U.S. Department of Transportation
Strategic Plan for FY 2018-2022

SAFETY

INFRASTRUCTURE

INNOVATION

ACCOUNTABILITY

U.S. Department of Transportation

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Contents

MISSION

DOT Mission, Organization and Authorities

Mission

The mission of the U.S. Department of Transportation (DOT) is to ensure our Nation has the safest, most efficient and modern transportation system in the world, which improves the quality of life for all American people and communities, from rural to urban, and increases the productivity and competitiveness of American workers and businesses.

DOT Organization

Established in 1967 by Congress, DOT consolidated 31 transportation agencies and functions under the first Secretary of Transportation, Alan S. Boyd. During the past half-century, DOT employees have brought innovation and integrity to their work improving the safety and performance of our multimodal transportation system. Today, almost 55,000 DOT employees work across the country, in the Office of the Secretary of Transportation (OST), the Office of Inspector General, and nine Operating Administrations (OAs), each with its own management and organizational structure.

The Operating Administrations are:

Federal Aviation Administration (FAA)

Federal Highway Administration (FHWA)

Federal Motor Carrier Safety Administration (FMCSA)

Federal Railroad Administration (FRA)

Federal Transit Administration (FTA)

Maritime Administration (MARAD)

National Highway Traffic Safety Administration (NHTSA)

Pipeline and Hazardous Materials Safety Administration (PHMSA)

Saint Lawrence Seaway Development Corporation (SLSDC)

Legislative Authorities

Since the Department's creation, Congress has provided the funding and legislative authorities needed to carry out its mission. The Department's authorities are substantially codified under titles 23 (highways), 46 (maritime), and 49 (aviation, railroads, and other surface modes) of the U.S. Code. The Department's funding is provided by Congress through Annual and Supplemental Appropriations Acts, and DOT's authorities are periodically updated through authorization and reauthorization legislation. The list below shows the most recent significant reauthorization legislation enacted to update DOT authorities:

- **The Fixing America's Surface Transportation (FAST) Act** (P.L. No. 114-94: December 4, 2015), authorized appropriations to DOT from Fiscal Year (FY) 2016 through FY 2020 to improve the Nation's surface transportation infrastructure, including our roads, bridges, transit systems, and rail transportation network. The Act reforms and strengthens transportation programs, refocuses on national priorities, provides long-term certainty and more flexibility for States and local governments, streamlines project approval processes, and maintains a strong commitment to safety.

- **The FAA Modernization and Reform Act of 2012** (P.L. No. 112-095: February 14, 2012), authorized appropriations to the FAA from FY 2012 through FY 2015. The legislation sought to improve aviation safety and capacity of the National Airspace System, provide a framework for integrating new technology safely into our airspace, provide a stable funding system, and advance the implementation of the Next Generation Air Transportation System (NextGen). The FAA is currently operating under the **Disaster Tax Relief and Airport Extension Act of 2017,** which extends the agency's authority and provides funding at current levels through March 2018.

- **The Protecting our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2016** (P.L. No. 114-183: June 22, 2016), authorized the continued oversight of the nation's 2.7 million miles of oil, gas, and hazardous liquid pipelines, added new authority over the underground storage of natural gas, and authorized research, grants, programs and the related appropriations from FY 2016 through FY 2019.

- **The National Defense Authorization Act (NDAA) for Fiscal Year 2017** (P.L. No. 114-328: December 23, 2016), authorized appropriations in FY 2017 for MARAD's programs, including the U.S. and State Maritime Academies, ship operations, the Maritime Security Program, grants to small U.S. shipyards, and loan guarantees for ships constructed or reconditioned in the U.S.

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Introduction

Overview

The establishment of the U.S. Department of Transportation in 1967 combined 31 disparate elements of the Federal Government with transportation responsibilities under one Department. The purpose of establishing the Department was to coordinate and administer Federal transportation programs; provide leadership in the identification and resolution of transportation problems; encourage cooperation of Federal, State, Tribal, and local governments toward the achievement of national transportation objectives; stimulate technological advances in transportation; and develop national transportation policies and programs.

Today, DOT is responsible for overseeing and administering a wide range of transportation programs, policies, and regulations for both aviation and surface transportation. DOT's top priorities are to keep the traveling public safe and secure, increase their mobility, and have our transportation system contribute to the Nation's economic growth.

FY 2018-2022 Strategic Goal Framework

This Strategic Plan establishes DOT's strategic goals and objectives for Fiscal Year (FY) 2018 through FY 2022. The GPRA Modernization Act of 2010 amended the Government Performance and Results Act of 1993 (GPRA) to align strategic planning with the beginning of each new term of an Administration, requiring every Cabinet-level department and agency to produce a new Strategic Plan by the first Monday in February following the year in which the term of the President commences. The Strategic Plan, therefore, presents the long-term objectives an agency hopes to accomplish at the beginning of each new term of an Administration by describing general and long-term goals the agency aims to achieve, what actions the agency will take to realize those goals, and how the agency will most effectively use its resources to deal with challenges and risks that may hinder achieving results.

Under the GPRA Modernization Act, the Office of Management and Budget (OMB) established guidance that defines the content and framework for agency strategic plans. This DOT Strategic Plan meets this guidance. It includes the following key elements as defined by OMB.

Strategic Goals are general, outcome-oriented, long-term goals for the major functions and operations of DOT. They address the broad impacts desired by DOT.

Strategic Objectives reflect the outcomes DOT is trying to achieve and are tied to performance goals and indicators.
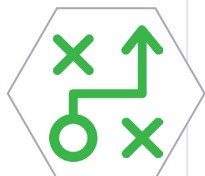
Management Objectives are a type of strategic objective that communicates improvement priorities for management functions such as strategic human capital management, information technology (IT), or financial stewardship.

Strategies describe how DOT plans to make progress toward the strategic objectives.

Performance Goals are statements of the level of performance to be accomplished.

Performance Indicators are quantitative metrics that measure progress toward a strategic objective.

Agency Priority Goals are near-term results or achievements that leadership wants to accomplish within approximately 24 months and that rely predominantly on agency implementation.

Cross-Agency Priority (CAP) Goals are identified in areas where cross-agency coordination on outcome-focused areas are likely to improve progress.

DOT Operating Administrations (OA) undertake their own strategic planning processes, and as they update their strategic plan documents, they will align them with the DOT Strategic Plan and their own statutory requirements. These strategic plans describe in greater detail how each OA will carry out its responsibilities in achieving the Departmental goals established in this document.

The Strategic Plan sets the overall strategic direction of the Department, but it is not intended to address financial resource allocation; DOT, in coordination with OMB, accomplishes this separately through the annual budget formulation process. The Strategic Plan is developed in conjunction with the DOT Annual Performance Plan, which includes performance goals and indicators aligned with the Strategic Plan and sets annual numerical targets. A limited number of these performance goals are designated as Agency Priority Goals (APGs). At the end of each Fiscal Year, DOT issues an Annual Performance Report that evaluates DOT's success in meeting these performance targets. Each strategic objective included in the Strategic Plan includes examples of DOT's performance goals included in the Annual Performance Plan. The performance information included in these documents is used to inform Departmental budget and legislative reauthorization decisions.

Strategic Goals

Our strategic goals are presented below:

- **SAFETY: Reduce Transportation-Related Fatalities and Serious Injuries Across the Transportation System.**
  Safety has consistently been DOT's top strategic and organizational goal. To improve transportation safety, DOT seeks to work effectively with State, local, Tribal, and private partners; address human behaviors to reduce safety risks; improve safety data analysis to guide decisions; continue to employ safety countermeasures; ensure that automation brings significant safety benefits; and pursue performance-based rather than prescriptive regulations.

- **INFRASTRUCTURE: Invest in Infrastructure to Ensure Safety, Mobility and Accessibility and to Stimulate Economic Growth, Productivity and Competitiveness for American Workers and Businesses.**
  DOT seeks to work effectively with State, local, Tribal, and private partners to guide investments that stimulate economic growth, improve the condition of transportation infrastructure, and enable the efficient and safe movement of people and goods. To achieve this goal, DOT will provide guidance, technical assistance, and research that leverages Federal funding, accelerates project delivery, reduces project lifecycle costs, and optimizes the operation and performance of existing facilities. By using innovative forms of financing and project delivery, encouraging partnerships between the public and private sectors, and strategically balancing investments across various modes of transportation to promote greater efficiencies, DOT can maximize the returns to the Nation's economy and people.

- **INNOVATION: Lead in the Development and Deployment of Innovative Practices and Technologies that Improve the Safety and Performance of the Nation's Transportation System.**
  Emerging technologies are transforming our transportation system. DOT seeks to continue its leadership role guiding research investments and facilitating the deployment of beneficial transportation technologies. By engaging with the private and public sectors, DOT can leverage Federal resources to support technology transfer and ensure the safety and security of new technologies.

- **ACCOUNTABILITY: Serve the Nation with Reduced Regulatory Burden and Greater Efficiency, Effectiveness and Accountability.**
  DOT will streamline regulations and improve organizational effectiveness of the Department. DOT will raise accountability standards that improve the efficient use of taxpayer funds. By streamlining business processes and investing in workforce development, DOT will enhance its responsiveness and adaptability to the demands of a rapidly evolving industry.

For each of these goals, there are strategic objectives and strategies. Under each strategy, there are examples of contributing programs and initiatives. Appendix 1 shows more comprehensively how each OA supports the goals and strategic objectives.

Stakeholder Input

In the process of developing the Strategic Plan, DOT solicited stakeholder input by posting a draft of the DOT Strategic Plan on the DOT website and publishing a Federal Register Notice[1] with a request for comment from October 25, 2017 through November 13, 2017. DOT received 69 comments from stakeholder organizations and individuals. DOT staff reviewed every comment and revised the document where appropriate.

Table—DOT Goals, Strategic Objectives, and Strategies

Goals	Strategic Objectives	Strategies
Safety	Strategic Objective 1: Systemic Safety Approach	**Data:** Improve the collection, management, and integration of data on transportation-related fatalities and serious injuries, and their precursors, to enhance safety analysis **Identify Risks:** Identify the risk factors that contribute to fatalities and serious injuries and implement evidence-based risk elimination and mitigation strategies **Collaboration:** Collaborate with stakeholders to foster behavior and infrastructure changes that improve safety **Rural:** Address the disproportionate transportation safety risks in rural communities **Leadership:** Establish a Departmental commitment to continually improve transportation safety by fostering a positive transportation safety culture across the transportation sector **Evaluation:** Evaluate the effectiveness of risk management strategies in reducing risk **Performance:** Promote the use of performance-based safety standards and measures
Infrastructure	Strategic Objective 1: Project Delivery, Planning, Environment, Funding and Finance	**Streamlining and Stewardship:** Streamline the environmental review process to deliver transportation projects, both large and small, more quickly and efficiently to provide timely benefits to users while safeguarding our communities and maintaining a healthy environment **Prioritize:** Target Federal investments toward transportation projects that address high-priority infrastructure and safety needs **Leverage Funding:** Leverage State and local funding and private sector investment **Partnerships:** Build partnerships with stakeholders to facilitate the financing, development, and implementation of multimodal transportation projects that improve connectivity, accessibility, safety, and convenience for all users
	Strategic Objective 2: Life Cycle and Preventive Maintenance	**Rebuild:** Restore transportation infrastructure and assets to a state of good repair through asset management planning and innovative maintenance strategies that take into account long-term operational and financial considerations **Risk Management:** Provide research, technical assistance, and targeted funding to ensure that transportation infrastructure is planned, constructed, and maintained using best operational and risk management practices
	Strategic Objective 3: System Operations and Performance	**System Reliability:** Improve the reliability and efficiency of passenger travel and freight movement on the Nation's transportation systems by working with State DOTs and other stakeholders to identify, collect, and analyze data sources and models to assess overall system reliability and implement strategies that target the sources of unreliable travel and freight movement **Performance:** Measure the performance of transportation systems and support targeted investments to improve the experience of the traveling public
	Strategic Objective 4: Economic Competitiveness and Workforce	**Freight:** Make targeted investments to increase freight mobility and reliability in support of economic competitiveness **Global Competitiveness:** Increase international market access for America's products and services by eliminating transportation and international trade barriers **Workforce Development:** Support the development of appropriately skilled and prepared transportation workers, and develop strategies to meet emerging workforce challenges **Rural:** Encourage transportation investments that promote economic revitalization, job growth, and affordable transportation options in rural communities

Table—DOT Goals, Strategic Objectives, and Strategies (Continued)

| Goals	Strategic Objectives	Strategies
Innovation	Strategic Objective 1: Development of Innovation	**Coordination:** Strengthen coordination across modes, stakeholders, jurisdictions, institutions, sectors, and international boundaries **Research:** Conduct research on advanced technology to promote transportation safety and efficiency **Partnerships:** Partner with the private sector, State, Tribal, and local governments, and research organizations to encourage technology innovation **Data:** Facilitate development of data systems to support data-driven technologies, decision making in real time, and data sharing **Cybersecurity:** Develop modal cyber threat models for transportation critical infrastructure to enhance integrated cybersecurity and safety research priorities
	Strategic Objective 2: Deployment of Innovation	**Technology Integration:** Advance the integration of new transportation technologies and practices into transportation systems to improve safety and performance **Collaboration:** Facilitate private sector and multimodal stakeholder collaboration to improve transportation safety and performance **Updated Regulation:** Update Departmental regulations, policies, and guidance to support deployment of advancements in technology and innovation **Technology Transfer:** Strengthen the technology transfer process to facilitate adoption/commercialization of market-ready transportation technologies
Accountability	Management Objective 1: Regulatory Reform	**Regulation:** Reduce regulations and control regulatory costs
	Management Objective 2: Mission Efficiency and Support	**Workforce:** Attract, develop, and retain employees who have the capabilities and competencies to help the Department achieve its goals **Program Performance:** Improve program performance by streamlining processes, improving systems, and maximizing employee performance, development, and engagement to make efficient and effective use of the Department's resources **Financial Management:** Improve the performance of financial systems **Procurement:** Improve the performance of procurement systems **Small Business:** Promote small business development opportunities **Operational Efficiency:** Ensure sustainable facilities and efficient internal operations **Information Technology:** Advance the modernization of information technology solutions that will enhance mission performance and promote efficient operations **Emergency Preparedness:** Ensure the Department can effectively carry out functions related to emergency response

Safety

Reduce Transportation-Related Fatalities and Serious Injuries Across the Transportation System

Safety has consistently been DOT's top strategic and organizational goal. Each mode of transportation has its own safety posture, but common themes cross all modes. These include the need to work effectively with State, Tribal, and local partners, address human behaviors, employ lifesaving infrastructure countermeasures, improve safety data analysis, ensure automation brings significant safety benefits, and pursue performance-based rather than prescriptive regulations.

In 2016, 39,565 lives were lost in transportation.[2] The majority of transportation fatalities are on roads and highways. Motor vehicle traffic crashes in 2016 resulted in 37,461 fatalities, representing a 5.6 percent increase from the previous year. Among those killed in traffic crashes were 1,430 children, 5,286 motorcyclists, and 6,827 pedestrians and bicyclists.[3] Traffic fatalities increased in both 2015 and 2016 after several years of decline. Deaths among pedestrians, bicyclists, and motorcyclists increased in 2016.[4] Speeding-related crashes and unrestrained passenger vehicle occupant fatalities also increased in 2016.[5] While certain factors are correlated with traffic fatalities, those traditional factors do not fully explain the causes of the recent significant increase in traffic fatalities. Increases in driving are one factor; however, the number of fatalities per 100 million vehicle miles traveled also increased during both of these years. Without additional understanding of the underlying causes, these increases will be difficult to address through policymaking.

While the vast majority of transportation deaths are motor-vehicle related, safety is a primary issue for all transportation modes. In 2016, 260 people died in train-related crashes at public highway-railroad crossings.[6] In 2015, 846 people died in rail, vessel, and pipeline incidents; the
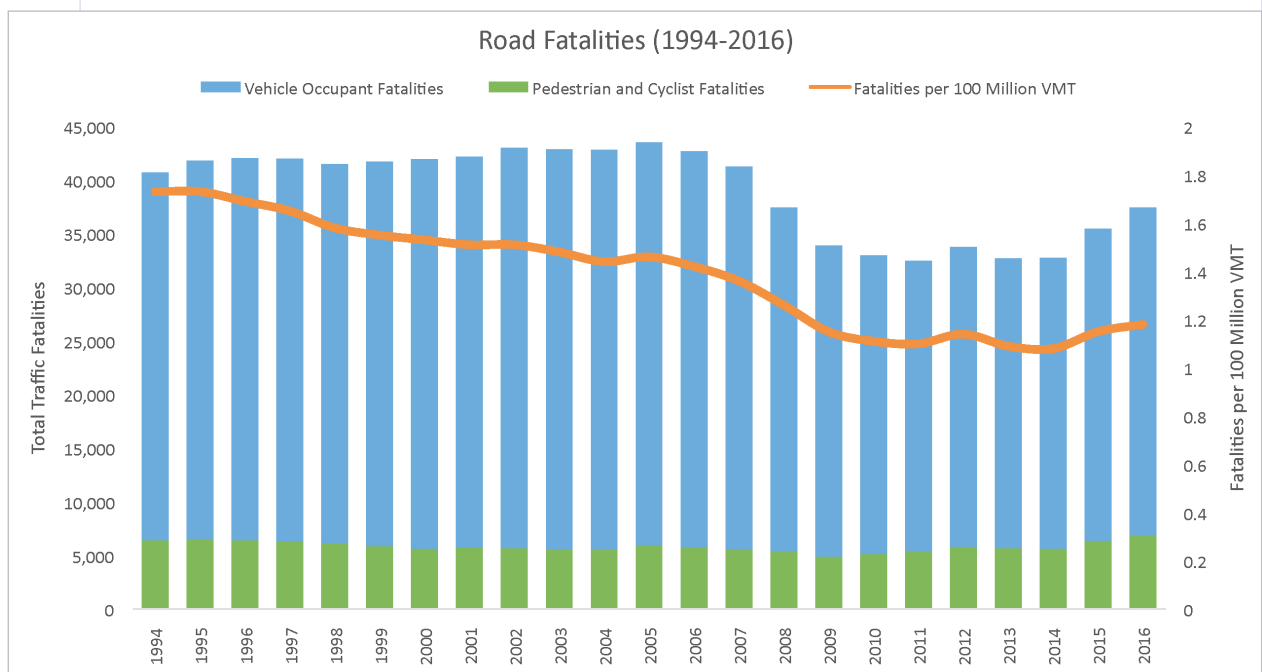
The majority of transportation fatalities occur on roads and highways, and traffic fatalities increased in 2015 and 2016 after several years of decline.

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number of fatalities has declined in nearly all modes.[7] Finally, while commercial aviation crash rates have declined dramatically since the 1960s, the annual average number of lives lost in general aviation crashes between 2010 and 2015 has remained above 400 fatalities per year.[8]

Rural road safety is a particular concern because a disproportionate share of highway fatalities occur on rural roads. While 19 percent of the U.S. population lives in rural areas, rural road fatalities account for 49 percent of all traffic fatalities.[9] The fatality rate, as measured by fatalities per vehicle miles traveled, is 2.6 times higher in rural areas than in urban areas.[10]

Multiple factors contribute to transportation-related fatalities and serious injuries. Successfully addressing such complex, multifaceted safety challenges requires a comprehensive and system-wide approach to deploy safety countermeasures, programs, and activities in a coordinated manner with transportation stakeholders. This approach must be informed by verifiable transportation system data that document transportation crashes, serious injuries, and even near-misses when available. As public agencies begin to collect more data about their own operations and about users of their systems, standards and policies must be in place to assure data security and protect the privacy of the traveling public.

Transportation services and data are increasingly being provided by private companies and service providers. Regulatory agencies must reimagine existing regulations and develop flexible regulations that do not create unnecessary barriers or costs while promoting safe and efficient deployment of private transportation service. For instance, unmanned aircraft systems and commercial space flights pose new hazards for the National Airspace System (NAS), requiring more collaborative, data-informed and risk-based safety management approaches to emerging safety risks to keep pace with the rapid development of these sectors. Public agencies need to find avenues for collaboration that benefit both parties, and integrate this data with traditional data sources in meaningful, constructive ways.

Strategic Objective 1: Systemic Safety Approach

Mitigate risks and encourage infrastructure and behavior change by using a data-driven systemic safety approach to identify risks, enhance standards and programs, and evaluate effectiveness.

DOT has adopted a systemic, safety management system (SMS) approach to improving transportation safety that supports the adoption and evaluation of data-driven strategies to identify and address priority safety risks. DOT will take steps to advance the integration and improvement of SMS where appropriate to guide the identification and implementation of effective safety strategies to provide for the safety of all travelers and workers. In particular, DOT will use data-driven approaches to address safety challenges in rural areas, including with Native American tribes, which account for a disproportionate number of traffic fatalities.

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Research has found that human factors play a significant contributing role in 94 percent of traffic crashes.

DOT will integrate traditional data sources with new, external data sources; grow data analysis capabilities; and promote the use of safety and cybersecurity data to enable evidence-based policy-making. In addition, data will be used to inform how DOT sets safety standards across the modes to prevent fatalities and serious injuries through regulations, guidance, and policies without undue costs or burdens. DOT plans to promote the use of performance-based standards that will advance transportation toward zero fatalities, and will support States, Tribal and local communities as they implement these standards. DOT will continue to provide leadership to integrate safety throughout the entire infrastructure project development process, including planning, design, engineering, environmental management, construction, and operations and maintenance.

Human error and related human factors are responsible at least in part for a significant portion of motor vehicle crashes and other transportation incidents that result in fatalities or serious injuries. Research has found that human factors play a significant contributing role in 94 percent of traffic crashes.[11] Accordingly, DOT's OAs will shorten the learning curve by studying appropriate performance-based best practices of international partners who are making the greatest strides

in improving transportation safety and collaborate with stakeholders to promote safety through several programs. DOT will work cooperatively with stakeholders to apply resources to support compliance with safety laws and standards and promote effective evidence-based safety countermeasures, infrastructure, and technologies to prevent or mitigate the severity of crashes and their negative consequences on communities and the economy.

Automation holds tremendous promise to reduce transportation-related fatalities related to human error. DOT will work closely with stakeholders in the public and private sector to advance the development and adoption of connected and automated technologies across each mode while ensuring their safety, particularly for vulnerable users. Strategies to advance automation are important contributors to DOT's Safety and Innovation goals. In this document, they are addressed under the Innovation goal.

Strategies

Departmental strategies to achieve this objective include:

Data: Improve the collection, management, and integration of data on transportation-related fatalities and serious injuries, and their precursors, to enhance safety analysis

The effectiveness of safety programs is directly linked to the availability of sound data analysis for informed decisions. DOT is committed to increasing the effective use of safety data by improving data quality, quantity, types, storage, maintenance, and accessibility. DOT will enhance the analytical processes and procedures used to identify safety problems and select countermeasures to achieve optimal returns on safety investments. To support effective policy and informed decisionmaking, DOT will increase internal capacity to perform data analysis, promote the innovative use of safety data, and establish data integration to address transportation safety risks.

Examples of Contributing Programs and Initiatives

- **National Center for Statistics and Analysis (NCSA):** Data collection and analysis form the foundation for problem identification and development of new programs to address motor vehicle crashes. This National Highway Traffic Safety Administration (NHTSA) office collects and analyzes injury and fatality data to identify safety problems and help decision makers allocate resources effectively.

- **Runway Incursion Mitigation (RIM) Program:** The Federal Aviation Administration (FAA) analyzed runway incursion data and developed an inventory of locations at airports where risk factors might contribute to a runway incursion. The FAA has undertaken this multi-year program to identify, prioritize, and develop strategies to help airport sponsors mitigate risks at these locations.

- **Motor Carrier Safety Assistance Program (MCSAP) Grant:** This Federal Motor Carrier Safety Administration (FMCSA) grant program provides financial and technical assistance to States to reduce the number and severity of crashes and hazardous materials incidents involving commercial motor vehicles by facilitating the collection of accurate, complete, and timely data on all large commercial truck and bus crashes that involve a fatality, injury, or a vehicle towed from the crash scene.

Identify Risks: Identify the risk factors that contribute to fatalities and serious injuries and implement evidence-based risk elimination and mitigation strategies

DOT will pursue initiatives to improve data-driven systemic investments in transportation safety and ensure the countermeasures promoted are proven and evidence-based. This includes using data analysis and safety analysis to better understand the risks in the transportation system and identify effective interventions and promote their use.

Examples of Contributing Programs and Initiatives

- **Highway Safety Research:** The Federal Highway Administration (FHWA) and NHTSA conduct research to identify behavioral and roadway feature crash risks, and use this evidence to inform safer roadway design, and develop technologies and countermeasures that help avoid crashes, and safety resources for stakeholders. NHTSA regularly updates its *Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices* resource guide to address emerging behavioral safety challenges and identify proven safety countermeasures States can use to address these challenges. NHTSA is developing a new companion resource with examples from States that have implemented such countermeasures.

- **Hazard Mitigation:** The goal of this FAA program is to identify and maintain a list of five high-priority safety issues for the Air Traffic Organization, backed by safety data and associated trends in the NAS, to compel swift, cross-organizational action in addressing them until the safety risk is mitigated.

- **Call Before You Dig (811):** The Pipeline and Hazardous Materials Safety Administration (PHMSA) invests in programs that identify pipeline and hazardous material locations and routes, helping prevent incidents before they occur. This cornerstone prevention program for pipeline safety identifies where pipelines carrying flammable liquids and gas exist so they can be avoided during excavation.

Collaboration: Collaborate with stakeholders to foster behavior and infrastructure changes that improve safety

DOT will work closely with other Federal, State, local, and Tribal transportation agencies, Metropolitan Planning Organizations (MPOs), safety and public health advocacy groups, law enforcement emergency responders, and other organizations with transportation interests to better understand safety issues and promote strategies that encourage behavioral change.

Examples of Contributing Programs and Initiatives

- **Road to Zero Coalition:** This joint initiative among three DOT Operating Administrations—NHTSA, FHWA, and FMCSA—and the National Safety Council is designed to encourage stakeholders to implement proven lifesaving strategies to reduce crashes and fatalities. It will develop a long-term vision on how to achieve zero traffic deaths based on a systemic approach to eliminating risks.

- **State Highway Traffic Safety Grants Program:** NHTSA oversees State Highway Safety grant programs that help States develop and implement Highway Safety Plans, collect and analyze crash data, support enforcement of traffic safety laws, and provide technical assistance and outreach on a wide range of issues to stakeholders.

- **Confidential Close Call Reporting System (C3RS):** This program enables the Federal Railroad Administration (FRA) and participating railroads to develop and implement safety strategies before accidents occur. Railroad employees report near misses to a third party that collects and de-identifies the reports. Labor management teams, with FRA technical assistance, then analyze the reports to understand risks, identify hazards, and develop customized plans for railroads to eliminate and mitigate the risks. Over 19,000 employees are covered in the existing program.

- **State Safety Oversight (SSO) Program:** The purpose of this Federal Transit Administration (FTA) program is to oversee safety at rail transit systems. The SSO program is administered by States with rail transit systems in their jurisdiction. FTA provides Federal funds through the SSO Formula Grant Program for eligible States to develop or carry out their SSO programs.

Rural: Address the disproportionate transportation safety risks in rural communities

DOT will work with State DOTs and local road agencies to build their capacity to address critical safety issues, delivering innovative and timely technical assistance, safety data analysis, and investments to efficiently allocate limited funding resources and address disparities in rural transportation safety outcomes.

Examples of Contributing Programs and Initiatives

- **Highway Safety Improvement Program (HSIP):** FHWA provides technical assistance and guidance to States on systemic approaches to assessing and improving safety, including a focus on addressing significant safety risks on High Risk Rural Roads.

- **Tribal Transportation Program Safety Funds:** FHWA provides safety grants to federally-recognized Tribes through a competitive annual discretionary program that funds projects to prevent and reduce death or serious injuries in transportation-related incidents.

Leadership: Establish a Departmental commitment to continually improve transportation safety by fostering a positive transportation safety culture across the transportation sector

Safety culture within an organization is exemplified by the shared values and behaviors that demonstrate a top-down commitment to safety over competing goals. DOT will foster a safety culture by pursuing programs and initiatives that increase the valuation of safety and encourage proactive safety reporting and risk management to achieve safety goals.

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Examples of Contributing Programs and Initiatives

- **DOT Safety Council:** DOT's Safety Council is chaired by the Deputy Secretary of Transportation and composed of the heads of each DOT operating administration, their senior safety officers, and senior officials from the Office of the Secretary (OST).

- **Safety Management System (SMS) Rule:** This FAA rule requires airlines to implement SMS to improve the safety of aviation. SMS includes an organization-wide safety policy; formal methods for identifying hazards, controlling, and continually assessing risk and safety performance; and promotion of a safety culture.

Evaluation: Evaluate the effectiveness of risk management strategies in reducing risk

DOT will engage in rigorous evaluations of safety programs and strategies to ensure their efficiency and effectiveness.

Examples of Contributing Programs and Initiatives

- **Crash Modification Factors (CMF) Clearinghouse:** FHWA funds the CMF Clearinghouse, which offers transportation professionals a central, web-based repository of studies that evaluate the effectiveness of roadway safety countermeasures. Each study is rated based on its quality and rigor and the level of confidence in its results. FHWA uses the information from the CMF Clearinghouse to evaluate the effectiveness of the HSIP, develop a national-benefit- cost ratio, and help in the development and promotion of proven safety countermeasures.

- **Departmental Program Evaluation:** In FY 2018, DOT will launch a new Program Evaluation effort. OST is working with the OAs to develop a methodology for defining a program that ties organizational units to mission delivery and allows for comprehensive analysis. This inventory of programs will be reviewed and updated on an annual basis. A self-assessment tool will help the Department determine which programs should be evaluated in more detail.

Performance: Promote the use of performance-based safety standards and measures and ensure transparency

Each of DOT's OAs have adopted a systemic approach to safety oversight and management. This approach uses data and performance measures to determine priorities, evaluate risk mitigation strategies, guide safety standards, and ensure the effective integration of those standards into organizational structures and business process. Safety-based standards and measures improve communication between decisionmakers, stakeholders, and the traveling public.

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Examples of Contributing Programs and Initiatives

- **Transportation Performance Management for Safety:** FHWA's Safety Performance Management Measures final rule establishes safety performance measure requirements for the purpose of carrying out the HSIP and assessing fatalities and serious injuries on all public roads. This will improve data; foster transparency and accountability; and allow safety progress to be tracked at the national level.

- **Pipeline Integrity Management:** PHMSA administers a performance-based, safety program to adopt methods used by "best-in-class" safety-oriented organizations. This program improves safety performance through an iterative process of collecting safety data, identifying risks, taking corrective action when needed, and reassessing safety.

- **Aircraft Certification Transformation:** FAA has comprehensively transformed its Aircraft Certification Safety System to enable greater agility in the dynamic aviation environment by shifting from a transactional model in the middle of the path to a model where the emphasis is on up-front planning, the use of performance-based standards, and a robust risk-based systems oversight program, while sustaining FAA's global leadership in the advancement of aviation safety.

Performance Goals for Strategic Objective

- Reduce Surface Transportation-Related Fatalities (FHWA, FMCSA, FRA, FTA, NHTSA, PHMSA)—Agency Priority Goal

- Reduce Aviation-Related Fatalities, Commercial and General Aviation (FAA)—Agency Priority Goal

For more detailed information, please see DOT's Annual Performance Plan.

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Infrastructure

Invest in Infrastructure to Ensure Mobility and Accessibility and to Stimulate Economic Growth, Productivity, and Competitiveness for American Workers and Businesses.

Targeted transportation investments are needed to preserve mobility and accessibility of the traveling public and freight movements. Investment in maintaining, repairing, and rehabilitating infrastructure has not kept pace with growing transportation needs. As a result, our highways, bridges, transit assets, ports and waterways, airport and air traffic facilities, and passenger rail facilities face growing maintenance and modernization needs. The failure to modernize our infrastructure to keep up with a growing population and economy, and technological advances compromises the safety, capacity, and efficiency of the U.S. transportation network. The declining condition of our infrastructure reduces our Nation's economic competitiveness and the quality of life of all Americans. Repair and modernization of our transportation infrastructure must be a national priority to ensure continued economic growth in the United States, and preserve our freedom of movement and quality of life.

The effects of underinvestment are evident to all who depend on our transportation system. The situation is particularly acute for highways and transit systems. Traffic congestion in urban areas has gotten worse. The national Travel Time Index increased from 1.19 in 2000 to 1.22 in 2014, and is increasing during more hours of the day and more days during the week in some metropolitan areas.[12] This means that a 30-minute trip in free-flow traffic takes an average of 36 minutes during peak travel times.[13] Sixty-four percent of U.S. highways are in less than good condition, and 25 percent of U.S. bridges need significant repair or cannot handle today's traffic.[14] Of all classifications of bridges, rural local bridges have the highest percentage rated structurally deficient at 17.2 percent.[15] Interstate bridges in rural areas had the highest share of functionally obsolete rural bridges at 11.6 percent.[16] The U.S. has an estimated backlog of $836 billion in unmet capital and investment needs for highways and bridges.[17] In 2016, nearly 6,800 transit systems nationwide accommodated 10.4 billion trips on public transportation,[18] but they face a $90 billion maintenance backlog.[19] Approximately 35 percent of transit system guideway elements are not in a state of good repair.[20]

Freight bottlenecks and chokepoints across our multimodal transportation system raise the cost of freight shipments and reduce our economic competitiveness. The navigation locks on our inland waterways, key corridors for moving bulk commodities, are in need of rehabilitation and modernization.[21] Freight tonnage is forecast to increase by 40 percent by 2045, further straining our Nation's roads, railways, ports, inland waterways, and intermodal facilities.[22]

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The navigation locks on our inland waterways, key corridors for moving bulk commodities, are in need of rehabilitation and modernization.

The environmental review and permitting process in the United States is fragmented, inefficient, and unpredictable. Existing statutes have important and laudable objectives, but the lack of cohesiveness in their execution make the delivery of infrastructure projects more costly, unpredictable, and time consuming, all while adding little environmental protection. The median time for DOT's OAs to complete an environmental impact statement (EIS) exceeds four years. The full environmental review process on complex projects can exceed 10 years. More efficient and effective Federal infrastructure decisions can transform our economy, so the Federal Government, as a whole, must change the way it processes environmental reviews and authorization decisions. DOT will be a leader in implementing Executive Order 13807 and other White House directives on speeding the permitting process, meeting a two-year goal for completion of Federal infrastructure projects.

To stimulate growth and retain economic competitiveness, DOT must guide strategic investments that enable the more efficient movement of people and goods. To achieve this goal, DOT will provide guidance, technical assistance and research that leverages Federal funding, accelerates project delivery, reduces project lifecycle costs, optimizes the operation and performance of existing facilities, and provides multimodal travel options for people of all ages and abilities. By using innovative forms of financing and project delivery, encouraging partnerships between the public and private sectors, engaging with underserved communities, and strategically balancing investments across various modes to promote greater efficiencies, DOT can help its public and private partners maximize the returns to the Nation's economy and people.

Strategic Objective 1: Project Delivery, Planning, Environment, Funding, and Finance

Facilitate expanded infrastructure development, modernization, and construction in both rural and urban communities by fostering more efficient and collaborative planning and construction techniques, accelerating project approval, leveraging all sources of funding, and promoting innovative financing while maintaining environmental stewardship.

DOT provides Federal transportation funding to support construction and rehabilitation of infrastructure and is committed to helping State, local and Tribal agencies leverage public and private investments to restore the Nation's infrastructure in rural and urban areas. DOT's Build America Bureau strengthens financing and funding opportunities, and provides access to credit and grant programs with more speed and transparency. DOT's OAs provide technical assistance and encourage the use of innovative best practices in project planning, financing, development, delivery, and monitoring. DOT is committed to accelerating environmental reviews, institutionalizing use of the Permitting Dashboard to improve accountability and transparency, and increasing opportunities for private sector investment, in order to upgrade our transportation infrastructure for the benefit of all communities, from rural to urban. DOT will engage with our international partners to acquire and adapt innovative infrastructure development and financing approaches to U.S. needs. DOT has a long history of working to reduce transportation-related air, water, and noise pollution, and impacts on the natural and human environment, and this work will continue within the project development process.

Strategies

Departmental strategies to achieve this objective include:

Streamlining and Stewardship: Streamline the environmental review process to deliver transportation projects, both large and small, more quickly and efficiently to provide timely benefits to users while safeguarding our communities and maintaining a healthy environment

To reduce the timeframe for delivering infrastructure projects, DOT will accelerate and improve environmental reviews and permitting processes by employing a range of strategies, including: improving interagency coordination, reducing duplication of reviews, and enhancing transparency and accountability. DOT remains committed to ensuring that all communities, including minority populations, low-income populations, and the disability community, have meaningful input into the transportation planning and decision-making processes, and that transportation projects avoid or minimize impacts to communities and the environment to the greatest extent possible.

Examples of Contributing Programs and Initiatives

- **Infrastructure Permitting Improvement Center (IPIC):** This center advances reforms to improve interagency coordination and expedite the environmental review and permitting of major infrastructure projects. IPIC coordinates DOT's implementation of the FAST Act project delivery provisions, and leads DOT's involvement in the environmental review and permitting efforts of Executive Order 13807 and other Administration initiatives, and manages the Permitting Dashboard on behalf of the Federal Permitting Improvement Steering Council.

- **Permitting Dashboard:** This online tool for Federal agencies, project sponsors and the public provides transparency of the environmental review and authorization process for infrastructure projects. As the Dashboard continues to expand the scope and number of tracked projects and improve the functionality of tracking tools for stakeholders, it increases predictability for project sponsors and promotes government accountability in the review and permitting processes.

- **Airport Environmental Program:** This program helps airports implement the National Environmental Policy Act (NEPA) and other Federal environmental laws and regulations. This includes airport noise compatibility planning, airport noise and access restrictions, environmental review for airport development, and the application of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Prioritize: Target Federal investments toward transportation projects that address high priority infrastructure and safety needs

Through competitive, discretionary grant programs, DOT will support projects of national significance that advance DOT goals, leverage Federal funds, transform how infrastructure is delivered, and promise a high rate of social and economic return.

Examples of Contributing Programs and Initiatives

- **Infrastructure for Rebuilding America (INFRA):** The INFRA grant program provides dedicated, discretionary funding for projects that address critical issues facing our Nation's freight system. INFRA grants create opportunities for all levels of government and the private sector to fund infrastructure, using innovative approaches to improve processes, increase accountability and promote safety solutions.

- **Advanced Transportation and Congestion Management Technologies Deployment Program:** FHWA administers this competitive grant program for the development of model deployment sites for large-scale installation and operation of advanced transportation technologies that help reduce congestion and improve the safety of our transportation system.

- **Airport Improvement Program (AIP):** This grant program serves as FAA's primary source of funding for airport infrastructure and equipment at approximately 3,330 urban and rural airports.

Leverage Funding: Leverage State and local funding and private sector investment

Through competitive and formula grants and innovative finance programs, DOT will leverage Federal funds, incentivize State and local funding, and support private investment in transportation infrastructure, including multimodal projects. DOT recognizes that rural areas face challenges attracting private investment and raising additional State and local funding.

Examples of Contributing Programs and Initiatives

- **Transportation Infrastructure Finance and Innovation Act (TIFIA):** This program provides credit assistance for qualified projects of regional and national significance, including highway, transit, railroad, intermodal freight, and port access projects. The TIFIA credit program is designed to fill market gaps and leverage substantial private co-investment by providing supplemental and subordinate capital.

- **Railroad Rehabilitation and Improvement Financing (RRIF):** This program provides direct loans and loan guarantees to finance the development of track and structure upgrades that have useful lives of 20 to 30 years. RRIF is an important instrument for promoting economic development and preserving rail service in small and rural communities.

- **Surface Transportation Block Grant Program:** This FHWA program provides flexible funding to States to address state and local transportation needs, including transportation planning, bridge improvements, and transportation alternatives.

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Partnerships: Build partnerships with stakeholders to facilitate the financing, development, and implementation of multimodal transportation projects that improve connectivity, accessibility, safety, and convenience for all users.

Public-private partnerships (P3s) can allow public agencies to leverage private sector capital and expertise to deliver projects more quickly and efficiently by introducing greater market discipline to project delivery and management. DOT programs will support the use of P3s to deliver infrastructure projects.

Examples of Contributing Programs and Initiatives

- **Build America Bureau:** The Bureau is responsible for streamlining credit opportunities and providing access to the credit and grant programs with more speed and transparency, while also providing technical assistance and encouraging innovative best practices in project planning, financing, delivery, and monitoring.

- **Airport Privatization Pilot Program:** This program allows airport sponsors to explore privatization as a means of generating access to private capital for airport improvement and development. The FAA is authorized to permit up to 10 public airport sponsors to sell or lease an airport with certain restrictions and to exempt the sponsor and the private operator from certain Federal requirements that could otherwise make privatization impractical.

- **Competitive Passenger Rail Service Pilot Program:** To foster competition in passenger rail service, the FRA is implementing a pilot program for provision of long-distance intercity passenger rail service on three long-distance routes by rail carriers other than Amtrak.

Performance Goal for Strategic Objective

- Simplify and Enhance Environmental Review Process for Major Transportation Projects (FAA, FHWA, FRA, FTA)—Agency Priority Goal

For more detailed information, please see DOT's Annual Performance Plan.

Strategic Objective 2: Life Cycle and Preventive Maintenance

Keep the Nation's transportation infrastructure secure and in a state of good repair by maintaining and upgrading existing systems in rural and urban communities.

DOT supports life cycle management and preservation of infrastructure by providing Federal transportation funding and targeted programmatic asset management guidance to support the rehabilitation and preservation of existing transportation infrastructure to keep these important assets in good condition for the benefit of all communities, from rural to urban. DOT has increasingly emphasized a risk-based strategy of infrastructure asset management to efficiently build, preserve, and maintain infrastructure. For instance, FHWA is working closely with State DOTs on asset management requirements under the Moving Ahead for Progress in the 21st Century Act (MAP-21). In addition, FRA has been coordinating with FTA and railroads on the Northeast Corridor to meet FAST Act asset management requirements. Going forward, DOT will increase its effectiveness in ensuring that infrastructure is resilient enough to withstand extreme weather and security events (including cybersecurity events), which could otherwise disrupt the transportation network and

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require major reconstruction. Beyond this, innovative improvements will be aligned with needed preservation to reduce costs and foster continuous modernization and improvement. Finally, DOT expects recipients of Federal funds to incorporate future operations and maintenance costs associated with a project's life cycle into the project planning and preparation.

Strategies

Departmental strategies to achieve this objective include:

Rebuild: Restore transportation infrastructure and assets to a state of good repair through asset management planning and innovative maintenance strategies that take into account long-term operational and financial considerations

DOT provides leadership and technical assistance to support State, local and Tribal governments to strategically manage their assets to improve infrastructure conditions, address risks, maximize the return on investment, and improve system performance. To support cost-effective asset management, DOT will support approaches and tools that support the consideration of asset lifecycle costs and management strategies in project design, delivery, and maintenance. This includes consideration of the potential benefits of leveraging private sector expertise and discipline for long-term asset management. DOT will encourage State, local, and Tribal governments to consider the role of connectivity and Intelligent Transportation Systems (ITS) when considering maintenance and updates to existing infrastructure.

Examples of Contributing Programs and Initiatives

- **Transit Asset Management Program:** FTA recommends Transit Asset Management practices to preserve and expand transit investments. The FTA requires grantees to develop management plans for their public transportation assets and a strategic approach to maintain and improve capital assets.

- **Facilities Infrastructure Portfolio (FIP):** FAA manages infrastructure sustainment, replacement and improvement needs for approximately 12,500 facilities through a portfolio of 14 Capital Investment Programs.

- **Formula Grants:** FHWA and FTA each provide grants by formula to States and urbanized areas to sustain and maintain existing highway infrastructure and public transportation services.

Risk Management: Provide research, technical assistance, and targeted funding to ensure that transportation infrastructure is planned, constructed, and maintained using best operational and risk management practices

Infrastructure across the country faces risks from natural disasters, extreme weather, and security risk events that can damage and destroy infrastructure, disrupt travel and regional economies, and require costly repairs.

Examples of Contributing Programs and Initiatives

- **State Performance Management:** FHWA supports State DOTs in advancing asset management practices, including the development of risk-based asset management plans. These plans are the framework for developing the investment strategies to address infrastructure condition targets, as well as addressing risk and managing assets for their whole life at the least practicable cost.

- **Sustainable Highways Initiative:** FHWA works with States and MPOs to increase the health and longevity of the Nation's highways by assessing vulnerabilities, considering communities and resilience in the transportation planning process, incorporating resilience in asset management plans, and addressing resilience in project development and design.

- **Public Transportation Emergency Relief Program:** This FTA program helps States and public transportation systems pay for protecting, repairing, and/or replacing equipment and facilities that may suffer or have suffered serious damage as a result of an emergency, including natural disasters such as floods, hurricanes, and tornadoes. FTA continues to administer and provide oversight of emergency relief and future resilience projects for transit infrastructure in areas impacted by Superstorm Sandy.

Performance Goal for Strategic Objective

- Improve Conditions of America's Transportation-Related Infrastructure (FAA, FHWA, FTA)— Agency Priority Goal

For more detailed information, please see DOT's Annual Performance Plan.

Strategic Objective 3: System Operations and Performance

Enhance reliable and efficient movement of people and goods by promoting effective management and ensuring leadership in securing data and in sharing information across the transportation system.

DOT will support development and operation of transportation systems to ensure that they are connected, compatible, integrated, managed effectively, and responsive to new services and technologies to encourage efficient mobility and access for people and goods. DOT will use performance measures to provide for greater transparency and to help communicate the cost-effective use of Federal, State, local and private funding and financing where they are needed most.

Strategies

Departmental strategies to achieve this objective include:

System Reliability: Improve the reliability and efficiency of passenger travel and freight movement on the Nation's transportation systems by working with State DOTs and other stakeholders to identify, collect, and analyze data sources and models to assess overall system reliability and implement strategies that target the sources of unreliable travel and freight movement

DOT seeks to address congestion on our Nation's transportation systems through targeted, data-driven investments in projects to enhance capacity and the development and promotion of effective operational strategies and technologies to optimize existing capacity. DOT understands the importance of State partners collaborating with communities so that system performance can be fully optimized when setting priorities among transportation investments.

Examples of Contributing Programs and Initiatives

- **Traffic Incident Management (TIM) Training:** FHWA develops and provides training for transportation agencies and emergency responders to establish coordinated programmatic processes to detect, respond to, and remove traffic incidents and restore traffic capacity as safely and quickly as possible. Effective TIM reduces the duration and impacts of traffic incidents and improves the safety of motorists, crash victims and emergency responders.
- **Congestion Mitigation and Air Quality Improvement (CMAQ) Program:** This FHWA program provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available

to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter and for former nonattainment areas that are now in compliance.

- **Strategic Sealift Support Programs:** The Maritime Administration's (MARAD) Ready Reserve Force (RRF) ships provide rapidly deployable sealift capability to meet the Nation's needs for national security and emergency response, which is in addition to capability drawn from the commercial U.S. Merchant Marine in times of national crisis. The Maritime Security Program fleet of 60 internationally trading U.S.-flag ships, and other vessels enrolled under the Voluntary Intermodal Sealift Agreement and Voluntary Tanker Agreement programs, provide sustainment sealift for the Nation, and employ a pool of skilled American mariners that can support RRF crewing.

Performance: Measure the performance of transportation systems and support targeted investments to improve the experience of the traveling public

Transportation agencies in all modes and at all levels are increasingly using performance measures and data to inform decisions and increase accountability. Federal surface transportation performance measures and outcome-based regulatory structures in other modes offer the prospect of increasing the focus on maintaining a state of good repair.

Examples of Contributing Programs and Initiatives

- **Transportation Performance Management:** Transportation performance management is a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals. FHWA has established consistent performance measures for the Federal-Aid Highway Program that States and MPOs must use to direct transportation planning and asset management for highway and transit programs.

- **Joint FAA Industry Performance Measures:** The FAA and its industry stakeholders are working through the NextGen Advisory Committee to prioritize investments in aviation infrastructure, and they are jointly measuring performance to ensure those investments are making a difference.

- **National Transportation Library:** OST's Bureau of Transportation Statistics (BTS) is an objective supplier of trusted and statistically-sound baseline, contextual, and trend information used to shape transportation policy, investments, and research across the U.S. and abroad. BTS integrates data from a wide variety of sources and makes them available through the National Transportation Library, which serves as a portal to statistical information and a repository for all DOT research.

Performance Goals for Strategic Objective

- Decrease Average Flight Wait Time (FAA)

- Increase Airport Capacity (FAA)

- Alleviate Urban Congestion (FHWA)

- Improve Passenger Rail (On-Time) Performance (FRA)

- Increase Rural Transit Ridership (FTA)

- Sealift Capacity; Increase of U.S.-Flag Vessels (MARAD)

For more detailed information, please see DOT's Annual Performance Plan.

Strategic Objective 4: Economic Competitiveness and Workforce

Promote transportation policies and investments that bring lasting economic benefits to the Nation by ensuring multimodal infrastructure connectivity to foster efficient movement of people and goods at home and abroad; increasing foreign market access and opportunities for American businesses and services; and by meeting the Nation's transportation workforce needs.

DOT supports strategic, multimodal investments and policies that reduce costs, increase reliability and competition, and satisfy consumer preferences to advance U.S. economic growth and American transportation interests worldwide. DOT will leverage strategic investments in infrastructure, services, and workers to promote economic growth, opportunity, and competitiveness for the benefit of American workers, businesses, and the traveling public. DOT will support investments that improve the efficiency of freight movements and increase business competitiveness by improving freight planning and freight data and identifying and addressing freight bottlenecks that hinder the reliable movement of freight. DOT will also work to improve passenger travel modes, which are a major contributor to both national and local economies.

To promote economic competitiveness, the Department will adopt policies that promote U.S. transportation industry exports and foster the development of the transportation workforce. DOT will promote exports by providing technical assistance to encourage international adoption of U.S. transportation standards and regulations. To meet the Nation's transportation workforce needs, DOT will collaborate with Federal partners, universities and industry stakeholders to develop and implement strategies that will foster the training and development of the workforce to acquire the needed skills and capabilities to meet the current and future needs of the transportation industry. In this effort, DOT will encourage approaches that effectively address the impact of technology on the transportation industry workforce.

Strategies

Departmental strategies to achieve this objective include:

Freight: Make targeted investments to increase freight mobility and reliability in support of economic competitiveness

DOT supports freight planning, freight infrastructure funding and development, and freight data collection and maintenance. DOT is implementing programs and activities to advance the goals of the National Multimodal Freight Policy and the National Highway Freight Program. In addition, to support enhanced freight investment decision-making, the Department is developing data sources to aid in freight-related planning and project evaluation efforts. DOT also works to ensure adequate capacity and quality of international and cross-border trade corridors that support American jobs and reduce our trade deficits by engaging intermodal freight infrastructure planning and coordination with foreign partners.

Examples of Contributing Programs and Initiatives

- **National Freight Strategic Plan:** DOT is developing a National Freight Strategic Plan and a National Multimodal Freight Network (NMFN) to inform freight planning and targeted investment efforts by State DOTs and other stakeholders. The Plan will describe the freight transportation system and highlight strategies to help support that system through improved planning, dedicated funding streams, and innovative technologies.

- **National Highway Freight Program (NHFP):** The FAST Act provided approximately $1.2 billion per year in formula funding for the NHFP. These funds will be used by States to improve the efficient movement of freight on the National Highway Freight Network. The National Multimodal Freight Network will help to prioritize Federal, State, and local transportation freight investments.

- **U.S. Seaway System Reliability:** The The Saint Lawrence Seaway Development Corporation (SLSDC) operates and maintains the U.S. infrastructure for the St. Lawrence Seaway, which connects the Great Lakes with overseas markets for commercial trade. The SLSDC prioritizes timely operations, maintenance, and asset renewal programs and activities for the St. Lawrence Seaway to ensure the safety, efficiency, and reliability of this important international commercial trade and transportation route.

Global Competitiveness: Increase international market access for America's products and services by eliminating transportation and international trade barriers

DOT seeks to advance American transportation interests worldwide by creating opportunities for American businesses to sell goods and services abroad and by working with foreign partners to improve the safety, efficiency, and sustainability of global transportation systems. DOT increases foreign market access and opportunities for American business overseas by eliminating barriers to trade in transportation-related goods and services; it also spurs the development of export-related jobs through Federal transportation investments, international transportation initiatives, and cooperative research efforts.

- **Transportation Trade Policy and Negotiations:** OST manages all transportation-related international trade policy issues by participating in negotiations of free trade agreements with foreign partners, and their enforcement, to expand market opportunities for the transportation industry and reduce technical barriers to trade. The Office also engages in bilateral and multilateral cooperative activities with international partners to promote evidence-based transportation policies that promote the economic competitiveness of the U.S. transportation industry.

- **Expanding Market Opportunities and Competitiveness for U.S. Airlines:** OST promotes expansion of international air service opportunities through negotiation of international air transport agreements, creative programs, and streamlined regulatory procedures. Through data-driven analysis of the aviation industry, the Office of Aviation Analysis supports the growth, development, and competitiveness of the U.S. airline industry and other sectors within aviation, such as UAS. The Office oversees the licensing of new U.S. airlines, processes U.S. airline requests for antitrust immunity, and manages small community grant and airline subsidy programs.

Workforce Development: Support the development of appropriately skilled and prepared transportation workers, and develop strategies to meet emerging workforce challenges

DOT is committed to collaborating with industry partners to recruit, educate, and train current and future workers, including from underrepresented groups, on the knowledge and skills required to be a part of a world-class workforce that can help achieve the Nation's transportation priorities. The U.S. is facing worker shortages in various transportation sectors. Many transportation jobs, such as commercial airline pilots, truck drivers, and maritime seafarers, require a license, a certification, or both, and obtaining these can be time consuming and expensive, potentially posing barriers to entry. Lack of credentialed workers, combined with projected retirements, threaten to cause significant worker shortages in these job categories if not addressed, and the introduction of new innovations and technologies adds additional complexity. Successfully addressing these challenges will allow the Nation to meet the demand for both passenger travel and freight transportation.

Examples of Contributing Programs and Initiatives

- **Maritime Education Training Programs:** The U.S. Merchant Marine Academy, an accredited Federal institution of higher education operated by MARAD, and the six State Maritime Academies, to which MARAD provides Federal assistance, educate and graduate licensed Merchant Marine officers and leaders of exemplary character who will serve America's marine transportation and defense needs in peace and war.

- **Commercial Motor Vehicle Operator Safety Grants:** FMCSA provides funds to educational institutions through a grant program to recruit and train active duty personnel, veterans, and their families in preparation for careers as professional bus and truck drivers.

- **Pilot Training:** The FAA provides support to pilot training programs to make certain that they adhere to standard procedures and prevent behavior that could lead to pilot errors. FAA provides training resources and guides to both pilots and pilot training facilities. As the regulatory body, FAA provides guidelines, briefings, and publications on everything from safety to certification. In November 2017, DOT initiated the Forces to Flyers pilot program to provide veterans with technical and financial assistance to help them obtain a pilot certificate.

Rural: Encourage transportation investments that promote economic revitalization, job growth, and affordable transportation options in rural communities

Well-planned, multimodal freight systems will provide opportunities for companies to locate and grow in rural regions due to efficient and reliable connections with major markets and ports. Intermodal facilities and logistics centers located in rural areas can benefit from lower costs than urban areas and may be strategically located at a key transfer point in a freight corridor. DOT will prioritize policies and programs connecting all users in rural communities, especially for those who are transportation-disadvantaged, to economic opportunities and services.

Examples of Contributing Programs and Initiatives

- **Tribal Transportation Program:** This FHWA program allocates funding to Tribes to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands, and Alaska Native Village communities.

- **Public Transportation on Indian Reservations Program; Tribal Transit Program:** The Tribal Transit Program is a set-aside from FTA's Formula Grants for Rural Areas program consisting of a $25 million formula program and a $5 million discretionary grant program subject to the availability of appropriations.

Performance Goals for Strategic Objective

- Alleviate Freight Congestion (FHWA)

- Increase Credentialed Mariners Available to Meet Military Sealift Requirements (MARAD)

- Reduce Time to Issue Hazmat Transportation Permits (PHMSA)

- Percent of Time U.S. Portion of the St. Lawrence Seaway is Available to Commercial Users (SLSDC)

For more detailed information, please see DOT's Annual Performance Plan.

Innovation

Lead in the Development and Deployment of Innovative Practices and Technologies that Improve the Safety and Performance of the Nation's Transportation System.

The transportation sector is rapidly evolving to become one of the most innovative and dynamic areas of the Nation's economy. Significant developments and convergence of robotics, artificial intelligence, sensors, mapping, data and communications are driving innovation in the transportation space. Emerging technologies such as Automated Driving Systems (ADS), UAS, the Internet of Things (IoT), Mobility on Demand (MOD), automated rail technologies, autonomous ships, automated ports, and others represent examples of where these technologies are aiming to transform the future use, operation, adaptability, and development of the transportation system.

These emerging technologies can offer benefits and advance DOT's mission of providing safe, clean, accessible, and efficient transportation. Automation has already assisted in making aviation safer; it now holds the potential to significantly improve safety on our highways and other modes of transportation. Automated systems perform more of the driving task and reduce opportunities for human error, which contributes to the vast majority of crashes. These systems can also enhance operational efficiency and provide tremendous societal benefits.

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Today, unmanned aircraft are used for a variety of applications in areas like environmental monitoring and scientific research, precision agriculture and crop maintenance, safe infrastructure inspection, firefighting, search and rescue operations, and education. As integration continues, new jobs will be created and industries will develop.

There will be significant potential benefits from these transportation innovations, and there are also new policy and regulatory challenges that will need to be addressed. The existing regulatory structure may not address, or be flexible enough to adapt to, rapidly advancing technologies and may result in significant barriers to adoption of these technologies. Coordinated actions are necessary to ensure nationwide interoperability of emerging technologies and their compatibility with the existing transportation system, while being cautious to avoid actions that unnecessarily impede innovation. Also, the full implications of emerging technologies to infrastructure, the workforce, and public agencies remain unclear. DOT must be prepared to respond to challenges posed by emerging technologies, while accelerating their development and deployment to realize potential benefits.

Innovative technologies and practices are key drivers for improving the safety and performance of the Nation's transportation system. To achieve this goal, DOT will support development and deployment of these innovative technologies by investing in targeted research, facilitating coordination and information sharing, partnering with industry and other stakeholders, assessing existing regulatory approaches to address potential barriers, and providing opportunities to expedite the testing and adoption of these beneficial technologies.

Automation has already assisted in making aviation safer; it now holds the potential to significantly improve safety on our highways and other modes of transportation.

Strategic Objective 1: Development of Innovation

Encourage, coordinate, facilitate, and foster world-class research and development to enhance the safety, security, and performance of the Nation's transportation system.

Innovation development requires research and active transfer of relevant technologies and practices to and from private and public sectors, academia, and State, local, and Tribal agencies. Accordingly, DOT funds and facilitates research that supports the development and deployment of innovative practices and technologies in the transportation system. Moving forward, DOT will work with other Federal agencies, research institutions, and the private sector to develop and enhance new technological tools capable of improving safety, security, and performance of the transportation system in both urban and rural areas. Priority areas include: improving cybersecurity; improving transportation infrastructure durability, resilience, and cost effectiveness; and, improving the movement of goods and people of all abilities. One of the greatest potential benefits of technology will be in improving safety, and research will focus on innovations that will mitigate or reduce the role human factors play in crashes and other safety incidents. For example, automatic emergency braking technologies on motor vehicles will reduce the prevalence of rear-end collisions, which represent one-third of all police-reported crashes.[23] In this effort, DOT also will emphasize technologies and practices with the greatest potential to strengthen economic competitiveness and reduce congestion.

Where appropriate, DOT will promote cooperative research with strategic partners to reduce overall research costs and benefit from their technical strengths. DOT will coordinate and collaborate with States to minimize the potential for conflicts between Federal and State regulations that unnecessarily impede the ability to test and operate vehicles across State lines. DOT will engage with international stakeholders to maintain awareness of advances in transportation technology, identify opportunities for international research collaboration, and ensure U.S. involvement in the development of global standards and regulatory best practices.

Strategies

Departmental strategies to achieve this objective include:

Coordination: Strengthen coordination across modes, stakeholders, jurisdictions, institutions, sectors, and international boundaries

Coordination and information sharing is critical for advancing the development of emerging technologies. DOT aims to continue coordination and collaboration with Federal agencies operating in this space, public agencies, industry, international partners and other stakeholders to ensure that the nation's transportation research enterprise moves forward in a coherent fashion and optimizes the use of limited research resources.

Examples of Contributing Programs and Initiatives

- **Research, Development and Technology Coordination Program:** This OST program works to eliminate potentially duplicative activities, optimize the effective use of DOT-wide research resources, and ensure that the Department's research activities are coordinated with the wider transportation research community. Specific duties include strategic research planning, aligning Departmental research with policy objectives, meeting DOT-wide legislative research mandates, identifying and leading cross-modal research initiatives, implementing best practices in innovation development and deployment (technology transfer), and ensuring public access to DOT's research portfolio.

- **Bilateral and Multilateral Technical Cooperation:** Through bilateral and multilateral organizations and agreements, the Department maintains awareness of advances in transportation technology, and promotes cooperative research with key foreign partners to benefit from their technical strengths, reduce research costs, and create compatible regulatory approaches.

- **Drone Advisory Committee (DAC):** The DAC is a subcommittee of the Radio Technical Commision for Aeronautics, Inc. (RTCA), which is a Federal advisory committee established to provide an open venue for FAA and Unmanned Aerial Systems (UAS) stakeholders to work together to identify and recommend a single, consensus-based set of resolutions for issues regarding the efficiency and safety of integrating UAS into the National Airspace System. The DAC is comprised of executives from key stakeholders in both the manned and unmanned aviation communities.

Research: Conduct research on advanced technology to promote transportation safety and efficiency

Federal research and investment are catalysts for supporting innovative practices and furthering the development of emerging technologies. DOT will continue to fund exploratory research and pilot new technologies to improve safety and efficiency of the transportation system. In general, the research should be conducted for specific use cases or instances where private industry will not conduct research in that specified area or where research would help policy development. DOT-conducted research should enable technology transfer wherever possible to try to mainstream applications quickly into revenue service.

Examples of Contributing Programs and Initiatives

- **University Transportation Centers (UTC) Program:** This OST-R program is a Congressionally-mandated financial assistance program that provides grants to universities to conduct research on critical transportation issues and to support education activities for future transportation professionals.

- **Vehicle Safety Research:** NHTSA leads research on advanced vehicle safety technology, ways of improving vehicle crashworthiness and crash avoidance, and vehicle-based options for decreasing distracted driving and alcohol-impaired driving.

- **Automation Research Program:** FRA's Human Factors Research and Development (R&D) conducts research on automation and the interface between humans and systems at all levels of the railroad infrastructure. The goal of the Human Factors R&D automation research program is to improve human reliability and reduce human error when automated technology is inserted into the rail network.

Partnerships: Partner with the private sector, State, Tribal, and local governments, and research organizations to encourage technology innovation

DOT is committed to engaging with the private sector to support data sharing and the development, commercialization, and adoption of emerging transportation technologies that have the potential to contribute to DOT's strategic goals. DOT will also work to encourage similar partnerships between the private sector and State, local and Tribal governments.

- **Driver Alcohol Detection System for Safety (DADSS):** This public-private partnership between NHTSA, the States and the auto industry is designed to develop and deploy vehicle-based alcohol detection technology that can prevent drivers impaired at a 0.08 blood alcohol concentration (BAC) level or higher from driving.

- **Partnership for Safety Programs (PSP):** The PSP is an FAA effort to leverage the resources and know-how of the private sector to evaluate operational concepts, enabling technologies, and the operational safety of various types of UAS operations. These types of technological demonstrations substantiate the viability of safe UAS operations in the NAS.

- **Maritime Security Communications with Industry (MSCI):** Working with Departments of State, Defense, Justice, and Homeland Security, and the Intelligence Community, MARAD facilitates the development and implementation of effective maritime security policies, procedures, practices, statutes, communications approaches, and training to protect U.S. citizens and maritime interests from maritime security threats such as piracy, terrorism, criminal activity, and cyber-attack.

Data: Facilitate development of data systems to support data-driven technologies, decision making in real time, and data sharing

DOT will encourage the use of data to identify and evaluate strategies and technologies to improve the performance of the transportation system. Transportation agencies and service providers are increasingly using digital technologies to collect and analyze data on the use and performance of the transportation system. DOT will explore novel strategies to develop data sources and systems for research, reporting, and decisionmaking.

Examples of Contributing Programs and Initiatives

- **Intelligent Transportation Systems Research Data Exchange:** The Intelligent Transportation Systems Joint Program Office runs a Research Data Exchange, which is a web-based resource that manages and provides public access to multisource and multimodal transportation data to support the development and testing of intelligent transportation systems (ITS) applications. This data-sharing capability allows researchers, application developers, and others to significantly reduce the cost and time required to collect and compile data for analysis or research.

- **Aviation Data Exchange:** This program's vision is to establish a real-time information sharing and discussion capability that enables the FAA, its industry partners, Civil Aviation Authorities and individuals to identify, capture, discuss, exchange and anticipate aviation safety information (e.g., accidents, incidents, failures, malfunctions, defects, risks, and mitigations) across the global aviation community.

- **Safety Assurance System (SAS):** The FAA is developing and deploying this system to implement data supported Risk-Based Decision Making (RBDM) by the Flight Standards Service (AFS) to plan, prioritize, and resource all work with the Service.

Cybersecurity: Develop modal cyber threat models for transportation critical infrastructure to enhance integrated cybersecurity and safety research priorities

As components of transportation systems are increasingly connected with Internet of Things (IoT), cybersecurity risks that could impact safety, the economy, and emerging technology adoption are increasing. To reduce this risk, DOT will encourage the adoption of the National Institute of Standards and Technology Cybersecurity Framework by transportation ecosystem stakeholders. DOT will also develop strategies for the integration of cybersecurity risk management into safety management programs.

Examples of Contributing Programs and Initiatives

- **Cybersecurity Action Team:** The DOT Safety Council established the Cybersecurity Action Team, made up of representatives from OST and OAs to coordinate research efforts to improve the resilience of the transportation system to cybersecurity disruptions, and to integrate cybersecurity considerations in the safety management system approach to safety adopted by DOT.

- **Transportation Systems Sector Engagement:** OST leads the Department's role as the co-Sector-Specific Agency—alongside the Department of Homeland Security—to engage sector stakeholders in cybersecurity-related activities. Such efforts include identifying and prioritizing cyber-dependent critical infrastructure and systems; determining security, resilience, and cybersecurity capability gaps; and sharing information via the Transportation Systems Sector Cybersecurity Working Group.

- **Cybersecurity, Vehicle Electronics and Emerging Technologies Program:** NHTSA will conduct research into the reliability and security of complex safety-critical electronic control systems, and the cybersecurity of vehicles.

Performance Goals for Strategic Objective

- Increase Dissemination of DOT-Funded Research Reports (OST)

- Increase Production of Tangible DOT-Funded Research Outputs (OST)

- Increase DOT Technology Transfer Activity (OST)

For more detailed information, please see DOT's Annual Performance Plan.

Strategic Objective 2: Deployment of Innovation

Accelerate and expand the deployment of new technologies and practices by reducing barriers to innovation and actively promoting innovations that enhance the safety and performance of the Nation's transportation system

Innovative technology applications—such as UAS, commercial space systems, Automatic Surveillence (ADS), Mobility on Demand (MOD), autonomous ships, automated ports, shared mobility, and interoperability of systems—have the potential for significant positive impact. Realizing this potential will require a research, policy, and regulatory framework that encourages the safe introduction of innovative practices and technologies. DOT will encourage industry to promote public awareness efforts of new technologies. DOT strategies will involve technology transfer programs, promoting best practices, policy development in consultation with stakeholders, and a consistent and clear regulatory framework which thoughtfully reduces deployment barriers. When possible, DOT will focus its efforts on facilitating interoperability between innovative technologies. DOT will administer existing programs to foster new economic opportunities and encourage competition and market entry by new business models, through research, engagement in international fora on market access and best practices, and more flexible implementation of the Department's regulatory responsibilities. DOT will encourage the deployment of U.S. innovations in foreign markets to enhance U.S. economic competitiveness, strengthen the U.S. industry and grow jobs at home.

Strategies

Departmental strategies to achieve this objective include:

Technology Integration: Advance the integration of new transportation technologies and practices into transportation systems to improve safety and performance

DOT will act to accelerate the integration of emerging transformative technologies and practices into the transportation system by providing opportunities for pilot programs and demonstrations, and adapting to accommodate new beneficial technologies and practices. DOT also will collaborate with stakeholders to develop technical standards and practices along with operational strategies to maximize the benefits of new technology.

Examples of Contributing Programs and Initiatives

- **Accelerating Market Readiness (AMR):** This FHWA program provides resources for the rapid, national assessment of emerging innovations and provides transportation offices with objective written assessments to accelerate the adoptions of innovations that meet their unique needs.

- **Next Generation Air Transportation System (NextGen):** This FAA program is modernizing the National Airspace System with a series of upgrades and improvements that will transform air traffic operations using better systems, procedures, technologies, and policies. In close coordination with FAA's partners in the aviation industry, key enabling technologies are being integrated with current infrastructure, such as new communications, navigation, and surveillance capabilities, a data-sharing backbone, and improved weather processing and distribution, with more to be delivered in the future.

- **Automated Vehicles and Related Technologies (AV&RT):** This OST program seeks to accelerate the safe deployment of AV&RT through cost-effective, multimodal solutions that address infrastructure and system constraints on new transportation technologies. The program will leverage OA activities in the AV&RT space by connecting their research, development, and policy efforts with best practices and pilots developed collaboratively among private sector, regional, State, and local stakeholders who seek to significantly lower barriers to larger scale deployment of transformative technologies in the transportation system.

Collaboration: Facilitate private sector and multimodal stakeholder collaboration to improve transportation safety and performance

Collaboration between the different modal and public safety stakeholders is important for sharing research, information, and best practices to support innovation deployment. DOT is committed to facilitating multimodal and public safety stakeholder collaboration throughout the Department and with national and international stakeholders.

Examples of Contributing Programs and Initiatives

- **Human Factors Coordinating Committee (HFCC):** This DOT committee serves as a collaborative, multimodal team with Federal Government-wide liaisons to address crosscutting human factors issues in transportation; such as human-systems interaction, the safety risks of operator impairment, and other topics relevant to transportation safety. The HFCC includes representatives from every DOT OAs with a human factors program and maintains a network of affiliates in other Federal agencies.

- **Accessible Transportation Technologies Research Initiative (ATTRI):** FHWA and FTA co-lead this joint, cross-modal DOT initiative that focuses on research and development to improve the mobility of travelers with disabilities using Intelligent Transportation Systems (ITS) and other advanced technologies. The initiative aims to enhance the capability of travelers with disabilities to reliably, safely, and independently accomplish their unique travel plans.

- **Liquefied Natural Gas (LNG) as a Locomotive Fuel:** In recent years, railroads have sought to develop methods to safely use LNG as a fuel for locomotives and to safely transport LNG as a commodity in regular freight service. FRA and PHMSA support cooperative research for the development and implementation of standards which will assure the safety of such operations.

Updated Regulation: Update Departmental regulations, policies, and guidance to support deployment of advancements in technology and innovation

DOT will streamline regulatory processes, adopt technologies to minimize the negative impacts of regulatory oversight, and improve the responsiveness of the regulatory system to emerging

technologies. DOT will assess and potentially identify new measures to evaluate safety and efficiency of new technologies. DOT will also identify opportunities to facilitate, improve, and expedite the exemption and special permit processes to support deployment of innovative technologies and practices.

Examples of Contributing Programs and Initiatives

- **Federal Motor Vehicle Safety Standards (FMVSS):** NHTSA will continue its work identifying and removing potential barriers to automated vehicle technologies, while also working to develop standards that will appropriately regulate the safety of these technologies.

- **Regulatory Relief:** FMCSA provides opportunities for regulatory relief and invites applications for waivers, exemptions and pilot programs. The agency has three different tools—a waiver, an exemption, and a pilot program—for providing regulatory relief and each may be helpful to companies engaged in the design, development, testing and deployment of Automated Driving System (ADS)-equipped Commercial Motor Vehicles.

- **Special Permit Conversion:** PHMSA works to identify special permits suitable for incorporation within the U.S. Hazardous Material Regulations to incorporate innovative technologies, broaden available compliance options to industry, and reduce the administrative burden associated with obtaining or renewing special permits.

Technology Transfer: Strengthen the technology transfer process to facilitate adoption/commercialization of market-ready transportation technologies

DOT will work closely with the transportation industry to accelerate the commercialization and adoption of market-ready transportation technologies.

Examples of Contributing Programs and Initiatives

- **Technology Transfer (T2) Program:** This OST program is responsible for coordinating, documenting, and supporting T2 activities across DOT to ensure that the Department's research products are effectively deployed. It accomplishes its goals by partnering with technology deployment experts within the OAs and with other Federal agency partners and private industry.

- **Every Day Counts (EDC):** This FHWA program, in cooperation with the American Association of State Highway and Transportation Officials, accelerates the delivery of highway projects and addresses the challenges presented by limited budgets. EDC is a State-based model designed to identify and rapidly deploy proven but underutilized innovations to shorten the project delivery process, enhance roadway safety, reduce congestion, and improve environmental sustainability.

- **Applied Research Programs:** These PHMSA programs bring new technology to the Nation's massive energy and hazardous liquid pipeline industry. PHMSA works with energy and pipeline industry leaders to define problems, develop and deploy technologies that identify possible points of failure early, and improve pipeline and hazardous material transportation safety.

Performance Goals for Strategic Objective

- Percentage of NextGen Projects Completed on Time (FAA)

- Increase Tangible Production of DOT-Funded Research (OST)

- Increase Technology Transfer Activity for R&D Agreements (OST)

For more detailed information, please see DOT's Annual Performance Plan.

Accountability

Serve the Nation with Reduced Regulatory Burden and Greater Efficiency, Effectiveness, and Accountability.

DOT seeks to improve the efficiency, effectiveness, and accountability of the Department through the reduction in low-value, obsolete, or duplicative regulations and other requirements, thus streamlining and improving coordination of business processes. DOT will be open and transparent, demonstrating to the public how the Department is furthering its strategic goals and objectives, and effectively using its statutory and administrative authorities. We must also build a Departmental workforce that meets the challenges of today and tomorrow by improving employee engagement, recruiting talent from all segments of American society, investing in workforce development and training, and enhancing the tools and technologies our employees rely on to meet our Department's mission.

In the past, the Federal government has all too often focused on creating new programs instead of eliminating or reforming programs which are no longer operating effectively. The result is ineffective, redundant, and outdated programs, rules and processes that are not responsive to the needs of the transportation industry or the American public. Overly burdensome rules and regulations impair the performance of the Federal workforces, impede the development and deployment of beneficial technologies, and slow the implementation of urgently needed infrastructure projects.

We need to reevaluate the role for the Federal Government in infrastructure investment by seeking long-term reforms on how infrastructure projects are regulated. The environmental review and permitting process in the United States is fragmented, inefficient, and unpredictable. Existing statutes have important and laudable objectives, but the lack of cohesiveness in their execution make the delivery of infrastructure projects more costly, unpredictable, and time-consuming, all while adding little environmental protection. The inefficiencies of the current process result in too much time and too many resources dedicated to time-intensive analyses that do not necessarily improve the environment.

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Management Objective 1: Regulatory Reform

Reduce current regulatory burdens and bureaucracy to ensure a safe, efficient, accessible, and convenient transportation system for people and commerce.

Improvement of regulations is a continued focus for the Department. There should be no more regulations than necessary, and those regulations should be straightforward, clear, and designed to minimize burdens. Once issued, regulations and other agency actions should be reviewed periodically and revised to ensure that they continue to meet the needs for which they originally were designed, and remain cost-effective and cost-justified. Among other actions seeking to achieve these means, the President issued Executive Order 13771, "Reducing Regulation and Controlling Regulatory Costs." OMB has issued guidance on implementing this Executive Order, and DOT has established a Regulatory Reform Task Force to evaluate existing regulations and make recommendations to the Secretary regarding their repeal, replacement, or modification. Other activities to reduce regulatory burdens also fit into this area, such as the review required by Executive Order 13783, "Promoting Energy Independence and Economic Growth," and the subsequent burden-reducing efforts that will result from the review.

Strategies

Departmental strategies to achieve this objective include:

Regulation: Reduce regulations and control regulatory costs

DOT will take steps to eliminate obsolete or duplicative regulations and streamline regulatory processes to improve government efficiency and reduce impediments to innovation, project delivery, and program implementation. To achieve this, DOT established a Regulatory Review Officer (RRO) and a Regulatory Reform Task Force (RRTF) to evaluate existing regulations and to make recommendations for their repeal, replacement, or modification. To achieve the mandate of Executive Order 13771, the Department will offset, to the greatest extent permitted by law, any new incremental costs associated with new regulations by the elimination of existing costs associated with at least two prior regulations. The Department will seek input from transportation stakeholders in the public and private sector for recommendations on how best to achieve this goal.

Examples of Contributing Programs and Initiatives

- **Regulatory Reform Task Force:** The task force will evaluate existing regulations and make recommendations for eliminating or streamlining regulations that inhibit job creation, or are inconsistent, outdated, unnecessary, ineffective, or otherwise impose costs that exceed benefits or interfere with regulatory reform initiatives and policies.

- **DOT Regulatory Plan:** DOT will identify, for each significant regulation that increases incremental cost, the offsetting regulations, and provide our best approximation of the total costs or savings associated with each new regulation or repealed regulation.

Performance Goal for Management Objective

- Control Regulatory Burden by Complying with Executive Orders to Reduce Number and Economic Impact of Regulations (OST)—Agency Priority Goal

For more detailed information, please see DOT's Annual Performance Plan.
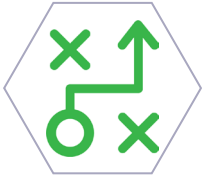
Management Objective 2: Mission Efficiency and Support

Support mission requirements by efficiently and effectively planning for and managing human capital, finances, procurement, sustainable operations, information technology, emergency preparedness, and other mission support services.

DOT will actively pursue improvement of its efficiency, effectiveness, and accountability. Strategies will address the implementation of an approved reorganization plan, as required under Executive Order 13781. Other strategies will include: investment in ongoing development and strengthening of DOT's internal workforce; improvement of financial performance and reduction of costs; increased capacity, efficiency, and security of systems; more efficient resource and energy use in its own operations and those of its grantees; and procedures and resources to address emergencies.

Strategies

Departmental strategies to achieve this objective include:

Workforce: Attract, develop, and retain employees who have the capabilities and competencies to help the Department achieve its goals

To improve the efficiency and effectiveness of the organization, DOT will recruit, hire, and retain employees from all segments of American society with the right skills, and provide the training and professional development opportunities they need to help DOT successfully achieve its goals. DOT will continue to foster improved safety performance by enhancing the appropriate workforce's capability to set safety performance standards and by increasing overall safety awareness through training and communication. DOT will also attract and retain employees with the appropriate knowledge, skills, and abilities to help DOT develop and deploy new innovations and technologies and address cybersecurity threats to DOT's information technology systems and to the security of the Nation's critical transportation infrastructure.

Examples of Contributing Programs and Initiatives

- **Competency-Based Career Path Guides:** The Departmental Office of Human Resource Management (DOHRM) developed competency-based DOT Transportation Safety Specialist Career Path Guides. Transportation Safety Specialists are included among the DOT Mission Critical Occupations. The career path guides provide a "roadmap to success" that will serve to help the DOT Transportation Safety Specialist workforce identify the competencies needed to be successful in their jobs.

- **DOT Cybersecurity Workforce Management Program Plan:** The DOT Cybersecurity Workforce Management Program will help ensure talented cybersecurity professionals are hired, properly trained and retained to protect DOT systems, networks, information, and data.

Employee Performance: Improve program performance by streamlining processes, improving systems, and maximizing employee performance, development, and engagement to make efficient and effective use of the Department's resources

Promoting a culture of continuous process improvement includes implementing service delivery models that enhance business processes and improve the efficiency and effectiveness of mission support programs, resulting in stronger organizational performance and employee engagement within DOT. Fostering an organizational culture of engagement and inclusion will ensure that employees at all levels of the organization are responsible for mission outcomes, objectives, and improved organizational results.

Examples of Contributing Programs and Initiatives

- **DOT Maximizing Employee Performance Plan:** In response to the OMB memorandum, *The Comprehensive Plan for Reforming the Federal Government,* DOT's Maximizing Employee Performance Plan is designed to maximize employee performance by reviewing the systems and structures currently in place within their agencies to support managers in managing employee performance.

- **DOT Human Capital Operating Plan:** DOT's human capital implementation document describes how DOT will execute the human capital element statements within the Department's Strategic Plan and Agency Performance Plan.

- **Human Resources Shared Services:** DOT will establish a shared services model for the delivery of human resource operations to improve customer service and experience, better align business processes, and reduce overall costs for services.

Financial Management: Improve the performance of financial systems

DOT will manage its financial systems in an effective and efficient manner by leveraging a highly skilled workforce to develop and deploy technology to enhance the efficiency of our business processes, using reliable data and metrics to make sound business decisions. This will be accomplished by utilizing the existing Federal financial shared service systems that enable OAs to focus on and excel at their core mission.

Examples of Contributing Programs and Initiatives

- **DOT Office of Financial Management:** The Department will maintain and upgrade a high-performing and cost-effective accounting and financial system, and implement a DOT-wide data warehousing and business intelligence program to improve financial reporting and business analytics that support sound business decision-making.

Procurement: Improve the performance of procurement systems

DOT will manage its procurement and financial assistance agreement programs in an effective, efficient, and ethical manner by leveraging a highly skilled workforce to develop and deploy sound acquisition/financial assistance strategies, adopting technology to enhance the efficiency of our business processes, and using reliable data and metrics to make sound business decisions. This will be accomplished by establishing acquisition and financial assistance agreement programs reflecting appropriate government-wide policies, promoting best practices, encouraging innovation, and driving the efficient use of taxpayers' dollars.

Examples of Contributing Programs and Initiatives

- **IT Acquisition Shared Services:** DOT will establish a shared services model for the delivery of IT acquisition services to benefit the Department by improving service delivery and reducing fragmentation, overlap, duplication, and overall costs through standardization, economies of scale, and continuous business-process improvements.

- **Acquisition Workforce Development:** The Department will continue developing an acquisition workforce with the professional/leadership skills that will allow them to be effective in managing DOT's acquisition and financial assistance programs with a key focus on Federal Acquisition Certification in Project/Program Management.

- **Transportation Acquisition Regulation (TAR):** DOT will update the TAR to reflect current Federal and Departmental policy/regulation and eliminate redundant or non-value policy/regulation. DOT is conducting a comprehensive update of all TAR parts, incorporating OMB policy and Federal Acquisition Regulation (FAR) changes from prior years. Each section of the TAR will be evaluated to determine impact and significance of the changes.

Small Business: Promote small business development opportunities

Small businesses are vital to the health of our Nation's economy and can significantly contribute to infrastructure redevelopment initiatives. Small businesses generate new employment opportunities within their local communities and employ nearly half of the private workforce in the United States. This will ultimately improve American competitiveness in an ever-growing global economy.

Examples of Contributing Programs and Initiatives

- **Direct Contracting:** The Department will provide direct contracting opportunities through its acquisitions to small businesses, which include small disadvantaged, women-owned, veteran-owned, service-disabled veteran-owned, and Historically Underutilized Business Zone small business concerns. These small businesses will have the maximum practicable opportunity to participate in DOT contracts and subcontracts.

- **Disadvantaged Business Enterprise (DBE) Program:** The Department will work with State transportation agencies to implement the DBE program according to criteria developed by the States. The Department will also work to improve DBE program integrity through monitoring and enforcement, employing programmatic best practices within the Department and externally. The ultimate goal of the program is to promote entrepreneurship.

Operational Efficiency: Ensure sustainable facilities and efficient internal operations

The Department owns or leases more than 10,000 facilities and air traffic control assets with a total floor space of over 30 million square feet and maintains a fleet of over 6,000 owned and leased vehicles. DOT strives to enhance efficiency and minimize environmental risks in its buildings and its operations by promoting innovative and cost effective energy, water, and vehicle fuel use practices. As a result, DOT has made significant progress in saving taxpayer dollars through efficiency enhancements and will pursue future actions to avoid costs, manage risks, and address the needs of the American public.

Examples of Contributing Programs and Initiatives

- **DOT Energy and Resource Efficiency Program:** DOT pursues cost effective and efficient energy, water, pollution prevention, sustainable acquisition, domestic clean and renewable energy, and Federal fleet best management practices. DOT will optimize and right-size fleet composition, by reducing vehicle size and eliminating underutilized vehicles.

- **Facility Consolidation:** To improve oversight and corporate planning, DOT will develop a five-year Facility Strategic Plan to more adequately align staff and space in the National Capital Region. Nationally, in an effort to reduce the Department's footprint, DOT will work to reduce its office and warehouse space by approximately 200,000 square feet by 2022.

Information Technology: Advance the modernization of information technology solutions that will enhance mission performance and promote efficient operations

The Office of the Chief Information Officer (OCIO) will deliver mission-enabling IT services that improve the cybersecurity posture of the Department, deliver greater efficiency, and do so in a way that presents a strategic advantage to the mission of the Department.

Examples of Contributing Programs and Initiatives

- **IT Shared Services Consolidation:** As part of this shared services approach, OCIO will consolidate utility IT services across the Department, including, but not limited to, website and collaboration spaces, wireless services, cloud computing, field services, computer and server administration, help desk services, storage, telecommunications, and back-up/recovery. Through such a consolidation, duplicative IT services will be reduced and modal resources can be redirected to support mission activities.

- **Ongoing Authorization and Information Security Continuous Monitoring:** OCIO will work with the OAs to increase automation and monitoring of IT and cybersecurity for agency critical infrastructure and systems, while simultaneously streamlining authorization and risk management processes to reduce operational and financial burdens, improving the timeliness of risk identification and mitigation, and enhancing the quality of cybersecurity risk information available to decision makers.

Emergency Preparedness: Ensure the Department can effectively carry out functions related to emergency response

Preparedness is the key to the Department's ability to fulfill its responsibilities in any situation. The Department conducts emergency preparedness by identifying the personnel, information requirements, intelligence needs, training, exercises, national security coordination, and equipment needed for a wide range of potential incidents, and the Department's preparedness activities include developing plans for delivering and sustaining operational capabilities during incidents.

Examples of Contributing Programs and Initiatives

- **The Secretary's Emergency Response Team (ERT):** When needed, the Department can activate the ERT—comprised of representatives from across OAs and OST offices—to collect, assess, and share information regarding DOT equities with appropriate stakeholders and interagency partners. The OST facilitates the ERT and the Department's overarching emergency response capabilities, which includes the DOT Crisis Management Center that can serve as the operational nexus at DOT headquarters to facilitate 24/7 emergency response operations. In addition, the office spearheads the Department's role for Emergency Support Function #1—Transportation—a critical aspect of interagency coordination to support the Federal Emergency Management Agency (FEMA) during emergency response.

- **Continuity Program:** DOT will carry out continuity of essential Departmental and other governmental functions, as well as ensuring that alternate secure facilities are in a state of readiness for senior leadership and staff to use in sustaining critical DOT operations even if headquarters facilities are unavailable. The Department has three Primary Mission Essential

Functions that must be continued under all circumstances, as they directly support the eight National Essential Functions established by the President. The Department has a trained cadre of subject matter experts and senior personnel from each OA and OST office available to support DOT leadership in order for these functions to continue without interruption.

Performance Goals for Management Objective

- Improve IT Project Performance

- Consolidate Data Centers

- Improve DOT's Cybersecurity

- Increase Performance-Based Grants

- Improve Effectiveness and Efficiency of Support Services

- Increase Use of Best in Class Contracts

- Monitor Total Federal FTE

- Facility Consolidation Measure

- Reduce the Number of Unessential Federal Advisory Committees

For more detailed information, please see DOT's Annual Performance Plan.

Program Evidence

This section describes the types of evidence DOT uses to assess the effectiveness of our programs and inform management actions, budget requests, and aspects of legislative proposals that are directed toward achieving results and enhancing our performance. In the context of the Strategic Plan, the results we seek are the FY 2018–2022 strategic goals and objectives, and progress will be monitored using the performance measures included in the DOT Annual Performance Plan. The evidence is derived from: 1) performance measurement, 2) evaluation studies, and 3) additional performance-related information, including analyses of demographic and socioeconomic trends. DOT plans to use new data sources and undertake studies and evaluations during FY 2018–2022 to support continual improvement.

Performance Measurement

Performance measurement provides a snapshot of progress toward achieving the strategic goals and objectives established in the DOT Strategic Plan. The Department identifies performance indicators that align with these goals and objectives and sets targets based on historical trends. Each year, DOT publishes an Annual Performance Plan and an Annual Performance Report[24] that describe progress toward meeting targets and establishes targets for the year ahead. These reports are submitted to OMB and made available to Congress, stakeholders, and the public. In addition to these annual reports, on a quarterly basis, the Deputy Secretary holds performance management review meetings with each OA Administrator and other senior leaders to discuss their progress toward meeting targets for the performance indicators. The discussions inform DOT leadership about recent developments, promote greater program transparency, and may lead to follow-up actions to address barriers to implementation.

Historically, DOT performance indicators were drawn from a variety of data sources, including several national transportation databases and reporting systems such as the Highway Performance Monitoring System (HPMS)[25], National Bridge Inventory,[26] National Transit Database,[27] and Fatality Analysis Reporting System (FARS).[28] FAA tracks and reports on a specific set of performance measures relating to safety, efficiency, capacity, environment, and cost-effectiveness.[29] The Bureau of Transportation Statistics BTS publishes a *Transportation Statistics Annual Report,*[30] which describes the state of the transportation system and the state of transportation statistics, and includes a range of topics covering the extent, use, condition, performance, and consequences of the transportation system. The Department seeks to build on this foundation by adding new data sources as they become available.

In 2017, FHWA and FTA completed rulemakings establishing national transportation performance management (TPM) measures relating to the achievement of goals under MAP-21, in areas including safety, infrastructure condition, congestion reduction, system reliability, freight movement, and transit state of good repair.[31] State DOTs, MPOs, and transit providers are required to establish performance targets and periodically report to DOT on their progress. The metropolitan and statewide transportation planning processes will use these targets to inform project selection and investment decisionmaking by linking program investments to specific targets of future performance. States and MPOs have begun establishing targets and reporting results to FHWA, and the results will be published on a public website. FTA similarly completed the Transit Asset Management Rule,[32] creating a framework for transit agencies to monitor and manage public transportation assets, improve safety, increase reliability and performance, and establish performance measures, with measures and targets submitted to FTA's National Transit Database.[33]

Going forward, these new data sources can help provide new information about transportation performance nationally, and DOT will use these new data sources to enhance and improve existing performance measures.

The FAST Act introduced new requirements for DOT and other Federal agencies relating to project delivery and environmental reviews for certain infrastructure projects, including DOT projects requiring an environmental impact statement or environmental assessment and other agency infrastructure projects meeting the definition of "covered" projects under the FAST Act's Title 41 provisions. The FAST Act codified the use of the Permitting Dashboard, an online tool for Federal agencies, project developers, and interested members of the public to track the Federal government's environmental review and authorization processes for certain large or complex infrastructure projects, part of a government-wide effort to improve coordination, transparency, and accountability, to accelerate project delivery and achieve improved outcomes.[34] As the Dashboard's database is increasingly populated with schedules and milestones for the environmental permitting and reviews of infrastructure projects, the Department plans to develop new performance measures of the timeliness of these processes.

Departmental Program Evaluation

In FY 2018, DOT is launching a new Program Evaluation effort. OST is working with its OAs to develop a methodology for defining a program that ties organizational units to mission delivery and allows for comprehensive analysis. This inventory of programs will be reviewed and updated on an annual basis. A self-assessment tool will help the Department determine which programs should be evaluated in more detail.

Other Evaluation Studies

Because the purpose and design of DOT programs varies considerably, the definition of evaluation is broad and inclusive of a variety of study designs for different audiences. Some evaluation studies are designed to look more comprehensively at the impact of a particular intervention on a desired outcome, such as an increase in seat belt use, or the benefits of far-reaching activities such as research and development or a credit support program. Outcome-type evaluation studies are designed to examine the effectiveness of a project or program intervention in a specific geographic area or among a targeted population. Program and process reviews involve a review and/or assessment of compliance with existing procedures and processes. Congress requests reports on progress in implementing specific statutory requirements, which frequently involve a program or process review. Each OA determines its own priorities for evaluation studies, except for studies requested by Congress. This is due, in part, to the diverse program portfolio of each OA and the decentralized approach to funding such studies.

Examples of previous studies include:

- **BTS:** *Port Performance Freight Statistics Program;*[35]
- **MARAD:** *Impacts of Reductions in Government Impelled Cargo on the U.S. Merchant Marine;*[36]
- **FMCSA:** *Drug Interdiction Assistance Program Evaluation;*
- **FHWA:** *Air Quality and Congestion Mitigation Measure Outcome Assessment Study;*[37] *and*
- **NHTSA:** *Click It or Ticket evaluation.*[38]

Additional Performance-Related Information

In addition to the DOT-maintained databases and information systems mentioned earlier, other Federal agencies house rich sources of data and information that DOT uses to understand broader demographic, social, economic, and environmental trends in the United States. These include the U.S. Census Bureau's American Community Survey, the Energy Information Administration's Annual Energy Review, and the Department of Energy's Federal Automotive Statistical Tool.

DOT conducts or participates in periodic surveys such as the Commodity Flow Survey,[39] National Household Travel Survey (NHTS),[40] the National Roadside Survey of Alcohol and Drug Use by Drivers,[41] and the Airline Origination and Destination Survey.[42] The information generated from carefully designed surveys, such as the NHTS, provides important insights into how travel patterns, use, and behaviors change over time.[43] The cost of undertaking surveys such as the NHTS can limit their frequency, providing fewer insights into transportation trends than if they were conducted more frequently.

Assessment and evaluation tools, such as the FTA Transit Award Management System (TrAMS)[44] and Safety Management System (SMS),[45] and the FHWA Infrastructure Voluntary Evaluation Sustainability Tool (INVEST)[46] developed in partnership with States, are another potential source of performance information.

DOT sponsors topic- and industry-specific studies, often using DOT-supplied data, which produce additional information that can be used to inform program decision-making. An example of such a report is the NHTSA *Countermeasures that Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices,* now in its 8TH edition, which is a compilation of all research conducted to examine the impacts of behavioral intervention strategies for improving traffic safety.[47] FAA's Aviation Data Exchange (AVDEX) will be a real-time information sharing and discussion capability that enables the FAA, its industry partners, Civil Aviation Authorities, and individuals to identify, capture, discuss, exchange, and anticipate aviation safety information. DOT also sponsors studies documenting lessons learned and best practices.

DOT uses other sources of performance data to develop and test econometric models that are the basis for forecasts of investment needs included in the FHWA/FTA *Conditions and Performance Report* to Congress[48] and for travel forecasts included in the annual FAA *Aerospace Forecast.[49]* FAA's Performance Analysis web portal provides a single entry point to access analytical products related to the performance of the National Airspace System.

Proposed and Planned Sources and Studies

DOT has data sources, studies, and surveys that are currently planned to be developed or conducted in the FY 2018–2022 timeframe of the DOT Strategic Plan. As discussed above, the FHWA transportation performance management rules require States to periodically report on performance targets, condition/performance information, progress toward achieving their targets, the effectiveness of their investment strategies as documented in their asset management plans, and how they are addressing congestion at freight bottlenecks, resulting in the State Biennial Transportation Performance Management (TPM) Report. The Permitting Dashboard data source will become more robust as more project schedules and milestones are published and achieved. Other planned sources and studies include future editions of the FHWA/FTA *Conditions and Performance Report,[50]* the FMCSA *Commercial Driver's License Compliance Prioritization and Review Process Evaluation.* The FTA will initiate a Data Safety Plan in 2018. MARAD is convening a work group to examine and assess the availability of U.S. citizen mariners necessary to support the U.S. flag fleet in times of national emergency, and OST is working toward developing a Technology Transfer tracking tool.

Appendix

Appendix 1. Contributions of Operating Administrations to DOT Strategic Goals and Objectives

Strategic Goal	Strategic Objective (SO)/Management Objective (MO)	FAA	FHWA	FMCSA	FRA	FTA	MARAD	NHTSA	PHMSA	SLSDC
Safety	SO 1: Systemic Safety Approach	X	X	X	X	X		X	X	
Infrastructure	SO 1: Project Delivery, Planning, Environment, Funding and Finance	X	X		X	X			X	
	SO 2: Life Cycle and Preventive Maintenance	X	X		X	X			X	
	SO 3: System Operations and Performance	X	X		X	X	X		X	X
	SO 4: Economic Competitiveness and Workforce	X	X		X	X	X		X	X
Innovation	SO 1: Development of Innovation	X	X	X	X	X		X	X	
	SO 2: Deployment of Innovation	X	X	X	X	X		X	X	
Accountability	MO 1: Regulatory Reform	X	X	X	X	X	X	X	X	X
	MO 2: Mission Efficiency and Support	X	X	X	X	X	X	X	X	X

Acronyms

ADS	Automated Driving Systems
AFS	Flight Standards Service
AI	Artificial Intelligence
AIP	Airport Improvement Program
AMR	Accelerating Market Readiness
ATTRI	Accessible Transportation Technologies Research Initiative
AV&RT	Automated Vehicles and Related Technologies
BTS	Bureau of Transportation Statistics
C3RS	Confidential Close Call Reporting System
CMAQ	Congestion Mitigation and Air Quality
CMF	Crash Modification Factors
DAC	Drone Advisory Committee
DADSS	Driver Alcohol Detection System for Safety
DBE	Disadvantaged Business Enterprise
DOHRM	Departmental Office of Human Resource Management
DOT	U.S. Department of Transportation
EDC	Every Day Counts
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FIP	Facilities Infrastructure Portfolio
FMCSA	Federal Motor Carrier Safety Administration
FMVSS	Federal Motor Vehicle Safety Standards
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GPRA	Government Performance and Results Act
HFCC	Human Factors Coordinating Committee
HR	Human Resources
HSIP	Highway Safety Improvement Program

INFRA	Infrastructure for Rebuilding America
IoT	Internet of Things
IPIC	Infrastructure Permitting Improvement Center
IT	Information Technology
ITS	Intelligent Transportation Systems
ITS JPO	Intelligent Transportation Systems Joint Program Office
LNG	Liquefied Natural Gas
MAP-21	Moving Ahead for Progress in the 21st Century Act
MARAD	Maritime Administration
MCSAP	Motor Carrier Safety Assistance Program
MOD	Mobility on Demand
MPO	Metropolitan Planning Organization
MSCI	Maritime Security Communications with Industry
NAS	National Airspace System
NEPA	National Environmental Policy Act
NextGen	Next Generation Air Transportation System
NCSA	National Center for Statistics and Analysis
NHFP	National Highway Freight Program
NHTSA	National Highway Traffic Safety Administration
NMFN	National Multimodal Freight Network
OA	Operating Administration
OCIO	Office of the Chief Information Officer
OMB	Office of Management and Budget
OST	Office of the Secretary of Transportation
P3	Public-Private Partnership
PHMSA	Pipeline and Hazardous Materials Safety Administration
PSP	Partnership for Safety Programs
PTC	Positive Train Control
R&D	Research and Development
RBDM	Risk-Based Decision Making
RIM	Runway Incursion Mitigation

RRF	Ready Reserve Force
RRIF	Railroad Rehabilitation and Improvement Financing
RRO	Regulatory Review Officer
RRTF	Regulatory Reform Task Force
RTCA	Radio Technical Commission for Aeronautics
SAS	Safety Assurance System
SLSDC	Saint Lawrence Seaway Development Corporation
SMS	Safety Management System
SSO	State Safety Oversight
T2	Technology Transfer
TAR	Transportation Acquisition Regulation
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIM	Traffic Incident Management
UAS	Unmanned Aircraft System
UTC	University Transportation Centers
V2I	Vehicle-to-Infrastructure

Endnotes

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