

Turning Tragedy Into Advocacy

On A Mission To Make Truck Crashes More Survivable

Stories of our loss

Riley Hein 1999 - 2015

Forever Loved, Always Missed RILEY ERIC HEIN 1999-2015 "We didn't realize we were making memories, we just knew we were having fun" Winnie the Pooh

Manzano student identified as person killed in I-40 crash

BY NICOLE PEREZ / JOURNAL STAFF WRITER Monday, November 16th, 2015 at 6:46pm

 f SHARE
 ALBUQUERQUE, N.M. — The person killed in a fiery crash that closed I-40

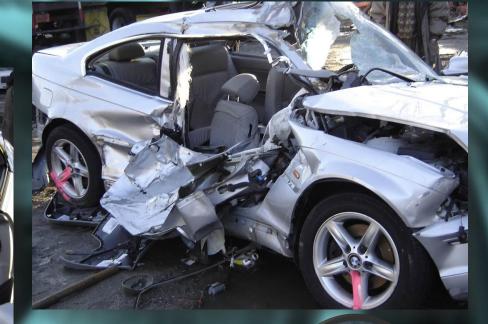
 Y TWEET
 Friday morning is Manzano High School junior Riley Hein, school officials

 confirmed Monday.
 Confirmed Monday.



<u>Riley's Dad Discusses Benefits of Side Guards To Trucking Industry</u> 1/8/2023

Roya Christine Sadigh 1978 - 2004



Lois Durso Interview – Save Lives/STOP Underrides

Annaleah Karth 1995 – 2013

the road t

655562

Mary Lydia Karth 1999 – 2013







Life Before One Family's Unexpected Underride Tragedy





Marianne Karth - Save Lives/STOP Underrides

What have we learned?

On a Mission to Make Truck Crashes More SURVIVABLE



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Legisla	tion Congressional Record Committees Me
Legislation Examples: hr5, sres9, "health care"	
MORE OPTIONS ~	
Home > Legislation > 117th Congress > S.605	Citation 🖸 Subscribe 🖬 Share/Save 🗩 Site Feed
5.605 - Stop Underrides Act 17th Congress (2021-2022) Get alerts	
(7th Congress (2021-2022)) Coet alerts	
BILL Hide Overview X	_
Sponsor: Sen, Gillibrand, Kirsten E. [D-NY] (Introduced 03/04/2021)	More on This Bill <u>CBO Cost Estimates [0]</u>
Committees: Senate - Commerce, Science, and Transportation	
Latest Action: Senate - 03/04/2021 Read twice and referred to the Committee on Commerce, Science, and Transportation. (All Actions)	Subject — Policy Area: Transportation and Public Works
Tracker:	View subjects »
Introduced Passed Senate Passed House To President Became Law	Give Feedback on This Bill
	Contact Your Member
Summary (0) Text (1) Actions (1) Titles (2) Amendments (0) Cosponsors (13) Committees (1) Related Bills (1)	
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Text: S.605 — 117th Congress (2021-2022) Listen to this page There is one version of the bill. Text available as: XML/HTML (39KB) XML/HTML (new window) (33KB) TXT (22KB) PDF (275KB) (PDF provides a complete and accurate display of the second	
Text: S.605 — 117th Congress (2021-2022) Image Im	

purposes.

☆

IN THE SENATE OF THE UNITED STATES

March 4, 2021

Mrs. GILLIBRAND (for herself, Mr. RUBIO, Mr. BURR, Mr. BLUMENTHAL, Ms. DUCKWORTH, Mr. KING, Mrs. FEINSTEIN, Mr. WYDEN, Mr. LUJÁN, Mr. CASEY, Mr. MARKEY, Mr. BOOKER, and Mr. MERKLEY) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To reduce the number of preventable deaths and injuries caused by underride crashes, to improve motor carrier and passenger motor vehicle safety, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Stop Underrides Act".

SEC. 2. FINDINGS AND PURPOSES.

(a) FINDINGS.—Congress finds that—

(1) underride crashes involving passenger motor vehicles striking and traveling underneath a truck or trailer are a significant public health and safety threat;

(2) the National Highway Traffic Safety Administration has reported that hundreds of preventable fatalities and life-threatening injuries have occurred as a result of underride crashes;

(3) me National Transportation Safety Board has recommended the installation of rear, side, and front underride guards on tractor-united and rear and side underride guards on single unit trucks to improve passenger motor vehicle safety; and

(4) this Act is introduced in the memory of the thousands of victims of underride crashes, including-

(A) Roya Christine Sadigh, AnnaLeah Karth, Mary Lydia Karth, Roderick Cota, Moonjohn Kim, Corey Moore, Gregg Williams, Guy Champ Crawford, Carl Hall, Michael Higginbotham, Sandra Maddamma, David Mathis, Mary Katherine Mathis, James Mooney, Christopher Weigl, Bill Zink, David Magnan, Jasen Swift, Samuel Sierra, Brittany McHargue, Christopher Samuel Padilla, Riley Hein, Erin Alexander, Jordan Hensley, Edward Hall, Leslie Rosenberg, Sophie Rosenberg, Ally Davis, Matthew Simon, Alexandria Dugas, David Kent Williams, Alexander David Wolf, Audria "Audi" Mignon Truelove, Caitlin Renee Preston, Catherine Rosella Shore, Jeri Lynn Monette, Michael Rossi, Carl Tackett, Abigail Johnson, Harold Doug Fitch, Zac Plantz, and Matthew Burnett;

(B) those whose catastrophic injuries dramatically changed their lives, including Julie Magnan, Nancy Meuleners, Joshua Rojas, Maiv Kang Anita Plantage Berngears, Michael B. Hawkins, and Kerry Rois; and

(C) those whose precious lives were cut far too short as a result of preventable underride crashes.



NATIONAL SHERIFFS' ASSOCIATION

May 1, 2018

REF: Stop Underrides

Dear Members of Congress:

On behalf of the National Sheriffs' Association and the Traffic Safety Committee, I write today to encourage action on and to endorse S. 2219 and HR 4622, the STOP Underrides Act of 2017. The Stop Underrides Act of 2017 was introduced by Sen. Kirsten Gillibrand (D- N.Y.) and Sen. Marco Rubio (R-Fla.) as well as Reps. Steve Cohen (D-Tenn.) and Mark DeSaulnier (D-Calif.). The Act addresses the issue of vehicle underride involving commercial vehicles. The purpose of this legislation is to reduce the number of preventable deaths and injuries sustained during these tragic events.

It's not the crash that kills

His the underride!





Geometric Mismatch



PATE DA

Underride can happen under any part of the truck

H

262

631-345-960



VTP

SIRJ 947 339

DI

NERNEDAL

Passenger Compartment Intrusion

Rear Underride



47708 Federal Resister / Vol. 64, No. 169 / Wednesday, Sentember 1, 1999 / Rules and Reculations

Federal Resister / Vol. 64, No. 169 / Wednesday, Sentember 1, 1999 / Rules and Recollations 47707

47706 Federal Revister/Vol. 64, No. 169/Wednesday, Sentember 1, 1999/Rules and Revulations

Federal Register/Vol. 64, No. 169/Wednesday, September 1, 1999/Rules and Regulations 47705

with regard to cargo tank moto

47704 Federal Register/Vol. 64, No. 169/Wednesday, September 1, 1999/Rules and Regulations

annan 3

Federal Register/Vol. 64, No. 169/Wednesday, September 1, 1999/Rules and Regulations 47703

On January 26, 1998, the NHTSA

issued a final rule responding to

final rule, and making technical

amendments to the rear impact guard

final rule clarified the applicability of

the energy-absorption requirements

irements (63 FR 3654). The 1998

DEPARTMENT OF TRANSPORTATION Electronic Acces Internet users can access all Federal Highway Administration comments received by the U.S. DOT Dockets, Room PL-401, by using the universal resource locator (URL): http:/ 49 CFR Part 393 /dms.dot.gov. It is available 24 hours [FHWA Docket No. FHWA-97-3201] each day, 365 days each year. Please RIN 2125-AE15 information and help Parts and Accessories Necessary for Safe Operation: Rear Impact Guards and Rear Impact Protection Electronic Bulletin Board Service at AGENCY: Federal Highway Administration (FHWA), DOT (202) 512-1661. Internet users may reach the GPO's web page at http: ACTION: Final rule SUMMARY: The FHWA is amending the http://www.nara.gov/fedreg. Federal Motor Carrier Safety Background Regulations (FMCSRs) to require that certain trailers and semitrailers with a gross vehicle weight rating (GVWR) of National Highway Traffic Safety 4,536 kilograms (kg) (10,000 pounds) or Administration (NHTSA) published a final rule creating FMVSSs Nos. 223, more, and manufactured on or after January 26, 1998, be equipped with rear Rear Impact Guards, and 224, Rear impact guards that meet the requirements of Federal Motor Vehicle Impact Protection. The requirements apply to trailers and semitrailers Safety Standard (FMVSS) No. 223. The rear impact guards must be installed to ensure that the trailer or semitrailer The first standard EMVSS No. 223 meets the rear impact protection requirements of FMVSS No. 224. This rulemaking is intended to ensure that must meet before they can be installed the rear impact protection requirements of the FMCSRs are consistent with the on new trailers and semitrailers. It FMVSSs and to improve the safety of requirements for the impact guards as ration of commercial motor vehicles well as test procedures that (CMVs) by reducing the incidence of manufacturers and the NHTSA will use ssenger compartment intrusion to determine compliance with the during underride accidents in which the standard. The standard also requires the passenger vehicle strikes the rear of the guard manufacturer to permanently trailer. With regard to trailers and semitrailers manufactured before device meets the requirements and to January 26, 1998, motor carriers are not provide instructions on the proper required to retrofit a rear impact guard installation of the guard. at conforms to FMVSS No. 223. However, motor carriers operating these (49 CFR 571.224), requires that most trailers and semitrailers are required to new trailers and semitrailers with a continue complying with the FHWA's gross vehicle weight rating (GVWR) of irements for rear end protection on 4,536 kg (10,000 pounds) or more be CMVs that are not covered by FMVSSs equipped with a rear impact guard Nos. 223 and 224. for the location of the guard relative to the rear end and sides of the trailer are EFFECTIVE DATE: This rule is effective on October 1, 1999. FOR FURTHER INFORMATION CONTACT: Mr.

Larry W. Minor, Office of Motor Carrier Research and Standards. (202) 366-4009, or Mr. Charles Medalen, Office of the Chief Counsel, (202) 366-1354, Federal Highway Administration Department of Transportation, 400 Seventh Street SW Washington DC 20590. Office hours are from 7:45 a.m. 4:15 p.m., e.t., Monday through Friday, except Federal holidays,

SUPPLEMENTARY INFORMATION

vehicles, as defined in 49 CFR 171 8 excluded pulpwood trailers from the rear impact protection requirements (a definition of pulpwood trailer was added to § 571.224), and revised the definition of special purpose vehicle On May 14, 1998, the FHWA follow the instructions online for more proposed amending § 393.86 to ensure that the rear impact protection requirements of the FMCSRs are An electronic copy of this document may be downloaded using a modem and consistent with the FMVSSs and to suitable communications software from improve the safety of operation of CMVs the Government Printing Office's (GPO) by reducing the incidence of passenger compartment intrusion during underride accidents in which the passenger vehicle strikes the rear of the www.access.gpo.gov/nara and the Office of the Federal Register's home page at trailer (63 FR 26759). The agency indicated that this action is necessary because the FMVSSs are applicable only to vehicle and vehicle component manufacturers. In the absence of an On January 24, 1996 (61 FR 2003), the amendment to the EMCSRs, there would be no Federal requirement that motor carriers maintain their trailers to ufactured on or after January 26 to comply with the NHTSA (49 CFR 571.223), specifies performance ements that rear impact guards specifies strength and energy absorption label the impact guard to certify that the Industries, Inc. rulemaking. However, the ATA The second standard, FMVSS No. 224 the regulatory language. General Comments The Advocates stated: ing FMVSS No. 223. Requirements also specified in the vehicle standard. In addition, the vehicle standard requires that the guard be mounted on the trailer or semitrailer in accordance with the instructions of the guard manufacturer.

conform to the rear impact protection requirements of FMVSS No. 224, or repair damaged rear impact guards. Motor carriers could also replace rear impact guards with devices that failed Discussion of Comments to the NPRM The FHWA received 5 comments in ponse to the notice of proposed rulemaking (NPRM). The commenters were: the Advocates for Highway and Auto Safety (Advocates); the American Trucking Associations (ATA): the Insurance Institute for Highway Safety (IIHS); the National Automobile Dealers Association, American Truck Dealers Division (NADA); and, Torcomian All of the commenters supported the requested changes to certain portions of This initiative to parallel the current NHTSA standard with an in-service Irequirement] for motor carrier operations clearly will enhance safety. We especially commend the agency for proposing the additional benefits of public safety gained by requiring foreign carriers to abide by the same safety standards as domestic carriers Given the prospective increases in trilateral freight movements because of the North

American Free Trade Agreement, this action appropriately anticipates and counters a potentially serious threat to highway safety petitions for reconsideration of the 1996 from numerous new trailers/semi-trailers being operated on U.S. highways by Canadian and Mexican carriers. This proposal is a textbook example of an agency acting in the public interest and it should be

While there is a 1998 Federal **Standard for rear** underride guards...

... people still continued to die when their car went under the back of a truck



مسللة لمتقلقات التقاديان

IIHS Testing

0



It happens in the blink of an eye!





Side Underride

Common Causes of Side Underride

Bad weather

- Trucks turning left or right across traffic
- Tractor trailers jackknifing across lanes
- Glare of truck headlights making it difficult to see truck making a wide turn
- When car drivers cannot see silhouette of tractor trailers at night
- Distracted driving
- Driver error



NEODERDINA STREET AND AND THE PROPERTY OF made movable or removable for off-road veb operations. ray

the It is anticipated that the proposed beh Standard will be amended, after technical studies have been completed, to extend the requirement for underride Sec protection to the sides of large vehicles. real It is also anticipated that mobile homes 2 (will not be included in the Standard, The with Administrator is presently considering hic rule making that could declare them not 15 to be "motor vehicles" within the coverof age of the Act, or could put them into a separate category (Docket No. 26, 33 F.R. line 11604). the

S S

Interested persons are invited to participate in the making of the proposed uni regulation by submitting whiten date

There have been decades of discussion about side guards...

...actually over a century!

(No Model,) C. M. PRATT. SAFETY GUARD FOR STREET CARS. No. 564,027. Patented July 14, 1896. Fig.1. 1 t. S F N Fig. 3. G Charles Mauville Pratt Witnesses Jost Blackwood THE HOMES POTORS CS., MORE WITHIN MARKINGTON, 10-1

STATES PATENT OFFICE.

LLE PRATT, OF TOWANDA, PENNSYLVANIA

Y-GUARD FOR STREET-CARS.

ing part of Letters Patent No. 584,027, dated July 14, 1896. at fiel April 16, 1998. Serial Ec. 587,589. (Kamofel.)

⁴⁴⁷ LES MANVILLE ed States, resid-grooves G G' of the frame F. The inner part y of Bradford of the sash-frame, forming the groove, should ve invented eer-project above the groove to form a shoulder nents in Safety-It do dedare the the sash from being pushed in. 55 I do dedare the d concludescrip-than the lower groove, and to provide snot as will enable groove with one or more springs S above each ch it appertains | sash, so that on pushing up on the sash it is reforming being freed from the lower groove. It is wrident, 60 awings, and to lowcom, wrbich the doper one and the springs set in that, so that the sash may be removed by pushing it ion. The sast may be removed or pushing it devision of the lower groot. It is also appar-removable see in that the suches can be independently ro- 65 mices and placed moved from the grootes, and that after insert-reen the wheels, ing the such as the removed in the adjusted l particularly along said grooves. The lower edge of the grooved frame is provided with an elastic on is while pro-tube L. I prefer that this tube should be of 70 ast contact with the character described and claimed in my construct such Patent No. 555,400, consisting of a tube sily adjustable stuffed with curled hair or equivalent matei separato parts rial and provided with an inner pneumatic inder the car to tubo. the car-frame and beneath the platforms are composed simof the wheels, ply of the wire-netting and its supportingwheels always frame without the movable suches, tremoving the As stated at the outset, the leading idea is So to construct a gnard composed of separate l in the accommovable and adjustable sections or sashes of. inilar letters of netting, which when assembled form a comling parts in all plete guard on both sides of the car, but which sections can be separately removed for repair 85 of a car with my | or for access to the wheels. ortion being cut Having thus described my invention, what g. 2, a top plan | I claim is-or the ear and I. A car provided with a frame extending eross-section of around the lower portion thereof, an elastic go om the car, and tube secured to the lower edge of said frame, F is a vertical and upper and lower proves in said frame, o the bottom of : in combination with a guard for said car con-f its sides, with posed of a fixed, curved section of network e platforins at | at each end of said car and separate, remov- 95 F is provided able and adjustable sections of network supbottom grooves ported in said grooves between said fixed sections, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses. CHARLES MANVILLE PRATT.

34.027

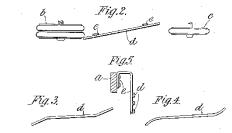
Witnesses: E. B. Pierce, Nathem V. Weyler.

1915 Sideguard Patent

Patented Feb. 2, 1915. 1,127,241. Fig.1.

P. HAWKSWORTH SAFETY DEVICE FOR MOTOR VEHICLES.

APPLICATION FILED COT. 32, 1913.



Witnesses M. E. m. Nake Charles

1. nuentor Forcy Hawksworth

enterney

carrier rods or brackets e, it may be by its and nuts or otherwise. The lowest thes and files of otherwise. The lowest may advantageously be about 8 or 4 thes from the ground. There may be any wired number of these slats and they may 60 carried higher up than shown in Fig. 1. e topmost ones may also be shorter and it or curved inward toward the frame at ir front ends and the lower ones may be larly curved. The outer surfaces of the as s should be kept as smooth as possible free from projections which might ch anyone who came against them. The guard or fender frame is slightly in-red relatively to the side of the bus, ap- 70 Fed relatively to the side of the buts, sp- 70 symmetry as shown in the plan view if 2.9 so that it lies across the path of rear wheel, with its rear edge about lovel in the outer edge of said rear wheel or t a little outside the said rear wheel its 76 wind cdc pluing as shown inside the path the front wheels, so that the frames at its view of the wheels acourses to reare a single of the wheels acourses to reare a single of the wheels acourses to reare a single of the wheels. side of the vohicle converge toward h other as it were. In this way, if any-should for instance be knocked down by 80 should for instance be knocked down by so bound or front / of the hus or other iele, and the driver has succeeded in uning bim with the front wheels, he will nucled to one side by the advance of the inited grand frame clear of the rear as els, instead of being caught by the ha-as frequently happens. Similarly, if one shruld be neckentially thrown to the blue frame the side as for instance. d the bus from the side, as for instance side-slip from a bieycle, the inclined so a strong indication a network, and include 20 for will act in the same way and prevent going under the bits or vehicle and from ig run over by the rear wheels. y the arrangement above described, a simple, efficient and reliable protection 25 ovided against accidents from the rear els of motor vehicles and the device also as a side-guard, to close in and protect side-space between the front and rear els. The slats may gradually increase 100 eight toward the bottom to allow for curvature of the rear wheels. The rear

of the frame may however be plain and cal if desired. bein r desired. byiously, instead of being all in one 105 ight piece, the guard frame might be a with its ends inclined more than the part as shown in plan in Fig. 3, or the ends might be curved or bent as shown ig. 4. Also instead of being formed of 120

ATENT OFFICE

OTOR-VEHICLES

Serial No. 798,702.

ters Patent.

AND, ASSIGNOR TO CHARLES BARNARD N. ENGLAND.

Patented Feb. 2, 1915.

,127,241

ary and slightly inclined guard frame in front of each rear wheel extending along each side of the vehicle nearly to the adja- 50 each side of the vehicle nearly to the adje 50 cent from wheel, the front edges of the frames being so placed that they will miss any person who has not been struck by the front wheels, substantially as described. 5. In a divigible motor vehicle, the combi-st nation, with the rear wheels, of inclined side guardis whose outer and rear edges lie near the miter edges of stail your wheels, made ig. he nt be ide or of the outer edges of said rear wheels, and brackets rigidly secured to the frame of the vehicle near the top of the guards for hold- 56 in-it

reincice near the top of the guards normal of ing said guards permanently in position with their rear parts crossing the paths of the rear wheels, so that they exert an out-ward wedging or pushing action on any-thing striking against them, subtrastically de as described. 6. In a dirigible motor value, the combi-to. In a dirigible motor value, the food side ge. ers ne.

nation, with the rear wheels, of fixed side guards inclined slightly across the paths of said rear wheels, and brackets for support- 76

sauf rear wheels, and brackets for support- A ing said guards from the frame of the ve-hicle so that the front ends of said guards lie close behind the front wheels and inside and clear of the paths thereof, in such a way that said guard ends will clear anyone 76 that the front wheels have avoided, substantially as described.

tially as described. 7. In a dirightle motor vehicle, the combi-nation of fixed side guards extending near to the ground level along both sides of the 30 vehicle at a slight angle, soid guards having curved front ends which converge behind the front whoels, and year ends which extend

t a

across the paths of the rear wheels and

terminate approximately level with the 85 outer edges of said wheels, substantially as

on hed mg rly aid described.

In testimony whereof I affix my signature in presence of two witnesses. eas

PERCY HAWKSWORTH. Witnesses:

II. D. JAMESON, O. J. WORTH.

It can happen at slow speeds

Even as low as 15mph!

Front Underride

It can happen in a head-on crash or when a truck rear-ends a car

The front of a truck can go over a car

Ford Windstar

Hyundai Sonata

Kia Spectra

rce: Oklahoma State Police



Head-On Underride

Single Unit Trucks www.t..omen.c

1.0.

TWO MEN AND A TRUCK.

* MORGAN

Each tranchise independent Owned and Operated

Single Unit Trucks

Underride happens at the rear, front, and the side of Single Unit Trucks as well as tractor trailers.

Household & Business



New York Garbage Truck Underride

Vulnerable Road Users are at risk as well as cars

Motorcyclist suffers garbage truck

28 f 💟 🗞 Shares

Pedestrian Hospitalized After Tractor Trailer In West Melbou

BREAKING

bicyclist

July 17, 2019 by Sarah Ash

By Space Coast Daily // July 18, 2019 INCIDENT HAPPENED ON WEST HAV





artment of Labor said.

drum accident

FEATURES **ON YOUR SIDE** CHIME IN WATCH 23 Antenna Upgrade e woman killed by tractor-trailer in ified

iday, July 19th 2019



AA

Vulnerable Road Users are at risk

C.

C Jon Viscott - WEHOville.com

Engineers have developed solutions to prevent underride and Passenger Compartment Intrusion.



The difference a stronger Rear Underride Guard can make

Thanks to IIHS tests, trailer manufacturers have improved their underride guards.



<u>Tractor trailers need to be safer to prevent underride deaths, Gillibrand</u> <u>says</u> at 32 sec. Interview of truck crash survivor

N.Y. Man Saved By Stoughton Rear Underride Guard Featured In TV News Story



2017 Report on Tractor Trailer Underride Accidents

We've waited 53 years.

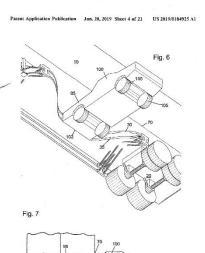
"It is anticipated that the proposed Standard will be amended, after technical studies have been completed, to extend the requirement for underride protection to the sides of large vehicles."

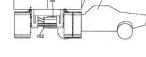
Federal Register, Vol. 34, No. 53 — Wednesday, March 19, 1969

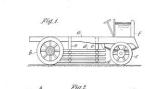
Fix the underride problem NOW!





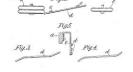






1,127,241.

P. HAWESWORTH. SATTY DEFINE TON WITH FEALUR. ATTEINATION THE OFF. 12, 1311. Patented Pek 2, 1915.



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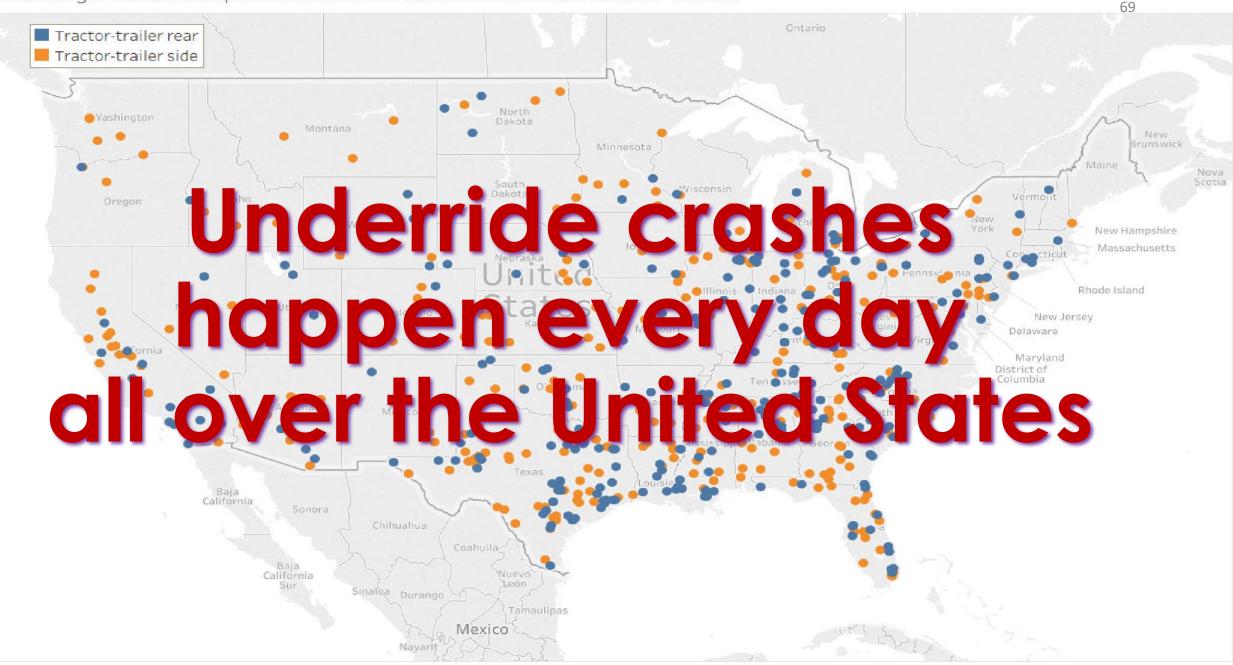




Benefits of side underride guards for semitrailers

How prevalent is underride?

2015 Passenger vehicle occupant fatalities in 2-vehicle crashes with tractor-trailers



	1	naran	Passenger Vel	nicle Compartme	nt Intrusion?	Total
rash Y		Initial Impact Point on Large Truck	Compartment Intrusion	No Compartment Intrusion	Compartment Intrusion Unknown	
		Rear	0	0	1	1
		Total	1	0	3	4
	2003	Rear	1	0	0	1
		Total	1	0	0	1
	2004	Left Side	0	0) 1
		Right Side	1	. 0	0	1
		Rear	0	<u>,</u> 0	1	1
		Total	1	0	2	3
	2005	Front	1	0	1	2
		Left Side	0	0	1	1

Roya

FULL FIELD DATA DUMP OF 2004 FARS CASE 180748 - VEHICLE FILE FATAL MOTOR VEHICLE TRAFFIC CRASH OCCURRING ON NOVEMBER 24, 2004 IN INDIANA THE CRASH INVOLVED A BMW AND A TRUCK TRACTOR 2004 FATALITY ANALYSIS REPORTING SYSTEM (FARS) - FINAL

	VEHICLE				-			1				-						1	
ST_CASE	#	VIN	VIN_1	VIN_2	VIN_3	VIN_4	VIN_5	VIN_6	VIN_7	VIN_8	VIN_9	VIN_10	VIN_11	VIN_12	STATE	OCCUPANTS	MAKE	MODEL	BODY TYPE
180748	1	WBABN33441JW	W	В	A	В	N	3	3	4	4	1	1	W	Indiana	2	BMW	34	2dr Sedan/HT/Coupe
180748	2	1FUJBBCK94LN	1	F	U	1	В	В	с	к	9	4	L	N	Indiana	1	Freightliner	883	Truck/Tractor

ST_CASE		REGISTRATION STATE			JÁCKKNIFE		HAZARDOUS CARGO			NUMBER OF AXLES	CARGO BODY TYPE	SPECIAL	EMERGENCY	
180748	1	Illinois	Driver Not Owner	No Rollover	Not Articulated	Unknown	No	No	Not Applicable	Not Applicable	Not Applicable	No Special Use	No	Cl
180748	2	Multi-In State	Business or Govt	No Rollover	No	Unknown	No	Yes/1 Unit	Tractor/Semi	5	Van/Enclosed Box	No Special Use	No	(

ST_CASE	VEHICLE #	PRINCIPAL IMPACT		DEFORMATION	VEHICLE ROLE	MANNER LEAVING SCENE		RELATED FACTOR 1		VEHICLE	CRASH AVOIDANCE MANEUVER	MOST HARMFUL EVENT		EVENT 1
180748	1	Clock 12	No Under/Override	Disabling	Striking	Towed Away		None	None	Going Straight	No Maneuver	Veh in Transp	1	Veh in Transp
180748	2	Clock 3	No Under/Override	Disabling	Struck	Towed Away	No Fire	None	None	Going Straight	No Maneuver	Veh in Transp	0	Veh in Transp

1		And the second s												0 51 1			Inoch		
		VEHICLE					1.1	VIN		GVW	VEHICLE	MODEL	VIN	SERIES		MOTOR	FUEL	WHLBASE	WHL
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1	ST CASE	#	EVENT 2	FVFNT 3	FVFNTA	EVENT 5	FVFNT 6	LENGTH	BUS USE	RATING	MODEL	VEAD	1300A	TRUCK	VIN DT	CADDIED ID	CODE	CUODT AUTO	LONGA
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	180748	1	Unknown	Unknown	Linknown	Unknown	Linknown	17	Not Used a	Mot	BMM 3-sories	2001	ECI	the size size	CD	00000000000	*	1072	

Vehicle Compartment Int



Under-reporting: a major problem

SAS Output

SAS Output

GEORGIA

Page 41 of 150

		Passenger Ve	hicle Compartme	nt Intrusion?	Total
	Year by Initial Impact t on the Large Truck	Compartment Intrusion	No Compartment Intrusion	Compartment Intrusion Unknown	
2011	Right Side	0	0	1	1
	Total	0	0	1	1
2012	Left Side	1	0	. 0	, 1
	Right Side	0	0	3	3
	Rear	0	0	4	4
	Total	1	0	7	8
2013	Left Side	. 4	1	. 2	7
	Rear	1	0	C	1
	Total	5	· 1	2	0
2014	Dight Side	2	0	0	2



VARIABLE LISTING OF CASE # 130366 VEHICLE DATA FILE FATAL MOTOR VEHICLE TRAFFIC CRASH ON MAY 4, 2013 IN GREENSBORO, GA FATALITY ANALYSIS REPORTING SYSTEM(FARS) 2013 ARF

Extent of Damage	Vehicle Removal	Most Harmful Event	Related Factors- Vehicle Level	Related Factors- Vehicle Level 2	Fire Occurrence
Disabling	Towed Due to	Motor Vehicle In-			No or Not
Damage	Disabling Damage	Transport	None	None	Reported
Disabling	Towed Due to	Motor Vehicle In-			No or Not
Damage	Disabling Damage	Transport	None	None	Reported
Disabling	Towed Due to	Motor Vehicle In-			No or Not
Damage	Disabling Damage	Transport	None	None	Reported
Emergency				Location of	Initial Contact
Use	Travel Speed	Underride/Override	Rollover	Rollover	Point
Not Applicable	Not Reported	No Underride or Override Noted	No Rollover	No Rollover	1 Clock Point
		Underriding a Motor			
		vehicle In-Transport,			
		Underride,			
		Compartment Intrusion			
Not Applicable	Not Reported	Unknown	No Follover	No Rollover	11 Clock Point
		No Underride or			
Not Applicable	Not Reported	Override Noted	No Rollover	No Rollover	6 Clock Point

Under-reporting: a major problem

file://

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NO .	1					Biblit Turner and		/
aw Enforcement Suspected Drug Use	Drug Test Type	Drug Tested Drug Test Result TEST NOT GIVEN			A.		-	
PASSENGER V02 Person Type PASSENGER	NM# Vehicle# Person Ty V02	Tak the second						
Inst Name ANNALEAH Udress	Address Olher	GEOF	GIA DEF	ARTMENT	OFP	UBLIC SAFETY		
1617 BURNT MILL ROAD Phone Number	Phone Number (other) Cor	and a second	MOTOI	CARRIER COM	PLIANCI	E DIVISION		
252-903-2444 Motor Vehicle Seating Position: Row SECOND	Motor Vehicle Seating Position: Seat	COMMERC	CIAL MOTOR	VEHICLE SIGNI	FICANT (RASH REPORT (SCR		
Restraint Systems SHOULDER AND LAP BELT USED)						**************************************	
Air Bag Deployed NOT APPLICABLE		Prepared/Take	in by: JAME	S BAILEY # 7525		Date of Report:	5/4/2013	
Trapped Extrication	IOL	Date of C	crash: 5/4/20	13		Time of Crash:	13:53	
njury Severity Level Type FATAL INJURY (K) Source of Transport to Medical Facility	EMS Agency Name or ID	Crash Cc	ounty: Green	3		Nearest City:	Greensboro	
EMS GROUND aw Enforcement Suspected Alcohol Use	GREENE COUNTY EMS		MCCD Regio	n in which Crash	Occurred	1 4		
NO aw Enforcement Suspected Drug Use	Drug Test Type					1-20 W MM 130	and a fair and a stand of the standard standard standard standard standard standard standard standard standard	{
NO PASSENGER V02		In	vestigating Of		· · · ·	SFC Bentley # 864 C	SSP/SCRT	
Person Type PASSENGER	NM# Vehicle# Person T V02							
First Name MARY	Middle Name			SIGNIFICAN	ICE			
Address 1617 BURNT MILL ROAD Phone Number	Address Other Phone Number (other) Co	Fat	ality? Yes	\boxtimes	No T	Est. # of Fatalities:	1	İ
252-903-2444 Motor Vehicle Seating Position: Row	Motor Vehicle Seating Position: Seat				house			
SECOND Postraint Systems	RIGHT	In	njury? Yes	\boxtimes	No [Est. # of Injuries:	4	
SHOULDER AND LAP BELT USED Air Bag Deployed)					Construction of the second	temperature and the second	
NOT APPLICABLE	101	Road Clos	sure? Yes	\boxtimes	No	HAZMAT Cargo?	Yes 🗌 No	\boxtimes
TRAPPED & EXTRICATED WITH J Injury Seventy Level Type NON FATAL INJURY	Injury Severity Level Detail INCAPACITATING (A)	Eat Longth (Time) of Road (Closure: 4		Tuno of	LINA		
Source of Transport to Medical Facility EMS GROUND	EMS Agency Name or ID GREENE COUNTY EMS	Est. Length (Time) of Road C	JUSUIE		Type of			
Law Enforcement Suspected Alcohol Use NO	Alcohol Test Type	Oversize, Permitted L	.oad? Ye	s 🗍	No 🛛	Permit Number		
Law Enforcement Suspected Drug Use NO	Drug Test Type							
Person Type DRIVER	NM# Vehicle# Person T	MCCD Responding/On	Scerie?	'es 🕅	No	Number Of MCCD	1	
First Name	Middle Name			D Officer Present	t/En Route	e: MC03 Bailey 7525		
201	3 Left Si	MCSAP Inspection Perform						
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	D	Crash Notifications n	nade to:	HQ:		Name:		
	Rear			FMCSA:		Name:		
				Radio Room:		Name:		



FIELD DATA DUMP OF 2016 FARS CASE 120918 - VEHICLE FILE L MOTOR VEHICLE TRAFFIC CRASH OCCURRING ON MAY 7, 2016 AT 4:40PM IN FLORIDA CRASH INVOLVED A TESLA AND A TRUCK TRACTOR FATALITY ANALYSIS REPORTING SYSTEM (FARS) - FINAL

ecutive lumber		130,000,000	Underride/Override	Rollover	Location of Rollover	Areas of Impact - Initial Contact Point	Extent of		Most Harmful Event	Related Factors	Vehicle Related Factors (2)	Fire Occurrence		Driver License State	Driver ZIP Code	Non-CDL License Status	Non-CDL License Type
120918	1	035 MPH	No Underride or Override Noted	No Rollover	No Rollover	9 Clock Point	Functional Damage	Not Towed	Motor Vehicle In-Transport	None	None	No or Not Reported	Yes	Florida	34684	Valid	Full Driver License
120918	2	065 MPH	No Underride or Override Noted	No Rollover	No Rollover	12 Clock Point	Disabling Damage	Due to	Motor Vehicle In-Transport		None	No or Not Reported	Yes	Ohio	44705	Valid	Full Driver License

2005 Joshua Brown Tes a Side Underride

10

Crash

rting: blem

Under-counted and under-reported

- Inconsistency in police reports
- No checkbox for underride in police reports
- Poorly understood by law enforcement
- Looking for reason for crash not reason for fatalities.
- Looking at driver behavior instead of dangerous design of trailer.
- Lack of awareness
- Well-documented inaccuracy of data

Abstract

Between 1988 and 1993, the Fatal Accident Reporting System (FARS) coded 4 percent of all fatal large truck–passenger vehicle crashes as involving underrides (portion of passenger vehicle slides under a large truck) or overrides (truck rides over another vehicle). In contrast, the National Accident Sampling System Crashworthiness Data System (NASS/CDS) coded **27 percent** of a sample of 275 fatal large truck–passenger vehicle crashes as underrides during the same years. Seven percent of these 275 fatal crashes are identified as underrides in FARS. The discrepancy between FARS and NASS coding becomes more pronounced when underrides involving sides of passenger vehicles or trucks are considered. The reason for this discrepancy is that NASS/CDS did not code underrides involving side impacts, but FARS did. When underrides involving side impacts were added, the total percentage of underrides in NASS/CDS rose from 27 percent to 50 percent of fatal truck-car crashes. The most likely explanations for the lower incidence of underride coding in FARS are that (a) the greater amounts of information available to NASS/CDS Braver, E. R., Cammisa, M. X., Lund, A. K., Early, N., Mitter, E. L., & Powell, M. R. (1997).

Incidence of Large Truck-Passenger Vehicle Underride Crashes in Fatal Accident Reporting System and National Accident Sampling System.

Transportation Research Record, 1595(1), 27–33. https://doi.org/10.3141/1595-05

Incidence of Underride Study

IIHS 1992 Status Report

STATUS INSURANCE INSTITUTE FOR HIGHWAY SAFETY REPORT

Vol. 27, No. 9

Death Count May Be Too Low

How often do cars and other passenger vehicles slide into and under the rear of big truck rigs, killing the people in the passenger vehicles? Underride crashes may happen more than twice as often as the National Highway Traffic Safety Administration (NHTSA) recognizes. Institute researchers analyzing NHTSA data files have discovered that many states don't identify any fatal rear-end truck crashes as involving underride. These omissions lead researchers to conclude that many more deaths may be occurring in underrides than the average of 72 annually that NHTSA recognizes.

In California, for example, 24 percent of all 1989 passenger vehicle occupant deaths that occurred in rear-end truck and parked vehicle crashes are identified in NHTSA data files as involving underride. But, in 36 states and the District of Columbia, not a single one of the 400 passenger vehicle occupant deaths in such crashes is identified as involving underride. (See table on page 2.)

Institute researchers scrutinized police reports for the 1989 California crashes identified as underrides and verified them as such. "It's more than likely a coding problem that's keeping more crashes nationwide from being properly identified as underrides," says Institute President Brian O'Neill. Police reports don't always include enough information to determine whether individual crashes involve underride, so the crashes don't get coded as such in NHTSA's data system. As many as 151 deaths in underride crashes may be occurring each year not the 72 NHTSA recognizes — if the proportion of underride crashes in California holds true for the nation as a whole.

"If underrides are underreported, and it appears they are, then it's all the more reason to get on with federal rulemaking for improved underride guards," O'Neill says. NHTSA's recent proposal to require lower, stronger guards on truck trailers is the agency's sixth announced plan to upgrade a 1953 underride regulation that's still in force. Proposals were issued then abandoned — in 1967, 1969, 1970, 1977, and 1981. (See *Status Report*, Vol. 27, No. 2, Feb. 8, 1992.)

Referring to the likely underreporting of underrides, the Institute says NHTSA should amend its data-gathering processes to more accurately identify such crashes. Plus, Institute researchers have identified the following shortcomings in NHTSA's proposed underride guard requirements:

Guards Too High The proposed 22inch maximum ground clearance for rear underride guards is preferable to the 30 inches now allowed, but it's still way too high. It'll fail to prevent many underrides and won't take full advantage of automobile safety technology like air bags, the Institute says. A 20-year-old NHTSA

July 11, 1992

An evaluation of the accuracy of side underride crash Case **Listings in the Fatality Analysis Reporting System using internet**based articles FARS Case Listing MCLANE

> Year: 2018 Crash Month: October Crash Day: 15 State: Texas Unique Crash ID: 482615 Unique Vehicle ID: 2





To evaluate the accuracy of side underride Case Listings (crash records) within the Fatality Analysis Reporting System

Methods

Google the first 40 fatal side underride crashes

Validate using photos and/or descriptions

Query FARS for the corresponding "Case Listing"

• Determine whether the underride crash data element was coded as an "Underride" or "No Underride Noted"



 All of the 39 side underride Case Listing records (58 fatalities) found in FARS were inaccurately coded "No Underride"

 1 side underride crash (3 fatalities) was never recorded in FARS

Discussion

 In FARS, underride data were universally inaccurate, significantly undercounting the number of crashes and fatalities from side underride crashes with semitrailers

Discussion

Inaccurate coding of side underride crashes and fatalities in FARS are likely a combination of:

- Lack of a mandatory checkbox on State police crash reporting forms
- Lack of a standard underride definition from NHTSA
- Inadequate training of State police who complete the crash reporting forms

Recommendations

1. NHTSA should require an underride data element on all State police crash reports;

2. NHTSA should establish a process to correct inaccurate underride data records in FARS;

Recommendations

3. Side underride crashes should be evaluated for the last 10 years of FARS Case Listing records using these same methods; and

4. Underreporting of rear and front underride crashes and underride fatalities involving single unit trucks should also be investigated



UNDERRIDE CRASHES

The institute for Safer Trucking defines underride collisions as a crash in which a vehicle or a vulnerable road user (such as a pedestrian, bicyclist, person on a personal conveyance, or motorcyclist) travels underneath a truck and/or trailer.

ONLY 17 STATES HAVE UNDERRIDE FIELD ON THEIR POLICE ACCIDENT REPORT

Below is a breakdown of states that include a specific field for "underride" on their police accident report (PAR). In order to accurately capture the number of underride collisions all states should have a specific field for underride on their PAR as well as education for law enforcement about reporting truck underride crashes.



Underride Field No Underride Field

Launching a Campaign To Flood NHTSA With Underride Complaint Reports

③ July 16, 2022 Safety Advocacy, Truck Safety
 ✓ NHTSA, Office of Defects Investigation,
 Safety defect, underride
 ▲ Marianne

Safety defect investigations are based upon complaints. That's why we're calling on people to help us submit UNDERRIDE Safety Problem Reports to NHTSA.

In response to our **Petition for Investigation of Trailers Without Side Guards** submitted to the US DOT on September 14, 2021, the Office of Defects Investigation (ODI) at the National Highway Traffic Safety Administration (NHTSA) in Washington, DC, indicated that they had only received three complaints — besides our petition — about the safety hazard posed by tractor-trailers without side guards. They subsequently denied our petition on June 22, 2022.

Of course, we know that there have been many more than *three* side underride deaths and serious injuries. However, we are making plans to make sure that the ODI knows this as well and are launching a campaign for submission of underride complaints of all kinds to NHTSA — side, rear, front, tractortrailer, Single Unit Trucks, and those involving not only passenger vehicle occupants but also pedestrians, cyclists, and motorcyclists.

We are asking that people send us crash reports for collisions with trucks which they suspect involved underride. Send them to *marianne@annaleahmary.com*. We will submit these as complaints to ODI.

People who would like to make their own submission can do so by following this procedure:

Instructions for Submitting an Underride Complaint to ODI

POST LINK

Instructions for Submitting an Underride Safety Defect Complaint to the NHTSA Office of Defects Investigations

On September 14, 2021, families of underride victims submitted an official <u>petition</u> to the *National Highway Traffic Safety Administration* (NHTSA) *Office of Defects Investigation* (ODI) asking them to initiate a safety defects investigation into the known reasonable risk of tractor-trailers without side guards. A <u>denial of our petition</u> was published in the Federal Register on July 2.

Of note is the fact that they cited the low number of underride complaints received by their Office:

ODI has received three (3) complaints, other than those from the petitioners, related to trailer underride.

We are hoping that flooding the ODI with additional complaint submissions will provide them with undeniable justification for moving forward with a safety defects investigation of the dangerous truck design which leads to Death By Underride (along with debilitating injuries for survivors and lifelong grief for family members) and which, furthermore, has proven engineering solutions -- for side, rear, front, tractor-trailer, Single Unit Trucks, passenger vehicle occupants, as well as pedestrians, cyclists, and motorcyclists.

If you, or someone you know, lost a loved one due to a truck underride crash, please either send a crash report to **marianne@annaleahmary.com** for us to submit a complaint, or follow these steps yourself:

- 1. Use the <u>NHTSA Safety Problem Report Form</u> to gather the necessary information which will enable you to complete the NHTSA Safety Problem Report online.
- 2. Go to the NHTSA safety problem report webpage.
- 3. You will be asked what type of problem you want to report. Select: Vehicle.
- 4. Next click on the blue box: START FORM .
- 5. The first thing it will ask you for is the VIN.
- 6. The VIN can be obtained from the crash report.
- If you do not have the crash report or, if the crash report does not list the full VIN, it is possible (though challenging) to get that information by following these instructions for the NHTSA Data Query Tool: <u>Instructions for Locating a Truck Crash/VIN</u>.
- 8. Here is an example of a completed Safety Problem Report: Riley Hein Case or sample.

 Alternatively, complaints can be mailed to: National Highway Traffic Safety Administration Attn: Office of Defects Investigation 1200 New Jersey Avenue, SE Washington, DC 20590

 Thank you for helping to document the known safety problem of truck underride

 tragedies. Please send us a copy of your complaint submission & let us know if you have

 any questions.
 Jerry & Marianne Karth, July 8, 2022

- Use the <u>NHTSA Safety Problem Report Form</u> to gather the necessary information which will enable you to complete the NHTSA Safety Problem Report online.
- 2. Go to the NHTSA safety problem report webpage.
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- 8. Here is an example of a completed Safety Problem Report: Riley Hein Case or sample.
- 9. Alternatively, complaints can be mailed to: National Highway Traffic Safety Administration Attn: Office of Defects Investigation 1200 New Jersey Avenue, SE

Washington, DC 20590

Sample Underride Safety Defect Complaint Submission

I would like to file a Vehicle Complaint and report a safety defect with a semitrailer that lacked a side underride guard.

My name is Eric Hein.

Phone:

Email:

On October 11, 2017 a 75-year old man died when his 2012 Cadillac SRX4 (VIN: 3GYFNDE32CS6XXXXX; FARS will not retrieve the entire 17 digit VIN) crashed into a 2013 Peterbilt truck hauling a semitrailer at the intersection of County Road 138 and U.S. 20 in Sandusky Township, Ohio (FARS Case Listing: 390821). The complaint should note that the resulting fatality from this side underride crash happened when the Cadillac went under the semitrailer, which contained a known safety hazard and defect due to a lack of side underride guards.

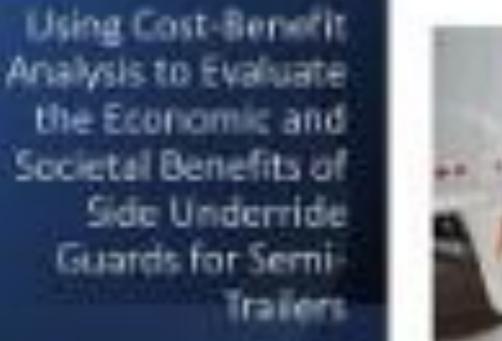
I'm also sending this link to a news article.

https://www.thenews-messenger.com/story/news/local/2017/10/11/1-dead-suv-semi-crash-cr-138-and-us-20/753124001/

This case represents 1 tragic death; however, there are similarly hundreds of deaths and thousands serious injuries annually from passenger vehicle crashes with semitrailers lacking side underride guards, indicating that semitrailers without side underride guards contain a defect that presents an unreasonable risk to the public from a significant number of failures.

Why has it taken over 100 years to fix this problem?

 Hidden problem – UNDERREPORTED
 Undercounting skews Cost Benefit Analysis and consequently derails efforts to mandate regulations
 Industry Resistance





Side Guard Cost Benefit Analysis Presentation: VIDEO Link <u>CBA post</u>

FACT SHEET: FMCSA STUDY OF TRUCK SIDE GUARDS TO REDUCE PEDESTRIAN FATALITIES

KEY ISSUES AND CONCERNS



Flawed Underride Data, Research, & Regulatory Analysis

1/8/2023

What GAO Recommends

GAO recommends that DOT take steps to provide a standardized definition of underride crashes and data fields, share information with police departments on identifying underride crashes, establish annual inspection requirements for rear guards, and conduct additional research on side underride guards. **DOT concurred with GAO's recommendations.**

GAO Truck Underride Report (April 2019)

Recommendations for Executive Action

<u>Recommendation 1</u>: The Administrator of the National Highway Traffic Safety Administration should recommend to the expert panel of the Model Minimum Uniform Crash Criteria to update the Criteria to provide a standardized definition of underride crashes and to include underride as a recommended data field.

<u>Recommendation 2</u>: The Administrator of the National Highway Traffic Safety Administration should provide information to state and local police departments on how to identify and record underride crashes.

<u>Recommendation 3</u>: The Administrator of the Federal Motor Carrier Safety Administration should revise Appendix G of the agency's regulations to require that rear guards are inspected during commercial vehicle annual inspections.

<u>Recommendation 4</u>: The Administrator of the National Highway Traffic Safety Administration should conduct additional research on side underride guards to better understand the overall effectiveness and cost associated with these guards and, if warranted, develop standards for their implementation.

D.C. Underride Crash Test Event Audi Field Parking Lot March 26, 2019

DC Underride Crash Tests: Aerial & Inside Cars



AngelWing Underride Crash Test Washington, D.C. March 26, 2019

AngelWing DC side guard crash test video

SafetySkirt Underride Crash Test Washington, D.C. March 26, 2019

SafetySkirt side guard crash test video

UNGUARDED Side Underride Crash Test Washington, D.C. March 26, 2019

Unguarded side crash video



D.C. Underride Crash Test: Left Side Overall Vertical



Aftermath of the DC Underride Crash Test, March 2019, Audi Field Parking Lot



D.C. Underride Crash Test Panel Discussion, Part 1



"WUSA9 first spoke with Eric Hein at a crash test in March held outside Audi Field in Southwest D.C., where underride safety advocates had gathered to demonstrate how side guards work."

WUSA9 interviewed Eric Hein at the DC Underride Crash Test Event, March 26, 2019





Raleigh Underride Crash Test Event, September 13, 2022 video



Raleigh engineer creating, testing truck underride crash barriers

WOULD YOUR CAR FIT UNDER A TRUCK?





WHO WE ARE

A team made up of families of victims, road safety engineers, lawyers, and others whose lives and work are impacted by underride crashes.

WHAT WE ARE DOING

A national tour with crash tests and conferences to demonstrate the effectiveness of new safety devices designed for large trucks to prevent underrides.

HOW TO GET INVOLVED

Tour Info

Follow **this link** to our fundraiser page to learn more about our efforts and a generous donation match challenge.

IMAGE ABOVE: A 35 MPH CRASH TEST INTO THE SIDE OF A TRAILER WITHOUT A SIDE GUARD

IMAGE TO THE RIGHT: A 35 MPH CRASH TEST Into the side of a trailer with a side guard



TEAM Underride is collaborating with State Highway Patrols & safety groups to demonstrate engineering solutions at 2-day Underride Crash **Test Events in at least 4 regions of** the U.S.

Each Regional Event will include multiple crash tests — including one with & one without a side guard — as well as a keynote speaker & panel discussion to educate first responders, crash investigators, insurers, attorneys, regulators, & the trucking industry on the deadly underride problem and solutions.

Tentative 2023 Crash Test Tour Schedule

Site 1 WREX Orlando (April)	Site 2 TTMA Palm Beach Gardens (April)	Boston	ΑΤΑΑ	Site 5 SCARS South Carolina (July)	Site 6 IN (March)	Site 7 New York	Site 8 New Mex.
					Sell 1	A Ves	

National Crash Test Tour Crash Docket Planning Chart

					ł				
	Crash Type	Site 1 WREX Orlando (April) 16-19	Site 2 TTMA Palm Beach Gardens (April 19-22)	Site 3 Boston (August)	Site 4 ATAA Atlanta (Sept.)	Site 5 SCARS South Carolina (July)	Site 6 IN (March)	Site 7 New York	Site 8 New Mex.
	Hybrid Side Perpendicular	X			X			x	
	No side guard Perpendicular	x			Х.,	-		x	
	30% offset Rear with current standard design		X .				x		x
	30% offset Rear with reinforced guard	n.	x		_		x		x
	Narrow angle side strike behind axles with hybrid (needs pre test prior to tour)		x						4
	Narrow angle side strike behind axles without hybrid.	1	x	-					
	SUT 50% overlap rear with four post guard			x		-			
1	SUT 50% overlap rear with four post guard			×					
	Narrow angle strike adjacent to landing gear (hybrid or Angelwing)					x			
1	Narrow angle strike adjacent to landing gear no guard					x			

Crash Type	Site 1 WREX Orlando (April) 16-19	Site 2 TTMA Palm Beach Gardens (April 19-22)	Site 3 Boston (August)	Site 4 ATAA Atlanta (Sept.)	Site 5 SCARS South Carolina (July)	Site 6 IN (March)	Site 7 New York	Site 8 New Mex.
Hybrid Side Perpendicular	X			X .			x	
No side guard Perpendicular	x			X	~		x	
30% offset Rear with current standard design		X .				x	-	x
30% offset Rear with reinforced guard	at-	х				х		x
Narrow angle side strike behind axles with hybrid (needs pre test prior to tour)		X						2
Narrow angle side strike behind axles without hybrid.	9	x						

"Blood has been shed, heads literally have rolled and countless thousands of Americans have been injured because these agencies did not act. Further inaction would be inexcusable."

- William Haddon, M.D.

Timeline of Underride Safety: 100 years of Death By Underride



Courtesy: Virginia State Police

UNDERRIDES

Va. family grieves after man killed in Thanksgiving underride crash

"Please do something about it. We don't need an extra person to die this way."

Author: Eric Flack Published: 10:17 PM EST December 4, 2017 Updated: 1:02 PM EST December 5, 2017

A Northern Virginia family is now among those calling for new safeguards on tractor trailers after a horrific crash killed a local father.

Thirty-year-old Christopher Padilla was killed in a violent crash with a tractor trailer on I-495 in Fairfax County.

Christopher Padilla 2017

Riley Hein

2015 Forever Loved, Always Missed RILEY ERIC HEIN 1999-2015 "We didn't realize we were making memories,

Manzano student identified as person killed in I-40 crash

BY NICOLE PEREZ / JOURNAL STAFF WRITER Monday, November 16th, 2015 at 6:46pm

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SUBSCRIBE

ALBUQUERQUE, N.M. — The person killed in a fiery crash that closed I-40 Friday morning is Manzano High School junior Riley Hein, school officials confirmed Monday.

Bernalillo County Sheriff's Office deputies were called to westbound I-40 near
the Tijeras exit around 6:30 a.m. for a crash between a car and a semi-trailer.
Authorities closed westbound lanes of traffic all morning while they investigated.

Sheriff's Office spokesman Aaron Williamson said a passenger car and a semitrailer that were both driving on westbound I-40 collided with one another at a curve, and the passenger car got trapped underneath the semi.

The semi dragged the car for a quarter mile, and when authorities arrived, the truck was on fire. The driver of the passenger car, whom school officials identified as Hein, was pronounced dead at the scene of the crash.





Rod Cota



Thomas, Christina, Sophia, Elianna Toth

The Detroit News

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LIFE + HOME

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PHOTO + VIDEO MORE

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'It's tragic': Vacationing Grosse Pointe family dies

Leonard N. Fleming, The Detroit News Published 3:43 p.m. ET April 8, 2018 | Updated 9:30 a.m. ET April 9, 2018



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Thomas Toth was a huge Grateful Dead fan and a

Share your feedback to improve our site exper

2018

Joseph Gilmore 2018

METRO-EAST NEWS

Tennessee sheriff's deputy who attended high school in Belleville killed in crash

BY ELIZABETH DONALD

JANUAR

Memorial planned for Davidson Co. deputy who died after crash

Posted by Briona Arradondo and Payton Knobeloch
 ⊙ Posted Jan 1, 2018

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Rebecca, Daniel, Bachman 2018

UPDATE: Three killed, one injured after multi-car wreck on I-75 South identified

THP said three people have died after a wreck on I-75 South in Campbell County.

Author: WBIR Published: 5:24 PM EDT July 11, 2018 Updated: 5:24 PM EDT July 11, 2018

VATION-WORLD

UPDATE (Monday 10:25 a.m.): Three people are dead and one is injured after a multi-vehicle wreck on I-75 in Campbell County on Sunday.

Lieutenant Don Boshears with the Tennessee Highway Patrol said the crash involved a tractor trailer and a Dodge Caravan at the 141 mile marker near Jacksboro.

42-year-old Rebecca Bachman, 13-year-old Daniel Bachman and 15-year-old Lauren Bachman were all killed in the crash. 10-year-old Jake Bachman was injured. All four were wearing a seat belt and are from

Michael Higginbotham 2014



2004

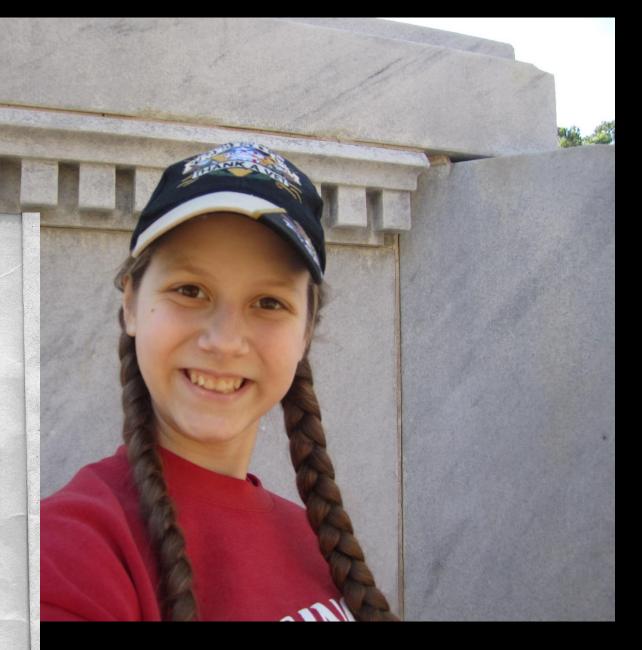
1/8/2023

First of all, I want to say 1000 Roya Sadig Mat I love you so much. Im 2004 appreciative that I have you as a worderful momen and as a faithful friend. Thank you for your integrity, sacrifice and abundant love which you display

Mary Karth 2013

Dear marcus IQU I Hope you like the Book Don't forget me

MODDOMODOM Aunt Mary



AnnaLeah Karth 2013





Two Austin Women Die In Crash Near Fredericksburg May 11, 2018

Near Frederickburg, Texas May 4, 2018 -- A fatal accident took the lives of two Austin women around 12:20 p.m. Friday, May 4. Ramiro Sanchez, 54, of Tomball, was driving eastbound in the 17000 block of U.S. 290 East, between Stonewall and Hye, in a 2017 Kenworth truck tractor semi-trailer with a flatbed. For reasons not yet known, Sanchez lost control and both the truck and connected trailer veered into the westbound lanes, according to the Texas Department of Public Safety. The truck portion of the rig struck a 2015 Honda Civic traveling west, driven by Jack McGuff, 27, of Pearland.

The Honda was forced off the road and came to a stop in the grass. Jordan Ruth Hensley, 26, of Austin, and her passenger, Erin Nicolle Alexander, 22, also of Austin, were traveling west in a 2012

FOCUS

Grieving mother takes on trucking industry, fighting for side rails

Side rails could prevent cars from sliding under the sides of semitrucks. After her daughter's death, a mother is asking why we don't have them yet.

Author: John Charlton, Andrea Ash, Will Weible Published: 7:53 PM EDT May 8, 2019 Updated: 12:07 AM EDT May 9, 2019

LOUISVILLE, Ky. (WHAS11) -- The connection between mother and daughter is everything, especially, for a daughter raised by a single mother.

"I had her my senior year in college. So, we kind of grew up together," said Christa Hammack.

llision.

the trailer portion of the truck tractor. Hensley and Alexander ene, according to DPS.

Erin Alexander 2018

Siblings Eli, Sarah and Eva Villareal

TRAFFIC

Bay Area triple-fatal crash: Family speaks out after 3 siblings killed en route to visit ailing father in hospital



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Villareal says her children went home to rest. When their dad began coding overnight they decided to drive back to the hospital but never made it.



Saturday March 2 2019

triple-fatal crash: Family speaks out after killed en route to visit ailing father in



Brophy was cited for failure to yield one-half of the roadway.

1974 River-Cade **Attendant Injured**

SIOUX CENTER, Iowa - A during this year's River-Cade Sioux City hospital from in- queen contest. juries she suffered in a traffic accident near Orange City

former River-Cade Queen celebration. She was a member attendant remained in of Queen Kim Johnson's court "serious" condition Sunday at a and participated in the 1973

Saturday. Anita Plantage, 19, of Sioux Center, was still confined to the intensive care unit at St. Luke's Medical Center, according to hospital authorities. The Sioux County Sheriff's Department said Miss Plantage was eastbound on Iowa 10 when she collided with a westbound truck about two and a half miles west of Orange City. The truck's driver, Jack Brophy, 27, of La Vista, Neb., was unhurt. Miss Plantage was

taken to the Floyd Valley

Hospital at Le Mars, then

following the mishap.

transferred to St. Luke's

She served as an attendant

us.

ring

Anita Plantage





nita Plantage, Northwestern cheerleader last year, is in stable condition in a Sloux City hospital following an accident Saturday west of Orange City, Anita, 19, suffered two broken legs, her pelvis was broken in three places and she was operated

She was traveling east on Highway 10 in her 1971 Chevrolet when a 1972 International semi driven by Jack Brophy of La Vista, NE., swerved into the left lane to avoid hitting a pickup parked on the shoulder of the road. The two collided almost head-on and Brophy was charged with failure to yield half the roadway. The semi

pes

25

of Mr

Cen-

gust

she is

and the Plantage vehicle was totaled, according to investiter of the Highway Patrol and the Sheriff's Department.

Anita Plantage 1974

Anita Plantage hopes to be out of body cast by November 25

Anita Plantage, 19, daughter of Mr. and Mrs. Wm. Plantage of Sioux Cenat her ter, who has been recuperating at her n 21/2 parental home here from severe injuries sustained in a car-truck collision 21/2 miles west of Orange City on August On No

My family and I wish to thank all our relatives and friends for the many prayers, visits, cards, gifts and food which we have received while I was in the hospital and now at home. A Very Special Thank You to Pastor Kiel and Pastor Huizenga for their many visits and prayers. I will never forget the thoughtfulness and kindness of this

Our Father knows what's best for us, So why should we complain. We always want the sunshine, But He knows there must be



Gabrielle Kennedy 2019

Little girl in critical condition after violent Waterboro crash

AA

<image>

Little Gabrielle Kennedy had to be token by helicopter to Maine Medical Center, where authorities say she is in critical condition. (Troy Kennedy)