

The Safety Network/ Le Réseau-Sécurité



Issue 3 2019

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Editorial

The 2019 edition of our annual conference has once again marked the history of CARSP. First, we brought together one of our largest audiences, with 250 delegates from Canada and abroad and a new record number of presentations. Like our partners in recent years, our two co-chairs, Tony Churchill of the city of Calgary and Liz Owen of the Government of Alberta did an extraordinary job, especially to ensure a presence in the local media and involve various partners, including on our workshop day following the conference. I also thank all the members of the organizing committee, who have been dedicated to our conference months after months to offer participants a high-quality program and a seamless logistics organization. I would also like to thank our tireless Brenda Suggett for coordinating several important elements that make our convention a success year after year. Finally, a big thank you to our sponsors and the various exhibitors (we also broke a record on this level this year!), which helped to make this event a success.



The programming for this annual conference was inspired by Vision Zero, a key approach to road safety that is gaining momentum in our communities. From the opening ceremony, our delegates were fortunate to hear the Mayor of Calgary's vision of the importance of our work to improve road safety in our communities, a short speech (Mayors are busy!) but very inspiring for the rest of the conference.

In addition to the 20 sessions (spread over 3 full days for the first time) where participants were able to listen to very interesting presentations, the guest speakers and the three panels covered hot topics. First, Pamela Fuselli reminded us of the importance of the current momentum in road safety, with partners from all walks of life ready to put into action the Vision Zero principles, at the city, provincial and country level. The first plenary was just as interesting as it focused on drivers' risky behaviors, including speed, alcohol and drugs, cell phone distraction and technologies to reduce these unsafe behaviors. Jennifer Oxley, our second speaker, emphasized the importance of the many challenges we face when it comes to pedestrian and cyclist safety, an excellent premise for our 2nd panel that allowed city and non-profit stakeholders to discuss Vision Zero in relation to vulnerable road users (pedestrians and cyclists). Our lunch hour speakers on Wednesday (W. Doyle and P. Godsmark) discussed technology and autonomous vehicles, a subject that will certainly stay relevant in the coming years. The last day of the congress allowed to hear the European perspective of Johan Diepens on the Vision Zero, which opened the door to our 3rd panel focusing directly on the necessary collaboration that will lead to the success of Vision Zero in the Canadian context. If you missed these fascinating discussions, note that all the presentations are on our website (<http://www.carsp.ca/research/research-papers/proceedings/2019-calgary/>).



The conference continued for some delegates at a workshop organized conjointly with Parachute Canada and entitled Vision Zero: Understanding and Action. The participants discussed the Vision Zero principles and put them into practice in a field visit and group discussions on the best ways to act in our respective work environments. Once again, a big congratulations to all the workshop organizing committee, including Valerie Smith, Tony Churchill, Raheem Dilgir and Linda Rothman.

Finally, on a more personal note, this conference was my last as president of our association, but also the moment to proudly invite you to come to Montreal next year for the 30th anniversary of our congress (Save the date: June 14 to 17, 2020). I pass the baton without hesitation to a board of directors motivated to offer you even more as members of our Association, with Alex Nolet as president and Shabnem Afzal as vice president. I look forward to seeing you again in Montreal next year. In the meantime, whether you are pedestrians, cyclists, motorists or users of all other modes of transportation, continue to advance road safety in your community. Future generations thank you in advance!

*Marie-Soleil Cloutier
Past President, CARSP
Associate Professor, Institut National de la Recherche Scientifique*

Éditorial

L'édition 2019 de notre conférence annuelle a marqué encore une fois l'histoire de l'ACPSE. Tout d'abord, nous y avons réuni encore une de nos plus grandes assistances, avec 250 délégués provenant du Canada et de l'étranger et un nouveau nombre record de présentations. À l'image de nos partenaires des dernières années, nos deux co-présidents, Tony Churchill de la ville de Calgary et Liz Owen du gouvernement de l'Alberta ont fait un travail extraordinaire, en particulier pour nous assurer une présence dans les médias locaux et impliquer divers partenaires, incluant lors de notre journée d'atelier suivant la conférence. J'adresse également mes remerciements à tous les membres du comité organisateur, qui ont été fidèles au poste mois après mois pour offrir aux participants un programme de qualité et une organisation logistique sans faille. Je voudrais aussi remercier notre infatigable Brenda Suggett pour la coordination de plusieurs éléments importants qui font de notre congrès une réussite année après année. Finalement, un grand merci à nos commanditaires et aux différents exposants (nous avons aussi battu un record sur ce plan cette année!), qui ont contribué à faire de cet événement une réussite.

La programmation de ce congrès annuel s'est inspiré de la Vision Zéro, une approche incontournable de sécurité routière qui prend de plus en plus d'ampleur dans nos communautés. Dès la cérémonie d'ouverture, nos délégués ont eu la chance d'entendre la vision du maire de Calgary sur l'importance de notre travail pour améliorer la sécurité routière dans nos communautés, un discours bref (les maires sont occupés!) mais très inspirant pour la suite du colloque.

En plus des 20 sessions (étalées pour la première fois sur 3 jours complets) où les participants ont pu assister à des présentations de tous les horizons, les conférenciers invités et les trois panels ont couvert tout autant de sujets d'actualité. Dès la première journée, Pamela Fuselli nous a rappelé l'importance du momentum actuel en sécurité routière, avec des partenaires de tous les milieux prêts à mettre en action les principes de la Vision Zéro, à l'échelle des villes, des provinces et du pays. La première plénière fut tout aussi intéressante puisqu'elle a porté sur les comportements à risque de la part des conducteurs, incluant la vitesse, l'alcool et les drogues, la distraction reliée au cellulaire au volant et les technologies pour réduire ces comportements dangereux. Jennifer Oxley, notre deuxième conférencière, a insisté sur l'importance des nombreux défis auxquels nous faisons face lorsqu'il est question de sécurité des piétons et des cyclistes, une excellente prémisse à notre 2^e panel qui a permis à des acteurs du milieu municipal et associatif de discuter de la Vision Zéro en lien avec les usagers vulnérables (piétons et cyclistes). Nos conférenciers à l'heure du lunch de mercredi (W. Doyle et P. Godsmark) ont abordé la technologie et les véhicules autonomes, un sujet qui sera certainement encore d'actualité dans les prochaines années. La dernière journée du congrès a permis d'entendre la perspective européenne de Johan Diepens sur la Vision Zéro, ce qui a ouvert la porte à notre 3^e panel qui lui a porté directement sur la nécessaire collaboration qui mènera au succès de la Vision Zéro dans le contexte canadien. Si vous avez manqué ces discussions passionnantes, ou certaines présentations, notez que toutes les présentations sont en ligne sur notre site web (<http://www.carsp.ca/research/research-papers/proceedings/2019-calgary/>).



La conférence s'est poursuivie pour certains délégués lors d'un atelier organisé conjointement avec Parachute et ayant pour titre la Vision Zéro : comprendre et agir. Les participants ont alors pu échanger sur les principes de la Vision Zéro mais aussi de les mettre en pratique avec une visite sur le terrain et des échanges en groupes sur les meilleurs moyens d'agir dans nos milieux respectifs. Encore une fois, un gros bravo à tout le comité organisateur de l'atelier, notamment Valerie Smith, Tony Churchill, Raheem Dilgir et Linda Rothman.



Finalement, sur une note plus personnelle, ce congrès a été pour moi mon dernier en tant que présidente de notre association, mais aussi le moment de fièrement vous inviter à être parmi nous l'an prochain à Montréal pour le 30^e anniversaire de notre congrès (Notez les dates à vos agendas : du 14 au 17 juin 2020). Je passe le relais sans crainte à un conseil d'administration, toujours presque paritaire, et motivé à vous offrir encore plus en tant que membres de notre Association, avec Alex Nolet à la présidence et Shabnem Afzal à la vice-présidente. Il me tarde de vous revoir à Montréal l'an prochain. D'ici là, que vous soyez piétons, cyclistes, automobilistes ou utilisateurs de tous autres modes de transport, continuez de faire avancer la sécurité routière dans votre milieu. Les générations futures vous remercient d'avance !

Marie-Soleil Cloutier
Présidente sortante, ACPSER
Professeure agrégée, Institut National de la Recherche Scientifique

CARSP Annual General Meeting Report

By Brenda Sugget

Brenda Suggett is CARSP's Executive Director. She joined CARSP in 2010. Prior to that, Brenda was an Epidemiologist in Public Health for 15 years.

CARSP held their Annual General Meeting (AGM) on Monday May 27th, 2019, the first full day of the 29th CARSP Conference in Calgary, Alberta. Marie-Soleil Cloutier CARSP's Past-President, chaired the meeting. Marie-Soleil welcomed the conference delegates and provided an overview of CARSP as an organization. She then introduced CARSP's President, Alex Nolet, its Executive Director, Brenda Suggett, the CARSP Board of Directors and CARSP's four committee chairs:

- Structure and Governance (S&G) Committee (Shabnem Afzal),
- Membership and Marketing (M&M) Committee (Liz Owens),
- Finance (F) Committee (Paul Boase), and the
- Young Professionals' Committee (YPC) (Nazli Kaya)

Paul Boase, CARSP Treasurer, then presented the 2018 financial statements and the 2019 budget to the membership.

Paul walked the membership through selected statistics on the Statement of Income/Expense for 2018, and on the Balance Sheet for 2018. In 2018, CARSP had a surplus of \$74,546. This surplus is primarily because of a significant profit from the 2018 CARSP Conference. This figure should actually be higher due to CARSP pre-paying \$12,300 towards the 2019 conference expenses. This \$12,300 pre-payment is better represented in the 2018 Balance Sheet. This pre-payment plus high profits from both the 2017 and 2018 CARSP conferences are the reason for a significantly higher equity than past years. In 2018 and 2017 the CARSP equity was \$159,438 and \$88,314 respectively, significantly higher than past equities of around \$50,000.

Paul then walked the membership through the 2019 CARSP Budget and the Quarterly Report for the First Quarter (Jan-Mar 2019). A noteworthy figure was that the budget is forecasting a surplus of \$6,052. It should be noted that the financial statements, including the budget, were calculated using the cash-based method (the period when actual monies were received or dispersed).

Paul then put forward a resolution to the CARSP membership that "the 2018 statements and 2019 budget be accepted as presented", Brian Jonah then motioned to accept these, Evelyn Vingilis seconded, all in favour, none opposed, carried.

Paul also put forward a second resolution, that "CARSP, being a non-soliciting not-for-profit corporation waive the appointment of a public accountant to conduct a review engagement for 2018 and that, as in previous years, the financial statements be prepared by compilation". Matthew Mulkern motioned to accept this resolution, Tony Churchill seconded, all in favour, none opposed, carried.

Next, Marie-Soleil provided an overview of activities CARSP was involved with over the past year, including:

- a) Skills Development & Knowledge Sharing
 - Conference (RoadSafetyBC, Victoria)
 - 270 Delegates
 - Well received
 - Plus, Videotaping
 - CARSP Conference 2019 Post-Conference Workshop
 - Parachute and Desjardins
 - Student Paper Competition & Student Poster Competition
 - Webinars (M&M)
 - 9 webinars since Jan 2017
 - Free to CARSP members
 - Parachute Vision Zero Network; The Community Road Safety Toolkit and the Safe Systems Approach.
 - High Tech Safety Systems Update
 - CARSP Surplus Project
- b) CARSP Member Engagement Activities
 - Board Participation**
 - Many of our Board members serve as experts on committees discussing hot topics such as: autonomous vehicles, vulnerable road users, cannabis, etc.
 - Member of Road Safety Professional Designation North American Steering Committee
 - CARSP Member Participation**
 - Road Safety Professional Designation –Participated in Validation Survey of core content of certification.
 - Participated in Public Consultation Website on Countermeasures to help keep Pedestrians and Cyclists Safe
- c) Partner Engagement / Building Awareness
 - CARSP Booth at Several Events (M&M)
 - i. (e.g. arrive alive DRIVE SOBER, Parachute Vision Zero Conference, Ontario Road Safety Forum, First African Road Safety Conference)
 - Distracted Driving Panel at the Desjardins headquarters in Montreal
 - CARSP Presence at numerous national and international conferences (e.g. Global Alliance of NGOs Conference)
 - Social Media Strategy (CARSP Surplus Project)
 - Partnership Building (CARSP Surplus Project)
- d) Fiscal Responsibility / Governance
 - New Financial Strategic Plan (F)
 - New Policy on Business Opportunities (F)
 - Revision of Committee Terms of Reference (S&G)
 - Board Manual, detailed information on duties. Also includes additional policies (e.g. media policy) (S&G)
 - New Young Professional Committee (YPC) Executive

Nazli Kaya, the Young Professional Committee's (YPC) Chair, then provided an overview of the YPC and urged people to join. She then outlined the two events they are hosting at the conference, a professional development event and a networking event. These events took place on Monday May 27th. During the networking event the winners for the two student competitions were announced.

Pamela Fuselli, the Editor of the Newsletter, then provided some background on the newsletter itself and presented this year's Editorial Committee. The members are as follows:

- **Geni Bahar**, NAVIGATS Inc
- **Adam Bell**, WSP
- **Karen Bowman**, Traffic Injury Research Foundation (TIRF)
- **Jean-François Bruneau**, Polytechnique Montréal, Montreal
- **Mary Chipman**, University of Toronto, Toronto, ON
- **James Fitzpatrick**, Graco and Baby Jogger
- **Pamela Fuselli** (Chief-Editor), Parachute, Toronto, ON
- **Alan German**, Road Safety Research, Ottawa, ON
- **Martin Lavallière**, Université du Québec à Chicoutimi, Chicoutimi, QC
- **Rebecca Peterniak**, Winnipeg, MB
- **Linda Rothman**, The Hospital for Sick Children

Pamela stated that if anyone is interested in being on the Newsletter Editorial Board to please contact her directly. She is looking for writers, editors and French translators. The commitment is 8 teleconferences a year.

Pamela also asked for contributions to the newsletter, which could be in the form of: letters to the editor, articles, photos and announcements.

The next issue will be on the 2019 CARSP Conference.

Marie-Soleil stated that the Dr. Charles H. Miller Award, the Mavis Johnson Traffic Safety Award and the Lifetime Achievement Awards were to be given out at the banquet on Tuesday night. Furthermore, the Student Paper and Student Poster Competition Winners were to receive their awards at the May 27th YPC networking event.

Marie-Soleil stated that there is an Out-going Board Member Award for Jennifer Kroeker-Hall. Jennifer was not present, however, the Award will be provided to her at a later date.

Marie-Soleil also invited Alex Nolet to the stage to present another award. Alex then presented an Appreciation Award to Marie-Soleil for being the CARSP President for 2018-2019. Marie-Soleil had to step down one year early due to work commitments.

Marie-Soleil then invited Ward Vanlaar, from the Traffic Injury Research Foundation (TIRF) to the stage, to provide information about next year's conference. Ward stated that CARSP is collaborating with the Prevention Routiere Internationale to bring a Joint CARSP/PRI Conference to Montreal for June 14-17, 2020. The venue is the Palais de Congres. Other partners include the Traffic Injury Research Foundation (TIRF) and Desjardins Insurance. The theme will be on vision zero and road safety for all – addressing disparities in road inequities. He invited everyone to attend.



CARSP Young Professionals Committee

By Quentin Lau

Quentin is a policy professional who resides in Edmonton, Alberta. He was first exposed to transportation policy while completing his Master of Public Policy at Simon Fraser University. He has worked on a number of road safety initiatives by employing the Safe Systems Approach to analysis and recommendations for decision makers.

The YPC hosted a number of events during the 2019 CARSP Conference in Calgary. It was the first-ever Student Poster Competition, where five submissions garnered significant interest among conference attendees. The purpose of creating the poster competition was to encourage more students to engage in road safety, without having the higher pressure of submitting a paper. Needless to say, this year's success likely means that the poster competition is here to stay!



1st Place – Seiran Hashemi



2nd Place – Ruheena Sangrar



3rd Place – Dr. Tanvir Chowdhury

Speaking of the annual Student Paper Competition, which was sponsored by Western Ergonomics; this year the YPC received 11 submissions. The quality of the papers continues to prove that the future of road safety research and action is bright. Thank you to all the writers and reviewers for their time and effort.



1st Place – Juan Carrillio



2nd Place - Alireza Jafari Anarkooli



3rd Place - Devon Valentine

The YPC also hosted a couple of events that included a Professional Development Event featuring Joshua White, who spoke about his experiences working in both the public and private sector. His presentation highlighted the importance and benefits of having a diversity of experience early in your career so that you can really find out what's right for you. Following this, a Networking Event was held at a restaurant onsite, where the awards for the Student Paper and Poster Competitions were handed out.



Finally, a 50/50 Raffle was held during the Conference's banquet night. The proceeds of the raffle go towards the YPC's budget to hold events that continue to encourage youth participation in road safety and build capacity in the profession. Thank you again for all the attendee's support in this annual event!

CARSP Conference Awards

The Charles H. Miller award is given to the best Research and Evaluation Paper presented at the CARSP conference based on technical and scientific merit. This year, the award was given to Alireza Jafari Anarkooli, Ryerson University; Craig Milligan, MicroTraffic; Bhagwant Persaud, Ryerson University; Joel Penner, MicroTraffic and Taha Saleem, North Carolina University for their paper entitled “Predicting Crashes with Safe Systems Surrogates Obtained from Video Analytics – Implications for Evaluation of Vision Zero Safety Treatments”.



The Mavis Johnson Traffic Safety Award is given to the Best Policy and Practice Paper presented at the CARSP Conference based on its overall quality and applicability to the field of road safety. This year the award was given to Yvonne Verlinden, Tessa Nasca and Nancy Smith Lea for their paper entitled “Building the Vision: Community and Collaboration”.



The CARSP Lifetime Achievement Award for Road Safety is presented annually to individuals who have made a positive impact on road safety in Canada. Candidates will have had a career in this field (past/present) and have also made contributions to the Canadian Association of Road Safety Professionals. This year the award went to three individuals who made an outstanding contribution to the field of road safety, and significant contributions to CARSP. These three people are: Mr. Paul Boase, Transport Canada; Ms. Mavis Johnson, Traffic Injury Research Foundation; and Dr. Frank Navin, University of British Columbia. Awards were presented by Catherine Pooley of Accident Support Services who sponsored the awards.



Paul Boase



Dr. Frank Navin



Mavis Johnson

Vision Zero Workshop – Post CARSP Conference

By Pamela Fuselli, Parachute

Pamela is the President & CEO at Parachute. She has worked in road safety for 20 years, with a particular focus on children and youth.

On May 30, Parachute and CARSP co-hosted a hands-on, multidisciplinary post-conference workshop, *Vision Zero – Understanding and Action*, with the generous support of Desjardins as a national sponsor. The workshop was sold out and extremely successful with representatives from across Canada. Delegates hailed from a variety of disciplines including research, injury prevention, municipal government, insurance, and enforcement.

45 delegates heard from guest speakers who brought the latest evidence and research related to Vision Zero. A panel discussion entitled: *Building blocks to Vision Zero Implementation – Partnership, Buy-in, Political Will and Data*, featured panelists:

- Mavis Johnson, President, Canadian Traffic Safety Institute on How the Safe System Approach Supports Vision Zero and Sustainability Principles
- Adam Bell, The National Vision Zero Lead and Team Leader, Traffic & Safety, WSP Canada on Vision Zero and the Need for Public Health Data and Root Cause Analysis
- Tony Churchill, Leader, Traffic Safety, City of Calgary on Demonstrating the Value of Environmental Changes to Support Vision Zero
- Shabnem Afzal, Manager, Road Safety Office, City of Surrey on the Path to Vision Zero - Experience from Surrey, BC



Workshop participants learned about Vision Zero principles, building blocks and strategies, and worked together to understand the importance of collaboration in Vision Zero strategies. Participants put the principles of Vision Zero into action with a site visit to Calgary intersections, followed by multidisciplinary group discussions to develop road safety interventions for those sites. Interactive breakout groups, comprised of multi-disciplinary fields as well as tables of the same disciplines, identified interventions to address road safety issues.

Part 1 - Participants form Break-out Groups based on Discipline

Participants will be walked through an exercise with the goal of identifying an intervention to address the road safety issues identified at the morning's site visit.

Part 2 - Participants form Multi-disciplinary Break-out Groups

The interventions are discussed, and a multi-disciplinary perspective is overlaid onto the plan.

Participant feedback on the evaluation survey showed the value of the workshop

I gained a lot of valuable insight from talking to other individuals who work in vision zero from other fields including enforcement and engineering.

The presentations were excellent and the networking was very useful.

Great to see everyone involved. Nice to see things happening so quickly in the field!

Overall, I think the organizers did a fantastic job of putting on a very informative workshop. Thank you very much! I look forward to attending the next workshop.

Thank you to the organizing committee:

Valerie Smith, Parachute
Linda Rothman, Ryerson University

Brenda Suggett, CARSP
Raheem Dilgir, TranSafe Consulting Ltd.

Session 3C: Child and Adolescent Injury Prevention II

By Dr. Linda Rothman, Ryerson University

Linda Rothman is an Assistant Professor in the School of Occupational and Public Health at Ryerson University and an Adjunct Scientist at the Hospital for Sick Children. Her research is on unintentional childhood injury, with a focus on child pedestrian injury prevention related to school travel and the built environment. Her research projects involve many partners including those from academia, hospitals, not-for-profit organizations, the private sector, school boards and all levels of the government.

This session consisted of five papers, all of which presented some interesting insight into several different issues related to child and youth-related pedestrian collisions; characteristics of drivers involved in these collisions, a review of study designs of childhood transportation injury research in the published literature, driving and pedestrian road crossing behaviours during school morning dropoff time and speeding near schools.

- Driver characteristics involved in child and youth pedestrian motor-vehicle collisions (PMVC) and the built environment - a case control study. Fridman, Pitt, Rothman, Howard, Hagel
- Risky driver behaviours at school drop-off time and active school transportation in children across Canadian urban/suburban areas. Rothman, Ling, Desrosiers-Gaudette, Hubka, Howard, Fuselli, Cloutier, Winters, Hagel, Macpherson
- A Review of Study Designs in Childhood Transportation Injury Prevention Research in the Published Literature. Rothman, Clemens, Macarthur
- Adult and child pedestrian road crossing behaviours during morning school drop-off time across Canadian urban/suburban areas. Cloutier, Ling, Desrosiers-Gaudette, Hubka, Howard, Macpherson, Fuselli, Winters, Hagel
- Motorist speed compliance near Calgary Elementary Schools. Hubka, Churchill, Rothman, Nettel-Aguirre, Hagel

The session started off with a presentation by Dr. Liraz Fridman, who used a modified quasi-induced exposure culpability approach to examine characteristics of drivers involved in police-reported child pedestrian motor vehicle collisions in Calgary and Edmonton Alberta from 2010-2015. This work was done at the University of Calgary, in conjunction with the Hospital for Sick Children, as part of Dr. Fridman's postdoctoral fellowship. The results showed that younger drivers (ages 16-24) and older drivers (>55) were more likely to be involved in a PMVC compared to middle aged adults. Time of day (6:00-9:00 and 18:00-24:00), not using a seatbelt, having a child passenger in the vehicle, previous driver drinking and driver fatigue/asleep/medical defect were associated with a higher odds of being involved a child PMVC compared to a control group of drivers. Dr Fridman concluded saying that culpability studies allow researchers to examine driver characteristics as well as modifiable risk factors within the environment that could influence collision risk.

Dr. Linda Rothman described a review of research designs in recently published work (2013-2016), conducted at the Hospital for Sick Children, Toronto, Canada, related to child transportation injuries. This study found that child transportation injury prevention research is generally observational or descriptive. Less than ¼ of transportation studies were experimental, evaluating an intervention, and more than half of these evaluated educational interventions alone, despite evidence that this is relatively ineffective in reducing the injury burden compared to engineering and legislative interventions. This study concluded that more rigorous study designs are needed in transportation, focusing on engineering and enforcement to effectively reduce the population burden of childhood transportation injury.

The other 3 studies presented in this session were all from the CIHR funded Child Active-Transportation Safety and the Environment (CHASE) program of research, from the University of Calgary, with Dr. Brent Hagel as the Principal Investigator, in conjunction with Hospital for Sick Children, York University and Parachute. This program of research examines determinants of active transportation, and active transportation safety for children and youth in 7 urban/suburban areas across Canada; Calgary, Vancouver, Surrey, Toronto, Peel, Montreal and Laval. The research also identifies implementation strategies for built environment change at the municipal level to encourage safe active transportation. Dr Linda Rothman and Dr. Marie-Soleil Cloutier presented on driving and pedestrian behaviours respectively, during morning school drop off time within and across all CHASE centres. Overall, the most common risky driving behaviours observed across all cities were drivers dropping children off at the opposite side of the road from the school (81%), followed by drivers waiting and blocking the vision of pedestrians and other motorists (76%), u-turns or three-point turns (68%), and double parking (60%). The mean proportion of AST was 65% in Toronto, 62% in Vancouver, 70% in Montreal, 54% in Peel, 44% in Calgary, and 36% in Laval.

For pedestrians, the most common issue amongst adults across centres was crossing unsafely at uncontrolled midblock locations (74% of schools), followed by crossing unsafely between parked cars (52%), and using an electronic device (33%). The most common issues were the same for children, although higher proportions of children at schools were seen crossing unsafely at an uncontrolled midblock (80% of schools) and crossing unsafely between parked cars (67%). Although the order of frequent behaviours observed remained consistent between cities, there were differences in the proportion of schools where the behaviours were observed by city. For example, for adults, unsafe midblock crossings were observed at 85% of schools in Vancouver, 84% in Calgary, 83% in Toronto, but only 61% in Peel, 48% in Montreal and 42% in Laval.

Finally, Tate Hubka presented on motorist speed compliance near Calgary schools. As part of the CHASE study, The City of Calgary placed pneumatic tubes measuring speed in front Calgary schools or periods ranging from 1-5 weekdays. The study found a large proportion of vehicles travelling adjacent to Calgary elementary schools travel over the posted speed limit (between 16% and 21%) The majority of speeders during school hours were above the speed limit by 5-12kmh. Speeding can significantly increase the risk of injury and death in child pedestrians. Future studies should consider interventions that prioritize motorist compliance with speed limits when in locations of high child presence such as school zones.

The presentations in this session were very well received. There was lively discussion following the presentations regarding whether increased traffic/pedestrian volume around schools during dropoff time had a protective effect on collisions. There was also interest from members of the audience regarding finding out more information regarding CHASE-related studies.

CARSP Conference Proceedings

By Alan German,

Alan is a Research Scientist with Road Safety Research in Ottawa, Ontario. He is a Past President of CARSP and a current member of CARSP's Editorial Board.

Résumé

Comme à son habitude, la conférence annuelle de CARSP tenue à Calgary (Alberta) en juin dernier a su attirer des participants de partout au Canada, ainsi que plusieurs délégués internationaux. Les recherches présentées couvraient de nombreuses disciplines, reflétant la nature multidisciplinaire de cette conférence depuis sa création. Certaines facettes de cette conférence, incluant les détails sur les articles s'étant mérités des prix ainsi que les panels de discussion sur des thèmes particuliers seront mentionnés ailleurs dans ce bulletin. Le présent synopsis effectue un bref survol en guise de résumé des nombreux sujets abordés durant la conférence.

As usual, this year's CARSP Conference, held in Calgary, AB in June, attracted participants from across Canada together with a number of international delegates. The research papers presented covered many different disciplines, mirroring the original multi-disciplinary nature of the early conferences in this series. Some aspects of the conference, including details of the award-winning papers and some of the panel discussions on specific safety topics, have been noted elsewhere in this newsletter. The following synopses highlight a number of the topics discussed in other papers presented at the conference.

CARSP members may view the Table of Contents for the entire conference proceedings, and download any paper of interest, by logging on to CARSP's web site and selecting the paper's title from: <http://www.carsp.ca/research/research-papers/proceedings/2019-calgary/>

Use of Electronic Communication Devices by Canadian Drivers: Combined Urban/Rural Sites

Brian Jonah and Christine Le Grand (CCMTA)

The use of electronic communication devices (ECD) such as cell phones, smart phones, and tablets by drivers has been found to increase the likelihood of motor vehicle crashes in a number of epidemiological studies. The use of ECD's by drivers has been measured periodically in observational surveys since 2006. In the last urban and rural surveys, conducted in 2012 to 2013, 4.4% of drivers were observed talking or typing/texting on these hand-held devices. Given that most Canadian jurisdictions have increased penalties for using hand-held ECD's, the current work seeks to establish if there has been a change in the use of these devices since the last survey.

An observational survey was conducted at 294 urban sites in 2016, and at 250 rural sites in 2017. A total of 124,667 drivers of light-duty vehicles were observed while stopped at a red light or stop sign. Nationally, an estimated 7.2% of the drivers used an ECD in some manner, varying by jurisdiction from 2.5% to 11.2%. ECD usage was higher in urban areas (7.9%) compared to rural areas (3.0%), and among young drivers (<25 years of age) and

female drivers. ECD's were used for talking by 2.9% of drivers, typing/texting by 2.2%, talking and typing/texting by 0.4%, while 0.9% were seen holding the device.

The results of this research indicate that drivers' use of ECD's has increased from the 2012 to 2013 survey despite efforts to curtail this usage through increased fines and demerit points as well as enforcement and awareness campaigns. It is apparent that, to reduce the use of ECD's by drivers, there is a need to strengthen both enforcement and educational efforts.

Introducing ELA: The Journey of Canada's First Publicly Accessible Autonomous Shuttle

Dan Finley (Pacific Western) and Wendy Doyle (Alberta Transportation)

This presentation focused on the implementation of Canada's first publicly-accessible autonomous vehicle (AV) – ELA – a twelve-passenger shuttle bus. The program was undertaken in a number of test locations across western Canada by the Province of Alberta and Pacific Western Transportation. Pre-planning included identifying the pilot locations, establishing safe working environments, and ensuring appropriate interactions with the public throughout the designated routes. The program's intent was to bring new technology to users of transportation services and provide an opportunity for regulatory bodies to evaluate the systems in operation.



A total of seven deployment sites were used throughout 2018. The AV's were operational for 108 days, travelled 1,683 km, and made 11,904 passenger trips. Operating conditions included sub-zero temperatures and snowfall; however, these had no adverse effect on

vehicle performance. The pilot test also had an AV operating in a partially-segregated lane, with mixed traffic, involving both intersections and crosswalks, and the first deployment of a vehicle-to-infrastructure (V2I) system, where the AV was controlled by traffic lights.

Does Truck Driver Training Meet the Needs of the Industry?

Jennifer Malkin (University of Saskatchewan)

This study examines the perceptions of Canadian long-haul truck drivers on: 1) current truck driver training programs; 2) training problems that are impacting the trucking industry; and 3) recommendations for improving truck driver training.

Truck drivers in Alberta and Saskatchewan were interviewed and asked open-ended questions on truck driver training. Perceptions on the available training were influenced by age. Older drivers, who had often not received formal training, felt younger drivers were unsafe, did not follow the rules of the road, and did not receive adequate training for driving in variable conditions (e.g. mountains, ice). They recommended that a minimum of six to eight weeks be required for training, including a combination of in-class content and at least four to six weeks on the road with more senior truck drivers.

*"There's too many people that get given their license, 2 weeks and go. They don't have a clue, they're dangerous."
Participant 52*

Conversely, young drivers do attend formal training and reported their training is adequate, even though there was substantive variability in the length of training (ranging from one to six weeks). Many said they had limited driving time during training and did not have a formal mentor.

*"Our government, federal and provincial, needs to step in and regulate this more. And it's not just the students who need to understand, it's the instructors that have to be penalized if they're not doing it right."
Participant 2*

Current truck driver training practices are neither consistent nor adequate. Industry-wide training standards are required, and training programs should include both classroom and applied driving-based modules. Provincial jurisdictions should mandate and regulate truck driver training to ensure all truck drivers have the minimum standards for safe driving.

More is Less: How Increasing Damage Thresholds for Reporting Collisions Erodes Sample Sizes and Produces Misleading Analytical Results

Catherine Pooley (Accident Support Services International Ltd.)

Law enforcement and city planners use collision statistics to predict high-incident areas and the most prevalent causes of traffic collisions. As with all statistical analyses, the sample size of the data is everything. Various Canadian jurisdictions have recently increased the damage threshold for reporting collisions. The current study used analyses of a database of approximately 400,000 self-reported collisions from Ontario to show how excluding the data for low-severity collisions produces misleading results.

The most striking result was that excluding collision data for those where the total damage fell in the \$2,000 to \$5,000 range reduced the sample size of the data by about half. As expected, this led to differences in rankings for the top ten high-risk intersections in Ontario, as well as how these are determined in specific communities.

In addition, the nature of vehicle manoeuvres, initial impact types, and other factors that go into determining the causes of incidents were undermined and misrepresented as a result of eliminating the data that the lower-severity reports would otherwise provide.

Commercial Vehicles and Vulnerable Road Users

Jean-Louis Comeau, Brian Monk, Paul Boase, Dominique Charlebois, Peter Burns (Transport Canada), Alan German (Road Safety Research)

A study of real-world, fatal collisions involving heavy vehicles, pedestrians and cyclists was conducted to identify the major causal factors related to such crashes, and to determine a range of appropriate countermeasures. The results demonstrate that the problem typically occurs in urban environments, and at intersections where heavy vehicles undertake turning manoeuvres. The primary issues are the inability of the drivers of heavy vehicles to note the presence of adjacent vulnerable road users, and pedestrians and cyclists not being fully aware of the intentions of the drivers of the heavy trucks and of the vehicle trajectories.



The study strongly suggests that, for heavy trucks and buses, two very effective measures would be improvements to on-board driver-assistance safety systems, and greater public awareness of the dangers posed by heavy vehicles operating in urban environments. On-going research into vehicle-based, technological solutions to these issues is described in the paper.

Fitness to Drive: Strengthening Road Safety through Enhanced Road Assessments

Darrion Campbell (RoadSafetyBC, Ministry of Public Safety and Solicitor General)

In 2018, British Columbia made changes to the assessment process that helps determine whether drivers can safely remain at the wheel. The new Enhanced Road Assessment (ERA) is delivered by the Insurance Corporation of British Columbia (ICBC) to drivers whom RoadSafetyBC determines need a functional road assessment regarding their medical fitness to drive safely.

RoadSafetyBC refers roughly 5,000 drivers annually to an on-road assessment; however, the process previously in place had been the subject of various criticisms. The new ERA is designed as an assessment which provides comprehensive information, rather than a road test that is either passed or failed. The ERA addresses a number of issues with previous testing such as: accurately reflecting real-world driving conditions, allowing drivers to use their own vehicles, and eliminating the computer-based screening component.

*"Although I didn't want to do it - I had to and
I'm a better driver for the ERA process."*

Respondent to an anonymous driver survey

The new ERA was established after extensive consultations with stakeholders and a comprehensive review of best practices across multiple jurisdictions. It has proven to be a superior assessment tool, available in more locations province-wide (80 up from 27), allowing drivers to use their own vehicles, and has operational costs 50% less than the previous DriveABLE program. The new program has resulted in 77% of drivers being either successful outright or referred for another ERA attempt, and has been well-received by citizens, the medical community, and the media.

Midtown Atlanta Case Study - New Data Collection Techniques in Automated Pedestrian Safety Analysis

Paul St-Aubin (Brisk Synergies)

Atlanta Midtown Alliance needed an effective pedestrian safety evaluation technique to quickly identify performance changes in high-risk behaviour before and after the integration of an all-WALK pedestrian phase into the traffic signal cycle at a busy intersection. The project deployment team decided to use BriskLUMINA as their on-demand automated video-based road conflict analysis solution.

The system was implemented with temporary cameras to track and classify all individual road users from video data, and automatically detect near-misses and other dangerous interactions between them that are indicative of future potential collisions. Video data was collected at the subject intersection both before and after the implementation of the all-WALK phase.

The AI-driven software platform evaluated the potential conflicts between users of the all-WALK phase at the intersection. The system allows for all road users to be observed simultaneously. For conflict analysis, the main safety measures to detect and identify collision risk are Time to Collision (TTC), Post Encroachment Time (PET) and vehicle speed, between any groups of scenario movements among vehicles, pedestrians, or cyclists.



The results indicated that the all-WALK pedestrian phase provides a significant benefit to pedestrians. Overall, the analysis validated that there is a 75% performance improvement in safety between vehicles and pedestrians with the implementation of the pedestrian scramble. While the number of potential pedestrian-vehicle conflicts was reduced, the average speed of vehicles making turning movements increased by approximately 6 km/h.

The video recording and analysis system reduced the time to evaluate safety performance measures at this new pedestrian-scramble intervention and proved to be a highly effective tool in the before-and-after evaluation process.



Send Us Your Article

Want to be a published author? Have a synopsis of your current work or recently completed project that could be included in the next issue of The Safety Network Newsletter? Articles on any aspect of road and motor vehicle safety are being requested for submission to the Editorial Board. Articles can be 300 to 1000 words plus accompanying photos and graphics.

Please send submissions to Pamela Fuselli, Chief Editor, pfuselli@parachutecanada.org.



Envoyez-nous votre article

Voulez-vous être un auteur publié? Faites figurer dans le prochain numéro de The Safety Network Newsletter un synopsis de votre travail actuel ou de votre projet récemment terminé. Des articles sur tous les aspects de la sécurité des routes et des véhicules à moteur sont demandés pour être soumis au comité de rédaction. Des articles doit être d'une longueur de 300 à 1000 mots, plus les images et les graphiques qui l'accompagnent.

Veuillez envoyer vos soumissions à Pamela Fuselli, rédactrice en chef
pfuselli@parachutecanada.org.

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Editorial Board

Karen Bowman, Traffic Injury Research Foundation

Geni Bahar, NAVIGATS Inc

Adam Bell, The Municipal Infrastructure Group Ltd., Toronto, ON

Jean-François Bruneau, Polytechnique Montréal, Montreal

Mary Chipman, University of Toronto, Toronto, ON

James Fitzpatrick, Graco and Baby Jogger

Pamela Fuselli (Chief-Editor), Parachute, Toronto, ON

Alan German, Road Safety Research, Ottawa, ON

Martin Lavallière, Université du Québec à Chicoutimi, Chicoutimi, QC

Rebecca Peterniak, Winnipeg, MB

Linda Rothman, Ryerson University

Guest Contributors

Marie-Soleil Cloutier, Institut National de la Recherche Scientifique

Brenda Suggett, CARSP

Quentin Lau, Government of Alberta