



January 2025

## CHAIR'S MESSAGE



**As** we step into the new year and the 104th TRB Annual Meeting in 2025, I'm excited to welcome you to the latest issue of the Truck and Bus Safety Committee (ACS60) newsletter!

This TRB week (January 5-9) in Washington, DC, promises an engaging lineup of presentations (both podium and poster), meetings, workshops, networking, and discussions. I'd like to extend an open invitation to everyone interested in truck and bus safety—whether you are part of the TRB network or beyond. We encourage you to share your energy and ideas by volunteering for various committee and subcommittee activities. If you'd like to contribute to this newsletter or participate in other ways, please feel free to reach out to me or our editor, Jack Kong.

A big thank you to Jack for his patience and dedication to this effort. Thanks also to those who will contribute in the future. Our goal is for this newsletter to become a valuable resource, showcasing trends in large truck safety in the U.S., featuring member spotlights, short articles, research highlights, key events, recent publications, and the Deborah Freund Paper Award—both within the ACS60 community and beyond. Looking ahead to TRB week, you'll find details in this newsletter about many exciting events, including presentations from industry and academia. I deeply appreciate the sincerity of our subcommittee chairs, the paper review coordinator (PRC), the secretary, the committee research coordinator (CRC), the volunteers (members and 'friends' of ACS60), and the session moderators who are committed to making this team effort successful at TRB.

Your contributions, whether through research need statements, insightful suggestions, professional feedback, or even saying "hello" are highly valued. Remember, your input and participation are always welcome. Please don't hesitate to reach out (if you are interested in being a member or a 'friend' of ACS60)!

Stay happy, healthy, and curious!  
Happy New Year: 2025,  
Mouyid Islam, PhD, RSP  
Chair, Truck and Bus Safety Committee (ACS60)  
[mouyid.islam@gmail.com](mailto:mouyid.islam@gmail.com)

## Editor's message

Welcome to the second edition of the TRB ACS60 Committee Newsletter! We are excited to share the latest updates, member spotlights, and initiatives from our community to inspire collaboration and dialogue. Enjoy reading, and we warmly invite your feedback and contributions for future issues. [Jack Kong](#) Ph.D. TTI

## ANNOUNCEMENT

- [Transportation Research Board Annual Meeting](#)
- [Transportation Research Forum Events](#)
- [Commercial Vehicle Safety Alliance Annual Conference and Workshops](#)
- [SAE Events](#)
- [ITS America Events](#)
- [ITS Canada Events](#)
- [Fires in Vehicles Conference](#)
- [American Bus Association Events](#)
- [American Trucking Association Events](#)

## ACS60 CONTACT INFO

### Important Functions of ACS60

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Andrew King  
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### ACS60 Subcommittees

Truck and Bus Operator Health and Wellness Subcommittee  
Lead: Pierre Thiffault, PhD  
[pierre.thiffault@tc.gc.ca](mailto:pierre.thiffault@tc.gc.ca)

Truck and Bus Safety Data Needs Subcommittee  
Lead: Andrew Miller  
[AMiller@vti.vt.edu](mailto:AMiller@vti.vt.edu)

Carrier Safety Management Subcommittee  
Lead: Sharon Newnam, PhD  
[s.newnam@qut.edu.au](mailto:s.newnam@qut.edu.au)

Technology Subcommittee  
Lead: Abby Morgan, PhD  
[amorgan@kittelson.com](mailto:amorgan@kittelson.com)





## Poster & Lectern Sessions

Podium / Poster Session	Day/ Time	Location	Chair/ Moderator
<b>Poster Session 2103:</b> Toward Better Driving: Innovations for Improved Driving Performance and Enhanced Safety	Monday / January 06, 10:15 AM-12:00 PM ET	Convention Center, Hall A	Mouyid Islam E: <a href="mailto:mouyid.islam@gmail.com">mouyid.islam@gmail.com</a>
<b>Lectern Session 2173:</b> Heavy Vehicle Drivers' Risk Analysis with Innovative Approaches	Monday / January 06, 3:45 PM-5:30 PM ET	Convention Center, 102B	Mouyid Islam E: <a href="mailto:mouyid.islam@gmail.com">mouyid.islam@gmail.com</a>
<b>Lectern Session 3005:</b> Identification of Risky Driving Behavior from Multi-Data Sources	Tuesday / January 07, 8:00 AM-9:45 PM ET	Convention Center, 103A	Brenda Lantz E: <a href="mailto:brenda.lantz@ndsu.edu">brenda.lantz@ndsu.edu</a>

## Subcommittee Meetings

Subcommittee	Day/ Time	Location	Chair/ Moderator
Data Subcommittee, ACS60(4)	Monday / January 6 8:00 AM – 9:45 AM ET	Marriott Marquis, Marquis Salon 9 (M2)	Andrew Miller E: <a href="mailto:amiller@vtti.vt.edu">amiller@vtti.vt.edu</a>
Technology Subcommittee, ACS60(5)	Monday / January 6 1:30 PM – 3:15 PM ET	Marriott Marquis, Mount Vernon Square (M3)	Abby Morgan E: <a href="mailto:amorgan@kittelsohn.com">amorgan@kittelsohn.com</a>
Operator Health and Wellness Subcommittee, ACS60(3)	Tuesday / January 7 10:15 AM –12:00 PM ET	Marriott Marquis, Mount Vernon Square (M3)	Pierre Thiffault E: <a href="mailto:pierre.thiffault@tc.gc.ca">pierre.thiffault@tc.gc.ca</a>
Carrier Safety Management, ACS60(1)	Tuesday / January 7 3:45 PM – 5:30 PM ET	Marriott Marquis, Mount Vernon Square (M3)	Janson Anderson E: <a href="mailto:jca5@pdx.edu">jca5@pdx.edu</a>

## ACS 60 Full Schedule

Date	Event Type	Subcommittee	Time (ET)	Location
Monday, January 6	Subcommittee Meeting	Data Needs	8:00 AM – 9:45 AM	MM, Marquis Salon 9 (M2)
	Poster		10:15 AM – 12:00 PM	CC, Hall A
	Subcommittee Meeting	Technology	1:30 PM – 3:15 PM	MM, Mount Vernon Sq. (M3)
	Podium 1		3:45 PM – 5:30 PM	CC, 102B
Tuesday, January 7	Podium 2		8:00 AM – 9:45 PM	CC, 103A
	Subcommittee Meeting	Operator Health & Wellness	10:15 AM – 12:00 PM	MM, Mount Vernon Sq. (M3)
	Subcommittee Meeting	Carrier Safety Management	3:45 PM – 5:30 PM	MM, Mount Vernon Sq. (M3)
Wednesday, January 8	Committee Meeting		8:00 AM – 12:00 PM	MM, Marquis Salon 10 (M2)



# MEMBER SPOTLIGHTS



**Abby Morgan**

Principal Engineer, Kittelson & Associates, Inc.

### Motivation to pursue a focus on truck/heavy vehicle safety

**My** passion for vehicle safety began while I was studying transportation engineering and researching crash trends. After school, I joined the rulemaking office at the National Highway Traffic Safety Administration and was responsible for updating the heavy truck tire standard and leading the agency's policy development on forward collision warning and automatic emergency braking on light and heavy vehicles. I'll be honest, I didn't know anything about truck tires or pneumatic brake systems when I started. Thanks to excellent mentors at NHTSA and patient peers across industry, I quickly learned and continue to love exploring new technologies that will improve truck safety.

### Journey with ACS60 (formerly ANB70)

My NHTSA boss and mentor Mr. George Soodoo encouraged me to attend my first Truck and Bus Safety committee meeting in 2012. I've had a lot of fun watching safety technology on trucks advance over the past 13 years! Each year, I look forward to seeing my committee friends and learning from our diverse perspectives.

### Most significant contribution(s) to ACS60

I hope I'm remembered on the committee for building relationships and encouraging communication across agencies, industry, researchers, and advocacy groups. I like to look at a problem from multiple angles when I'm trying to find a solution. Each year, I've invited presenters to share multiple perspectives on the latest technology updates in truck and bus safety to help our members learn and make new connections across our industry.

### Fun or memorable moments from the ACS60 committee or subcommittee meetings at TRB

We've had some fun heated debates when members have passionately shared different opinions. No matter the differences, we always leave the meetings smiling and shaking hands. We've created a space for open dialogue, and we respect each other's opinions. That's the foundation for being able to solve difficult problems like crash safety and driver health and wellness, and it's what I value most from our committee.

### The most influential quote or proverb that has shaped your journey

"If you want to know, ask." I remember watching Nick News with Linda Ellerbee as a kid, and her quote stuck. There have been a lot of things I didn't know throughout my career. Asking questions has helped me learn and grow in the classroom, on the sports fields, in jobs, and in life. TRB is filled with people who can teach you something; and if you want to know, ask.

### Hobbies

I love camping, hiking, and trying my hand at anything creative. I never grew out of my Lego-building days of looking at a picture and trying to figure out how to create something before looking at the instructions.

### Advice for ACS60 "Members" and "Friends"

Share your knowledge and ideas. We all have the same passion to save lives. Use the TRB forum to share information and define the problems we need to solve. The more you participate, the more knowledge you'll take away.



# MEMBER SPOTLIGHTS



**Kun-Feng (Ken) Wu**

### Motivation to pursue a focus on truck/heavy vehicle safety

I began exploring this area while working with Dr. Paul Jovanis on a project about truck drivers' hours of service (HOS), funded by FMC-SA. Through this work, I gradually came to understand the significance of the statement: 'Large trucks and buses are critical and indispensable to economic

Professor, Department of Transportation & Management, Director, Transportation Research Center, National Yang Ming Chiao Tung University

development. However, due to their size and weight, ensuring their safety for all road users is of utmost importance.' ACS60 is a unique and vital committee, as it seeks to bridge the gap between practice and research, thereby balancing the needs of economic development and large truck and bus safety.

### Journey with ACS60 (formerly ANB70)

I worked with Dr. Jovanis on a project related to hours of service (HOS) and received the Best Paper Award in 2013. Deeply interested in this field, I approached then-Chair Brenda to join ACS60 (formerly ANB70), and she kindly accepted my request—a decision for which I remain very grateful. I have been a committee member ever since and feel honored and thankful for this opportunity.

My ACS60 membership has been immensely beneficial, particularly in my role as a board member of the Taiwan Transportation Safety Board (TTSB), which is analogous to the NTSB. When conducting major incident investigations, I can consistently identify the right contacts and access the information I need, thanks to the connections and knowledge gained through this committee.

### Most significant contribution(s) to ACS60

I wish I could have contributed more to ACS60. While I don't feel I have made significant contributions, I have greatly benefited from participating in the process of developing research needs statements and reviewing papers. Through this experience, I have gained valuable insights from the wisdom of other committee members regarding the reasons for these efforts, their importance, and, of course, the challenges involved.

### Fun or memorable moments from the ACS60 committee or subcommittee meetings at TRB

Every time I chatted with members or friends at those meetings, when they asked, 'Where are you from, Ken?' and I answered, 'Taiwan,' they would reply, 'Oh, I love Thai food!' I don't blame you guys. Just come to me, and let me explain why you should consider visiting Taiwan for its delicious foods if you get the chance.

### The most influential quote or proverb that has shaped your journey

This is a quote I received from my dissertation advisor, Dr. Jovanis, at a dinner before I returned to Taiwan. He said to me, 'Ken, 30 years go by fast; think about what you would like to accomplish by the time you are about to retire.' As a professor, I have the privilege of choosing topics that interest me, but that doesn't necessarily mean I will have an impact on those areas. I'm glad I took his advice and focused on topics related to traffic safety. This decision has not only broadened and deepened my understanding of this field but also allowed me to make meaningful contributions to improving safety.

### Hobbies

Physically, I enjoy hiking and working out at the gym. These activities allow me to disconnect from work and refresh my mind. I encourage everyone to exercise regularly. Mentally, I like reading books on history and economics. They offer valuable insights—and sometimes, they even help you fall asleep (just kidding)!

### Advice for ACS60 "Members" and "Friends"

You have to be part of it to understand how the system works before you can make any meaningful impact. ACS60 is really a unique and vital committee!

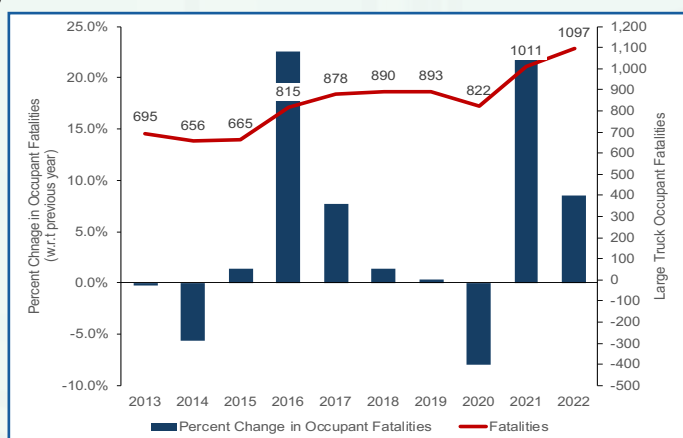
# MEMBER INSIGHTS

## Trends in Large Truck-Involved Fatalities: Insights from the FARS Data Over Time

*Mouyid Islam, PhD, RSP*

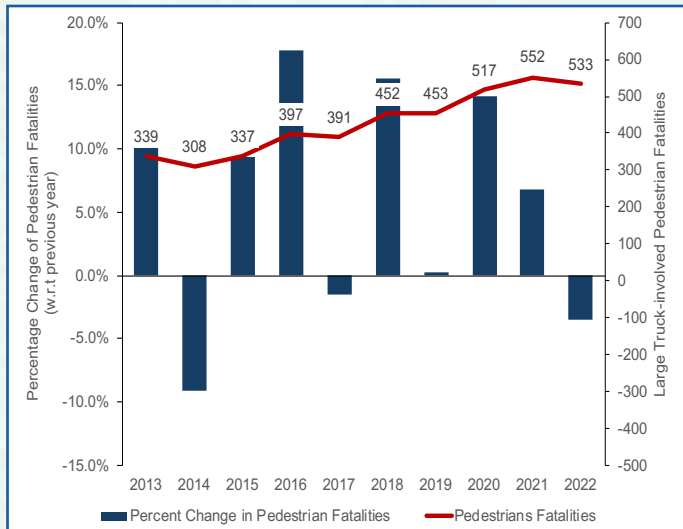
**Fatalities** in large truck-involved crashes in the United States reveal some concerning trends. The number of large truck occupants, pedestrians, and pedal cyclists losing their lives, along with the year-over-year percentage changes, highlights ongoing challenges in truck safety. Since 2020, truck occupant fatalities have steadily risen, peaking at a sharp 23% increase in 2021 before falling back to 8.5% in 2022. These shifts underscore the urgent need to address safety issues in this sector (see following Figure 1). Fatalities in single- and multi-vehicle crashes involving large trucks show troubling increases from 2021 to 2022, particularly when compared to other passenger vehicles, including motorcycles.

- Fatalities of large-truck occupants in single-vehicle crashes rose by 5.0% from 2021 to 2022.



**Figure 1: Percent Change and Frequency of Truck Occupant Fatalities in Large Truck-Involved Crashes (US)**  
 Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

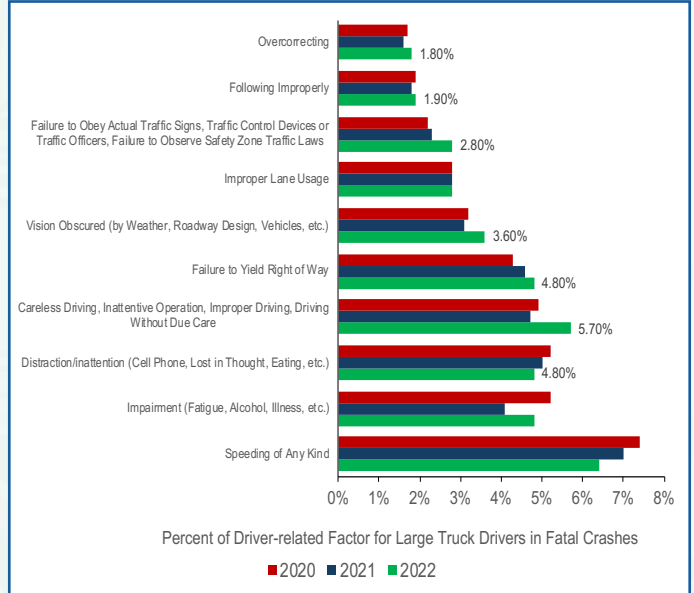
- In multi-vehicle crashes, fatalities of large-truck occupants surged by 13.0% during the same period. Pedestrian fatalities in large truck crashes have also shown a concerning trend over the years, peaking at 17.8% in 2016, 15.6% in 2018, and 14.1% in 2020. However, since 2020, the percentage change in pedestrian fatalities has started to decline (see Figure 2). These patterns underscore the critical need for focused safety interventions. Driver-related factors play a significant role in fatal crashes involving large trucks. Common issues identified include speeding, impairment (due to fatigue, alcohol, or illness), careless



**Figure 2: Percent Change and Frequency of Pedestrian Fatalities in Large Truck-Involved Crashes (US)**  
 Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

driving, failure to yield, vision obscured, improper lane usage, failure to obey traffic signals, following too closely, and overcorrecting maneuvers. From 2020 to 2022, speeding consistently ranked as the top driver-related factor (see Figure 3). However, it showed a slight

decline in 2022 compared to 2020. Impairment was the second-leading factor but was overtaken in 2022 by behaviors such as careless driving, inattentive operation, and driving without due care. In contrast, other factors, like failure to yield, vision obstruction, and failure to obey traffic signals, have shown an upward trend since 2020. Similarly, incidents involving following too closely and overcorrecting maneuvers increased in 2022 compared to 2021. These patterns highlight the ongoing need for targeted interventions to address risky driver behaviors. Focusing on fatal crashes in 2022 involving large trucks by their weight classes (GVWR), distinct patterns emerge in driver-related factors (see Figure 4). These rankings highlight key safety



**Figure 3: Top Ten Driver-Related Factors for Large Truck Drivers in Fatal Crashes, 2020 – 2022**  
 Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

concerns for different truck classes:

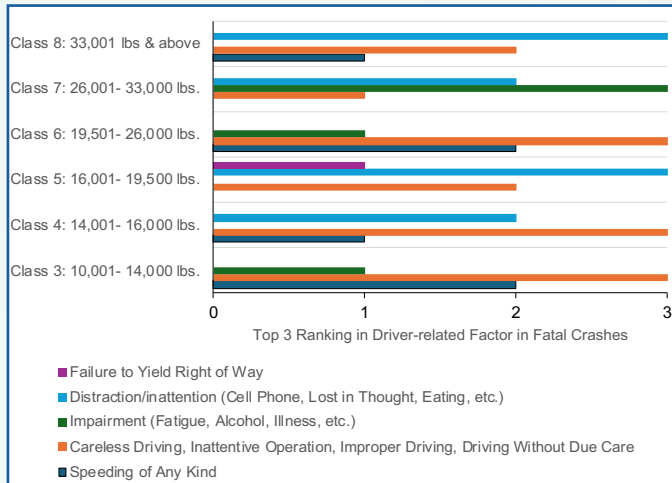
- Speeding was the top factor (1st rank) for Class 4 (14,001–16,000 lbs) and Class 8 (33,000 lbs and above).
- Impairment due to fatigue, alcohol, or illness ranked the highest for Class 3 (10,001–14,000 lbs) and Class 6 (19,501–26,000 lbs).
- Careless driving including inattentive operation, improper driving, and driving without due care was the top factor for Class 7 (26,001–33,000 lbs).
- Failure to yield ranked highest for Class 5 (16,001–19,500 lbs).

Interestingly, careless driving was a common factor across all truck classes, emphasizing its widespread impact on large truck safety.

In summary, the patterns of fatal crash involvement among large trucks highlight critical areas of concern for both truck occupants and non-occupants. Advancing technology in the trucking industry and creating safer urban designs for truckers and pedestrians are essential steps forward. Driver-related factors—such as speeding, impairment, and



careless driving—remain the most significant risks in fatal crashes. Addressing these issues requires targeted strategies:



**Figure 4: Top Three Ranking of Driver-Related Factors in Fatal Large Truck Crashes by GVWR Class (2022)**  
 Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS)

- Speeding is a top concern for Class 4 and Class 8 trucks.
- Impairment is most critical for Class 3 and Class 6 trucks.
- Careless driving affects Class 7 and other truck classes across the board.

To reduce these risks, efforts should prioritize better driver training, stronger enforcement, improved roadside and electronic inspections, and effective policies targeting speeding, impairment, distraction, and careless driving. This requires collaboration between state, federal, and local agencies, along with industry professionals, fleet managers, researchers, highway designers, and safety experts.

## RESOURCES

### FMCSA Opens Application Window for CDLPI and CMVOST Grants

The Federal Motor Carrier Safety Administration (FMCSA) has announced the availability of over \$90 million in discretionary grants for FY 2025 through the Commercial Motor Vehicle Operator Safety Training (CMVOST) Grant Program and the Commercial Driver’s License Program Implementation (CDLPI) Grant Program, with applications due by 5:00 p.m. ET on February 24, 2025. These grants aim to enhance roadway safety by funding CMV operator training, particularly for veterans, military families, and underserved communities, and by supporting the national CDL program to ensure each driver has a single license and driving record under the “One Driver — One License — One Record” initiative. Organizations and individuals can find more details, including eligibility requirements and application processes, on the FMCSA [website](#).

## BEST PAPER TRB 2025

**TRBAM-24-05405: An Exploratory Assessment of Driver Injury Severities in Large-Truck Crashes Involving Fatigued and Non-Fatigued Driving**

Author: Mouyid Islam

## FEATURED RESEARCH

### 1 AI and Decision Support Systems for Crash Preventability PAR Processing

This [research](#) conducted by the Virginia Tech Transportation Institute (VTTI), led by Andrew Miller and his colleagues, and sponsored by the Federal Motor Carrier Safety Administration (FMCSA). The study explores the integration of artificial intelligence (AI) and decision support systems (DSS) into FMCSA’s Crash Preventability Determination Program (CPDP). It addresses the challenges of manually processing police accident reports (PARs) and demonstrates the feasibility of using machine learning, optical character recognition (OCR), and natural language processing (NLP) to automate and enhance the efficiency of crash eligibility and preventability determinations, reducing the workload on analysts while maintaining accuracy.

### 2 Investigating the Safety and Training of Commercial Motor Vehicle Operation by Deaf and Hard of Hearing Drivers

The [research](#), sponsored by the Federal Motor Carrier Safety Administration (FMCSA), investigates the safety and training of deaf and hard of hearing commercial motor vehicle (CMV) drivers. Conducted through literature reviews, interviews with audiologists and Deaf culture experts, and discussions with driving schools, the research reveals a lack of substantial data and empirical evidence on the crash risks and safety performance of deaf or hard of hearing CMV drivers. Findings highlight the adaptability of these drivers, the challenges and solutions in training them, and the absence of evidence linking hearing impairments to increased crash risks. The study emphasizes the need for more robust research but provides valuable recommendations for improved training, testing, and accommodations to support deaf and hard of hearing CMV drivers.



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