Congress of the United States

Washington, DC 20510

November 23, 2016

The Honorable Mark R. Rosekind, Ph.D.
Administrator
National Highway Traffic Safety Administration
1200 New Jersey Avenue, S.E. West Building
Washington, DC 20590

Dear Administrator Rosekind,

We write to urge the National Highway Traffic Safety Administration (NHTSA) to amend applicable Federal Motor Vehicle Safety Standards (FMVSS) to better protect back seat passengers by preventing the occurrence of seatback failures during car crashes. During a rear-end collision, the front seat can collapse backward and crush vulnerable back seat passengers, such as small children and infants, resulting in serious injury or death. According to a study by the Center for Auto Safety, approximately 50 children placed behind occupied seats have died annually in rear impact incidents over the last 15 years.[1]

Despite several petitions to the U.S. Department of Transportation urging modernization of the seat system standard, FMVSS 207—the specifications on minimum requirements for seat strength—has not been substantially updated since it was first adopted in 1967. Furthermore, since 1996, NHTSA has advised that the safest place for children in vehicles equipped with airbags is the back seat.[2] Accordingly, we believe it imperative that NHTSA and automakers take immediate action to remedy this significant seating system deficiency, which undermines the safety of these children placed in the back seat. This standard is clearly out-of-date and must be updated to adequately protect back seat passengers.

On May 25, 2016, sixteen auto manufacturers[3] were queried by Senators Markey and Blumenthal about the strength of their seating systems and known fatalities or injuries potentially related to deficiencies in seat designs for vehicles sold in the United States over the last ten years.[4] The information received and our own analysis *(Attachment 1)* indicate the following:

- Most automakers did not respond to the Senators' letter with specificity despite explicit questions about vehicle seat strength and known incidents of seatback collapse;

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[1] http://www.autosafety.org/wp-content/uploads/2016/03/Seat-Back-Petition-FINAL.pdf
[2] http://www.nhtsa.gov/staticfiles/nti/enforcement/pdf/ProtectingChildren.pdf
[3] Audi and Volkswagen are combined under the Volkswagen Group of America.
[4] http://www.markey.senate.gov/letters-to-automakers-on-seatback-safety

- Although companies claimed they sufficiently meet or exceed seatback strength standards, accidents involving seatback collapse that lead to deaths and injuries continue to occur in many vehicle makes and models;

- Automakers have not reported all cases of seatback collapse to NHTSA's Early Warning Reporting (EWR) system as required by federal regulation, and NHTSA has not verified the accuracy or completeness of the EWR data that is submitted;

- Reporting categories in NHTSA's EWR system and Fatality Analysis Reporting System (FARS) lack specificity and transparency so that entries relating to incidents of seatback collapse (or other potential safety defects) are easily identifiable; and

- Despite auto manufacturers' assertion that seat architecture is complex, we believe it is still necessary for NHTSA to proceed with an evaluation of FMVSS 207 and any other associated seating safety standard, so that seatback collapse is prevented.

In addition to our request that NHTSA identify the appropriate adjustments that must be made to seatback strength so that seats do not collapse in rear-end collisions, and propose changes to FMVSS 207 and any other safety standard that would be impacted by modifications to the seat strength, we also make the following requests based on the results of the attached analysis:

1) In light of the analysis showing the potential failure on the part of automakers to comply with the requirements of the Transportation Recall Enhancement, Accountability and Documentation (TREAD) Act and NHTSA's historic failure to consistently enforce these requirements, we request NHTSA investigate automakers' compliance with EWR requirements with respect to seatback failure.

2) Please provide us with copies of all death and injury reports requested by NHTSA for any of the 3,455 injuries and 326 deaths identified by the Center for Auto Safety in which the EWR system listed 'seat' as a reported component under *Attachment 3*.

3) In order to better understand the ability for manufacturers and NHTSA to identify seatback failure, please also indicate how many police reports received by NHTSA include a code for seatback collapse, how many reports include an officer's note on an incident of seatback collapse, and what field in NHTSA's Fatality Analysis Reporting System (FARS)—a national census on fatal vehicle injuries—if any, indicates when seatback collapse has occurred.

Given the pressing concern for enhanced passenger safety in this area, we ask that you provide a written response to our inquiries on EWR system entries, police reports, FARS, as well as the status of any known effort to update FMVSS 207 and other corresponding standards by December 14, 2016.

Thank you for your attention to this important matter. If you have any questions, please have a member of your staff contact Michal Freedhoff or Elyssa Malin at (202) 224-2742 in Senator Markey's office, Anna Yu at (202) 224-2823 in Senator Blumenthal's office, or Eleanor Bastian at (202) 225-4431 in Congresswoman DeGette's office.

Sincerely,

Edward J. Markey
United States Senator

Richard Blumenthal
United States Senator

Diana DeGette
Member of Congress

Enclosures: (4)

CC: The Honorable Christopher A. Hart, Chairman
National Transportation Safety Board

Attachment 1: Analysis and Findings

Most automakers did not respond to the Senators' letter with specificity despite explicit questions about vehicle seat strength and known incidents of seatback collapse

Disappointingly, only the Volvo Car Corporation made a concerted effort to answer all seven questions as written in the Senators' May 25 letter.

Seven companies *(American Honda Motor Co., Inc., BMW of North America, LLC, Hyundai Motor America, General Motors Company, Mercedes-Benz USA, LLC, Nissan North America, Inc., and Toyota Motor North America, Inc.,)* provided generalities about their vehicles' safety while not explicitly responding to a majority of the questions.

Eight companies *(Fiat Chrysler, Ford Motor Company, Jaguar Land Rover North America, Mitsubishi Motors North America, Inc., Mazda North American Operations, Porsche Cars North America, Inc., Subaru of America, Inc., and Volkswagen Group of America)* mainly referred to the content provided in an unsolicited letter the Senators received from the Association of Global Automakers (Global Automakers) and the Alliance of Automobile Manufacturers (the Alliance).[5]

The joint letter from the Global Automakers and the Alliance primarily reiterated the regulatory timeline for FMVSS 207 and the challenges of achieving a balanced seat design that performs under a variety of real-world crash conditions, while refraining from providing the manufacturer and vehicle model specificity that was requested.

Although companies claim they sufficiently meet or exceed seatback strength standards, accidents involving seatback collapse that lead to deaths and injuries continue to occur in many vehicle makes and models

Ten of the 16 automakers indicated they have at least *some* vehicles in the marketplace that exceed FMVSS 207 requirements, and four companies stated that *all* of their vehicles surpass this 50-year old standard. Additionally, the joint Global Automakers and the Alliance letter said that, "Most vehicles built today well exceed the standards' strength requirement and do so by a considerable margin."[6]

CBS News identified 107 cases of seatback collapse across 35 states resulting in an injury or death—the majority of which involved a lawsuit—in vehicle models made between 1978 and 2015 for accidents that took place between 1987 and 2016.[7] Analysis performed by our offices showed 11 of the 16 surveyed companies were connected to incidents of

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[5] http://www.markey.senate.gov/imo/media/doc/Response%20to%20Markey-Blumenthal%20Letter.pdf
[6] Ibid.
[7] Of the 107 cases of seatback collapse, 48 cases had an incident date before the 2003 mandatory EWR reporting requirement. Only one of those 48 cases may have been located in the EWR system, but the entry did not include a crash date.

seatback collapse identified by CBS News, including three of the four automakers that asserted *all* of their vehicles exceed the current standard.

If a seatback strength standard that was enacted half a century ago is exceeded in most vehicles, yet automobile occupants continue to be injured or killed as a result of seatback failure, then the standard is clearly not sufficiently protective.

Automakers have not reported all cases of seatback collapse to the EWR system as required by federal regulation, and NHTSA has not verified the accuracy or completeness of the data that is submitted

In an effort to increase awareness of potential automotive safety defects, the TREAD Act required automobile manufacturers to provide information regarding reports of potential vehicle safety defects on a quarterly basis to a new EWR database, beginning in 2003.

While the May 25 letter sent by Senators Markey and Blumenthal asked automakers to provide a list of EWR system incident reports related to seatback collapse, only one company provided a single EWR record. According to the 2002 EWR regulation, automakers must provide,

> *"[p]roduction information; information on incidents involving death or injury; aggregate data on property damage claims, consumer complaints, warranty claims, and field reports; and copies of field reports (other than dealer reports and product evaluation reports) involving specified vehicle components, a fire, or a rollover."*[8]

When we compared the dates and descriptions of the 107 seatback collapse cases identified by the CBS investigative unit, at least 18 accidents were not successfully located in the EWR system, but many of those cases should have been reported pursuant to 49 CFR §579.21(b) *(Attachment 2)*.[9]

NHTSA recently fined several companies for failing to adhere to the TREAD Act's reporting requirements including Honda, Ferrari, and GM.[10,11,12] However, in the Ferrari and Honda cases, we note that fines were issued after NHTSA was notified about the potential lack of EWR compliance by Senators Markey and Blumenthal.[13, 14]

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[8] https://www.gpo.gov/fdsys/pkg/FR-2013-08-20/pdf/2013-19785.pdf

[9] 49 CFR §579.21(b) requires death and injury information be reported to the EWR for all light vehicles manufactured during a model year covered by the reporting period, and the nine model years prior to the earliest model year in the reporting period. Under such a provision, not all 18 cases were required to be submitted to the EWR.

[10] http://www.nhtsa.gov/About+NHTSA/Press+Releases/2014/NHTSA+Fines+Ferrari+$3.5+Million+for+Failing+to+Submit+Early+Warning+Reports

[11] http://www.nhtsa.gov/About+NHTSA/Press+Releases/2015/DOT-fines-Honda-$70-million

[12] http://www.nhtsa.gov/About+NHTSA/Press+Releases/2015/nhtsa-fca-penalty-12102015

[13] http://www.markey.senate.gov/news/press-releases/markey-and-blumenthal-query-nhtsa-on-auto-injury-and-defect-reporting-compliance

[14] http://www.markey.senate.gov/imo/media/doc/2014-10-15_Markey_Blumenthal_NHTSA_Letter.pdf

A June 2015 report from the Department of Transportation Office of Inspector General (IG) identified deficiencies in the way NHTSA requires EWR data to be submitted and found that NHTSA does not verify EWR compliance, does not take prompt enforcement action when non-compliance is suspected, and does not adequately analyze EWR system data to identify potential inaccuracies and omissions.[15] The problems identified by the IG are well illustrated by an examination of EWR reporting associated with seatback failures. For example, a 2007 GM report lists the date for an accident involving a 1999 Chevrolet Prizm as January 1, 1968.

Reporting categories in NHTSA's EWR system and FARS lack specificity and transparency so that entries relating to incidents of seatback collapse (or other potential safety defects) are easily identifiable

Our analysis also illustrates the IG's observation that there are significant concerns with the way NHTSA requires EWR data to be submitted given the limited number of reporting categories for vehicles with over 15,000 components. Since seatback failure is not specifically categorized in the EWR system, the only discernable indicator that seatback collapse may be a factor for occupant injury or death is when the term 'seat' accompanies a claim file as a 'contributing component.'

The Center for Auto Safety identified 3,455 injuries and 326 deaths in EWR reports where 'seat' is listed as a reported element of an injury or death in vehicle models made between 1994 and 2016 that relate to incidents that took place between 1997 and 2016 for all of the 16 surveyed automakers *(Attachment 3)*. It is impossible to know whether seatback failure was involved because of the limitations of the information required to be submitted by automakers.

The Center for Auto Safety also identified 64 incidents in FARS where a 2015 rear-end crash resulted in the death of a child behind an occupied front seat *(Attachment 4)*. These incidents involved nine of the 16 auto makers that were surveyed (Audi, BMW (Mini-Cooper), GM, Ford, Honda, Hyundai, Mazda, Nissan, and Toyota). Comparatively, according to FARS, 40 child fatalities occurred in 2014. Unfortunately, FARS does not provide a category or field to indicate whether a seatback collapse occurred during the accident.

NHTSA previously indicated there was not sufficient data on seatback collapse to permit an informed decision on a rulemaking action in this area.[16] Information on injuries and fatalities due to seatback collapse would be readily available from police reports, but without a dedicated field in EWR and FARS to methodically collect and organize such information, it is likely that NHTSA will continue to claim the problem of seatback collapse does not exist or is not pervasive enough to warrant change.

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[15] https://www.oig.dot.gov/sites/default/files/NHTSA%20Safety-Related%20Vehicle%20Defects%20-%20Final%20Report%5E6-18-15.pdf

[16] https://www.gpo.gov/fdsys/pkg/FR-2004-11-16/pdf/04-25425.pdf

Despite auto manufacturers' assertion that seat architecture is complex, we believe it is still necessary for NHTSA to proceed with an evaluation of FMVSS 207 and any other associated seating safety standard, so that seatback collapse is prevented

Eleven companies, as well as the joint Global Automakers and the Alliance letter, emphasized the challenge of seat engineering. They highlighted the importance of developing safety measures that comprehensively consider the impact on all vehicle occupants and crash types.

We understand that seatback collapse prevention measures may require adjustments to more than just NHTSA's 207 standard, and acknowledge NHTSA's statement regarding the interconnectedness between several components of seat safety.[17] For example, adjustments to the structure of a seatback might impact the effectiveness of other seat system elements like the head restraint and seat belt. However, neither NHTSA nor automakers can credibly claim that developing innovative seats that do not collapse and kill children is too complicated, while simultaneously touting complex technological advancements of self-driving cars and computer interfaces in dashboards.

[17] https://www.gpo.gov/fdsys/pkg/FR-2004-11-16/pdf/04-25425.pdf

Attachment 2: Cases of Seatback Collapse

The following 18 cases of seatback collapse are a subset of the 107 cases identified by CBS News. These incidents were not successfully located in the EWR system.[18] They reflect incidents that took place between 2003 Q3 through 2016 Q1.

	Automaker	Make and Model	Incident Date	Injury	Death	State
1	Audi	2007 Audi A6	4/10/2015	1		NH
2	BMW	2004 BMW X5	9/11/2013	1		NY
3	Chrysler	2007 Chrysler Pacifica	3/8/2009	1		CA
4	Chrysler	1997 Plymouth Neon	10/24/2007	1		MO
5	Chrysler	2000 Dodge Neon	8/4/2007	1		VT
6	Chrysler	2003 Dodge Caravan	2/2/2014		1	NC
7	Chrysler	1997 Jeep Cherokee	5/6/2011	1		MO
8	Chrysler	2002 Dodge Caravan	10/8/2011	1		OH
9	Chrysler	1994 Dodge Caravan	9/29/2005	2		AR
10	Ford	2002 Ford Escort Zx2	9/4/2013	1		CA
11	Ford	2002 Ford Focus	2/17/2004	1		WI
12	GM	1995 Saturn	7/14/2007	1		CT
13	GM	2000 Saturn SL2	9/8/2010	1		PA
14	GM	1999 Saturn SL1	12/14/2009	1		MD
15	Hyundai	2000 Hyundai Tiburon	2/16/2013		1	PA
16	Nissan	1989 Nissan Sentra	1/13/2014	1		CA
17	Toyota	2002 Toyota 4 Runner	3/1/2013	1		AZ
18	Toyota	1999 Toyota Camry	5/20/2008	1		CA

[18] 49 CFR §579.21(b) requires death and injury information be reported to the EWR for all light vehicles manufactured during a model year covered by the reporting period, and the nine model years prior to the earliest model year in the reporting period. Under such a provision, not all 18 cases were required to be submitted to the EWR.

Attachment 3: Incidents in EWR

Please provide copies of all death and injury reports requested by NHTSA for any of the 3,455 injuries and 326 deaths identified below by the Center for Auto Safety in which the EWR system listed 'seat' as a reported component.

Each manufacturer name links to an Excel file that provides a list of all EWR entries for deaths and injuries with seat as a contributing component for years 2003 Q3 through 2016 Q1.

Manufacturer	Deaths	Injuries
BMW	1	43
Chrysler	55	383
Ford	119	858
General Motors	68	985
Honda	15	240
Hyundai	2	47
Land Rover	1	16
Mazda	5	57
Mercedes	2	186
Mitsubishi	7	32
Nissan	18	113
Porsche	0	1
Subaru	1	35
Toyota	28	402
Volkswagen/Audi	4	33
Volvo	0	24
Total	**326**	**3,455**

Attachment 4: Incidents in FARS

The Center for Auto Safety identified 64 cases in 2015 FARS data where a rear-end crash resulted in the fatality of a child who was placed behind an occupied seat. However, without a category that specifies if a seatback collapse occurred, it is difficult to identify whether a particular vehicle component is connected to the death.

The following 58 cases involved nine of the 16 automakers surveyed by Senators Markey and Blumenthal on May 25.[19]

	Model Year	Make and Model	Case	Age	State
1	2005	Audi A8	290752	6	MO
2	2008	Chevrolet Silverado	481776	1	TX
3	2007	Chevrolet Cobalt	470469	2	TN
4	2012	Chevrolet Cruze	480060	1	TX
5	2007	Chevrolet Full Size Blazer/Tahoe	120501	6	FL
6	2010	Chevrolet Impala/Caprice	370173	1	NC
7	2009	Chevrolet Malibu/Malibu Maxx	481881	6	TX
8	2012	Chevrolet Suburban	10095	10	AL
9	2014	Chevrolet Traverse	210302	10	KY
10	2010	Chevrolet Traverse	482364	5	TX
11	2008	Chrysler Sebring	130349	4	GA
12	2008	Dodge Caliber	410053	7	OR
13	1998	Dodge Caravan/Grand Caravan	260087	10	MI
14	2005	Dodge Caravan/Grand Caravan	450447	11	SC
15	2013	Dodge Caravan/Grand Caravan	530404	< 1	WA
16	2002	Dodge Stratus	160127	< 1	ID
17	1998	Ford Contour	371136	3	NC
18	1995	Ford Escort/EXP/ZX2	50236	1	AR
19	2010	Ford Focus	121070	4	FL
20	2006	Ford Fusion	480261	3	TX
21	1996	Ford Taurus/Taurus X	481733	6	TX
22	2007	Ford Taurus/Taurus X	530389	8	WA

[19] The Center for Auto Safety found a total of 64 incidents. However, six cases were connected to KIA, which was not surveyed in the Senators' May 25 letter. These include: (1) 2003 KIA Spectra; (2) 2004 KIA (model not specified); (3) 2009 KIA Rio; (4) 2009 KIA Sorrento; (5) 2012 KIA Sorrento; and (6) 2013 KIA Sportage.

	Model Year	Make and Model	Case	Age	State
23	2002	Ford Windstar	50119	5	AR
24	2003	Ford Windstar	470895	7	TN
25	2003	Ford Windstar	470895	7	TN
26	1998	Honda Accord	130820	4	GA
27	2006	Honda Accord	340174	1	NJ
28	2004	Honda Accord	370655	4	NC
29	2000	Honda Civic/CRX, del Sol	550424	10	WI
30	2008	Honda CR-V	450155	< 1	SC
31	2004	Honda Element	260650	5	MI
32	2012	Honda Pilot	180458	8	IN
33	2005	Hyundai Elantra	260647	< 1	MI
34	2004	Lexus RX330/350/400h/450h	40507	4	AZ
35	2010	Lincoln Navigator	400419	1	OK
36	2009	Mazda Mazda5	122119	2	FL
37	2008	Mazda Mazda6	490167	5	UT
38	2004	Nissan 810/Maxima	480832	11	TX
39	2005	Nissan Altima	120595	< 1	FL
40	2009	Nissan Altima	280199	4	MS
41	2003	Nissan Altima	450578	12	SC
42	2000	Nissan Altima	480848	10	TX
43	1998	Nissan Frontier (1998 on)	450545	6	SC
44	2006	Nissan Sentra	371121	2	NC
45	2006	Other Import Mini-Cooper	350271	11	NM
46	2004	Pontiac Grand AM	180598	3	IN
47	2004	Pontiac Grand Prix (FWD)	470833	9	TN
48	2007	Saturn Aura	200279	1	KS
49	2007	Toyota Camry	130306	< 1	GA
50	2001	Toyota Camry	370670	10	NC
51	2011	Toyota Camry	480089	1	TX
52	2006	Toyota Corolla	121077	4	FL
53	1998	Toyota Corolla	260618	< 1	MI
54	2003	Toyota Prius	61502	12	CA
55	2005	Toyota RAV4	360618	8	NY

	Model Year	Make and Model	Case	Age	State
56	2005	Toyota RAV4	360618	4	NY
57	2010	Toyota Scion	470389	9	TN
58	2010	Toyota Scion	470389	11	TN