



DOT's Top Management Challenges

FY2024 | November 1, 2023



DOT's Fiscal Year 2024 Top Management Challenges

Required by the Reports Consolidation Act of 2000 and OMB Circular A-136

Office of the Secretary of Transportation | PT2024002 | November 1, 2023

What We Looked At

As required by law, we report annually on the Department of Transportation's (DOT) most significant challenges to meeting its mission. We considered several criteria to identify DOT's top management challenges for fiscal year 2024, including impact on safety, documented vulnerabilities, large dollar implications, and the Department's ability to effect change. Furthermore, in light of the nearly \$660 billion in funding authorized by the Infrastructure Investment and Jobs Act (IIJA) to bolster the Nation's transportation infrastructure, our report also discusses IIJA's impact on each of the 10 management challenge areas we identified.

What We Found

We identified the following top management challenge areas for fiscal year 2024:

- **Aviation safety.** Key challenges: enhance FAA's oversight of aircraft certification and production, and diagnose root causes to prevent and mitigate runway incursions.
- **Surface transportation safety.** Key challenges: identify root causes and implement safety programs to reduce fatalities and verify and enforce railroad, transit, pipeline, and hazardous materials safety compliance.
- **Air traffic control and airspace modernization.** Key challenges: understand and address the causes of flight delays and cancellations and recover from and assess the impact of delayed and diminished NextGen programs on Agency costs and benefits for airspace users.
- **Surface transportation infrastructure.** Key challenges: steward surface transportation investments in a changing environment, support effective funding oversight as IIJA progresses, and advance a range of surface transportation priorities and goals.
- **Contract and grant fund stewardship.** Key challenges: award contract and grant funds to achieve the best outcomes and verify efficient and appropriate use of contract and grant funds.
- **Financial management.** Key challenges: reduce the occurrence of improper payments, improve compliance with Federal requirements for monitoring and reporting on grantee spending, and improve the quality of financial data.
- **Information security.** Key challenges: overcome obstacles to mitigate longstanding weaknesses in DOT's cybersecurity program, and execute Federal priorities to move towards a Zero Trust Architecture.
- **Fraud prevention and detection.** Key challenges: identify and assess fraud risks, and manage fraud risks through oversight, outreach, and data analysis.
- **Transportation transformation.** Key challenges: advance safety and other DOT missions through the innovation principles, safely advance emerging and innovative vehicle technologies, and integrate new technologies into the NAS.
- **Organizational excellence.** Key challenges: establish the workforce capabilities needed to meet the Department's mission, manage an evolving workplace environment, and cultivate data-driven approaches to support policymakers and manage the mission.

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Memorandum

Date: November 1, 2023

Subject: INFORMATION: DOT's Fiscal Year 2024 Top Management Challenges
Report No. PT2024002

From: Eric J. Soskin 
Inspector General

To: The Secretary
Deputy Secretary

As required by law, the Office of Inspector General (OIG) delivers an annual report on the top management challenges at the Department of Transportation (DOT). Our role in providing independent and objective oversight, and our mission of promoting economy, efficiency, and effectiveness and of detecting and preventing fraud, waste, and abuse, provide us with a unique perspective regarding the challenges that DOT faces. We base this report on our audit and investigative work, our knowledge of the activities and operations of DOT and its Operating Administrations (OA), independent sources such as U.S. Government Accountability Office reports, and other information available to us.

DOT's mission is to deliver the world's leading transportation system, a mission that is essential to American prosperity, global competitiveness, national security, and general welfare. In seeking to serve the American people through the safe, efficient, sustainable, and equitable movement of people and goods in a dynamic environment marked by technological and societal change, the Department must manage complex and multifaceted challenges that span its oversight of aviation, highways, transit, rail, ports, and more.

We considered several criteria to identify the Department's top management challenges for fiscal year 2024, including safety impact, documented vulnerabilities, large dollar implications, and the Department's ability to effect change. In the enclosed report, we identify and discuss the following challenge areas:

- Aviation Safety
- Surface Transportation Safety
- Air Traffic Control and Airspace Modernization
- Surface Transportation Infrastructure
- Contract and Grant Fund Stewardship

- Financial Management
- Information Security
- Fraud Detection and Prevention
- Transportation Transformation
- Organizational Excellence

Further, in light of the nearly \$660 billion in funding to new and existing programs authorized through the Infrastructure Investment and Jobs Act (IIJA) to bolster our Nation's transportation infrastructure, our report discusses IIJA's impacts on each of these 10 management challenge areas.

In considering these challenges, we recognize that, as always, safety remains at the core of DOT's mission. The Federal Aviation Administration faces the ongoing challenge of strengthening its oversight of aircraft certification processes, while also addressing a series of significant safety incidents involving close calls with aircraft on runways. In addition, the Department must work diligently to reduce the number of traffic, transit, and other surface transportation fatalities. As safety incidents such as the February 2023 Norfolk Southern train derailment in East Palestine, OH, have highlighted, DOT will be challenged to identify root causes and verify and enforce highway, motor carrier, railroad, transit, pipeline, and hazardous materials safety compliance.

Alongside existing funding programs, IIJA established infrastructure programs and projects covering roads, bridges, rail, transit, ports, and electric vehicle charging stations. In all of these, DOT must focus on oversight that ensures compliance with Federal requirements and prevents fraud, waste, and abuse as IIJA progresses. At the same time, the Department is challenged with meeting a wide range of priorities and goals for surface transportation funding, such as improving mobility choices, enhancing resiliency, and accomplishing economic objectives, among others.

In addition to increased funding levels, IIJA also increased the number of grants, grant recipients, projects, programs, and requirements that DOT oversees. Prudent stewardship of contract and grant spending is contingent on DOT's awarding funds to achieve best value outcomes and verifying that they are spent appropriately. Challenges include establishing sound pricing, promoting competition, tracking funds status, validating expense eligibility, and implementing controls to prevent improper payments. Our office has also identified several high-risk fraud areas related to IIJA programs, including bid rigging, materials fraud, and disadvantaged business enterprise fraud. To proactively mitigate fraud risks, DOT must improve its oversight procedures and enhance outreach to staff, grantees, and their contractors on how to detect, prevent, and report potential fraud.

Alongside its considerable safety and stewardship challenges, DOT has also taken on the ambitious goal of transforming our transportation system to better serve Americans today and in the future. Key tasks include managing and modernizing our National

Airspace System as well as resolving new and longstanding cybersecurity challenges to protect vital information systems. In addition, DOT will need to act thoughtfully to mitigate safety risks while still enabling innovation and its potential benefits to safety and progress in numerous arenas—including autonomous and electric vehicles, commercial space operations, Advanced Air Mobility aircraft, and Unmanned Aircraft Systems.

Meeting the Department's diverse goals requires a fundamental commitment to organizational excellence. To that end, DOT faces multiple wide-ranging challenges, including managing an evolving post-pandemic work environment in which staff are increasing in-person work, and securing the necessary new workforce capabilities across the OAs to implement IIJA programs. Moreover, given the vast scope of its programs and authorities, DOT must cultivate data-driven approaches for its decision-making and oversight efforts to be effective in achieving the Department's goals. For example, in organizational management, a key challenge will be the use of data to track and measure the impact of personnel policies and procedures on employee engagement, mission delivery, and outcomes.

We remain, as always, committed to supporting the Department's efforts to improve safety, enhance efficiency, and maximize resource utilization, particularly given the extent of its IIJA investments. We appreciate the Department's consideration and prompt action in response to the challenges we have identified. Our final report and the Department's response will be included in DOT's Annual Financial Report, as required by law.

If you have any questions regarding this report, please contact me or Charles A. Ward, Principal Assistant Inspector General for Auditing and Evaluation.

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cc: DOT Audit Liaison, M-1

Index of DOT Operating Administrations Discussed in Each Chapter

Operating Administrations	Chapter
Federal Aviation Administration (FAA)	Aviation Safety Air Traffic Control and Airspace Modernization Financial Management Transportation Transformation Organizational Excellence
Federal Highway Administration (FHWA)	Surface Transportation Infrastructure Financial Management Transportation Transformation
Federal Motor Carrier Safety Administration (FMCSA)	Surface Transportation Safety
Federal Railroad Administration (FRA)	Surface Transportation Safety Surface Transportation Infrastructure Financial Management
Federal Transit Administration (FTA)	Surface Transportation Safety Surface Transportation Infrastructure Financial Management
Great Lakes and St. Lawrence Seaway Corporation (GLS)	<i>(see cross-modal/Departmentwide below)</i>
National Highway Traffic Safety Administration (NHTSA)	Surface Transportation Safety Transportation Transformation
Maritime Administration (MARAD)	Surface Transportation Infrastructure
Pipeline and Hazardous Materials Safety Administration (PHMSA)	Surface Transportation Safety
Cross-modal/Departmentwide	Contract and Grant Fund Stewardship Information Security Financial Management Fraud Detection and Prevention Transportation Transformation Organizational Excellence

Aviation Safety



OAs Impacted
FAA

Related DOT Strategic Goal(s)
Safety

Aviation safety remains FAA's primary mission. Overseeing the certification and safety of aircraft manufactured and operated in the United States is paramount to achieving this mission. While FAA has made changes to enhance its certification and safety oversight of U.S.-manufactured airplanes, our reviews have highlighted challenges that persist. Meanwhile, reported shortages of pilots and other aviation industry personnel and a series of close call runway incursions between aircraft highlight the need for continued vigilance and mitigation regarding other safety risks in the Nation's aviation system.

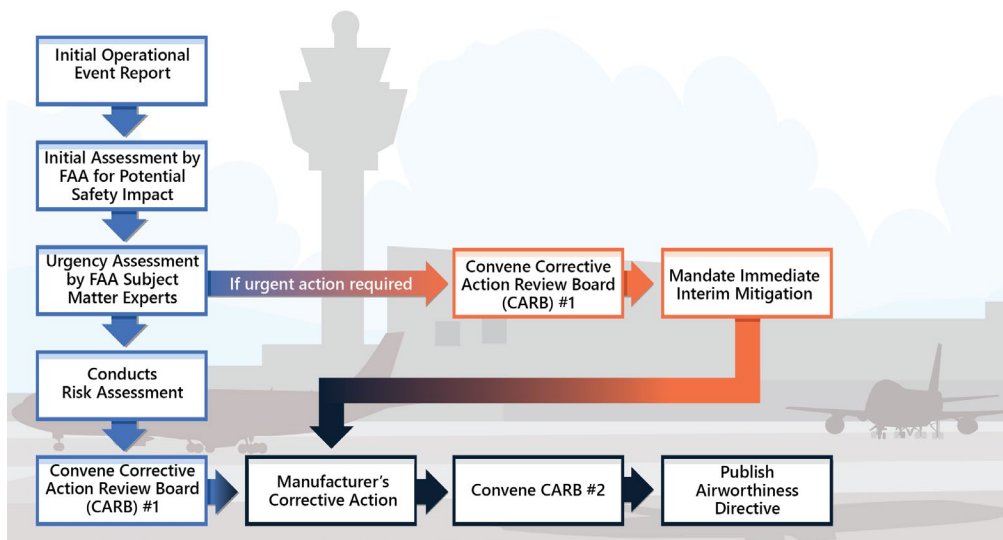
Enhance FAA's Oversight of Aircraft Certification and Production

- Federal law allows FAA to delegate certain certification and production functions to organizations, such as Boeing, to determine whether their aircraft models comply with safety regulations. In several reports, we have highlighted the challenges the Agency faces in this area. For example, FAA delegated significant work to Boeing during the original certification of the Boeing 737 MAX. According to FAA managers, this delegation is typical as aircraft systems mature. Then during the recertification process to return the aircraft to service, FAA retained responsibility for approving certification of flight control software. However, FAA officials have indicated that given the resources involved, this level of effort is not possible for all aircraft certification projects.
- While FAA plans to apply lessons learned from Boeing 737 MAX recertification efforts to future projects, the Agency is still codifying improvements and procedures. In addition, we found that FAA's steps following the MAX accidents of 2018 and 2019 adhered to post-event risk assessment processes, which are designed to ensure an acceptable level of safety in every seat on every flight (*see figure on next page*). However, several issues may impact the Agency's assessments of future events, including the use of engineering judgement—which is not always accompanied by relevant numerical data—an outdated order and guidance on risk assessment, and a lack of data on quantifiable human factors. As a result, FAA may not be able to ensure it fully follows risk assessment processes after safety events.
- FAA also faces challenges overseeing Boeing aircraft production. Since 2019, for example, Boeing has paused deliveries of its 787 aircraft four times to address manufacturing issues. To enhance its oversight, FAA recently combined offices overseeing Boeing to promote better internal communication and efficiency. As Boeing increases production of 737 and 787 aircraft, FAA must keep pace with the company's growth.

IIJA Impacts

- Through the Airport Infrastructure Grant (AIG) program, IIJA provides \$15 billion for airport infrastructure projects, including those that improve aviation safety.
- Airports that receive this funding can use it to, among other things, mitigate risks at the Nation's airports by reconfiguring runway and taxiway intersections, installing runway status lights, and constructing new taxiways.
- To fund projects meant to reduce runway incursions, FAA awarded more than \$100 million to 12 airports across the country in May 2023 using multiple sources, including IIJA funds.

Steps in FAA's Continued Operational Safety Process



Source: OIG analysis of FAA's review of the Boeing 737 MAX Summary

Diagnose Root Causes To Prevent and Mitigate Runway Incursions

- Runway incursions—incidents involving unauthorized aircraft, vehicles, or people on a runway—have long been a challenge for FAA and the aviation industry. A series of incidents occurred this year in which aircraft came dangerously close to each other on runways at large commercial airports (*see figure*), including one in which two planes came within 100 feet of each other at Austin-Bergstrom International Airport in Texas.

- In response, FAA formed a safety review team to examine the U.S. aerospace system's structure, culture, processes, systems, and integration of safety efforts. The Agency also held a runway safety summit in March where aviation and labor representatives and other experts discussed the issues surrounding the increases in runway incursions and planned to hold runway safety meetings at approximately 90 airports in August and September to create airport-specific Runway Safety Action Plans.

- In addition to examining runway incursion data and assessing technology, infrastructure, and human factors as both causes and mitigations, FAA faces challenges developing mitigation strategies, establishing metrics to measure these strategies' effectiveness, and reassuring the public about the safety of the aviation system.

Runway Incursions in 2023



Source: OIG analysis of National Transportation Safety Board data

For more information on the issues identified in this chapter, please contact:

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Recent Progress Reported by the Department

- After the March 2023 runway safety summit, FAA issued a Safety Alert for Operators highlighting several focus areas and the need for continued attention to safety risk mitigation.
- The Air Traffic Organization also outlined the steps it was taking to improve air traffic supervisors' and controllers' situational awareness and training and to re-examine runway incursion data.
- After years of work, FAA issued a final rule implementing Safety Management System requirements for airports meeting risk-based criteria.
- In August 2023, FAA revised its Compliance and Enforcement Program to set criteria for airmen medical certification for pilots that receive Veterans Administration disability benefits.

Related OIG Work

[FAA Has Completed 737 MAX Return to Service Efforts, but Opportunities Exist To Improve the Agency's Risk Assessments and Certification Processes](#) (April 26, 2023)

>> 7 recommendations (7 open, 0 closed)

[FAA Faces Challenges in Implementing and Measuring the Effectiveness of Its 2015 Runway Safety Call to Action Initiatives](#) (June 27, 2018)

>> 3 recommendations (0 open, 3 closed)

For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.



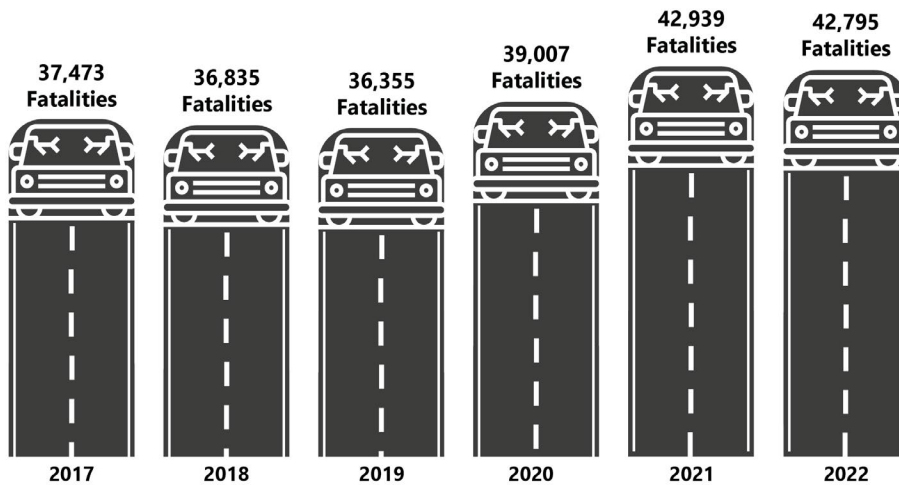
Surface Transportation Safety

OAs Impacted
FHWA, FMCSA,
FRA, NHTSA,
PHMSA

Related DOT Strategic Goal(s)
Safety

DOT has committed to making the U.S. transportation system the safest in the world. However, in 2022, motor vehicle traffic incidents caused 42,795 fatalities—a 9.7 percent surge since 2020 (see figure), and public transportation fatality rates, including transit workers, increased dramatically between 2017 and 2021. Rail and hazardous materials transportation received increased attention after the February 2023 Norfolk Southern train derailment in East Palestine, OH. Challenges facing DOT include identifying root causes and implementing safety programs to reduce fatalities and verifying and enforcing railroad, transit, pipeline, and hazardous materials safety compliance.

Trends in Traffic Fatalities, 2017–2022



Source: OIG analysis of DOT data

Identify Root Causes and Implement Safety Programs To Reduce Fatalities

- In 2022, DOT announced its National Roadway Safety Strategy (NRSS) to prevent and minimize crash effects. NRSS challenges include investigating root causes, obtaining quality data, stewarding IIJA safety funding and enforcing regulations, and coordinating with stakeholders to help decision makers broadly understand the range of consequences of safety actions.
- To counter a persistent increase in pedestrian fatalities, NHTSA concurred with and must implement longstanding pedestrian safety recommendations from the Government Accountability Office, such as including pedestrian safety testing in its New Car Assessment Program and collecting and analyzing information on countermeasures. DOT should also better understand pedestrian and cyclist behaviors and their relationship to fatalities.
- To counter the significant risk presented by vehicle safety defects, NHTSA is challenged to effectively implement its manufacturer recall online portal, timely notify owners of defects, and ensure that its risk-based approach to reviewing recalls is effective.
- To address large truck and bus fatalities (see figure on next page), FMCSA's challenges include revising and implementing its Safety Measurement System; maintaining data quality on motor carriers' safety performance; and enforcing compliance with Federal regulations, including commercial driver medical certifications, license disqualifications, and timely compliance reviews.

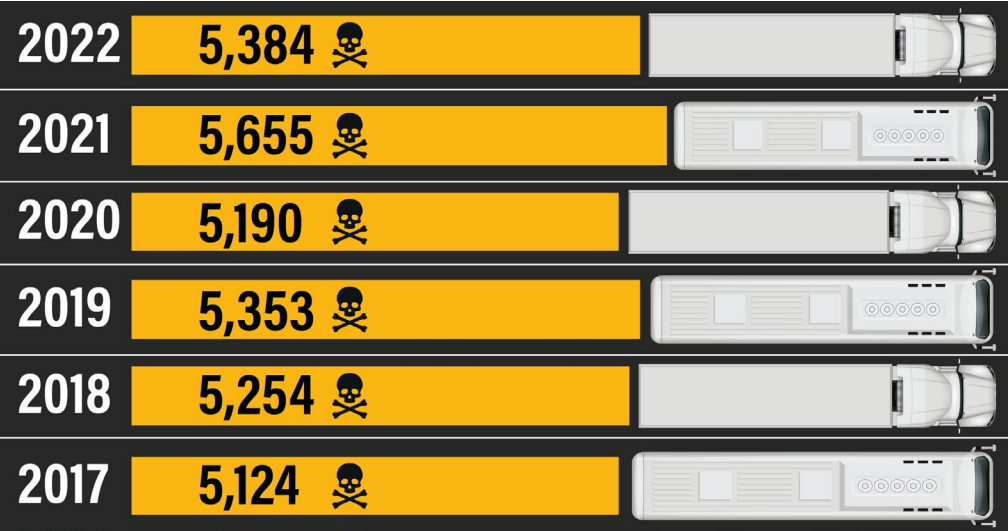
IIJA Impacts

Addressing these challenges will require quality data, coordination, and oversight and stewardship of IIJA funding. IIJA provides over \$34 billion over 5 years to help reduce motor vehicle traffic and other surface transportation-related fatalities. IIJA funds the Highway Safety Improvement Program, railroad crossing safety, motor carrier safety grants, and other programs. IIJA also continued to expand Federal safety oversight over public transportation systems, and DOT must balance incident-driven oversight with data-driven, risk-based oversight activities.

Verify and Enforce Railroad, Transit, Pipeline, and Hazardous Materials Safety Compliance

- As FRA dedicates substantial resources to responding to major events like the East Palestine train derailment and hazardous materials release, it remains challenged to use data-driven, risk-based oversight to effectively address incidents and perform routine rail safety oversight functions. According to FRA, its newly created Office of Research, Data, and Innovation is supporting these efforts by developing risk-based modeling and analysis tools to focus its safety oversight on high-risk areas.
- Effective implementation of systems-based oversight—such as FRA’s System Safety Program for passenger rail operations and Risk Reduction programs for freight rail operations—relies on thorough assessments of railroad plans, collection of reliable data, and consistent evaluation of results. FRA is challenged to prepare for this substantial addition to its oversight activities by developing related procedures, data collection and storage mechanisms, and training. Additionally, FRA needs to follow through on its plans to closely monitor railroads’ implementation of these programs and conduct ongoing assessments of required performance elements.
- The Protecting Our Infrastructure of Pipelines and Enhancing Safety Act of 2020 includes several mandates for PHMSA. Completing these mandates requires that PHMSA recruit, train, and retain pipeline inspection and enforcement personnel; conduct research and evaluate innovative technologies; complete rulemaking; and take other required actions to verify industry compliance with pipeline and hazardous materials regulations. PHMSA should also adjudicate enforcement actions and maintain stewardship of IIA funds. According to PHMSA, the Agency has made progress in the last 12 months, including publishing Notices of Proposed Rulemakings, increasing engineer staffing, and using recruitment and retention incentives.

Trends in Large Truck and Bus Fatalities, 2017–2022



Source: OIG analysis of DOT data

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Recent Progress Reported by the Department

- DOT created a dashboard to track progress implementing 43 NRSS priority actions by various modes and issued a progress report on implementing NRSS.
- NHTSA updated vehicle compliance test report reviews, updated training to enforce noncompliance, and updated internal rulemaking petition procedures.
- FTA released a draft updated version of the National Public Transportation Safety Plan, including enhanced safety performance measures for transit systems, and received public comments over the ensuing 60-day period.

Related OIG Work

- [FMCSA Generally Met Requirements for Cross-Border Carriers’ Long-Haul Operations, but Compliance Reviews Were Not Timely](#) (August 2, 2023)
>> 3 recommendations (2 open, 1 closed)
- [PHMSA Established an Effective Integrated Inspections Program but Needs To Strengthen Guidelines To Mitigate Risks](#) (May 31, 2023)
>> 3 recommendations (3 open, 0 closed)
- [NHTSA Has Not Fully Established and Applied Its Risk-Based Process for Safety Defect Analysis](#) (March 6, 2019)
>> 12 recommendations (10 open, 2 closed)

For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.



Air Traffic Control and Airspace Modernization

OAs Impacted
FAA and OST

Related DOT Strategic Goal(s)
Safety, Economic Strength and Global Competitiveness, Climate and Sustainability, Transformation

As air travel demand continues to rise, the rate of flight delays and cancellations have returned and now equal or exceed pre-pandemic levels (*see figure*). Collecting reliable delay and cancellation data is critical to understanding and addressing limitations to the capacity and reliability of the National Airspace System (NAS) and targeting the Department's actions. FAA also needs to continue to overcome delays and challenges with implementing new technologies, including Next Generation Air Transportation System (NextGen) programs, and understand the impact of NextGen delays and diminutions on the NAS's efficiency and other program benefits.

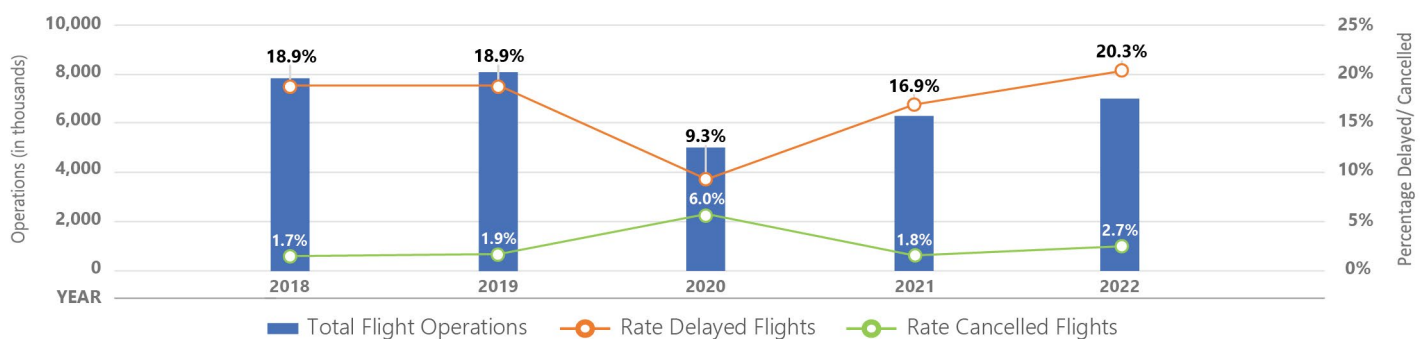
Understand and Address the Causes of Flight Delays and Cancellations

- There are numerous potential causes of flight delays and cancellations, including weather, airline-controlled factors, and air traffic control (ATC)-related factors.
- Airline-controlled factors, such as scheduling, staffing, and mechanical issues, are among the leading causes of flight delays and cancellations. DOT's Bureau of Transportation Statistics and FAA collect data on different aspects of delays and cancellations and perform quality checks on the data. DOT's Office of Aviation Consumer Protection can draw upon this information in determining whether airlines are complying with consumer protection laws and whether DOT can take other actions to improve air travel. The Department must continue to collect data to understand the causes of delays and cancellations, including ensuring its reliability in order to identify situations that require enforcement actions.
- Among ATC-related factors, FAA has not ensured adequate controller staffing at its most critical facilities. We recently reported that 20 of 26 critical facilities were staffed below the Agency's threshold of 85 percent as of March 2022. In addition, staffing challenges at critical facilities have led to reduced air traffic operations in some circumstances. For example, Jacksonville Center experienced over 300 staffing triggers, an action taken by FAA to reduce the amount of air traffic in the affected air space due to staffing constraints, which could lead to flight delays. Pauses in air traffic controller training during the COVID-19 pandemic resulted in increases in certification times for controllers to become fully certified, underscoring a need for improved resiliency in ATC staffing and contingency planning for disruptions in the training pipeline. These staffing challenges and FAA's lack of a plan to address them limit the capacity of the NAS.

IIJA Impacts

IIJA appropriated \$25 billion to FAA for three programs to address aging aviation infrastructure. Funding for two of these programs—Airport Infrastructure Grants and Facilities and Equipment—can be used to acquire or sustain ATC-related facilities and equipment. The use of IIJA funds to upgrade or replace aging facilities and equipment could boost the Agency's ongoing ATC and airspace modernization efforts and deliver increased benefits to airspace users.

Number of Flight Operations and Rates of Flight Delays and Cancellations, 2018–2022



Source: OIG analysis of DOT data

Recover From and Assess the Impact of Delayed and Diminished NextGen Programs on Agency Costs and Benefits for Airspace Users

- In response to the FAA Reauthorization Act of 2018, FAA reported in December 2021 that it was on track to have all major NextGen systems in place by 2025 and to deliver \$100 billion in benefits to airspace users by 2030. But implementation challenges, cost overruns, program changes, and pandemic related restrictions have resulted in delayed and curtailed programs (*see table*).
- For example, many benefits are expected from deployment of the Terminal Flight Data Manager (TFDM)—an automation tool for controllers to move aircraft between airport gates and runways more efficiently. However, according to FAA, due in part to pandemic-related challenges, FAA has reduced the total number of deployment sites and delayed TFDM’s full deployment until 2030, which will delay planned benefits for airspace users.
- Technical problems, delays, and unanticipated changes to NextGen programs and other systems have challenged the resilience of NAS operations and increased sustainment costs for FAA. For example, an outage in FAA’s Notice to Air Missions (NOTAM) system, which combines a newer system with a 20-year old system, caused a nationwide ground stop and thousands of flight delays. In addition, in 2018, FAA terminated its NAS Voice System program, which aimed to update aging voice switches to a voice-over internet protocol system. This termination, after roughly \$160 million was spent, led to FAA’s need for \$274 million to sustain its aging voice switches through 2030.

Most Delayed or Overbudget Current NextGen Programs

Program	Current Cost (\$M)	Schedule Delay (months)	Change in Cost (\$M)
Automatic Dependent Surveillance-Broadcast	\$3,431	0	+\$58
Data Communications (Segment 1)	\$2,029	>28	+\$49
En Route Automation Modernization	\$605	33	-\$81
Terminal Flight Data Manager	\$869	20	+\$74
Time-Based Flow Management	\$335	15	+\$32

Source: FAA’s Report on Air Traffic Modernization (NextGen), 2021. Some programs include multiple segments or phases. Current cost includes changes in program costs due to rescoping of segments within the programs.

For more information on the issues identified in this chapter, please contact:



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Recent Progress Reported by the Department

- **Controller Staffing.** FAA recently completed a comprehensive review of controller distribution and included it in the 2023 Controller Workforce Plan submitted to Congress in May 2023.
- **NextGen.** Although delayed, FAA has begun deployment of the first TFDM software build at air traffic control towers, including Cleveland, Indianapolis, Phoenix, Raleigh-Durham, and Columbus. FAA has scheduled one more tower to begin initial operations this calendar year in Las Vegas.
- **Other.** In 2023, FAA has continued to expand its Weather Camera Program beyond Alaska with FAA-owned cameras in Hawaii and partner cameras in the 48 contiguous States.

Related OIG Work

- [FAA Faces Controller Staffing Challenges as Air Traffic Operations Return to Pre-Pandemic Levels at Critical Facilities](#) (June 21, 2023)
>> 2 recommendations (2 open, 0 closed)
- [Changes in Requirements and Schedule Delays Contributed to the Termination of the NAS Voice System Contract](#) (January 12, 2022)
>> 1 recommendation (0 open, 1 closed)
- [NextGen Benefits Have Not Kept Pace With Initial Projections, but Opportunities Remain To Improve Future Modernization Efforts](#) (March 30, 2021)
>> 3 recommendations (0 open, 3 closed)

For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.



Surface Transportation Infrastructure

OAs Impacted

FHWA, FTA,
FRA, MARAD

Related DOT Strategic Goal(s)

Transformation, Economic Strength and
Global Competitiveness, and Equity

DOT faces a dynamic surface transportation infrastructure environment with a proliferation of projects and new programs covering roads, bridges, rail, transit, ports, and energy systems. The complexity includes new technologies in each transportation mode, changes in user behavior, and evolutions in policy goals—with likely tradeoffs among priorities such as safety, climate, equity, competition, and prosperity. As a result, surface transportation agencies face challenges acting as stewards of Federal investments while achieving their missions; supporting oversight that ensures compliance with Federal requirements and prevents fraud, waste, and abuse; and advancing the wide range of objectives for surface transportation funding.

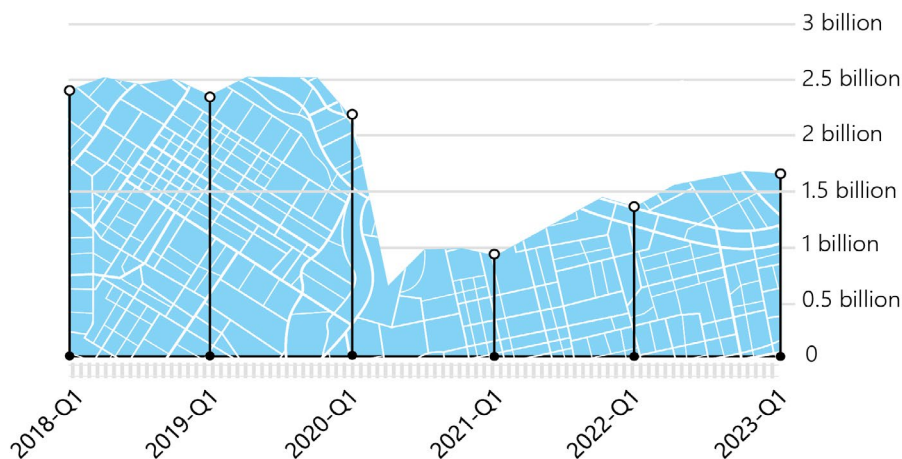
Steward Surface Transportation Investments in a Changing Environment

- The Department is implementing a diverse portfolio of IIJA-funded nationwide infrastructure projects, along with a priority to provide broad access to new and existing programs. Sustained Agency stewardship—which should encompass sound planning, management, and administration of resources—is critical to ensure optimal outcomes.
- Issues that impact State and local agencies—including uncertain construction costs, workforce shortages, climate-related resiliency, and changes in user behaviors—increase risks to DOT’s stewardship. For example, transit ridership through early 2023 had not returned to pre-pandemic levels (*see figure*). As COVID-19 relief funding—used for large public transit agencies’ operating costs—ends, agencies with budgetary shortfalls related to ridership and cost structure could find it more difficult to maintain their assets in a state of good repair—an FTA priority.
- DOT must also implement changes to existing surface transportation programs and requirements to meet new challenges. For example, Federal-aid highways programs were expanded to include new cost category eligibilities, such as the \$5 billion National Electric Vehicle Infrastructure program. FHWA will need to ensure that its stewardship policies and procedures incorporate effective means of overseeing these funds.

IIJA Impacts

Through August 27, 2023, about \$208 billion in IIJA funding has been made available to several surface transportation OAs (FHWA, FTA, FRA, MARAD, and OST). Of this amount, about \$117 billion has been obligated and about \$49 billion disbursed (*see table on next page*).

Quarterly Transit Ridership, 2018–2023



Note: Data is for unlinked passenger trips, defined as the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

Source: OIG analysis of American Public Transportation Association data

DOT Agency	IIJA Adjusted Budget Authority	IIJA Obligations	IIJA Disbursements
Federal Highway Administration	\$121,006	\$87,824	\$38,734
Federal Transit Administration	\$43,480	\$14,503	\$4,498
Federal Railroad Administration	\$33,146	\$14,034	\$5,937
Maritime Administration	\$925	\$12	\$4
Office of the Secretary of Transportation	\$9,694	\$243	\$51
Total	\$208,252	\$116,616	\$49,224

Source: OIG analysis of DOT-provided information through August 27, 2023, for FHWA, FTA, FRA, MARAD, and OST. Budget authority amounts reflect adjustments and transfers. Amounts include IIJA-authorized appropriations. All numbers are rounded.

Support Effective Funding Oversight as IIJA Progresses

- As IIJA enters its third year and DOT disburses more of the act’s surface infrastructure funding, agencies need to continue to support robust funding oversight to ensure compliance with Federal requirements and prevent fraud, waste, and abuse, in part by addressing oversight weaknesses. For example, FHWA could strengthen its oversight role and guidance to help mitigate potential exposure to risks related to change orders on Federal aid projects. MARAD has yet to address our 2015 recommendation to update its existing policies and procedures for employees’ use in administering and overseeing its programs. Similarly, FRA—which has begun obligating IIJA funds to Amtrak—has not yet addressed key recommendations to improve its oversight of Amtrak’s use of Federal funding.
- As agencies transition from maximum telework back to on-scene oversight work, OAs need to assess whether the virtual processes adopted during the pandemic fulfill their oversight objectives.
- The Department will also need to provide effective oversight of remaining COVID-19 relief funds, as well as other funding provided during the last few years. For example, we recommended that FTA address COVID-19 relief funding control activities for risk areas it identified, including risks of fraud or abuse, and the limited capacity of the Agency’s oversight contracts.

Advance a Range of Surface Transportation Priorities and Goals

- DOT has committed to a wide range of priorities and goals related to surface transportation, including strengthening American leadership in clean cars and trucks, improving mobility choices, modernizing transportation infrastructure, addressing climate change, advancing equity in its transportation investments, and accomplishing economic objectives.
- Implementation of these priorities may involve tradeoffs as stakeholders address surface transportation infrastructure goals. For example, preferences for how to secure certain supply chains or to contribute to American economic leadership may have unintended outcomes, such as higher costs. Because the challenges of these objectives are immense, the Department must find ways to evaluate tradeoffs and balance priorities and goals that maximize efficiency and achieve long-term effectiveness.
- DOT is also committed to achieving transparency. To meet this goal, DOT surface agencies need to provide reliable, timely, and accessible data on program implementation, funding use, and progress toward meeting priorities and goals. However, the Department faces challenges. For example, we found weaknesses in FTA's tracking and reporting of Hurricane Sandy funds through the end of 2020. These weaknesses reduced transparency for internal users, decision makers, and the public into FTA's use of the funds.

Recent Progress Reported by the Department

- **FHWA IIJA Guidance.** To help support State DOTs as they implement IIJA, FHWA identified 22 areas for which guidance is needed and has issued guidance for 18 areas to date.
- **FTA Oversight of Sandy Recipients' Compliance With Insurance Requirements.** FTA took action to discuss with its recipients and track the status of all Hurricane Sandy-related projects (whether funded with grant funds or with insurance).

Related OIG Work

[FHWA Has Made Progress Implementing a Tunnel Safety Program, but Work Remains To Complete a Reliable Inventory, Fully Assess Compliance, and Effectively Monitor Critical Risks](#) (January 17, 2023)

>> 12 recommendations (12 open, 0 closed)

[FTA Made Progress in Providing Hurricane Sandy Funds, but Weaknesses in Tracking and Reporting Reduce Transparency Into Their Use](#) (July 21, 2021)

>> 2 recommendations (1 open, 1 closed)

[Fully Implementing a Grants Management Framework Will Enhance FRA's Amtrak Funding Oversight](#) (June 30, 2021)

>> 4 recommendations (2 open, 2 closed)

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For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.



Contract and Grant Fund Stewardship

OAs Impacted
Departmentwide

Related DOT Strategic Goals
Safety, Economic Strength and Global
Competitiveness, Transformation,
Organizational Excellence

DOT annually obligates billions of dollars in contracts and grants across all modes of transportation. In fiscal year 2022, DOT's contract and grant obligations totaled \$128.9 billion—a 73 percent increase from fiscal year 2019 before the Department received any COVID-19 relief and IIJA appropriations (*see figure on next page*). Prudent stewardship is contingent on DOT's awarding funds to achieve best value outcomes and verifying that they are spent appropriately—including establishing sound pricing, promoting competition, tracking funds status, and validating expense eligibility.

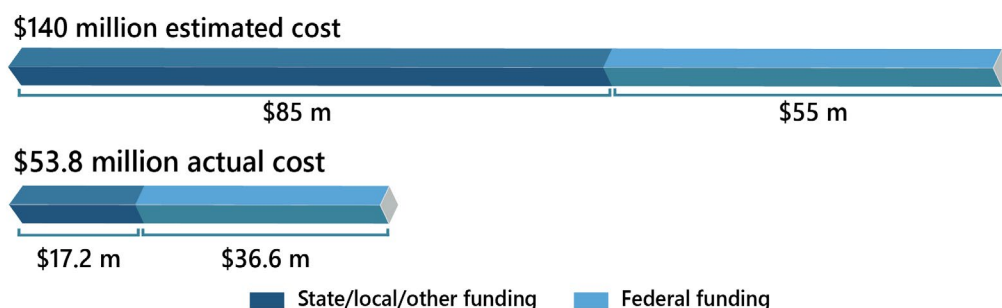
Award Contract and Grant Funds To Achieve Best Value Outcomes

- Best value outcomes result in timely, cost-effective products and services provided at the quality expected. To achieve such outcomes, DOT must establish sound pricing and use competition to the extent practical when awarding contracts and grant funds. These methods involve developing reasonable cost estimates, conducting price analysis, considering past performance, and rationally justifying noncompetitive actions. However, we have identified deficiencies in these areas, putting billions in contract and grant funds at risk.
- Both unreasonably low and high estimates can create problems. For example, in 2016, OST approved a grant application with a poorly supported \$140 million railroad safety project cost estimate. Less than 5 years later, the project ended up costing just \$53.8 million—62 percent less than the estimate (*see figure*). The significantly lower actual costs resulted in millions of unnecessarily held funds that could have been used for other Agency needs.
- The challenges in awarding contract and grant funds are compounded by a push for incorporating new technologies and requirements to maximize use of goods, products, and materials produced and services offered in the United States—which can create uncertainty in labor and product price and supply. This uncertainty can reduce numbers of bidders, hinder cost estimation accuracy, and delay project completion. If these risks are not mitigated, the value to taxpayers from Department funds may be diminished.

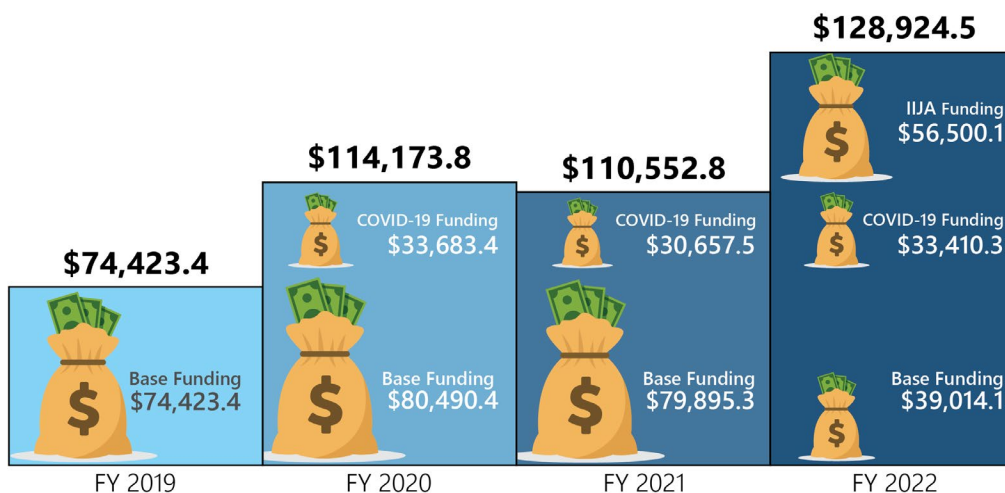
IIJA Impacts

DOT's implementation of IIJA magnifies its stewardship challenges. IIJA not only increased DOT funding levels significantly, but also increased the numbers of recipients, projects, programs, and requirements that DOT oversees. For example, IIJA funded 15 new discretionary DOT grant programs. Additionally, our prior work and GAO recommendations indicate DOT needs to improve transparency and communication of award decisions as part of its grant fund stewardship responsibilities. The Department's focus on these challenges is crucial to delivering projects that represent value to the taxpayer while supporting the safety and efficiency of our Nation's transportation systems.

DOT Grantee's Railroad Safety Project Estimated Cost Versus Actual Cost



Source: OIG analysis of the grant application narrative and project's final invoice payment



Source: OIG analysis of DOT data

Verify Efficient and Appropriate Use of Contract and Grant Funds

- As a steward of Federal funds, DOT is responsible for verifying that awardees and recipients use funds appropriately. Such verification includes tracking of fund status, timely deobligation of unused funds, and validation of compliance with funding terms and expense eligibility prior to payment. However, our recent reports have pinpointed weaknesses in DOT's contractor and grantee oversight, resulting in millions of lapsed and inactive funds, unsupported costs, questioned costs, and improper payments.
- The Federal Government declared the end of the COVID-19 emergency on May 11, 2023. As of May 31, 2023, about \$17.8 billion in DOT-awarded COVID-19 grant funds remained unspent—despite guidance from certain OAs to recipients to use funds expeditiously. DOT needs to monitor unspent funds to verify eligibility if expended and identify unneeded funds for timely deobligation.
- Key to tackling this challenge is DOT's ability to secure and train resources to oversee funds and provide clear direction to contractors and grantees on funding terms and conditions—such as Made in America requirements. While DOT has begun taking action in these areas, challenges remain given the Department's expansive contract and grant fund realm.
- Audits of non-Federal entities that receive Federal financial assistance pursuant to the Single Audit Act help verify the proper use of grant funds. New recipients of Federal funding for pandemic relief and infrastructure projects may be unfamiliar with Single Audit Act requirements and overlook the critical oversight requirement to obtain single audits.

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Recent Progress Reported by the Department

- The Department has established a new Office of Grants and Financial Assistance that will focus on strengthening grant stewardship. It will provide guidance on interpreting and applying policies and regulations and establish a training and certification program for grant program employees.
- DOT has established a Project Delivery Center of Excellence at the Volpe National Transportation Systems Center to facilitate on-time, on-task, and on-budget delivery of DOT grantee projects. To achieve these outcomes, the Center will need to deliver actionable information to grantees and persuade grantees and stakeholders to use the information in project delivery.

Related OIG Work

[DOT's Oversight Is Not Sufficient To Ensure the City of Seattle Meets Requirements for Managing Federal Transportation Funds](#) (February 1, 2023)

>> 14 recommendations (10 open, 4 closed)

[FAA Quickly Awarded CARES Act Funds but Can Enhance Its Oversight Approach To Promote Effective Stewardship](#) (July 18, 2022)

>> 7 recommendations (0 open, 7 closed)

[Weaknesses in DOT's ITSS Award and Invoice Processes Increase the Risk of Inefficiencies During Acquisitions of Critical IT Products and Services](#) (September 20, 2022)

>> 9 recommendations (7 open, 2 closed)

For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.

Financial Management

OAs Impacted
Departmentwide

Related DOT Strategic Goal(s)
Economic Strength and Global Competitiveness



For fiscal year 2023, DOT's budgetary resources included approximately \$248 billion for departmental programs and operations, including COVID-19 relief and IIJA funding. Because these funds remain significantly more than DOT's annual pre-pandemic, pre-IIJA resources, the risk for improper payments associated with these funds is high, and the Department should remain vigilant in its oversight. Effective controls to mitigate the risk of improper payments and robust policies for grant fund award and oversight are vital for ensuring consistency in operations and safeguarding assets.

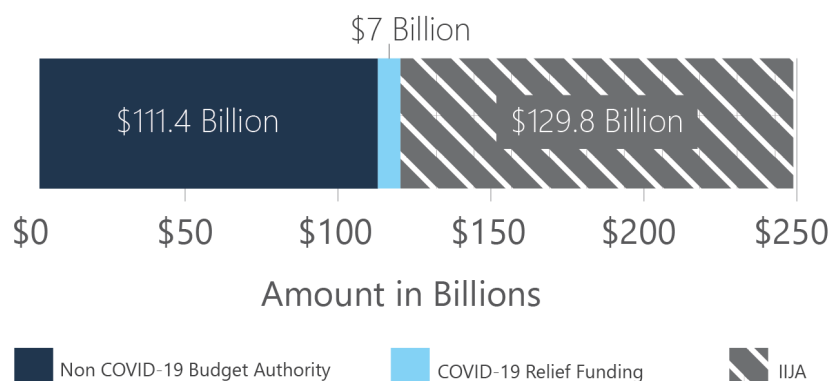
Reduce the Occurrence of Improper Payments

- Internal controls to detect and prevent improper payments help ensure that grantees meet Federal requirements, achieve program objectives, and better ensure payments are accurate. The Payment Integrity Information Act of 2019 (PIIA) requires agencies to identify, report, and reduce improper payments in their programs. PIIA emphasizes payment integrity and improper payment reduction and requires agencies to assess risk of improper payment occurrence and develop plans to prevent improper payments.
- While we recently reported that DOT complied with PIIA for fiscal year 2022, the Department's testing of two programs susceptible to significant improper payments—with total expenditures over \$61.6 billion—resulted in an estimate of about \$756 million in improper payments. Moreover, one program—FHWA's Highway Planning and Construction Program—was estimated to have \$548.95 million or 1.13 percent in improper payments and did not meet its target of reducing improper payments to 1 percent.
- As expected, the growth in disbursements and numbers of transactions related to IIJA and COVID-19 relief have increased DOT programs' susceptibility to improper payments, presenting additional oversight challenges. For example, for fiscal year 2022, DOT reviewed FTA's Transit Infrastructure Grants COVID Relief Funds Program and estimated a total of \$206.6 million or 1.57 percent in improper payments for the program.

IIJA Impacts

IIJA authorized and appropriated hundreds of billions in funding for DOT programs for fiscal years 2022 through 2026. To comply with Office of Management and Budget (OMB) requirements for improvements in payment integrity, and as part of its fiscal year 2023 improper payment reporting cycle, the Department intends to conduct improper payment risk assessments for most programs, and major changes in programs funded by IIJA should be particular focus areas. It is imperative that DOT position itself for the challenges associated with IIJA funding, including susceptibility to improper payments.

DOT Budget Authority for FY 2023



Notes: Budgetary resources mean amounts available to incur obligations in a given year. Budgetary resources consist of new budget authority and unobligated balances of budget authority provided in previous years.
Source: DOT quarterly financial statements as of June 30, 2022, and June 30, 2023 (unaudited)

Improve Compliance With Federal Requirements for Monitoring and Reporting on Grantee Spending

- DOT has faced challenges in ensuring its grantees are effectively tracing how and where Federal funds are spent as required. This impacts the Department's ability to monitor that grant funds are used appropriately. For example, we reported that DOT's oversight did not ensure that Seattle, WA, met requirements for properly tracing Federal grant funds it received from FHWA, FRA, and FTA. As a result, we could not fully determine how Seattle used its Federal grant and cooperative agreement awards.
- In addition, the Do Not Pay (DNP) initiative requires Government agencies to verify recipients' eligibility to receive payments in the U.S. Department of the Treasury's Working System databases as appropriate before the release of Federal funds. However, we recently reported that DOT is not using the DNP portal as required, increasing the risk of making payments to ineligible recipients.
- Another recent report found FAA did not comply with Federal standards for internal controls when overseeing noise compatibility land acquired with Federal grants by airports, resulting in questionable reimbursements.
- OMB's Uniform Guidance requires agencies to follow up on single audit findings and verify the appropriateness of grantees' actions to resolve them. However, DOT faces challenges determining the allowability of millions of dollars in questioned costs in a timely manner and ensuring grantees are resolving findings timely, given that numerous repeat findings are identified in audit reports that grantees submit to the Federal Audit Clearinghouse. DOT must also ensure that recovery actions are taken when appropriate.

Improve Quality of Financial Data

- The Data Accountability and Transparency (DATA) Act establishes standards for financial data and requires agencies to submit accurate, searchable data on grantee spending for decision makers and the public. In fiscal year 2023, an independent public accounting (IPA) firm, under contract to OIG, reviewed DOT's actions to implement recommendations from prior-year DATA Act audits. The IPA found that while DOT designed controls to address some of the recommendations, the controls were not implemented or operating effectively. As a result, the IPA determined three of the four recommendations should remain open. As it continues to disburse funds, DOT will be challenged to successfully implement corrective actions on the open recommendations to improve their data quality procedures for DATA Act reporting.
- As part of a recent OIG audit, Treasury's Bureau of Fiscal Services analyzed DOT's fiscal year 2021 payment files and identified data quality challenges that may impact DOT's ability to effectively determine recipient eligibility for payments. Their analysis found more than 40,000 DOT payments, totaling \$24.4 billion, that had payee identification numbers in incompatible formats, preventing checking of recipient eligibility. Further, since payments with incompatible identification numbers cannot be matched to taxpayer identification information in the Treasury Working System databases, ineligible recipients cannot be identified either.

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Recent Progress Reported by the Department

- During the past 3 fiscal years, the Department has recovered over 90 percent of the improper payments identified.
- The Department is working to reduce the backlog of open recommendations related to single audits and has submitted acceptable documentation to close 22 recommendations worth a total of \$4.3 million.
- The Department plans to establish an Office of Grants and Financial Assistance to strengthen the management and stewardship of financial assistance, grants, and agreement programs.

Related OIG Work

[DOT's Fiscal Year 2022 Payment Integrity Information Act Compliance Review](#)
(May 22, 2023)
>> No recommendations

[Summary Report on Significant Single Audit Findings Impacting DOT Programs for the 3-Month Period Ending March 31, 2023](#)
(May 3, 2023)
>> 2 recommendations (1 open, 1 closed)

[FAA Can Strengthen Its Oversight of the AIP Acquired Noise Compatibility Land Program](#)
(February 28, 2023)
>> 9 recommendations (9 open, 0 closed)

[DOT's Oversight Is Not Sufficient To Ensure the City of Seattle Meets Requirements for Managing Federal Transportation Funds](#) (February 1, 2023)
>> 14 recommendations (10 open, 4 closed)

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Information Security

OAs Impacted
Departmentwide

Related DOT Strategic Goal(s)
Safety, Transformation,
Organizational Excellence

DOT continues to face longstanding challenges mitigating weaknesses in its cybersecurity program and securing its over 400 information technology (IT) systems. We have identified numerous weaknesses that may allow attackers to gain control of certain systems, launch denial-of-service attacks, or gain access to mission-critical systems and sensitive data. As it works to mitigate these weaknesses, DOT must also implement new and existing Federal information security requirements and priorities, including moving towards a zero trust architecture.

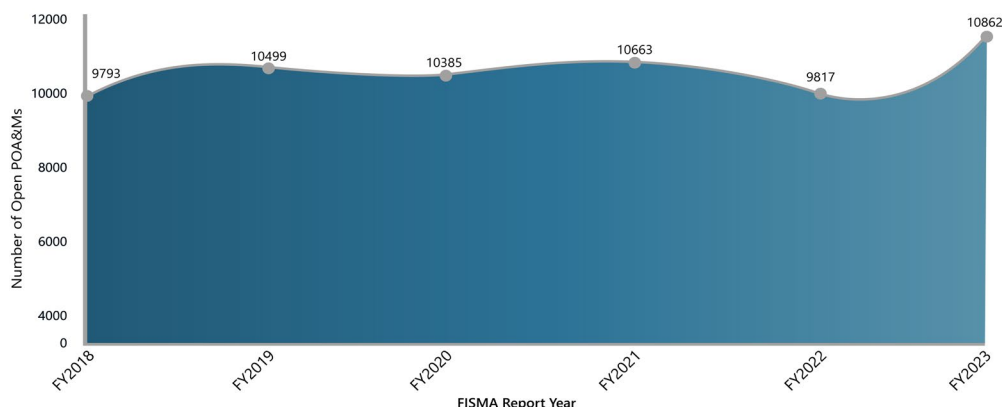
Overcome Obstacles To Mitigate Longstanding Weaknesses in DOT's Cybersecurity Program

- In our 2023 review of DOT's compliance with the Federal Information Security Modernization Act (FISMA), we found that the Agency's information systems continue to face high-risk security vulnerabilities, including outdated security patches, faulty configuration settings, and unsupported software that place the Department's systems at risk for compromise. DOT must mitigate its cybersecurity weaknesses—including cloud-based systems' security weaknesses—while also addressing new information security requirements. These new requirements may compete with other priorities to improve its security posture and implement our recommendations.
- DOT also continues to face challenges addressing the root causes of recurring security weaknesses, due in part to incomplete adherence to plans of action and milestones (POA&M) and management processes. As of June 30, 2023, we found 10,862 open security weaknesses in POA&Ms (*see figure*)—an increase of 1,045 (over 10 percent) from 2022. DOT also needs to implement our recommendation to develop a comprehensive strategy and resolve 61 open recommendations from FISMA audits.
- We recently reported that DOT faces challenges in its identification of high-value assets (HVA)—information systems to which unauthorized access could significantly impact U.S. national security—and addressing shortcomings in its assessment and remediation process for HVAs.
- DOT must address its information security weaknesses to avoid more incidents like the one in May 2023 in which a system used to process transit benefits for 237,000 employees was breached.

IIJA Impacts

- IIJA provides nearly \$2 billion for States' and other Federal agencies' cybersecurity resiliency and innovation but does not provide funding for DOT's cybersecurity improvements. We previously recommended that DOT develop a multiyear strategy and approach—complete with objective milestones and resource commitments—to implement corrective actions that address longstanding weaknesses and ensure an effective information security program.
- Implementing the above recommendation will help the Department prioritize weaknesses and calculate resources necessary to resolve recurring cybersecurity issues while also determining whether IIJA funds can be used to address cybersecurity and new zero trust requirements.

Number of Open POA&Ms Departmentwide Since FY 2018

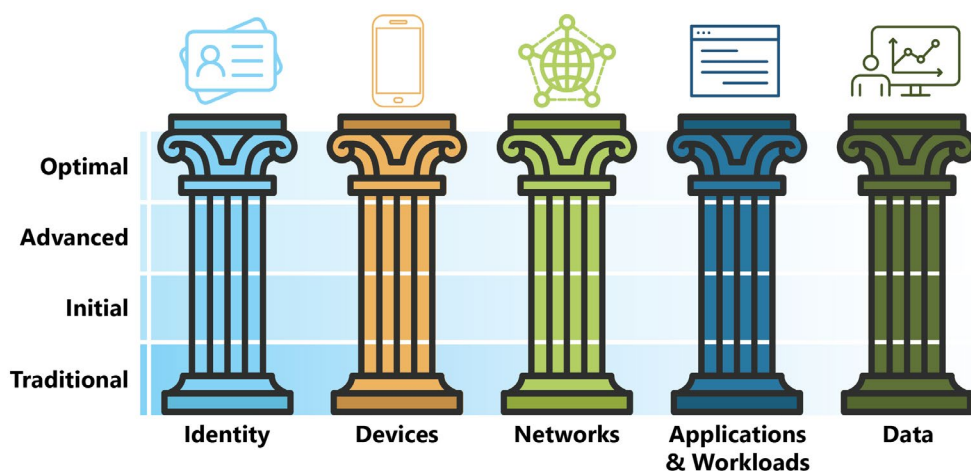


Source: OIG analysis of DOT data

Execute Federal Priorities To Move Towards a Zero Trust Architecture

- The Office of Management and Budget (OMB) requires agencies to achieve zero trust security goals for identity, devices, networks, applications, workloads, and data (see figure) by the end of fiscal year 2024. However, DOT faces challenges establishing multi-factor identity authentication (MFA) and data encryption—key elements of a zero trust architecture.
- DOT has not yet enabled 72 information systems to use required personal identity verification (PIV) cards for MFA logins, and consequently, these systems are susceptible to attack. DOT has also not enforced PIV authentication for 35 PIV-enabled systems. Furthermore, DOT did not meet its 2022 deadline to encrypt personally identifiable information (PII) and has not fully implemented controls to prevent PII exfiltration.
- DOT must report an accurate inventory of IT hardware assets to OMB, but we have found significant inaccuracies in this inventory. Additionally, DOT has identified 2,895 positions that need to be filled to address cyber skill shortages. Employee skills are part of DOT's zero trust architecture strategy. In response to our cloud security report, DOT plans to update its zero trust architecture strategy and implementation plan by December 30, 2024.

Pillars of the Zero Trust Maturity Model



Source: DHS CISA Zero Trust Maturity Model, version 2.0, April 2023

Recent Progress Reported by the Department

DOT states that its cybersecurity initiatives include enhancements and investments in cybersecurity capabilities, including funding for:

- upgrades to network and information technology infrastructure,
- improvements of identity management and authentication capabilities,
- data security,
- expansion of cybersecurity and privacy risk management capabilities,
- integration of zero trust architecture implementation, and
- upgrades to FAA's security operations capabilities.

Related OIG Work

[FISMA 2023—Quality Control Review of the Independent Auditor's Report on the Assessment of DOT's Information Security Program and Practices \(September 27, 2023\)](#)

>> 2 recommendations (2 open, 0 closed)

[DOT's Cloud-Based System's Security Weaknesses Hinder Its Transition to a Zero Trust Architecture \(August 30, 2023\)](#)

>> 21 recommendations (21 open, 0 closed)

[DOT Needs To Improve Its High-Value Assets Governance Program To Effectively Identify, Prioritize, and Secure Its Most Critical Systems \(October 30, 2023\)](#)

>> 7 recommendations (7 open, 0 closed)

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For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.



Fraud Prevention and Detection

OAs Impacted
Departmentwide

Related DOT Strategic Goal(s)
Economic Strength and Global
Competitiveness, Equity,
Organizational Excellence

Proactively identifying and preventing fraud, waste, and abuse is vital to ensuring that the billions of taxpayer dollars directed to our Nation's transportation system are used appropriately. However, DOT faces challenges identifying and assessing fraud in high-risk areas such as bid rigging, Disadvantaged Business Enterprise (DBE) fraud, domestic content, and materials fraud. The Department must also take steps to proactively manage fraud risks, including improvement of oversight procedures and outreach efforts to enhance understanding among staff, grantees, and their contractors on how to detect, prevent, and report potential fraud.



DID YOU KNOW?

Bid rigging and collusion occur between two or more firms to affect the award and/or the pricing of projects.

Selected Red Flag Indicators of Bid Rigging and Collusion

- Unusual bid patterns: too close, too high, round numbers, or identical winning margins or percentages
- Different contractors making identical errors in contract bids
- Losing bidders submitting identical line-item bid amounts on nonstandard items
- Losing bids do not comply with bid specifications or only one bid is complete and other bids are poorly prepared
- Bid prices dropping when a new bidder enters the competition
- Losing bidders hired as subcontractors
- Apparent connections between bidders: common addresses, personnel, or telephone numbers
- Joint venture bids by firms that usually bid alone
- Rotation of winning bidders by job, type of work, or geographical area
- Persistent high prices by all bidders

Source: OIG analysis

Identify and Assess Fraud Risks

We have identified high-risk fraud areas that present detection challenges for DOT, such as:

- *Collusion among contractors such as bid rigging, efforts to influence pricing on project bids, and price fixing.* For example, a North Carolina engineering firm executive was recently sentenced to 18 months of incarceration for conspiring to rig bids and submit false certifications of non-collusion for more than 300 projects. The executive instructed a co-conspirator to submit non-competitive bids to North Carolina DOT and to hide the bid rigging and fraud by varying the amounts of the submitted inflated bids.
- *Market allocation schemes that include attempts to forge agreements on non-competition for specific territories.* For example, a former president of a Montana paving and asphalt company was sentenced to 3 years of probation and other punishments after attempting to monopolize the market for highway crack-sealing services in Montana and Wyoming. The defendant pleaded guilty to a violation of section 2 of the Sherman Antitrust Act after being the first defendant charged under the section in over 50 years.

IIJA Impacts


The volume and speed at which IIJA funds are disbursed puts these funds at a high risk for fraud, waste, and abuse. In addition, IIJA mandates that at least 10 percent of funds should be paid to small businesses owned and controlled by socially and economically disadvantaged individuals. Over the last 5 years, we have investigated 83 allegations of DBE fraud, resulting in over \$21.8 million in forfeitures, \$10.7 million in recoveries, \$6.7 million in restitution, \$932,000 in fines, and 15.7 years of incarceration. Strong oversight is needed to ensure that DBEs are actually owned and controlled by disadvantaged persons, that they perform the work rather than act as front companies for ineligible firms, and that their business size meets program standards.

Identify and Assess Fraud Risks (Continued)

- *Materials fraud involving the delivery of products that are substandard or that fail to comply with domestic content requirements.* For example, a Massachusetts construction company agreed to pay \$1 million to resolve allegations that it violated the False Claims Act in connection with the origin of railroad ballast and dirt imported for an FHWA-funded highway project.

Manage Fraud Risks Through Oversight, Outreach, and Data Analysis

- A key challenge in safeguarding IIJA funds is conducting outreach to OAs, State DOTs, and grantees. Such outreach helps ensure that those responsible for fund oversight are aware of indicators of possible fraud (*see figures*). Outreach efforts can also help DOT acquire data for analyses to better identify fraud. Such data may also help DOT identify patterns to target high-risk areas for investigation and audit.
- Our Office of Investigations also conducts outreach to increase awareness on how to recognize and report suspected fraud. However, this outreach does not typically reach the contractors who actually perform the work. Consequently, DOT and its grantees must inform contractors of their responsibilities for preventing, detecting, and reporting fraud. In particular, prime contractors play essential roles in obtaining DBE and other subcontractor participation, monitoring change orders, maintaining records, ensuring that DBEs engage in useful functions, and other activities that may result in fraud detection.
- Further, DOT should enhance its fraud risk management processes by improving processes for identifying and assessing programs' fraud risks. As we recently reported, by fully incorporating leading practices developed by the Government Accountability Office (GAO) into its fraud risk assessment processes, DOT can better identify, assess, and prioritize resources to address risks of fraud, waste, and abuse. It is also important for DOT and grant recipients to reinvigorate onsite fraud protection efforts as part of their post-pandemic return to in-person work activities.



DID YOU KNOW?


Over the last 5 years, OIG has investigated 83 allegations of DBE fraud, resulting in over \$21 million in forfeitures

Selected Red Flag Indicators of DBE Fraud

- Employees shuffling back and forth between prime contractor and DBE payrolls
- Financial agreements between prime contractor and DBE
- Prime contractor always uses the same DBE
- Joint bank accounts between prime contractor and DBE
- Orders and payment for necessary supplies made by individuals not employed by DBE
- Prime contractor facilitated purchase of DBE
- Absence of written contracts
- DBE owner never present at job site
- DBE owner lacking background, expertise, or equipment to perform subcontract work
- Business names on equipment and vehicles covered with paint or magnetic signs

Source: OIG analysis

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Recent Progress Reported by the Department

- To mitigate fraud risk associated with IIJA funding and programs, DOT reports it is leveraging lessons learned from prior tranches of supplemental funding, completed program and process-level fraud assessments, and analysis of recent fraud cases.
- In response to our recent report, DOT is planning to enhance the fraud risk assessment process and template to incorporate additional leading practices from GAO's framework.

Related OIG Work

[DOT Should Enhance Its Fraud Risk Assessment Processes for IIJA-Funded Surface Transportation Programs](#)
(June 20, 2023)

>> 2 recommendations (2 open, 0 closed)

[Ohio Construction Company Owners Sentenced for Pavement-Striping Fraud Scheme](#)
(April 6, 2023)

[Two Companies Agree to Pay \\$1.2 Million to Resolve DBE Fraud Allegations](#) (April 5, 2023)

For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.



Transportation Transformation

OAs Impacted
FAA, FHWA, NHTSA, OST

Related DOT Strategic Goal(s)
Safety, Economic Strength and Global Competitiveness, Equity, Climate and Sustainability, Transformation, Organizational Excellence

DOT adopted the strategic goal of transformation to design for the future and invest in research and innovation to meet present challenges, modernize the transportation system in ways that advance DOT's mission, and serve Americans today and in the future. In this role, coupled with its safety role, DOT faces considerable challenges. These include advancing DOT's innovation principles; ensuring safe integration of automated driving systems; implementing the national electric vehicle (EV) program; and safely integrating commercial space operations, Advanced Air Mobility (AAM) aircraft, and Unmanned Aircraft Systems (UAS) into the National Airspace System (NAS).

Advance Safety and Other DOT Missions Through the Innovation Principles

- New technologies are poised to affect every sector of the U.S. transportation system and shape America's future economic prosperity, industry competitiveness, national security, and safety. DOT will need to act thoughtfully to mitigate safety risks while still enabling innovation and its potential benefits to safety and prosperity. DOT announced six innovation principles in 2022 to support transformation as one of DOT's strategic goals:
 - Serving key public policy priorities,
 - Helping America win the 21st century,
 - Supporting workers,
 - Overcoming risk-aversion to allow for experimentation and learn from setbacks,
 - Collaborating with the private and academic sectors, and
 - Allowing for flexibility and adaptation.
- To advance these principles, DOT needs to cultivate coordination between Federal, State, and local governments and private companies in both traditional and new transportation endeavors. For example, pursuant to IIJA, DOT and the Department of Energy (DOE) established the Joint Office of Energy and Transportation with the initial tasks of planning and developing a nationwide network of 500,000 EV chargers and other zero-emission refueling infrastructure, as well as convening an EV working group incorporating expertise from multiple categories of stakeholders. DOT is also establishing a Transforming Transportation Advisory Committee to provide the Secretary advice and recommendations about needs, objectives, plans, and approaches for transportation innovation.
- DOT will also be challenged to advance safety, competition, innovation, and other priorities across transportation modes. For example, the launch of higher-speed rail service between southern Florida and Orlando heralds the next step in passenger rail technology, and FRA's recent award of grant funding for the improvement of 21 grade crossings along the route underscores the concomitant safety challenges, as does FRA's recent grant awards for law enforcement along the route to prevent trespassing along the railroad right of way.
- Meanwhile, the Department's Research, Development, & Technology Strategic Plan and the launch of the new Advanced Research Projects Agency-Infrastructure (ARPA-I) pursuant to IIJA highlight the continuing and expected impact of technological change on every mode of transportation and that the challenges posed span DOT priorities such as safety, competition, climate, American leadership, and equity.

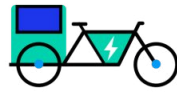
IIJA Impacts

IIJA establishes new focus areas for transportation investments, including reduced-emissions transportation technology, resiliency, and climate and sustainability.

For example, IIJA has provided \$100 million annually for the Strengthening Mobility and Revolutionizing Transportation (SMART) discretionary grants, which allow eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems to improve transportation efficiency and safety (*see figure on next page*). In 2023, \$94 million in grant awards were provided for 59 projects across 33 States.



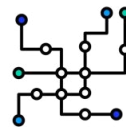
CONNECTED
VEHICLES



DELIVERY/
LOGISTICS



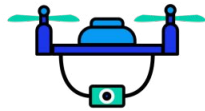
SENSORS



SYSTEMS
INTEGRATION



COORDINATED
AUTOMATION



INNOVATIVE
AVIATION



SMART
GRID



TRAFFIC
SIGNALS

Source: [DOT/Smart Grant Program](#)

Safely Advance Emerging and Innovative Vehicle Technologies

DOT faces a number of challenges in the rapidly evolving areas of vehicle innovation, including automation and electrification.

- In vehicle automation, a key DOT challenge is to identify ways in which automation can advance overall safety and other DOT priorities, while limiting unintended negative safety impacts. This includes comprehensively identifying data collection needs and seeking access to the required information to support credible analyses of safety impacts of automation integration. The Department faces challenges in developing standards, testing new tools, and assessing impacts of new technologies and managing the public's understanding of the relationship between such technologies and DOT priorities.
- DOT needs to collaborate with industry and other stakeholders to evaluate connected vehicle applications to enhance safety and transportation system performance (e.g., enhanced mobility) while also addressing deployment and maintenance costs, security, and privacy challenges, along with potential public trust and acceptance challenges.
- IIJA established a national EV program, including a \$5 billion National Electric Vehicle Infrastructure (NEVI) Formula Program to help States create a network of EV charging stations. As the program advances and the industry evolves, DOT must learn from and adjust the program as needed to maximize value derived from IIJA investment. For example, in the months after DOT adopted the Combined Charging System (CCS) charging standard for NEVI-funded projects, support for the competing North American Charging System (NACS) began to spread rapidly among EV makers.
- Also, as the number of EVs on roadways, in the supply chain, and in residential and industrial facilities increases, DOT must position itself to address potential emerging safety issues brought by the increased use of these technologies. Challenges include collecting and evaluating post-incident and crash data as well as system-wide data to assess trends and identify risks, while also enhancing public understanding of vehicle safety issues.

Recent Progress Reported by the Department

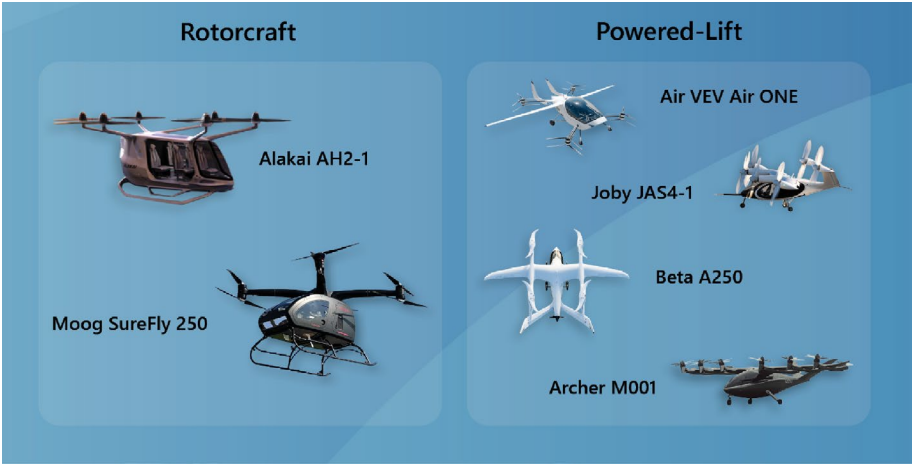
- In July 2023, DOT, DOE, and the Joint Office on Energy and Transportation released a guide to help communities take advantage of Federal funding for EV charging stations.
- In June 2023, FAA reduced restrictions in north Florida airspace during most commercial space launches.
- In February 2023, the Secretary of Transportation established the AAM Interagency Working Group to coordinate efforts related to safety, operations, infrastructure, physical security and cybersecurity, and Federal investments for maturation of the AAM ecosystem. In July 2023, FAA released its initial AAM Implementation Plan.
- In January 2023, DOT released the 2022–26 Research, Development, & Technology Strategic Plan.
- FAA recently granted multiple waivers to operate UAS beyond visual line-of-sight (BVLOS) for purposes including package delivery and testing detect and avoid technology. The Agency is continuing to work towards standard rules to make BVLOS operations routine, scalable, and economically viable.
- In September 2023, DOT issued its Complementary Positioning, Navigation, and Timing (PNT) Action Plan to advance resilience of this critical infrastructure.

Integrate New Technologies Into the NAS

Supporting innovation in the NAS requires the safe integration of commercial space operations, AAM aircraft, and UAS, including:


- *Implementing technologies and procedures for integrating commercial space operations.* As of September 15, 2023, FAA reports that there have been 107 licensed commercial space operations in fiscal year 2023—more than triple the number in 2020. In 2021, FAA deployed a Space Data Integrator prototype, but its ability to provide launch and reentry data are limited, and FAA has not yet made key decisions on a planned successor program. In addition, while FAA has implemented procedures to reduce the time commercial space operations impact NAS airspace, the Agency still faces challenges integrating these operations.
- *Certifying and integrating AAM.* Regulatory, management, and communication issues have slowed certification efforts for AAM aircraft. FAA’s regulations are still intended primarily for traditional small aircraft, and novel technologies do not readily fit into FAA’s existing airworthiness standards. FAA also faces challenges in areas such as AAM airspace management and infrastructure requirements, including continued engagement and coordination with local, State, tribal, and territorial governments.
- *Removing barriers that limit UAS operations.* Following FAA’s 3-year Integration Pilot Program and more than 3 years into the follow-on program BEYOND, the Agency is still working on establishing new regulations to advance complex UAS operations. Also, challenges remain for FAA and industry to implement a UAS Traffic Management ecosystem to coordinate and deconflict drone operations in low-altitude airspace.

AAM Aircraft in the FAA Certification Process as of August 2022




Source: UAM Manufacturers (clockwise from top-left: Alakai Technologies; AirVEV; Courtesy of Joby Aviation. © Joby Aero, Inc.; Beta Technologies; Archer Aviation; and Moog, Inc.)

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Related OIG Work

[NHTSA Has Not Fully Established and Applied Its Risk-Based Process for Safety Defect Analysis](#) (May 31, 2023)

>> 12 recommendations (10 open, 2 closed)

[FAA Has Deployed a Prototype System for Monitoring Commercial Space Operations but Faces Integration Challenges](#) (June 21, 2023)

>> 4 recommendations (4 open, 0 closed)

[Regulatory Gaps and Lack of Consensus Hindered FAA’s Progress in Certifying Advanced Air Mobility Aircraft, and Challenges Remain](#) (June 21, 2023)

>> 4 recommendations (4 open, 0 closed)

[FAA Has Made Progress on a UAS Traffic Management Framework, but Key Challenges Remain](#) (September 22, 2022)

>> 4 recommendations (4 open, 0 closed)

[FAA Made Progress Through Its UAS Integration Pilot Program, but FAA and Industry Challenges Remain To Achieve Full UAS Integration](#) (April 27, 2022)

>> 6 recommendations (5 open, 1 closed)

For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.

Organizational Excellence



OAs Impacted
Departmentwide

Related DOT Strategic Goal(s)
Organizational Excellence

In 2022, DOT adopted a strategic goal of organizational excellence to meet its mission now and into the future and help deliver on critical investments. This goal includes strategic objectives related to data-driven programs and policies, customer service, workforce development, and sustainability initiatives. Achieving these objectives, however, will be challenging because, as GAO and OIG have recently reported, some DOT OAs and offices may have to simultaneously manage data quality issues, staffing and workforce needs, and an evolving work environment.

Establish the Workforce Capabilities Needed To Meet the Department's Mission

- DOT currently employs approximately 55,000 personnel. However, for DOT to meet its mission, it must address a number of workforce challenges. For example, a May 2023 GAO letter calls for DOT to assess gaps in cybersecurity and data analysis skills; complete IT workforce planning activities to adequately assess and address gaps in knowledge and skills critical to the success of major IT acquisitions; and update policies and procedures to include designating a privacy official when planning for the Department's workforce privacy needs.
- To help support the safety and efficiency of the National Airspace System, FAA's nearly 5,000 technicians maintain roughly 74,000 pieces of equipment at approximately 400 facilities nationwide. However, FAA develops training and hiring targets only 1 year in advance and does not track data to help identify technician training and hiring needs. Forecasting maintenance technician training and hiring needs for multiple years in advance will be an ongoing workforce challenge for FAA.
- The Department also relies on contractors to support its mission but faces challenges ensuring its personnel effectively administer contracts. For example, we found that untimely awards of information technology contracts could occur, in part, because DOT's contracting staff have large workloads as well as a lack of the necessary knowledge to administer IT contracts effectively.

IJIA Impacts

As we reported in 2022, DOT faces challenges in ensuring it has the necessary human capital to achieve IJIA's program goals. The Department set a goal of 1,760 new hires to respond to identified IJIA-related needs. Approximately 1,400 of these employees would be in surface transportation OAs. DOT has reported that it has hired over 1,000 of these personnel (*see table*). We recently began an audit to evaluate the surface transportation OAs' processes for identifying positions needed to implement IJIA-funded programs. We will also report on DOT's progress addressing identified IJIA staffing needs at surface transportation OAs.

IJIA Hires by Surface Transportation Operating Administration Through September 2023

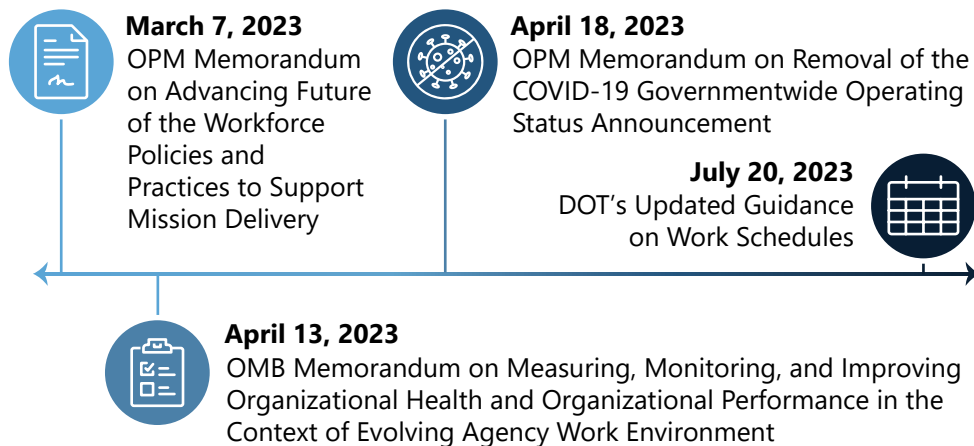
OA	FY 2022		FY 2023		FY 2022 - FY 2023	
	Goal	Actual	Goal	Actual	Goal	Actual
FTA	81	89	81	87	162	176
FRA	65	102	110	242	175	344
MARAD	33	23	12	4	45	27
NHTSA	40	38	62	43	102	81
FHWA	114	55	100	132	214	187
FMCSA	45	54	68	29	113	83
PHMSA	9	9	0	0	9	9
OST	65	52	53	44	118	96
Total	452	422	486	581	938	1003

Source: OIG analysis of OST data

Manage an Evolving Work Environment

- DOT has disparate missions, including safety, consumer protection, competition, and innovation. In many cases, the Department must achieve these missions with more staff working remotely than in the past. Consequently, it faces challenges developing the strong workplace cultures and skillsets needed to support effective decision-making within and across these missions.
- DOT is navigating the post-pandemic era (see figure) with the recent decision to increase in-office work to 4 days per pay period by December 2023. However, OMB requires Federal agencies to develop a data-driven approach to decisions on work environments—including the consideration of data to help meaningfully identify the impact of personnel policies and procedures on employee engagement, mission delivery, and outcomes. Agencies have also been directed to consider nationwide workforce and workplace trends when developing its capital plans. These capital plans are especially relevant in light of GAO’s recent report stating that DOT used less than 20 percent of headquarters capacity during early 2023.
- In addition, the Department faces challenges in maintaining a collaborative environment with external stakeholders. Many DOT missions, including those under IJIA, involve such external coordination and collaboration. For example, IJIA established the Office of Multimodal Freight Infrastructure and Policy at DOT to help cities and States develop freight mobility and supply chain expertise, including a liaison role with other Federal departments and agencies. Similarly, implementation of DOT climate priorities, such as effecting a national transition to electric vehicles, require coordination with other agencies such as the Environmental Protection Agency, the Department of Energy, and the Department of Labor.

Timeline of Recent Workforce-Related Directives and Decisions



Source: OIG analysis

Cultivate Data-Driven Approaches To Support Policymakers and Manage the Mission

- To support mission management, DOT needs to continue to cultivate its data-driven approaches across all OAs. Data-driven approaches to mission management include data collection and analysis to inform decision-making. Successful data-driven approaches also require meaningful and high-quality data, sufficient performance measures, and goals and metrics. These approaches align with directives from OMB, such as the use of evidence to further mission and operations.
- Recent OIG audit work underscores the challenges the Department faces in cultivating this approach. For example, we found in our assessment of FRA's oversight of Amtrak that the Agency lacked measurable goals and metrics as well as complete policies and procedures to assess Amtrak's adherence to requirements. We also found that FHWA's national tunnel inventory—which includes some incomplete and inaccurate data—inhibits FHWA's ability to ensure that all tunnels are inspected in accordance with standards.

Recent Progress Reported by the Department

- DOT ranked 6th of large agencies in 2022's Best Places to Work in the Federal Government rankings.
- The Department was ranked 4 of 14 among large agencies committed to the tenets of diversity, equity, inclusion, and accessibility.
- In March 2022, DOT issued its Learning Agenda, Capacity Assessment, and Evaluation Framework documents in response to the Foundations for Evidence-Based Policymaking Act of 2018.
- As part of its IIJA implementation, the Department has made a variety of data sets, analysis tools, and mapping resources available through its online "DOT Navigator" hub.

Related OIG Work

[FAA Faces Controller Staffing Challenges as Air Traffic Operations Return to Pre-Pandemic Levels at Critical Facilities](#) (June 21, 2023)

>> 2 recommendations (2 open, 0 closed)

[Memorandum to the Secretary: Challenges Facing DOT in Implementing the Infrastructure, Investment, and Jobs Act](#) (October 5, 2022)

>> No recommendations

[Challenges To Implementing DOT's Framework for Return to Normal Operations](#) (January 15, 2021)

>> No recommendations

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For the current status of all our recommendations, visit our [Recommendation Dashboard](#) online.

Exhibit A. List of Last Year's Top Management Challenges

FY 2023 Top Management Challenges	Key Challenges
Aviation Safety	<ul style="list-style-type: none"> • Improve oversight of aircraft certification • Maintain confidence in FAA's ability to oversee air carrier operations and address long unresolved safety issues
Surface Transportation Safety	<ul style="list-style-type: none"> • Overcome oversight challenges to help reduce surface transportation fatalities • Improve monitoring and enforcement of surface transportation safety programs
Air Traffic Control and Airspace Modernization	<ul style="list-style-type: none"> • Meet staffing needs at the Nation's most critical air traffic control facilities • Ensure air carriers provide fair and adequate service • Achieve NextGen benefits for airspace users and deploying controller automation tools to improve efficiency
Surface Transportation Infrastructure	<ul style="list-style-type: none"> • Manage risks to achieve goals • Enhance award, administration, and oversight processes over new and existing funded programs and projects • Execute Federal priorities related to the impact of climate change, advancing equity, and promoting resilience in infrastructure
Contract and Grant Fund Stewardship	<ul style="list-style-type: none"> • Establish sound pricing for contract and grant awards • Verify contract and grant expenditures are supported and proper, including compliance with Made in America laws
Financial Management	<ul style="list-style-type: none"> • Prevent and detect increases in improper payments • Enhance policies and procedures to monitor and report grantee spending
Information Security	<ul style="list-style-type: none"> • Strengthen enforcement and implementation of DOT's enterprisewide information security program to prevent cyberattacks • Address obstacles to moving towards a Zero Trust Architecture
Fraud Detection and Prevention	<ul style="list-style-type: none"> • Identify and assess fraud • Proactively manage fraud risks through oversight, outreach, and data analysis
Innovation and the Future of Transportation	<ul style="list-style-type: none"> • Implement DOT's innovation principles • Advance the safe integration of vehicle automation and electric vehicles on our Nation's roads • Safely integrate new technologies into the National Airspace System
Evolving Operations and Workforce Management	<ul style="list-style-type: none"> • Coordinate effectively to address DOT and stakeholder capacity challenges to successfully deliver IIJA programs • Maximize the benefits of workforce flexibilities and the hybrid work environment to enhance efficiency, effectiveness, and engagement

Note: Prior OIG reports are available on our website at <http://www.oig.dot.gov/>.

Exhibit B. List of Acronyms

AAM	Advanced Air Mobility
ATC	air traffic control
ATIP	Automated Track Inspection Program
BVLOS	beyond visual line of sight
CARES Act	Coronavirus Aid, Relief, and Economic Security Act
COVID-19	Coronavirus Disease 2019
DATA Act	Digital Accountability and Transparency Act
DBE	disadvantaged business enterprise
DNP	Do Not Pay
DOE	Department of Energy
DOT	Department of Transportation
EV	electric vehicle
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FISMA	Federal Information Security Modernization Act
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	fiscal year
GAO	Government Accountability Office
HVA	high-value asset
IIJA	Infrastructure Investment and Jobs Act
IPA	independent public accounting
IT	information technology
ITSS	IT shared service
MARAD	Maritime Administration
MFA	multi-factor identity authentication
NAS	National Airspace System
NextGen	Next Generation Air Transportation System
NEVI	National Electric Vehicle Infrastructure
NHTSA	National Highway Traffic Safety Administration
NRSS	National Roadway Safety Strategy
OA	Operating Administration
OIG	Office of Inspector General
OMB	Office of Management and Budget
PHMSA	Pipeline and Hazardous Materials Safety Administration
PII	personally identifiable information
PIIA	Payment Integrity Information Act of 2019
PIV	personal identity verification
POA&M	plan of action and milestones
SMART	Strengthening Mobility and Revolutionizing Transportation
TFDM	Terminal Flight Data Manager
UAS	Unmanned Aircraft System



U.S. Department of
Transportation
Office of the Secretary
of Transportation

Memorandum

Date:

Subject: INFORMATION—Management Response to the Office of Inspector General (OIG)
Draft Report: DOT's Fiscal Year (FY) 2024 Top Management Challenges

From: Victoria B. Wassmer
Assistant Secretary for Budget and Programs, and Chief Financial Officer

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To: Eric J. Soskin
Inspector General

The mission of the U.S. Department of Transportation (Department or DOT) is to serve the United States by ensuring a safe, fast, efficient, accessible, and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future. The OIG's FY 2024 Top Management Challenges report highlights risks that DOT will need to continue to focus on to drive significant progress and change in the following ten challenge areas.

Aviation Safety. *Aircraft Certification*—The Federal Aviation Administration (FAA) remains committed to the thorough and complete implementation of the Aircraft Certification, Safety, and Accountability Act (ACSAA), through rulemaking, policy development, staffing studies, data sharing, and external partnership efforts. The FAA has completed over 65% of the 103 provisions in ACSAA, and the remaining provisions generally include longer-term activities such as rulemaking or policy development.

The FAA continues to drive greater transparency, collaboration, and accountability across the regulatory process and across regulated communities, with a primary focus on:

- Strengthening corporate safety cultures to improve safety risk management and performance through mandated and voluntary action,
- Improving data availability, accessibility, and analysis through both process and infrastructure enhancements, and
- Advancing system-level safety management through better integration of the design, production, and operational approval processes.

The FAA also provides quarterly, comprehensive progress updates to Congress, unions, and industry stakeholders.

Runway Incursions—The FAA continues to respond to and address the increase in runway incursions and other safety incidents that occurred from late 2022 into 2023. After issuing a Safety Call to Action in February 2023, the Agency held the FAA Aviation Safety Summit in March, bringing together more than 200 safety leaders from across the aviation industry to discuss ways to enhance flight safety. Since the Safety Summit, the FAA’s Air Traffic Organization has been identifying additional steps to ensure our safety system remains effective and resilient, including improved supervision, specialized and enhanced controller training, updated simulator software, and continued analysis of runway incursion data. The FAA continues to pursue new technologies that will improve the situational awareness of controllers. For example, the FAA held a Surface Safety Industry Day to showcase commercial and readily available industry solutions and announced \$26 million in new investments such as surface surveillance systems for airports and an expansion of our terminal automation system. The FAA is also investing in airport infrastructure, awarding \$121 million in grants to airports across the country to reconfigure taxiways and install new lighting systems. In addition to forming an independent Safety Review Team that will share its recommendations this coming year, the FAA continues to host runway safety meetings at more than 90 airports to address airport-specific risks in the surface environment. From the time of the Safety Call to Action summit until September, the rate of the most severe runway incursions decreased by 40 percent and continued outreach and training are planned.

Surface Transportation Safety. The 2023 National Roadway Safety Strategy (NRSS) Progress Report encapsulates the concrete steps DOT has taken to systematically address the national crisis of roadway fatalities and serious injuries. The estimated fatality rate for the first half of 2023 was 1.24 per 100M VMT (vehicle miles traveled), compared to the estimated 1.31 for the first half of 2022.¹ The second quarter of 2023 also represents the fifth straight projected quarterly decline in fatalities. This comes after seven consecutive quarters of year-to-year increases in fatalities, beginning with the third quarter of 2020.² The Progress Report details accomplishments and identifies new commitments building on the 29 actions initially proposed, including 15 additional high-impact activities. This is a collaborative effort between the Office of the Secretary and the Operating Administrations whose roles and responsibilities encompass roadway safety, including the Federal Highway Administration (FHWA), Federal Motor Carrier Safety Administration (FMCSA), National Highway Traffic Safety Administration (NHTSA), Federal Transit Administration (FTA), and Federal Railroad Administration (FRA). Notable activities to date include:

- Launching a Complete Streets initiative combining innovations from multiple disciplines to achieve the creation of safe, connected, and equitable street networks for all users.
- Implementing the Drug and Alcohol Clearinghouse to help State Driver Licensing Agencies identify commercial driver’s license (CDL) holders who have tested positive for a controlled substance/alcohol.

¹ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813405>

² *Crash Stats: Early Estimate of Motor Vehicle Traffic Fatalities for the First Half* (January-June) of 2023; <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813514>

- Articulating a “road map” for the New Car Assessment Program (NCAP) to encourage safety technologies in motor vehicles, publishing notice of proposed rulemakings to equip automatic emergency braking on both light and heavy vehicles, and awarding over \$800 million in funding for the [Safe Streets and Roads for All](#) (SS4A) discretionary grant program.
- Decreasing the FRA employee on-duty injury and illness rate by focusing on railroad certification, training, and qualification standards. Further, under the most recent round of Consolidated Rail Infrastructure and Safety Improvements program (CRISI) grant announcements, FRA selected projects that invest more than \$1.4 billion into rail improvement projects in 35 states and Washington, D.C. This is the largest amount ever awarded for rail safety and rail supply chain upgrades through the CRISI program.
- Equitably increasing highly visible commercial motor vehicle (CMV) traffic enforcement against risky driver behavior, focusing on high crash locations, increasing investigations on carriers demonstrating the riskiest behaviors, and increasing [safety audits of new entrants](#) into the motor carrier industry.

Rail Safety—The Department is committed to enhancing freight rail safety. FRA has initiated several inspection programs to improve the country’s rail safety posture which include focusing on routes over which high-hazard flammable trains (HHFTs) and other trains carrying large volumes of hazardous material travel. Additionally, in July 2023, FRA published a Notice of Proposed Information Collection proposing Class I freight railroads provide FRA train length data on a monthly basis.³ PHMSA has issued four safety advisories to encourage the use of steel manway covers, emphasize the importance of railroad emergency planning and preparedness, request that tank car owners and shippers voluntarily utilize the best available tank car, as well as encourage 9-1-1 call centers to use real-time train consist information.⁴ In June 2023, PHMSA published a Notice of Proposed Rulemaking proposing specific requirements for railroads to generate real-time train consist information and proactively provide that information to state and local first responders, emergency response officials, and law enforcement personnel following an accident, incident, or public health or safety emergency involving the rail transportation of hazardous materials.⁵

The Bipartisan Infrastructure Law (BIL) invests billions of dollars into roadway safety, including programs to help states improve driver behavior and prevent traffic crashes and fatalities. For example, in FY 2023, states received \$886 million in highway safety formula grants and are using those funds to address risky driving behaviors, protect vulnerable road users, and engage new partners to strengthen their programs.

Air Traffic Control and Airspace Modernization. *Controller Staffing*—Air Traffic Control and Airspace Modernization are key focus areas for the Department. The FAA launched a multi-year effort to ensure adequate controller staffing at its facilities and met this year’s annual goal

³ 88 FR 47233 (July 21, 2023).

⁴ *Safety Advisory Notice for Tank Cars Equipped with Aluminum Manway Protective Housing Covers* (March 2, 2023) (available [here](#)); *Safety Advisory Notice for Railroad Emergency Preparedness* (March 3, 2023) (available [here](#)); *Safety Advisory Notice for DOT-111 Tank Cars in Flammable Liquid Service* (March 22, 2023) (available [here](#)); and *Safety Advisory Notice Encouraging the Use of Real-Time Train Consist Information in 9-1-1 Call Centers* (July 11, 2023) (available [here](#)).

⁵ 88 FR 41541 (June 27, 2023).

of hiring 1,500 air traffic controller specialists. The FAA is introducing innovative training approaches for its new hires, starting with their entry classes at the FAA Academy and all the way to becoming fully certified air traffic controllers.

Flight Cancellations—Fiscal Year 2023 flight cancellations are down 24% from the prior year. When compared to a three-year pre-COVID baseline (Fiscal Years 2017 to 2019), the 2023 flight cancellations are down 6%.

NextGen Programs—The FAA prioritized the sustainment of technology and programs to increase the resiliency of the national airspace system operations. Through the Next Generation Air Transportation System (NextGen) program, improvements and modernization of the national airspace system operations have been and continue to be implemented using advanced technologies. Improvements include the deployment of the Terminal Flight Data Manager (TFDM) system, which began this year. The FAA continues to replace tactical and reactive air traffic control with strategic integrated air traffic management. These are only a few of the benefits of NextGen that have already been delivered to the users of our Nation’s airspace. The FAA is additionally pursuing further efficiencies by deploying Performance Based Navigation and Controller Automation Tools that manage flight routes and procedures, leading to improved schedule adherence and reduced fuel consumption and engine exhaust emissions.

Surface Transportation Infrastructure. The Department has a historic opportunity to build a safer, better, stronger transportation system with the passage of BIL. This opportunity will create good-paying jobs and make our transportation safer, more sustainable, more accessible, and more resilient. Since the passage of BIL, the Department has announced more than \$200 billion for over 37,000 projects nationwide and is continuing to provide funding swiftly to communities. The Department has awarded grants for the first-ever “Safe Streets and Roads for All” program, and partners are stepping up in response to DOT’s National Roadway Safety Strategy. With just the initial funding from BIL, the Department has begun repairing 4,600 bridges and 75,000 miles of roads and is well on its way to meeting President Biden’s goal of building a national network of 500,000 public electric vehicle (EV) charging stations by 2030. The funding is not just going to roads and bridges—the Department is also making historic investments to modernize the nation’s rail and transit systems and our ports and airports. These investments are creating jobs and spurring regional economic growth by advancing landmark projects like the Hudson River Tunnels between New York and New Jersey, the Brent Spence Bridge in Kentucky, and the Front Runner Double Track project in Salt Lake City. These investments will improve safety; create jobs and address transportation inequities in big cities and on rural main streets; make our Nation’s infrastructure more resilient against extreme weather while reducing the transportation emissions that are contributing to those issues; and strengthen supply chains to keep goods moving and reduce prices.

While the Department focuses on delivering BIL programs on time, on task, and on budget, it will also continue to ensure the proper oversight and internal control mechanisms are in place to anticipate and address risks to implementation. DOT has established standard frameworks for managing risk and assessing internal controls through the Enterprise Risk Management and Internal Control Programs. DOT’s mature Internal Control program helped the Department attain

16 consecutive clean financial statement audit opinions. The Operating Administrations are identifying emerging risks and developing mitigation strategies on an ongoing basis using frameworks based on the Government Accountability Office (GAO) issued internal control guidance, such as the BIL Internal Control Organizational Assessment. For FY 2023, DOT's ongoing and planned efforts include fraud risk assessments of newly implemented BIL activities and Grants Management Process Reviews evaluating the design of program pre-award and post-award internal controls. DOT will sample supporting documentation of BIL transactions to confirm the effectiveness of the internal controls.

Contract and Grant Fund Stewardship. The Department remains committed to promoting effective stewardship of contract and grant funding, establishing sound pricing for contracts and grants, and ensuring qualified and sufficient oversight of these funds. Consistent with the President's Management Agenda and the Secretary's strategic initiatives, including Climate and Sustainability as well as Diversity, Equity, Inclusion, and Accessibility, the Office of the Senior Procurement Executive (OSPE) is dedicated to recruiting, hiring, and maintaining high-performing acquisition talent. The OSPE will continue to effectively execute the Department's acquisition programs and lead program oversight and implementation of the full portfolio of acquisition responsibilities in areas including, but not limited to Program Management Improvement Accountability Act (PMIAA), category management, Single Audit, Buy America and Buy American, cyber security, and supply chain management initiatives. The Department will continue to leverage its primary procurement oversight mechanisms—the Acquisition Strategy Review Board (ASRB) and Procurement Management Review (PMR) program—to ensure effective and compliant management of federal contract dollars. Additionally, the Department is standing up the Office of Grants and Financial Assistance under the direction of the Assistant Secretary for Administration. This office will enhance the grants management and financial assistance administration throughout the Department by implementing planned programs of action and enhanced technology to streamline and manage the entire grant lifecycle (pre-award, award, and post-award).

Financial Management. Effective internal controls help ensure that federal programs fulfill their intended purposes, funds are spent effectively and accurately accounted for, and assets are safeguarded. From the moment BIL was passed, DOT's financial management professionals worked to ensure that our financial and grant systems were prepared to support increased demands on award and payment processes for BIL grantees, resulting in successful initial awards and disbursements. In a continued effort to strengthen systems and internal controls, DOT is also evaluating existing and planned grant systems to refine processes and systems to make it more efficient for grantees to complete the administrative tasks required to secure BIL funds. During FY 2023, DOT continued to make significant improvements to internal business and reporting processes toward increased accuracy, reliability, and transparency of spending data. These improvements included the creation of a metric to identify reporting delays affecting the quality of spending data. Moreover, DOT is implementing new reporting tools to ensure that financial management information is readily available for analytics and decision-making throughout the Department.

Information Security. The Department places high importance on Information Security and is committed to enhancing its cybersecurity posture. Over the past year, DOT has dedicated significant efforts to bolstering its cybersecurity capabilities in alignment with the Administration's Zero Trust Strategy. These efforts have primarily focused on enhancing Multifactor Authentication, improving logging practices, strengthening Endpoint Detection and Response measures, and enhancing vulnerability management and remediation processes. DOT's Chief Information Officer has made the remediation of cybersecurity vulnerabilities a top priority and continues to expand cybersecurity capabilities to reduce the Department's exposure to evolving cyber threats. Furthermore, DOT has made substantial investments in continuous penetration testing for all external-facing systems, thereby improving its ability to identify and address known exploitable vulnerabilities before they can be exploited by adversaries. In addition to these enhanced detection capabilities, the Department has successfully integrated its Continuous Diagnostic Mitigation (CDM) analytics and automation system with the Department of Homeland Security, Cybersecurity and Infrastructure Security Agency. This integration has significantly bolstered DOT's ability to detect, protect against, respond to, and mitigate persistent cyber threats. The Department has achieved an impressive milestone by surpassing the target deployment for Endpoint Detection and Response outlined in Executive Order 14028, achieving a deployment rate of 99%. The Department has formulated plans to further enhance its cybersecurity measures by ensuring that Multifactor Authentication and Encryption are implemented at a rate exceeding 90% by the end of the calendar year 2023.

Fraud Detection and Prevention. The Department is committed to preventing fraudulent activity before it happens. DOT has a variety of rigorous internal controls to ensure that federal funds reach the correct recipients, prevent improper payments, and reduce the risk of fraud, waste, and abuse. For example, DOT's Departmental financial system has a direct integration with the General Services Administration's System for Award Management (SAM), which identifies entities that are excluded from receiving federal contracts, certain subcontracts, and federal financial and non-financial assistance and benefits. In FY 2023, we deployed enhanced fraud risk management assessments across the Department to include the incorporation of controls identified by GAO's Fraud Risk Management Framework. DOT is also evaluating potential fraud risks associated with the Disadvantaged Business Enterprise (DBE) program. Additionally, DOT desires to broaden our collaboration with OIG on emerging fraud risks within DOT programs and activities.

Innovation and the Future of Transportation. *New Technologies Into the NAS*—DOT continues to support innovation and transformation of transportation's future, focusing on the important challenge of safely integrating new technologies into transportation systems. As an example, the Department has established an interagency working group to ensure a collaborative approach to the safe and efficient integration of Advanced Air Mobility aircraft into the national airspace. The team will contend with key areas of interest, such as aircraft certification, operational certification, airspace and air traffic management, vertiports, environment, security, community outreach, safety, and people. In the future of transportation, the FAA will lead in commercial space development through responsible regulations that focus on achieving public safety results rather than mandating the specific processes or technologies used to achieve those

results. The FAA, through Unmanned Aircraft Systems (UAS) test sites, continues to accelerate the integration of drones into the national airspace. Rigorous testing at these sites helps evaluate the capabilities of public and civil UAS, and their data supports the FAA's development of certification standards and air traffic requirements.

Evolving Operations and Workforce Management. The Department continues its expanded efforts to support hiring needed to facilitate the successful delivery of BIL programs. Through cross-modal collaboration, Departmental leadership, and ongoing efforts of the DOT Recruitment Council, the Department successfully delivered two virtual job fairs in January 2023 and July 2023, reaching more than 2,500 potential applicants. As a result, the Department hired more than 1,000 personnel, exceeding the Departmental BIL hiring goal established for FY2023. DOT has continued to collaborate on efforts to cultivate a robust work environment that utilizes a variety of work arrangements including remote work, telework, flexible work schedules, and that optimizes our real property footprint. The Department is in the process of rightsizing its space at the DOT headquarters building and other facilities around the country. This has been done while also increasing meaningful in-person collaborations through activities such as all-employee meetings, recognition ceremonies, leadership development programs, and other collaboration opportunities. The Department also understands the importance of maintaining and strengthening relationships with our counterparts across the federal space. Through the use of virtual and hybrid tools, Department officials are more easily able to engage with colleagues across the country as active members and leaders of cross-agency groups such as the Chief Human Capital Officer Council, Chief Diversity Officers' Executive Council, Multi-Agency Executive Steering Committee under the Human Resources Line of Business and Human Resource Quality Service Management Offices, and many others.



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