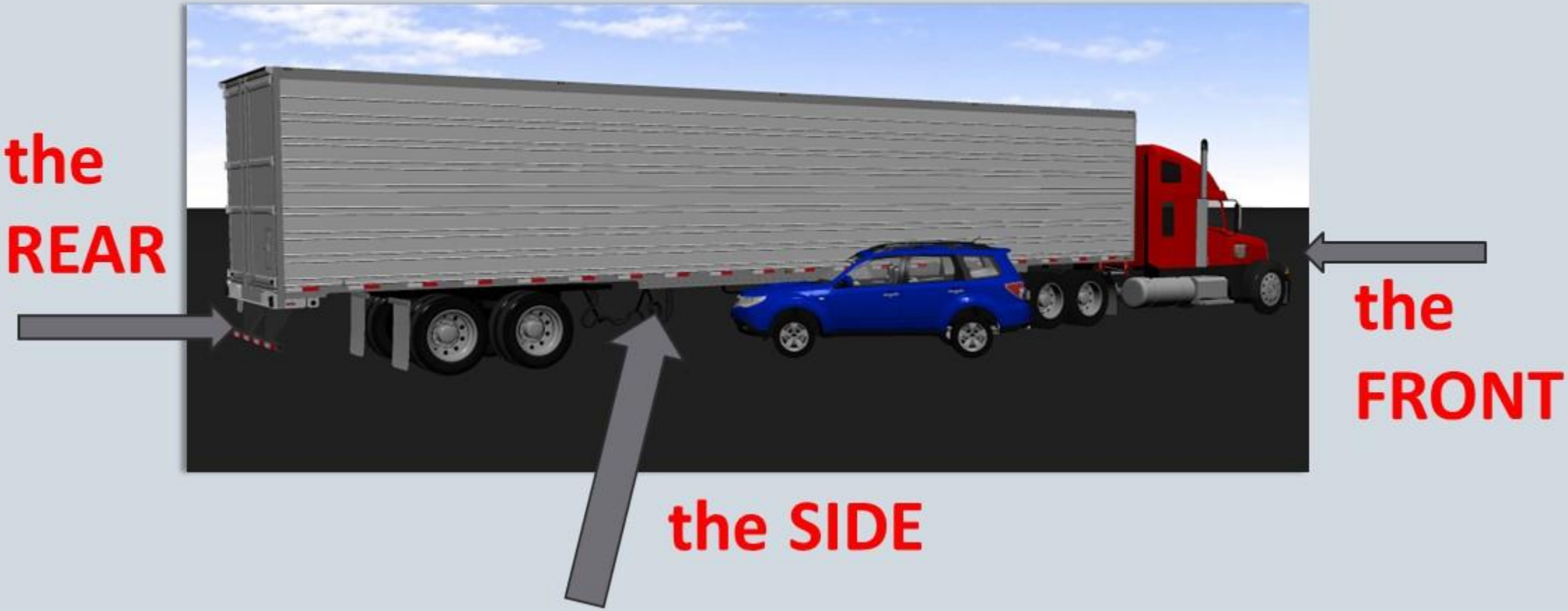
Missed Opportunities to Prevent Side Underride Fatalities

Truck Impact Guards Are Needed At

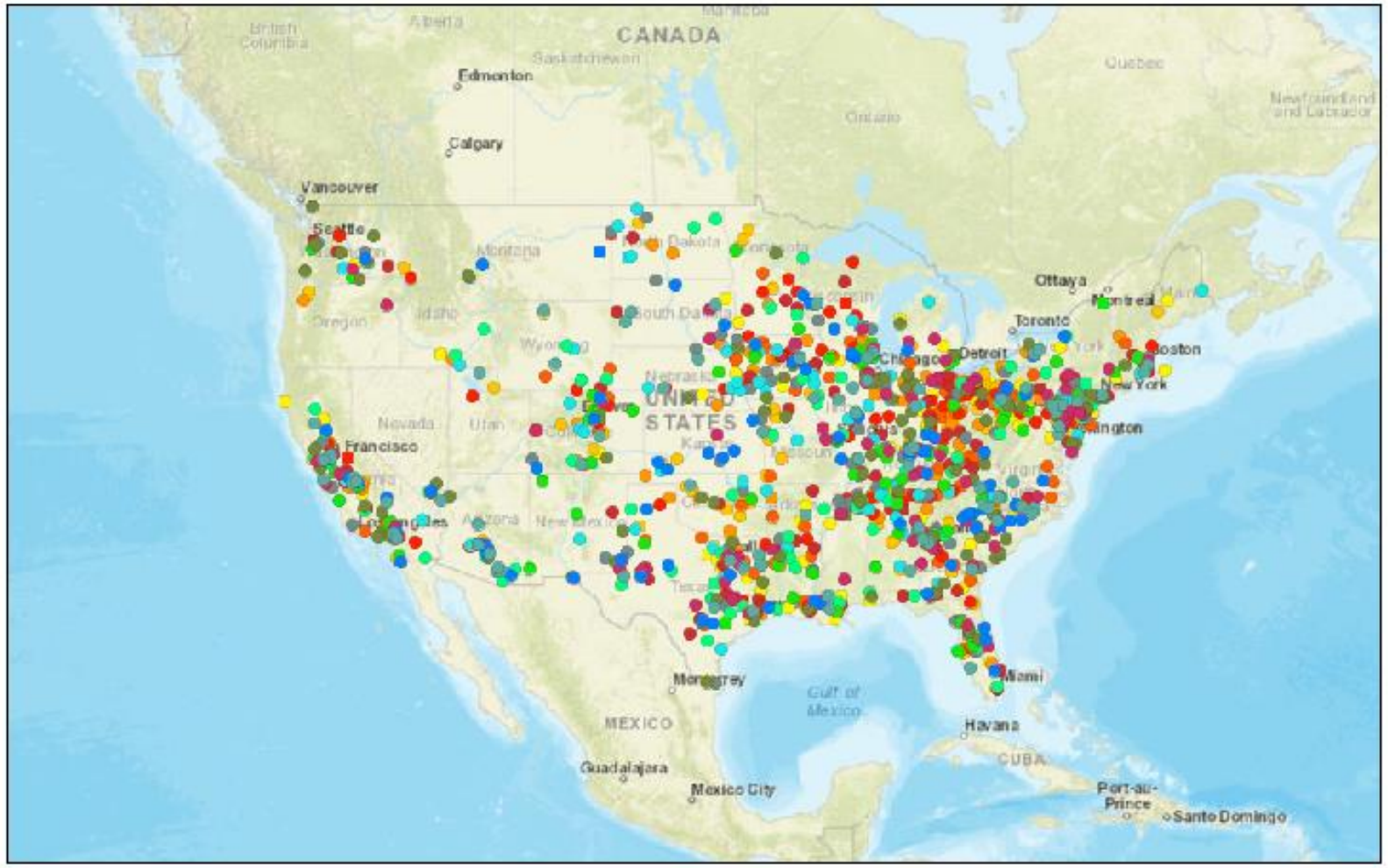


Sylvia Bingham
1987 - 2009

Sarah Langenkamp
1979 -2022

Note: This is *not* Sylvia or Sarah's crash.

Side Underride Crashes In FARS 2007-2020 (n=1,238)



1/17/2024

2020 2019 2018 2017 2016 2015 2014 2013 2012 2011 2010 2009 2008 2007

1:36,978,595

0 245 490 980 mi

0 385 770 1,540 km

NHTSA, Esri, HERE, Garmin, NGA, USGS

Missed Opportunities

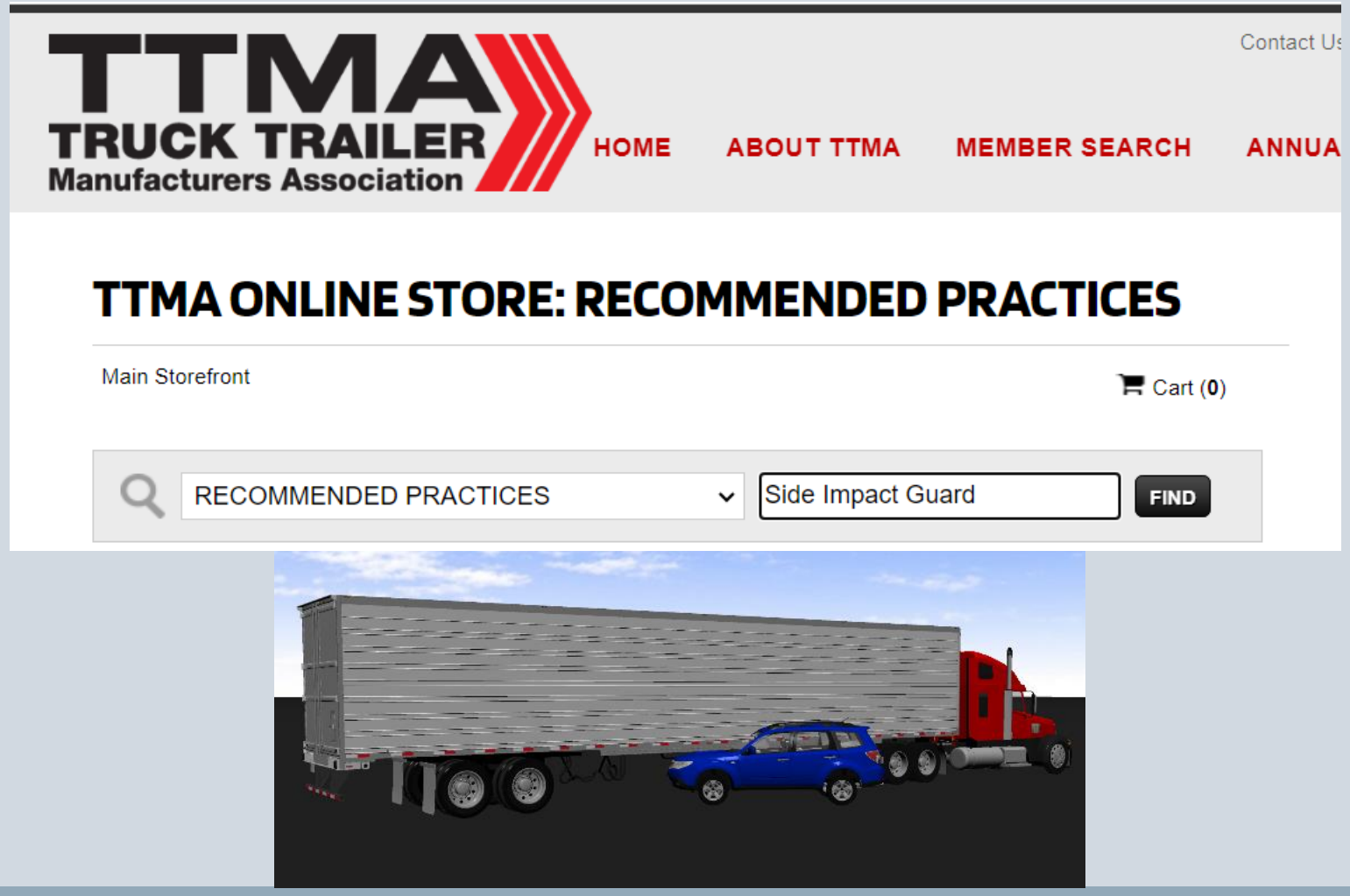
We've waited 55 years.

"It is anticipated that the proposed Standard will be amended, after technical studies have been completed, to extend the requirement for underride protection to the sides of large vehicles."

Federal Register, Vol. 34, No. 53 — Wednesday, **March 19, 1969**

STOP Underrides NOW!

The TTMA has drafted a Recommended Practice for Side Impact Guards:



Search Link

Originally the study goals were listed on the FMCSA project website like this:

Five key tasks are included in this project:

(1) study interaction of a potential side guard with other truck parts and accessories (e.g., fuel tanks, fire extinguisher, exhaust system) and the implications for a new Federal Motor Carrier Safety Regulation;

(2) investigate applicable international side guard standards;

(3) perform a preliminary cost-benefit analysis of truck side guard deployment;

(4) propose recommendations; and

(5) propose means for voluntary adoption.

FMCSA contracted with the Volpe National Transportation System Center to conduct the study titled, "Truck Side Guards to Reduce Pedestrian Fatalities."

Why did they select Volpe?

The Department of Transportation funds research aimed at making the nation's transportation system safer and more efficient. DOT agencies, nonfederal entities, and the Volpe Center—DOT's fee-for-service innovation center—conduct research.

Five DOT agencies committed a total of $50.5 million—13% of their total fiscal year 2022 research funding—to the Volpe Center. The remaining 87% went to universities, businesses, and other entities.

DOT officials said they choose to work with Volpe due to the expertise of its staff, the nature of the work, and the response time. For example, DOT has relied on Volpe for air quality and noise research since 1970.

DOT's research activities are critical to its mission of making the nation's transportation system safer and more efficient. In 2020, GAO found that this research may be conducted by the agency's operating administrations, nonfederal research entities, or DOT's Volpe Center. DOT established what is now the Volpe Center in 1970. Its mission is to improve the U.S. transportation system by anticipating emerging issues and advancing technical, operational, and institutional innovations for the public good.

link

LINK TO VIDEO

What ACUP Asked For & What NHTSA Provided

- In its ANPRM's cost-benefit analysis concerning side underride protection, NHTSA appears to have excluded crashes involving:
  - Single-unit trucks;
  - Multiple vehicles;
  - pedestrians;
  - bicyclists; and
  - motorcyclists.

  What was NHTSA's basis for excluding fatalities from those crashes?

*Response: The answers to the questions are provided in the FMVSS No. 223 NPRM (80FR 78418, published on 12/16/2015 **PDF link**) and final rule (80FR 42339m published on 7/15/2022 **PDF link**) and the ANPRM for side guards (88 FR 24535, published on 4/21/2023 **PDF Link**) and associated technical document (https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813404). ACUP should review these documents.*

NHTSA's response was inadequate; the link provided by NHTSA describes that the target population included only light passenger vehicles (LPVs). It did *not* explain *why* Vulnerable Road Users were excluded – as requested by the ACUP.

16. Abstract

This analysis presents the benefits and costs of requiring trailers of combination trucks (CTs) or articulated trucks consisting of a tractor unit and one or more attached trailers to be equipped with side impact guards to mitigate injuries and fatalities resulting from side-underride crashes involving CTs and light passenger vehicles (LPVs). LPVs include passenger cars, light trucks, and vans with gross vehicle weight ratings of 10,000 pounds or less. Estimated safety impacts were converted into monetary equivalents using estimated comprehensive economic costs of crashes, and compared with estimated hardware, installation, and incremental fuel costs to identify estimates of net benefits, benefit-cost ratios, and cost-effectiveness. A sensitivity analysis considered a range of input assumptions to account for uncertainty in the target population of side underride fatalities, side guard effectiveness, hardware costs, and fuel consumption impacts.

Side Impact Guards for Combination Truck-Trailers: Cost-Benefit Analysis (dot.gov)

IIHS lives saved estimate

Using data from other NHTSA sources

- 549 average annual passenger vehicle occupant fatalities in crashes involving side of tractor trailer
- 159-217 of these could be addressed by SUGs, based on photographic case reviews
- This is 9-13 times NHTSA's estimate of 17 lives saved per year
- Some crashes may be too severe for SUG effectiveness, but EDR data indicate this would be minority (exact number would depend on SUG requirements in a regulation)
- Still doesn't include 105 annual pedestrian, bicyclist, motorcyclist fatalities
- In total, we estimate a SUG rule would save *at least 10 times* the lives estimated by NHTSA, making it *cost effective*

IIHS HLDI

Assessment #1

NHTSA discussed unpublished research with lobbyists from the American Trucking Associations in 2018 and then removed key findings and recommendations from a taxpayer-funded report on preventing pedestrian and bicyclist underride fatalities. These actions inhibited progress and set back safety regulations relating to underride crashes.

Assessment #2

NHTSA unreasonably excluded many categories of preventable fatalities from its side impact guard cost benefit analysis. ACUP asked for, but NHTSA failed to disclose, their basis for excluding pedestrians, bicyclists, and motorcyclists from its cost benefit analysis.

Assessment #3

NHTSA's failure to count
fatalities of Vulnerable Road Users
artificially depressed the number of preventable deaths
per year it used in its cost benefit analysis.
The Insurance Institute for Highway Safety estimated
that a reasonable correction would yield a number
ten times greater, or at least 170.
This corrected estimate would
raise the benefits of regulation to exceed its costs.

Side Recommendation #1

Based on the rigorous analysis of the IIHS' Public Comment, the ACUP finds that NHTSA underestimated the number of preventable side underride deaths by 90%.

NHTSA erroneously concluded that costs outweigh benefits, when the opposite is true.

NHTSA should withdraw the 2023 side impact guard ANPRM..

Side Recommendation #2

NHTSA should complete a new side impact guard cost benefit analysis and rulemaking that counts previously omitted underride victim categories, including pedestrians, bicyclists, and motorcyclists.

<u>General Recommendation</u>: The Secretary should recommend, and the President should establish, a *Presidential Advisory Committee on Integrity of Underride Research*. It should be composed of a diverse group of stakeholders, including:

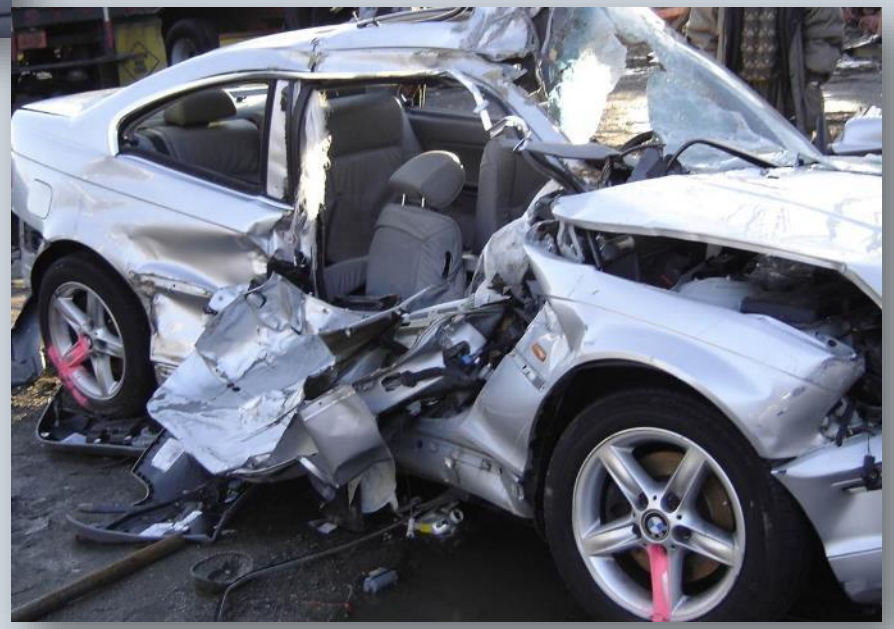
(i) Truck and trailer manufacturers. (ii) Motor carriers, including independent owner operators. (iii) Law enforcement. (iv) Motor vehicle engineers. (v) Motor vehicle crash investigators. (vi) Truck safety organizations. (vii) The insurance industry. (viii) Emergency medical service providers. (ix) Families of passenger vehicle underride crash victims. (x) Families of Vulnerable Road User underride crash victims. (xi) Labor organizations.

The ACIUR should review all underride-related research, conducted by or contracted with the Department of Transportation, including the Statement of Work and the draft report prior to publication.


STOP Underrides!
stopunderrides.org

Roya Christine Sadigh

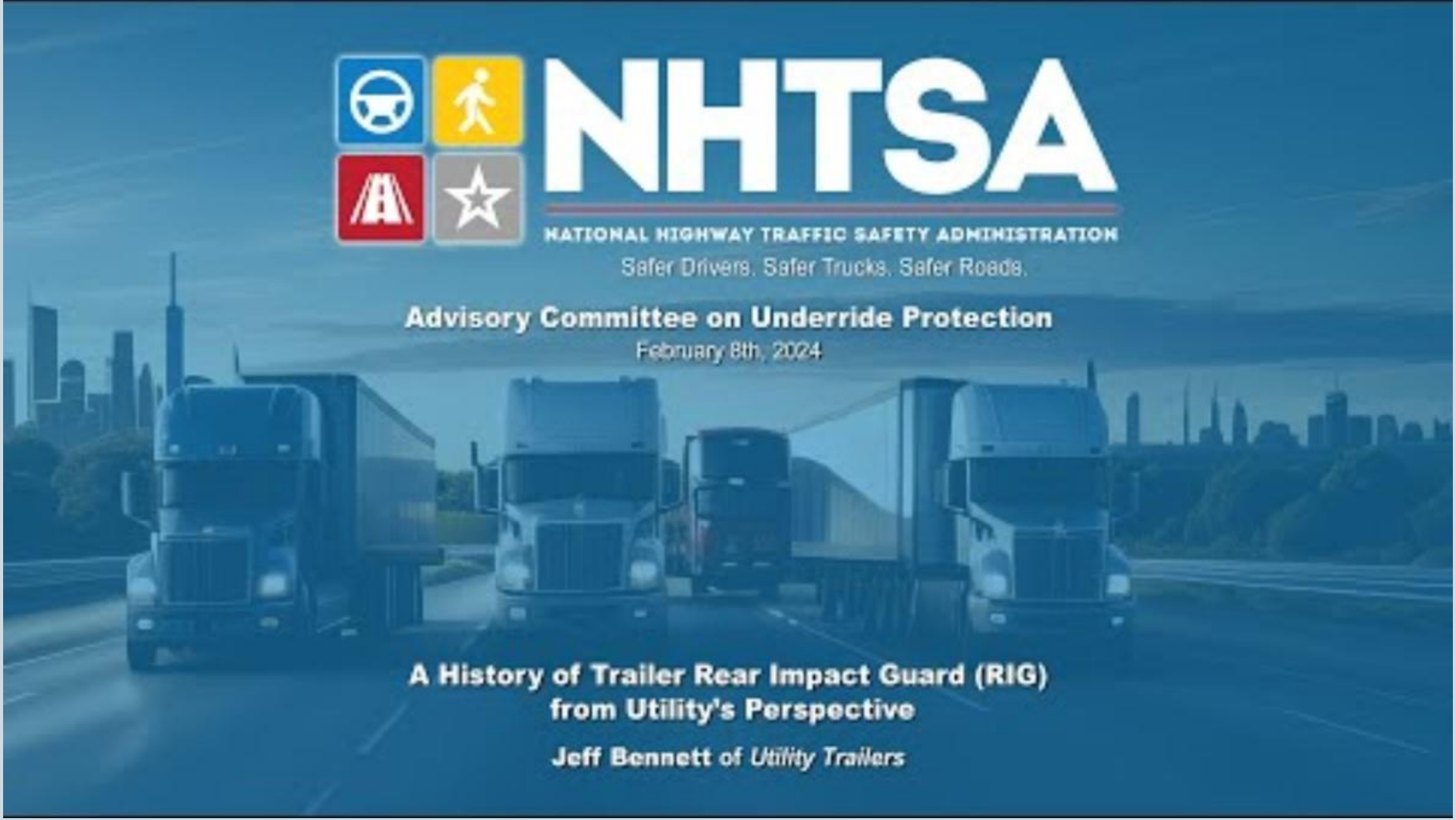
1978 - 2004



Riverside Side Underride 2.29.2024

What about "Unintended Consequences" of Preventing Deadly Underride?

LINK


NHTSA
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
Safer Drivers. Safer Trucks. Safer Roads.
Advisory Committee on Underride Protection
February 8th, 2024
A History of Trailer Rear Impact Guard (RIG) from Utility's Perspective
Jeff Bennett of Utility Trailers

LINK

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1987
1992
1994
1997
1998
1999
2000

Operational Issues

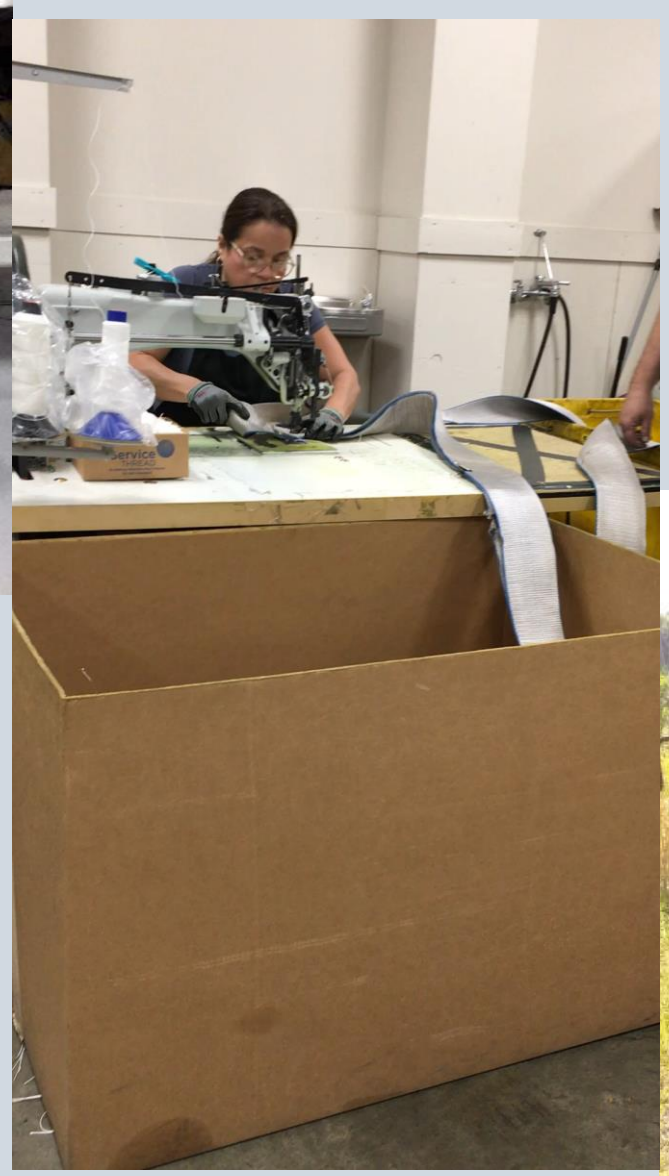
Unintended Consequences

Inadequate Data

Win/Win

Opportunities to Collaborate

Win/ Win



For companies & workers

2021 Side Guard Research Study