

May 28, 2025

Mr. Russell Vought  
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725 17<sup>th</sup> St, NW  
Washington, D.C. 20503

Reference: Docket No. NHTSA-2025-0025  
National Highway Traffic Safety Administration  
Notice and Request for Comment on: Investigation-Based Crash Data Studies  
Federal Register 90:68,15384-15388, Thursday, April 10, 2025

Director Vought:

NHTSA's request of OMB to approve increased funding for crash data collection should be denied until errors, inaccuracies and misrepresentations in their field data are corrected. There are systemic errors in the assumptions and methods used by NHTSA (Viano 2025a). The Agency has not validated their data collection, a step that any reasonable organization should have undertaken before asserting the data is representative of U.S. crashes. The data errors have been discussed as rationale for budget cuts at NHTSA (Viano 2025c).

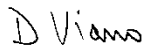
NHTSA ignores criticism of errors in the field data. They claim to Congress that the field data is nationally representative. It is not. Analysis of the field data proves their claim is incorrect. For example, the CISS (Crash Investigation Sampling System):

- Sampling frequencies for crash selection are incorrect. The proportion of older vehicles is too low. CISS samples crashes with serious injury (incapacitated, domains 2, 5, 8) based on vehicle age with the following proportions 10%:6%:6%, or 10% new ( $\leq 4$  years old), 6% mid-aged (5-9 years old) and 6% old ( $10 \geq$  years old) vehicles. The sampling frequencies are set before the first case is selected. Sampling errors effect the entire database. They should be based on the severity of injury in the vehicle, not vehicle age. The sampling frequencies should be closer to 5%:5%:12%. Without proper sampling, the important role of SES (Socio Economic Status) and driver behavior in older vehicles is not quantified. The importance of older vehicle crashes has been discussed (Viano 2023, 2024, 2025a-d).
- Weighting factors for serious injury are incorrect, particularly for some multi-vehicle crashes. NHTSA incorrectly gives the same case weight to all vehicles in a crash without regard to the maximum severity of injury in each vehicle. This leads to very high case weights for crashes involving minor injury in a new vehicle and serious injury in an old vehicle in a multi-vehicle crash. There are other errors in case weights.
- NASS-CDS estimates of fatalities do not match census counts in FARS. A study of NASS-CDS found fatalities were underestimated by 57% compared to the FARS count (Viano 2025b). NHTSA's decision to stop investigating older vehicles in 2009 increased the under-estimation from 39% in 1996-2009 to 68% in 2010-2015 compared to FARS. Presumably, the same problems exist with CISS.
- Complex statistical sampling methods are not validated. They use Pareto sampling, Jackknife replicated weights, assume the probability sample is stochastic and assume an unweighted

sample distribution. The methods are touted without a common sense understanding of crash deaths and serious injuries. There has been no validation of the methods at the PSU level.

- Methods lack common sense validation of sampling methods, procedures and results, particularly: a) they failed to compare fatalities estimated from CISS (and NASS-CDS) with census counts from FARS. Studies should have been done nationwide and at PSU sites; and, b) they failed to compare serious injury estimates with census data from hospital records and at PSU sites (Viano 2025d).
- Poorer quality case investigations compared to the earlier NASS-CDS. CISS cases fail to: a) adequately photograph vehicle structural damage, b) measure intrusion at the seating area of injured occupants, c) adequately photograph interior contact points for each injured occupant and d) describe the precrash movements of vehicles, violations of traffic signs/signal. Overall, CISS cases are a degradation from NASS-CDS case files. There is large variability in quality among different PSU sites, demonstrating a lack of oversight and quality assurance across PSUs.

Respectfully submitted,



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cc: Docket No. NHTSA-2025-0025

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