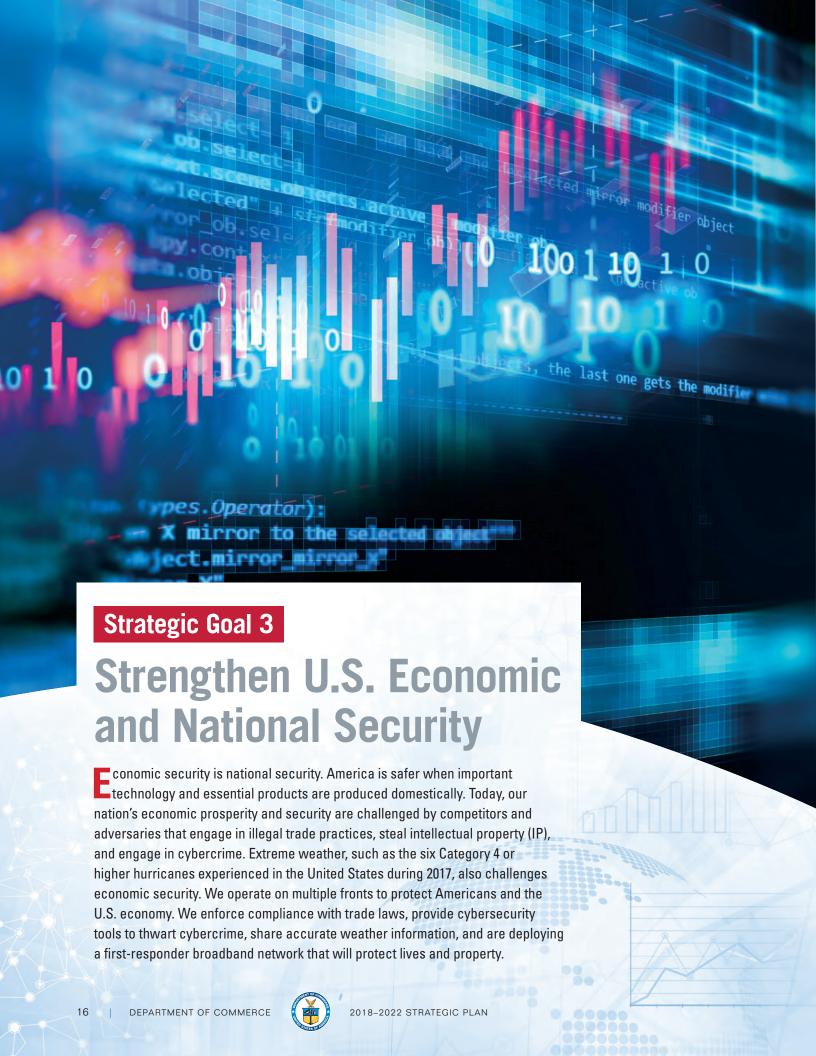


 Lead coordination of investment promotion across the U.S. government and key partners.

Successful efforts to attract FDI require coordination among federal, state, and local agencies. With the National Economic Council, SelectUSA chairs the Interagency Investment Working Group of more than 20 agencies that work to promote business investment in the United States.

- Number of investment clients assisted
- Dollar value of Written Impact Narratives (WINs) which the ITA facilitated





Enforce the Nation's Trade Laws and **Security Laws**

American businesses thrive when they compete internationally on a level playing field. We work to level the field by enforcing U.S. trade laws and ensuring that foreign governments comply with international agreements. We make our nation safer by enforcing rules that limit exports of U.S. technology that can be used in weapons, and by monitoring foreign investment that may present a risk to U.S. national security. By working with foreign governments to enforce IP rights, the competitive advantage of our innovators is protected abroad.

Strategies

 Enforce U.S. trade laws to defend American manufacturers, workers, and farmers from unfair trade.

Foreign companies have an unfair advantage when their products are subsidized by governments or sold at prices below their cost of production. By enforcing the U.S. antidumping and countervailing duty laws, the International Trade Administration (ITA) defends U.S. companies and workers against dumped and unfairly-subsidized imports. Violations reported by businesses will be investigated and more cases will be self-initiated by the Department.

 Monitor and ensure compliance with trade agreements.

To ensure fair treatment in foreign markets, the United States has negotiated more than 250 trade agreements. Using our global presence, and with increased collaboration with the private sector and other agencies, we closely monitor compliance with these agreements and hold our trading partners accountable for their obligations.

• Protect sensitive American technology and uphold sanctions through a strong export control system. Some U.S. technologies used for civilian purposes have military applications. Our national security will be enhanced by obtaining consensus among international partners on export controls, strengthening outreach to affected businesses, focusing on emerging technologies, and enforcing penalties for violations.



Export Compliance Guidelines

The Elements of an Effective Export Compliance Progr<u>am</u>

 Assess foreign direct investment impacts on national security.

The Committee on Foreign Investment in the United States (CFIUS) reviews foreign acquisitions of U.S. businesses to determine if they pose a risk to U.S. national security. The Bureau of Industry and Security ensures that there are no unresolved national security issues when transitions are approved. ITA serves as the coordinating agency for the Department's participation on CFIUS, while also providing economic and market analysis. These roles will expand as foreign investment in the United States increases.



Improve international intellectual property protections.

IP rights violations by foreign companies result in substantial losses to U.S. industries and jobs. Through its new regional offices, the U.S. Patent and Trademark Office (USPTO) is increasing domestic outreach on IP rights. With ITA and our IP attachés, USPTO also works with foreign governments to address inadequate protections and violations.

- Remove Foreign Trade Barriers ITA will facilitate
 fair competition in international trade for U.S. firms
 and workers by improving the number of trade
 barriers reduced, removed, or prevented by 10 percent
 annually in fiscal years 2018 and 2019 (APG)
- Number of trade agreement compliance cases resolved successfully
- Number of actions that result in a deterrence or prevention of a violation of export controls, and cases which result in a criminal and/or administrative charge
- Percentage of prioritized countries for which intellectual property country teams have made progress



Enhance the Nation's Cybersecurity

Cybersecurity is necessary for our nation and the world to fully realize the benefits of the 21st-century digital economy. Ensuring the security of our interconnected global networks, and the devices and data connected to those networks, is one of the defining challenges of our era. Threats arise across the digital ecosystem, from cybercriminals seeking financial gain, nation-states seeking to steal trade secrets and undermine national security, and terrorists aiming to foster mayhem. With our unique perspective on the economy and deep technical expertise, we play a leading role in meeting this challenge.

Strategies

 Provide industry and government with robust technical standards and cybersecurity best practices.

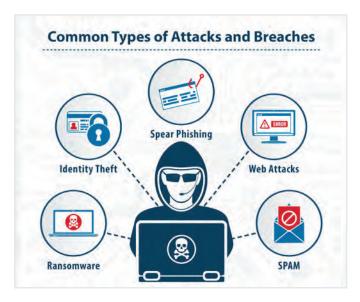
By evolving the Framework for Improving Critical Infrastructure Cybersecurity in collaboration with the private sector, the National Institute of Standards and Technology (NIST) will leverage its significant programmatic expertise to continually update our cybersecurity standards and guidelines. We will continue to champion the importance of the framework as the policy of the federal government and as a tool for the private sector, and will continue to work through private-sector and international engagement to increase its adoption and utilization.

Drive cybersecurity policy in government and industry.

We will collaborate both inside and outside the federal government to leverage our expertise, open and transparent processes, and research capabilities to create policies that are technically-informed, promote economic growth, and sustain cybersecurity as technology evolves. By anticipating issues and developments, and taking preemptive action to address them, we will take a proactive stance on cybersecurity.

 Convene stakeholders to develop and drive adoption of cybersecurity best practices.

We will identify cybersecurity business challenges that could benefit from public-private collaboration, and work with stakeholders to create cooperative



solutions. The National Cybersecurity Center of Excellence (NCCoE) at NIST and the National Telecommunications and Information Administration's stakeholder engagement efforts will contribute to this strategy.

- Number of collaborators on NCCoE projects
- Number of resources (e.g., guidance document) derived from the Framework for Improving Critical Infrastructure Cybersecurity
- Number of companies and organizations exposed to NCCoE produced cybersecurity practice guides and other products



Strategic Objective 3.3 Reduce Extreme Weather Impacts

Severe weather and water events have an enormous impact on our nation's economy. To reduce the economic impact of these events, we are enhancing our prediction capabilities through better data gathering and modeling technology. Additionally, we are improving our ability to provide expert, timely, and actionable weather information to emergency managers, water resource managers, and other government agencies at the state, local, and tribal levels. We will also work with commercial partners to achieve these improvements faster and at a lower cost to taxpayers.

Strategies

Evolve the National Weather Service to deliver better forecasts, earlier warnings, and clearer communication of high-impact weather and water events.

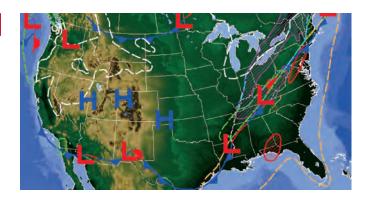
We will leverage new models, technology, and processes to ensure the most efficient and consistently accurate forecasts, watches, warnings, and outlooks. We will work with public safety partners to ensure that they are better able to utilize our forecasts in their emergency management and response plans.

Strengthen partnerships with America's weather industry and other members of the weather, water, and climate enterprise.

We will increase our use of data from commercial observations and facilitate development of private value-added data products. The quality of the Department's research and information dissemination efforts will be enhanced through meteorological community participation in modeling and the National Oceanic and Atmospheric Administration (NOAA) Big Data Project.

Deploy the next generation of satellites, aircraft, ocean-going ships, and observation and data gathering systems.

We will enhance our long-term observation capabilities and infrastructure that directly inform understanding of weather variability, extreme events, and ecosystem processes. New technologies will be implemented using innovative public and private partnerships.



Develop and deploy next-generation environmental observation and modeling systems to make informed planning, resources management, and investment decisions.

Next generation weather and environmental models will be created using high-performance computing and assimilation of state-of-the-science data sources. Faster, more accurate, and longer-range forecasts will be delivered to protect life and property, and inform business and community decisions.

- Mitigate Flood Impacts By September 30, 2019, NOAA's National Weather Service will improve decision support services by demonstrating a new flood inundation mapping capability serving 25 million people (i.e., 8 percent of the U.S. continental population) residing in flood-vulnerable freshwater basins and delivering an enhanced excessive rainfall outlook product that extends the lead time of high risk predictions from two to three days (APG)
- American Customer Satisfaction Index rating



Deploy Public Safety Broadband

The First Responder Network Authority (FirstNet) was created to implement the 9/11 Commission recommendation to give public safety providers 21st-century communication tools to help save lives, solve crimes, and keep our communities and emergency responders safe. We will build a public safety broadband network designed to be reliable, functional, and secure. More than 60,000 public safety agencies will be able to take advantage of expanded coverage and capacity. For the first time, public safety communications will be based on commercial standards. This will bring the benefits of lower costs, consumer-driven economies of scale, and rapid evolution of advanced communication capabilities.

Strategies

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

Deployment and management of a single, interoperable, nationwide network at the local, state, and national level will be executed through a unique public-private partnership. This mission-critical communications system will enable better public safety coordination and more efficient operations.

- Percentage of public safety adoption targets achieved
- Percentage of planned coverage achieved





Strategic Goal 4

Fulfill Constitutional Requirements and Support Economic Activity

We the People" is America's source of strength. As mandated in Article 1, Section 2 of the U.S. Constitution, every 10 years, we conduct a nationwide count of every person living in the United States. Data from the next census in 2020 will be used to allocate seats in the U.S. House of Representatives among the states. The demographic and housing data from the 2020 Census will also help the federal, state, local, and tribal governments make better decisions about how they spend taxpayer money. These data sets, along with others developed by the Department, support research by the private sector and academic institutions, and inform critical business decisions across all sectors of the economy.

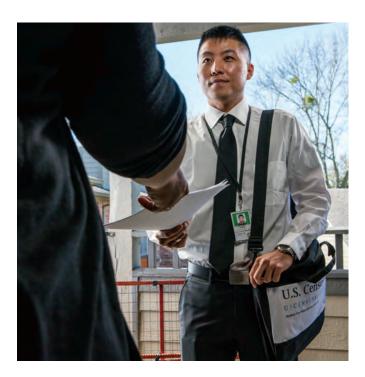
Conduct a Complete and Accurate Decennial Census

Data from the decennial census play a critical role in U.S. commerce and the economy by providing information on the population and demographics of our country. By providing updated counts of population, housing, and other key demographic data, results from the 2020 Census will guide reapportionment of representation in the U.S. Congress and help states in redrawing the boundaries of all congressional and state legislative districts for the coming decade. The 2020 Census results will also be used to reset benchmarks for national, local, and small area counts for other government surveys, in addition to many public and private data sets.

Strategies

 Incorporate innovative methods and technologies in the decennial census.

The Census Bureau will conduct the most automated and technologically-advanced decennial census in history. This will be the first census to introduce and promote internet self-response, to introduce telephone call centers as a mode of response, to use aerial imagery to update maps and addresses for the entire country, to automate field procedures, and to use administrative records to increase accuracy and reduce workload. We are keenly aware of and are closely monitoring the challenges, risks, and costs associated with this technology transition; however, we believe these technologies will improve efficiency, and reduce costs to taxpayers. The innovations will serve as a solid foundation for future decennial censuses.



Performance Indicators

Prepare to conduct a complete and accurate Decennial Census – The Census Bureau will prepare for a complete and accurate 2020 Decennial Census U.S. population count by conducting the 2018 end-to-end census test and analyzing and incorporating the results, initiating in-field address canvassing by September 30, 2019, and designing for optimal self-response with a nationwide target of 60.5 percent (APG) *

Provide Accurate Data to Support Economic Activity

World economies are driven by innovation, emerging technologies, intellectual property—and data. Creating a robust economy requires an enormous amount of data, and we are the nation's preeminent producer of public data. More than 30 million U.S. business enterprises; 325 million Americans; and 93,000 tribal, state, and local governments rely on our data to make informed decisions. The information and data we produce shape fiscal and monetary policy and operational decisions that improve the nation's social and economic conditions. Annually, more than \$1 trillion in federal funds are distributed to states and localities, in whole or in part, using data produced by the Department.

Strategies

Promote the American Community Survey.

The annual release of detailed social, economic, and housing data from the American Community Survey—which replaced the decennial census' long form in 2005—will be used for a myriad of important decisions. People increasingly depend on Census Bureau population and income data to make decisions on business locations and investments in real estate. Communities rely on our data to measure the demand for housing, predict future needs, and identify trends.

Provide a timely and accurate portrait of the nation's economy.

We are the world's most trusted, impartial source of comprehensive data about the U.S. economy. Every five years the Census Bureau conducts an Economic Census and Census of Governments, in addition to more than 100 other surveys conducted monthly, quarterly, or annually. From these censuses and surveys 13 economic indicators are produced, serving as the foundation for gross domestic product (GDP). Produced by the Bureau of Economic Analysis, GDP data is ranked as one of the three most influential economic measures that affect U.S. financial markets. We are committed to reducing the burden of responding to surveys and are moving toward 100 percent internet response for the Economic Census and the Census of Governments.



Develop new data products and services that capture the dynamic U.S. economy.

Given the speed of economic shifts and technological advances in the 21st century, new statistics are needed to accurately report on the economy. We continually explore the development of new economic statistics and data services to provide a timely, in-depth, and accurate picture of the U.S. economy and its role in the global marketplace. We will leverage big data and data from non-traditional sources to take full advantage of these new resources.

- Release American Community Survey estimates on schedule
- Key milestones for the Economic Census and Census of Governments
- Release economic indicators on time
- Accuracy of GDP Index
- Milestones met in releasing new economic indicators





Strategic Goal 5

Deliver Customer-Centric Service Excellence

Without quality, timely human resources, information technology (IT), and acquisition services. Success also requires a workforce that is passionate about delivering value to the American public. Federal agencies have been mandated to increase the cost-effectiveness of services and improve human capital management. We are responding with strategies to improve service and efficiency, and engage employees by better aligning their time and efforts to the Department's priorities.

Engage Commerce Employees

Employee engagement is the emotional commitment employees have to the organization and its goals. The level of employee engagement at the Department will profoundly affect implementation of this plan. It is a function of two factors, feeling that the work is important and knowing that the work is making a positive difference. Therefore, aligning staff allocation and performance plans to the strategic plan is a critical success factor, as is involving employees in initiatives that improve service to the public and reduce non-value-added bureaucracy. All employees should know their work matters.

Strategies

Align human capital with the new strategic plan.

As priorities change and technology provides the opportunity to improve approaches to doing work, the allocation of staff among units and functions can become outdated and waste resources. Employee engagement suffers when staff perceives that they are excess capacity. We will assess our staff allocation to improve alignment with our strategic priorities.

Improve talent management.

Effective talent management ensures that an organization has the right skill sets for current work and is acquiring skills for emerging needs. It requires strategic recruitment, training, accountability, and systematic implementation of talent management plans. Our new Human Capital Operating Plan will include action plans and milestones for improvement in talent management and a governance process for monitoring progress.

Improve the customer experience.

When Americans complain about government, they usually are complaining about how long it takes to get things done and how complicated processes are. Government employees have similar complaints about mission-support processes such as recruitment and hiring. Many of the best government employees join federal agencies to serve, but they can become disillusioned because of red tape. We will participate in the federal government-wide initiative to improve customer experience with the aim of better customer satisfaction ratings and improved scores on the annual Federal Employee Viewpoint Survey.



- Customer satisfaction/experience ratings
- Scores on the Federal Employee Viewpoint Survey
- Reductions in staffing levels and costs
- Percentage of mission performance indicator targets met



Accelerate Information Technology Modernization

Modernization of federal IT is a high priority. Legacy IT systems and fragmented technical approaches are costly to taxpayers and compound the challenges of managing cybersecurity risks. IT modernization also creates opportunities for significant acquisition savings through economies of scale. We will leverage American innovation through the increased use of commercial technology and move to a cost-effective and secure infrastructure.

Strategies

Modernize and consolidate information technology.

We are developing action plans to maximize secure use of commercial cloud computing, modernize and manage applications, and securely maintain legacy systems. Technology modernization will allow us to shift resources from supporting back-office functions to improving the customer experience. Relevant network security policies and architectures are being updated to focus on both network and application security. Incident detection and prevention capabilities are being modernized to address the latest threats and respond to vulnerabilities.

Utilize strategic sourcing to enable future network architectures.

Ongoing government-wide procurement management efforts are shifting the federal government toward a consolidated IT model. We will employ strategic sourcing contract vehicles to acquire IT products and services that leverage the government's buying power through volume pricing. Capabilities will be consolidated to replace or augment existing bureauspecific technologies to reduce costs, facilitate maintenance, improve functionality, and enhance cybersecurity.



- Information technology cost savings
- Percentage of milestones for information technology modernization met on schedule

Consolidate Functions for Cost Savings

Federal agencies are required to "create a lean, accountable, more efficient government that works for the American people." We are at the vanguard of the effort to deliver mission-support services in a new and efficient way. The Enterprise Services organization will achieve economies of scale, standardized processes, and reduced transactional burden across bureaus. Risks associated with the new delivery model have been designated for close monitoring at the Department level.

Strategies

 Continue deploying enterprise service models for purchasing and human resource functions when demonstrated cost savings exist.

A study of mission-support services across the Department reported dissatisfaction with the cost, timeliness, and quality of some services. In response, select mission-support services are being moved from individual bureaus to Enterprise Services. This will allow bureau staff to focus on mission rather than back-office and support work. Services will continue to transition in instances where significant costs savings and improved service have been demonstrated through analysis, tests, and the experience of other agencies. Quality and timeliness of consolidated services will be monitored on an ongoing basis to ensure that improvement is sustained and within service-level standards.



- Trends in cost savings
- Compliance with service-level standards



Appendix A

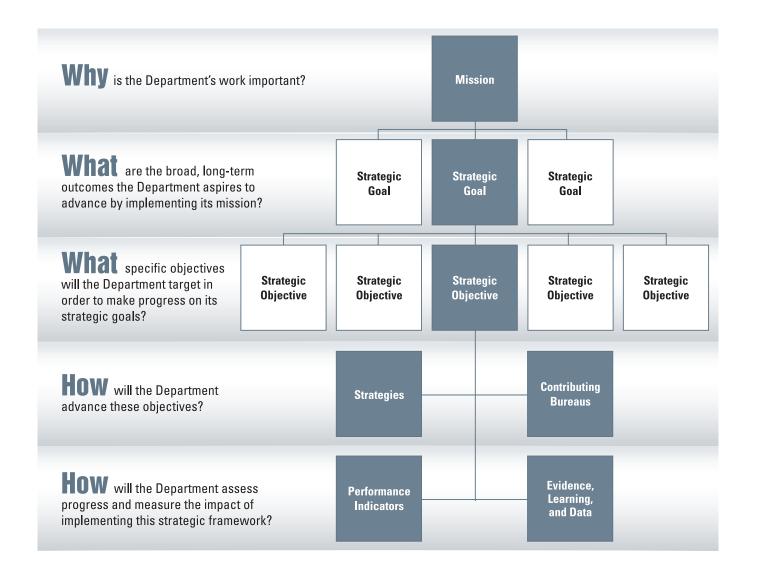
Performance Management and Governance

Performance Management Framework

The Department uses a systems-based management framework that aligns and integrates leadership, strategic planning, employee engagement, process management, business information, and customer input into feedback loops that produce continuous learning and improvement. We encourage every employee to be empowered to participate in performance management. We use performance indicators, enterprise risk management, and program evaluation to increase evidence to support the

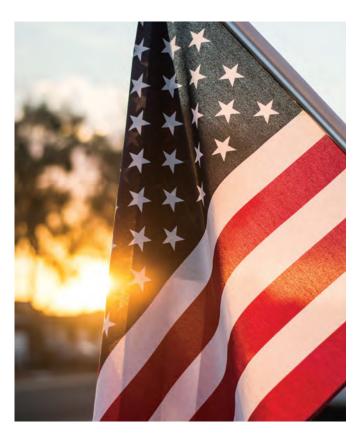
Department's budget formulation and decision-making. This structure complies with guidance from the Office of Management and Budget and the GPRA Modernization Act of 2010.

The infographic below illustrates the standardized structure of our strategic plan and helps readers understand the purpose, logic, and terminology that comprise each strategic goal.



Governance

The Department's Executive Management Team (EMT) oversees the governance of the five strategic goals and will periodically assess progress for each of the strategic objectives. Our Performance Management Team and Performance Excellence Council serve as a critical connection between the EMT's governance of our strategic plan and bureau staff who implement the plan's diverse strategies, programs, and improvement efforts. Annually, we will conduct a formal strategic review of each strategic objective's progress. We will also publicly report performance within our Annual Performance Report and Annual Performance Plan.



Terms and Definitions

Strategic Goal – Includes the goal statement and goal overview. The highest-level statement of aim or purpose that is included in the strategic plan. This plan's strategic goals articulate clear statements of what the Department wants to advance within its mission.

Strategic Objective – Includes the objective statement and the objective overview. This plan's 17 strategic objectives are the primary unit for strategic analysis and decision-making. Strategic objectives reflect the outcome or management impact the Department is trying to achieve.

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

Agency Priority Goal – Strategic objectives may include an Agency Priority Goal (APG). An APG is a near term result or achievement that the Department wants to accomplish within approximately 24 months. APGs are limited in number and reflect the top near-term performance improvement priorities of the Department.

APGs are identified in this plan with a gray star.

Performance Indicator – A key performance measure used to track progress toward achieving a strategic objective. The Department will measure and monitor the trend for these indicators.

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



Appendix B

Evidence, Learning, and Data

We strive to instill a data-driven and learning culture into our organizational DNA. The Department uses a fourpronged approach to increase organizational learning and the use of evidence in decision-making:

- Make more data available and accessible;
- Develop and execute annual evidence agendas;
- Foster increased cross-bureau collaboration; and
- Leverage regular forums to review evidence.

During the initial development phase of our strategic plan, we initiated an environmental scanning effort to identify major macro-level trends that could inform the development of our new objectives and strategies. We also leveraged the Department's 2017 enterprise risk profile, Government Accountability Office High Risk List, and Inspector General Top Management and Performance Challenges reports to ensure top risks are appropriately considered during strategy formulation.

The information below summarizes valuable sources of learning and collaboration. Also listed below are key data sets the Department uses for research, analyses, and evaluation. Data that are accessible via an *Application Programming Interface (API)* are emphasized in bold.

Goal 1 - Accelerate American Leadership

We will learn where customers and stakeholders desire improvement though assessments by the National Academies of Science and close consultation with the commercial space industry and other groups such as the Patent Public Advisory Committee, Trade Public Advisory Committee, and Commerce Spectrum Management Advisory Committee.

- Our Office of Space Commerce provides information via http://www.space.commerce.gov/
- NIST shares information about standards via https://www.nist.gov/standardsgov
- USPTO provides patent data using an API via https://developer.uspto.gov/

Goal 2 – Enhance Job Creation

Expansion of customer relationship management (CRM) capabilities across the Department has great potential to improve evidence. We use CRM systems to analyze critical success factors when we assist businesses. The information helps us learn how to improve our services. We also can facilitate program evaluation by matching CRM data with program administrative data, statistical business survey data, and the economic indicators and other authoritative economic data produced by BEA and the Census Bureau. We continue to reference our 2015 ITA-Census research paper as a best practice: *Statistics on the International Trade Administration's Global Markets* https://www2.census.gov/ces/wp/2015/CES-WP-15-17.pdf

- BEA provides key economic indicators and data using an API via https://www.bea.gov/API/docs/
- The Census Bureau provides economic data using an API via https://www.census.gov/developers/
- ITA's Data Service Platform shares export information using an API via https://developer.export.gov/

Goal 3 – Strengthen U.S. Economic and National Security

Input from business associations and other key stakeholders, including the Trade Policy Staff Committee and Information Security and Privacy Advisory Board, provide critical insights and learning to help us ensure our public safety and security policies, standards, services, and processes are achieving their intended outcomes. Our internal research teams include economists and scientists who produce valuable data for external and internal security-related analyses.

- BEA provides trade balance of payments data via https://www.bea.gov/international/
- BIS shares export control data via https://www.bis.doc.gov/data-portal



- NIST's Cybersecurity Framework information is provided via https://www.nist.gov/cyberframework
- NOAA weather data and research is among the most accessed of all government sites via https://www.weather.gov/ and http://research.noaa.gov/
- Information about FirstNet is available via https://www.firstnet.gov/

Goal 4 – Fulfill Constitutional Requirements and Support Economic Activity

Citizen engagement is vital for successful execution of the next decennial census, American Community Survey, American Housing Survey, Economic Census, and other surveys and analyses. We work directly with state data centers; census information centers; the 2020 Census Advisory Committee; the National Advisory Committee on Racial, Ethnic and Other Populations; the Census Scientific Advisory Committee; and other stakeholders to evolve our operations and provide the best data possible to fuel our economy and bolster American democracy.

- In addition to the previously referenced API, the Census Bureau shares data via the American FactFinder application https://factfinder.census.gov/, shares geospatial data via the Topologically Integrated Geographic Encoding and Referencing (TIGER) application https://tigerweb.geo.census.gov/, and recently launched a new data experience tool https://data.census.gov/
- In addition to the previously referenced API, BEA shares data via an Interactive Data Application https://www.bea.gov/itable/

Goal 5 – Deliver Customer-Centric Service Excellence

Development of this goal took into consideration reform plans for human capital resources and their alignment to programs and priorities, grade structure for functions, and layers in the management structure. We also used information from the federal Chief Financial Officer and Performance Improvement Officer councils to benchmark our Departmental mission-support functions against government-wide data on mission support processes. These analyses coupled with tests of quality and costs are particularly critical in assessing the value of our recently implemented enterprise services delivery model.

- We consider the Office of Personnel Management Federal Viewpoint Survey results via https://www.fedview.opm.gov/
- We analyze the General Services Administration benchmarking mission-support data via https://benchmarks.gsa.gov/
- We contribute to the Office of Management and Budget information technology benchmarking data via https://www.itdashboard.gov/



Appendix C

Summary of Contributing Bureaus by Strategic Objective

Strategic Goal	Strategic Objectives	Office of the Secretary	BEA	BIS	Census	ITA	MBDA	NOAA	NTIA	NIST	NTIS	USPTO
Goal 1 – Accelerate American Leadership	1.1 – Expand Commercial Space Activities	•						•	•			
	1.2 – Advance Innovation	•						•	•	•	•	•
	1.3 – Strengthen Intellectual Property Protection	•				•	•		•	•		•
Goal 2 – Enhance Job Creation	2.1 – Increase Aquaculture Production	•						•				
	2.2 – Reduce and Streamline Regulations	•	•	•	•	•	•	•	•	•	•	•
	2.3 – Strengthen Domestic Commerce and the U.S. Industrial Base	•	•	•	•	•	•	•	•	•	•	•
	2.4 – Increase U.S. Exports	•	•		•	•	•			•		
	2.5 – Increase Inward Investment Into the United States	•	•			•	•					
Goal 3 – Strengthen U.S. Economic and National Security	3.1 – Enforce the Nation's Trade Laws and Security Laws	•		•		•		•				•
	3.2 – Enhance the Nation's Cybersecurity	•						•	•	•		
	3.3 – Reduce Extreme Weather Impacts	•						•		•		
	3.4 – Deploy Public Safety Broadband	•					•		•	•		
Goal 4 – Fulfill Constitutional Requirements and Support Economic Activity	4.1 – Conduct a Complete and Accurate Decennial Census	•			•							
	4.2 – Provide Accurate Data to Support Economic Activity	•	•		•		•	•			•	
Goal 5 – Deliver Customer- Centric Service Excellence	5.1 – Engage Commerce Employees	•	•	•		•	•		•	•		•
	5.2 – Accelerate Information Technology Modernization		•	•	•	•	•	•	•	•		
	5.3 – Consolidate Functions for Cost Savings	•									•	



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