



441 G St. N.W.
Washington, DC 20548

Comptroller General
of the United States

June 10, 2024

The Honorable Pete Buttigieg
Secretary of Transportation
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Priority Open Recommendations: Department of Transportation

Dear Mr. Secretary:

The purpose of this letter is to provide an update on the overall status of the Department of Transportation's (DOT) implementation of GAO's recommendations and to call your continued personal attention to areas where open recommendations should be given high priority.¹ In November 2023, we reported that, government-wide, 75 percent of our recommendations made 4 years ago were implemented.² DOT's recommendation implementation rate was 76 percent.

As of April 2024, DOT had 212 open recommendations. Fully implementing these open recommendations could significantly improve agency operations.

Since our May 2023 letter, DOT has implemented two of our 20 open priority recommendations.³ Specifically:

- In coordination with the Department of Homeland Security, DOT analyzed the results of a survey on the use of the National Institute of Standards and Technology (NIST) cybersecurity framework. The analysis identified the usage, awareness, and implementation

¹Priority recommendations are those that we believe warrant priority attention from heads of key departments or agencies. They are highlighted because, upon implementation, they may significantly improve government operations, for example, by realizing large dollar savings; eliminating mismanagement, fraud, and abuse; or making progress toward addressing a high-risk or duplication issue.

²GAO, *Performance and Accountability Report: Fiscal Year 2023*, [GAO-24-900483](#) (Washington, D.C.: Nov. 15, 2023).

³In addition, we removed the priority status from one recommendation to the Federal Motor Carrier Safety Administration (FMCSA) regarding revisions to the Safety Measurement System (SMS) methodology since our May 2023 letter due to actions taken by Congress and DOT. At the time of our report, FMCSA publicly reported percentile rankings of motor carriers based on imprecise SMS scores. Since that time, the FAST Act was enacted in 2015, which, among other things, prohibited FMCSA from publicly reporting these percentiles for most motor carriers until DOT's Inspector General makes certain certifications. In addition, FMCSA has taken several steps to determine how it might revise its method to compare safety performance across motor carriers. Based on the actions taken, we no longer believe this recommendation warrants priority attention. We continue to believe FMCSA should make a final determination on implementation of a new methodology to fully address the recommendation. GAO, *Federal Motor Carrier Safety: Modifying the Compliance, Safety, Accountability Program Would Improve the Ability to Identify High Risk Carriers*, [GAO-14-114](#) (Washington, D.C.: February 3, 2014).

of the NIST framework's core functions by entities across the transportation sector. By taking this step, DOT has a more comprehensive understanding of the framework's use by transportation sector entities and where to focus limited resources for cybersecurity risk mitigation efforts.⁴

- In July 2023, GAO confirmed that the Federal Highway Administration (FHWA) has taken specific steps to enhance the climate resilience of federally funded roads. These steps include administering grants for resilience activities, implementing DOT's resilience guidance, and developing training sessions and written resources on resilience topics for transportation professionals.⁵ These measures can help to reduce the government's fiscal exposure to issues related to climate change.

We ask for your continued attention to the remaining 17 priority recommendations. We are also adding three new recommendations related to oversight of vehicle safety, modernizing the national airspace system, and commercial space safety. This brings the total number of priority recommendations to 20. (See the Enclosure for the list of recommendations.)

The 20 priority recommendations fall into the following five areas:

Improving Transparency and Communication. Agencies can ensure the accountability of policy and program decisions by increasing transparency and more clearly communicating information to the public. We have identified eight priority recommendations related to transparency and communication that affect multiple modal administrations. For example, we have repeatedly found that DOT's administration of discretionary grants should be more consistent and transparent. Therefore, we recommended that DOT develop a department-wide approach for evaluating applications and documenting key decisions for its discretionary grant programs.

In addition, we recommended that the Federal Aviation Administration (FAA) update the life-cycle cost estimate of its multibillion-dollar airspace modernization program and develop a schedule for regular updates to improve oversight of these critical and costly programs. We also recommended that the Maritime Administration publicly report the amounts shipped on U.S.- and foreign-flag vessels to help hold federal agencies accountable for meeting cargo preference requirements.

Implementing the priority recommendations in this area would increase transparency, more clearly communicate information to Congress and the public, and improve accountability for policy and program decisions.

Addressing Safety Risks. Safe transportation systems are vital to the nation's well-being and economy. We have identified four priority recommendations that call for DOT to take steps to improve its safety oversight. For example, we recommended that DOT take steps to address limitations in the information that crash test dummies provide about certain demographic groups—such as females and older individuals—in vehicle crashes. By implementing this recommendation, DOT will be better able to improve safety in vehicle crashes.

⁴GAO, *Critical Infrastructure Protection: Additional Actions Are Essential for Assessing Cybersecurity Framework Adoption*, [GAO-18-211](#) (Washington, D.C.: February 15, 2018).

⁵GAO, *Climate Resilience: Options to Enhance the Resilience of Federally Funded Roads and Reduce Fiscal Exposure*, [GAO-21-436](#) (Washington, D.C.: September 22, 2021).

We also recommended that DOT evaluate the effectiveness of its investigation process for mishaps in the rapidly expanding commercial space industry. Without a comprehensive evaluation, DOT cannot be assured that its safety oversight efforts are achieving the agency's objectives in an area of critical importance. In addition, we recommended that DOT assess skill gaps in key occupations that are involved in overseeing the safety of automated technologies. Such an assessment would better position DOT to conduct oversight of this growing aspect of transportation. By implementing these recommendations, DOT can better ensure the safety of the nation's transportation systems.

Developing Comprehensive Plans. Comprehensive planning can help ensure that agencies achieve their priorities and manage risks. We have identified three priority recommendations in this area. These recommendations call for DOT to develop (1) a national aviation preparedness plan for future communicable disease threats, (2) a comprehensive plan for DOT initiatives on automated vehicles, and (3) a comprehensive plan for integrating drones into the National Airspace System. By developing these plans, DOT would be better positioned to respond to and manage risks in these critical areas.

Managing Cybersecurity Risks and Information Technology (IT). Federal agencies and our nation's critical infrastructures—including transportation systems—are dependent on IT systems and electronic data to carry out operations and to process, maintain, and report essential information. The security and privacy of transportation systems and data is vital to public safety and national security. We identified three priority recommendations in this area. These recommendations call for DOT to 1) fully develop a cybersecurity risk management strategy, including how it intends to assess, respond to, and monitor risks, 2) address shortfalls in IT workforce planning, and 3) define and document a process for ensuring that the senior agency official for privacy is involved in assessing and addressing the hiring, training, and professional development needs of the agency with respect to privacy.

Implementing these recommendations could help DOT improve cybersecurity across the transportation sector. As a sector risk management agency for transportation systems, we urge you to implement these recommendations related to critical infrastructure protection.

Reducing Fraud and Abuse Risks. Proactively managing risks, including from fraud and abuse, helps ensure taxpayer dollars and government services are being used for their intended purposes. For example, fraud and abuse of the FAA's U.S. aircraft registry hinders the ability of law enforcement and safety officials to use the registry to identify aircraft and their owners. We identified two priority recommendations in this area, which include verifying applicants' and dealers' registration eligibility and information, and increasing aircraft registration and dealer fees to ensure the fees cover the costs of collecting and verifying applicant information. As we reiterated in an April 2024 testimony before the Senate Caucus on International Narcotics Control, the current approach continues to present criminal and national security risks.⁶

Implementation of these recommendations would address potential risks of fraud and abuse in the aircraft registration process and help ensure there are appropriate resources available for verifying applicant information.

⁶GAO, *Aircraft Registrations: Risks Remain from Efforts to Obscure Ownership Information*, [GAO-24-107495](#) (Washington, D.C.: April 9, 2024).

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In April 2023, we issued our biennial update to our [High-Risk List](#). This list identifies government operations with greater vulnerabilities to fraud, waste, abuse, and mismanagement. It also identifies the need for transformation to address economy, efficiency, or effectiveness challenges. One of our high-risk areas—[funding the nation’s surface transportation system](#)—requires congressional action to develop a sustainable plan while also centering on DOT and the agency’s ability to maximize existing resources.⁷

Several other government-wide high-risk areas have direct implications for DOT and its operations. These include (1) [improving the management of IT acquisitions and operations](#), (2) [strategic human capital management](#), (3) [managing federal real property](#), (4) [ensuring the cybersecurity of the nation](#), and (5) [government-wide personnel security clearance process](#).

In addition to DOT’s high-risk area, we urge your continued attention to the other government-wide, high-risk issues as they relate to DOT. Progress on high-risk issues has been possible through the concerted actions and efforts of Congress, the Office of Management and Budget, and the leadership and staff in agencies, including DOT. In March 2022, we issued a report on key practices to successfully address high-risk areas, which can be a helpful resource as your agency continues to make progress to address high-risk issues.⁸

We also recognize the key role Congress plays in providing oversight and maintaining focus on our recommendations to ensure they are implemented and produce their desired results. Legislation enacted in December 2022 includes a provision for GAO to identify any additional congressional oversight actions that can help agencies implement priority recommendations and address any underlying issues relating to such implementation.⁹

Congress can use various strategies to address our recommendations, such as incorporating them into legislation. Congress can also use its budget, appropriations, and oversight processes to incentivize executive branch agencies to act on our recommendations and monitor their progress. For example, Congress can hold hearings focused on DOT’s progress in implementing GAO’s priority recommendations, withhold funds when appropriate, or take other actions to provide incentives for agencies to act. Moreover, Congress could follow up during the appropriations process and request periodic updates.

Congress also plays a key role in addressing any underlying issues related to the implementation of these recommendations. For example, Congress could pass legislation providing an agency explicit authority to implement a recommendation or requiring an agency to take certain actions to implement a recommendation.

⁷GAO, *High-Risk Series: Efforts Made to Achieve Progress Need to be Maintained and Expanded to Fully Address All Areas*, [GAO-23-106203](#) (Washington, D.C.: Apr. 20, 2023).

⁸GAO, *High-Risk Series: Key Practices to Successfully Address High-Risk Areas and Remove Them from the List*, [GAO-22-105184](#) (Washington, D.C.: Mar. 3, 2022).

⁹James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, Pub. L. No. 117-263, § 7211(a)(2), 136 Stat. 2395, 3668 (2022); H.R. Rep. No. 117-389 (2022) (accompanying Legislative Branch Appropriations Act, H.R. 8237, 117th Cong. (2022)).

Copies of this report are being sent to the Director of the Office of Management and Budget and the appropriate congressional committees. In addition, the report will be available on the GAO website at [Priority Open Recommendation Letters | U.S. GAO](#).

I appreciate DOT's continued commitment to these important issues. If you have any questions or would like to discuss any of the issues outlined in this letter, please do not hesitate to contact me or Heather Krause, Managing Director, Physical Infrastructure, at KrauseH@gao.gov or 202-512-2834. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Our teams will continue to coordinate with your staff on all the 212 open recommendations, as well as those additional recommendations in the high-risk areas for which DOT has a leading role. Thank you for your attention to these matters.

Sincerely,

A handwritten signature in black ink, reading "Gene L. Dodaro". The signature is fluid and cursive, with a long horizontal stroke extending to the right from the end of the name.

Gene L. Dodaro
Comptroller General
of the United States

Enclosure

cc: The Honorable Shalanda Young, Director, Office of Management and Budget
The Honorable Polly Trottenberg, Deputy Secretary, DOT
Sophie Shulman, Deputy Administrator, National Highway Traffic Safety Administration
Michael Whitaker, Administrator, Federal Aviation Administration
Shailen Bhatt, Administrator, Federal Highway Administration
Sue Lawless, Acting Deputy Administrator, Federal Motor Carrier Safety Administration
Tristan Brown, Deputy Administrator, Pipeline and Hazardous Materials Safety Administration
Rear Admiral Ann C. Phillips, US Navy (Ret.), Administrator, Maritime Administration
Gary Middleton, Director, Audit Relations and Program Improvement, Office of the Secretary, DOT

Enclosure

Open Priority Recommendations to the Department of Transportation

Improving Transparency and Communication

DOT Discretionary Grants: Problems with Hurricane Sandy Transit Grant Selection Process Highlight the Need for Additional Accountability. [GAO-17-20](#). Washington, D.C.: December 14, 2016.

Year Recommendation Made: 2017

Recommendation: Given DOT's new discretionary grant programs and similar challenges we have found with previous DOT programs, the Secretary of Transportation should issue a directive that governs department-wide and modal administration discretionary grant programs. Such a directive should include requirements to: (1) develop a plan for evaluating project proposals in advance of issuing a notice of funding availability that defines the stages of the process, including how the process will be overseen to ensure a consistent review of applications; (2) document key decisions, including the reason for any rating changes and the officials responsible for those changes, and how high-level concerns raised during the process were addressed; and (3) align stated program purpose and policy priorities with the evaluation and selection process.

Actions Needed: DOT agreed with this recommendation. However, we have repeatedly found that DOT's administration of discretionary grant programs does not always align with requirements set by the Office of Management and Budget and DOT, particularly related to documentation and transparency of information. We have made multiple recommendations that DOT improve documentation and transparency for specific grant programs.

In December 2023, DOT issued department-wide guidance on how discretionary grant program offices should integrate DOT policy priorities into the merit criteria and selection considerations in notices of funding opportunity. In February 2024, DOT officials stated that they hired a Director for the Office of Grants and Financial Assistance and that this Director will lead the effort to develop department-wide guidance on discretionary grant programs.

To fully implement this recommendation, DOT needs to create a comprehensive, department-wide approach for evaluating grant applications and documenting key decisions to ensure that its discretionary grant programs are consistently and transparently administered. Such a directive would help to ensure the integrity of future DOT discretionary grant award decisions.

High Risk Area: [Funding the Nation's Surface Transportation System](#)

Director: Elizabeth Repko

Contact information: RepkoE@gao.gov and (202) 512-2834

Air Ambulance: Data Collection and Transparency Needed to Enhance DOT Oversight. [GAO-17-637](#). Washington, D.C.: July 27, 2017.

Year Recommendation Made: 2017

Recommendation: To increase transparency and obtain information to better inform decisions on whether to investigate potentially unfair or deceptive practices in the air ambulance industry, the Secretary of Transportation should assess available federal and industry data and determine what further information could assist in the evaluation of future complaints or concerns regarding unfair or deceptive practices.

Actions Needed: DOT did not agree with this recommendation. In written comments, DOT noted that when determining whether a complaint alleges conduct that could constitute an unfair or deceptive practice, DOT's analysis is based on the unique facts of each case rather than aggregate data. However, the FAA Reauthorization Act of 2018 directed the establishment of an Advisory Committee on Air Ambulance and Patient Billing and required the committee to make recommendations on a variety of topics, including an assessment of additional data from air ambulance providers and other sources to be collected by DOT to improve its understanding of the industry.¹⁰

On March 18, 2022, the committee's report recommended that DOT collect additional industry information in part to increase transparency of market conditions impacting air ambulance services. After the submission of the committee's report, DOT was required by the FAA Reauthorization Act of 2018 to submit a report to Congress on air ambulance oversight that included a description of the information sources DOT will use to conduct oversight of air ambulance providers. In March 2024, DOT officials told us that they intend to issue the report to Congress by June 30, 2024.

To fully implement this recommendation, DOT needs to address our and the committee's recommendations to increase transparency and obtain information to better inform decisions on whether to investigate potentially unfair practices in the air ambulance industry. Without doing so, DOT is missing important information needed to put complaints into the context of the overall industry, which could affect its assessment on whether to pursue investigations.

Director: Heather Krause

Contact information: KrauseH@gao.gov and (202) 512-2834

Pedestrian Safety: NHTSA Needs to Decide Whether to Include Pedestrian Safety Tests in Its New Car Assessment Program. [GAO-20-419](#). Washington, D.C.: April 23, 2020.

Year Recommendations Made: 2020

Recommendation: The Administrator of the National Highway Traffic Safety Administration (NHTSA) should document the overall process for making changes to the New Car Assessment Program, including established criteria and milestones for decisions, and share this process with external stakeholders.

Actions Needed: NHTSA agreed with the recommendation. In March 2022, NHTSA requested public comments on proposed changes to the New Car Assessment Program including a proposal to establish a 10-year roadmap for future updates to the program. According to NHTSA, the roadmap will set forth near-term and longer-term strategies for upgrading the

¹⁰FAA Reauthorization Act of 2018, Pub. L. No. 115-254, § 418(a), 132 Stat. 3186, 3334 (2018).

program gradually. As of March 2024, NHTSA has yet to issue a final decision on whether to finalize its roadmap. NHTSA officials told us that they received more than 4,000 comments on the proposed changes and are currently analyzing them. According to NHTSA officials, the agency plans to finalize and publish its roadmap and update the program later this year.

To fully implement this recommendation, the agency needs to issue a final roadmap for updates to the New Car Assessment Program over the next 10 years with milestones for key actions. Not having a documented process for updating the program, such as through a finalized roadmap, affects NHTSA's ability to ensure its safety tests are regularly updated.

Recommendation: The Administrator of NHTSA should decide whether to include pedestrian safety tests in the New Car Assessment Program and NHTSA should communicate this decision and rationale to relevant stakeholders and the public.

Actions Needed: NHTSA agreed with the recommendation. In March 2022, NHTSA requested public comments on proposed changes to the New Car Assessment Program including proposals to add "pedestrian automatic emergency braking." In May 2023, NHTSA requested public comments on a second proposal to further update the New Car Assessment Program by including "crashworthiness" safety tests to assess whether a vehicle can better protect pedestrians from injury in the event of a collision with a pedestrian. As of March 2024, NHTSA has yet to issue a final decision on whether to include either of these pedestrian safety tests in the program. NHTSA officials told us that they received more than 6,800 comments on the proposed changes and are currently analyzing them. According to NHTSA officials, the agency plans to issue separate final decision notices for its proposed tests and update the program later this year.

In the absence of a decision on including pedestrian safety tests in the New Car Assessment Program and rationale for that decision, stakeholders—including the public—lack clarity on whether NHTSA is using all of the policy tools at its disposal to address emerging safety risks and achieve its strategic objectives.

Director: Andrew Von Ah

Contact information: VonAhA@gao.gov and (202) 512-2834

Traffic Safety: Implementing Leading Practices Could Improve Management of Mandated Rulemakings and Reports. [GAO-22-104635](#). Washington, D.C.: April 26, 2022.

Year Recommendation Made: 2022

Recommendation: The NHTSA Deputy Administrator should update NHTSA's rulemaking procedures to require the use of leading project schedule management practices for the activities needed to draft a proposed rule.

Actions Needed: NHTSA agreed with this recommendation. In February 2024, NHTSA reported that it would update its procedures for drafting a proposed rule to include leading project schedule management practices by June 30, 2024. These practices, which include establishing milestones and sequencing activities, can help manage project timeframes and reduce delays.

To fully implement this recommendation, NHTSA needs to update its procedures to require the use of project schedule management leading practices for all stages of the rulemaking process. Without the timely issuance of mandated rules, improvements to important safety features such as seat belts and child car seats may be delayed.

Director: Elizabeth Repko

Contact information: RepkoE@gao.gov and (202) 512-2834

Maritime Administration: Actions Needed to Enhance Cargo Preference Oversight, [GAO-22-105160](#). Washington, D.C.: September 12, 2022.

Year Recommendation Made: 2022

Recommendation: The Administrator of the Maritime Administration (MARAD) should publicly report, on an annual basis, the cargo preference data it receives to provide information on the total cargo volumes and amounts shipped on U.S.- and foreign-flag vessels for each federal agency.

Actions Needed: DOT agreed with this recommendation. However, as of April 2024, MARAD has not publicly reported its cargo preference data. The James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, enacted in December 2022, requires MARAD to annually submit to Congressional committees a report on federal agencies' administration of cargo preference programs. MARAD officials told us that they experienced challenges in collecting cargo preference data from federal agencies, but MARAD has prepared a draft report for internal review within DOT. However, MARAD was unable to provide a date for issuing this report to Congress.

To fully implement this recommendation, MARAD needs to publicly report the cargo volume data it receives from federal agencies. If implemented, this recommendation would provide an important accountability incentive for federal agencies to monitor their shipping activities.

Recommendation: The Administrator of MARAD should take steps to develop regulations to oversee and enforce compliance with cargo preference requirements. These steps should include evaluating options for overcoming challenges to developing such regulations, such as: (1) using a negotiated rulemaking as a means to address challenges achieving consensus on how to implement cargo preference requirements, and (2) developing and communicating a legislative proposal to address statutory challenges MARAD has identified.

Actions Needed: DOT agreed with this recommendation. However, as of April 2024, MARAD has not developed regulations to oversee and enforce compliance with cargo preference requirements. The James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, enacted in December 2022, requires MARAD to issue a final rule to implement and enforce such requirements. In March 2023, MARAD published in the Federal Register a Request for Information soliciting public comment on the administration of cargo preference requirements. MARAD officials told us that they have decided not to pursue a negotiated rulemaking because they believe that the significant disagreements within the Executive Branch regarding how cargo preference requirements are implemented and administered should be resolved through interagency discussions. In addition, MARAD officials told us that they have developed a draft legislative proposal to improve the cargo preference reporting.

To fully implement this recommendation, MARAD should develop and issue a final rule to implement and enforce cargo preference regulations and communicate a legislative proposal to Congress to address statutory challenges MARAD has identified in implementing cargo preference requirements. If implemented, this recommendation would better position MARAD to oversee and enforce cargo preference requirements.

Director: Andrew Von Ah

Contact information: VonAhA@gao.gov and (202) 512-2834

Air Traffic Control Modernization: Program Management Improvements Could Help FAA Address NextGen Delays and Challenges. [GAO-24-105254](#). Washington, D.C.: November 9, 2023.

Year Recommendation Made: 2024

Recommendation: The Administrator of the Federal Aviation Administration (FAA) should develop an updated life-cycle cost estimate for NextGen, measure FAA's performance against it, and create a schedule for updating the life-cycle cost estimate regularly.

Actions Needed: FAA agreed with this recommendation. FAA stated that the COVID-19 pandemic prevented the agency from making recent updates to NextGen life-cycle costs and that it is difficult to estimate costs for some individual programs within NextGen. As of February 2024, FAA officials said that they expect the updated life-cycle cost estimate to be completed by June 30, 2024.

To fully implement this recommendation, FAA should complete its updated life-cycle cost estimate and develop a schedule for regular updates. Taking these steps, and measuring FAA's performance against the estimate, could help FAA refine its annual NextGen budget requests and ensure that Congress has a more accurate picture of FAA's long-term funding needs to support congressional decisions on resource allocation.

Director: Heather Krause

Contact information: KrauseH@gao.gov and (202) 512-2834

Addressing Safety Risks

Natural Gas Exports: Updated Guidance and Regulations Could Improve Facility Permitting Processes. [GAO-20-619](#). Washington, D.C.: August 6, 2020.

Year Recommendation Made: 2020

Recommendation: The Administrator of the Pipeline and Hazardous Materials Safety Administration (PHMSA) should conduct a standards-specific review of regulations that incorporate standards and, if necessary, update the regulations or document its decision for not updating them.

Actions Needed: PHMSA agreed with this recommendation. As of February 2024, according to PHMSA officials and documents, the agency is conducting a standards-specific review of the eight liquefied natural gas standards incorporated into its regulations by reference and plans to

update regulations that use those standards by issuing a proposed rule in September 2024. A standards-specific review considers updates to technical standards used by federal agencies to ensure the safe design and operation of export facilities for liquefied natural gas.

To fully implement this recommendation, PHMSA should complete and document its standards-specific review and update the regulations as necessary. Without reviewing and updating regulations, PHMSA lacks reasonable assurance its regulations remain effective at ensuring safety.

Director: Frank Rusco

Contact Information: RuscoF@gao.gov and (202) 512-3841

Automated Technologies: DOT Should Take Steps to Ensure Its Workforce Has Skills Needed to Oversee Safety. [GAO-21-197](#). Washington, D.C.: December 18, 2020.

Year Recommendation Made: 2021

Recommendation: The Director of DOT's Department of Human Resources should assess skill gaps in key occupations that are involved in overseeing the safety of automated technologies.

Actions Needed: DOT agreed with this recommendation. As of March 2024, DOT officials noted that the agency had finished identifying which of its positions that oversee the safety of automated technologies require cybersecurity skills. DOT officials noted that they had also developed a tool to assess competencies and skill gaps within these safety oversight positions and would deploy that tool and analyze the results by June 2024. While cybersecurity skills are important for overseeing the safety of automated technologies, other skills—such as data analysis—are also important.

To fully implement this recommendation, DOT needs to complete its plan to assess skill gaps related to cybersecurity and assess skill gaps in relevant data analysis positions. Implementing this recommendation would help DOT better understand the expertise that exists within its workforce and enable DOT to address any gaps to ensure that its workforce can effectively oversee the safety of automated technologies.

High Risk Areas: [Strategic Human Capital Management, Ensuring the Cybersecurity of the Nation](#)

Director: Heather Krause

Contact information: KrauseH@gao.gov and (202) 512-2834

Vehicle Safety: DOT Should Take Additional Actions to Improve the Information Obtained from Crash Test Dummies. [GAO-23-105595](#). Washington, D.C.: March 8, 2023.

Year Recommendation Made: 2023

Recommendation: The Administrator of NHTSA should develop and communicate a plan to address limitations in the information crash test dummies provide related to the greater risks certain demographic groups face in vehicle crashes. Such a plan should detail how efforts will

respond to risks, set milestones for activities, and establish mechanisms to communicate decisions and progress.

Actions Needed: NHTSA agreed with the recommendation. As of March 2024, NHTSA has developed a 3-part plan that discusses how the agency intends to address limitations in the information crash test dummies provide for certain occupants. The plan includes an effort to assess field data to identify disparities in crash outcomes, leverage computer model simulations as a supplement to physical testing, and a 9-phase process for developing crash test dummies. While the plan describes general milestones and examples of communication mechanisms, NHTSA needs to set specific milestones and develop a comprehensive communication plan. For example, we reported that NHTSA has not communicated its reasons for letting some of its efforts lapse, or for missing some of its milestones. NHTSA's current plan calls for the agency to use general communication steps (such as publishing technical articles or holding public meetings) but does not detail how the agency will address such communication gaps.

By taking the recommended steps, such as establishing mechanisms to communicate progress and publishing the plan, NHTSA would be better able to improve safety for all, including those who face greater risks, and provide Congress, the public, and other stakeholders with information to hold NHTSA accountable on progress.

Director: Elizabeth Repko

Contact information: RepkoE@gao.gov and (202) 512-2834

Commercial Space Transportation: FAA Should Improve Its Mishap Investigation Process. [GAO-24-105561](#). Washington, D.C.: December 7, 2023.

Year Recommendation Made: 2024

Recommendation: The Administrator of FAA should direct the Office of Commercial Space Transportation to comprehensively evaluate the effectiveness of the office's mishap investigation process.

Actions Needed: FAA agreed with the recommendation. As of April 2024, FAA's Office of Commercial Space Transportation is conducting a comprehensive evaluation of its mishap program to assess its effectiveness in achieving its intended goals and objectives. FAA expects to complete this evaluation by September 30, 2024.

To fully implement this recommendation, FAA needs to evaluate and address any gaps in its investigation process. By comprehensively evaluating the effectiveness of its mishap investigation process, FAA can better ensure safe operations in the rapidly expanding commercial space industry.

Director: Heather Krause

Contact information: KrauseH@gao.gov and (202) 512-2834

Developing Comprehensive Plans

Air Travel and Communicable Diseases: Comprehensive Federal Plan Needed for U.S. Aviation System's Preparedness. [GAO-16-127](#). Washington, D.C.: December 16, 2015.

Year Recommendation Made: 2016

Recommendation: To help improve the U.S. aviation sector's preparedness for future communicable disease threats from abroad, the Secretary of Transportation should work with relevant stakeholders, such as the Department of Health and Human Services, to develop a national aviation-preparedness plan for communicable disease outbreaks. Such a plan could establish a mechanism for coordination between the aviation and public health sectors and could provide clear and transparent planning assumptions for a variety of types and levels of communicable disease threats.

Action Needed: Initially, DOT partially agreed with this recommendation. Agency officials agreed that an aviation-preparedness plan was needed but noted that the recommendation was primarily a matter of public health emergency preparedness. DOT stated that agencies that had the legal authority and expertise in this area should lead any efforts to address planning for communicable disease outbreaks, including for transportation.

In June 2020, GAO urged Congress to take legislative action to require the Secretary of Transportation to work with relevant agencies and stakeholders to develop a national aviation-preparedness plan to ensure safeguards are in place to limit the spread of communicable disease threats from abroad while at the same time minimizing any unnecessary interference with travel and trade.¹¹ In March 2022, DOT changed its position and planned to take the lead, working closely with the Departments of Health and Human Services (HHS) and Homeland Security (DHS), to develop an aviation-preparedness plan. In December 2022, the Consolidated Appropriations Act, 2023 included a requirement for the Secretary of Transportation, in coordination with the Secretary of Health and Human Services, the Secretary of Homeland Security, and the heads of other federal departments or agencies as the Secretary of Transportation considers appropriate, to develop a national aviation-preparedness plan for communicable disease outbreaks, as we had recommended.¹²

According to agency officials, efforts are underway within DOT's FAA to develop a national aviation-preparedness plan. In April 2024, FAA officials told us that they are drafting the plan and coordinating it internally within the FAA. Final coordination with other entities, including DHS and HHS, as well as international stakeholders, will be completed by September 27, 2024, with a target delivery date of December 29, 2024, for submission to Congress, according to agency officials.

To fully implement the recommendation, DOT should complete an aviation-preparedness plan that incorporates such elements as protocols for responding to disease threats and coordination

¹¹GAO, *COVID-19: Opportunities to Improve Federal Response and Recovery Efforts*, [GAO-20-625](#) (Washington, D.C.: June 25, 2020).

¹²The Act requires DOT to complete the plan by December 29, 2024. It also requires GAO to conduct a study assessing the plan including whether the plan is responsive to our prior recommendation and meets the obligations of the United States under international conventions and treaties by June 29, 2024. Further, in the study assessing the plan, GAO must evaluate the extent to which the United States' aviation system is prepared to respond to a future communicable disease outbreak. GAO confirmed with FAA officials that the plan is being drafted, and officials reported that the plan will include a framework to coordinate among federal agencies, including the Transportation Security Administration and the Centers for Disease Control and Prevention, as well as other appropriate federal, state, and local entities. See Pub. L. No. 117-328, § 105 136 STAT. 4459, 5253 (2022). GAO plans to conduct its detailed review after DOT completes the plan.

among stakeholders. Such a plan could help maximize an effective response to a public health threat, while minimizing potential inefficiencies in the national response effort and unnecessary disruptions to the national aviation system.

Director: Heather Krause

Contact Information: KrauseH@gao.gov and (202) 512-2834

Automated Vehicles: Comprehensive Plan Could Help DOT Address Challenges. [GAO-18-132](#). Washington, D.C.: November 30, 2017.

Year Recommendation Made: 2018

Recommendation: The Secretary of Transportation should develop and implement a comprehensive plan to better manage departmental initiatives related to automated vehicles. This plan should include leading principles such as goals, priorities, steps to achieve results, milestones, and performance measures to track progress.

Actions Needed: DOT agreed with this recommendation. However, DOT stated that it would be premature to publish a comprehensive plan at the time. DOT indicated that it would begin by pursuing an iterative framework to manage DOT’s activities addressing automated vehicle challenges. In 2022, DOT announced six “innovation principles” and released a strategic plan that describes the agency’s vision and goals, including those related to emerging technologies such as automated vehicles. In April 2024, officials affirmed the continued applicability of these principles and goals to vehicle automation. However, DOT does not have an overall plan, or framework, that articulates the elements of a comprehensive plan for automated vehicles.

To fully implement this recommendation, DOT needs to formulate and document these elements in a comprehensive plan or plans. Until these steps are completed, it continues to be unclear whether DOT is adequately addressing automated vehicle challenges.

Director: Elizabeth Repko

Contact information: RepkoE@gao.gov and (202) 512-2834

Drones: FAA Should Improve Its Approach to Integrating Drones into the National Airspace System. [GAO-23-105189](#). Washington, D.C.: January 26, 2023.

Year Recommendation Made: 2023

Recommendation: The Administrator of FAA should develop a drone integration strategy that includes all seven elements of a comprehensive strategy.

Actions Needed: FAA agreed with this recommendation. In April 2024, FAA provided us with their drone integration strategy, which includes five of the seven elements of a comprehensive strategy but does not include the remaining two elements. Specifically, the strategy does not describe (1) activities, milestones, and performance measures, or (2) resources and investments that would be required to achieve the agency’s goals. According to FAA, individual FAA offices will establish business plans that include activities, milestones, and performance measures, as well as resources and investment needs. These plans will be updated on an annual basis, according to FAA. We will review these plans when they are completed to

determine whether FAA's strategy and related business plans collectively address the recommendation.

To fully implement this recommendation, FAA's documentation would need to include all seven key elements that are necessary for a strategy to be comprehensive. Without developing a strategy that incorporates all key elements of a comprehensive strategy, FAA risks not having the information it needs to effectively lead and manage its drone integration efforts, make well-informed decisions, and direct limited resources where they could be most beneficial.

Director: Heather Krause

Contact information: KrauseH@gao.gov and (202) 512-2834

Managing Cybersecurity Risks and Information Technology (IT)

Cybersecurity: Agencies Need to Fully Establish Risk Management Programs and Address Challenges. [GAO-19-384](#). Washington, D.C.: July 25, 2019.

Year Recommendation Made: 2019

Recommendation: The Secretary of Transportation should fully develop a cybersecurity risk management strategy that includes the key elements identified in this report.

Actions Needed: DOT agreed with this recommendation. As of March 2024, DOT officials stated that they had drafted a departmental cybersecurity strategy and planned to finalize it in the fourth quarter of fiscal year 2024. To fully implement this recommendation, the agency needs to develop a cybersecurity risk management strategy that includes key elements, including a discussion of the agency's risk tolerance and how it intends to assess, respond to, and monitor risks. Implementing this recommendation would help DOT address the growing number of cyber threats to systems and data by taking a risk-based approach to cybersecurity by effectively identifying, prioritizing, and managing DOT's cyber risks.

High Risk Area: [Ensuring the Cybersecurity of the Nation](#)

Director: Marisol Cruz Cain

Contact information: CruzCainM@gao.gov and (202) 512-5017

IT Workforce: Key Practices Help Ensure Strong Integrated Program Teams; Selected Departments Need to Assess Skill Gaps. [GAO-17-8](#). Washington, D.C.: November 30, 2016.

Year Recommendation Made: 2017

Recommendation: To facilitate the analysis of gaps between current skills and future needs, the development of strategies for filling the gaps, and succession planning, the Secretary of Transportation should require the Chief Information Officer, Chief Human Capital Officer, and other senior managers as appropriate to address the shortfalls in IT workforce planning noted in this report, including the following actions: (1) establish a time frame for when the department is to finalize its draft workforce-planning process and maintain that process; (2) develop staffing requirements for all positions; (3) assess competency and staffing needs regularly for all positions; (4) assess gaps in staffing for all components of the workforce; (5) develop strategies

and plans to address gaps in competencies and staffing; (6) implement activities that address gaps, including an IT acquisition cadre, cross-functional training of acquisition and program personnel, a career path for program managers, and use of special hiring authorities, if justified and cost-effective; (7) monitor the department's progress in addressing competency and staffing gaps; and (8) report to department leadership on progress in addressing competency and staffing gaps.

Actions Needed: DOT agreed with this recommendation. In January 2020, DOT officials told us the agency had established a workgroup to lead and conduct workforce-planning activities and had defined the strategic goals and objectives for the agency's IT workforce. As of February 2024, DOT has implemented three of the eight recommended IT workforce-planning activities—developing competency and staffing requirements, assessing gaps in competencies and staffing, and developing strategies and plans to address gaps in competencies and staffing. DOT officials stated that the agency is continuing its efforts to implement the recommendation, including developing a workforce planning process, which it expects to complete by the end of fiscal year 2024.

To fully address this recommendation, DOT should complete the remaining five IT workforce planning activities. Until the agency completes these activities, it risks not adequately assessing and addressing gaps in knowledge and skills that are critical to the success of major IT acquisitions.

High Risk Areas: [Ensuring the Cybersecurity of the Nation, Improving the Management of IT Acquisitions and Operations](#)

Director: Dave Hinchman

Contact information: HinchmanD@gao.gov and (214) 777-5719

Privacy: Dedicated Leadership Can Improve Programs and Address Challenges. [GAO-22-105065](#). Washington, D.C.: September 22, 2022.

Year Recommendation Made: 2022

Recommendation: The Secretary of Transportation should fully define and document a process for ensuring that the senior agency official for privacy or other designated privacy official is involved in assessing and addressing the hiring, training, and professional development needs of the agency with respect to privacy.

Actions Needed: DOT agreed with this recommendation. DOT officials stated that DOT's Office of the Chief Information Officer is expected to implement a defined workforce process in which the DOT Chief Privacy Officer has a role in the review and approval of the hiring of privacy professionals within the Office of the Secretary. As of April 2024, DOT officials stated that the department is in the final stages of documenting its process and anticipates finalizing this effort by summer 2024.

To fully implement this recommendation, the department needs to update its policies and procedures to include requirements and a process for involving the senior agency official for privacy, or other designated privacy official, in planning for the department's privacy workforce needs. Implementing this recommendation would help DOT better identify its privacy staffing needs and ensure that it has a sufficient and well-qualified privacy workforce.

High Risk Area: [Ensuring the Cybersecurity of the Nation](#)

Director: Jennifer R. Franks

Contact information: FranksJ@gao.gov and (404) 679-1831

Reducing Fraud and Abuse Risks

Aviation: FAA Needs to Better Prevent, Detect, and Respond to Fraud and Abuse Risks in Aircraft Registration. [GAO-20-164](#). Washington, D.C.: March 25, 2020.

Year Recommendations Made: 2020

Recommendation: The Administrator of FAA should verify aircraft registration applicants' and dealers' eligibility and information.

Actions Needed: FAA agreed with the recommendation. In February 2024, FAA officials reported that their efforts related to collecting additional data and validating applicant information against reliable sources were ongoing. Additional data collection for corporations and limited liability companies was being prepared for internal review under the Paperwork Reduction Act of 1995. Officials further reported that FAA was exploring options involving third-party software as well as data sharing agreements with law enforcement agencies for applicant identity validation purposes.

To fully implement this recommendation, the agency needs to collect needed data and develop an approach for verification of applicant and dealer information and eligibility. Without a process to verify applicants' information and eligibility, FAA is limited in its ability to prevent fraud and abuse of its aircraft registry.

Recommendation: The Administrator of FAA should increase aircraft registration and dealer fees to ensure the fees are sufficient to cover the costs of FAA efforts to collect and verify applicant information while keeping pace with inflation.

Actions Needed: FAA agreed with the recommendation. In February 2024 FAA officials told us they created a registry fee cost model that would achieve full cost recovery and be sustainable with inflation. According to FAA, the cost model uses a formula-based approach to calculate cost rates for fee activities and is consistent with generally accepted accounting principles and the Office of Management and Budget's Circular A-25. FAA is evaluating next steps for this cost model, which would include rulemaking.

To fully implement this recommendation, FAA needs to implement the new fee and ensure it covers the costs of FAA's application verification efforts and can be adjusted further to keep pace with inflation. Without a change to these fees, FAA's registration costs continue to be borne by the taxpayers and to limit resources available for applicant's and dealer's verification.

Director: Rebecca Shea

Contact Information: SheaR@gao.gov and (202) 512-6722

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