NATIONAL TRANSPORTATION SAFETY BOARD REAUTHORIZATION

(117-46)

REMOTE HEARING

BEFORE THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE HOUSE OF REPRESENTATIVES ONE HUNDRED SEVENTEENTH CONGRESS

SECOND SESSION

APRIL 6, 2022

Printed for the use of the Committee on Transportation and Infrastructure



Available online at: https://www.govinfo.gov/committee/house-transportation?path=/ browsecommittee/chamber/house/committee/transportation

> U.S. GOVERNMENT PUBLISHING OFFICE WASHINGTON : 2022

48–378 PDF

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Committee on Transportation and Infrastructure U.S. House of Representatives Washington, DC 20515

Peter A. De Fasio Chairman

ine W. Dedrick. Staff Director

Sam Graves Ranking Member

Paul J. Sass. Republican Staff Directo

April 1, 2022

SUMMARY OF SUBJECT MATTER

TO: Members of Congress, Committee on Transportation and Infrastructure FROM: Staff, Committee on Transportation and Infrastructure Hearing on "National Transportation Safety Board Reauthorization." RE:

PURPOSE

The Committee on Transportation and Infrastructure will hold a hearing on Wednesday, April 6, 2022, at 10:00 a.m. ET to discuss National Transportation Safe-ty Board (NTSB or Board) reauthorization. The hearing will take place in 2167 Rayburn House Office Building and via Zoom. The Subcommittee on Coast Guard and Maritime Transportation recently held a hearing addressing small vessel safety.¹ Thus, this hearing will focus on NTSB's reauthorization proposal and related trans-portation safety issues. The Committee will hear testimony from the Chair of the NTSB, the Honorable Jennifer Homendy.

BACKGROUND

INTRODUCTION

The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation-railroad, highway, marine, pipeline, and commercial space.² The agency establishes the facts and circumstances and determines the probable cause of the accidents it investigates, and issues safety recommendations aimed at preventing future accidents from occurring.³ In addition, it carries out specal studies concerning transportation safety and coordinates the resources of the federal government and other organizations to assist victims and their family mem-bers impacted by transportation disasters. It also conducts safety research focused on broader safety questions and topic areas.4

The NTSB also serves as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and United States Coast Guard (Coast Guard), and it also adjudicates appeals of civil penalty actions taken by the FAA.⁵ The NTSB was last reauthorized

¹Subcommittee on Coast Guard and Maritime Transportation Hearing, March 21, 2022, "A - subcommittee on Coast Guard and Maritime Transportation Hearing, March 21, 2022, "A Review of Coast Guard Efforts to Improve Small Passenger Vessel Safety," information and videorecording available at: https://transportation.house.gov/committee-activity/hearings/a-re-view-of-coast-guard-efforts-to-improve-small-passenger-vessel-safety. ²NTSB, Fiscal Year 2023 Budget Request, March 28, 2022, at 4, Available at: https:// www.ntsb.gov/about/reports/Documents/Fiscal%20Year%202023%20Budget%20Request.pdf. ³Id.

 $^{^{4}}Id.$

 $^{{}^{5}}Id.$

in the FAA Authorization Act of 2018, and its current authorization expires at the end of this fiscal year 2022.6

HISTORY OF THE NTSB

In 1967, Congress consolidated all transportation agencies into a new U.S. Department of Transportation (DOT) and established the NTSB as an independent agency placed within the DOT for administrative purposes.⁷ In creating the NTSB, Congress envisioned that a single organization with a clearly defined mission could more effectively promote a higher level of safety in the transportation system than the individual modal agencies working separately.⁸ Since 1967, the NTSB has inves-tigated accidents in the aviation, highway, marine, pipeline, and railroad modes, as well as accidents related to the transportation of hazardous materials. In 1974, Congress reestablished the NTSB as a separate entity from the DOT.⁹

Because the DOT has broad operational and regulatory responsibilities that affect the safety, adequacy, and efficiency of the transportation system, and transportation accidents may suggest deficiencies in that system, the NTSB's independence was deemed necessary for proper oversight.¹⁰ This allows the NTSB to conduct investigations and make recommendations from a completely objective and independent viewpoint.11

In 1996, Congress assigned the NTSB the additional responsibility of coordinating federal assistance to families of aviation accident victims. While originally estabfederal assistance to families of aviation accident victims. While originally estab-lished to provide assistance following major aviation accidents, the program has been expanded by Congress to provide assistance in all modes of transportation on a case-by-case basis. In 2008, Congress directed NTSB to provide assistance to fami-lies of passengers in fatal rail passenger accidents.¹² Since its inception, the NTSB has investigated more than 152,000 aviation acci-dents and thousands of surface transportation accidents.¹³ NTSB investigators trav-ol threaches the country and intermediate accidents are accidents.

and develop factual records and safety recommendations. To date, the NTSB has issued over 15,000 safety recommendations to more than 2,400 recipients.¹⁴

Most Wanted List

The NTSB's Most Wanted List of Transportation Safety Improvements highlights safety-critical actions that DOT modal administrations, the Coast Guard, and others need to take to help prevent accidents and save lives.¹⁵

NTSB's Most Wanted List for 2021-2022 includes the following recommendations, organized by NTSB modal office:

I. Aviation:

- Require and Verify the Effectiveness of Safety Management Systems in all Revenue Passenger-Carrying Aviation Operations • Install Crash-Resistant Recorders and Establish Flight Data Monitoring Pro-
- grams II. Highway:

- Implement a Comprehensive Strategy to Eliminate Speeding-Related Crashes Protect Vulnerable Road Users through a Safe System Approach
- Prevent Alcohol- and Other Drug-Impaired Driving Require Collision-Avoidance and Connected-Vehicle Technologies on all Vehi-• cles
- Eliminate Distracted Driving

onautics Board's Bureau of Aviation Safety, when it was created in 1940. ⁸Senate Report No. 93-1192 (1974), *Transportation Safety Act of 1974*, at p. 14, Available at https://www.fordlibrarymuseum.gov/library/document/0055/12006477.pdf. ⁹Independent Safety Board Act of 1974, Pub. Law 93-633 (1974). ¹⁰Senate Report No. 93-1192 (1974), *Transportation Safety Act of 1974*, at p. 14-17, Available at https://www.fordlibrarymuseum.gov/library/document/0055/12006477.pdf. ¹¹CRS, The National Transportation Safety Board (NTSB): Background and Possible Issues for Reauthorization and Oversight, R44587, Aug. 10, 2016, at 1, Available at https:// www.crs.gov/reports/pdf/R44587. ¹²Pub. L. No. 110-432, Division A, Title V, Section 501. ¹³NTSB, Fiscal Year 2023 Budget Request, March 28, 2022, at 7, Available at: https:// www.ntsb.gov/about/reports/Documents/Fiscal%20Year%202023%20Budget%20Request.pdf. ¹⁴Id. ¹⁵NTSB's 2021-2022 Most Wanted List is available at: https://

⁶Pub. L. No. 115–254, Division C (2018), Available at: https://uscode.house.gov/statutes/pl/115/ 254.pdf. ⁷The aviation investigation function of the NTSB originated in the Air Commerce Act of 1926, in which the U.S. Congress charged the U.S. Department of Commerce with investigating the causes of aircraft accidents. The aircraft accident responsibility was later given to the Civil Aer-crastice Reard's Parada of Aviation Sofety, when it was created in 1940 onautics Board's Bureau of Aviation Safety, when it was created in 1940.

¹⁵NTSB's 2021–2022 Most Wanted List is available at: https://www.ntsb.gov/Advocacy/mwl/ Pages/default.aspx

- Improve Passenger and Fishing Vessel Safety
 IV. Rail, Pipeline, and Hazardous Materials:
 Improve Pipeline Leak Detection and Mitigation

 - Improve Rail Worker Safety

More detail on each of these items, including accidents that illustrate why each change is needed and information about how long the NTSB has sought the change, can be found on NTSB's website.¹⁶

The National Transportation Safety Board Reauthorization Act of 2018 included a provision for the U.S. Government Accountability Office (GAO) to examine NTSB's methodology for evaluating and selecting recommendations for inclusion in the Most Wanted List. GAO issued its revised report on March 19, 2020.¹⁷ The report discusses: (1) NTSB's methodology for developing its Most Wanted List and (2) how NTSB addressed statutory requirements and how its methodology aligned with components for systematic decision-making, among other objectives. GAO reviewed NTSB documentation for its process of selecting issues for the Most Wanted List.¹⁸ GAO also interviewed NTSB officials to understand the rationale behind the selection methodology and how the process was applied.¹⁹ GAO compared the methodology to essential components for systematic decision-making and the statutory requirement that NTSB publish a publicly available methodology report that describes NTSB's consideration of key elements.²⁰

GAO provided two recommendations based on this examination:

- 1. The Chairman of the Board should require the Safety Recommendation and Communication team to fully document its evaluations when assessing items to propose for Most Wanted List consideration; and
- 2. The Chairman of the Board should take steps to publicly and fully commu-nicate the selection rationale, such as including why NTSB believes an issue is "ripe for action" to its documentation on its website.²¹

NTSB agreed with both recommendations, and GAO has since determined that the Board has completed recommendation number two.²² However, the first recis still open, and GAO reports that as of February 2022, the Board is still in the process of formally establishing the criteria it uses to establish the most wanted list.²³

COMPLETING INVESTIGATIONS AND REPORTS

Following its investigations, the NTSB issues reports that detail the accident investigated, identify cause or probable cause, and often include recommendations. The prompt completion of these reports informs the public, Congress, regulators, and the regulated community about transportation safety issues with an intended goal of preventing reoccurrence. The average length of time to conclude these investigation reports vary across the NTSB's offices that investigate accidents in the different modes. The tables below show the number of reports approved by the NTSB and the average time it takes to complete these reports.

 ^{21}Id

 $^{^{16}}Id.$

¹⁷GAO Report GAO–20–395, "National Transportation Safety Board: More Detail Could Increase the Understanding of Selections for the Most Wanted List of Transportation Safety Improvements" March 2020, Available at: https://www.gao.gov/assets/gao-20-395.pdf.

 $^{^{19}}Id.$ $^{20}Id.$

²²GAO, National Transportation Safety Board: More Detail Could Increase the Understanding of Selections for the Most Wanted List of Transportation Safety Improvements [Reissued with revisions on Mar. 19, 2020.], https://www.gao.gov/products/gao-20-395. $^{23}Id.$

N	umber of E	Board Appro	oved Accider	t and Incident	Investigation	Reports

					RP	H		All
Report Year	Aviation	Highway	Marine	Hazmat	Pipeline	Railroad	RPH Total	Offices Total
2016	2	6	2			3	3	13
2017	4	6	4		1	8	9	23
2018	3	6	5			7	7	21
2019	2	6	3	1	2	5	8	19
2020	5	7	6			5	5	23
5-year Total	16	31	20	1	3	28	32	99

Average Time From Event to Release of Board Approved Accident and Incident Investigation Reports [Months]

Report Year	Aviation	Highway	Marine	RPH				All	
				Hazmat	Pipeline	Railroad	RPH Total	Offices Total	
2016 2017 2018 2019 2020	15.0 21.2 16.6 24.1 18.4	20.1 14.1 20.8 16.0 19.5	18.5 15.8 17.9 18.6 21.0		20.5 22.5	18.7 26.1 22.6 23.6 28.6	18.7 25.5 22.6 22.9 28.6	18.7 20.1 20.1 20.2 21.6	
5-year Aver- age (Months)	19.1	18.1	18.6	19.9	21.8	24.4	24.1	20.3	

Source: Letter from Former NTSB Chair Sumwalt dated April 30, 2021.

NTSB REAUTHORIZATION PROPOSAL

On March 1, 2022, NTSB formally transmitted a reauthorization proposal to Con-On March 1, 2022, NTSB formally transmitted a reauthorization proposal to Con-gress.²⁴ The proposal includes three titles: I. Ensuring Readiness for Our Mission, II. Enhancing Accountability and Improving Processes and Products, and III. Strengthening Diversity, Equity, Inclusion, and Accessibility. The five-year bill re-quests authorization of appropriations for fiscal years (FY) 2023 through 2027. This bill would authorize \$129.3 million in FY 2023, \$145 million for FY 2024, \$155 mil-lion for FY 2025, \$165 million for FY 2026, and \$175 million for FY 2027. The legis-lative proposal includes several workforce development initiatives changes and lative proposal includes several workforce development initiatives, changes and clarifications to investigative authorities for railroad and highway accidents, and changes to recommendation response requirements for the U.S. Coast Guard, among other items. The NTSB's full reauthorization proposal and section-by-section summary are included as appendices to this document.

COMMERCIAL SPACE TRANSPORTATION ACCIDENT INVESTIGATION

A. History of NTSB Involvement in Commercial Space Accident Investigations

The NTSB has led or supported commercial space accident investigations for nearly 30 years and acted as the lead agency in conducting two major space vehicle investigations. In 1993, the NTSB investigated the procedural anomaly that occurred during the launch of an Orbital Sciences Corporation Pegasus expendable launch ve-hicle—the launch was canceled by the National Aeronautics and Space Administra-tion (NASA) range safety officer, only to then be reactivated independently by the Orbital Sciences Corporation (Orbital Sciences) test coordinator.²⁵ In its final report, the NTSB issued 17 safety recommendations to the Department of Transportation

²⁴Letter from NTSB Chair Jennifer Homendy to Speaker of the House Nancy Pelosi (Mar.

Corporation, Pegasus/SCD-1, Rpt. No. SIR 93/02 (Washington, DC: NTSB 1993).

(DOT), NASA, and Orbital Sciences.²⁶ In 2014, the NTSB investigated the accident of the SpaceShipTwo reusable suborbital spaceplane that broke up during a rocket-powered test flight, killing the co-pilot.²⁷ The NTSB issued a total of ten recommendations to the Federal Aviation Administration's (FAA) Office of Commercial Space Transportation (AST) and the Commercial Spaceflight Federation (CSF).²⁶

In addition, the NTSB's Office of Aviation Safety (OAS) investigators have assisted NASA and Congressional investigative boards with the investigations of two space shuttle accident mishaps (1986; 2003) and assisted NASA with the investiga-tion of the 2004 Genesis Spacecraft reentry accident.²⁹ More recently, NTSB investigators have observed or taken part in several operator-led mishap investigations, including the October 2014 Orbital Science ATK Antares engine failure shortly after liftoff; the June 2015 launch failure of the Space X CRS-7 mission; the September 2016 pad explosion of the SpaceX Falcon 9 with the Amos-6 communications sat-ellite; and the April 2019 SpaceX Dragon explosion that occurred during a ground test.³⁰

B. Current Statutory Authority

The NTSB is authorized to investigate any launch or reentry accidents and other certain incidents through its general authority under section 1131 of title 49 of the United States Code, which states that the NTSB shall investigate "any other accident related to the transportation of individuals or property when the Board decides the accident is catastrophic."³¹ The phrase "when the Board decides" gives the agency broad discretion to determine which accidents the agency investigates.³² In addition to NTSB's authority to investigate catastrophic transportation accidents, the statute also provides the agency with the authority to investigate (1) accidents, involving problems of a recurring character and (2) accidents where the investiga-NTSB has also conducted an analysis on Congressional intent, which supported the forgoing assumption of authority.³

C. Memoranda of Agreement and Understanding

In addition to NTSB's statutory authority, there was the 1985 addition of Appendix H (revised: 1999) to the 1975 Reimbursable Memorandum of Agreement (MOA) between the NTSB and DOT.³⁵ Appendix H established the relationships, notification procedures, coordination requirements, and reporting responsibilities of the NTSB and AST in connection with accident investigations for commercial space launch activities. Moreover, the MOA delineated that the NTSB would investigate commercial space launch accidents resulting in: (1) a mishap when any portion of

 $^{32}Id.$

 $^{^{26}}Id$

 ²⁷NTSB, In-Flight Breakup During Test Flight, Scaled Composites SpaceShipTwo, N339SS, Near Koehn Dry Lake, CA, Oct. 31, 2014, Rpt. No. AAR 15/02 (Washington, DC: NTSB 2015). ²⁸*Id*.

²⁹ Joseph M. Sedor, Do We Need An Annex 13 for Commercial Space Accidents, ISASI Forum (Jan.-Mar. 2021).

³⁰*Id.*; see also Jason Rhian, SpaceX Reveals Cause of Crew Dragon Explosion, Spaceflight In-sider (Jul 15, 2019). ³¹Jul USC 1131(a)(1)(F).

³³ Id.

³⁴ "The plain meaning of the phrase 'related to transportation,' requires that accidents covered by section F have a rational relationship to transportation. Congress explicitly has addressed whether commercial space activity should be considered transportation when it determined that whether commercial space activity should be considered transportation when it determined that 'space transportation ... is an important element of the transportation system of the United States...' 51 U.S.C. § 50901(a)(8) (emphasis added). The NTSB also notes that the FAA's [AST], established by 51 U.S.C. § 50921, has promulgated regulations governing commercial space launches. These regulations set forth definitions of accidents, incidents, and mishaps, with regulation of such vehicles. 14 C.F.R. § 401.5. The involvement of the FAA' in commercial space launch activities signifies that vehicles used in commercial space launches fall within the purior of the FAA' is outportion. view of the FAA's authority during specified periods of time, either because those activities are 'transportation' or because they are so closely related to transportation that FAA oversight is necessary. In this regard, the involvement of the FAA's AST is both logical and reasonable: vehinecessary. In this regard, the involvement of the FAA's AST is both logical and reasonable: vehi-cles involved in commercial space launches must travel through the national airspace, wherein launches would need to be coordinated with air transportation systems to avoid interference with air traffic control as well as other aircraft." (See Appendix A in NTSB, In-Flight Breakup During Test Flight, Scaled Composites SpaceShipTwo, N339SS, Near Koehn Dry Lake, CA, Oct. 31, 2014, Rpt. No. AAR 15/02 (Washington, DC: NTSB 2015)). ³⁵Reimbursable Mem. of Agreement between the NTSB & DOT, Appendix H (revised: 1999), available at: https://www.faa.gov/space/legislation_regulation_guidance/media/ meu_space_launch_accidents.pdf

mou space launch accidents.pdf.

a commercial space vehicle or payload impacts outside the expected launch failure crash zone; or (2) a fatality or serious injury to a person not associated with the launch activities; or (3) damage greater than \$25,000 to property not associated with the launch activities.³⁶ The MOA also stated that nothing in the agreement should be read to impair the NTSB's authority to investigate any other commercial space launch accident which, in the judgement of the Board, is subject to section 1131(a)(1)(F) of title 49, United States Code.

Finally, in addition to adhering to the terms of the MOAs, the NTSB's 2004 memorandum of understanding (MOU) with the FAA and the U.S. Air Force established the relationships among agencies during space launch accidents and provided a guide to the exchange of information and participation in accident investigations.37

D. Commercial Space Accident Rulemaking

On November 16, 2021, the NTSB issued a notice of proposed rulemaking (NPRM) regarding commercial space accident investigations to update and ensure the transparency of the agency's commercial space safety investigative authority.³⁸ In issuing the NPRM, the NTSB noted that—

- (1) commercial space launch is a unique mode of transportation; and
- (2) the unique investigatory procedures needed for commercial space accidents and incidents are distinct enough from other modes of transportation to warrant codifying the differences.³⁹

Thus, the NPRM creates a separate Subpart F for Commercial Space Investigations and addresses notification requirements following an accident or incident, preservation of wreckage and records, relationships with other federal agencies, and the treatment of investigative information, among other things.40

The NTSB maintains that by transitioning and updating the information from the MOA and MOU to Subpart F, the commercial space industry will have more clarity on how and when the NTSB would initiate an investigation of a commercial space mishap. The NTSB also maintains that while there is very little change to the procedures themselves, the NPRM finally allows the commercial space industry the op-portunity to provide feedback on the NTSB investigative process via the rulemaking process.4

E. Commercial Space Transportation Safety Act

In the 116th Congress, Aviation Subcommittee Ranking Member Garret Gravesalong with Chair DeFazio, Ranking Member S. Graves, Chair Larsen, and Rep-resentative Davids as original cosponsors—introduced H.R. 1562, the Commercial Space Transportation Safety Act of 2019. The bill would have codified the NTSB's authority to investigate commercial space accidents into Title 49. Specifically, it amended 49 USC 1131(a)(1) to clarify the NTSB's ability to investigate commercial space launch accidents, when accidents involve

- Impacts outside the hazard-zone;
- Fatalities on board the launch vehicle or otherwise; or
- Substantial damage not affiliated with the launch site and away from the launch site.

NTSB AVIATION ACCIDENT INVESTIGATIONS

The NTSB estimates there are approximately 1,750 domestic aviation accidents and incidents annually it is responsible for investigating.⁴² As of May 2020, NTSB had investigated over 152,000 aviation accidents and incidents in its history.⁴³

⁴¹Letter from Jennifer Homendy, Chair, NTSB, to Rep. Lucas, R.M. of House Comm. on SST (Dec. 3, 2021) (on file with Cmte Staff). ⁴²NTSB, Office of Aviation Safety, available at https://www.ntsb.gov/about/organization/AS/

 $^{^{36}}Id.$

³⁷Mem. of Understanding between NTSB, Dept. of AF, & FAA re: Space Launch Accidents

²⁸NPRM Codifying NTSB's Commercial Space Safety Investigative Authority by Creating Subpart F, 86 Fed. Reg. 63324 (proposed Nov. 16, 2021) (to be codified at 49 C.F.R. 831) avail-able at: https://www.federalregister.gov/documents/2021/11/16/2021-24766/commercial-space-in-vorting to the state of the vestigations. ³⁹Id.

⁴⁰ Id.

Pages/office as.aspx. ⁴³NTSB, Fiscal Year 2023 Budget Request, March 28, 2022, at 7, Available at: https:// www.ntsb.gov/about/reports/Documents/Fiscal%20Year%202023%20Budget%20Request.pdf.

On domestic U.S. part 121 airline flights, there has only been one commercial airline passenger fatality in more than 90 million flights in over a decade.⁴⁴ Prior to that single passenger fatality in April 2018, the last fatal domestic commercial airline accident occurred in February 2009, when Colgan Air Flight 3407 crashed near Buffalo, New York, killing all 49 onboard and one person on the ground.45

The NTSB's participation in any foreign accident investigation is conducted in accordance with the Chicago Convention of the International Civil Aviation Organization's (ICAO) Standards and Recommended Practices (SARPS), provided in Annex 13, which entitles the State of Design and Manufacture of the aircraft involved in the accident to appoint an accredited representative to participate in the investigation.⁴⁶ The NTSB participates in aviation accidents involving any aircraft operated by or designed, manufactured, or registered to a U.S. company.⁴⁷ In these cases, "upon receiving ICAO notification of the accident or serious incident, the NTSB designates a US-accredited representative and appoints technical advisors to carry out the obligations, receive the entitlements, provide consultation, and receive safety recommendations from the state of occurrence." 48

A. NTSB Aviation Accident Investigation Process

The NTSB's OAS reports to NTSB's Office of the Managing Director.⁴⁹ The OAS is responsible for:

- 1. Învestigating all civil domestic air carrier, commuter, and air taxi accidents; in-flight collisions; fatal and nonfatal general aviation accidents; and certain public-use aircraft accidents.
- Participating in the investigation of major airline crashes in foreign countries 2 that involve U.S. carriers or U.S.-manufactured or -designed equipment to fulfill U.S. obligations under International Civil Aviation Organization (ICAO) agreements, and
- 3. Conducting investigations of safety issues that extend beyond a single accident to examine specific aviation safety problems from a broader perspective.⁵

The OAS proposes probable causes for domestic aviation accidents and incidents to the NTSB Board for approval and works with other NTSB offices to formulate recommendations.⁵¹ Office of Aviation staff are located throughout the country to maintain closer proximity to potential aviation accident sites.⁵² Within the Office of Aviation are the following divisions: Major Investigations Division, Operational Factors Division, Aviation Engineering Division, Human Performance/Survival Factors Division, and the Writing and Editing Division.53

CONCLUSION

The NTSB plays a critically important role in transportation safety by conducting independent investigations into the causes and critical factors behind accidents and issuing recommendations to prevent reoccurrence of accidents. This hearing will address the NTSB's reauthorization proposal and other related issues.

WITNESS LIST

• The Honorable Jennifer Homendy, Chair, National Transportation Safety Board

⁵⁰NTSB, Office of Aviation Safety, https://www.ntsb.gov/about/organization/AS/Pages/office_as.aspx. $51\overline{Id}$.

52Id.

⁴⁴On April 17, 2018, Southwest Airlines Flight 1380 experienced an engine failure, resulting in loss of an engine inlet and cowling. Fragments struck the airplane's fuselage and damaged a cabin window, killing one passenger onboard. NTSB, Fiscal Year 2022 Budget Request, May 27, 2021, at 35–36, Available at: https://www.ntsb.gov/about/reports/Documents/NTSB-fy22budget-request.pdf. ${}^{45}Id.$

⁴⁶NTSB, 2020 Annual Report to Congress, 2021, at 21, Available at: https://www.ntsb.gov/

 ⁴⁰ NTSB, 2020 Annual Report to Congress, 2021, at 21, Available at: https://www.ntsb.gov/about/reports/Documents/NTSB-2020-ARC.pdf.
 ⁴⁷ CRS, The National Transportation Safety Board (NTSB): Background and Possible Issues for Reauthorization and Oversight, R44587, Aug. 10, 2016, at 3–4, Available at https://www.ntsb.gov/about/reports/Documents/NTSB-2020 Annual Report to Congress, 2021, at 21, Available at: https://www.ntsb.gov/about/reports/Documents/NTSB-2020-ARC.pdf.
 ⁴⁸ NTSB, 2020 Annual Report to Congress, 2021, at 21, Available at: https://www.ntsb.gov/about/reports/Documents/NTSB-2020-ARC.pdf.
 ⁴⁹ NTSB, NTSB Organization, https://www.ntsb.gov/about/organization/Pages/default.aspx.
 ⁵⁰ NTSB, Offse, of Aviation Safety, https://www.ntsb.gov/about/organization/Pages/default.aspx.

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 ⁵³NTSB, Fiscal Year 2022 Budget Request, May 27, 2021, at 29–31, Available at: https:// www.ntsb.gov/about/reports/Documents/NTSB-fy22-budget-request.pdf

APPENDIX A

[The National Transportation Safety Board Authorization Act of 2022 proposal is retained in committee files and is available online at https://docs.house.gov/meetings/PW/PW00/20220406/114601/HMKP-117-PW00-20220406-SD002.pdf]

Appendix B

[The National Transportation Safety Board Authorization Act of 2022 section-by-section analysis is retained in committee files and is available online at https:// docs.house.gov/meetings/PW/PW00/20220406/114601/HMKP-117-PW00-20220406-SD003.pdf]

NATIONAL TRANSPORTATION SAFETY BOARD REAUTHORIZATION

WEDNESDAY, APRIL 6, 2022

House of Representatives, Committee on Transportation and Infrastructure, Washington, De

WASHINGTON, DC.

The committee met, pursuant to call, at 10:04 a.m. in room 2167 Rayburn House Office Building and via Zoom, Hon. Peter A. DeFazio (Chair of the committee) presiding. Members present: Mr. DeFazio, Ms. Norton, Ms. Johnson of

Members present: Mr. DeFazio, Ms. Norton, Ms. Johnson of Texas, Mr. Larsen of Washington, Mrs. Napolitano, Mr. Cohen, Mr. Sires, Mr. Johnson of Georgia, Mr. Huffman, Mr. Payne, Mr. Lowenthal, Mr. DeSaulnier, Mr. Lynch, Mr. Carbajal, Mr. Malinowski, Mr. Stanton, Ms. Davids of Kansas, Mr. García of Illinois, Mr. Delgado, Mr. Lamb, Mr. Auchincloss, Ms. Bourdeaux, Mr. Kahele, Ms. Strickland, Ms. Williams of Georgia, Mr. Graves of Missouri, Mr. Crawford, Mr. Massie, Mr. Rodney Davis of Illinois, Mr. Katko, Dr. Babin, Mr. Graves of Louisiana, Mr. Weber of Texas, Mr. LaMalfa, Mr. Westerman, Miss González-Colón, Mr. Stauber, Mr. Burchett, Mr. Johnson of South Dakota, Dr. Van Drew, Mr. Gimenez, and Mrs. Steel.

Mr. DEFAZIO. The Committee on Transportation and Infrastructure will come to order.

I ask unanimous consent authorizing the chair to declare recess during the hearing.

And we will now go to my opening statement, which is somewhere. I read it before. There it is, thank you. OK.

Before we start, I would like to ask for a moment of silence for our colleague, Don Young, who I served with for 35 years and some-odd months. He was here longer than that. Don was larger than life. I have got Don Young stories like everybody else does, with the knife and the—all the other things. But we became good friends over those years.

We served together on the House Committee on Natural Resources and then, obviously, on the Committee on Transportation and Infrastructure. He did the last significant bill originating from this committee on surface transportation infrastructure, in my opinion, and we have done one since—the SAFETEA-LU bill, which was a great benefit to the Nation.

He stayed true to his values and the people of Alaska, and his service was extraordinary. So, we will just observe a moment of silence.

[A moment of silence is observed.]

Mr. DEFAZIO. Now, I would like to thank the Chair, National Transportation Safety Board Chair, Jennifer Homendy, for appearing before us today. She-

VOICE [interrupting]. Stop for a second.

Mr. DEFAZIO. What?

VOICE. You were supposed to call on Sam first.

Mr. DEFAZIO [to Mr. Graves of Missouri]. Oh, I am so-oh, sorry, sorry

OK, well, I moved to another page. OK, Sam.

Mr. GRAVES OF MISSOURI. Thanks, Mr. Chairman. It was truly a sad day for the committee when the Dean of the House and our former chairman passed away.

So, I began my congressional career the same year that Don took over the committee in 2001. And from day one, he was always a friend and a mentor to me, and I know he was to so many of us. obviously, on the committee. And we all know how fiercely he fought for Alaska, and how fiercely he fought for the people of Alaska. And we also know just how passionate he was about this committee, and the work that we do here. And he never failed to set a tone of bipartisanship to make sure that the work always got done.

I think that when he had his committee portrait done, he knew that one day he would be gone, but he would never want any of us to forget his example. So, he made sure that we were always able to look right up there, and remember that this committee is about working together for the good of America's infrastructure and our, obviously, many modes of transportation.

But with that, thanks, Mr. Chairman. I appreciate the oppor-tunity, and it is the end of an era. Mr. DEFAZIO. Thanks. Thanks, Sam. Don does have a unique

portrait.

[Laughter.]

Mr. DEFAZIO. We will miss him.

So, now I would like to formally thank National Transportation Safety Board Chair Jennifer Homendy for appearing before us today. She has sat on this side for many, many years, and worked on this committee. She was a tireless advocate for safety, while serving as staff director for the Subcommittee on Railroads, Pipelines, and Hazardous Materials from 2004 to 2018.

We went through a lot of struggles in that time. I particularly remember the issue over the tank cars, which is mostly solved, but we still get some.

The NTSB is an independent Federal agency responsible for civil transportation accident investigations. It is charged with investigating every civil aviation accident in the United States and through international agreements overseas, and significant accidents that occur in other modes of transportation, such as major accidents that involve a railroad, highway, maritime operation, or pipeline. The agency establishes the facts and circumstances, determines the probable cause, and issues safety recommendations aimed at preventing future accidents, many of which are still pend-

ing. The NTSB was last reauthorized in the FAA Reauthorization Act of 2018, and its current authorization expires at the end of this fiscal year. That is why it is important for us to hear from NTSB today about its reauthorization proposal, and its challenges and priorities for meeting its safety mission in the coming years.

Even as the transportation safety sector has expanded—the size of the U.S. DOT has increased by more than 2,000 employees over the last 10 years—NTSB has remained at the same staffing levels. With the caseload at NTSB increasing and many long-serving NTSB employees near retirement, the agency needs to attract new talent for the future.

Moreover, as it expands its hiring pool, it must seek to attract a diverse workforce and prioritize equity, inclusion, and accessibility.

Another important item addressed in NTSB's reauthorization is the timeliness of its accident investigation reports. From 2016 to 2020, the average length of time it took NTSB to investigate an accident across modes crept up from 18.7 months to 21.6 in 2020. The longer it takes NTSB to analyze and then issue reports and recommendations, the longer it takes for other agencies or Congress to implement them. These delays have potential detrimental impacts on safety.

So, I look forward to hearing from Chair Homendy on what resources the agency needs, hopefully unconstrained by concerns at OMB or the White House or anywhere else, straight up what you need.

I also want to acknowledge the recent crash on March 21, 2022, of the Boeing 737–800 NG operated by China Eastern Airlines in southern China, killing all 132 passengers and crew aboard. Obviously, our thoughts and prayers go out to the victims, their families, and friends.

While we are awaiting details, with the cooperation, hopefully, of the Chinese Government, I want to hear about the role that NTSB and other U.S.-based stakeholders may play in the ongoing investigation. It is a puzzling accident, and we need to find out what went on with that flight.

An ongoing concern for this committee is the FAA's implementation of the Aircraft Certification, Safety, and Accountability Act, ACSAA—acronyms abound—and recommendations from the NTSB and other investigative authorities following the 737 MAX crashes. While the NTSB was not the lead civil aviation authority, NTSB did participate and took decisive action by issuing a series of recommendations to the FAA in September 2019 related to assumptions used in the safety assessment process and the effects of multiple alerts and indications on pilot performance. We based several provisions of the aircraft certification reform legislation on those recommendations.

Now Boeing is seeking certification from the FAA of the 737 MAX 10, which, unlike every other passenger aircraft being produced in the world today and over quite a number of years, will not have an advanced flight crew alerting system. It became the industry standard in 1982, even before I was on this committee, on every other Airbus and Boeing model, except for the 737s.

The aircraft certification bill gave the FAA a 2-year grace period to certify aircraft without the advanced flight crew alerting system, but that grace period should not be extended. And I urge the FAA, who might be listening, to take a close look at the NTSB's recommendations and this committee's extensive investigations report before completing its certification.

I look forward to hearing from Chair Homendy on these issues and others.

I now recognize the ranking member, Sam Graves, for his opening statement.

[Mr. DeFazio's prepared statement follows:]

Prepared Statement of Hon. Peter A. DeFazio, a Representative in Congress from the State of Oregon, and Chair, Committee on Transportation and Infrastructure

I would like to thank National Transportation Safety Board (NTSB) Chair Jennifer Homendy for appearing before us today. Chair Homendy's dedication to transportation safety has defined her career. She was a tireless advocate for safety while serving as the Staff Director of the T&I Subcommittee on Railroads, Pipelines and Hazardous Materials from 2004 to 2018. That fierce dedication to improving safety led her to the NTSB in 2018, and I expect it to shape her tenure as Chair.

The NTSB is an independent federal agency responsible for civil transportation accident investigation. The NTSB is charged with investigating every civil aviation accident in the United States and significant accidents that occur on other modes of transportation—such as major accidents that involve a railroad, highway, maritime operation, or pipeline. The agency establishes the facts and circumstances, determines the probable cause, and issues safety recommendations aimed at preventing future accidents.

The NTSB was last reauthorized in the Federal Aviation Administration Reauthorization Act of 2018, and its current authorization expires at the end of this fiscal year. That's why it's important for us to hear from NTSB today about its reauthorization proposal, and its challenges and priorities for meeting its safety mission in the coming years.

Even as the transportation sector has expanded and the size of the U.S. Department of Transportation has increased by more than 2,000 employees over the last 10 years, NTSB has remained at the same staffing levels. With the caseload at NTSB increasing and many long-serving NTSB employees near retirement, the agency must attract talent for the future. Moreover, as the NTSB expands its hiring pool, it must seek to attract a more diverse workforce and prioritize diversity, equity, inclusion, and accessibility.

Another important item addressed in NTSB's reauthorization proposal is the timeliness of its accident investigation reports. From 2016 to 2020, the average length of time it took NTSB to investigate an accident across modes crept up from 18.7 months in 2016 to 21.6 months in 2020. The longer that NTSB takes to issue reports and recommendations, the longer it takes for other agencies to implement them—these delays have detrimental impacts on safety. I look forward to hearing from Chair Homendy about what resources the agency needs to address these challenges.

Separately, I want to acknowledge the recent crash on March 21, 2022, of a Boeing 737–800 NG operated by China Eastern Airlines in southern China, killing all 132 passengers and crew aboard. My thoughts and prayers are with the families and friends of the victims. While we are still awaiting details on the causes of the crash, I hope to hear from Chair Homendy about the role NTSB and other U.S.based stakeholders may play in the ongoing investigation. We need answers, and we need to be ready to take action to ensure the global aviation system is as safe as possible.

An ongoing concern for this committee is the FAA's implementation of the Aircraft Certification, Safety, and Accountability Act (ACSAA) and recommendations from the NTSB and other investigative authorities following the Boeing 737 MAX crashes. While the NTSB was not the lead civil aviation authority for the investigations of the crashes, NTSB did participate and took decisive action by issuing a series of recommendations to the FAA in September 2019 related to assumptions used in the safety assessment process and the effects of multiple alerts and indications on pilot performance. We based several provisions of the aircraft certification legislation on these recommendations. Now Boeing is seeking certification from the FAA of the Boeing 737 MAX-10, which will not have an advanced flight crew alerting system—a system that became an industry standard in 1982 and is on every current Airbus and Boeing model under production except for the 737s. The aircraft certification bill gave the FAA a two-year grace period to certify aircraft without the advanced flight crew alerting system, but that grace period should not be extended. I urge the FAA to take a close look at the NTSB's recommendations and this committee's extensive investigation report before completing its certification.

I look forward to hearing from Chair Homendy on these important issues. I now recognize Ranking Member Sam Graves for his opening statement.

Mr. GRAVES OF MISSOURI. Thank you, Mr. Chairman. Thank you to our witness, Chairman Homendy, for being here.

The NTSB plays an important role in ensuring safety across all modes of transportation. The committee is aware of the NTSB's reauthorization proposal and appreciates today's opportunity to discuss it with you.

The Board was last reauthorized with the FAA reauthorization of 2018, where we made a lot of important improvements to the agency's organization, how the agency conducts investigations, and the kind of information provided to Congress in the agency's annual report and Most Wanted List.

As this committee considers the agency's reauthorization proposal this year, we should also be looking at how NTSB has implemented the various requirements of its current authorization law. I also encourage Members to be thinking about additional ideas to ensure that the NTSB carries out its duties in a more efficient and effective manner.

As Chair Homendy knows, the NTSB's backlog of accident reports and investigations is unacceptable. While I am pleased that the agency is taking action to address the backlog, we need to ensure that this kind of issue does not occur again. A more efficient NTSB will yield timely reports and recommendations and better equip the transportation sector with the information that it needs to maintain and improve safety.

So, I look forward to hearing what you have to say on your priorities, and I look forward to reviewing the NTSB's reauthorization proposal more closely. Thank you.

[Mr. Graves of Missouri's prepared statement follows:]

Prepared Statement of Hon. Sam Graves, a Representative in Congress from the State of Missouri, and Ranking Member, Committee on Transportation and Infrastructure

Thank you, Chair DeFazio, and thank you to our witness, National Transportation Safety Board Chair Jennifer Homendy.

The NTSB plays an important role in ensuring safety across all modes of transportation. The Committee is aware of the NTSB's reauthorization proposal and appreciates today's opportunity to discuss it with the Chair.

The Board was last reauthorized with the Federal Aviation Administration in 2018, where we made important improvements to the agency's organization, how the agency conducts investigations, and the kind of information provided to Congress in the agency's annual report and Most Wanted List.

As the Committee considers the agency's reauthorization proposal, we should also be looking at how the NTSB has implemented the various requirements of its current authorization law. I also encourage Members to be thinking about additional ideas to ensure the NTSB carries out its duties in a more efficient and effective manner. As Chair Homendy knows, the NTSB's backlog of accident reports and investigations is unacceptable. While I am pleased that the agency is taking action to address this backlog, we need to ensure that this kind of issue does not occur again. A more efficient NTSB will yield timelier reports and recommendations and better equip the transportation sector with the information it needs to maintain and improve safety. I look forward to hearing about Chair Homendy's priorities and to reviewing the NTSB's submitted proposal more closely.

Mr. GRAVES OF MISSOURI. Thanks, Chairman. Mr. DEFAZIO. I thank the gentleman.

Chair Homendy, you are recognized for 5 minutes.

TESTIMONY OF HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

Ms. HOMENDY. Thank you, and good morning, Chairman DeFazio, Ranking Member Graves, and members and staff of the committee. As Chair of the NTSB, I thank you for the opportunity to appear before you today in support of our reauthorization request.

I would also like to thank you for being one of the NTSB's biggest safety champions. Your leadership on transportation safety is unparalleled, and your support of NTSB recommendations has brought about significant safety improvements in the United States and across the globe.

Unfortunately, many of you know our agency because of our investigations of tragedies that occurred in your districts or affected your constituents personally, like the duck boat sinking in Branson, Missouri, and the Amtrak derailment in DuPont, Washington. I would like to take a moment to remember those who died or were injured in these and other tragedies that we have investigated, and offer our deepest sympathies to the survivors and families we have come to know.

Part of the mission of the NTSB is to support the victims' families. We give them the only promise we can: that we will investigate and issue safety recommendations aimed at preventing similar tragedies, and work vigorously to see that those safety recommendations are implemented. That is not just our agency's mission, it is also the mission of our workforce.

We are a small but mighty agency of 404 highly skilled professionals, and every single one has dedicated their lives to transportation safety. The people of NTSB are on call around the clock every day of the year, ready to launch to the scene of an accident or crash anywhere in the world. Their dedication to safety ensures that lessons are learned from every tragedy we investigate.

Our workforce inspires me every day by putting our mission first. Between the time I was nominated and sworn in as Chair, I met with staff throughout our agency to listen and learn about their needs, our successes, and our greatest challenges. This reauthorization proposal was driven by our workforce. It addresses their vision for our agency, and we are here today to advocate for them.

Our reauthorization proposal represents an investment in a skilled workforce, because it is our people who will ensure the NTSB is a mission-first agency for years to come. The bill will support our mission in four ways.

First, it will allow us to begin rightsizing the agency workforce, which has been stagnant for two decades. We are at roughly the same number of FTEs as we were in 1998, even as the demands on our staff rise with increasingly complex investigations. Our proposal will allow us to fill empty positions and modestly expand in staffing across all modes and offices to meet future transportation safety challenges. Quite simply, we need more people.

But it is not just about headcount. The skills we need for our future workforce are also important. That leads me to the second thing our bill will accomplish, which is to provide our workforce with the training and development needed to keep pace with the rapid change and technological advancement taking place in transportation.

For example, we are seeing new vehicles on our roads, railways, waterways, and in our skies. This includes advanced air mobility, unmanned aircraft systems, and autonomous vessels and vehicles. We are also seeing new fuel sources like hydrogen and lithium-ion batteries, and we are seeing new ways of transporting people and goods like commercial human spaceflight. While exciting, each of these advancements presents unique safety risks, and the NTSB must be—will be—ready to respond to all of them.

Third, our bill will allow us to procure the equipment and technology our people need to conduct cutting-edge investigations in this changing landscape.

Finally, the bill also includes measures to enhance the agency's accountability and improve our processes and products.

In closing, our reauthorization proposal represents an investment in a skilled workforce, because it is our people who will ensure we are ready should your constituents or anyone else need us in the wake of a transportation tragedy. If we do these four things with the funds we have requested, we will be better positioned to serve our vital safety mission today, and tomorrow will be truly missionfirst.

I appreciate your support of the NTSB. Thank you for your consideration, and thank you so much for your transportation safety leadership.

[Ms. Homendy's prepared statement follows:]

Prepared Statement of Hon. Jennifer Homendy, Chair, National Transportation Safety Board

Good morning, Chairman DeFazio, Ranking Member Graves, and members of the Committee. As Chair of the National Transportation Safety Board (NTSB), I thank you for the opportunity to appear before you today in support of our request for reauthorization.

As you know, the NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—highway, rail, marine, pipeline, and commercial space. We determine the probable cause of the events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct special transportation safety studies and special investigations, and coordinate the resources of the federal government and other organizations to assist victims and their family members who have been impacted by major transportation disasters. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and the United States Coast Guard (USCG), and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB is a small agency relative to our federal partners, in terms of the size of our budget and our workforce, but our impact is profound. Everyone at the NTSB

plays a role in achieving our mission to make transportation safer. The reauthorization proposal sent to Congress represents a robust investment in a skilled workforce that will enhance transportation safety nationwide and across all transportation modes. Our dynamic workforce includes:

- · Investigators that go to the scene of an investigation and those who work in our laboratories;
- Family assistance specialists who support victims and their families;
- Writers who develop our reports and help craft our safety recommendations;
- Advocates for our safety recommendations;
- Administrative and human resources officers who support our ability to recruit, retain, and train our workforce and make sure we acquire and manage our resources responsibly;
- Those who keep our technology up-to-date and reliable; Judges and legal counsel who decide pilots' and mariners' certification appeals; and
- Communications professionals who share the agency's work with the public and our stakeholders.

Their hard work, professionalism, and dedication is the reason that the NTSB is regarded as the world's preeminent safety agency, and one of the best places to work in the federal government.

Even as we have seen tremendous growth and technological advancements in transportation over the last two decades, the size of our agency is virtually the same as it was 20 years ago, with approximately 400 employees. To continue as the world's preeminent safety agency and complete our investigations and develop recommendations that advance safety changes without delays, we must meet the challenges that come with the increasing growth and innovation in transportation. Therefore, it is critical for the agency to have additional resources to respond to events without affecting timeliness, quality, or our independence. Our reauthorization proposal to Congress includes a request for resources and hiring flexibilities to increase staffing, including the number of investigators across all modes of transportation. These resources will allow us to hire professionals with the required skills, to purchase the equipment necessary for those skilled professionals to do their jobs, and to invest in crucial staff training and development. Our workforce is our greatest asset and they are essential to our mission.

Despite the challenges introduced by the COVID-19 pandemic, over the past two years we continued our critical work of completing significant and complex investigations and issuing safety recommendations to prevent similar tragedies. These completed investigations were tragedies that occurred in some of your districts or involved your constituents, such as:

- The sinking of an amphibious passenger vessel in Branson, Missouri; The crash of Atlas Air Flight 3591 in Trinity Bay, Texas;
- A limousine crash in Schoharie, New York;
- A dive boat fire near Santa Cruz, California;
- A collision between a truck driver and motorcyclists in Randolph, New Hampshire:
- A natural gas-fueled house explosion in Dallas, Texas; and
- A midair collision in Ketchikan, Alaska.

Also in 2020 and 2021, we issued 264 new recommendations and closed 297. Of those closed, 245 (82 percent) were closed acceptably, meaning that the recommendation recipient took action to implement the safety recommendation.

Our current investigative workload includes over 1,600 active investigations in 49 states and Puerto Rico, in addition to supporting approximately 70 foreign investiga-tions in over 40 countries. The vast majority of these are aviation accidents being investigated by staff from our four regional offices. They also include major investigations such as:

- The bridge collapse in Pittsburgh, Pennsylvania;
- A ship striking a pipeline off of Huntington Beach, California;
- The Washington Metropolitan and Transit Authority derailment at the Rosslyn station in Arlington, Virginia;
- Multiple fatal accidents involving railroad employees;

- The United Airlines flight 328 engine incident over Denver, Colorado; An Amtrak derailment in Joplin, Montana; and The Trans Air 810 ditching into the Pacific Ocean near Honolulu, Hawaii.

DEVELOPING A ROBUST AND RESILIENT WORKFORCE

Our reauthorization proposal represents a strong investment in our workforce. They must be able to analyze, understand, and respond to the technological changes that we are seeing in the transportation industry. This proposal will ensure they can. We greatly appreciate Congress's continued support for our budget requests; however, our funding has not kept pace with the need to hire additional investigative and support staff, to train them, or to make needed program investments in information technology and enhanced data capabilities.

While our annual appropriations have increased from \$97 million in fiscal year (FY) 2013 to \$121.4 million in FY2022, our staffing levels have remained about the same. Our fiscal year 2023 request of \$129.3 million, however, does not allow us to grow our staff because while our funding has modestly grown, annual employee pay increases and required increases in retirement and health insurance benefit contributions have taken up more than 60 percent of the total appropriations increase. My hope is that over time, this proposal will authorize sufficient funding to allow the agency to fill empty positions and to expand our staffing modestly in order to meet future transportation safety challenges. The NTSB has a dedicated and mission driven workforce. On the one hand, we

The NTSB has a dedicated and mission driven workforce. On the one hand, we have an experienced and seasoned staff. On the other hand, many of our employees have spent their careers pursuing transportation safety, and they are coming to the end of their working years. In fact, right now, roughly 20 percent of our agency is eligible to retire. In the first third of this fiscal year, the agency has seen increased rates of retirement compared to previous years. This year, we have already seen 11 staff retire. Over the next 5 years, the number of employees eligible to retire will grow to roughly 41 percent of the agency.

The goal of our reauthorization proposal is to right-size the agency over time and to ensure that our employees have the right skill set. This year, our goal is to grow by about ten percent, increasing our staffing to roughly 412 full-time equivalent positions in anticipation of further attrition of the workforce through retirements or separations, adding roughly 15 people per year through 2027 in addition to filling the vacancies that will occur. These 75 total positions do not even fill one-half of the identified needs in our agency. In fact, our staff identified the need for an additional 192 positions over the next five years.

The NTSB's work requires highly skilled employees with specific technical expertise and work experience. Once hired, we must train those employees and continue to offer a competitive salary and benefits, as well as provide ongoing training in order to retain them. To that end, over the next 18 months, we are working with the US Office of Personnel Management to develop a strategic human capital plan to address the agency's immediate and long-term employment needs based on trends in the transportation industry; support employee retention and succession planning; and identify areas in which competency gaps presently exist. Part of this plan must include efforts to increase the diversity, equity, inclusion, and accessibility of the agency workforce and facilities. Until that plan is in effect, we are requesting the authority to directly hire certain critical technical personnel and highly qualified investigators. Our success in developing a robust and resilient workforce will depend on these efforts as well as increased resources.

ENHANCING ACCOUNTABILITY AND IMPROVING PROCESSES AND PRODUCTS

When I became Chair in August of 2021, I asked our leadership team to analyze our agency's risks, where we needed to improve our processes and products, and where we could enhance our accountability. I also engaged with a wide variety of stakeholders, including our rank-and-file staff in headquarters and in the regions, to get their thoughts on where we stand as an agency, and where they think we need to go.

Numerous changes grew out of that analysis and those conversations including significant improvements to our ability to close out investigations. The timeliness of our reports had become a risk but our ability to complete investigations and issue safety recommendations is critical to improving transportation safety. Resources are important to ensure that our investigations are done thoroughly and that our independence is not compromised. However, the process by which we complete the investigation also matters. We established a process that filled open investigative and technical review positions to support the mission; triaged investigations that were ready for expedited completion through reassignment; used retired annuitants to broaden the pool of report reviewers in the short-term while creating a longer-term solution; enhanced employee performance standards; and developed quality metrics and a means to track them for all investigations.

We prioritized efforts to reduce workplace risk to our people, such as implementing a new voluntary safety reporting program and providing safety training to improve the competencies of the NTSB workforce. And, something that I am incredibly proud of, our leadership team is working to finalize a new annual agreement

with the State Department to ensure that if our staff are injured while participating in an international investigation, they can be evacuated during crisis, including medical emergencies. Across the agency, we are actively searching for and miti-gating risks. Resources provided under this reauthorization will support those efforts.

In addition, I discovered that despite a 1986 Executive Order¹ that directed federal agencies to implement a program for drug testing certain employees, no pro-gram was fully instituted at the NTSB. Although we are already taking action to address that issue, this proposal includes a provision directing the agency to implement a drug-testing program.

Likewise, safety improvements depend on our recommendation recipients being accountable for responding to and implementing our safety recommendations. Before 2003, the USCG was required to respond to NTSB safety recommendations within 90 days and to provide an annual report to Congress on the regulatory status of each recommendation on our Most Wanted List. However, when the USCG was transferred from the US Department of Transportation (DOT) to the newly established US Department of Homeland Security, it was no longer subject to these requirements. Our proposal includes a provision that would apply the same require-ments to the USCG that currently apply to the DOT under Title 49 U.S.C. 1135 for responding to NTSB safety recommendations and for providing an annual report to Congress on the regulatory status of each recommendation on the Most Wanted List. The proposal would also require the NTSB, as part of its annual report to Congress, to identify each recommendation made to the Secretary of Transportation or the Commandant of the Coast Guard that was closed in an unacceptable status in the preceding 12 months. This requirement would provide the congressional commit-tees of jurisdiction with greater visibility regarding the Secretary's or the Commandant's inaction to improve transportation safety. The proposed bill also includes improvements to our processes and would:

- · Ensure that our investigators have timely access to vehicles and data from acci-
- dents and crashes:
- · Focus our railroad investigation mandate and resources on those events for which an investigation would provide the most safety benefits;
- Better define our highway investigation authority;
- Enhance our support for families of those impacted by accidents and crashes; and
- Ensure that our reports and other written products are accessible to communities and individuals with limited English proficiency.

CONCLUSION

The proposed authorization bill, if enacted, will improve our ability to carry out our critical safety mission now and in the future; to recruit, retain, and develop a highly qualified, specialized, diverse, and inclusive workforce; to prepare the agency for investigations involving emerging transportation technologies and systems; and to meet existing needs and future challenges through data-driven decision-making and cross-office risk management.

Thank you, and I appreciate your support for the NTSB and transportation safety.

Mr. DEFAZIO. Amazing, perfectly 5 minutes.

But I do ask unanimous consent that the full testimony of the Chair be included in the record.

Without objection, so ordered.

We were having a little chat before the hearing, myself and the Chair and Representative Larsen, so, I am going to defer to Representative Larsen for the first 5 minutes.

Mr. LARSEN OF WASHINGTON. Thank you, Mr. Chair, I appreciate that

As the NTSB continues its support of the investigation in China, the China Eastern flight is an issue, obviously, of great importance, because the airplane was built in Washington State by the great women and men who work on the lines there in Renton.

¹Executive Order 12564 (https://www.archives.gov/federal-register/codification/executive-order/ 12564.html)

And so, I was hoping you could give us an update on, to the extent that you can, on the investigation, but also maybe talk a little bit about this point you made about the increasingly complex systems that you are dealing with, but an increasingly global conversation we have in aviation, and if there is anything in the budget that you think we need to think about in terms of getting your people overseas when they need to be overseas.

Ms. HOMENDY. Yes, thank you very much for the question.

On China, we are the state of design and manufacturer, so, the NTSB appointed a U.S.-accredited representative under Annex 13, and she and two technical advisors from the NTSB, as well as four technical advisors from Boeing are in China right now.

We have a great working relationship with the Civil Aviation Administration of China, or CAAC. We have a longstanding relationship with them. We have worked with them on other investigations. We have even had cross-training with them, where our investigators in the past, in 2004, have gone to China, and they have come here. And so, they have been very helpful in getting our team overseas, getting visas, and then making sure that we get a quarantine waiver. And so, that is going very well on the ground. And in the meantime, we are working on the repair and

And in the meantime, we are working on the repair and download of the CVR and FDR.

Mr. LARSEN OF WASHINGTON. Do you anticipate a timeline, how long your folks will need to be in China?

Ms. HOMENDY. We don't have a set timeline yet, but I am happy to circle back.

You did ask me about budget needs, and what we may need going forward.

Mr. LARSEN OF WASHINGTON. Yes.

Ms. HOMENDY. One thing that we did put in place here, which I think is tremendous: when I took over as Chair, I encouraged our leadership to find areas that we need to address risk for the agency. And Dana Schulze, who is behind me as our managing director, worked with our special operations senior advisor to get an agreement in place with the Department of State to make sure that, if something happens, some sort of crisis, even a medical crisis occurred, that our folks could be evacuated in case of emergency. That is something that the agency personnel has wanted in place since 2013. And now, thanks to the efforts of the Department of State, we have that in place for this investigation, and we would like to move that forward annually. It will require us to put funding aside to hold in an account. So, that is something that we will need some assistance with.

Mr. LARSEN OF WASHINGTON. Yes, and I understand it is early in the investigation, and you couldn't answer questions about speculate, and we don't want to speculate, anyway. And so, I appreciate that very much.

If you could move towards the other complexities in the airspace, with the advent of AAM, FAA maybe certifying the first eVTOL, let's say within a year, within 2 years, and as advanced air mobility gets introduced, how is the NTSB preparing itself for a world of "The Jetsons," if you will?

Ms. HOMENDY. Yes, well, the NTSB has really been ahead of others when it comes to preparing for new technologies. In fact, we have called for new technologies before they ever existed, going back to 1970, when we called for shutting down pipelines and putting in valves before those valves ever existed. And so, we have training for our personnel, of course, and we have substantial experience.

We will have to change some of our regulations. Right now, we have an unmanned aircraft system rulemaking in place, where we will change the definition of what needs to be reported to the NTSB for accident and incident response.

But as far as your question related to the complexity of investigations, it is not just the investigation itself, but it is also the review by a research and engineering team of new technologies. We have iPads, we have phones, we have new technologies in aircraft, and new technologies in vehicles and vessels that we need to make sure that we are able to evaluate. And part of that is working with new manufacturers and entities who aren't used to working with the NTSB. And they don't understand our process. So, that takes some education.

Mr. LARSEN OF WASHINGTON. Yes, thank you.

Thank you, Mr. Chair.

Mr. DEFAZIO. I thank the gentleman. Representative Garret Graves is recognized for 5 minutes.

Mr. GRAVES OF LOUISIANA. Thank you, Mr. Chairman. Mr. Chairman, I want to thank you for having a moment of silence for our colleague, Mr. Young, who contributed so much to this committee, and I just want to thank both you and Sam for your all's kind words and recognition of his service to this body and to the State of Alaska.

Chair Homendy, welcome back to the committee. Good to see you again. The last reauthorization bill for NTSB gave you all the authority to operate UAS, unmanned aircraft systems. And I understand you are using those to help with accident investigations. Are you using any drones that were manufactured in China at this point?

Ms. HOMENDY. We have seven drones right now, and they are all manufactured in China, and we have had them for some time.

However, we are now in the process of replacing many that are ending their life cycle. And so, we are in the process of purchasing five. That would be since our reauthorization. And none of those will be made in China.

Mr. GRAVES OF LOUISIANA. Great. Thank you. I appreciate that, and would appreciate you keeping us apprised of that progress as you work to replace those.

The other thing I want to ask you about is commercial space accident investigations. As you know, we introduced legislation with Chairman DeFazio and Chair Larsen and Ranking Member Sam Graves in regard to NTSB's commercial space transportation investigation authority, and I am well aware of the notice of proposed rulemaking that NTSB has issued in this space.

Clearly, you have bipartisan support from this committee for NTSB to investigate commercial space transportation accidents.

In regard to the notice of proposed rulemaking, the NPRM that was issued, a number of comments have been provided, and I think that there has been some constructive feedback. Many of them I agree with, and we are going to take some of that into consideration, because it implicates the approach that we have taken, as well, in the legislation.

I just wanted to ask, as you work through the comments, and think about how to tweak the NPRM as it moves to a finalized rule, if you would please keep us apprised as well, because we are, as I mentioned, going to continue to work on our legislative approach, and just want to give you an opportunity to perhaps respond to the NPRM, respond to any comments, and then I also anticipate you affirming that you would be willing to work with us as you all adjudicate the public comments.

Ms. HOMENDY. Yes, absolutely. And we will work with you and the committee. And I know that Mr. Babin also has some concerns. And I would be happy to work with you, as well, of course, going forward.

Mr. GRAVES OF LOUISIANA. He gave me his proxy.

[Laughter.]

Ms. HOMENDY. And thank you so much for your leadership on this issue, and for your assistance. We really appreciate it.

We are aware of the—obviously, going through the comments right now that have been filed with the notice of proposed rulemaking. We are in the process now of reaching out to the industry.

I recently visited, within the past few weeks, SpaceX out in California. I am going to travel to the other operators to talk to them. I asked the Commercial Spaceflight Federation to come in and meet with me and our technical team. We had a good discussion.

I think it is important that the NTSB sits down with the operators and talks through some of their concerns, listens to their concerns, and see where we might be able to address some of those concerns. And so, there is going to be tremendous outreach in meeting with them at their operations, at their facilities, so that I can also appreciate what they are doing, as well.

But we do have significant experience in this area and are moving forward. At the same time, I anticipate this won't go to a final rule. We will have a supplemental proposed rulemaking at some point, but we aren't rushing to do that.

At the same time, we are going to have conversations with the Federal Aviation Administration about our memorandum of understanding to see if we can update that. That dates back decades, and has not been updated. So, I reached out to the FAA, had fantastic conversations with them. I reached out to the Deputy Secretary. We also spoke about that. We will be sitting down on April 21st to begin those initial conversations, and I think that will be helpful.

Mr. GRAVES OF LOUISIANA. Thank you. In just the remaining seconds left, I just want to reiterate what the ranking member, Sam Graves, mentioned in the backlog.

Madam Chair, as you know, it is absolutely critical that the ultimate investigation reports be released as quickly as possible, so we can make whatever appropriate changes or mitigation may be needed to improve safety across all modes of transportation. So, I want to thank you for your progress, but also, please keep this on the front burner. It is a critical issue.

Ms. HOMENDY. Absolutely.

Mr. GRAVES OF LOUISIANA. I vield back.

Mr. DEFAZIO. I thank the gentleman. I would now recognize myself for 5 minutes.

Following up on that last question, is it that accidents have become particularly more complicated, or—I mean, what is the principal reason why it is taking longer to put forward these reports and address whatever needs you might have to produce them more timely, quickly?

Ms. HOMENDY. No, great question. It is a combination of complexity of the investigations, resource needs, and process that we have to get in place.

I will tell you that our managing director, she will say her religion is data. She came from the Office of Aviation Safety. She ran the Office of Aviation Safety. And she is very focused on collecting data on where this gets hung up. We learned through that it is not in the investigation phase, it is in, really, the report writing and review phase. And so, we needed to change some processes, ensure that we are scaling investigations appropriately. Not everything is a major investigation.

And then, at the same time, dedicate appropriate resources to it. Since I have been on board, we brought on some retired annuitants, people who used to work for the NTSB, strictly to go through the backlog. In addition, I will say we looked at our staffing levels. Our Office of Aviation Safety back in, I believe 2013, was at 137 people. When I took over, it was down to 108. Vacancies had not been filled for years. They were suffering from underinvestment, disinvestment. And so, we need to change that. We needed to change that across the agency, and get folks hired because they can't do more with less. And that is what they were being asked to do.

So, now we are moving that forward. The first meeting I had was with OPM to figure out how do we get people in the door, what do we need to change? And now that is all moving forward, thanks to the folks behind me. They are doing a great deal of work to get things moving again, and it is very exciting. So, with all of those improvements, I think we will be able to get through a great deal.

I will say that, at the beginning of February, our director of the Office of Aviation Safety had reported that we had 417 mainly field and limited investigations in aviation that were above 2 years. Today we are down to 213, so, we are making significant progress. And that was part of what I testified about at my confirmation hearing. It is critical.

Mr. DEFAZIO. So, those positions were authorized on a continuing basis, but they just weren't filled?

Ms. HOMENDY. They weren't filling them. And that is not just in the Office of Aviation Safety. It is across the board. I mean, it is in every single office that we would hover around high 300s, 400, and we weren't getting through the process of hiring people. I am not sure why, but now we have procedures in place. We are hiring a chief human capital officer. I have to give great credit to OPM, who walked us through how we could change some things in our processes and procedures to get people on board.

And it was really asking our staff across the board, when we put together our authorization request, "How many people do you need? What do you need for technology?" They came back with a request of 192 additional people they would need for us to flourish. This reauthorization proposal doesn't represent that. We would need \$250 million to accomplish that.

Mr. DEFAZIO. Well-

Ms. HOMENDY [interrupting]. But I will take the \$250 million, if you would like to be so generous.

Mr. DEFAZIO. Well, the committee will mull that over.

Quickly, since my time is about to expire, your so-called CAROL system, Case Analysis and Reporting Online, my understanding is that people who are particularly interested in or want to follow these investigations, that it is not very user friendly. What are you doing to address that?

Ms. HOMENDY. Great question, because we agree. It isn't user friendly. And it was unveiled, I think, too early. And what we needed to do was meet with the stakeholder community and see how it was being used, and see how we can improve it. And we are doing that now. And it is a top priority of our chief information officer. They are moving forward with changes to make sure that it is more user friendly.

We did talk about how-to videos, except in the last meeting we had, I mentioned you shouldn't need a how-to video to find our investigations. So, hopefully, we are well on our way to moving forward with improvements so everyone can find the information that they need.

Mr. DEFAZIO. Thank you. And now I would recognize Representative Crawford.

[Pause.]

Mr. DEFAZIO [to assistant]. He's on the Republican side.

Mr. CRAWFORD. Mr. Chairman, thank you—

Mr. DEFAZIO [interrupting]. Oh-are you there?

Mr. CRAWFORD. Yes, you got me?

Mr. DEFAZIO. Yes.

Mr. CRAWFORD. Thank you, Mr. Chairman.

Madam Chair, can you give me an idea of how many—

Mr. DEFAZIO [interrupting]. Yes, we can't see you for some reason. Is your camera on?

Mr. CRAWFORD. It is.

VOICE. Oh, there, we got him.

Mr. CRAWFORD. Have you got me now?

Mr. DEFAZIO. Yes, OK. Yes, yes.

Mr. CRAWFORD. OK.

Mr. DEFAZIO. Go for it.

Mr. CRAWFORD. OK. Madam Chair, thank you. Can you give me an idea of how many rail-related grade crossing accidents you investigate in the course of a year, on average?

Ms. HOMENDY. Thank you very much. We review very few railgrade crossing accidents. We certainly review the major ones, but FRA reviews a majority of the grade crossing accidents.

Mr. CRAWFORD. Is it my understanding—is this correct, that you are considering reducing that number? Is that true?

Ms. HOMENDY. Right now, under our highway mandate, there is some flexibility for our highway investigators which do the grade crossing accidents to choose which grade crossing accidents to focus on.

But in our rail mandate, it says we have to do every rail-grade crossing accident and every trespasser accident, which we are simply not able to do. Right now, our rail office has 11 investigators to do all fatalities, all serious injuries, all passenger rail accidents, plus grade crossings, plus trespasser accidents, and we are not able to accomplish that.

What we do focus on are the ones that have the biggest safety impact, and we have conducted the larger major grade crossing accidents and the major trespasser accidents. So, we do look at each one and decide which one would have the biggest safety benefit.

Mr. CRAWFORD. So, basically, as has been addressed earlier, you have got a manpower problem. And is that the biggest impediment, or is there a calculation that is given with regard to the value of the investigation?

Does it add to safety by conducting an additional investigation, or is it mostly attributed to a lack of manpower?

Ms. HOMENDY. Well, we do have to make sure that we have the manpower, but we do ask ourselves four questions in determining whether to investigate: first, is there national interest; second, is there an emerging issue, or one that is repeated that we see that we would want to investigate this accident; can we make a difference is the third question; and fourth, do we have the resources?

Mr. CRAWFORD. Can you just kind of walk me through what the protocol is for investigating with regard to FRA and Amtrak, and working with those organizations?

Ms. HOMENDY. Sure. The Federal Railroad Administration is always a party to our investigations, which means they are part of our fact-finding in the investigations, as well as Amtrak, when there is an Amtrak investigation. So, there is close coordination in the fact-finding portion of the investigation so that, if there is a safety deficiency, they can address that immediately.

Mr. CRAWFORD. Does the NTSB investigate freight rail accidents differently than Amtrak?

Ms. HOMENDY. Our legislation requires, when there is a fatality or serious injury, and then we have to do all passenger rail accidents.

Mr. CRAWFORD. OK. Thank you, Mr. Chairman. I will yield the balance of my time.

Mr. DEFAZIO. I thank the gentleman.

Eleanor Holmes Norton, chair of the surface transportation subcommittee, is recognized for 5 minutes.

Ms. NORTON. Thank you, Mr. Chairman.

Chair Homendy, I have a special interest in this hearing, because in October, the 7000 series Metro car on the Blue Line derailed. I know that the NTSB has done inspections of the entire fleet, and found that at least 20 cars were defective. WMATA has suspended use of all the 7000 series cars. But that, of course, has resulted in scaled-back service.

I would be very interested in anything you could tell me about the status of the NTSB's investigation of this critical issue.

Ms. HOMENDY. Thank you for the question, Congresswoman. And we did speak right after that accident, or the derailments, occurred. And I really appreciate your leadership on this issue and, of course, on all safety issues.

Right now, WMATA has contracted with the Transportation Technology Center in Pueblo, Colorado, to do failure analysis of the wheel assembly. And I am aware of the actions with respect to WMATA on pulling cars out of service. That is something they are working on with the safety commission, not with the NTSB. We are aware of movement of that, but we are really focused on the investigation right now, on the failure analysis of the wheel assembly, and actions that were or were not taken by WMATA during increasing failures of these wheel assemblies.

So, we will continue to communicate with you, and coordinate with you as the investigation goes forward.

Ms. NORTON. I would very much appreciate that.

In February, I co-led a letter to Secretary Buttigieg urging the Department of Transportation to require all highway traffic safety seats to utilize up-to-date male and female crash test dummy technology.

You are aware that currently the vehicle safety tests only utilize male crash dummies in the driver's seats and passenger seats. And that is despite the fact that women's and men's bodies are affected differently. And there are real consequences here: we see that women are 17 percent more likely to die and 73 percent more likely to be seriously injured in a vehicle crash than men.

What would be your opinion of recommending that NHTSA require all safety tests to utilize the most up-to-date female crash test dummy technology?

Ms. HOMENDY. Thank you for the question, Congresswoman. This is especially important, as we see increases in fatalities and injuries on our roads right now, with nearly 40,000 people dying annually.

The NTSB doesn't have a recommendation in this area, but you asked for my opinion. And my opinion is that we should address that. We should have a crash test—in crash testing, NHTSA should use not just male, but female dummies when they are doing crash testing.

Ms. NORTON. Why wouldn't the NTSB have a recommendation in this area?

Ms. HOMENDY. I am sorry?

Ms. NORTON. Why wouldn't the NTSB have a recommendation in this area?

Ms. HOMENDY. Our recommendations are normally geared toward preventing an accident or incident from occurring. And it is not something that has come up in a specific accident or incident, but it is something that is on our radar, and something that we are looking at.

looking at. Ms. NORTON. I certainly hope you would look at it and make your views known.

In your testimony you noted that, to satisfy current staffing needs, the NTSB will need to hire nearly 200 employees over the next 5 years. In that time, the number of retirement-eligible employees at the agency will grow to roughly 41 percent. Could you elaborate on the NTSB's strategy to recruit and train a diverse workforce to fulfill these growing needs? Ms. HOMENDY. Yes, and thank you for that-

Mr. DEFAZIO [interrupting]. The gentlelady's time has expired, but briefly answer, please.

Ms. HOMENDY. Yes, thank you for that question. We do have a strategic human capital plan that we are beginning, a workforce development plan, a gap analysis. And we do have a strategic plan to recruit, retain, and hire a diverse and inclusive workforce that we are now implementing.

Mr. DEFAZIO. OK, thank you.

Representative Babin?

Dr. BABIN. Yes, sir. Mr. Chairman, thank you very much.

And Chairwoman Homendy, thank you for being here. In addition to having the pleasure of serving on this esteemed committee, I also serve as the ranking member of the Science, Space, and Technology Committee's Space and Aeronautics Subcommittee, and represent the Johnson Space Center, home to NASA's human exploration efforts. This gives me a unique vantage point to assess critical issues across the entire aerospace horizon.

One issue that has garnered a bit of attention is NTSB's recent notice of proposed rulemaking for commercial space accident investigations. Chairwoman Homendy, as you might recall, I wrote you a letter, along with our Ranking Member Lucas, to NTSB last November asking for additional information and documents related to this NPRM. And while we received a good response in December, which I thank you for, we unfortunately were not provided with any of the requested records.

As an ardent advocate for safety in all domains, the current NPRM raises some concerns and questions that I think should be addressed. First and foremost is how the NPRM could potentially impact NTSB's ability to carry out its existing statutory responsibilities. I worry that the NTSB is already spread thin, and that expanded authority could undercut the good work that you perform daily—and we have seen, with just the last several questioners today, that there is a manpower issue—and that I am also concerned about whether the expertise is really there at NTSB to appropriately carry out this very highly specialized area.

So, with that, I would like to ask for unanimous consent to add my original letter to the NTSB. Thank you so much.

Mr. DEFAZIO. Without objection.

Dr. BABIN. Yes, sir.

[The information follows:]

Letter of November 18, 2021, from Hon. Frank D. Lucas, Ranking Member, Committee on Science, Space, and Technology, and Hon. Brian Babin, Ranking Member, Subcommittee on Space and Aeronautics, to Hon. Jennifer Homendy, Chair, National Transportation Safety Board, Submitted for the Record by Hon. Brian Babin

> Congress of the United States, House of Representatives, Committee on Science, Space, and Technology, 2321 Rayburn House Office Building, Washington, DC 20515–6301, November 18, 2021.

The Honorable JENNIFER L. HOMENDY,

Chair,

National Transportation Safety Board, 490 L'Enfant Plaza, SW, Washington, DC 20594.

DEAR MS. HOMENDY:

We write you to seek information regarding the National Transportation Safety Board's (NTSB) recent Notice of Proposed Rule Making (NPRM) on Commercial Space Investigations.¹ NTSB's attempts to expand its authority would alter the long-standing commercial space accident investigation process and significantly impact the commercial space launch industry, U.S. economic competitiveness, scientific discovery, space exploration, international cooperation, national security, and safety. The expansion of authorities, alteration of processes and policies, and the codification of procedures require appropriate oversight, coordination, review, deliberation, and approval.

The House Committee on Science, Space, and Technology is committed to ensuring the continued growth and safety of the commercial space industry. Our Committee has a long history of legislation related to, and oversight of, space activities. Additionally, we have jurisdiction over "[o]uter space, including exploration and *control thereof*" (emphasis added).² The Committee was established in response to the Soviet launch of Sputnik, and wrote not only the Space Act which established the National Aeronautics and Space Administration (NASA), but also the Commercial Space Launch Act that established commercial launch activities. Commercial space activities fall firmly within our jurisdiction, and our Space and Aeronautics Subcommittee has broad oversight over the following:

"All matters relating to astronautical and aeronautical research and development; *national space policy*, including access to space; suborbital access and applications; National Aeronautics and Space Administration and its contractor and government-operated labs; *space commercialization*, including commercial space activities relating to the Department of Transportation and the Department of Commerce; exploration and *use of outer space*; *international space cooperation; the National Space Council; space applications*, space communications and related matters; Earth remote sensing policy; civil aviation research, development, and demonstration; research, development, and demonstration programs of the Federal Aviation Administration; *space law*; other appropriate matters as referred by the Chair; and relevant oversight" (emphasis added).³

So that we can better understand NTSB's attempts to expand its authorities and evaluate the impact this might have on the success and safety of U.S. commercial space activities, we are requesting the following information:

- 1) All documents and communications (as defined by attachment A) related to the development, drafting, and publishing of NTSB's NPRM titled "Commercial Space Investigations" in the Federal Register on Tuesday, November 16, 2021.
- 2) All documents and communications related to the memorandum titled "SUB-JECT: THE NATIONAL TRANSPORTATION SAFETY BOARD'S AUTHOR-ITY TO INVESTIGATE COMMERCIAL SPACE LAUNCH ACCIDENTS" dated July 1, 2015.

 $^{^1\,}https://www.federalregister.gov/documents/2021/11/16/2021-24766/commercial-space-investigations$

tigations ² Rules of the House of Representatives, One Hundred Seventeenth Congress, February 2, 2021; Rule X(1)(p). https://rules.house.gov/sites/democrats.rules.house.gov/files/117-House-Rules-Clerk.pdf

³Rules of the Committee on Science, Space, and Technology, U.S. House of Representatives, One Hundred Seventeenth Congress. Rule VI(b)(4). https://science.house.gov/imo/media/doc/ 117th%20Rules%20Final2.pdf

Please provide two copies of all documents and communications (one for the Majority and one for the Minority) by December 3, 2022. Please contact Mr. Tom Hammond of the Committee minority staff with any questions related to this inquiry.

Thank you for your consideration of this matter. We are sure we share the same goals of ensuring safety and U.S. economic competitiveness and leadership in space. As the Board considers future actions related space investigations, please avail yourselves to the Committee and its staff. This would ensure that procedural measures such as the Congressional Review Act are not necessary.

Sincerely, FRANK LUCAS,

Ranking Member.

BRIAN BABIN, Ranking Member, Space and Aeronautics Subcommittee.

Dr. BABIN. In addition to responding to the initial letter and document request, I would also like to ask you a few more questions, if I may. If you could keep your answers very, very short, I would appreciate it. If you can't answer them now, it is not a problem. But I would appreciate your response for the record.

Number one, how many staff have the NTSB assigned to exclusively specialize in space accidents?

Number two, could you please explain the NTSB's request to investigate not just accidents, but also incidents and anomalies that happen routinely, almost every single launch that we have?

Number three, was the NTSB able to coordinate with the NPRM, and with the Department of Defense, and also the IC, the intelligence community?

And four, and finally, what is the status of negotiating the existing MOU with the FAA on commercial accidents?

If you could get those to me, or if you could answer some of them right now—we have a couple of minutes left—I would appreciate that.

Ms. HOMENDY. Sure. With the status of the MOU, as I mentioned, our first meeting with FAA and with the Office of the Secretary will be on April 21st. We have been trying to get the FAA to sit down and talk about our updating our MOU since 2014. I am pleased that we are now going to have that opportunity to sit down and discuss it, and look forward to working together on safety, as we do in other modes of—or in aviation, as well.

With respect to assets and our ability to conduct investigations, our investigators are not—they aren't walled off by "this person is space," "this person is UAS," "this person is aviation"; they have particular expertise. We will have aerospace engineers, we have human performance experts. We have survival factors experts, operations experts.

And so, in total, once we get full staffing in our Office of Aviation Safety, we will have 132 people in our Office of Aviation Safety.

Dr. BABIN. But what about the number for space, essentially specializing in space accidents?

Ms. HOMENDY. As I—we do have a leader, who is our chief technical officer for space and aerospace technology, and he has incredible expertise. Right now he runs our Office of Major Investigations, and has been involved in commercial space and what the NTSB has done on commercial space for decades. We have conducted a number of investigations involving commercial space since 1993. But with respect to our resources, they are not walled off by industry. They are in particular areas of expertise. So, they will do commercial space, and they will do aviation. They just do them differently.

Dr. BABIN. Well, we certainly would appreciate if you could get those documents to us and those records that we asked for in the letter, as well as if we could get written answers from you to these four questions that I just asked. I certainly would appreciate it, because I am out of time.

Ms. HOMENDY. Absolutely, absolutely, sir.

Dr. BABIN. Thank you.

Ms. HOMENDY. Thank you.

Dr. BABIN. Mr. Chairman, I yield back.

Ms. DAVIDS OF KANSAS [presiding]. Thank you, the gentleman yields back. The Chair now recognizes Congresswoman Napolitano for 5 minutes.

Mrs. NAPOLITANO. Thank you very much, Madam Chair.

Chair Homendy, thank you again for visiting California a few weeks ago. It was nice seeing you again at the hearing on Coast Guard safety.

But as cochair of the Mental Health Caucus, I am very concerned about the mental health trauma endured by the victims and their families, and the mental well-being of the NTSB personnel that are constantly dealing with tragedies. Your proposal discusses improved delivery of family assistance, but can you discuss in which NTSB—how they address mental health trauma the victims and their families go through?

And can you discuss what services and training is provided to all NTSB personnel to deal with their own mental health stress related to the work?

And how can we assist in these challenges?

Ms. HOMENDY. Thank you very, very much, Congresswoman. It was great to see you in California, and I appreciate your leadership on this issue.

We have a family assistance team that is incredibly experienced, that deploys to all our major accidents and certain others that fall under our legislation. And in addition, we provide training for our personnel that is in the field on how to deal with families, as well. But that is really the focus of our family assistance team, which has the particular expertise.

With respect to—I did want to provide—certainly, going to accidents and incidents for our personnel has an impact on their mental health, as well. That is important for the agency. We do provide an employee assistance program and encourage folks to utilize that program. We have had, for example, service animals, compassionate animals for care for mental health purposes at our accident scenes, and have had personnel counselors from our EAP program on our more major investigations.

Mrs. NAPOLITANO. But do you have any contact with the Department of Health and Human Services to provide any mental health training to all the NTSB personnel?

Ms. HOMENDY. We have our own contracts for providing employee assistance and mental health services for our personnel, should they choose to utilize that program. And then we have training for those in the field for dealing with the families of victims and survivors following a tragedy.

Mrs. NAPOLITANO. My concern is that some of the employees may be able to spot stress and be able to recommend health services.

Anyway, Ms. Homendy, are there limitations on NTSB investigating accidents that happen on private property, such as rail yards, private intermodal facilities, private airports? And do you have any concerns about being able to fully investigate and receive reporting data regarding the accidents on private property? And what can we do to assist in this?

Ms. HOMENDY. I am sorry, Congresswoman. I had a little trouble hearing.

Mrs. NAPOLITANO. On NTSB investigating accidents on private property.

Ms. HOMENDY. If you don't mind, Congresswoman, I would like to get back to you on that for the record, and make sure that I get the best information to you on that question.

Mrs. NAPOLITANO. Thank you very much, because I hear from some of the employees of the railroad that they have accidents on private property that they don't report that we are not aware of. And I would like to know if that might happen in the intermodal facilities and private airports.

Ms. HOMENDY. For accident investigations, whether it is on public or private property, the ones that are reported to the National Response Center for railroads, for example, would get reported to the NTSB. And based on our legislative mandate, we would deploy resources to conduct those investigations.

Mrs. NAPOLITANO. But would you be able to tell whether they are on private property or not?

Ms. HOMENDY. If you don't mind, Congresswoman, I would like to get back to you on that answer.

Mrs. NAPOLITANO. Thank you very much, and it is nice to see you again.

I yield back.

Ms. HOMENDY. It is great to see you again, too. Thank you.

Ms. DAVIDS OF KANSAS. The gentlewoman yields back. The Chair now recognizes Congressman Davis for 5 minutes.

Mr. RODNEY DAVIS OF ILLINOIS. Hello, Madam Chair. We meet again. I even got a phonetic pronunciation of your name, although I don't need it. I wanted to be able to question you for, now, many months, and really, really hit you with the hardest hitting questions I possibly can. But you know what? Today I've got to say thank you. We have been friends for a while, spent a lot of time together traveling to seven countries in 8 days. We learned a lot. And I learned a lot about you. And the person you are is somebody that I consider a friend.

And I want to say thank you for what you did personally when we had a pipeline spill in Edwardsville, Illinois. You texted me to make sure I knew that the NTSB was on the ground, your team was on the ground. Your updates were phenomenal. You put together relevant stakeholders with elected officials. I have heard from Mayor Art Risavy of Edwardsville that his chief concern moving forward, though, is determining the cause of that failure so it doesn't happen again. But I want to say publicly, thank you. And I am not usually this nice to witnesses in this committee room, but you deserve it, and your team deserves it, very much so. But the next time, Madam Chair, you know we are going to have a little more fun, a little more back and forth.

But if you want to, let the committee know what your team did there in Edwardsville.

And also, is there anything that we can do to assist in your investigation?

Ms. HOMENDY. Well, thank you so much for, certainly, for those kind words. Having worked on that side for 14 years, it is much different on this side, I can say.

For Edwardsville, I do have to not only thank the NTSB team, but also the Marathon Pipe Line team. Shawn Lyon reached out to me early. We have had numerous conversations. He is a leader when it comes to pipeline safety and, in fact, invited us to share some information regarding that investigation at their info share with the pipeline industry yesterday. Those are usually closed, more confidential conversations. We were able to talk about some of our concerns regarding soil movement, and geological changes, and that impact on pipelines, and how the industry needs to look at that in their integrity management and safety management systems.

So, good working relationship, really pleased with that, and we are going to continue to have discussions and see how I can be helpful to him in their operation, as well.

Mr. RODNEY DAVIS OF ILLINOIS. Did he or anybody on your team give you any indication of when the investigation of that particular Edwardsville pipeline burst might be completed?

Ms. HOMENDY. I have received indication that it would be next year.

Mr. RODNEY DAVIS OF ILLINOIS. Next year? OK, well, I-

Ms. HOMENDY [interrupting]. But we do have a preliminary report, which we will make sure to get to your office, and we will continue to update your office as that moves forward.

Mr. RODNEY DAVIS OF ILLINOIS. Well, I appreciate that. And again, hats off to you and your team and all involved. I appreciate the job that each of you are doing. I appreciate the job you are doing.

Ms. HOMENDY. Thank you.

Mr. RODNEY DAVIS OF ILLINOIS. And it is great, again, to call you a friend, and great to call you Madam Chair, and I look forward to continuing to work with you.

And lastly, I will just say bravo, and I yield back.

Ms. HOMENDY. Thank you.

Ms. DAVIDS OF KANSAS. The gentleman yields back. The Chair now recognizes Congressman Cohen for 5 minutes.

Mr. COHEN. [Audio malfunction] ... Madam Chair, and I thank the chairman and the ranking member for holding this hearing, and for our esteemed witness, Chair Homendy.

Tennessee—all of the country, but Tennessee as well—had a great number of motor vehicle crashes and deaths over the years. It increased, increased, and during COVID it was worse than ever.

Tennessee had a 7-percent increase in traffic deaths, 1,217 people lost their lives on the road. Bad times.

The National Transportation Safety Board—one time Jim Hall of Tennessee chaired, I think—a critical role to play in preventing these crashes. I have championed this Complete Streets Act, and with Ed Markey in the Senate, and it was—provide safe and accessible options for multiple travel modes, including people walking, people bicycling, and other modes of transportation. And parts of it were in the bipartisan infrastructure bill, but that didn't make it. Our part didn't make it, because it was in the House bill and we took the Senate bill, which was satisfactory but not pleasing.

What is your attitude about the Complete Streets Act and its effect on traffic safety for pedestrians and bicyclists and all the different modes of—skateboarding and whatever else they do now?

Ms. HOMENDY. Thank you for the question, and I share your concerns about the increase in crashes and traffic deaths on our roads, particularly with respect to pedestrians and bicyclists, which are now at an astounding more than 7,000 nationally, annually. And it is only increasing.

How we build our roads right now is for efficiency and not for safety, and that has to be the priority.

The NTSB does not have a recommendation focused on Complete Streets. However, we have issued reports on pedestrian safety, bicycle safety, and motorcyclist safety, which really talks about refocusing and incorporating the needs of all road users in design and planning and infrastructure investment.

Mr. COHEN. Is that the Safe System approach?

Ms. HOMENDY. That is correct. We do endorse the Safe System approach. It is on our Most Wanted List of transportation safety improvements.

Mr. COHEN. But you don't have a discouraging word—or whatever they say in that song of the West—about Complete Streets.

Ms. HOMENDY. We don't have a specific recommendation on Complete Streets itself. However, we strongly support the Safe System approach for eliminating fatalities and serious injuries on our roads.

Mr. COHEN. We always talk about bicycles and safety and all, and that is important. But we have also got these little—

[Audio malfunction.]

Ms. HOMENDY. Micromobility?

Mr. COHEN. Yes, whatever they rent and go around on scooters. Has there been—Bird, or whatever they are called, and a couple of other companies—has there been a large increase in accidents and deaths because of those being around?

Ms. HOMENDY. Congressman, I am sorry. I am going to have to get back to you on the record on fatalities and injuries with respect to scooters, and specifically micromobility. But we will circle back on that. There have been increases in pedestrians and bicyclists, for sure.

Mr. COHEN. Thank you. Do you have any involvement with the FAA on dealing with the 90-second rule of getting people off of airplanes in emergencies?

Ms. HOMENDY. We do have some recommendations on getting people off aircraft in emergencies, including making sure that that occurs promptly. And I am happy to provide those recommendations for the record, as well.

Mr. COHEN. I would love that. We had—2018 I got in our transportation bill—it might have been the FAA reauthorization—a study of seat size and pitch, to see if the continued shrinking of seats and pitch made it less likely that they could evacuate a plane in the 90 seconds that is required by law. They were required to do a study.

Mr. Dickson, on his last day before he absconded from Washington, released the study, which had—nobody in the study they tested—they said, oh, they could get people off in 90 seconds. There was nobody in the study over 60 years of age, nobody with a disability, nobody with a child, nobody pregnant, no pets, nothing like that at all. So, it wasn't representative of the flying public.

Are you familiar with the completely absurd sample that they chose to conduct this, and why it took them $3\frac{1}{2}$ years to do it?

Ms. HOMENDY. Sir, I am not familiar with that study, but it is something I am pleased to look at, and to also look at our recommendations to see if we have recommendations that would address that. I don't believe we do, but I will circle back with you on that.

Mr. COHEN. Thank you, I appreciate it so much. You have got such a great reputation [inaudible] job, and the FAA totally bungled this, and I don't know if it was because they didn't want to get the answers, but you need to have a representative of the flying public to get a proper test.

And with that, I would yield back the balance of my time, and thank you for your continuing work that Jim Hall [inaudible].

Ms. HOMENDY. Well, if I can add, sir, Jim Hall still calls me about transportation safety. So, he is sort of an adjunct part of the NTSB still.

Mr. COHEN. Good. I have [inaudible] for over 40, 50 years. Great people. Thank you.

Ms. HOMENDY. Thank you.

Ms. DAVIDS OF KANSAS. The gentleman yields back. The Chair now recognizes Mr. Weber for 5 minutes.

Mr. WEBER OF TEXAS. And just as you say that the bell starts ringing. Thank you, Madam Chair, and I appreciate that.

And so, for Chair Homendy, I guess my question is the NTSB and I have been on and offline for different reasons today, so, if this is redundant, forgive me. Why does the NTSB require direct hire authority to hire accident investigators and engineers?

Ms. HOMENDY. Well, right now, our process for onboarding personnel can take up to 12 months. In the past, it has taken up to 2 years. And so, we would like the ability, because we have a highly skilled workforce like other agencies such as the National Aeronautics and Space Administration, to direct hire. And we would like that direct hire for 3 years, while we pull together information that is required for the Office of Personnel Management so that we can apply for direct hire authority directly to them.

The authority we are requesting would sunset after 3 years, and I believe that has been provided to other agencies, as well. So, there is a model for that. Mr. WEBER OF TEXAS. Sure, OK. You said earlier on in your comments—and I didn't get to hear all of them, I think—that when you came on board, the agency was down maybe 20 or 30 employees. Does that sound about right?

Ms. HOMENDY. That was just in the Office of Aviation Safety. The agency had the ability to hire up to 454, and still has that, and we were down in the 300s when I took over.

Mr. WEBER OF TEXAS. So, in aviation safety-

Ms. HOMENDY [interrupting]. And today we are at 404, and we have 13 in the process that have accepted positions and are awaiting or have chosen hiring dates, and we have 21 already in the process of hiring right now, in addition to that.

Mr. WEBER OF TEXAS. Thanks. So, in the Office of Aviation Safety, speculations or—do you know why, or why do you suspect that that office was so low? Why the attrition, turnover? Call it whatever you want. Why was that particular office so low, any ideas?

Ms. HOMENDY. Well, first of all, I will say that most NTSB employees, if you find one that has worked there for less than 20 years, it would be a miracle. We have people who stay on for decades and, therefore, we have a pretty high retirement rate. Right now, 41 percent of our personnel will be retirement eligible within the next 5 years, and that is pretty significant.

So, we are going through a workforce development and planning process right now to ensure succession planning. And I do want to give credit to that to Ms. Dolline Hatchett, who is behind me, who is our principal deputy managing director, for really taking that on, finding efficiencies in our hiring process, and moving that forward so we can get personnel on board.

Mr. WEBER OF TEXAS. Are they area-specific, those investigators—west coast, east coast, north, south part of the United States? How do they get allotted to an accident investigation?

Ms. HOMENDY. Right now, we have four regional offices. We have one in Ashburn, Virginia; one in Denver, Colorado; Seattle, Washington; and Anchorage, Alaska. We also have personnel across the United States that are focused on various aspects, whether it is aviation or in our rail office or in our highway office or in marine, and so that we are able to deploy personnel very quickly.

And so, for our hiring needs, it is really across the board, some at our headquarters and some in the field.

Mr. WEBER OF TEXAS. OK, that is good to know. OK. Well, we appreciate the job you all do. I know it has to be difficult, heartwrenching, even heartbreaking at many of these accident scenes. So, we appreciate that.

And Madam Chairman, I am going to yield back.

Ms. DAVIDS OF KANSAS. Thank you. Thank you, the gentleman yields back. And just checking—Mr. Johnson, I think, might have dropped off the Zoom. OK, it looks like he did.

The Chair will now recognize Mr. Payne, the chairman of the Railroads, Pipelines, and Hazardous Materials Subcommittee, for 5 minutes.

Mr. PAYNE. Thank you, Madam Chair.

Chair Homendy, it is good to see you. And as chairman of the Subcommittee on Railroads, Pipelines, and Hazardous Materials, I have a keen interest in ensuring the timely delivery of the NTSB reports on incident investigations. And with your expertise as the former staff director of this subcommittee, I think you would agree with that statement. There should not be more than a 2-year period between rail incidents and the NTSB reports. So, I stand ready to work with the NTSB to help you speed up the report process.

What lessons have you learned since becoming NTSB Chair about the delay in the rail reports, and how can Congress help make this process more efficient?

Ms. HOMENDY. Well, the process is—thank you so much for the question, sir. The processes to improving our ability to get out reports—which needs to be done, safety can't be improved until those reports are out—although I will say parties to our investigation are aware of information well in advance of issuance of the reports. From day one, they are part of the investigation. They get the facts so they can take immediate action.

With that said, the public needs to know and be aware of our findings, a probable cause, and our recommendations, and take action. And so, it is a combination of process improvements internal to the NTSB, which we are all very focused on right now. The entire agency is. And resources, we need additional resources.

In rail, we have 11 investigators in rail. In pipelines and hazmat, we have six. And so, we need additional resources. And I will point out that our—again, that our fiscal year 2022 number is \$121.4 million. Our request for fiscal year 2023, which begins our authorization of appropriations request, is \$129.3 million. That entire increase is taken up by a 4.6-percent pay raise and benefits.

And so, we need the ability to expand beyond that, to grow, to fill our gaps right now. And that is what we are doing with a hiring surge. But we do also need to put the process improvements in place, which our team is very focused on.

Mr. PAYNE. So, you would say that you are woefully understaffed in these areas. Is that fair to say?

Ms. HOMENDY. Our team is top notch. They do a lot with a little, and they work around the clock. But it does have an impact. And they will do what they need to do, and continue to do it because they are very mission-focused. That is the reason why they stay so long. But they also need us to invest in them. Otherwise, they get burnt out and they leave.

Mr. PAYNE. Right.

Ms. HOMENDY. They need our support, and that is why we are here requesting that. So, yes, we need your help.

Mr. PAYNE. OK. As a part of the NTSB authorization proposal, I am pleased to see an emphasis on recruiting a diverse workforce from underserved communities. I am in strong support of this proposal, and believe that tomorrow's workforce will be comprised of the brightest minds, no matter their zip code.

Can you elaborate more on the NTSB's proposed actions to reach underserved communities, and how [inaudible] recruit from them?

Ms. HOMENDY. Yes, thank you, Mr. Chairman. First and foremost, we have two strategic plans that we have implemented in compliance with the Executive orders that were issued to increase diversity, equity, accessibility, and inclusion in the workforce. We are hiring a chief human capital officer. We are implementing recruitment plans. We are identifying and deploying strategies to hire and retain a diverse and inclusive workforce. We are promoting paid internships. We are improving leadership and development to ensure that our hiring managers are prepared and best trained to know how to attract and retain a diverse workforce. And we are also looking at accessibility.

But beyond internal, we are looking external. We are looking out at communities that we don't normally work with to outreach and focus with our safety advocacy work so other communities that we have not traditionally worked with can hear about the safety issues that we are most concerned about, and work with them to hear the issues they are also most concerned about.

In addition to that, we have to work on offering our products in other languages. Thank you.

Mr. PAYNE. OK.

Ms. DAVIDS OF KANSAS. Thank you, the-----

Mr. PAYNE [interrupting]. And I would suggest, if it hasn't been—but it might have already been thought of—our veterans [in-audible]——

Ms. DAVIDS OF KANSAS [interrupting]. The gentleman's time has expired.

Mr. PAYNE [continuing]. Might be a good pool to look at.

Thank you, I yield back.

Ms. DAVIDS OF KANSAS. Thank you. The gentleman yields back. The Chair now recognizes Mr. LaMalfa for 5 minutes.

Mr. LAMALFA. Thank you, Madam Chair, and good to see you, Chair Homendy, thank you.

Ms. HOMENDY. Good to see you, too.

Mr. LAMALFA. Thanks for appearing with us here today. And I was just hearing about DEI a second ago. Wasn't that being applied to crash test dummies in a conversation a little bit ago, or not?

Ms. HOMENDY. I am sorry?

Mr. LAMALFA. I thought I heard DEI being applied to crash test dummies here a few minutes ago. Is that true?

[Pause].

Mr. LAMALFA. You don't have to touch that one. Forget that one. Ms. HOMENDY. Thank you.

Mr. LAMALFA. Oh, you never know what you are going to hear.

So, let me ask—before my other questions—what is the overlap in responsibility on airlines with NTSB and FAA, as far as passenger comfort, passenger handling, or even rowdy passengers like we are hearing these days?

And does that enter even into the conversation on mask mandates and all these things that are causing irritability with passengers these days?

Ms. HOMENDY. Yes, thank you for that question. We are only involved in accidents and incidents—

Mr. LAMALFA [interposing]. Right.

Ms. HOMENDY [continuing]. And evaluating those. We are not involved with airline operations, or the work of the FAA regarding those issues, unless for some reason they come up in an accident or incident investigation. Mr. LAMALFA. Yes, OK. I thought that would be good on the record for people to understand what the clear roles are.

Briefly talking about the budget situation here—and this is something I've got to ask, since we are stewards of the taxpayers so, we are looking at—you mentioned current year, \$124 million?

Ms. HOMENDY. The current year is \$121.4 million.

Mr. LAMALFA. \$121 million, OK. And so, we are looking at—in the proposal here is \$129 million in 2023; \$145 million in 2024; \$155 million in fiscal year 2025; \$165 million in 2026; \$175 million in 2027. So, that is a jump, if my numbers are halfway right, between 2023 through 2027, of about 35 percent. Is that commensurate with other funding increases you are seeing in other agencies or other priorities for the Federal Government?

Ms. HOMENDY. We have actually gotten more over the years. We have had much lower increases over the years and, in fact, we have the same level of full-time equivalent personnel as we had in 1998. We have had increases in our funding, of course, but most—70 percent—of our budget goes towards pay and benefits. And so, we need additional investment, not just in our workforce, but also IT investments.

We had a mandate in the last reauthorization bill to develop a multimodal database for accidents and incidents, something that is critical. But it was unfunded. And so, we did finance that, and we moved it forward. But we need additional funding to improve it and then maintain it. We are going to have to plan for cybersecurity and other contingencies over the next several years.

Mr. LAMALFA. Will you see enough for this equipment side of it, not just personnel? Is that going to reflect being able to upgrade your equipment and technology, then?

Ms. HOMENDY. This reauthorization proposal is modest. It is not everything we need. In order to get everything we need that was submitted as part of the reauthorization effort to the Office of the Chair and the Managing Director, it would require an investment of about \$250 million, annually. So, this is modest. It is what we thought would be reasonable that we can move forward with.

Mr. LAMALFA. OK, I appreciate that. Let me shift gears to private aircraft and some of the issues there.

Of course, I have a very large rural district, a decent amount of private aircraft, as well as crop dusters and like that. Would you talk about any recommendations you might have, your agency would be looking at on rural aircraft usage, whether it is something more business-like, like crop dusting, or general purpose, private aviation, private aircraft? What do you see as needing to be improved, or a focus for you?

Ms. HOMENDY. Well, there are definitely improvements in general aviation with respect to safety and accident rates over the last several years. We are a little over 1,000 annually in general aviation accidents, but then it has gone down, which is significant, in a large part not just from the community, but our focus on safety and improving safety for general aviation.

I would have to—if you don't mind, I would like to get back to you with some of our specific recommendations in rural areas with aircraft and crop dusters. And I am happy to do that for the record. Mr. LAMALFA. OK, thank you. That is really important in my area.

So, how is it, when you have investigations that involve the State as well as NTSB, what kind of cooperation are you getting with States? Is it difficult? I kind of get the impression you have difficulty sometimes with States and cooperation and sharing of info, et cetera.

Ms. HOMENDY. Our biggest difficulties occur in highway safety, especially where we don't have an established relationship. We try to establish those relationships in advance, by either the Board members or office staff going out and developing those relationships with law enforcement. That is critical, but it can be an issue on the ground.

Our legislative proposal, or our mandate right now, states that when we conduct a highway investigation, it has to be in cooperation with the State. In the past, some States, like New York, have taken that to mean—they have argued that we can't pursue our safety investigation until they are through their criminal investigation, which is not accurate, and not in accordance with our mandate.

Now, fortunately, the courts have ruled against that position, and in our favor, which has been helpful. But we are asking for some clarification in our reauthorization proposal so that we can move forward and clear up any sort of issues.

But we do try to work very closely with the States and with law enforcement.

Mr. LAMALFA. Yes, it would seem—

Mrs. NAPOLITANO [presiding]. The gentleman's time has expired. Mr. LAMALFA [continuing]. [Inaudible] assume they would already have the relationships, but—

Mrs. NAPOLITANO [interrupting]. The gentleman's time has expired.

Mr. LAMALFA. Thank you.

Mrs. NAPOLITANO. Mr. Carbajal, the Coast Guard and Maritime Transportation Subcommittee chair, you are recognized for 5 minutes.

Mr. CARBAJAL. Thank you, Madam Chair.

Chair Homendy, it is a pleasure to see you again. I personally want to thank you for coming to Santa Barbara last month to review the Coast Guard's effort to improve small passenger vessel safety in response to a number of deadly boat incidents, including the tragic *Conception* boat fire in my district.

I know the NTSB, the National Transportation Safety Board, has an important role in investigating incidents and issuing recommendations so similar catastrophes do not occur in the future. Having seen firsthand how these recommendations can guide Congress in ensuring the safety of the American people when traveling in different modes of transportation, I understand the importance of the NTSB.

As we look towards reauthorizing the NTSB, can you discuss the types of resources you need from Congress to support your mission in maybe a little bit more detail than you have done already?

Ms. HOMENDY. Thank you, Mr. Chairman, and thank you for holding that hearing and for your work, really, bipartisan effort over the past few weeks, to move the Don Young Coast Guard Authorization Act. We really appreciate the bipartisan effort to move that as you implemented or mandated a number of NTSB recommendations, including longstanding recommendations regarding the duck boats, which goes back to 1999 with a terrible tragedy. And so, we really appreciate your work supporting the NTSB.

Essentially, the NTSB, we have some policy improvements that we would like to make. Some of our reauthorization proposal can be self-implementing, but we are transparent and want you to know where we are headed. However, we need resources. We need additional resources with equipment. We need additional resources in terms of personnel. And we really appreciate your support over the years.

Our workforce is truly incredible. I am always impressed with the work that they do with very little, with very little. And so, as investigations become even more complex, your support, in terms of resources, would be really appreciated.

Mr. CARBAJAL. Thank you, Chair Homendy. Another issue that I am interested in hearing from you is in regard to rail quiet zones, or the impact that they have had, or not, on rail safety.

As you might know, many localities have established quiet zones in their communities. When I was in local government, this issue would come up from time to time. Has NTSB issued any safety recommendations around quiet zones to balance noise pollution and safety?

And what has been the implications, or not, of quiet zone programs and legislation in the past when it comes to safety?

Ms. HOMENDY. Yes, thank you for the question. I would have to go back to our rail personnel and provide that for the record on what recommendations we might have with respect to quiet zones.

I know it is a hot topic for the committee, as it is something I worked on previously when I worked for the committee. So, I understand how important it is to each of you, and I am happy to provide that for the record.

Mr. CARBAJAL. Thank you. I know it is a balancing act, trying to provide quiet zones for mitigating noise for communities, but at the same time, addressing and keeping a balance with promoting safety. So, it is just an area that I am always interested in learning more about, because these continue to be issues in various communities, including my district. And it is always nice to hear what the pros and cons are of them, as it relates to safety issues, at least looked into or considered by NTSB.

Thank you so much for your time.

Madam Chair, I yield back.

Mrs. NAPOLITANO. The gentleman yields. Next we have Mr. Gimenez. You are recognized, sir.

Mr. GIMENEZ. Thank you, Madam Chair.

And Ms. Homendy, I also noticed that you asked for close to about a 35-percent increase in the next 5 years for your agency. You said you have 454, I guess, approved positions in your agency. You only have 404 right now. Are those 454 FTEs or FTE equivalents? What are they?

Ms. HOMENDY. So, the FTEs, we have 412 right now for FTEs. But what we are doing is overhiring in anticipation of retirements.

And in the past, since January 1st, we have had 11 retirements already. And as people return to work, because our agency is now back to work, we expect there will be more.

Mr. GIMENEZ. By the end of the 5 years, where you are asking for another \$45 million in funding, are you going to be increasing the number of FTEs?

Ms. HOMENDY. We will be increasing the number of people on board, up to where-that would provide us, barring any other contingencies with-let me get back to you on the exact number that we would end up with at the end of the 5 years. Mr. GIMENEZ. Can you give me——

Ms. HOMENDY [interrupting]. For the record.

Mr. GIMENEZ. Can you give me an estimate?

Ms. HOMENDY. It is about 480.

Mr. GIMENEZ. 480, OK. In the last 5 years, have you had a significant increase in the number of investigations that you have been conducting?

Ms. HOMENDY. We have had an increase in aviation investigations, and I would have to look at the investigations in the other modes, as well.

Mr. GIMENEZ. Can you give me an estimate of what percentage increase you have had in investigations?

Ms. HOMENDY. I would have to get back to you on the record for that.

Mr. GIMENEZ. Yes, could you please? I would certainly appreciate that as we look at your funding request.

Going to commercial space, NTSB conducts investigations on commercial space issues, accidents, et cetera. Who conducts investigations on NASA incidents?

Ms. HOMENDY. On-

Mr. GIMENEZ [interrupting]. NASA

Ms. HOMENDY [continuing]. NASA?

Mr. GIMENEZ. Yes.

Ms. HOMENDY. We-I mean, we do have a memorandum of understanding with NASA to do some investigations at their request. But we have done commercial and space investigations since 1993, starting with Pegasus.

Mr. GIMENEZ. No, I know you do commercial, but who does NASA? Does NASA—NASA does NASA, is that what they do?

Ms. HOMENDY. NASA, and we have worked with them, as well. Mr. GIMENEZ. All right. Are the procedures for NASA investiga-

tions any different from the ones that you are proposing for commercial space flight?

Ms. HOMENDY. I am not familiar with NASA's procedures, but our procedures are no different than any other investigation that we already conduct, with respect to the party system, and working with the operators, and working with the Federal agencies closely.

Mr. GIMENEZ. I am hearing that some of the commercial space operators have issues with some of your rules. So, I guess my question again is, are your rules concerning investigations different from what NASA uses to investigate its own issues?

Ms. HOMENDY. I think the commercial space industry is not as familiar with the operations of the NTSB, which is why I am currently meeting with the different operators, so I can familiarize them with our process. Some are better informed, and some have worked with us for many years. But we have had 30 years of expertise in this area, and have worked with FAA and NASA to develop a close working relationship, and with many of the operators.

Mr. GIMENEZ. Have you communicated with NASA about your rules? And are they in favor of those rules, are they in agreement with those rules?

Ms. HOMENDY. I can't speak for NASA, but I have spoken with them. And we participate on a quad chair working group with NASA, and the Air Force, and FAA, and meet quarterly with them, and have discussed this and other measures, including our MOU over the years.

Mr. GIMENEZ. Are NASA rockets any different than commercial rockets?

Ms. HOMENDY. I would have to defer that question to our investigators.

Mr. GIMENEZ. OK, thank you very much. I really appreciate it, thank you.

Ms. HOMENDY. Thank you.

Mrs. NAPOLITANO. The gentleman yields back. Mr. Malinowski, you are recognized for 5 minutes, sir.

Mr. MALINOWSKI. Thank you, Madam Chair.

And Madam Chair, welcome, thank you so much. I would like to use my time today to talk about trucks and trucking and safety.

Like many of us, I am concerned about the shortage of truckdrivers in America today, the impact that is having on our supply chain challenges. We all know there are many reasons for the shortage, everything from an aging workforce, to a workforce with high turnover, a job that is hard, a job that involves time away from family, training certification requirements, in many cases low pay. But certainly, one of the reasons for the shortage that I think doesn't get enough attention is treatment of drivers by management, specifically the demands that are put on them—some of them, at least—to continue to drive when they are too tired to do so safely.

As we have done before in this committee, I turned for support to one of our informal T&I advisers, John Oliver of HBO, who did a segment on this recently. He told a story of a truckdriver who was forced to take his mandatory break during the day, when he couldn't sleep, and forced to drive at night, when he was obviously too tired to do so. The driver knew this wasn't right, so, he recorded a conversation that he had with his dispatchers.

And I wanted to, technology permitting, play that exchange for us today. So, let's see if this works.

[Video shown.]

Mr. MALINOWSKI. Did you get the gist of that, or was it hard to—yes.

Ms. HOMENDY. A little bit hard to hear.

Mr. MALINOWSKI. Yes. He is saying he is not safe to drive at the moment. They are telling him, just go out, take a walk, get a cup of coffee. He said I think I am going to hurt somebody, and they say that we don't have time for that "bullshit," that is not how we work here at K&B.

So, look, it is one anecdote, but we know that NTSB has looked back at a sample of its major investigations across various modes of transportation, and found that a full 20 percent of them identified fatigue as a major contributing factor to accidents. And in the highway-related investigations, you all found fatigue was present in 40 percent of them.

I know that NTSB first made recommendations to address the safety risks associated with fatigue 50 years ago, in 1972. So, my question to you is, are we better off than we were 50 years ago?

And what are some of the most important outstanding rec-ommendations from NTSB related to driver fatigue that have yet to be implemented? Thank you.

Ms. HOMENDY. Thank you for the question, and I would lovefirst, before I answer the question, I would like to get back to you with our recommendations on fatigue, because we have many, including for commercial truckdrivers, and it has been on our Most Wanted List in the past as a serious safety issue that needs to be addressed.

We do have recommendations on hours of service and electronic logbooks. We always look at hours of service as part of any of our investigations, and have found significant concerns regarding scheduling and the impact of that scheduling on commercial drivers. So, I am happy to get you specific recommendations for the record.

Mr. MALINOWSKI. Thank you so much. And in particular, recommendations that have not yet-

Ms. HOMENDY [interrupting]. Been implemented.

Mr. MALINOWSKI [continuing]. Been implemented by agencies. And of course, separately, if you feel that Congress needs to take additional actions.

Ms. HOMENDY. Yes, there are many. We will get those to you.

Mr. MALINOWSKI. Thank you so much, and I yield back.

Ms. HOMENDY. Thank you.

Mrs. NAPOLITANO. The gentleman yields back. We will have Mrs. Steel, followed by Mr. Stanton and Mr. Burchett.

Mrs. Steel, you are on for 5 minutes.

[No response.]

Mrs. NAPOLITANO. Mr. Burchett, you are on for 5 minutes, sir. Mr. BURCHETT. Thank you, Chairlady. I suppose you all can tell by my accent I am probably not a

Northeasterner, I am from Knoxville, Tennessee. I am over here, to your right, ma'am. Right here. You see me? OK, yes, ma'am. Yes, ma'am.

Ms. HOMENDY. I was waiting for you to pop up on the screen.

Mr. BURCHETT. That is all right. I try to do the live, live action.

Ms. HOMENDY. I try to do live, too, so. Mr. BURCHETT. Yes, ma'am. Well, thank you for being here, and I want to thank those folks behind you. I know they've got to just be sitting here in mindless wander this whole time, having to listen to all this. So, I appreciate you all very much, too. You all don't get any credit, but you all are putting up with a lot, just by having to sit here all day. So, thank you all, as well.

But I have listened to your testimony, and listened to everybody else, but I guess where I am concerned is that—the barriers that I think that are entry for folks looking to join the National Transportation Safety Board workforce. And I am wondering, is there a skills gap involved with that?

I said I was not educated in the Northeast, I was educated at the University of Tennessee, and I have a degree in technological adult education. So, skills seem to be where it is at right now. And it has been continuously, and it seems to be even more so now. And I was wondering if you could address that issue.

Ms. HOMENDY. Yes, thank you very much. And we do have plenty of people who apply at the NTSB and want to work for the NTSB. Part of it is our process in getting people in the door.

And we do have a process or a program in place where we work with Pathways, which are recent college graduates, to get them in the door and then train them up to be investigators. You have a number of great universities, including the University of Tennessee and Middle Tennessee State University folks that I have talked to on aerospace and aviation.

And so, I would encourage recent graduates to go to the Pathways program, because the NTSB and other Federal agencies utilize them, and try to get them in the door and up to speed on a lot of our processes.

Mr. BURCHETT. Thank you. Let me change gears a little bit on that. I am wondering how many of the National Transportation Safety Board employees that are in mission-critical or essential occupations were forced to leave their jobs last year because of the President's vaccine mandate for Federal workers.

Ms. HOMENDY. I would like to get back to you for the record on that number. I don't believe we had anyone leave because of that, but I want to be sure that I accurately answer that and provide that for the record.

Mr. BURCHETT. OK, I would really appreciate that.

One last thing. How do you think the reauthorization proposal how do you think it is going to help you recruit enough skilled workers to fill those positions and avoid future workforce shortage?

Ms. HOMENDY. That is a great question. Right now, we are working with the Office of Personnel Management on a strategic human capital plan. We are in the process of hiring a chief human capital officer, as the NTSB has not had one at an SES level in the past. And we are working on a succession plan and gap analysis to ensure that we are prepared for the future, that we are hiring the right personnel.

In addition, we have a training center right now, and are working to refocus the training center on career development and investment in training in our workforce to enable our employees to each have an individual training plan, so that they have core skills and that they have advanced training as they continue on throughout their career.

Mr. BURCHETT. OK. Madam Chair, I am going to yield back the rest of my time.

But thank you so much for being here and for answering our questions. I guess I don't share the infatuation that my friend Rodney Davis does with you, but I am sure, if we spent enough time, that I would. So, thank you so much, ma'am, for answering these questions. And if you could please get back to me on that other one.

Ms. HOMENDY. I will, thank you, sir. Mr. BURCHETT. Thank you so much, ma'am.

Chairlady, I yield back to you.

Mrs. NAPOLITANO. The gentleman yields back-

Mr. BURCHETT [interrupting]. And I want to note that you are always very well dressed and exceptionally well dressed, ma'am.

Mrs. NAPOLITANO. Thank you, sir.

Mr. BURCHETT. I just want to compliment you on that.

Mrs. NAPOLITANO. Thank you very much, and I must compliment you on the question about education.

And I have asked at the hearing that we had in Santa Barbara to give us names of the universities you outreach to, because we would like to help with the recruitment.

Ms. HOMENDY. Absolutely.

Mr. BURCHETT. Chairlady, it doesn't help you in our caucus if you compliment me. It usually helps if you say something derogatory towards me I have noticed, so-

Mrs. NAPOLITANO [interrupting]. No way.

Mr. BURCHETT. Yes, ma'am. Thank you, ma'am.

Mrs. NAPOLITANO. Next we will—the gentleman yields back. The next Member is Representative Stanton.

You are recognized for 5 minutes, sir.

Mr. STANTON. Thank you very much, Madam Chair, and I want to welcome Chair Homendy.

I want to thank you and all of the dedicated employees at the National Transportation Safety Board for your steadfast commitment to improving the safety of our transportation system.

The NTSB currently has a number of active investigations in my home State of Arizona, including the Union Pacific train derailment, which occurred in my district in 2020. I look forward to seeing the Board's final report and recommendation, hopefully later this year.

The NTSB is charged with investigating civil aviation accidents in the United States, and providing safety recommendations to prevent future accidents. Black box data recorders, which capture the voice and data during a flight, are critical to providing insights into the cause of aircraft accidents. The current requirement in the United States is for recorders to record just 2 hours of flight time, meaning anything over 2 hours is overwritten and not accessible. Europe, on the other hand, has implemented a requirement for recorders on commercial aircraft to cover 25 hours. What is NTSB's position on this issue?

Ms. HOMENDY. I believe we are supportive of that proposal. And I would like to get back to you on the record to make sure it is the right recommendation that I am responding to. But data recorders are critical. They are critical not just for accident investigation, but they are critical for the operators themselves to determine if there are safety deficiencies after an accident occurs. And that is where the biggest safety measures can be addressed immediately. So, I appreciate that.

Also, just to respond on the rail accident you mentioned in Tempe, our rail personnel—I checked with them before coming to the hearing, and they mentioned that they believe that investigation will be completed this year.

Mr. STANTON. Thank you very much. Are there instances where the 2-hour record of data has been insufficient for the NTSB's needs in the course of investigation?

Ms. HOMENDY. Congressman, I would like to get back to you on that question for the record, and check with our Office of Aviation Safety.

Mr. STANTON. Please do. Thank you very much. And can you speak to the importance of data collection, and the role it plays in an investigation and to the NTSB's ability to identify potentially systemic concerns and mitigate future accidents?

Ms. HOMENDY. It's very critical to have that information not just for accident investigation, but, as I said, for the operator and for the FAA to determine if there are any safety deficiencies that need to be addressed immediately after an accident or incident. So, that information is critical.

I will say we have other recommendations, including for helicopter manufacturers, on crash-resistant recorders, which we have recommended for numerous years that the FAA has failed to implement. And so, we reissued those to the manufacturers themselves to ensure that they are in helicopters to help us not only in investigations, but identifying safety gaps.

Mr. STANTON. Thank you. I look forward to getting the swift response to the answers that you weren't able to answer immediately here today.

And with that, Madam Chair, I yield back.

Mrs. NAPOLITANO. The gentleman yields back, and we have the next Member.

Miss González-Colón, you are recognized for 5 minutes.

Miss GONZÁLEZ-COLÓN. Thank you, Madam Chair. Good morning to our witness today. I just have a few questions, and one of them is coming from a Territory.

Sometimes we ask ourselves how long is it going to take for your office to investigate, or to respond to a maritime issue or a plane crash in Puerto Rico or more distant Territories like American Samoa.

Ms. HOMENDY. Yes, thank you for that question. When we are notified of an accident, it goes through our response operations center, and the personnel there are on duty 24 hours a day and constantly monitoring information that comes in. They notify our duty officer, and then immediately we begin to gather information around the accident and incident. When we are able to deploy, we do have access to the FAA planes out of National Airport, and then we have other personnel throughout the United States that can be on the ground fairly quickly.

Miss GONZÁLEZ-COLÓN. How are investigators stationed to ensure there is a timely and rapid response in those cases?

Ms. HOMENDY. We have investigators for all modes of transportation in various parts of the United States. We have four regional offices: one in Anchorage; one in Seattle; one in Ashburn, Virginia; and one in Denver, Colorado. But then we also have a number of investigators across all modes of transportation in the NTSB that work throughout the United States in various States. And so, we do have the ability to send many of those in advance, even if it is not their mode of transportation, to be the first person on scene. Miss GONZÁLEZ-COLÓN. Thank you. I know your office and the Coast Guard updated their work MOU in June of last year. I would love to know your words in terms of how important you think it is to institutionalize those best practices that have been developed in the wake of tragedies like *El Faro* in the Caribbean area.

Ms. HOMENDY. I have to say that we have an excellent working relationship with the United States Coast Guard. That relationship didn't always exist, but we worked really hard on both sides to get a close working relationship and develop the most recent memorandum of understanding. The leadership there has been phenomenal and partners with us, and we partner with them on many investigations, and we work closely together.

We were off the coast of Santa Barbara, working together on the *Conception* dive boat tragedy which Chair Napolitano had mentioned, but others as well. And we continue to work together. I greatly support their efforts. They do a lot with very little, as does the NTSB.

Miss GONZÁLEZ-COLÓN. Can you describe briefly the type of equipment or technology that your office uses, and the one that you may need that you may not have at this time, just for me to understand it, and if there is a way that Members of Congress can do a tour of your district office here.

Ms. HOMENDY. Yes. Our technology—and I would love to get you a list, because we do have a long list of our technology needs. But technology in general, we have more complex investigations right now. So, we are going to need additional resources in terms of technological improvements for our research and engineering staff. That includes—and you have mentioned a lot on marine safety that includes in marine safety.

And just to add, our workforce in marine safety, their workload has increased eightfold in the past decade, but their staffing is pretty low. They have 20 staff right now, and 11 investigators just for marine safety.

Miss GONZÁLEZ-COLÓN. In all the Nation?

Ms. HOMENDY. Just for marine safety, yes. And they have requested an additional 17.

And so, as you see, there are needs for the Marine Safety Office, and across the agency, and across the board.

Miss GONZÁLEZ-COLÓN. How do you think—I mean, how much has your workload increased during the last few years? I mean, has it is been—

Ms. HOMENDY. Oh, tremendously. And it is changing, because we have new technologies right now. Whether it is automated vehicles, driver assistance systems right now that we are evaluating, or new avionics and aircraft—we are talking about drone ships now. And so, it is becoming more complex.

And it is not just the technologies in terms of vehicles and vessels, it is in terms of new fuel sources. So, we had just done a report and investigation on the impact of lithium-ion battery fires on emergency responders following high-impact crashes, and found that there wasn't enough information for emergency responders, and that NHTSA had to do additional research. Whenever we are moving towards these new technologies, whether it is a vehicle or a vessel or a new fuel source, we have to remember that we are also evaluating and have to make it a priority to evaluate the safety of those systems.

Miss GONZÁLEZ-COLÓN. Thank you.

Mrs. NAPOLITANO. The lady's time has expired.

Miss GONZÁLEZ-COLÓN. Yes, I yield back.

Mrs. NAPOLITANO. Thank you, she yields back. We have Representative García, followed by Ms. Williams and Mr. Lowenthal. Mr. García, you are recognized for 5 minutes.

Mr. GARCÍA OF ILLINOIS. Thank you, Madam Chair. And, of course, I want to thank Chair DeFazio and, of course, thank you, Chair Homendy, for appearing today.

So, we have made significant progress over the past few decades in making our transportation system safer, except our roadways. Fatalities on our roadways actually increased in recent years. In 2020, 38,824 people died in traffic crashes in the U.S. This is the highest number since 2007.

I want to highlight a mind-boggling statistic: more Americans died in car crashes from 2000 to 2019 than the combined total number of Americans who died in World War I and World War II.

Speeding is one of the top two causes of traffic crashes. According to the National Highway Traffic Safety Administration, speeding was a contributing factor in 26 percent of all traffic fatalities in 2019. Chair Homendy, most jurisdictions in the U.S. set speed limits using what is known as the 85th percentile speed. NTSB has recommended that the 85th percentile speed be phased out. Can you explain what the 85th percentile speed is, and why the NTSB recommends it be phased out?

Ms. HOMENDY. Yes, thank you for that question. And speeding is a significant concern, as 10,000 fatalities on our roads are attributed to speeding annually.

The 85th percentile is something we focused on in a number of our investigations, including some of our vulnerable road user reports. What it means is that States, when they are evaluating speed limits and the adequacy of speed limits, they are looking at what 85 percent of the traffic is traveling at, and then they set the speed limit within 5 miles per hour of that number.

Frankly, that method for determining and setting speed limits goes back to the 1950s. So, we are setting speed limits based on a 1950s-era configuration. What it is not looking at is how our roads are being used. It doesn't look at pedestrians or bicyclists or motorcyclists. It just sets it on an arbitrary number.

And what ends up happening is, over time, speed limits increase. So, now we have speed limits as high as 85 miles per hour in the United States, which has a significant impact, even more impact not just on drivers, but on vulnerable road users.

Mr. GARCÍA OF ILLINOIS. And this recommendation to stop using the 85th percentile speed to set speed limits applies to all types of roadways, correct?

Ms. HOMENDY. That is right. It is not just on interstates. That 85th percentile applies—it is a one-size-fits-all approach. It is the engineering rule of thumb in the U.S. right now, where they are setting speed limits on the highways just like they are setting speed limits on local roads—

Mr. GARCÍA OF ILLINOIS [interposing]. Yes.

Ms. HOMENDY [continuing]. Although there has been a move recently to turn that over to local and municipal jurisdiction, which is a good thing.

Mr. GARCÍA OF ILLINOIS. Yes, thank you. The NTSB has recommended that we use instead what is called a Safe System approach to road safety. This is something that was a prominent policy in Chairman DeFazio's INVEST Act. Can you explain what a Safe System approach is to road safety, and why that is the recommended approach?

Ms. HOMENDY. Yes. In the past few decades—thank you for the question. In the past few decades, we have really focused on education enforcement, which isn't going to get us very far. We need a comprehensive, holistic approach to address road safety, and look at how we design our roads, how those roads are designed for use.

In the past, we have focused on the design of roads-on efficiency, and getting people from A to B, and not for safety and how they are being used.

In addition, we need to look at safe vehicles. That is part of the Safe System approach, and implementing technology on vehicles that can save lives, like automatic emergency braking and forward collision warning.

Certainly, we are not saying education and enforcement isn't part of the holistic approach; it is. But other parts of the system also are critical and need an equal share of addressing fatalities and serious injuries on our roads.

Mr. GARCÍA OF ILLINOIS. Thank you, Madam Chair.

Madam Chair, I yield back.

Mrs. NAPOLITANO. The gentleman yields back.

Mr. Stauber, you are recognized for 5 minutes.

Mr. STAUBER. Thank you very much, Madam Chair. I see that the NTSB's Most Wanted List for transportation and safety improvements—the NTSB includes pipeline leak mitigation as a priority.

We have all seen the stories and the near tragedies that involved incidents where pipeline protesters and anti-jobs and anti-energy activists have gone out to pipelines to cause damage to the pipeline and the environment they claim to support. We saw many incidents in my district, when they failed to stop the Enbridge Line 3 replacement project. Valve-turning incidents, and even cases of protesters shooting pipelines with guns are extremely concerning, especially since these very criminals see little to no jail time.

Ms. Homendy, the NTSB is prioritizing pipeline leak mitigation. What specifically is the NTSB doing to combat these violent protesters from committing acts of environmental terrorism on the pipelines and putting so many people's lives at risk?

Ms. HOMENDY. Thank you for the question. When it comes to criminal activities, the NTSB, if we determine that an accident or incident is criminal in nature, we have an MOU with the FBI, and turn over those criminal matters to the Federal Bureau of Investigation.

Mr. STAUBER. That MOU, does it give the FBI the jurisdiction to lessen the crime, or reduce the sentence?

Ms. HOMENDY. The MOU is just geared towards our activities and our work with the FBI, and when we would turn over criminal matters, and what resources they would help the NTSB on any of our investigations.

Mr. STAUBER. Would you agree that pipeline protesters and antijobs and anti-energy activists who are doing this to pipelines put not only themselves, the environment, but the workers themselves at risk?

Ms. HOMENDY. It is not an issue I have been focused on, and I am happy to get back to you on that.

Mr. STAUBER. OK, but you are aware of the pipeline protesters? Ms. HOMENDY. I am aware of pipeline protesters, yes.

Mr. STAUBER. Which protesting pipelines are you aware of, then? Ms. HOMENDY. There have been numerous ones over the past

several years of protests, including TransCanada Keystone Pipeline.

Mr. STAUBER. Right. How about Enbridge Energy replacement Line 3? Are you aware of those protesters?

Ms. HOMENDY. I am aware that there are objections, yes.

Mr. STAUBER. Objections or protesters?

Ms. HOMENDY. Or protesters. Mr. STAUBER. OK. What do you think it costs the local communities to safeguard, prepare, defend, and charge these anti-jobs, anti-energy activists? What do you think it costs the local communities?

Ms. HOMENDY. I don't know the answer to that, sir.

Mr. STAUBER. Is that something that you should consider in working your MOU with the FBI, if you think it is a serious enough crime, and do you think it is a serious enough crime?

Ms. HOMENDY. The NTSB does not have jurisdiction over criminal matters. We have jurisdiction over accidents and incidents, as defined in our law.

Mr. STAUBER. Is an incident a protester?

Ms. HOMENDY. If it is criminal in nature, it would not be under our jurisdiction.

Mr. STAUBER. So, what you are saying is the NTSB refers everything to the FBI.

Ms. HOMENDY. If it is criminal in nature.

Mr. STAUBER. OK. The fact of the matter is-I will share with you, in case you don't know-Enbridge Line 3 came through part of our district. We had protesters inside the pipe while it was being raised. Workers were put in serious jeopardy for their safety. It taxed the local law enforcement community. In fact, they had to bring in more law enforcement to secure the appropriate area.

And I hope that the NTSB, as you go forward, Madam, I hope that you would look into the fact that the NTSB should weigh in heavily on these anti-jobs, anti-energy protesters, which are affecting communities across this Nation.

And with that, I will yield back. Thank you, Madam Chair. Ms. HOMENDY. Thank you.

Mrs. NAPOLITANO. The gentleman yields back. We have Ms. Williams of Georgia, followed by Mrs. Steel.

Ms. Williams, you are recognized for 5 minutes.

Ms. WILLIAMS OF GEORGIA. Thank you, Madam Chair.

From travelers using the world's busiest and most efficient airport to folks getting where they need to go with the Nation's eighth largest rapid transit system to drivers navigating our busy roads, now Georgia's Fifth Congressional District is always on the move. And a lot of people on the move means a lot of people that we need to keep safe. That is why the work of the National Transportation Safety Board is so important, especially in my district.

A small but mighty agency, the Board investigates transportation accidents and helps prevent future accidents from happening. To ensure the Board truly serves us is up to Congress to make sure that we provide it the resources and the support that it needs. Today I look forward to hearing from Chair Homendy how we can do that through reauthorization.

Chair Homendy, according to the Board's data, investigating a highway accident takes an average of 18 months, and investigating aviation accidents takes an average of 19 months. In your reauthorization proposal, are there specific resources or supports that ensure that the Board can provide the most efficient, thorough assessments possible to guide timely investigations and subsequent safety recommendations?

Ms. HOMENDY. Thank you very much for the question, and thank you for your leadership on safety.

The NTSB is very focused on reducing our backlog of investigations and improving the timeliness of issuing our accident reports. Part of that is through dedicating the appropriate resources, and part of that is through implementing process improvements, which we have done at the agency.

As far as resources, we need to fill the gaps. Right now, we have a number of vacancies that we need to fill that have been, quite frankly, on the books for some time. And we are working diligently to do that. But then we also need to expand our resources.

With respect to the timeliness in particular, not only have we put certain processes in place, but we have added a couple of personnel, some former employees from the NTSB who are retired annuitants, who will be solely focused on the backlog in aviation. We are doing very well on the backlog in other modes. In some modes, it is nonexistent.

So, we are working and making significant improvement, and would appreciate your consideration of our reauthorization proposal, which would provide us a modest increase in resources and personnel, which would help us improve the timeliness of our accident investigations.

Ms. WILLIAMS OF GEORGIA. Thank you. Additionally, the National Transportation Safety Board's Most Wanted List recommends protecting vulnerable road users through a Safe System approach. We have heard witnesses testify in previous hearings about the Safe System approach as an alternative way States and localities can address traffic safety.

Could you elaborate on how the Safe System approach promotes more equitable and effective traffic safety enforcement?

And how would your reauthorization proposal support this approach?

Ms. HOMENDY. The NTSB has on its Most Wanted List of transportation safety improving the safety of vulnerable road users through the Safe System approach.

We have issued a number of reports-pedestrian safety, bicyclist safety, and motorcyclist safety-focused on improving their safety on our Nation's roads. And within that, we have hundreds of recommendations that still require implementation, everything from improving safety on our roads to how they are designed, how they are built, to ensure that they are built for the use of all road users, not just vehicles, to looking at improving the safety of vehicles themselves.

So, we do endorse the Safe System approach and are working hard to promote that through all our actions at the NTSB.

Ms. WILLIAMS OF GEORGIA. Thank you. And in addition to that, reducing inequalities and creating opportunities for diversity and inclusion is something that I also take just as seriously as safety. So, as your agency focuses on diversity, equity, and inclusion to create a more talented workforce, what impact would a broader range of perspectives at the agency have on ensuring potential safety issues are identified and reported?

Ms. HOMENDY. Well, with respect to impact, it would be tremendous. And just so you are aware, part of our core values is diversity and inclusion. And we have begun to implement two strategic plans focused on diversity, equity, inclusion, and accessibility, including retaining, hiring, and attracting a diverse workforce, which is critical to the NTSB, critical to our investigation because people who bring different experiences, different thoughts, and different backgrounds help in our investigations and in all our work at the NTSB.

Ms. WILLIAMS OF GEORGIA. And while I do have more questions,

I am, unfortunately, out of time. So, Madam Chair, I yield back. Mrs. NAPOLITANO. The gentlelady yields back. We will recognize

Mrs. Steel, followed by Mr. Lowenthal and Mr. Sires. Mrs. Steel, you are recognized for 5 minutes.

Mrs. STEEL. Thank you very much.

Madam Chairwoman, the National Transportation Safety Board plays an important role in investigating transportation accidents. And I want to commend the work that NTSB has done in my district, especially with the recent fatal helicopter crash of a Hun-

tington Beach officer, Nicholas Vella. The NTSB also plays an important role in providing safety recommendations to Federal and State agencies. Unfortunately, both alcohol-impaired and drug-impaired driving deaths have become a common issue in Orange County. As you know, drug-impaired driving is very difficult to detect, compared to alcohol-impaired driving. How is the NTSB improving drug testing protocols, and what are some of the lessons learned from the past accidents?

Ms. HOMENDY. Thank you for the question. Ending drug and alcohol impairment is on our Most Wanted List of transportation safety improvements. And in fact, we have a pretty comprehensive report coming out this fall focused on drug-impaired driving, and we will make sure to brief you on that.

But we have several recommendations, including improving drug testing, setting a standard to determine impairment, like we have with alcohol. That is not something the NTSB does. It is something we recommend, and have issued recommendations both to the Department of Transportation, and I believe we have also issued recommendations to the Department of Health and Human Services, as well.

Mrs. STEEL. Thank you very much. With the emerging transportation technologies, including commercial space, unmanned aircraft systems, and even autonomous vehicles, how are you collaborating with the commercial stakeholders in these transforming sectors in support of NTSB's broader mission of improving transportation safety?

Ms. HOMENDY. Thank you for the question. We have tremendous outreach with the commercial community, whether it is through speaking with different organizations, visiting their sites, or speaking at events they have, or participating in workgroups where we work together on emerging safety issues and discuss those openly, including what we are seeing in accidents and incidents and trends in safety and transportation. So, we work very closely with them.

in safety and transportation. So, we work very closely with them. And then, in our accident investigations, if an operator is—if something occurred with that operator, the operator more than likely would be provided party status, which means they would be part of our fact-finding portion of the investigation. We would work closely together, and they would be able to identify safety gaps immediately that they could address.

Mrs. STEEL. So, when is the report going to come out, is it right now that you are going through the process?

Ms. HOMENDY. I am sorry, it was difficult to hear.

Mrs. STEEL. When is this report going to come out that you are putting all this information together after all these meetings, are we going to expect it by the end of this year or the next few months? And some—like a progress report is going to come out?

Ms. HOMENDY. With respect—I am sorry, with respect to drug testing and impairment, or just our work with private entities?

Mrs. STEEL. Private entities regarding unmanned aircraft systems and then autonomous vehicles. And these are actually creating a lot of accidents, too. Hopefully, not, but [inaudible] has begun, and is that coming out from your agency or not?

Ms. HOMENDY. Well, we work on individual accident investigations, and we do have certain accident investigations right now involving urban air mobility, or advanced air mobility, and involving driver assistance systems. Those reports—I would have to check on the dates of those reports, and get back to you for the record for those accident investigations.

Mrs. STEEL. Thank you very much. I yield back.

Mrs. NAPOLITANO. The gentlelady yields back. Mr. Lowenthal, you are recognized for 5 minutes.

Mr. LOWENTHAL. Thank you, and thank you, Chair Homendy, for being with us today. I am going to return to a theme that we have heard frequently during this hearing and this reauthorization, and that is the theme of why do investigations and data collection or reporting take so long.

You mentioned in your opening testimony your agency's ongoing investigation into the ship striking a pipeline off the coast between Huntington Beach and Long Beach, California. This incident substantially impacted communities and ecosystems throughout southern California, including residents of my district. And while I understand that many agencies and many people are investigating this incident, and you cannot comment on the specifics of this ongoing matter, I would like to emphasize how important a quick resolution of this process and a timely report will be to my constituents.

As you are aware, pipeline investigations take an average of 21.8 months. Oh, and that is the average over the last 5 years. Can you elaborate on what Congress can do and what your agency can do to reduce this time lag and produce timely and actionable data more quickly?

Ms. HOMENDY. Thank you for the question. And for that specific pipeline accident, we will have our own report, but I believe the Coast Guard is the lead in that investigation.

With respect to our investigative process, we are looking at efficiencies. Right now, we have looked at the data, we have identified areas where we believe have held up the investigations. It is actually not in the investigative process many times, but is in the report writing and editing process. And there are efficiencies taking place in that area.

And we are also dedicating additional resources where we can, filling gaps in vacancies, making sure they have adequate resources. I will tell you that, for our pipeline personnel, we have six pipeline investigators. This one in particular that you mentioned, regarding the Elly Platform, is being led by our marine safety team, and they have 11 investigators. So, while we put forward process improvements in terms of scaling investigations and making sure we have adequate processes in place to move forward on investigations, we also need to match that with additional resources.

And certainly, in marine safety, our accidents profile has increased eightfold over the last decade, but our investigation staff has not.

Mr. LOWENTHAL. So, you are saying that, with the numbers of people that you have doing the investigation, that the slowdown in actual reporting is really due to the report writing?

Ms. HOMENDY. We did collect data, and report writing and review has taken most of the time. We didn't have—before I was Chair, we didn't have information on where the holdup was. Our team behind me really took leadership, and identified where the areas were that we could improve, including the review. Our investigation will get done, but then the review process takes longer than it should, and we need to get those through.

In addition, there is one more area that I do want to mention that can hold up our investigations, and that has been when the Coast Guard and others have pursued criminal matters. It can close off our investigation very quickly, because witnesses tend to not want to discuss things with us. So, that can be an increased complexity in our investigations, and has been happening more and more. And it is something that we are looking to address and trying to address with our partners in safety.

Mr. LOWENTHAL. And just before I yield back, I realize that you can't comment specifically on this case, but that last comment that you made about people being reluctant to testify because of poten-

tial criminal matters may be applicable to the rupture of this pipeline.

So, with that, I yield back.

Mrs. NAPOLITANO. The gentleman yields back. We have Mr. Sires, Mr. Lynch, and Mr. Auchincloss. Are they available?

[No response.]

Mrs. NAPOLITANO. Well, with that, that concludes our hearing.

I want to say to Madam Homendy that you are doing a lot with a little. And the question from Mr. Gimenez substantiating the reason for a request to increase in budget, be sure we get that so the committee can review, and congratulations to you and your staff for the preeminent investigative body that you have.

This concludes our hearing, as I said. I would like to thank you for your testimony. It has been very helpful and informative.

I ask unanimous consent that the record of today's hearing remain open until such a time as our witness has provided answers to any questions that may be submitted to her in writing.

I also ask unanimous consent that the record remain open for 15 days for any additional comments and information submitted by Members or the witness to be included in the record of today's hearing.

And without objection, is so ordered.

The committee stands adjourned.

[Whereupon, at 12:19 p.m., the committee was adjourned.]

SUBMISSIONS FOR THE RECORD

Prepared Statement of Hon. Eddie Bernice Johnson, a Representative in **Congress from the State of Texas**

Thank you, Chairman DeFazio, and Ranking Member Graves, for holding today's hearing on reauthorizing the National Transportation Safety Board. I would also like to thank our esteemed panelist for testifying today. The National Transportation Safety Board (NTSB) plays a paramount role in in-

vestigating transportation accidents and ensuring that what we learn from these ac-cidents prevents them from happening again. The NTSB's proven record of accomplishment adds credibility to every investigation they are involved in, and their role as a U.S. emissary in international incidents helps foster diplomacy and cooperation between nations.

The NTSB recently completed an investigation of a natural gas explosion in Dal-las, Texas, that killed a 12-year-old girl, injured four others and destroyed three homes. The investigation found that Atmos Energy Corporation should have acted earlier and could have prevent this deadly accident. It also found a need for more oversight from federal, state, and local agencies.

This was a real tragedy for the whole community and we're anxious to learn what is being done to prevent this from happening to anyone else.

I look forward to hearing from our witness what additional resources the National Transportation Safety Board needs to continue the great work it is doing to improve transportation safety here in the United States and throughout the world.

Letter of April 20, 2022, from Catherine Chase, President, Advocates for Highway and Auto Safety, to Hon. Peter A. DeFazio, Chair, and Hon. Sam Graves, Ranking Member, Committee on Transportation and Infrastruc-ture, Submitted for the Record by Hon. Peter A. DeFazio

April 20, 2022.

The Honorable PETER DEFAZIO, Chair,

The Honorable SAM GRAVES, Ranking Member,

Committee on Transportation and Infrastructure, U.S. House of Representatives, Washington, DC 20515.

DEAR CHAIRMAN DEFAZIO AND RANKING MEMBER GRAVES: Thank you for holding the April 6, 2022, hearing, "National Transportation Safety Board Reauthorization." We respectfully request that this letter be included in the hearing record.

Advocates for Highway and Auto Safety (Advocates) is a coalition of public health, safety, law enforcement, and consumer organizations, insurers and insurance agents that promotes highway and auto safety through the adoption of federal and state laws, policies and regulations. Advocates is unique both in its board composition and its mission of advancing safe vehicles, safe motorists and road users, and safe roadway environments.

Ås this Committee is well aware, our nation's roads have become more dangerous and deadly. In 2020, 38,824 people were killed in traffic crashes-the highest annual total in more than a decade. Increased incidence of impaired driving, speeding, and lack of seat belt use contributed to this spike. Data for the first nine months of 2021 find the horrific rise in traffic fatalities continued, with a 12 percent upsurge over the same period in 2020 and the highest percentage jump during the first nine months in the recorded history of data in the Fatality Analysis Reporting Sys-tem (FARS). Additionally, nearly 5,000 people were killed and more than 145,000 more were injured in crashes involving large trucks in 2020. Crashes also impose a transmodule societal east estimated to ever the truling dellars annually. a tremendous societal cost estimated to exceed one trillion dollars annually.

This state of calamity and catastrophe on our roadways makes the work performed by the National Transportation Safety Board (NTSB) all the more necessary. The NTSB is an effective and essential agency with a remarkable 55-year record of advancing transportation safety including on our nation's roads. Through their expert crash investigations, safety recommendations, biennial Most Wanted List of Transportation Safety Improvements (MWL), and other activities, the NTSB plays a critical role in bringing needed attention to safety deficiencies and identifying solutions for preventing crashes, saving lives and reducing injuries. Advocates and many other stakeholders dedicated to improving transportation safety rely on the NTSB's leadership and expertise to inform their organizations' agendas and priorities, and then urge Congress to advance legislation on needed improvements. It is vital that this agency has sufficient resources to perform its lifesaving mission. We strongly urge the Committee to support robust funding, including for necessary staff and expertise as was requested by the agency, to advance their work.

As NTSB Chair Jennifer Homendy discussed during her testimony before the Committee, the NTSB is increasingly sought to investigate fatal crashes involving cars equipped with automated driving systems (ADS) and varying levels of driving automation. These investigations have and will continue to identify safety deficiencies, determine contributing causes, and result in recommendations for government and industry actions to prevent future deadly incidents. As vehicles become more technologically advanced, the NTSB must have sufficient staff with highly technical knowledge and skills. ADS and autonomous vehicles (AVs) are complex "computers on wheels" often traveling in complicated driving environments, and properly assessing their performance will require appropriately educated and trained personnel. The public is supportive of the NTSB's unique expertise and critical role in ensuring the safety of vehicles with ADS. In a 2018 public opinion poll commissioned by Advocates, 80 percent of respondents indicated they believed the NTSB investigations will be helpful in identifying problems and recommending improvements.¹

The NTSB investigations also underscore the need for requirements for collection of and access to vehicle performance and crash data. To that end, Advocates continues to urge the U.S. Department of Transportation (DOT) to issue a Federal Motor Vehicle Safety Standard (FMVSS) requiring all vehicles be equipped with event data recorders (EDRs) to capture all necessary data in a standardized format to understand and evaluate the safety performance of vehicles, especially those equipped with an ADS and AVs. If the U.S. DOT does not take this action, Congress should advance legislation requiring them to do so by a date certain for issuance of a rule and for compliance. Not only will this data be essential for the NTSB to carry out its investigative duties, but it should also be available to leading safety organizations, researchers and the public.

organizations, researchers and the public. We once again commend this Committee for its leadership and dedication to advancing the INVEST in America Act (H.R. 3684), from which many of the safety advances were included in the Infrastructure Investment and Jobs Act ((IIJA), Pub. L. 117–58). While Advocates worked together with Congress to include significant safety provisions, many of which were rooted in NTSB recommendations, there is still more work to be done including on outstanding NTSB recommendations. Since the IIJA enactment, Advocates has been urging the U.S. DOT to act expeditiously on the safety directives and to treat the provisions as a "floor" and not a "ceiling" for its end products. We have attached a list of safety issues, which are aligned with the NTSB MWL, recommendations and reports.

The safety of all road users relies on the imperative and influential work of the NTSB. Its mission, which includes "Making transportation safer by conducting independent accident investigations" and "advocating safety improvements," is foundational to protecting everyone in and around vehicles of today, as well as during the transition as vehicles become increasingly automated. Advocates urges this Committee to authorize the resources needed to bolster the agency's effectiveness and efficiency. Thank you again for your safety leadership.

Sincerely,

CATHERINE CHASE, President, Advocates for Highway and Auto Safety.

cc: Members of the Committee on Transportation and Infrastructure

¹ORC International CARAVAN Public Opinion Poll, Commissioned by Advocates for Highway and Auto Safety, July 2018.

ATTACHMENT

NTSB'S MOST WANTED LIST 2021-2022 AND Advocates' Recommendations for Action

The MWL is a prime example of the agency providing a national focus on per-sistent and emerging safety issues and solutions which should be spotlighted and which are supported by their investigations and research reports. The 2021–2022 MWL identifies five issue areas to improve highway safety, followed by Advocates' recommendations for action, including the below, among others:

"Implement a Comprehensive Strategy to Eliminate Speeding-Related Crashes"

- Why Action is Needed: Excess speed can contribute to both the frequency and severity of motor vehicle crashes. Speeding is a leading contributor to traffic crashes, and fatalities in speeding-related crashes spiked a staggering 17 per-cent in 2020.²
- What Action is Needed:
 - Automated enforcement (AE), the use of speed and red-light cameras to augment traditional enforcement, is an effective deterrent against dangerous driving behavior including speeding and is proven to improve safety. We were encouraged that the IIJA lifted the prohibition on use of federal funding for AE systems in school and work zones and urge the Committee to remove the remaining restrictions. Advocates, along with AAA, Governors Highway Safe-ty Association, the Insurance Institute for Highway Safety (IIHS), and Na-tional Safety Council published the "Automated Enforcement Program Check-list" to simple more the form
 - tional Safety Council published the "Automated Enforcement Program Check-list" to signal support from our organizations and provide practical sugges-tions for successful planning, implementing and evaluating of AE programs.³ U.S. DOT should update guidelines that require use of the "85th percentile" in speed limit setting to instead focus on safety. The 85th percentile speed is the speed at or below 85 percent of the vehicles on a road are traveling on the day and time that speed is measured. This speed is then used to set speed limits. This method ignores evidence obtained by the NTSB and others that people often drive faster than the speed limit and that average speeds tend to increase whenever speed limits are raised which leads to an escalation tend to increase whenever speed limits are raised which leads to an escalation
 - in repeated speed limit increases.⁴ U.S. DOT should complete research on vehicle safety technologies which hold potential to reduce speeding such as intelligent speed assistance (ISA). These systems can provide information to drivers about present speed limits, warn drivers when a car's speed is above the limit, and discourage speeding.⁵ U.S. DOT should also complete a rulemaking on speed limiters for commercial motor vehicles.
 - Roadway infrastructure changes such as speed humps, road diets, protected bike lanes, speed reduction zones and other measures, can help to improve Safety by reducing excess speed, better protecting vulnerable road users (VRUs) and preventing crashes. These changes are consistent with a Safe System Approach (SSA) to improving roadway safety infrastructure and we laud the provisions in the IIJA which incentivize such. We urge the U.S. DOT to encourage states and localities to take advantage of the funding opportunities in the IIJA to make their roads safer through infrastructure improvements.

"Protect Vulnerable Road Users through a Safe System Approach"

• Why Action is Needed: In 2020, fatalities of pedestrians and bicyclists reached their highest levels in more than three decades. NTSB Chair Homendy has championed a SSA and been instrumental in raising awareness of this comprehensive strategy to improve safety for all road users and especially VRUs. The SSA is also closely aligned with Advocates' longstanding mission and approach and our recent work as a member of the Johns Hopkins Center for Injury Research and Policy Safe System working group which in 2021 released its Recommendations of the Safe System Consortium. The SSA anticipates human error as being unavoidable and injury tolerance as having limitations and seeks

 ²Stewart, T. (2022, March). Overview of motor vehicle crashes in 2020 (Report No. DOT HS 813 266). National Highway Traffic Safety Administration.
 ³Automated Enforcement Program Checklist, available at https://saferoads.org/wp-content/uploads/2021/05/AE-checklist-May-2021.pdf.

⁴IIHS: Speed, IIHS available at https://www.iihs.org/topics/speed

⁵European New Car Assessment Programs: Speed assistance systems, available at: https:// www.euroncap.com/en/vehicle-safety/the-ratings-explained/safety-assist/speed-assistance/

to prevent fatalities by minimizing conflicts and reducing crash forces when crashes do occur. The SSA can be especially beneficial to VRUs through its focus on safe speeds and by supporting the adoption of the identified road safety improvements as well as protected intersections, accessible sidewalks, leading intervals for signaling, and others.

50

What Action is Needed:

Advanced vehicle safety technologies such as automatic emergency braking (AEB) that detects and responds to VRUs including pedestrians and bicyclists should be required as standard equipment on new vehicles. We urge the U.S. DOT to ensure the final rule for AEB, which was required by the IIJA, specifies response to these road users as part of the minimum performance standard.

0 The severity of collisions between VRUs and vehicles can be reduced by requiring the hood and bumper areas of vehicles to be more forgiving when crashes do occur. We urge the U.S. DOT to commence and complete rulemaking with a date certain for compliance.

"Prevent Alcohol- and Other Drug-Impaired Driving"

• Why Action is Needed: In 2020, fatalities in alcohol-impaired driving crashes jumped 14 percent. Drunk driving continues to account for approximately 30 percent of crash fatalities and has for over a decade. When drug and alcohol use is combined, known as "polyuse," impairment can be amplified.

What Action is Needed:

- The IIHS has found that alcohol-detection systems can save more than 9,000 lives a year if widely deployed.⁶ We urge the U.S. DOT to meet the deadlines in the IIJA to issue a final rule requiring advanced impaired driving prevention technology be equipped as standard on new vehicles.
- The NHTSA should undertake research to identify a causal link between marijuana use, impairment, and crashes; to develop verified roadside testing technology; and, to develop an impairment standard for marijuana (noting current research does not support a per se level). The agency should also continue funding for law enforcement training programs to detect and prevent impaired driving.
- Reducing the limit of alcohol and driving to .05 percent blood alcohol concentration (BAC) is a research-based countermeasure employed around the world to deter drunk driving. A study, *Evaluation of Utah's .05 BAC Per Se Law*, released by NHTSA on February 11, 2022, finds that Utah experienced a nearly 20 percent drop in traffic fatalities in 2019 (248), the first year that the law was in effect, compared to 2016 (281), the last year before the law was enacted.⁷ Driving at .05 percent BAC or higher is dangerous, and public health researchers, experts, a coalition of safety advocates and the NTSB agree that state laws lowering BAC will reduce the horrific toll of deaths and injuries caused by drunk driving. Advocates urges Congress to revise the Sec-tion 405 National Priority Safety Program to create a new highway safety in-centive grant award for states that reduce the BAC limit while driving to .05 percent

"Require Collision-Avoidance and Connected-Vehicle Technologies on all Vehicles"

• Why Action is Needed: The IIHS has shown that collision-avoidance systems, also known as advanced driver assistance systems (ADAS), have remarkable potential to reduce crashes. For example, AEB can decrease front-to-rear crashes with injuries by 56 percent in passenger vehicles.⁸ In large trucks, AEB can re-duce front-to-rear crashes by 40 percent.⁹ Notably, motor vehicle crashes are a leading killer of teenagers in the U.S., and teen drivers are far more likely than then drivers the background of the likely than other drivers to be involved in fatal crashes because they lack driving experience and tend to take greater risks. IIHS research has found that "crash avoidance features and teen-specific vehicle technologies have the potential to pre-vent or mitigate up to three-quarters of fatal crashes involving teen drivers." ¹⁰

⁶Insurance Institute for Highway Safety, Alcohol-detection systems could prevent more than a fourth of U.S. road fatalities (Jul. 23, 2020). ⁷United States Department of Transportation, NHTSA, Office of Behavioral Safety Research, Evaluation of Utah's .05 BAC Per Se Law [Traffic Tech], DOT HS 813 234; February 2022. ⁸IIHS, Real world benefits of crash avoidance technologies, available at: https://www.iihs.org/ media/259e5bbd-f859-42a7-bd54-3888f7a2d3ef/e9boUQ/Topics/ADVANCED%20DRIVER %20ASSISTANCE/IIHS-real-world-CA-benefits.pdf. ⁹UHS. Study, shows front crash provention works for large trucks too, available at: https://

⁹ IIHS, Study shows front crash prevention works for large trucks too, available at: https:// www.iihs.org/news/detail/study-shows-front-crash-prevention-works-for-large-trucks-too ¹⁰ IIHS, Driving technology promises large safety benefits for teens, September 2021.

Absent a minimum performance standard, access to these technologies is inequitable as consumers may have to purchase a luxury vehicle or expensive trim model to get the safety features. All families should have the safest braking systems. Moreover, without a standard there is no certainty that the technology will perform as needed.

- What Action is Needed:
 - NHTSA should expeditiously issue a final rule requiring all new vehicles (pas-senger vehicles, buses, and trucks) to be equipped with ADAS. The IIJA initiates this process.
 - Connected vehicle technologies, including vehicle-to-vehicle (V2V), vehicle-toinfrastructure (V2I), and vehicle-to-everything (V2X), can relay information and augment safety benefits. Connected vehicle technology should be advanced by NHTSA updating and completing the 2017 Notice of Proposed Rulemaking on V2V as well as partnering with the Federal Highway Administration to study the needs and benefits of V2I with the goal of V2X.¹¹ The IIJA required DOT to expand research efforts to ensure VRUs will be incorporated into connected vehicle systems within 180 days and report to Congress not later than two years. We urge NHTSA to issue the rule on V2V and complete its work on V2X swiftly.

"Eliminate Distracted Driving"

- Why Action is Needed: Distracted driving is a pervasive, yet underreported, issue on our nation's roadways. A new public opinion poll released by Advocates and Selective Insurance Group found that nearly three-quarters (70 percent) of licensed drivers used a mobile device while driving for personal reasons in the past 90 days. When asking those who drive for work, the number was even more alarming with 86 percent reporting mobile device use when driving for work in the last three months.¹² Another new poll from Nationwide Insurance found that 66 percent of drivers believe holding their phone while driving is dangerous, yet half (51 percent) admitted to doing so.¹³ Distracted driving may become further exacerbated as vehicles are equipped with automated driving system features, which still require an attentive and ready driver to take over the driving task at any time, yet could allow for driver disengagement, automation complacency or foreseeable misuse. What Action is Needed:
- - Driver monitoring technology offers a potential technological countermeasure against distracted driving. The IIJA directed NHTSA to initiate research on driver monitoring technology within three years and report to Congress not later than 180 days after the research is completed, with the discretion to determine if a rulemaking is required. Advocates urges U.S. DOT to meet this requirement.
- State laws banning distracting viewing activities, such as video conferencing, viewing social media and apps behind the wheel, are needed to deter this dangerous behavior. A new grant opportunity in the IIJA is intended to encour-age states to upgrade their laws to do so. We urge this Committee and NHTSA to enhance safety incentive grant programs to assure they are prompting state action as well as providing states the resources they need for enforcement of such.

NTSB'S INVESTIGATIONS EXPOSE SAFETY PROBLEMS AND INFORM ADVOCATES' POLICY Recommendations on Commercial Motor Vehicle Issues

As the NTSB has been at the forefront of investigating devastating crashes involving large trucks, motorcoaches, and school buses, its work has uncovered serious safety lapses and recommended commonsense actions to prevent such incidents in the future. As a result, Advocates urges action by Congress and U.S. DOT on the following issues, among others:

• Truck underride guards to prevent a passenger vehicle from traveling under the rear or side of a trailer and significantly increase the chances of survival: The IIJA directed NHTSA to update the standard for rear guards and research side underride guards within one year. The U.S. DOT should act to meet these deadlines, and if the agency does not issue a final rule on side underride guards

¹¹⁸² FR 3854 (Jan. 12, 2017) ¹² The Harris Poll on behalf of Selective Insurance and Advocates for Highway and Auto Safe-

ty, March 2022. ¹³Nationwide, Survey: 86 percent of drivers support hands-free legislation, April 15, 2022.

with deadlines for completion and compliance, Congress should direct them to do so.

- Speed limiters for commercial motor vehicles (CMVs): On average, over 1,000 lives are lost annually to speeding CMVs. NHTSA and the Federal Motor Carrier Safety Administration (FMCSA) should partner and issue a final rule requiring all new CMVs to be equipped with speed limiting devices and to compel their use in CMVs in which they are already installed. Speed limiters should be set at speeds no higher than 65 miles per hour.
- Driver training which includes a minimum number of behind-the-wheel hours, a requirement not currently included in the Entry-Level Driver Training Rule: The U.S. DOT should amend the rule for entry level driver training for all commercial driver license (CDL) candidates to include a minimum number of behind-the-wheel training hours to ensure that novice drivers receive adequate training before operating a large truck on public roads.
- training before operating a large truck on public roads.
 Oversight of the CMV industry: FMCSA should require that truck companies be assessed before the commencement of operations and subject new carriers that accumulate violations to stricter oversight.
- Prevention of truck driver fatigue, a major contributor to truck crashes: The U.S. DOT and Congress should reject special interest exemptions from hours of service (HOS) rules and the requirement to utilize electronic logging devices (ELDs) to ensure compliance. Additionally, drivers should be properly screened for obstructive sleep apnea (OSA) and receive the medical treatment they need to prevent fatigue while driving.
- Improve bus safety: NHTSA should expeditiously issue the overdue rule on antiejection countermeasures for motorcoaches, as required by the Moving Ahead for Progress in the 21st Century Act (MAP-21, Pub. L. 112-141) which is now eight years past the deadline. Three-point seat belts, AEB and electronic stability control (ESC) should be required on school buses. Additionally, research followed by rulemaking should be undertaken on fire prevention and mitigation, motion-activated detection systems that can perceive pedestrians located near the outside of the school bus, seat belt reminder systems, and "hot cars" detection and alert systems for school buses. The FMCSA should also improve school bus operations including medical fitness and driver training.

APPENDIX

Introduction to responses from Hon. Jennifer Homendy, Chair, National Transportation Safety Board: Thank you again for the opportunity to discuss our reauthorization proposal. I am pleased to answer the additional questions posed by Members of the Committee, below.

Our reauthorization proposal and the budget request that we outlined for you represent a modest investment to address our agency's need to meet future transportation safety challenges. The requested authorized amount of \$129.3 million for the first year under our proposal, which is equal to the president's fiscal year (FY) 2023 budget request, is an increase of \$7.9 million above our current appropriation; however, 92 percent of that increase would be allocated to the 4.6 percent required salary increase, nonpay inflationary increases, and other associated costs for personnel to modestly increase our staffing from 412 to 425 full-time equivalent positions. We have identified the need for at least \$6.2 million in additional funding for needed programmatic investments. We are, therefore, requesting an appropriation of \$135.5 million for FY 2023.

QUESTIONS FROM HON. EDDIE BERNICE JOHNSON TO HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

Question 1. Chairwoman Homendy, following the investigation of the devastating gas explosion in Dallas, NTSB made 14 recommendations where improvements could be made to prevent this from happening again. Can you tell me what progress is being made by Atmos Energy and the federal, state, and local oversight agencies in implementing these recommendations?

ANSWER. Eleven of the 14 recommendations stemming from that investigation are open. On May 11, 2022, three of the five recommendations that we made to Atmos Energy Corporation were classified "Closed—Acceptable Action." In addition, the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the American Gas Association, Gas Piping Technology Committee (GPTC) have planned actions to address the recommendations. Unfortunately, to date, we have not received responses from the Texas Railroad Commission or the Dallas Fire-Rescue Department (DFR) regarding any actions to address the recommendations, and we are following up with them. Any assistance that you could provide to facilitate responses from those agencies would be appreciated. Below are the recommendations and a summary of each recipient's planned and completed actions.

(53)

Number	Status	Recommendation and Planned or Completed Actions
P-21-1	Open— Acceptable Alternate Response	TO PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION: Expand inci- dent reporting requirements in Title 49 <i>Code of Federal Regulations</i> Part 191 so that events that may meet the definition of "incident" are immediately reported to the National Response Center [NRC] even when the source of the natural gas has not been determined.
		Actions: PHMSA responded that it plans to issue an advisory bulletin (ADB) re- minding pipeline operators to promptly report incidents based on available infor- mation, even if they have only conducted a preliminary evaluation. The ADB will list relevant conditions for determining if an incident should be reported to the NRC, such as rupture or explosion, fire, loss of service, evacuation of people in the area, and involvement of local emergency response personnel, and will also emphasize that operators must consider a pipeline's historic performance and risks to the public in the area. Further, PHMSA plans to use regional and na- tional meetings of the National Association of Pipeline Safety Representatives to stress the importance of timely and accurate reporting, and plans to continue to evaluate industry's incident reporting performance.
P-21-2	Open— Acceptable Response	TO THE PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION: Evaluate industry's implementation of the gas distribution pipeline integrity management [DIMP] requirements and develop updated guidance for improving their effective- ness. The evaluation should specifically consider factors that may increase the likelihood of failure such as age, increase the overall risk (including factors that simultaneously increase the likelihood and consequence of failure), and limit the effectiveness of leak management programs.
		Action: PHMSA responded that it plans to analyze the information reported by distribution pipeline operators to evaluate the industry's implementation of the gas DIMP requirements. This evaluation will specifically consider factors such as age that may increase the likelihood of failure, increase overall risk, and limit the effectiveness of leak management programs. Additionally, PHMSA plans to work with the states to participate in DIMP inspections to identify areas of potential improvement. Based on its analysis, PHMSA will update inspection questions and guidance to help improve the effectiveness of operators' DIMPs.
P–21–3	Open— Acceptable Response	TO THE PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION: Assist the Railroad Commission of Texas in conducting the audit recommended in Safe- ty Recommendation P-21-4.
		Action: PHMSA has indicated that it is prepared to work with the Texas Railroad Commission to conduct a comprehensive audit of Atmos Energy Corporation's incident-reporting practices, policies, and procedures.
P–21–4	Open— Await Response	TO THE RAILROAD COMMISSION OF TEXAS: With assistance from the Pipeline and Hazardous Materials Safety Administration, conduct a comprehensive audit of Atmos Energy Corporation's incident-reporting practices; policies and procedures for responding to leaks, fires, explosions, and emergency calls; and integrity management programs.
		Action: Although PHMSA indicated that it is prepared to work with the Texas Railroad Commission to conduct a comprehensive audit of Atmos Energy Cor- poration's incident-reporting practices, policies, and procedures, the Texas Rail- road Commission has not provided any information to the NTSB on its planned activities. We are currently seeking an update from the commission.

Number	Status	Recommendation and Planned or Completed Actions
P—21—5	Open— Await Response	TO THE DALLAS FIRE-RESCUE DEPARTMENT: Revise the continuing education re- quirements for your arson investigators to include training on building fuel gas systems.
		Action: DFR has not responded, and we are currently seeking an update.
P—21—6	Open— Await Response	TO THE DALLAS FIRE-RESCUE DEPARTMENT: Revise your procedures to require gas monitoring after the occurrence of a gas-related structure fire or explosion. Action: DFR has not responded, and we are currently seeking an update.
P—21—7	Open— Await Response	TO THE DALLAS FIRE-RESCUE DEPARTMENT: Develop and implement a formal process to alert appropriate local, state, and federal agencies of potential sys- temic safety issues that should be investigated further. Action: DFR has not responded, and we are currently seeking an update.
P–21–8	Closed— Acceptable Action	TO ATMOS ENERGY CORPORATION: Provide initial and recurrent training to Dallas Fire-Rescue Department arson investigators and firefighters on the local natural gas distribution system and associated hazards.
		Action: Atmos responded that it increased outreach to the DFR to provide initial and recurring training opportunities—including training center, in-house, and virtual options—to DFR arson investigators and firefighters on Atmos's natural gas distribution systems and associated hazards.
P-21-9	Closed— Acceptable Action	TO ATMOS ENERGY CORPORATION: Develop and implement more rigorous inside leak investigation requirements in response to fires and explosions when gas in- volvement cannot be excluded, including clear guidance on pressure testing and inside gas measurements and the potential need to return to the property after firefighters have departed.
		Action: Atmos responded that it developed and implemented more rigorous inside leak investigation requirements in response to fires and explosions when gas in- volvement cannot be excluded.
P-21-10	Closed— Acceptable Action	TO ATMOS ENERGY CORPORATION: Develop a clear procedure to coordinate with local emergency responders when investigating all fires and explosions that may be gas related to conclusively determine whether your system can be excluded as a potential contributor, and collecting the necessary evidence to support the con- clusion of your investigations.
		Action: Atmos responded that it developed and implemented enhanced investiga- tion procedures to coordinate with local emergency responders when investigating fires and explosions that may be gas-related, and enhanced its investigation procedures to collect the necessary evidence to determine if gas system can be excluded as a potential contributor.

Number	Status	Recommendation and Planned or Completed Actions
P-21-11	Open— Acceptable Response	TO ATMOS ENERGY CORPORATION: Revise your policies and procedures for re- sponding to leaks, fires, explosions, and emergency calls to address the chal- lenges caused by wet weather conditions. The revised policies and procedures should include: (1) leak investigation methods that are reliable in wet weather; (2) leak investigation procedures that assess all viable gas migration paths; (3) criteria for when to shut down or isolate gas distribution systems and pressure test main and service lines; and (4) an alternate safe response such as evacu- ation when reliable leak investigations are not possible due to wet weather or other circumstances.
		Action: Atmos responded that it revised its policies and procedures for respond- ing to leaks, fires, explosions, and emergency calls to address the challenges caused by wet weather conditions. We have requested more information regard- ing specific changes it has made to its leak investigation methods to ensure they are reliable in wet weather and the new criteria it will use to shut down, isolate or pressure-test its system if gas is suspected but weather conditions impede the leak investigation.
P-21-12	Open— Acceptable Response	TO ATMOS ENERGY CORPORATION: Without delay, assess your integrity manage- ment program, paying particular attention to the areas identified in this inves- tigation, and revise the program to appropriately consider: (1) threats that de- grade a system over time, and (2) the increased risk that can result from factors that simultaneously increase the likelihood and consequence of failure.
		Action: Atmos responded that it consolidated its various DIMP risk models into a single risk model for the natural gas distribution systems in Atmos's eight states of operation. The new consolidated DIMP considers approximately 130 factors across eight defined threat categories. Atmos engaged a third-party expert to review these input factors and weight them for relevance and applicability against industry standards and best practices. We have requested more information regarding the specific changes Atmos has made to its DIMP and explain how the revisions satisfy this recommendation so we can independently assess the effect of these changes.
P-21-13	Open— Acceptable Response	TO THE GAS PIPING TECHNOLOGY COMMITTEE: Develop additional guidance that identifies steps gas distribution operators can take to safely respond to leaks, fires, explosions, and emergency calls, considering the limitations due to wet weather conditions, that includes: (1) criteria for when to shut down or isolate gas distribution systems, pressure test main and service lines, and begin evacuations; (2) leak investigation methods that are reliable in wet weather, (3) require an alternate safe response, such as an evacuation when reliable leak investigations are not possible due to wet weather, and (4) leak investigations that assess all viable gas migration paths, including granular backfill and crawlspaces.
		Action: The GPTC responded that it drafted transaction TR 21–23, which ad- dressed steps gas distribution operators can take when responding to leaks, fires, explosions, and emergency calls, considering the limitations due to wet weather conditions. This draft transaction has been circulated to the GPTC's membership for review and comment.

Number	Status	Recommendation and Planned or Completed Actions
P-21-14	Open— Acceptable Response	TO THE GAS PIPING TECHNOLOGY COMMITTEE: Develop guidance that identifies steps that gas distribution operators can take to ensure that their gas distribution integrity management program, at a minimum, appropriately considers: (1) threats that degrade a system over time, and (2) the increased risk that can result from factors that simultaneously increase the likelihood and consequence of failure.
		Action: The GPTC responded that it drafted transaction TR 21–24, which addresses steps that gas distribution operators can take to ensure that their DIMP considers threats that degrade a system over time and the increased risk that can result from factors that simultaneously increase the likelihood and consequence of failure. The draft content for TR 21–24 was reviewed and approved by the GPTC's main body and is currently in letter ballot status.

Question 2. Chairwoman Homendy, I'm pleased to hear that you are making diversity and equity part of your hiring goals. As the Chairwoman of the Science,

versity and equity part of your hiring goals. As the Chairwoman of the Science, Space, and Technology Committee, I know there are many STEM focused minorities and HBCU students that would be a perfect fit for jobs at NTSB. Can you describe what steps you're taking to reach out to minority job candidates? *ANSWER.* The NTSB has developed strategic plans to support and address presi-dential Executive Orders (EOs) 13985, Advancing Racial Equity and Support for Underserved Communities, and 14035, Diversity, Equity, Inclusion, and Accessi-bility [DEIA] in the Federal Workforce. Our strategic plans include focusing on cre-ating increased employment equity and external stakeholder equity services for in-dividuals belonging to underserved communities that have historically been denied dividuals belonging to underserved communities that have historically been denied such opportunities.

Additionally, we have taken several steps to ensure that diversity and equity are central to our hiring goals. First, I have designated the NTSB's director of the Office of Equal Employment Opportunity, Diversity, and Inclusion (EEODI) as our agen-cy's chief diversity officer. She has been with our agency since 2000, and during her time here, she has established proactive policies and customized educational traintime here, she has established proactive poincies and customized educational trans-ing programs and barrier analysis studies to ensure inclusion, fairness, and non-discrimination in the NTSB's employment services. Second, the EEODI office is in the process of hiring a DEIA program manager to support outreach to women, underrepresented groups, and persons with targeted disabilities. We expect that person to be on board by the end of summer.

Third, as part of our strategic human capital plan, we are in the process of hiring a chief human capitol officer (CHCO) to lead strategic workforce development and implement policies and procedures to recruit, hire, develop, promote, and retain a workforce with greater diversity, equity, inclusion, and accessibility. The CHCO will also exercise managerial responsibility for all administrative and technical aspects of the NTSB Human Capital Management and Training Office; direct human capital policies, procedures, and guidelines; and assure that the NTSB is well structured to support its mission requirements.

Finally, the agency continues to participate in recruitment and other outreach activities at several Historically Black Colleges and Universities, including Morgan State, Howard University, and Elizabeth City State University, as well as at His-panic Serving Institutions, including the University of Central Florida and the University of Puerto Rico-Mayaguez. We have also partnered with the Chickasaw Nation for many years to host summer interns through their program. In addition, our Diversity and Inclusion Advisory Committee is working with hiring managers and office directors to revise marketing and outreach plans, including considering strate-gies to improve outreach to universities and colleges, that will coincide with proposed paid student pathway vacancy announcements.

Question 3. Chairwoman Homendy, the NTSB budget request asks for significant funds to hire additional staff. I know every case is different, but would these additional staff members allow the NTSB to expedite their investigations?

ANSWER. Recently, the NTSB has faced several issues that affected the timeliness of our reports, such as government shutdowns, global pandemics, and parallel criminal investigations of accidents that slow the process of evidence collection. We are actively pursuing ways to expedite our processes while keeping in mind the time required to complete thorough and accurate investigations. Our Office of Aviation Safety is leading the agency effort and has several initiatives underway. Our focus has been on process improvements, eliminating the backlog, and adding resources where most needed. For example, we are now using a data-driven approach to evaluate each step of an investigation to identify efficiencies and process improvements. That approach has already improved our report review process and reduced the review timeline. We are also utilizing that approach to better monitor, track, and measure progress, make adjustments if projects are delayed, and hold employees accountable for performance.

Additionally, we have identified staffing shortages as one source of timeliness issues. The reduction in workforce due to staff retirements means that there are simply fewer people to accomplish the same amount of work. This retirement trend is only projected to increase over the next several years; therefore, as an interim measure to meet the immediate need, we have hired retired investigators as reemployed annuitants to provide writing and final report processing support for certain investigations. We have also streamlined our hiring process to expedite filling vacancies, to the extent we are able under current budget constraints.

Support of our reauthorization proposal would allow the NTSB to hire more staff to meet the expanded need for transportation investigations, including those related to emerging issue areas. Funds will also allow us to focus investigations on our aging infrastructure and to reinforce our current recommendations.

QUESTIONS FROM HON. HENRY C. "HANK" JOHNSON, JR. TO HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

Question 1. Americans are increasingly returning to work in-person and more often than not, using roads to get there. Consequently, from January through September 2021, over 30,000 people died in motor vehicle traffic crashes—an increase of approximately 12 percent from for the first nine months of 2020, when folks mostly worked from home. While car crashes impact all of us, the number of Black Americans who died in such crashes was up 23 percent from 2019, the largest increase in traffic deaths among racial groups.

Mrs. Homendy, how concerned are you about the disproportionate impact on Americans of color and what steps is NTSB taking to combat the rising traffic fatalities among these communities?

ANSWER. As you mention, data show that communities of color disproportionately experience higher numbers of transportation-related injuries and deaths. In fact, last year, Black Americans saw the largest increase in traffic deaths compared to any other racial group. One reason for this increase is that infrastructure in historically low-income and underserved communities does not support safe transportation for vulnerable road users, such as pedestrians and bicyclists. We have long stressed the need to improve safety for such road users. Safe and equitable access to transportation is everyone's right. The NTSB's history of conducting multidisciplinary investigations has taught us

The NTSB's history of conducting multidisciplinary investigations has taught us that equitable access to safe transportation can be achieved by prioritizing what is known as a "Safe System Approach." A Safe System Approach holistically and comprehensively considers human error and vulnerability to design a transportation system with redundancies that enhance protection for everyone. This approach addresses all aspects of traffic safety: road users, vehicles, speeds, roads, and postcrash care. We believe so strongly in the benefits of a Safe System Approach that we have included it on our 2021–2022 Most Wanted List of Transportation Safety Improvements (MWL).

The NTSB is identifying and reaching out to organizations in underserved communities to expand the reach of our safety messages and to promote safe systems, not just automotive safety. We are also working to produce targeted materials in languages other than English to ensure that everyone can benefit from our safety advocacy and protect their communities and families. We believe these actions will facilitate safety improvements and reduce fatalities and serious injuries from road users in vulnerable communities.

Question 2. Each year, thousands of people are killed and injured in preventable crashes. That's why last year, in the House-passed INVEST Act, I authored several provisions including a requirement that trucks be equipped with life-saving automatic braking systems, which prevent a collision or decrease its severity in the few seconds before it occurs. Collision-Avoidance technologies like these can warn the driver of an upcoming hazard and act if the driver doesn't respond.

Mrs. Homendy, how can we ensure that these potentially lifesaving technologies are rolled out in vehicles as soon as possible, while bearing in mind that some cars lack the existing capacity to fully implement this technology?

ANSWER. In 2019, almost 2.1 million rear-end crashes occurred on the nation's highways, resulting in more than 2,300 fatalities and almost 600,000 injured people.

Many of these crashes could have been mitigated, or possibly even prevented, had rear-end collision-avoidance technologies been in place. Collision-avoidance technologies, especially forward collision warning and automatic emergency braking (AEB) systems, have been shown to reduce crash frequency and severity. The Insurance Institute for Highway Safety found that equipping vehicles with these systems could eliminate more than 40 percent of rear-end crashes involving large trucks and half of the crashes involving passenger vehicles.

half of the crashes involving passenger vehicles. Our 2021–2022 MWL calls for collision-avoidance and connected-vehicle technology on all vehicles. Our investigations have led to the issuance of more than 25 recommendations in this area, many of which have been directed to the National Highway Traffic Safety Administration (NHTSA). Currently, we have recommendations to NHTSA to develop and apply performance standards and protocols to assess forward collision avoidance systems in commercial vehicles; to expand test protocols to forward collision avoidance systems to include higher test velocities, detection of bicyclist, pedestrians, motorcyclist, and highway hardware; and to incorporate forward collision avoidance systems into the New Car Assessment Program (NCAP) rating system for passenger vehicles and to include those ratings on the Monroney label (the new car window sticker). Implementing these recommendations would ensure that life-saving technologies are installed as standard equipment in commercial trucks. Safety and performance standards give manufacturers an incentive to improve performance and drive public demand for crash-avoidance technologies and driver assistance systems.

The Infrastructure Investment and Jobs Act (IIJA) included a provision for the US Department of Transportation (DOT) and, by delegation, NHTSA, to require that all newly manufactured passenger motor vehicles include forward collision warning, AEB, and lane-keeping assistance technology. Although regulations require mandatory compliance and are enforceable, they also require substantial time to complete; therefore, in addition to regulations, the NCAP can effectively encourage fleets to adopt AEB technology.

The IIJA also requires the DOT to update the NCAP by establishing the following:

- Performance test criteria for crash-avoidance technology
- Criteria for rating vehicles on pedestrian, cyclist, and other vulnerable road user safety
- A roadmap for future updates to the NCAP, including meetings and feedback from diverse stakeholders interested in vehicle safety

NHTSA has developed basic testing protocols for forward collision avoidance systems in passenger vehicles; however, as we stated earlier, those protocols must be expanded to include more scenarios that better represent the hazards encountered on roadways. Additionally, the NCAP does not rate these technologies, and their performance or presence is not included in the overall 5-star safety rating. The NTSB considers this slow NCAP expansion to be the primary reason for the underuse of its potential. We continue to believe in the potential benefits of the NCAP to encourage the deployment of advanced vehicle technologies and ensure consumer recognition, demand, and use of these technologies. However, these benefits require an updated and dynamic NCAP.

The real-world safety benefits of these technologies are projected to be substantial, but incorporating them into vehicle fleets remains slow, so any potential lifesaving benefits have not been fully realized. Although we recognize NHTSA's progress, the goal of including collision-avoidance and connected-vehicle technology on all vehicles remains unmet until all these systems are required in all newly manufactured vehicles with minimum performance standards. In the interim, consumers must be provided with clear ratings on these safety technologies when purchasing new vehicles.

Question 3. Each year, the NTSB's Most Wanted List (MWL) highlights transportation safety improvements needed now to prevent accidents, reduce injuries, and save lives. While the NTSB can urge, advocate and educate, it can not always implement these recommendations.

a. Mrs. Homendy, what important NTSB safety recommendations to DOT are not currently being addressed?

ANSWER. As you know, the purpose of the MWL is to increase awareness and encourage adoption of our safety recommendations, which are the critical safety improvements that industry, labor, government, and the public must make across all modes of transportation to prevent accidents and crashes, reduce injuries, and save lives. There are currently 87 open recommendations to the secretary of transportation and the DOT modal administrations that are associated with the MWL. On May 6, 2022, we transmitted our evaluation [https://www.ntsb.gov/news/Documents/ NTSB%20Evaluation%200f%20DOT%202021-22%20MWL%20Final.pdf] of the DOT's report to Congress regarding the status of its recommendations. We are encouraged by the potential for progress in some areas; however, we remain concerned that there is still much work to be done to implement many recommendations related to the MWL that are currently in an unacceptable status or where implementation has been delayed.

b. How can Congress help the NTSB to ensure these safety recommendations are coordinated between the various federal agencies involved and implemented as quickly as possible to ensure thee highest possible safety standards?

ANSWER. This Committee has been a key player in ensuring that many of our recommendations have been implemented, achieving key safety improvements across transportation modes. You have mandated positive train control, improved marine passenger vessel safety, and passed numerous requirements implementing a Safe Systems Approach in the IIJA.

We look forward to continuing to work together to ensure that our safety recommendations are addressed by the recipients; however, DOT agencies have often told us they cannot take the recommended action on several issue areas because of congressionally imposed mandates. For example:

- PHMSA asserts that legislation prohibits it from acting on NTSB recommendations to require automatic or remote shut-off valves on existing transmission pipelines. Therefore, the new rule only applies to new pipeline and would not have prevented the tragedies that the NTSB has investigated in the past, including the gas-fueled fire and explosion in San Bruno, California. Congress could address this serious safety gap by requiring pipeline operators to retrofit existing lines with automatic or remotely controlled valves to ensure the flow of oil and gas is stopped in cases of ruptures or leaks.
- Roadway (rail track) workers are not covered employees under the hours-ofservice law, so the Federal Railroad Administration (FRA) claims it cannot prescribe hours-of-service requirements for these employees as we have recommended. Congress could amend the hours-of-service law or require the FRA to strengthen fatigue countermeasures for track employees.
- The Federal Motor Carrier Safety Administration (FMCSA) has indicated it cannot make any progress on implementing our recommendation regarding screening for and treating obstructive sleep apnea (OSA) due to restrictions placed on the it by Public Law 113-45. Congress should revise this law so the FMCSA can address the dangers of OSA.
- The Federal Aviation Administration (FAA) has indicated that it will not require helicopter air ambulance (HAA) or other Part 135 operators to have flight data monitoring (FDM) programs to analyze FDM data due to certain statutory protections of voluntarily submitted information. Although we believe that the FAA *can* take the recommended actions, we also believe that Congress should explicitly give the FAA the authority to *require* FDM programs.
 In our report on the January 2020 multivehicle crash in Mt. Pleasant, Pennsyl-
- In our report on the January 2020 multivehicle crash in Mt. Pleasant, Pennsylvania, we found that DOT leadership is needed to establish regulatory certainty and resolve critical issues related to vehicle-to-everything communication protocols; interference from unlicensed devices, such as those that use wi-fi; and sufficiency of communication spectrum needed for advanced connected vehicle applications. Accordingly, we recommended the DOT implement a plan for nation-wide connected vehicle technology deployment that (1) resolves issues related to interference from unlicensed devices, such as those that use wi-fi; (2) ensures sufficient spectrum necessary for advanced connected vehicle applications; and (3) defines communication protocols to be used in future connected vehicle deployment. However, the DOT cannot act unilaterally on our recommendation and must coordinate with the FCC, but division continues to hinder progress on this lifesaving technology.

We stand ready to provide information and offer any assistance to Congress in its efforts to improve transportation safety.

Question 4. As the NTSB notes in its most wanted safety improvements list, connected-vehicle technologies can help mitigate the severity of crashes or even stop them from occurring in the first place. Connected vehicles exchange information with highway infrastructure and other vehicles using safe, interoperable wireless communications. Networked vehicles are designed to improve traffic safety and mobility, while minimizing environmental impacts. Unfortunately, recent regulatory decisions by the Federal Communications Commission substantially shrank the communication spectrum dedicated to connected-vehicle technology. As NTSB noted if this decision to reallocate bandwidth is not reversed, progress on improving automotive safety may be slowed. Mrs. Homendy, has the NTSB made any progress in reaching consensus with the FCC on this bandwidth allocation?

ANSWER. I have met with FCC Chair Rosenworcel and expressed the NTSB's strong support for vehicle-to-everything communication. Although we have not yet seen consensus that would allow for the widespread adoption of connected-vehicle technology, I remain committed to working with the FCC to ensure the availability of an appropriate bandwidth for current and future transportation safety communications.

In our report on the Mt. Pleasant, Pennsylvania, crash, we concluded that the future deployment of connected vehicle technology is threatened by the recent FCC regulatory action that you mention. This action decreases the size of the intelligent transportation system communication spectrum, allows harmful interference from unlicensed devices, such as those that use wi-fi, and introduces significant regulatory uncertainty. We recommended that the FCC implement appropriate safeguards to protect vehicle-to-everything communications from harmful interference from such devices. Earlier this year, we released a video series [https:// www.ntsb.gov/Advocacy/safety-topics/Pages/v2x.aspx] related to our MWL item regarding connected vehicle technology to help educate and inform people about this issue.

QUESTIONS FROM HON. DINA TITUS TO HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

Question 1. We have seen examples in recent years of missing aircraft and black boxes that are never found, such as with Malaysia Airlines Flight 370 in 2014. Modern technology allows black boxes to be connected to the cloud so that in the event of an anomaly in flight the black box could be capable of offloading its data to the cloud.

Wouldn't it be useful to the NTSB if the data on black box recorders were cloud connected and recoverable immediately following a crash?

ANSWER. In 2014, the NTSB convened a forum on emerging flight data and locator technology where we discussed these issues. As a result, we made two recommendations to the FAA regarding transmitting flight data to ground-based systems; both of these recommendations are classified "Open—Acceptable Response."

- A-15-1. Require that all aircraft used in extended overwater operations and operating under Title 14 Code of Federal Regulations (1) Part 121 or (2) Part 135 that are required to have a cockpit voice recorder and a flight data recorder, be equipped with a tamper-resistant method to broadcast to a ground station sufficient information to establish the location where an aircraft terminates flight as the result of an accident within 6 nautical miles of the point of impact.
- A-15-3. Require that all newly manufactured aircraft used in extended overwater operations and operating under Title 14 *Code of Federal Regulations* (1) Part 121 or (2) Part 135 that are required to have a cockpit voice recorder and a flight data recorder, be equipped with a means to recover, at a minimum, mandatory flight data parameters; the means of recovery should not require underwater retrieval. Data should be captured from a triggering event until the end of the flight and for as long a time period before the triggering event as possible.

Question 2. On January 26, 2020, a Sikorsky S-76B helicopter collided with hilly terrain near the city of Calabasas, California. The pilot and eight passengers (including Kobe Bryant and his daughter) were fatally injured, and the helicopter was destroyed. Because there is no requirement, this helicopter was not equipped with a flight data monitoring (FDM) recorder or cockpit voice recorder. The synopsis from the NTSB's report recommends that FAA require all Part 121 and 135 operators to install data monitoring programs and retrofit turbine-powered aircraft with crash-resistant flight recorders to record cockpit audio and cockpit images.

Could you speak to the need to equip more helicopters with voice and data recorders and why this is important to help prevent future tragedies?

ANSWER. A crash-resistant flight recorder system capable of capturing audio and images can provide valuable information on the circumstances of an accident, including the visual cues the pilot saw, the pilot's actions, or the helicopter's flight track, all of which can help determine why the accident occurred, possibly enabling us to identify additional safety issues and develop additional, focused safety recommendations to prevent similar accidents in the future. Additionally, flight recorder systems can be used for an FDM program that collects data during normal operations, then reviews the data to identify safety issues and allow an operator to develop mitigations before an accident occurs. It is critical that FDM programs are required to analyze the data they collect, not just that FDM recorders should be installed.

We have previously issued safety recommendations to require recorders on helicopters. On May 6, 2013, we recommended that the FAA do the following:

• A-13-13. Require all existing turbine-powered, nonexperimental, nonrestrictedcategory aircraft that are not equipped with a flight data recorder [FDR] or cockpit voice recorder [CVR] and are operating under 14 Code of Federal Regulations Parts 91, 121, or 135 to be retrofitted with a crash-resistant flight recorder system. The crash-resistant flight recorder system should record cockpit audio and images with a view of the cockpit environment to include as much of the outside view as possible, and parametric data per aircraft and system installation, all as specified in Technical Standard Order C197, "Information Collection and Monitoring Systems."

Safety Recommendation A-13-13 is on our current MWL under the issue area, "Install Crash-Resistant Recorders and Establish Flight Data Monitoring Programs."

The types of CVRs and FDRs that are required to be installed on certain aircraft are designed to stringent crash-survivability standards. Crash-resistant image recorders are generally less expensive to purchase and install, lighter weight, and able to record much of the same information as CVRs and FDRs, as well as additional information (such as weather and pilot actions) from cockpit images.

In the years since we issued Safety Recommendation A-13-13, we have reiterated it six times based on our findings from investigations of other fatal accidents. We have been issuing similar recommendations since 2000. In 2017, in an effort to help inform FAA's analysis of the benefits of such a requirement, we identified all accidents in our database since 2005 that involved turbine-powered, nonexperimental, nonrestricted-category aircraft and in which flight crewmembers were killed. There were 185 such accidents, 159 of which involved advanced aircraft with complex systems, which can be challenging to investigate when recorded information is lacking. A recent update of the data review found that, in NTSB investigations of aviation accidents between 2005 and 2020 involving turbine-powered, nonexperimental, nonrestricted-category aircraft operating under Part 91 or 135 in which flight crew were killed, 83 percent had no recording equipment installed.

Question 3. Over 90 percent of transportation fatalities occur on our roadways, yet the Office of Highway Safety is among the smallest within NTSB.

How is the Board able to meet its goals for improving safety on the roads, which is often a multi-faceted issue, with these limited resources?

ANSWER. OHS is responsible for investigating the largest proportion of transportation deaths and injuries. Almost 95 percent of the nation's transportation deaths occur on our roadways, and fatalities are on the rise. An estimated 42,915 people died in motor vehicle crashes in 2021, an increase of 10.5 percent over 2021.

As our second largest modal office (with 18 investigators), OHS investigates bridge collapses, mass casualties and injuries on public transportation vehicles, highway-railroad grade crossing collisions, and crashes that involve new technologies (such as automated vehicles and alternatively fueled vehicles). The office also investigates certain other incidents based on initial analysis about how the conclusions from the investigation may advance safety.

Part of our congressional mandate is to conduct objective, precise accident investigations and safety studies and advocate for and promote our safety recommendations. This requires investigators to analyze, understand, and respond to technological changes in the transportation industry. To match the growth of highway crashes and fatalities and be responsive to the increasing complexity of emerging technologies, we must increase our budget. Our funding has not kept pace with the need to hire additional investigative and support staff, to train them, or to make needed program investments in information technology and enhanced data capabilities. Our reauthorization proposal ensures that we can accomplish all these things and represents a strong investment in our workforce. We greatly appreciate Congress's continued support by providing the NTSB with the requested authorization of appropriations to ensure mission readiness.

QUESTION FROM HON. MARK DESAULNIER TO HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

Question 1. As I'm sure you recall, on June 7, 2017, there was a potentially catastrophic near-miss aircraft incidents in which an Air Canada flight arriving at San Francisco International Airport (SFO) lined up and prepared to land on an occupied runway. In response, I met with dozens of stakeholders, including the NTSB, to develop the Safe Landings Act, which outlines a comprehensive response to this incident and addresses some of the safety concerns identified by experts. I sincerely appreciate the NTSB's support and cooperation through the drafting. Short of this legislation passing into law, however, what steps can the NTSB take today to reduce the risk of other near-misses?

ANSWER. Thank you, Representative DeSaulnier, for your leadership with the Safe Landings Act following our investigation of the 2017 SFO incident. Although we are not mandated to investigate aviation safety incidents, we investigate a number of them each year because they result in important safety lessons. As you know, the value in investigating incidents is that they share the same root causes as accidents that result in injuries and fatalities. If investigated, these incidents are an opportunity to discover system-wide improvements and proactively address risks that may, if unaddressed would likely result in lives lost in the future.

That is why we are also interested in incidents that occur in emerging industries, such as commercial human spaceflight. To be clear, our intention is not to investigate every incident; however, significant incidents that do not result in injuries or fatalities still represent opportunities for safety lessons and improvements that will save lives.

With the current level of funding, the NTSB has limited resources to fully investigate all these incidents, and we must prioritize those with the greatest effect on public safety. As a result, we may have to limit the scope and depth of other investigations and potentially miss some opportunities to advance safety. With the requested funds, however, we can expand our investigations of critical near-miss incidents, and thereby identify areas for safety improvements and inform significant safety legislation, like the Safe Landings Act.

QUESTIONS FROM HON. JESÚS G. "CHUY" GARCÍA TO HON. JENNIFER HOMENDY, CHAIR, NATIONAL TRANSPORTATION SAFETY BOARD

Question 1. For Chair Homendy: For many years, the National Highway Traffic Safety Administration (NHTSA) cited a flawed statistic that 94 percent of vehicle crashes are caused by human error. You have been very critical of NHTSA's use of this flawed statistic and NHTSA thankfully removed the statistic earlier this year from their website, in part due to your efforts. Can you:

a. Explain why this commonly cited, but flawed statistic, that 94 percent of vehicle crashes are due to human error is so wrong;

ANSWER. The statistic that cites that 94 percent of vehicle crashes as due to human error comes from research that 94 percent of vehicle crashes as due to human error comes from research that examined the last failure just prior to a crash event, with a focus on the driver. Although the research itself indicates that the results were not intended to be interpreted as the cause of the crash, they are used incorrectly by many, including NHTSA, many state departments of transportation, and some in the autonomous vehicle industry. Using this false and flawed statistic gives the impression that the only person who can prevent a crash is a driver. That is inaccurate and contrary to the Safe System Approach on our MWL. For example, speeding, which killed almost 12,000 people in 2021, can be addressed through the following:

- Changes in road design
- Lowering speed limits and granting authority to local municipalities and cities to lower limits (avoiding the one-size-fits-all approach to speed limit setting by states)
- Eliminating the 85th percentile approach to setting speed limits (which dates back to the 1950s and just leads to ever-increasing speed limits)
 Mandating vehicle technologies, such as advanced speed limiters and collision-
- Mandating vehicle technologies, such as advanced speed limiters and collisionavoidance systems
- Using speed safety cameras that have the effect of slowing traffic
- Increasing enforcement
- Educating drivers and passengers
- Investing in postcrash care to ensure responders, in the event of a crash, can save lives
- b. Explain the harm that occurs when the federal government's leading agency on traffic safety uses a flawed statistic that inhibits efforts to address preventable traffic crashes and fatalities; and

ANSWER. As a result of misinformation perpetuated by repeating the 94 percent myth, solutions to saving lives on our highways focus on changing driver behavior, which, though important, is only a single solution in a complex system. By taking a Safe System Approach, we focus on understanding the entire system in which these crashes occur—this means examining the driver plus the roadway environment, including speeds and weather; the vehicle and its design for both usability and occupant protection; and the emergency response. This full examination identifies a broad range of actions and changes that can prevent or mitigate a crash. Further, the Safe System Approach allows for road designers, public health officials, lawmakers, vehicle makers, transportation providers, and communities to find multiple and redundant solutions to reducing roadway fatalities rather than limiting our solutions to driver-based ones.

c. Highlight any other statistics that NHTSA currently uses that should be revised, withdrawn, or given more context. ANSWER. We will continue to review other NHTSA statistics to see if there are

ANSWER. We will continue to review other NHTSA statistics to see if there are any that need to be revised, withdrawn, or given more context. However, I will take this opportunity to highlight that the Federal Highway Administration (FHWA) should rescind its guidance to use the 85th percentile to set speed limits. This is it a guiding factor used to determine speed that unintentionally results in dangerous conditions by setting higher and higher speeds. This approach is deeply flawed because it rests on the fundamental assumption is that drivers operate at speeds they perceive as safe. This design makes drivers feel safe traveling at higher speeds, which then increases the 85th percentile. In 2017, we issued a safety study, *Reducing Speeding-Related Crashes Involving Passenger Vehicles* [https:// www.ntsb.gov/safety/safety-studies/Pages/DCA15SS002.aspx], which identified concerns with using the 85th percentile, including that there is not strong evidence that, within a given traffic flow, the 85th percentile speed equates to the speed with the lowest crash involvement rate on all road types, and that unintended consequences of using the 85th percentile speed for changing speed limits in speed zones include higher operating speeds and new, higher 85th percentile speed sources. Our study recommended that the FHWA revise its regulations to strengthen re-

Our study recommended that the FHWA revise its regulations to strengthen requirements for all speed-engineering studies and remove the guidance that speed limits in speed zones be within 5 mph of the 85th percentile speed. This issue is on our 2021–2022 MWL.

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