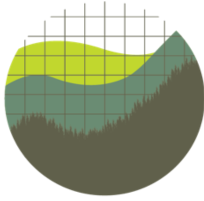

May 10, 2024

To: Office of the Secretary, U.S. Department of Transportation

Re: Ensuring Safe Accommodations for Air Travelers with Disabilities Using Wheelchairs, 89 Fed. Reg. 17,766 (DOT-OST-2022-0144) (proposed March 12, 2024)

The Institute for Policy Integrity at New York University School of Law (Policy Integrity)[1] respectfully submits the following comments to the Department of Transportation (DOT) on its proposed rule entitled Ensuring Safe Accommodations for Air Travelers with Disabilities Using Wheelchairs (the Proposed Rule).[2] Policy Integrity is a nonpartisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

The Proposed Rule would adopt a multifaceted approach to facilitating greater access to air transportation for passengers with disabilities, particularly those who depend on wheelchairs and other assistive devices. While DOT persuasively shows that the Proposed Rule carries many important benefits, the agency should improve upon its proposal and the accompanying benefit-cost analysis in several ways. Specifically, this comment offers the following recommendations:

- **In considering whether to adopt the Proposed Rule's fare-difference provision and how to design it, DOT should heed federal guidance on flexible compliance measures.** Such guidance offers high-level support for market-based mechanisms, such as requiring an airline that cannot accommodate a passenger to pay the fare difference to another airline that can. In particular, this approach could create financial incentives for air carriers to offer accommodations to passengers with disabilities.
- **DOT should conduct a benefit-cost analysis for the lavatory-size provision and presumptively adopt the provision if it concludes that benefits justify costs.** To help monetize benefits and costs, DOT should incorporate the methodology it used for its recent rule entitled Accessible Lavatories on Single-Aisle Aircraft (the Lavatories Rule).[3]
- **DOT should enhance its presentation of the Proposed Rule's benefits and costs** in several ways. Specifically:
    - **DOT should clarify its breakeven estimate for the avoided-injury benefits of the on-board-wheelchair (OBW) provision.** DOT should also apply the Lavatories Rule's methodology to monetize this provision's benefits related to increased lavatory accessibility, and it should conduct breakeven analyses to

[1] This document does not purport to present the views, if any, of New York University School of Law.
[2] Ensuring Safe Accommodations for Air Travelers with Disabilities Using Wheelchairs, 89 Fed. Reg. 17,766 (DOT-OST-2022-0144) (proposed Mar. 12, 2024) [hereinafter Proposed Rule].
[3] *See* Accessible Lavatories on Single-Aisle Aircraft, 88 Fed. Reg. 50,020 (Aug. 1, 2023) (codified at 14 C.F.R. pt. 382) [hereinafter Lavatories Rule].

account for uncertainty in the number of targeted beneficiaries for the provision.

  - **DOT should apply the breakeven methodology used for the OBW provision** to the currently unquantified benefits of avoided injuries and fatalities stemming from the enhanced training provision.
  - **DOT should explain whether the breakeven level of benefits for the enhanced-training and OBW provisions are plausible.**
  - If DOT concludes that the provisions of the Proposed Rule that are currently assumed to be costless actually do impose some costs, then **DOT should also account for those provisions' likely benefits**.
  - In assessing the present value of future benefits and costs, **DOT should apply a 2% discount rate in line with the updated Circular A-4**.

- **DOT should enhance its severability analysis** by drawing attention to the fact that the agency separately analyzes each of the Proposed Rule's provisions and by explaining more specifically why each provision can function independently.

Background

DOT published the Proposed Rule in March 2024 "to address the serious problems that individuals with disabilities using wheelchairs and scooters face when traveling by air that impact their safety and dignity, including mishandled wheelchairs and scooters and improper transfers to and from aircraft seats, aisle chairs, and personal wheelchairs."[4] The rule would comprehensively update the agency's implementation of the Air Carrier Access Act, which restricts discrimination against handicapped individuals by air carriers.[5]

The Proposed Rule focuses principally on the handling of assistive devices themselves. Specifically, the Proposed Rule includes 11 distinct provisions; of these, DOT proposes to adopt the first nine and requests comment on whether to adopt the last two.[6] The first nine provisions would impose various mandates on air carriers, including the prompt enplaning and deplaning of individuals with disabilities, timely notification after a wheelchair is unloaded from the aircraft, prompt return of delayed wheelchairs or scooters, prompt repair or replacement of damaged wheelchairs or scooters, loaner wheelchair accommodations when a wheelchair is damaged, and enhanced training for certain airline personnel.[7]

The tenth provision contemplates requiring that one bathroom on newly constructed twin-aisle aircraft be large enough to accommodate both a passenger with a disability and an attendant.[8] If adopted, this provision would build upon the DOT's Lavatories Rule, promulgated in 2023, which imposes the same requirement for new single-aisle aircraft with 125 seats or more.[9] DOT expresses uncertainty about current practice on twin-aisle aircraft and "solicits data and

[4] Proposed Rule, 89 Fed. Reg. at 17,766.
[5] 49 U.S.C. § 41705.
[6] *See* Proposed Rule, 89 Fed. Reg. at 17,767–68 tbl.1 (summarizing provisions).
[7] *See id.*
[8] *Id*. at 17,781–82.
[9] *See id.* at 17,782 (describing the Lavatories Rule).

comment" on various questions including "the incremental benefits for passengers with disabilities, and other passengers."[10]

The eleventh provision would "require U.S. and foreign air carriers to refund the difference between the fare on a flight a passenger who uses a wheelchair took and the fare on a flight that the passenger would have taken if his or her wheelchair had been able to fit in the cabin or cargo compartment of the aircraft."[11] DOT states that "[i]ndividuals with disabilities should not have to pay higher prices for air fares only because their assistive devices cannot be transported on certain flights," but also notes that "[a]irlines asserted that this option would be costly and complex."[12] Accordingly, DOT seeks comment on the feasibility and desirability of this proposal.[13]

In the Proposed Rule's Regulatory Impact Analysis (Proposed Rule RIA), DOT presents the anticipated benefits and costs of the regulation.[14] According to DOT, the regulation would make air travel safer and more accommodating for persons with disabilities by (i) reducing dignitary and physical harms to passengers, (ii) minimizing damage to passengers' assistive devices, and (iii) increasing participation by persons with disabilities in the air-travel market.[15] The Proposed Rule's costs would derive from the compliance burdens imposed on airlines in (re)training crew and replacing OBWs that do not meet the Department's standards.[16] In total, DOT estimates that the Proposed Rule would result in approximately $170 million in monetized benefits between 2023 and 2043 and $183 million in monetized costs.[17] However, DOT does not monetize many regulatory benefits.[18]

I. The Proposed Fare-Difference Provision Could Resemble Flexible Compliance Approaches That Federal Guidance Generally Endorses

DOT seeks comment on many aspects of the potential fare-difference provision, including its feasibility and design.[19] If DOT deems this provision feasible, it should heed federal guidance to help guide its design.

In particular, federal guidance identifies several advantages of market-oriented approaches that enable flexible compliance pathways, while also warning against potential pitfalls.[20] If feasible,

[10] *Id.*
[11] *Id.*
[12] *Id.* at 17,783.
[13] *See id.* at 17,783–84.
[14] U.S. Dep't of Transp., Ensuring Safe Accommodations for Air Travelers with Disabilities Using Wheelchairs: Regulatory Impact Analysis (2024) [Proposed Rule RIA]. The provisions analyzed include the following: Enhanced Training Requirements for Certain Airline Personnel and Contractors; Onboard Wheelchair Performance Requirements; Safe, Dignified and Prompt Assistance Requirements; Remedies for Mishandling of Assistive Devices; and Accommodations for Impacted Passengers.
[15] *Id.* at i–ii.
[16] *Id.* at ii–iii.
[17] *Id.* at iii–v tbl.1 (total present value using a 3% discount rate).
[18] *See id.* (listing unquantified impacts in far-right column).
[19] *See* Proposed Rule, 89 Fed. Reg. at 12,783–84.
[20] *See, e.g.*, OFF. OF MGMT. & BUDGET, CIRCULAR A-4: REGULATORY ANALYSIS 25 (2023) [hereinafter UPDATED CIRCULAR A-4] ("Market-oriented approaches should be explored when permissible and appropriate. These alternatives include fees, penalties, subsidies, marketable permits or offsets, changes in liability or property rights (including policies that alter the incentives of insurers and insured parties), and required bonds, insurance, or warranties.").

DOT should consider a regulatory approach that mimics a marketable-permits framework. That would involve a recommendation that the ACAA Advisory Committee considered (but did not advance) to "require airlines [to] accommodate a passenger on another airline that can transport the passenger and his or her wheelchair or scooter at no additional cost [to the passenger]."[21] The non-accommodating airline would pay the full fare difference, so the accommodating airline does not forgo any potential revenue and the passenger is not forced to pay additional fare. This scheme could create financial incentives for some airlines to "overcomply"—say, to set aside more space than a carrier predicts needing for these assistive devices. In turn, other carriers for whom accommodation would be costlier could "buy compliance" from those carriers that can overcomply cost-effectively.

A critical benefit of marketable permits and similar flexible compliance mechanisms is that they can "allocate privileges and obligations more efficiently than traditional regulation, by allowing the market to identify and prioritize the lowest-cost abatement opportunities."[22] Additionally, "[m]arketable permit programs also likely incentivize innovation better than traditional regulation."[23] Here, for instance, if DOT "require[d] airlines [to] accommodate a passenger on another airline that can transport the passenger and his or her wheelchair or scooter,"[24] with any additional cost falling on the initial airline that was unable to accommodate the passenger, then airlines would be financially incentivized to efficiently accommodate wheelchairs and scooters. These incentives would function somewhat similarly to those in markets for tradeable permits as the actors who cannot cheaply comply in a given instance can "buy compliance," in a sense, from those who can.

Assuming this cross-airline approach is feasible, this situation appears to be a good candidate for this type of marketable permitting. An Administrative Conference of the United States consultant's report on marketable permits observes that such measures tend to be most effective (i) when "regulators care more about overall activity levels than [about] the identity of [the regulated] actors," (ii) "when sufficient variation exists between permittees' compliance costs," (iii) when regulating "a large number of heterogeneous or small sources," (iv) "when regulating more sophisticated actors," and (v) when agencies draw "regulatory authority [for the program] from broad statutory language."[25] Most, if not all,[26] of these factors could be present in a well-designed program with market-based flexibilities. On the first factor, regulators may be more concerned about overall accessibility of air travel than with whether one carrier performs better than another.[27] On the third factor, the proposal would regulate many heterogeneous or small sources if we consider each aircraft model as an independent "source"—and even more sources insofar as a given aircraft model differs across airlines. On the fourth, airlines are certainly

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[21] Proposed Rule, 89 Fed. Reg. at 17,783.

[22] Jason A. Schwartz, Marketable Permits: Recommendations on Applications and Management ii–iii (2017). Note that Schwartz, who served as the consultant to ACUS on the marketable permits project, is also Policy Integrity's legal director and a signatory on this letter.

[23] *Id.*

[24] Proposed Rule, 89 Fed. Reg. at 17,783.

[25] Schwartz, *supra* note 22, at ii–iii (2017).

[26] Based on the record, it is not clear whether considerable "variation exists between permittees' compliance costs."

[27] Note, though, to the extent not all air carrier services are necessarily perfectly fungible in terms of ancillary services provided in-flight, financial tie-ins and perks, geographic range, and other factors, DOT may want to place some limits on any individual airline's ability to completely rely on external offsets to meet its compliance obligations. Many marketable permit programs set some limits on the extent to which regulated entities can rely on purchased credits for compliance.

sophisticated actors. And on the fifth, DOT claims broad authority to regulate under the Air Carrier Access Act.[28]

A potential drawback of flexible compliance measures, as observed in Circular A-4, is that some "design options in some regulatory contexts produce distributional effects that are deemed unacceptable," such as when trading across firms leads to "hot-spots" where standards fall below the national or industry average.[29] This "hot-spot" problem may apply to aircraft accessibility in general insofar as smaller airports, or airports that are served by smaller aircraft, have fewer accessibility options than large airports. It may also apply insofar as the carriers who more often "overcomply," and therefore tend to carry disproportionate shares of passengers with assistive devices, are of worse quality than the industry average (e.g., budget airlines). Still, some of these "hot spot" problems would exist in the pre-provision baseline and would thus not be attributable to the provision. To the extent the provision could exacerbate any "hot-spot" issues, DOT should consider opportunities to minimize this risk.

In short, if feasible, DOT should consider designing the proposed fare-difference provision to resemble flexible compliance approaches that guidance indicates to be appropriate in this circumstance. The agency should also be attentive to the downsides sometimes associated with such approaches.

II. DOT Should Conduct a Benefit-Cost Analysis of the Lavatory-Size Provision and Presumptively Adopt the Provision if It Concludes That Its Benefits Justify Its Costs

As noted above, the other proposed provision on which DOT expressly seeks comment is the lavatory-size provision. The Proposed Rule's RIA does not assess the benefits and costs of the lavatory-size provision,[30] potentially because the agency lacks sufficient data to conduct that analysis.[31] DOT should conduct a benefit-cost analysis of the lavatory provision and, consistent with executive order,[32] presumptively adopt the provision if it concludes that benefits justify costs. To the extent possible after DOT receives data through the comment period, DOT should quantify and monetize these benefits and costs.

DOT's regulatory impact analysis for the Lavatories Rule (the Lavatories Rule RIA) provides a fruitful starting point for such an analysis here.[33] The Lavatories Rule RIA identifies numerous potential benefits from increasing aircraft lavatory sizes, most notably increased lavatory access for passengers with disabilities.[34] DOT applies a monetized benefit of $194 (in 2021 dollars) per affected passenger for this benefit, derived based from willingness to pay (WTP) to avoid a connecting flight (a common accommodation strategy by passengers with disabilities to enable

[28] *See* Proposed Rule, 89 Fed. Reg. at 17,767 (outlining agency's rulemaking authority pursuant to 49 U.S.C. §§ 40113 and 41705).
[29] UPDATED CIRCULAR A-4, *supra* note 20, at 25.
[30] Proposed Rule RIA, at vi.
[31] *See* Proposed Rule, 89 Fed. Reg. at 17,782 (seeking extensive data on this proposal's effects).
[32] Exec. Order No. 12,866 § 1(a), 58 Fed. Reg. 51,735, 51,735 (Oct. 4, 1993) (instructing agencies "choosing among alternative regulatory approaches" to "select those approaches that maximize net benefits (including . . . distributive impacts[] and equity)," to the extent permitted by law); *see also* Exec. Order No. 14,094 § 1, 88 Fed. Reg. 21,879, 21,879 (Apr. 11, 2023) (reaffirming the principles of Executive Order 12,866); UPDATED CIRCULAR A-4, *supra* note 20, at 2–3.
[33] U.S. Dep't of Transp., Accessible Lavatories on Single-Aisle Aircraft Regulatory Impact Analysis 14 (June 2023) [hereinafter Lavatories Rule RIA].
[34] *Id.* at 13–14.

use of layover airports' lavatories).[35] The Lavatories Rule RIA also contemplates (but does not monetize) both new market participants and increased participation in the air travel market by persons with disabilities who currently limit their travel due to limited lavatory access.[36] The Lavatories Rule RIA further recognizes (but also does not monetize) benefits to passengers who are able to use even small restrooms but who still derive utility from being able to access a more spacious bathroom, including persons traveling with infants.[37]

DOT also assessed various costs of the Lavatories Rule. These include deadweight loss due to a reduction in seating capacity (along with an accompanying transfer from passengers to airlines through higher airfares)[38] and installation costs.[39] DOT then compared benefits to costs using a breakeven methodology in which it assumed different values for the number of passengers with relevant disabilities (each assigned the $194 benefit) and the breakeven WTP value for other passengers.[40]

The methodologies used to support the Lavatories Rule can generally be applied to the lavatory-size provision of the Proposed Rule. After all, that provision is virtually identical to the Lavatories Rule, except it applies in a different type of aircraft (two-aisle rather than single-aisle). If applying such methodologies shows that the benefits of the lavatory-size provision likely justify its costs, DOT should presumptively adopt the provision.[41]

III. DOT Should More Robustly Analyze Regulatory Benefits

DOT can take five reasonable steps to analyze the Proposed Rule's benefits more robustly:

- First, DOT should expand upon its breakeven analysis for the OBW provision, which requires improved performance standards for OBWs.[42] Specifically, the agency should expand on its breakeven analysis for the OBW provision's avoided-injury benefits, and it should monetize the lavatory-accessibility benefits.
- Second, DOT should apply the breakeven methodology that it used for the OBW provision to the currently unquantified benefits of avoided injuries and fatalities for the enhanced-training provision.[43]
- Third, DOT should explain whether the breakeven level of benefits for the OBW and enhanced-training provisions are plausible.
- Fourth, DOT should clarify that if provisions currently assumed to be costless actually will impose costs on carriers (i.e., that existing industry practices may, contrary to the

[35] *Id.* at 18.
[36] *Id*. at 14–17.
[37] *Id*. at 14. However, DOT recognized that expanding lavatory size may yield corresponding costs as passengers may stay in the bathrooms for longer periods, thereby causing longer lines to use the lavatory.
[38] *Id.* at 19–22.
[39] *Id*. at 22–23.
[40] *Id.* at 30 tbl.9-2.
[41] *See* Exec. Order No. 12,866 § 1(a).
[42] Proposed Rule, 89 Fed. Reg. at 17,780; *see also* 14 C.F.R. § 382.65 (providing the current minimum safety and accessibility standards for OBWs).
[43] 14 C.F.R. § 382.141. The phrase "enhanced training provision" is used here to encompass both the proposed enhanced wheelchair handling training requirements and the enhanced transfer assistance training requirements.

current assumption, not already fully meet the proposed standards), then those provisions will also very likely generate benefits.

- Fifth, DOT should apply a 2% discount rate to monetized benefits and costs in line with the updated Circular A-4.

This section discusses each recommendation in turn.

A. DOT Should Expand Upon Its Breakeven Analysis for the OBW Provision

DOT's decision to use breakeven analysis to help analyze the OBW provision's benefits is well justified. The Office of Management and Budget's recently revised Circular A-4 is clear that such analysis can be especially useful when "the action under consideration will change the probability of events occurring or the potential magnitude of those events,"[44] which is precisely the case here.[45] The 2003 version of Circular A-4 is similarly emphatic.[46]

Still, DOT should take two reasonable steps to enhance the breakeven analysis for this provision. It should clarify how it generated its breakeven estimates for avoided injuries, and it should monetize lavatory-accessibility benefits using the methodology it used in the Lavatories Rule. This subsection discusses each in turn.

Clarifying the Breakeven Estimate. DOT appropriately conducts a breakeven analysis in assessing reduced passenger injuries from the OBW provision. Given that DOT lacks "data on the number, kind, and cost of injuries sustained due to problems with the current OBWs,"[47] it is unable to directly quantify and monetize the number of avoided injuries that would result from adopting the provision. Thus, in line with Circular A-4, the agency calculates "what magnitude non-monetized benefits . . . would need to have for the regulation at issue to yield positive net benefits."[48] DOT should, however, clarify the assumptions that underlie its breakeven estimate for avoided injuries.

DOT performs a breakeven analysis of the OBW provision's avoided injuries by "assum[ing] the average cost per injury is the lowest crash injury cost from the MAIS crash cost injury scale," which is $35,400.[49] It is unclear from the RIA what the MAIS crash cost injury scale is or why DOT identifies the lowest crash injury cost on that scale as an appropriate approximation of the average cost per injury due to problems with current OBWs. DOT should clarify these points.

The agency then estimates the number of avoided injuries that would be required for the provision to break even, based on "FAA forecasts of passenger enplanement growth" and an assumption that wheelchair enplanements grow "in parallel" with overall passenger enplanement.[50] DOT's conclusion that the OBW provision would need to reduce the frequency

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[44] *Id.* at 47.
[45] *See* Proposed Rule RIA, *supra* note 14, at 33 (noting that DOT lacks "data on the number, kind, and cost of injuries sustained due to problems with the current OBWs" and how much the Proposed Rule would change such).
[46] *See* OFF. OF MGMT. & BUDGET, CIRCULAR A-4: REGULATORY ANALYSIS 2 (2003), https://www.whitehouse.gov/wpcontent/uploads/legacy_drupal_files/omb/circulars/A4/a-4.pdf [https://perma.cc/PJ7V-ALZ7] [hereinafter PRIOR CIRCULAR A-4] ("If the non-quantified benefits and costs are likely to be important, you should carry out a 'threshold' [or 'break-even'] analysis to evaluate their significance.").
[47] Proposed Rule RIA, *supra* note 14, at 33.
[48] UPDATED CIRCULAR A-4, *supra* note 20, at 47; *see also* PRIOR CIRCULAR A-4, *supra* note 46, at 2.
[49] Proposed Rule RIA, *supra* note 14, at 31.
[50] *Id.* at 33 (emphasis added). Whether this assumption tends to understate wheelchair enplanements or to overstate them is unclear *a priori*. On the one hand, the U.S. population is aging and thus presumably using more wheelchairs.

of OBW-related injuries "*to* approximately 3 per 100,000 wheelchair enplanements in order for benefits to exceed costs"[51] appears to imply that DOT has some baseline estimate as to the frequency of OBW-related injuries. If this is the case, then DOT should provide the baseline data for transparency. If instead DOT does not have baseline data, then it should clarify whether it meant a reduction "*by* approximately 3 per 100,000 enplanements" (rather than a reduction "*to* approximately 3 per 100,000"), as DOT could calculate that figure without baseline data. This latter reading appears likely given DOT's statements elsewhere in the RIA.[52]

Monetizing Lavatory-Accessibility Benefits. The Proposed Rule cites "improved lavatory accessibility" as a benefit of the OBW provision, but it does not quantify the benefit.[53] In its recent Lavatories Rule, however, DOT quantifies and monetizes the benefits of improved lavatory accessibility, as discussed above.[54] Particularly given that the Proposed Rule has not quantified or monetized any benefits for the OBW provision (only conducting a breakeven analysis for avoided injuries), providing a valuation estimate for improved lavatory accessibility would allow for a more accurate comparison of costs and benefits of the OBW provision.

To estimate the OBW provision's total lavatory-accessibility benefits, DOT must identify the population that would directly benefit from this provision—that is, the number or share of passengers to whom it can assign the WTP of $194 (assuming the Proposed Rule uses 2021 dollars, as in the Lavatories Rule RIA) as a proxy for the incremental costs of the inability to access a lavatory on an aircraft.[55] In the Lavatories Rule RIA, DOT explains that it assumes the "targeted beneficiaries" of the rule to be 3% of total air passengers flying on single-aisle aircraft, roughly representing "the percent of passengers with mobility impairments involving the use of assistive devices and the percent of passengers with severe difficulty walking."[56] As it did in the Lavatories Rule, DOT should be able to make a reasoned assumption regarding the number of individuals who "would benefit most directly from the accessibility requirements" of the Proposed Rule's OBW provision.[57] The category of passengers with mobility impairments involving the use of wheelchairs may be particularly apt, which DOT could derive from the U.S. Census Bureau's 2014 Americans with Disabilities report, as it did in the Lavatories Rule RIA.[58] Table A-1 of that report shows that 2.3% of adults 18 and older use a wheelchair.[59] DOT can supplement that estimate using any relevant data on the "share of passengers who would like to use an OBW to access the lavatory" and "would be able to use the OBW to access the lavatory"[60] to determine the most appropriate estimate of targeted beneficiaries.

On the other hand, medical innovation may yield less need for wheelchairs among elderly populations than in the past.

[51] *Id.*

[52] *See id.* at ii ("If the OBW provision prevents 24 injuries annually in 2023 and if those injury counts were to grow at the same rate as overall air travel until 2043 (resulting in 48 avoided injuries annually in 2043) then the benefits of the proposed rule would exceed the costs of $13.0 million in present value.").

[53] Proposed Rule, 89 Fed. Reg. at 17,785.

[54] *See* Lavatories Rule RIA, *supra* note 33, at 17–19.

[55] *See id.* at 18.

[56] *Id.* at 16–17.

[57] *See id.* at 16.

[58] *See id.* at 14–15 (citing DANIELLE M. TAYLOR, U.S. CENSUS BUR., AMERICANS WITH DISABILITIES: 2014, at 21 tbl.A-1 (2018), https://www.census.gov/content/dam/Census/library/publications/2018/demo/p70-152.pdf [https://perma.cc/PZ2R-LYW9] [hereinafter 2014 AMERICANS WITH DISABILITIES REPORT]).

[59] 2014 AMERICANS WITH DISABILITIES REPORT, *supra* note 58, at 21 tbl.A-1.

[60] *See* Proposed Rule RIA, *supra* note 14, at 34.

If the monetized benefits of increased lavatory accessibility alone exceed the total costs of the OBW provision, then DOT can conclude that the provision's benefits plausibly justify its costs. If, however, costs exceed these newly monetized benefits, then DOT would have to address "only partial nonquantifiability."[61] DOT could then run a new breakeven analysis to calculate the value of unmonetized benefits required for the provision to break even. DOT should assess whether any breakeven values it computes are plausible, as recommended below.

DOT should also apply its Lavatories Rule methodology to address any uncertainty in the percentage of passengers who are direct beneficiaries of the rule. In the Lavatories Rule RIA, DOT addresses this uncertainty by conducting breakeven analyses for a range of possible beneficiary scenarios: for each estimated share of passengers assigned a $194 WTP, the agency calculates the WTP that must be assigned to non-targeted passengers for the rule to break even.[62] In this way, DOT accounts for the fact that two categories of benefits combine to produce the total benefits of the rule, and calculates the different combinations of benefits that would allow total benefits to exceed total costs.[63] The Proposed Rule's OBW provision also has two general benefits categories on which the agency could conduct a similar breakeven analysis. As with the Lavatories Rule, one input would be the percentage share of passengers benefiting from increased lavatory accessibility. The other input for the Proposed Rule would be the value of avoided injuries. DOT can thus identify the different scenarios and assumptions under which the total benefits of the OBW provision exceed the total costs.

B. DOT Should Apply the Breakeven Methodology That It Uses for the OBW Provision to the Currently Unquantified Benefits of Avoided Injuries and Fatalities for the Enhanced-Training Provision

DOT should apply the same breakeven methodology that it applies to the OBW provision's avoided-injuries benefits to the Proposed Rule's enhanced-training provision, which the agency similarly expects to reduce both injuries and fatalities.[64] DOT explains that it does not quantify the benefits of avoided injuries and fatalities attributed to enhanced wheelchair-handling and physical-assistance training because it lacks information about the baseline number and rate of fatalities and injuries caused by "poor assistance," "the effectiveness of the training in preventing injuries and fatalities," and the "typical social costs" of the injuries that result from poor assistance.[65] The RIA recognizes that there have been media reports of both injuries and fatalities, including at least one report of a passenger dying "from injuries sustained from being without their customized wheelchair," and at least two reports of passengers dying "from injuries sustained during inadequate and unsafe wheelchair assistance."[66] It further states that injuries and fatalities may be underreported in the media, which often serves as the best source of information regarding these events.[67] Based on the available information from media reports and public

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[61] Cass R. Sunstein, *The Limits of Quantification*, 102 CAL. L. REV. 1369, 1392 (2014).

[62] *See id.* at 16–17, 30 & tbl.9-2. For example, if the share of passengers assigned a $194 WTP is 2.0%, the WTP value for other passengers must be $0.67 for the rule to break even. *Id.* at 30 tbl.9-2.

[63] *See generally* UPDATED CIRCULAR A-4, *supra* note 20, at 47 ("Break-even presentations may reflect situations in which multiple inputs are available (A,B) and other inputs are missing (X,Y). The analysis would demonstrate how A and B combine to quantify what is known about the scope and timing of the potential benefits (or costs), and how X and Y would need to combine for a regulatory provision to break even.").

[64] Proposed Rule, 89 Fed. Reg. at 17,784 tbl.4.

[65] Proposed Rule RIA, *supra* note 14, at 29–31.

[66] *Id.* at 28, 30.

[67] *Id.* at 29.

comments, DOT "believes avoided injuries and fatalities could significantly contribute to the total benefits of the rule" in the case of wheelchair-handling-training provision, and "justify th[e] costs" in the case of the physical-assistance-training provision.[68] Expanded benefits analysis could provide support for this belief.

Even though the OBW provision faces data limitations similar to those present for the enhanced-training provision, DOT performs a breakeven analysis of the OBW provision's avoided injuries, as discussed above. To maintain consistency and improve its analysis of unquantified benefits across the Proposed Rule's provisions, DOT should use analogous assumptions—including similar assumptions regarding future enplanements and perhaps even assuming the same per-injury cost of $35,400—to estimate the value at which avoided injuries would alone justify the costs of the enhanced training provision. To assess whether this breakeven rate of avoided injuries is plausible, DOT already concludes that the quantified and monetized benefit of avoided wheelchair damage due to improved wheelchair handling alone exceeds the total costs of the enhanced training provision.[69] If DOT determines that avoided injuries alone may independently allow the provision to break even, this would further bolster its conclusion that the provision's benefits exceed its costs.

To further enhance its analysis, DOT may also wish to perform a similar breakeven analysis for avoided fatalities associated with the enhanced training provision. DOT estimates the value of a statistical life (VSL), which represents the social benefit of avoiding one expected fatality, to be $12.5 million for a fatality in 2022.[70] The agency can use the VSL in combination with the same assumptions regarding growth in wheelchair enplanements to derive an estimate of the avoided fatalities required for the enhanced-training provision to break even. Without ignoring other benefits, a very small number of avoided fatalities could add significantly to the total benefits of the provision and provide stronger evidence that the benefits justify the costs.[71]

If DOT cannot conclude that either injury or fatality benefits are likely to break even independently, it could construct a table with the number of injuries avoided annually (in increments of, say, 10 or 25) along one axis and the number of fatalities avoided annually (in increments of, say, 0.1 or 0.2) along the other. It could shade in the cells where the applicable combinations of avoided injuries and fatalities cause the provision to break even. That kind of multi-variable breakeven analysis helps show what *bundles* of safety benefits might justify the provision. DOT should then assess whether those bundles are plausible. DOT could also add a third variable—the reduced wheelchair damage that it already quantifies—to this analysis.

Concerning the wheelchair-handling-training aspect of the enhanced-training provision, DOT assumes that the Proposed Rule will be 50% effective in reducing the incidence of wheelchair mishandling, "meaning the proposed rule is expected to reduce damages by half."[72] The source of this estimate is unclear. Unless it has more robust data, DOT should conduct a sensitivity

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[68] *Id.* at 29, 31.
[69] *See* Proposed Rule, 89 Fed. Reg. at 17,784 tbl.4.
[70] Dep't of Transp., *Departmental Guidance on Valuation of a Statistical Life in Economic Analysis* (2021), https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-on-valuation-of-a-statistical-life-in-economic-analysis [https://perma.cc/S62K-CWP5].
[71] For instance, the 2022 VSL is more than 370 times greater than DOT's social cost of injury estimate ($35,400), and constitutes 7.3% of the total twenty-year cost of the enhanced training provision at a 3% discount rate ($170.9 million). *See* Proposed Rule RIA, *supra* note 14, at 17,784 tbl.4.
[72] *Id.* at 27.

analysis on this effectiveness value, in which it varies its assumption about the effectiveness of the wheelchair handling training in preventing damage to demonstrate the change in net benefits that would result.[73] For scenarios in which the effectiveness value results in costs exceeding monetized benefits from reduced wheelchair damage, DOT should do a breakeven analysis to calculate the value of avoided injury and avoided fatality benefits needed for the provision to break even,[74] mirroring its two-input approach in the Lavatories Rule RIA.[75]

C. For the OBW and Enhanced-Training Provisions, DOT Should Explain Whether It Finds the Breakeven Level of Benefits to Be Plausible

DOT should expand its breakeven analysis of the OBW and enhanced-training provisions to explain whether it finds the breakeven level of benefits to be plausible. As a federal district court noted in striking down a rule from the Federal Highway Administration (a DOT agency), a breakeven analysis does little to support an agency's contention that a regulation is net beneficial when the agency provides "no reason to believe that [the breakeven level of benefits] would occur at all."[76] To determine the plausibility for each provision, DOT should consider how effectively each provision would generate the benefit in question. For example, to determine the likelihood that the OBW provision will prevent its calculated breakeven level of 727.97 injuries over 20 years,[77] DOT should consider how effective the OBW provision will be at preventing related injuries. DOT could justifiably conclude that benefits would likely justify costs if the agency determines, in its expert judgment based on available evidence, that the breakeven benefit levels are likely. DOT should make similar assessments as to the plausibility that the enhanced-training provision would achieve the breakeven level of avoided injuries and fatalities.

D. DOT Should Clarify That if Provisions Currently Assumed to Be Costless Actually Will Carry Costs, Then Those Provisions Will Also Very Likely Generate Benefits

DOT currently assumes, based on interviews with carriers, that the Proposed Rule's provisions imposing requirements for safe, dignified, and prompt assistance, as well as the provisions providing remedies and accommodations for mishandling of wheelchairs, are costless (and also, correspondingly, provides no benefits), because the carriers already voluntarily meet the proposed standard.[78] DOT does seek some additional information regarding the potential costs of these provisions, including whether carriers would need to hire additional personnel to comply with the prompt assistance requirement under the proposed regulation.[79]

If, in light of such new information, DOT ultimately finds that the industry does not yet fully meet the proposed standard and would need to incur costs to do so, then, absent compelling

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[73] *See* UPDATED CIRCULAR A-4, *supra* note 20, at 71 ("Sensitivity analysis can be used to find 'switch points,' critical parameter values at which estimated net benefits change sign or the alternative with the most net benefits switches.").
[74] *See id.* at 47–48 & n.88 (demonstrating the creation of a breakeven curve with regulatory effectiveness and monetized value of benefits as variables).
[75] *See* Lavatories Rule RIA, *supra* note 33, at 30 tbl.9-2 (reporting breakeven values for one unquantified benefit (WTP by passengers without disabilities) under different assumptions regarding an uncertain quantified benefit (passengers who directly benefit from the rule)).
[76] Kentucky v. Fed. Highway Admin., No. 5:23-CV-162-BJB, 2024 WL 1402443, at *17 n.14 (W.D. Ky. Apr. 1, 2024); *see also id.* (explaining that the agency's breakeven analysis did not support the agency's regulatory design as the benefits were "far from certain to materialize").
[77] *See* Proposed Rule RIA, *supra* note 14, at 33–34 tbl.6.
[78] *Id.* at 51–54.
[79] *Id.* at 52–53.

evidence to the contrary, DOT should also conclude that the provisions will likewise generate benefits that are not currently reflected in its benefit-cost analysis. If carriers must hire additional personnel to provide the required prompt assistance, for example, then the relevant provision will result not just in additional costs but also in additional benefits, in the form of reduced wait times, reduced incidence of passengers "missing flights or other important events" due to delays in assistance, reduced feelings of frustration and anxiety, and avoided injuries and discomfort due to passengers "attempting to move through the airport on their own without any assistance."[80] DOT must ensure that it consistently analyzes both the benefits and costs of each of the Proposed Rule's provisions in determining whether their benefits justify their costs.

E. DOT Should Apply a 2% Discount Rate in Line with the Updated Circular A-4

DOT should also apply a 2% discount rate, in line with the most up-to-date Office of Management and Budget guidance.[81] DOT's monetized costs and benefits estimates in the Proposed Rule rely on outdated discount rates of 3% and 7%, which no longer reflect best practices.

Discount rates have the power to influence agency decisionmaking by affecting the comparison of costs and benefits. DOT's valuation of the benefits of the enhanced-training provisions illustrates this power: DOT values the monetized benefits at $118.9 million at a 7% discount rate, but at the much higher value of $170.9 million at a 3% discount rate.[82]

Though the 2003 version of Circular A-4, on which DOT relies, recommended a 3% and 7% discount rate,[83] this guidance is now more than twenty years old and no longer reflects best practices. The updated Circular A-4, issued in November 2023, updated the social discount rate to 2% based on more recent economic data and theory.[84] Lowering the discount rate to 2% will ensure that long-term benefits and costs receive appropriate weight in DOT's analysis, and this choice of discount rate will better reflect the present-value net benefits of DOT's regulatory options.[85]

Amending DOT's calculations in the Proposed Rule to use a 2% discount rate is a feasible way to bring DOT's analysis in line with current economic theory and regulatory analysis practices. Replacing the 3% and 7% rate with 2% requires only minor adjustments to existing calculations, making compliance with the 2023 Circular A-4 both "feasible and appropriate."[86]

IV. DOT Should Enhance Its Severability Analysis

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[80] *See* Proposed Rule, 89 Fed. Reg. at 17,772 (citing comments from advocates and individuals with disabilities regarding these consequences of "untimely wheelchair assistance").
[81] The updated Circular A-4 is effective March 1, 2024. Agencies are encouraged to follow the updated Circular's guidance "to the extent feasible and appropriate" earlier than this effective date. UPDATED CIRCULAR A-4, *supra* note 20, at 93.
[82] Proposed Rule RIA, *supra* note 14, at 28–29.
[83] PRIOR CIRCULAR A-4, *supra* note 46, at 33–34.
[84] The 2% rate reflects the average pre-tax rate of return for 1993 through 2022, based on the thirty-year average of the yield on ten-year U.S. Treasury marketable securities, adjusted for inflation. UPDATED CIRCULAR A-4, *supra* note 20, at 76–77.
[85] *See generally* Hiroshi Matsushima & Max Sarinsky, Inst. for Pol'y Integrity, *Analytical Clarity: How Updated Climate-Damage Values and Discount Rates Will Affect Regulatory Analysis* (2023) (describing how applying 2% discount rate to regulatory analysis accounts for net benefits which the federal government has systematically underestimated).
[86] UPDATED CIRCULAR A-4, *supra* note 20, at 93.

DOT includes a brief severability section in its preamble expressing its conclusion that the various provisions of the Proposed Rule are severable and can function independently. DOT should enhance its severability analysis by explicitly pointing to how the Proposed Rule's structure and RIA demonstrate the rule's severability.

Administrative severability is determined by a two-pronged test: For a court to sever an invalid portion of a rule, it must find both "(1) that the agency would have intended to promulgate the remaining portion and (2) that the remainder can function independently."[87] In recent cases, courts have indicated that "detailed and specific severability clauses" can be more effective than boilerplate clauses in satisfying this two-pronged test.[88] Courts have also relied on various forms of evidence in assessing severability clauses, including "the rule's structure and stated purpose."[89] Courts are generally more likely to uphold a severability clause if the final rule and the RIA analyze each portion of the proposed rule separately.[90] In addition, a court might look to whether remaining provisions after severance still serve the rule's purpose.[91]

DOT should thus explicitly highlight that, in both its preamble and its RIA, it analyzes each provision and its costs and benefits separately,[92] and it otherwise treats the provisions as distinct requirements rather than as a unified whole.[93] DOT should also explain why each provision of the Proposed Rule can function independently of the other provisions, in addition to its explanation of how different provisions serve the "overall purpose" of providing "safe and dignified air travel for individuals with disabilities" in distinct ways.[94] For example, whether DOT imposes prompt enplaning, deplaning, and connecting assistance requirements has little to no bearing on whether it can effectively impose OBW performance requirements.[95] This logic similarly applies to the other provisions of the Proposed Rule. These additions would supplement DOT's explicit expression of its intent that the remaining provisions of the rule continue to remain in effect "to the greatest extent possible," should a court invalidate any individual provision.[96]

Sincerely,

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Max Sarinsky
Jason Schwartz
Rebecca Sokolow
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[87] Adelaide Duckett & Donald L. R. Goodson, Inst. for Pol'y Integrity, *Administrative Severability: A Tool Federal Agencies Can Use to Address Legal Uncertainty* 1 (2023).
[88] *Id.* at 2–3.
[89] *Id.* at 3.
[90] *See, e.g.*, High Country Conservation Advocs. v. U.S. Forest Serv., 951 F.3d 1217, 1229 (10th Cir. 2020) (invalidating a severability clause based in part on an agency's environmental impact statement, which failed to contemplate individual sections).
[91] *See* Duckett & Goodson, *supra* note 87, at 3.
[92] *See, e.g.*, Proposed Rule, 89 Fed. Reg. at 17,784 tbl.4; Proposed Rule RIA, *supra* note 14, at iii–v.
[93] *See, e.g.*, Proposed Rule, 89 Fed. Reg. at 17,771–84 (describing each proposed provision, along with relevant questions on which to seek comment, separately and in detail).
[94] *Id.* at 17,784.
[95] *See id.* at 17,772–73, 17,780–81 (describing the prompt-assistance and OBW provisions).
[96] *Id.* at 17,784.