



September 2024

CHAIR'S MESSAGE



As the new Chair, I'm delighted to welcome you to the inaugural issue of the Truck and Bus Safety Committee (ACS60) newsletter! We embark on this journey with great enthusiasm, building on the momentum we've already achieved.

In these early stages, a few of us have taken the lead, but I want to extend an open invitation to everyone. We encourage you to bring your ideas forward and consider volunteering for various opportunities within the committee. Whether you would like to contribute to the newsletter or engage in other activities, feel free to contact me or our newsletter Editor, Jack Kong.

My heartfelt thanks go out to everyone who has contributed so far, especially Jack Kong, and future thanks to those who will contribute in the future. We hope this newsletter becomes a valuable resource, presenting trends in large truck safety over time in the United States. We hope to shine a spotlight on the members, share insights through short articles, highlight featured research, important events, recent publications, and the Deborah Freund Paper Award—both within the ACS60 community and beyond.

Looking ahead, we are excited to develop innovative sessions, meetings, workshops, and webinars. These efforts will help us recognize and celebrate the great work happening in our field. Lastly, I, along with the Paper Review Coordinator, Xiaobing Li, deeply appreciate your time and commitment to ACS60 through the valuable service you have provided during the paper review process. Your contribution within the given timeframe is highly valued. Remember, your input and participation are always welcome—so please don't hesitate to reach out!

Stay happy, healthy, and curious!
Warm regards,

Mouyid Islam, Ph.D., RSP
Chair, Truck and Bus Safety Committee (ACS60)
Email: mouyid.islam@gmail.com

Editor's message

Welcome to the first 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

- ◇ **The 2024 AASHTO Safety Summit and Peer Exchange**, October 15-17 in Houston, Texas
- ◇ **State Crash Reconstruction Managers Annual Meeting**, Oct. 22-24, Savannah, Georgia
- ◇ **North American Cargo Securement Harmonization Public Forum**, Nov. 7, 2024, Ottawa, Ontario, Canada
- ◇ **The Eastern CMV Safety Summit**, hosted by the University of Massachusetts in Springfield, MA November 13-14, 2024
- ◇ **The Western CMV Safety Summit**, hosted by us, North Dakota State University, in Denver, CO December 4-5, 2024

ACS60 CONTACT INFO

Important Functions of ACS60

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MEMBER SPOTLIGHTS



Pierre Thiffault

Motivation to pursue a focus on truck/heavy vehicle safety

My initial focus was on road safety at large. This was driven by personal reasons: While we were living in Switzerland for a few years, back in 1968, my family suffered the loss of my 5-year-old brother who was killed by a driver who fell asleep at the wheel. He was walking on the side of the street in our little village. I was very young then, but

the tragedy profoundly impacted my family and had a significant effect on my life, as far as I can remember.

Much later, as an undergrad student, I started working in a driving simulation lab, under Professor Jacques Bergeron, at the Department of Psychology, Université de Montréal. I conducted a Master thesis on hazard perception skills and a Ph.D. on the issue of road monotony and... driver fatigue. I then conducted two post-doctoral fellowships on high-risk behaviors; one at McGill University and the other at Université de Montréal. In 2004 I was hired at Transport Canada (Federal government), as a research analyst, initially in the context of general road users. I transferred to the Motor Carrier Safety Division in 2005, and quickly understood that from a traffic psychology standpoint, truck and bus drivers present an optimal context to apply scientific programs and interventions. The fact that most of them work in organizations (companies) provides a different scenario than the situation with general road users, facilitating the implementation of “behavior modification” strategies. Truck and bus drivers are hired, they can be evaluated, trained and re-trained, they can benefit from coaching and monitoring/feed-back systems as well as numerous on-board safety technologies, they are subject to specific company safety culture which can be calibrated on the basis of scientific principles, then can be subject to non-regulatory performance-based programs, they can be reinforced by means of incentive protocols, they can benefit from peer support, company health improvement initiatives, etc. I spent a significant portion of my career trying to implement these scientific principles, borrowed from the fields of experimental and organizational psychology to the motor carrier industry. Some of these ideas are summarized in this report: https://www.ccmta.ca/web/default/files/PDF/human-factors_report_May_2011.pdf.

Journey with ACS60 (formerly ANB70)

Back in 2008 I participated to my first TRB annual meeting. Having noticed the existence of the ANB70 committee, I joined as a visitor. I met with the Chair, then Joel Ticatch, and formal-

ly offered my candidacy for one of the positions that were to become vacant the following year. I served 3 terms back-to-back from 2009 to 2018. And I rejoined for a term two years ago.

Most significant contribution(s) to ACS60

I made a few presentations to the wider committee, one relating to the North American Fatigue Management Program (NAFMP), which I manage for Canada, and the other as Chair of CCM-TA’s Human Factors and Motor Carrier Safety Task Force. But potentially my ongoing contribution as Chair of the Operator Health and Wellness subcommittee might be deemed as more significant.

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

Funny story: During a discussion someone asked why I was not using the position for the “international member”, which was then an option for Committee membership. Before I could answer, someone said: “Because he is from Canada, this is not international, he is one of us”. This really made me feel good, I took it as a clear demonstration of our countries’ lasting friendship.

Most memorable: Some impressive and dedicated professionals I met at TRB and with whom I had the privilege to work with over the years; notably Deborah Freund, Ron Knipling, Jerry Krueger, Anne McCartt, Roger Clarke, Mike Belzer, Gene Bergoffen, Rebecca Brewster, Bob Scopatz, Brenda Lantz, Steve Keppler, Karl Sieber, Joel Ticatch and many others that I am sorry to forget to list here.

The most influential quote or proverb that has shaped your journey

I guess if I had to choose the most important line it would be : “Boss, can I get funding to go to TRB again this year?”

Hobbies

I like to read about mountains and the sea, about mountaineers and navigators. I like to hike and kayak. When I go to DC, I always take a long walk (19 km) over the weekend, going from Dupont Circle to Georgetown, through Arlington Cemetery, to Lincoln Memorial, around the Tidal Bassin, Jefferson Memorial, down the mall, around the Capitol and then to my destination, which is a well-earned BBQ meal on 7th street. I find Washington DC very inspiring, a remarkable city.

Advice for ACS60 “Members” and “Friends”

Enjoy every moment, invest yourself fully, go to subcommittee meetings and lectern sessions, shake hands and network. TRB is what you make of it. And take some time to walk around and immerse yourself in this very special town.



MEMBER SPOTLIGHTS



Brenda Lantz

Motivation to pursue a focus on truck/heavy vehicle safety

I started my career at the Upper Great Plains Transportation Institute (UGPTI) at North Dakota State University (NDSU) in 1990 working on analyzing data from a truck driver job satisfaction survey. We had received about 4,000 surveys from drivers nationwide and it was interesting examining all the reasons why they decided to leave a company or to leave the driving job all together. While continuing to work at UGPTI and pursuing

further education, I had the chance to spend a summer in 1992 conducting a special study project for the Federal Highway Administration Office of Motor Carriers (OMC) in Washington, DC (this agency was the precursor of the Federal Motor Carrier Safety Administration). The objective of the project was to analyze roadside inspection data and its relationship to compliance review and accident data. It was exciting to see how OMC could use their data to help identify those trucking companies most likely to be involved in crashes and develop intervention strategies. Working in the field of safety and helping to prevent crashes is very rewarding and I have enjoyed continuing this work throughout my career.

Journey with ACS60 (formerly ANB70)

I have been involved with the Transportation Research Board (TRB) since early in my career as it was (and still is) an excellent venue for presenting and discussing my work, and learning about the work of others as well. I was part of the initial Task Force on Truck and Bus Safety that was the precursor to the current Committee on Truck & Bus Safety formed in 2003. I was honored to be named the Chair of the committee in 2012 and served two terms through 2018.

Most significant contribution(s) to ACS60

One of the most significant contributions I made to the committee was organizing a Truck & Bus Safety - Key Research - Past, Present, and Future session at TRB in 2014, the last year TRB was held at the Washington Marriott Wardman Park location. The session included presentations from leaders in many of the truck and bus safety topic areas and was well attended (www.ugpti.org/trb/truckandbus/meetings/2014/research.php). I also established the Deborah Freund ACS60 Paper Award to honor a valued member of the committee. In addition, we at UGPTI have hosted the website for the committee since the beginning as a site to post meeting agendas, minutes, presentations, and provide other information.

The most influential quote or proverb that has shaped your journey

One of my favorite quotes is from Oscar Wilde and it is "Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught." It is a good reminder that learning is active and comes through a combination of education, research, and life experiences.

Hobbies

Most of my hobbies involve these activities such as reading, exploring nature through camping, hiking, fishing, and spending time with family and friends.

Advice for ACS60 "Members" and "Friends"

My advice for members and friends of the committee is to be active and contribute in any way you can, reach out to the chair and/or other members and volunteer to help where needed, suggest ideas to improve the committee and then lead the work to implement them.



Lessons from the Land Down Under

By Andrew King

Queensland, Australia near Bundaberg. Photo by Andrew King

MEMBER INSIGHTS

By the numbers, a very small percentage of American citizens, approximately 1 percent, live abroad at any one time. Thus, it does not escape me to realize how blessed I was to live in Australia for three short months during the summer of 2023. While my purpose for being there was not related to my work, as I was there with my wife and small child to help share the Gospel of Jesus Christ, I couldn't help but notice some distinct contrasts between my country of origin, the U.S., and my new, albeit temporary, home in Australia. Namely, the transportation system and the trucking industry, which are two areas that I spend a considerable amount of time researching as Assistant Director of the OOIDA Foundation.

It's important to note here that while I lived in Australia, my family and I spent much of our time in New South Wales. However, we did spend a few weeks here and there in Queensland and Victoria, which allowed us to see various parts of the country. With this being said, perhaps one of the most striking differenc-



es between the U.S.'s transportation system and Australia's, beside driving on the opposite side of the road of course, is just the sheer size of the system itself.

While the two countries are fairly similar in size, there populations are not. Neither are there distributions similar in regards to rural and urban development. Large parts of Australia are uninhabited, with 73% of the nation's population residing within major cities, such as Sydney, Melbourne, and Brisbane. This obviously has a large impact on the size of the road network itself. Australia's road network stretches for nearly 875,000 km, of which only 17% is paved, compared to the U.S.'s network which spans over 7 million km with 73% being paved.

Ultimately, traveling by car was less efficient in comparison to the States, as roads were often narrower with slower speed limits. Driving in Australia is nothing like driving in the U.S., which often has major arterial roads connecting cities and towns. Instead, much of Australia's road network is comprised of two-lane highways. It's important to understand some of these features as they have a direct impact on how goods are transported across the country.

In the U.S., it's extremely common to see heavy-duty trucks traversing the highways. However, from my limited perspective, that did not appear to be the case in Australia. In fact, I rarely saw heavy-duty trucks at all while traveling. Unlike in the U.S., where trucks are responsible for delivering 70% of all freight, trucks transport just 29% of the freight in Australia, with rail bearing a brunt of the responsibility at 57% and ports at 14%. Although truck drivers in Australia are subject to hours-of-service regulations much like drivers are in the States, it seemed more common for trucks to travel at night than in the daytime. In fact, most of the occasions where I saw trucks on the road were at night.

So what lessons can we learn from this? Well, it's critical to realize that the differences in the transportation system and in the trucking industry between Australia and the U.S. are not unique to these two countries alone. While there is much that we can learn from other nations, it's important to understand that there are often distinct differences that make like-to-like comparisons difficult. I often hear that so-and-so country is doing this or doing that, and because of this that the U.S. should follow suit, but I rarely hear people discuss the incongruities between the countries themselves that may present obstacles, or might even create safety risks due to such differences, when attempting to adopt such policies or technology. What's appropriate in one case, isn't always appropriate in another.

PAST PAPER AWARD

Deborah Freund Paper Review Committee: Brenda Lantz, Jerry Krueger, and Scott Valentine

2024 Deborah Freund Paper Award

Author: Xueson Wang, Yang Zhou, and Salvatore Damiano Cafiso

TRBAM-23-04234: **Autonomous Emergency Braking System for Trucks for Longitudinal Two-wheeler Collision Avoidance**

2023 Deborah Freund Paper Award

Author: Mehdi Hosseinpour and Kirolos Haleem

TRB22-00230: **Developing Commercial Vehicle Crash-Specific Safety Performance Functions at Interchange Ramp Terminals in Kentucky**

2022 Deborah Freund Paper Award

Author: James Smith, Mehdi Hosseinpour, Ryan Mains, Nathanael Humme, and Kirolos Haleem

TRB21-00388: **Investigating Head-On Crash Severity Involving Commercial Motor Vehicles in Kentucky**

2021 Deborah Freund Paper Award

Author: Omar Raddaoui and Mohamed M. Ahmed

TRB20-03728: **Evaluating the Effects of Connected Vehicle Weather and Work Zone Warnings on Truck Drivers' Workload and Distraction Using Eye Glance Behavior**

PAPERS from ACS60 (TRR)

Authors: Xuesong Wang, Xiaowei Tang, Tianxiang Fan, Yanru Zhou, Xiaohan Yang

Commercial Truck Risk Assessment and Factor Analysis Based on Vehicle Trajectory and In-Vehicle Monitoring Data

Author: Mouyid Islam

An Exploratory Assessment of Driver Injury Severities in Large-Truck Crashes Involving Fatigued and Non-Fatigued Driving

FEATURED RESEARCH

1 The 2022 [Drug and Alcohol Testing Survey](#) by the Federal Motor Carrier Safety Administration (FMCSA) provides insights into the prevalence of drug and alcohol use among commercial driver's license (CDL) holders. The survey results show that in 2022, 0.9% of CDL drivers tested positive for drugs during random testing, consistent with previous years, while 0.29% had a blood alcohol concentration (BAC) of 0.04 or higher, marking an increase from prior years. Non-random testing, such as pre-employment and post-crash screenings, showed slightly higher drug use rates. The report highlights that 90% of motor carriers have testing programs in place, covering 73% of CDL drivers.

2 The "[Tech-Celerate Now](#)" [Phase 1 report](#), published by the Federal Motor Carrier Safety Administration (FMCSA) in January 2024, outlines a collaborative effort with industry associations to accelerate the adoption of Advanced Driver

Assistance Systems (ADAS) in the commercial trucking sector. The program focused on identifying and addressing barriers to ADAS adoption by conducting research, developing training materials, and executing a national outreach campaign aimed at increasing awareness. The report highlights key findings, in-



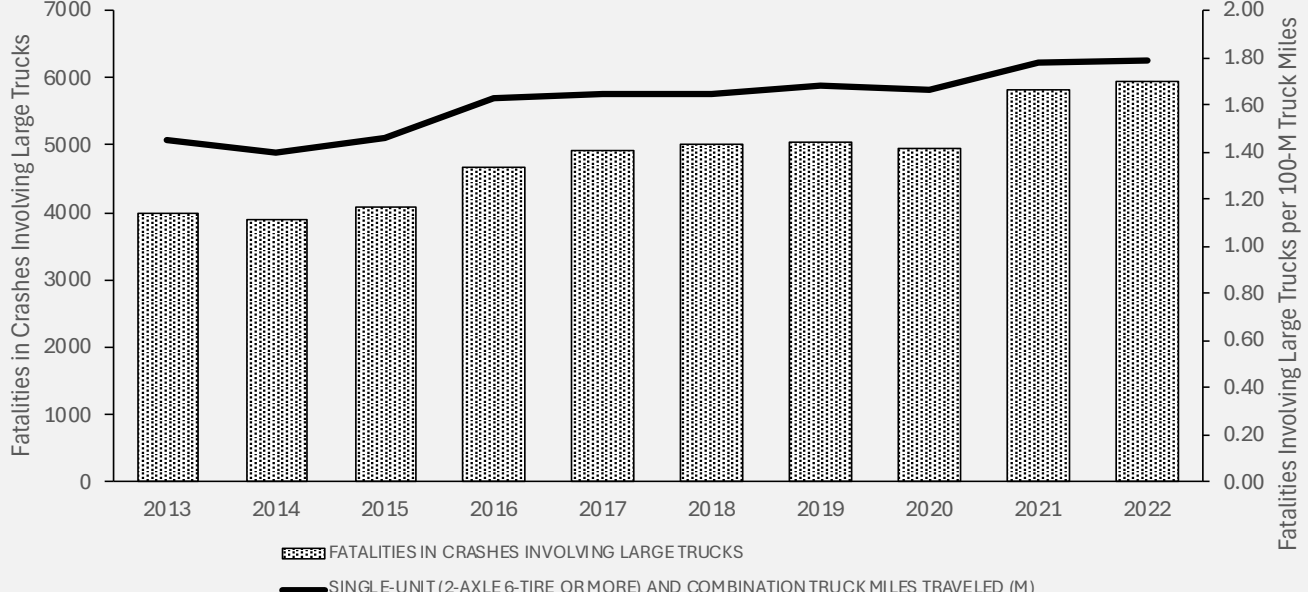
U.S. Department of Transportation
Federal Motor Carrier Safety Administration



cluding significant improvements in awareness and perceptions of 11 different ADAS technologies among both carriers and drivers. Carrier executives showed higher levels of awareness and more positive perceptions compared to drivers, who expressed concerns about ADAS systems compromising their control. Despite these concerns, adoption rates for ADAS technologies have increased across the industry. The report also emphasizes the importance of outreach channels, such as industry associations and peer-to-peer exchanges, in driving adoption. Overall, the report concludes that while progress has been made, continued efforts are needed to address market, technical, and insurance-related challenges to further promote ADAS adoption.

3In 2021, out of 39,508 fatal crashes on U.S. roadways, 5,340 (13.5%) involved at least one large truck or bus. Additionally, 531,000 (8.7%) of the estimated 6,064,000 nonfatal crashes also involved these vehicles. For detailed information, refer to the [2023 Pocket Guide to Large Truck and Bus Statistics](#).

Fatalities in Crashes Involving Large Trucks and Fatality Rates per 100-Million Truck Miles Traveled in the United States (2013-2022)



Data Source: Fatality Analysis Reporting Systems (FARS); Annual Vehicle Distance Traveled in Miles, Highway Statistics, FHWA – Office of Highway Policy Information

RESOURCES

The Biden-Harris Administration has awarded nearly \$3.5 million in grants to 27 [colleges and commercial driver's license \(CDL\) training programs](#) as part of the Trucking Action Plan. This initiative, led by the U.S. Department of Transportation's Federal Motor Carrier Safety Administration (FMCSA), is designed to improve roadway safety and address the nation's increasing demand for truck drivers. The funding, provided through the Commercial Motor Vehicle Operator Safety Training (CMVOST) Grant Program, will support enhanced safety training for CDL holders and create new career pathways for veterans, rural residents, and underserved communities. The initiative is a key component of the administration's broader efforts to strengthen supply chains and promote economic growth. Additionally, it supports FMCSA's mission of preventing crashes and enhancing safety in the commercial motor vehicle industry, while also providing educational and regulatory support to state and local governments.

Connect with us!



<https://www.ugpti.org/trb/truckandbus/>