THE OFFICIAL NEWSLETTER OF THE CANADIAN ASSOCIATION OF ROAD SAFETY PROFESSIONALS/
LE BULLETIN OFFICIEL DE L'ASSOCIATION CANADIENNE DES PROFESSIONALS DE LA SÉCURITÉ ROUTIÈRE

The Safety Network/
Le Réseau-Sécurité

Issue 1 2019 – The Un-Themed Edition

IN THIS ISSUE

Editorial

The first edition of 2019 has taken a different approach. Instead of having a theme for the Safety Network Newsletter, the Editorial Board decided not to focuse on a theme but but rather, opening submissions to any topic related to road safety.

In this issue, readers will enjoy a range of topics from road safety certification and car seat testing to current research on children's active transportation and the built environment as well as large truck collison causation study. Our goal is to provide those working in the field of road safety current information on topics that can contribute to their professional development, practices and policies.

Readers will also enjoy more articles that are available in both English and French. This is only possible because of the dedicated members of the Editorial Board – Daphne Dethier, Jean-François Bruneau and Martin Lavallière – who provide all translations in every issue.

There are a number of emerging issues that will capture the focus of road safety professionals in 2019 and beyond, not the least of which is the legalization of cannabis. Stay tuned for three more exciting editions of the Safety Network Newsletter scheduled for 2019.

Pamela Fuselli
Chief Editor

Éditorial

La première édition de 2019 a adopté une approche différente. Au lieu d'avoir un thème spécifique pour l'infolettre, le comité de rédaction a décidé de ne pas se focaliser sur un thème mais plutôt de demander des contributions sur tout sujet lié à la sécurité routière.

Dans ce numéro, les lecteurs découvriront un large éventail de sujets allant de la certification en sécurité routière aux tests de siège auto, en passant par la recherche en cours sur le transport actif des enfants et l'environnement bâti et l'étude sur la causalité des collisions de camions lourds. Notre objectif est de fournir aux personnes travaillant dans le domaine de la sécurité routière des informations actualisées sur des sujets pouvant contribuer à leur développement professionnel, à leurs pratiques et à leurs politiques.

Les lecteurs apprécieront également plus d'articles en anglais comme en français. Le tout est rendu possible grâce aux membres dévoués du comité de rédaction - Daphne Dethier, Jean-François Bruneau et Martin Lavallière - qui réalisent les traductions de chaque numéro.
Un certain nombre de phénomènes émergents préoccuperont les professionnels de la sécurité routière en 2019 et pour le futur, notamment la légalisation du cannabis. Restez à l'écoute pour trois nouvelles éditions passionnantes du bulletin d'information du réseau de sécurité planifié pour 2019.

Pamella Fuselli
Éditrice en chef

North American Road Safety Professional Certification – A Pioneer Initiative

By Geni Bahar

Geni is a civil engineer with 39 years of professional experience as a researcher and a practitioner, who has gained a unique blend of experience with analytical methodologies and tools for road safety management; traffic safety analysis; human factors in traffic safety; countermeasure selection and evaluation; road strategic safety program, etc.

As reader of the CARSP Newsletter, you have certainly heard about the Road Safety Professional (RSP) Certification. For sure you are a road safety professional: a professional that during a typical work day makes decisions that directly or indirectly impact the future frequency and severity of traffic collisions and knows how to explicitly consider it (and quantify, when possible) and reduce negative safety impacts.

I am a road safety professional, and now I am proud to say that I am a certified RSP, that my education and practical experience in the discipline of road safety are FINALLY recognized. Similar to a medical specialist, I can now show my certification in my specialty discipline together with my professional engineering certification and others!

A Brief Recent History

I would like to share some significant facts leading to the RSP Certification. In the past few years, through several landmark papers Hauer[1,2,3] describes two styles of road safety delivery systems: the pragmatic style and the rational style. The pragmatic style is based on the lay beliefs and interest of organizations, does not require factual knowledge, and does not contemplate the results of actions. In contrast, the rational style is based on expected consequences, requires factual knowledge, and involves learning from experience. In other words, Hauer[4] states (p. 6):

"*My view is that the road safety delivery is moving from the pragmatic style towards the rational style. In contrast to the pragmatic style which requires little factual road safety know-how, the kingpin of the rational style are persons in possession of factual knowledge enabling them to anticipate the road safety consequences of decisions.*"

True to Hauer's view, significant advancements have been made in the road safety state of practice over the past two decades. This has occurred through evolving research and technology, and increased implementation of the evidence-based knowledge in public health

---

[1] Hauer, E. (2000). Safety in geometric design standards I: Three anecdotes. In *Proceedings of the 2nd International Symposium of Highway Geometric Design*, Germany.
[2] Hauer, E. (2000). Safety in geometric design standards II: Rift, roots, and reform. In *Proceedings of the 2nd International Symposium of Highway Geometric Design*, Germany.
[3] Hauer, E. (2005). The road ahead. *Journal of Transportation Engineering*, vol. 131, no. 5:333-339.
[4] Hauer, E. (2007). A case for evidence-based road safety delivery. In *Improving Traffic Safety Culture in the United States—The Journey Forward*, AAA Foundation for Traffic Safety, Washington, DC.

and engineering programs to reduce traffic related fatalities and injuries. We all recognize that the way of approaching road safety has changed and initiatives such as Toward Zero Deaths, Vision Zero, Safe Systems continue to create a culture of road safety in Canada and around the world. In Canada, in engineering fiend, the TAC Geometric Design Guide for Canadian Roads (1999, 2015) have adopted the rational style where designers assess the expected safety consequences of their design choices.

We all know that road safety is a complex issue that involves consideration of human behaviour, vehicle type, road design and operations, emergency services, and the interaction of road users with the road. Professionals in each of the areas of safety disciplines – engineering, enforcement, education, safety policies, medical services among others – have recognized this and moved away from working in their own "silos". An integrated approach with multi-disciplinary safety strategies has allowed for more effective use of limited resources. This was further reinforced through implementation of data-driven strategic road safety plans developed by several provinces and municipalities.

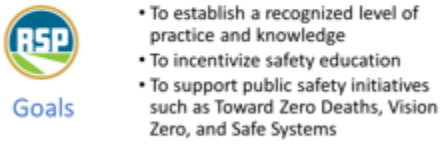
Taking Action

In 2013, the Road Safety Standing Committee (RSSC) of Transportation Association of Canada (TAC) adopted a five-year strategic plan (2014 – 2018). One of the key outcomes of the strategic planning process was the identification of the need for an RSP designation within Canada to formalize the road safety skill-set by means of academic training and experience, in a similar manner as in other professional designations. The RSP designation would indicate that there is a standardized and recognized professional preparedness to practice as a road safety professional, recognizing the multi-disciplinary facets of road safety work and the professionalism within this work. The RSSC formed a Road Safety Professional Subcommittee. By 2016, the RSP Subcommittee dedicated volunteers (1) developed a white paper namely "A Future Road Safety Professional Designation in Canada" (August 2014); (2) compiled a practitioner survey (jointly with CARSP), processed the responses, and analyzed the results published in a report named "Road Safety Professional Designation – An Estimation of Demand" (March 2016); (3) assembled the findings of an international search and review of accreditation systems and processes of professionals in North American and internationally, all documented in the report named "Road Safety Professional Business Model Review". Concurrently, the RSP Subcommittee embarked in outreach efforts to national and international agencies such as CARSP, CCMTA, Transport Canada, TRB, ITE.

In 2016, the Transportation Professional Certification Board and the RSSC's RSP Subcommittee joined forces toward the development of a Canadian-US RSP certification. The Transportation Professional Certification Board Inc. (TPCB) created in 1999, is an autonomous non-profit certification body affiliated with the Institute of Transportation Engineers (ITE).

RSP Certification Development

Under the leadership of Mr. Jeffrey F. Paniati, P.E., (ITE) Executive Director and Chief Executive Officer, a Steering Committee was formed representing a wide range of transportation and safety organizations in the US and Canada, such as US Federal Highway Administration (FHWA), US National Highway Traffic Safety Administration (NHTSA), US



Association American Association of State Highway and Transportation Officials (AASHTO), Canadian Council of Motor Transport Administrators (CCMTA); Transport Canada, Association québécoise des transports (AQTr), CARSP, CITE, and members of the RSSC RSP Subcommittee. Twenty-five Steering Committee members have laid the groundwork for the RSP certification by defining the structure, target audience, prerequisites, draft domains and subdomains of knowledge, and preliminary list of references, and by identifying recognized subject-matter experts (SME) in Canada and US. Dr. Alison Smiley, Dr. Ezra Hauer, Paul Boase, Michael Pardo, and Geni Bahar from Canada are among the SMEs.

Twenty SMEs working with Castle Worldwide, Inc., a leading licensure and testing consultant, have developed the certification exams. Castle Worldwide consultants follow a very structured, internationally certified accreditation process. The SMEs are guided by the Castle consultants throughout the process. Some of the major milestones in the process are (1) a 3-day in person meeting when the SMEs expand on the domains and subdomains, develop the respective tasks and skill sets of an RSP at Level 1 or Level 2. (2) The tasks and skill sets are once again carefully reviewed by a sub-set of SMEs following the Castle consultants' revisions; (3) a North American practitioner's survey is distributed to thousands of practitioners requesting their insights regarding how often they work in the domains and subdomains identified. The findings help the Castle consultants to weight the exam questions; (4) SMEs are given instructions via webinars on how to author questions and answers; (5) SMEs follow this structured subprocess individually over several weeks when each SME dedicates significant amount of time in collaboration with Castle consultants; (6) A 2-day in person meeting of the SMEs with Castle consultants for the review of questions and answers, and modify as needed in a group set; (7) the Castle consultants assemble the exam; and (8) A subset of the SMEs will participate in two 3-hour webinars of each exam and polishing of the questions take place; and (9) another sub-set of the SMEs take the exam online (similar to exam takers) for a final quality review of the exam.

Who is eligible to take the RSP Exams?
The RSP certification has two levels:

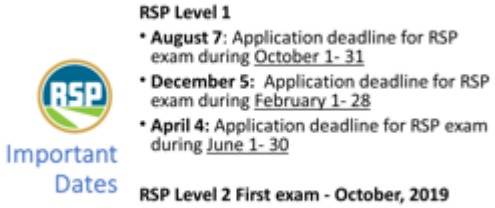
Level 1: Those achieving Level 1 certification will have demonstrated proficiency in the foundations of road safety principles including the multi-disciplinary aspects of safety. The exam is for a broad audience of professionals.

The minimum qualifications for the Level 1 certification include either a bachelor's degree from an accredited university and a minimum of 2 years' experience transportation, highway safety or public health or a minimum of four (4) years professional experience in the transportation, highway safety or public health fields.

Level 2: The Level 2 certification builds on the Level 1 certification. Prospective certificants will select between a Level 2 certification with a "behavioural specialty" or Level 2 certification with an "infrastructure specialty." The minimum qualifications for the Level 2 include either a bachelor's degree from an accredited university and a minimum of five (5) years professional experience in transportation, highway safety or public health; or a minimum of ten (10) years professional experience in the transportation, highway safety or public health fields.

When and where are the exams offered?
The exams are offered three times annually. The exams are administered during February, June, and October, while the applications for examination need to be submitted by Dec 5, April 4, August 6 respectively. Exams are administered by Castle Worldwide at test locations throughout the United States and Canada. For more information on the RSP, you can visit the TPCB website at http://www.tpcb.org.

Current Status
Congratulations to the First RSP 1 Certificants (ITE Journal – February 2019 (Pg.14)
The first RSP Level 1 examination was offered in October 2018. Overall, 216 professionals have been certified!! In Canada, there are now 39 RSP Level 1 certified professionals. The first RSP Level 2 examination will be offered in October 2019.



I would like to conclude this article by highlighting the value of the RSP to individuals and organizations. The RSP validates specific skill sets required for the safety profession and provide a structure for advancing safety workforce development. The certification program provides benefits to individuals and their employers as well as the safety industry. For the individual, achieving the certification provides professional recognition of one's knowledge and expertise and the opportunity to become more knowledgeable of the evolving state of practice. Employers can use the RSP certification to encourage professional growth within their organization, and for private companies the certification is a means to distinguish their company from others and build customer confidence in their team. The RSP certification can provide the basis for universities to develop curriculum specific to the various areas of road safety, ultimately building the next generation of safety professionals.

Certification professionnelle nord-américaine en sécurité routière - Une initiative pionnière

By Geni Bahar (traduit par Daphne Dethier)

Geni est une ingénieure civile possédant 39 ans d'expérience professionnelle en tant que chercheuse et praticienne. Geni a acquis une expérience unique en méthodes d'analyse et d'outils de gestion de la sécurité routière, analyse de la sécurité routière, facteurs humains en sécurité routière, sélection et évaluation des contre-mesures, programme stratégique de sécurité routière, etc.

En tant que lecteur du bulletin d'information de l'ACPSER, vous avez sans doute entendu parler de la certification de professionnel de la sécurité routière (RSP). Vous êtes certainement un professionnel de la sécurité routière: un professionnel qui, au cours d'une journée de travail typique, prend des décisions qui ont un impact direct ou indirect sur les futures fréquence et gravité des collisions de la route et qui sait comment traiter explicitement le problème (et le quantifier, si possible) afin d'en réduire les conséquences néfastes.

Je suis une professionnel de la sécurité routière et maintenant, je suis fière de dire que je suis certifiée RSP, que mes études et mon expérience pratique dans le domaine de la sécurité routière sont FINALEMENT reconnus. Semblable à un médecin spécialiste, je peux maintenant afficher ma certification dans ma discipline spécialisée, aux côtés de ma certification d'ingénieure professionnelle et autres!

Bref historique

J'aimerais partager quelques faits importants menant à la certification RSP. Au cours des dernières années, Hauer[5,6,7] a décrit deux styles de systèmes de prestation en sécurité routière: le style pragmatique et le style rationnel. Le style pragmatique est basé sur les croyances laïques et les intérêts des organisations, ne nécessite pas de connaissances factuelles et ne considère pas les résultats d'actions. En revanche, le style rationnel est basé sur les conséquences attendues, nécessite une connaissance factuelle et implique l'apprentissage par l'expérience. En d'autres termes, Hauer[8] déclare (p. 6):

"Selon moi, la prestation en sécurité routière est en train de passer du style pragmatique au style rationnel. Contrairement au style pragmatique qui requiert peu de savoir-faire factuel en matière de sécurité routière, le pilier du style rationnel sont les personnes en possession de connaissances factuelles leur permettant d'anticiper les conséquences des décisions sur la sécurité routière."

Selon Hauer, d'importants progrès ont été accomplis en matière de sécurité routière au cours des deux dernières décennies. Cela est dû à l'évolution de la recherche et de la technologie et à la mise en œuvre accrue des connaissances fondées sur des preuves dans les programmes de santé publique et d'ingénierie pour réduire le nombre de décès et de blessures de la route. Nous reconnaissons tous que la manière d'aborder la sécurité routière a changé et que des

---

[5] Hauer, E. (2000). Safety in geometric design standards I: Three anecdotes. In *Proceedings of the 2nd International Symposium of Highway Geometric Design*, Germany.
[6] Hauer, E. (2000). Safety in geometric design standards II: Rift, roots, and reform. In *Proceedings of the 2nd International Symposium of Highway Geometric Design*, Germany.
[7] Hauer, E. (2005). The road ahead. *Journal of Transportation Engineering*, vol. 131, no. 5:333-339.
[8] Hauer, E. (2007). A case for evidence-based road safety delivery. In *Improving Traffic Safety Culture in the United States—The Journey Forward*, AAA Foundation for Traffic Safety, Washington, DC.

initiatives telles que Toward Zero Deaths, Vision Zéro, Systèmes Surs continuent de créer une culture de la sécurité routière au Canada et dans le monde. Au Canada, dans le domaine de l'ingénierie, le Guide de conception géométrique des routes du Canada (1999, 2015) du TAC a adopté le style rationnel selon lequel les concepteurs évaluent les conséquences attendues de leurs choix en matière de sécurité.

Nous savons tous que la sécurité routière est une question complexe qui implique la prise en compte du comportement humain, du type de véhicule, de la conception et de l'exploitation des routes, des services d'urgence et de l'interaction des usagers avec la route. Les professionnels de chacun des domaines de la sécurité - ingénierie, contrôle, éducation, politique, services médicaux, entre autres - ont reconnu ce constat et ont cessé de travailler en «silos». Une approche intégrée avec des stratégies de sécurité multidisciplinaires a permis une utilisation plus efficace des ressources limitées. Cela a encore été renforcé par la mise en œuvre de plans stratégiques de sécurité routière basés sur des données développés par plusieurs provinces et municipalités.

Action
En 2013, le Comité permanent de la sécurité routière de l'Association des transports du Canada (ATC) a adopté un plan stratégique quinquennal (2014 - 2018). L'un des principaux résultats du processus de planification stratégique a été l'identification de la nécessité d'une désignation de prestataire de services de sécurité au Canada pour formaliser l'ensemble des compétences en matière de sécurité routière par le biais d'une formation et d'une expérience universitaires, de la même manière que dans d'autres désignations professionnelles. La désignation RSP indiquerait qu'il existe une préparation professionnelle normalisée et reconnue pour exercer la profession de professionnel de la sécurité routière, reconnaissant les aspects multidisciplinaires du travail de sécurité routière et le professionnalisme de ce travail. Le Comité a formé un sous-comité de professionnels de la sécurité routière. D'ici 2016, les bénévoles dédiés du sous-comité RSP (1) ont élaboré un livre blanc intitulé «Road Safety Professional Designation – An Estimation of Demand» (août 2014); (2) compilé une enquête auprès des praticiens (conjointement avec l'ACPSER), traité les réponses et analysé les résultats publiés dans un rapport intitulé «Road Safety Professional Designation – An Estimation of Demand» (mars 2016); (3) ont rassemblé les résultats d'une recherche internationale et d'un examen des systèmes et des processus d'accréditation des professionnels nord-américains et internationaux, tous documentés dans le rapport intitulé «Road Safety Professional Business Model Review». Parallèlement, le sous-comité sur les RSP s'est lancé dans des efforts de sensibilisation auprès d'organismes nationaux et internationaux tels que ACPSER, CCMTA, Transports Canada, TRB et ITE.

En 2016, le Transportation Professional Certification Board (TPCB) et le sous-comité RSP de l'ATC ont uni leurs efforts pour développer une certification RSP canado-américaine. Le Transportation Professional Certification Board Inc., créé en 1999, est un organisme de certification autonome à but non lucratif affilié à l'Institute of Transportation Engineers (ITE).

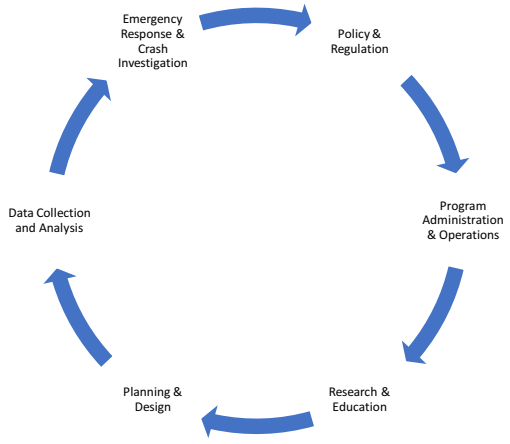
Développement de la certification RSP
Sous la direction de M. Jeffrey F. Paniati, PE, directeur exécutif et chef de la direction (ITE), un comité directeur représentant un large éventail d'organisations du transport et de la sécurité aux États-Unis et au Canada, telles que la US Federal Highway Administration (FHWA), Administration nationale américaine de la sécurité routière (NHTSA), Association américaine des représentants officiels de la voirie et des transports (AASHTO), Conseil canadien des

administrateurs du transport routier (CCATM); Transports Canada, Association québécoise des transports (AQTr), ACPSER, CITE et membres du sous-comité RSP de l'ATC. Vingt-cinq membres du comité directeur ont jeté les bases de la certification RSP en définissant la structure, le public cible, les conditions préalables, les projets de domaines et de sous-domaines de connaissances et une liste préliminaire de références, et en identifiant des experts reconnus en la matière au Canada et États-Unis. Dr Alison Smiley, Dr Ezra Hauer, Paul Boase, Michael Pardo et Geni Bahar du Canada font partie des experts identifiés.

Vingt experts travaillant avec Castle Worldwide, Inc., un consultant en matière de licences et d'essais, ont mis au point les examens de certification. Les consultants de Castle Worldwide suivent un processus d'accréditation très structuré et certifié au niveau international. Les consultants de Castle guident les experts tout au long du processus. Les principales étapes du processus sont (1) une réunion en personne de trois jours au cours de laquelle les experts développent leurs domaines et sous-domaines, les tâches et les ensembles de compétences respectifs d'un RSP de niveau 1 ou 2. (2) Les tâches et les compétences sont à nouveau soigneusement examinées par un sous-groupe d'experts à la suite des révisions des consultants de Castle; (3) une enquête réalisée en Amérique du Nord auprès de praticiens est distribuée à des milliers d'intervenants afin de connaître leur fréquence de travail dans les domaines et sous-domaines identifiés. Les résultats aident les consultants de Castle à pondérer les questions de l'examen; (4) les experts reçoivent des instructions via des webinaires sur la manière de rédiger des questions et des réponses; (5) Les experts suivent ce sous-processus structuré individuellement pendant plusieurs semaines, au cours desquelles chaque expert consacre beaucoup de temps en collaboration avec les consultants de Castle. (6) une réunion en personne de deux jours des experts avec les consultants de Castle pour examiner les questions et les réponses et les modifier, si nécessaire, en groupe; (7) les consultants de Caslte organisent l'examen; et (8) un sous-groupe d'expers participera à deux webinaires de trois heures de chaque examen et le polissage des questions prendra place; et (9) un autre sous-groupe d'experts passe l'examen en ligne (similaire à celui des candidats à l'examen) pour un examen final de la qualité de l'examen.

Qui est admissible aux examens RSP?
La certification RSP comporte deux niveaux:

Niveau 1: Ceux qui obtiendront une certification de niveau 1 auront démontré qu'ils maîtrisent les principes de base de la sécurité routière, y compris les aspects multidisciplinaires de la sécurité. L'examen est destiné à un large public de professionnels.



Les qualifications minimales pour la certification de niveau 1 comprennent soit un baccalauréat d'une université accréditée et au moins deux années d'expérience dans les domaines du transport, de la sécurité routière ou de la santé publique, ou au moins quatre (4) années d'expérience professionnelle dans les domaines du transport, de la sécurité routière ou de la santé publique.

Niveau 2: La certification de niveau 2 s'appuie sur la certification de niveau 1. Les certifiés potentiels choisiront entre une certification de niveau 2 avec une «spécialité comportementale» ou une certification de niveau 2 avec une «spécialité d'infrastructure». Les qualifications minimales pour le niveau 2 comprennent soit un baccalauréat d'une université accréditée et un minimum de cinq (5) années d'expérience professionnelle dans les transports, la sécurité routière ou la santé publique; ou un minimum de dix (10) années d'expérience professionnelle dans les domaines du transport, de la sécurité routière ou de la santé publique.

Où et quand les examens sont-ils offerts?
Les examens sont offerts trois fois par an. Les examens sont administrés en février, juin et octobre, tandis que les demandes d'examen doivent être soumises au plus tard le 5 décembre, le 4 avril et le 6 août. Les examens sont administrés par Castle Worldwide sur des sites de test à travers les États-Unis et le Canada. Pour plus d'informations sur le RSP, vous pouvez visiter le site Web de TPCB à l'adresse suivante http://www.tpcb.org.

État actuel
Félicitations aux premiers certifiés RSP 1 (Journal ITE - février 2019 (p. 14) Le premier examen RSP de niveau 1 a été offert en octobre 2018. Au total, 216 professionnels ont été certifiés !! Au Canada, il y a maintenant 39 professionnels certifiés RSP de niveau 1. Le premier examen RSP de niveau 2 sera offert en octobre 2019.

J'aimerais conclure cet article en soulignant la valeur du RSP pour les individus et les organisations. Le RSP valide les compétences spécifiques requises pour la pratique de la sécurité routière et fournit une structure de progression pour accompagner le développement des professionnels en sécurité. Le programme de certification offre des avantages tant aux professionnels qu'à leurs employeurs, ainsi qu'au secteur de la sécurité. L'obtention de la certification procure à l'individu une reconnaissance professionnelle de ses connaissances et de son expertise et lui permet de mieux connaître l'état de pratique en constante évolution. Les employeurs peuvent utiliser la certification RSP pour encourager le développement professionnel au sein de leur organisation. Pour les entreprises privées, la certification est un moyen de distinguer leur entreprise des autres et de renforcer la confiance des clients dans leur équipe. La certification RSP peut enfin servir de base aux universités pour élaborer des programmes d'études spécifiques aux différents domaines de la sécurité routière, en vue de former la prochaine génération de professionnels de la sécurité.

Road Safety Initiatives at Transport Canada

Résumé
Les piétons et les cyclistes font partie des usagers de la route les plus vulnérables puisqu'il est impossible pour eux de de se protéger contre la vitesse et la masse des véhicules à moteur et, par conséquent, en subissent souvent les conséquences les plus graves. Malgré l'évolution des technologies et des changements d'infrastructure conçus pour prévenir de tels évènements, les véhicules à moteur continuent de poser un risque augmenté pour la sécurité de ces usagers. En septembre 2016, un conseil des ministres responsables des transports et de la sécurité routière s'est engagé à créer un groupe de travail chargé d'examiner les mesures de sécurité potentielles pour aider à protéger les cyclistes et les piétons lors de déplacements impliquant des véhicules lourds. Le rapport de synthèse final a été déposé en juin 2018 pour examen par les administrations et les principales parties prenantes. Il est désormais disponible sur le site Web du Conseil des ministres (https://comt.ca/french/rapports.htm).

Pedestrian and cyclists are among the most vulnerable road users (VRUs) simply because they are unable to protect themselves against the speed and mass of motor vehicles and, as such, often suffer the most severe of consequences. Despite evolving technologies and infrastructure changes designed to help, motor vehicles continue to pose a safety risk.

Heavy vehicles are of particular concern because the consequences of such collisions are often fatal. Although statistics collected from 2008 to 2016 do not show large numbers of collisions between VRUs and heavy vehicles, the numbers also do not show a consistent downward trend.

% of Fatalities of VRUs involved in Heavy Vehicle Collisions									
	2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
BIC	2.2%	2.5%	4.1%	2.1%	3.7%	4.4%	2.4%	1.8%	3.5%
PED	12.1%	13.5%	10.7%	12.6%	12.1%	13.1%	11.4%	10.4%	13.1%
VRU Total	14.3%	16.0%	14.8%	14.8%	15.8%	17.5%	13.8%	12.2%	16.6%

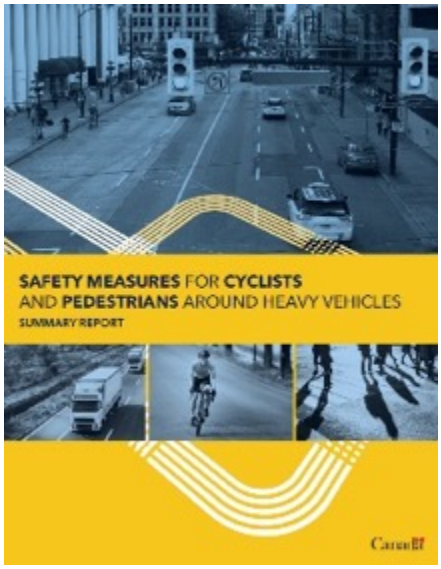
Consequently, in September 2016 a commitment was made during a Council of Ministers Responsible for Transportation and Highway Safety meeting to create a Task Force who would examine potential safety measures to help protect cyclists and pedestrians when around heavy vehicles. Since road safety is a shared responsibility among all levels of government, and the safety concerns of VRUs cut across a number of diverse groups, the decision to use a two-tiered governance approach was made. This decision resulted in the creation of a Steering Committee and an Advisory Panel. Compiled of provincial/territorial representatives including the Federation of Canadian Municipalities (FCM) and the Transportation Association of Canada (TAC), along with the Canadian Council of Motor Transport Administrators (CCMTA) in an advisory role, the Steering Committee provided both direction and guidance. The Advisory Panel, made up of individuals from a wide-range of backgrounds and experience, provided the necessary expertise to validate the research and provide a variety of perspectives.

Following an environmental scan, an assessment and analysis of the findings was compiled resulting in a draft report which was used during the consultation phase of the project. The focus of the report helped to ensure discussions remained targeted and productive. Regional

roundtable sessions were organized in four cities across Canada: Vancouver, Toronto, Montreal, and Halifax. Attendance was by invitation only so as to target those with experience and expertise. In parallel, work was underway to create an interactive web page to provide all Canadians with an opportunity to comment electronically on both the topic and the report.

Feedback from both venues was analyzed and categorized so any adjustments made to the report reflected the comments received. The organization of the final report was deliberate, presenting safety measures in alphabetical order to avoid any perception that one measure was being promoted over another. Furthermore, the design and layout was chosen to resemble a reference guide to support and facilitate review and discussion. The report, albeit a static capturing of safety measures from a specific time, highlights currently available potential measures while advancing awareness and addressing the safety issues faced by VRUs and heavy vehicle drivers as they maneuver through our cities.

The final Summary Report was tabled in June 2018 for consideration by jurisdictions and key stakeholders and is now available on the Council of Ministers' web site.



https://comt.ca/english/reports-e.htm

https://comt.ca/french/rapports.htm

Canadian Car Seat Testing

By James Fitzpatrick

James has worked in the field of car seat safety for the past 10 years as a technician, instructor, instructor trainer, Compliance Engineer and Consultant. James is the Canadian Compliance Engineer for Graco and Baby Jogger in Canada, responsible for the testing and certification of all products. He has been a contributing author for several of the car seat technician training programs and updates in Canada along with hosting information sessions across the Country. James has trained a number of Canadian manufacturers on car seat safety in addition to running many car seat safety clinics and education events.

The certification of child restraint systems in Canada is a self-certification process. Each manufacturer that imports seats into Canada is responsible for ensuring that they meet the applicable requirements. It is important to note that requirements are different for other Countries and only seats that have the National Safety Mark (NSM) affixed to them should be available for purchase and use in Canada.

Child restraint systems in Canada fall typically fall under one of three Canadian Motor Vehicle Safety Standards (CMVSS):

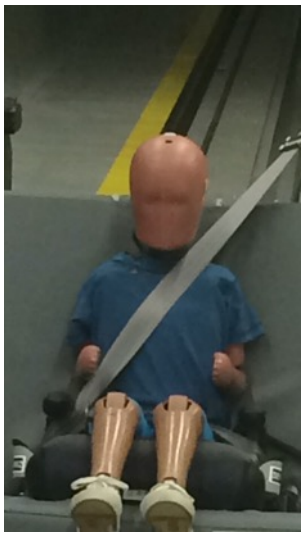
CMVSS 213.1 – Infant restraint systems up to 22lbs.
CMVSS 213 – Child restraint systems up to 65lbs.
CMVSS 213.2 – Booster Seats

The NSM must be applied for by child restraint manufacturers. Once testing is complete, a package is submitted for review to Transport Canada. The package must contain all required testing results. If all requirements have been met, then the NSM would be issued to the company and they may affix it to any seat moving forward that falls into the applicable CMVSS. Manufacturers only have to apply once for the NSM, not each time a new seat is created.
It is again important to keep in mind that each manufacturer is responsible for ensuring all requirements are met.

Child restraint systems undergo extensive testing for safety and performance. Dynamic (crash) testing involves the child restraint being tested to a simulated frontal collision at approximately 48 km/h and 24 Gs. The speed of the test may be slightly slower of faster as long as it remains within the acceptable corridor (within an upper and lower limit). Canadian regulations require that dynamic tests be conducted at the higher end of the corridor. During this test sensors measure the amount of force and load on the test dummies chest and head along with the amount of movement of the head and legs, if forward facing, and rotation of the seat and rebound in a rear facing position.

The Anthropomorphic Test Dummies (ATDs) are calibrated for use at specified intervals so that more consistent readings are obtained. The ATDs come in different sizes to simulate children of different ages during testing. ATDs currently available for testing are a newborn, a one year old, three year and six year old. Some labs do have tandem benches which allow two tests to be run at once.

All Canadian tests require that the child restraint be installed on the middle of the test bench.



Tests are conducted using webbing that simulates a lap/shoulder seat belt as well as a lap only seat belt. In addition, testing is also done with the Universal Anchorage System (UAS).

In Canada, all child restraints, other than booster seats, are also required to undergo inversion testing. Using a modified aircraft seat, the child restraint is secured using only the lap belt and rotated upside down to test for occupant retention. If the test dummy is held in the seat then it is approved for use on aircrafts.

In addition to dynamic tests, there are a number of other required tests to certify a child restraint. Webbing strength tests, flammability of materials and foam compression are examples of the other testing that is conducted. And all labelling must be in both English and French.

Manufacturers are free to test at any lab that is capable of performing the required tests. In Canada, there is currently only one crash test lab for child restraints which is located in Blainville, Quebec. The lab and equipment is owned by Transport Canada, while the day to day operations are run by PMG Technologies. While each manufacturer self-certifies their products, this process does not go un-checked. Each year Transport Canada runs its own testing program on child restraint systems by purchasing seats from stores in Canada and running tests at PMG Labs. If there are any issues found the manufacturer is contacted to review the issue and take action as necessary.

Manufacturers of child restraints will also conduct on going tests to ensure that there are no production issues or changes that effect the performance of the product.

In cases where there is a potential non-compliance issue related to the regulations or a potential safety issue, then Transport Canada will work with the manufacturer and a consumer or public notice may be issued. All child restraint systems in Canada are required to come with a postage paid registration card so that consumers may register their product free of charge and be notified in the event of a recall.

Questions regarding testing of child restraints in Canada?
James.fitzpatrick@newellco.com

Étude canadienne des sièges d'auto

By James Fitzpatrick (traduit par Jean-François Bruneau, PhD Ing.)

James has worked in the field of car seat safety for the past 10 years as a technician, instructor, instructor trainer, Compliance Engineer and Consultant. James is the Canadian Compliance Engineer for Graco and Baby Jogger in Canada, responsible for the testing and certification of all products. He has been a contributing author for several of the car seat technician training programs and updates in Canada along with hosting information sessions across the Country. James has trained a number of Canadian manufacturers on car seat safety in addition to running many car seat safety clinics and education events.

Au Canada, la certification des sièges d'auto est un processus d'auto-certification. Chaque manufacturier qui importe ou fabrique des sièges d'auto est responsable d'assurer le respect des normes applicables. Il est important de noter que le respect des normes est différent d'un pays à l'autre et que seuls les sièges qui ont la marque nationale de sécurité (MNS) peuvent être achetés et utilisés au Canada.

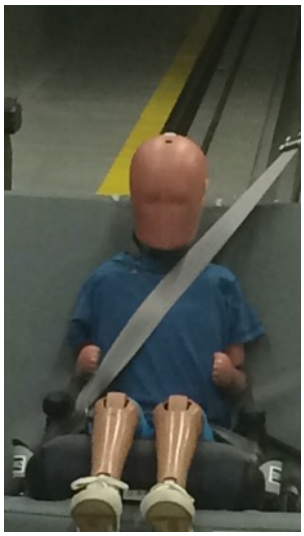
Les systèmes de retenue d'enfant appartiennent à l'une ou l'autre des trois normes de sécurité des véhicules automobiles du canada (NSVAC):

NSVAC 213 - Ensembles de retenue pour enfant (jusqu'à 10 Kg)
NSVAC 213.1 - Ensembles de retenue pour bébé (jusqu'à 29,5 Kg)
NSVAC 213.2 - Sièges d'appoint

L'application de la MNS est sous la responsabilité des manufacturiers. Lorsque les tests sont terminés, une trousse de demande MNS contenant tous les résultats des tests doit être envoyée à Transports Canada, qui examine ces résultats. Si les normes requises sont rencontrées, l'étiquette MNS est envoyée à la compagnie, qui est responsable de l'apposer sur chaque siège. Les manufacturiers ne doivent demander qu'une seule fois la MNS et non à chaque fois qu'un nouveau siège est fabriqué. Il importe ici de rappeler que chaque manufacturier est responsable de s'assurer que toutes les normes de sécurité sont rencontrées.

Les systèmes de retenue pour enfants sont soumis à des tests robustes de sécurité et de performance. Les tests dynamiques de collision doivent simuler une collision frontale à une vitesse approximative de 48 km/h et 24 Gs. La vitesse peut-être légèrement inférieure ou supérieure pourvu qu'elle soit à l'intérieur d'une marge d'erreur acceptable. La réglementation canadienne demande que des tests dynamiques soient réalisées dans la portion supérieure du corridor. Durant ces tests, les capteurs mesurent la force et le poids appliqués sur la poitrine et la tête des mannequins d'essai. Ils mesurent aussi les mouvements de la tête et des jambes lorsque le siège fait face à la route, de même que la rotation du siège et son rebond lorsque le siège fait dos à la route.

Les mannequins ou dispositifs anthropomorphes d'essai (DAE) sont calibrés pour être utilisés à différents intervalles, de sorte que les résultats soient plus cohérents. Les DAE viennent en plusieurs formats, afin de simuler l'enfant à différents âges. Les DAE sont présentement disponibles pour simuler un nouveau-né, un enfant d'un an, ainsi qu'un enfant de 3 ou de 6 ans. Certains laboratoires sont équipés de bancs d'essai tandem, ce qui permet d'effectuer deux tests simultanément.



Tous les tests effectués au Canada requièrent que le système de retenue d'enfant soit installé au milieu du banc d'essai. Les tests sont réalisés avec une sangle simulant une ceinture de sécurité ventrale / à l'épaule, ainsi qu'une ceinture ventrale uniquement. De plus, tous les tests doivent être faits avec le dispositif universel d'ancrages (DUA).

Au Canada, tous les systèmes de retenue d'enfant autres que les sièges d'appoint doivent être testés en inversion. En utilisant un siège d'avion modifié, le système de retenue est testé en utilisant la ceinture de sécurité ventrale. Si le mannequin reste dans le siège et qu'il résiste aux mouvements appliqués du haut vers le bas, le siège est approuvé pour son utilisation dans les avions.

En plus des essais dynamiques, d'autres tests servent à certifier les systèmes de retenue, dont les essais de sangles, les tests d'inflammabilité et de compression de mousse.

Les manufacturiers sont libres d'effectuer leurs essais dans n'importe quel laboratoire équipé pour réaliser les tests. Au Canada, il n'y a qu'un seul laboratoire qui peut effectuer des tests sur les systèmes de retenue d'enfant. Il se trouve à Blainville, au Québec. Ce laboratoire est la propriété de Transports Canada et il est opéré par PMG Technologies. Bien que chaque manufacturier soit responsable de son auto-certification, ce processus ne se fait pas sans vérification. Chaque année, Transports Canada fait ses propres tests à Blainville, sur des systèmes de retenue d'enfant achetés en magasin, au Canada. Si une problématique est découverte lors des tests, le manufacturier est mis au courant et des actions doivent être entreprises.

Les manufacturiers de systèmes de retenue réalisent aussi des essais en continu pour s'assurer qu'il n'y a aucun enjeu lié à la production, tel une modification de la qualité qui soit susceptible d'altérer la performance du produit.

Lorsqu'un problème de non-conformité est noté, Transports Canada travaille avec le manufacturier et le grand public peut être avisé de la situation. Au Canada, tous les systèmes de retenue contiennent une enveloppe préaffranchie d'enregistrement du produit, ce qui permet de contacter les propriétaires du siège en cas de rappel. Enfin, l'étiquetage sur les dispositifs doit être disponible en français et en anglais.

Avez-vous des questions relatives aux essais canadiens sur les systèmes de retenue d'enfant ?
James.fitzpatrick@newellco.com

The CHASE (Child Active Transportation Safety and the Environment) Study

By Dr. Linda Rothman and Pamela Fuselli

Dr. Linda Rothman is a Senior Research Associate in Child Health Evaluative Sciences at the Hospital for Sick Children. She studies unintentional injuries in children with a focus on pedestrian injuries, active transportation and the built environment.

Pamela Fuselli is the VP, Knowledge Translation & Stakeholder Relations, Parachute and Chief Editor of the Safety Network Newsletter.

Résumé
Les transports actifs, tels que la marche et le vélo, représentent des moyens sains pour les enfants d'explorer leur environnement et de développer leur indépendance. Cependant, les enfants peuvent être blessés en marchant ou en roulant à vélo et ces blessures peuvent être graves lorsque les enfants sont frappés par des véhicules motorisés. De nombreuses villes canadiennes modifient leur environnement construit (par exemple: mesures d'apaisement de la circulation, infrastructures cyclables physiquement séparées) afin d'augmenter le niveau de sécurité des personnes. Un groupe de chercheurs et d'utilisateurs de connaissance a reçu une subvention de 5 ans en 2016 des Instituts de recherche en santé du Canada, afin d'étudier les transports actifs sécuritaires chez les enfants et les jeunes, ainsi que l'environnement construit. Le programme de recherche examine l'incidence des caractéristiques de l'environnement construit sur le fait que les enfants se rendent à l'école à pied ou à vélo et si certaines caractéristiques de l'environnement construit augmentent ou diminuent leur probabilité d'être blessé.

Active transportation (AT), such as walking and biking, is a healthy way for children to explore their environment and develop independence. However, children can be injured while walking and biking and these injuries can be severe when children are hit by motor vehicles. Many Canadian cities make changes to the built environment (BE) (e.g., traffic calming features, separated bike lanes) to try and keep people safe. There is some research on how effective these changes are in preventing adult pedestrians and bicyclists from getting hurt***, but very little research has been done to show how safe various environments are for children and youth.***

A group of researchers and knowledge users were awarded a 5-year grant in 2016 from the Canadian Institutes of Health Research, to examine safe AT in children and youth and the BE. The study is being conducted in various municipalities across Canada; Calgary, Toronto, Peel, Vancouver, Surrey, Montreal and Laval. The principal investigators are Brent Hagel from the University of Calgary, Pamela Fuselli from Parachute, Andrew Howard from the Hospital for Sick Children and Alison Macpherson from York University. This project has a number of investigators/partners from across the country.

The research program examines how features of the BE affect whether kids walk or bike to school and whether or not certain BE features increase or decrease their likelihood of being injured. The program is unique because partners include injury prevention professionals, universities, provincial and municipal governments, environmental and not-for-profit organizations, and traffic safety professionals who are in a position to help better understand what features of traffic environments are dangerous or safe. The project's national scope will be

invaluable in providing information regarding the variability in BE characteristics and is vital to ***producing evidence based recommendations that will increase safe AT***.

The grant includes the following objectives and projects:

Objective 1: To examine the built environment and child and adolescent active school transportation within and across multiple large Canadian urban and suburban centres.

- Observational data including AT and BE characteristics were collected between May and June 2018 at 411 elementary schools.

Objective 2: To examine the built environment and child and adolescent injuries across Canada.

- To examine the relationships between objectively measured BE and child pedestrian police-reported motor vehicle collisions (MVCs) and bicyclist MVCs near schools.
- To analyze the space-time distribution of pedestrian MVCs and bicyclist MVCs city-wide to understand the complex geography of child and adolescent injury events and risk factors.
- To estimate the effect of BE traffic features on pedestrian and bicyclist motor vehicle collisions (MVCs) across cities by comparing collisions pre and post implementation of traffic feature studies.
- To estimate the relationship between the BE and child bicyclist-injuries, by comparing the BE characteristics of the injury site to two randomly selected sites along the bicyclists route before the injury occurred.

Objective 3: To identify implementation strategies for BE change at the municipal level to encourage AT

- To identify the facilitators and barriers for implementing BE change at the municipal level to affect policy change and/or highlight current best practices by conducting a literature review, key informant interviews, focus groups, and a national survey. *To date, 143 municipal documents have been reviewed.*
- To develop an online BE implementation toolkit, adapted for different municipalities in order to promote AT and prevent child pedestrian and bicycling injuries

Progress to Date:

The 3rd year of the CHASE program of research has just started. CHASE investigators have begun the analysis of the observational active school transportation data collected in 2018. Development of an extensive built environment spatial database is underway and includes data assembled across municipalities related to bicycle infrastructure, motor-vehicle collisions, road networks, census data, land use etc. The BIKE study began in May 2018, with recruitment in the Emergency Departments at the BC Children's Hospital in Vancouver, Alberta Children's Hospital in Calgary and Hospital for Sick Children in Toronto. A report describing the BE policies present in the various municipalities is currently being prepared. There will be several presentations related to the CHASE study at the 2019 CARSP conference in Calgary.

To Find out More

There are a variety of ways individuals and organizations can find out more about this project including, the CHASE Annual General Meeting (usually held one evening during the annual CARSP conference), and monthly informative Webinars. For more information visit, cumming.ucalgary.ca/chase or contact Tate Hubka, the study coordinator at chase.study@ucalgary.ca. Keep updated on the CHASE project work by following @chase_study on Twitter.

Ontario's Cost-effective Approach to a Large Truck Collision Causation Study

By Patrick Bryne

Patrick A. Byrne, PhD, is a Team Leader in the Road Safety Research Office of the Ontario Ministry of Transportation. During his time at the Ministry he has led numerous projects related to road safety, including an evaluation of all Ontario drinking and driving countermeasures implemented since 1996, and most recently, Ontario's Large Truck Collision Causation Study.

Résumé
En Ontario, on observe depuis des décennies une réduction du taux de collision des camions de grandes dimensions d'année en année. Mais très récemment, cette baisse annuelle a commencé à montrer des signes de ralentissement. Afin de mieux éclairer l'élaboration des politiques, le ministère des Transports de l'Ontario (MTO) a décidé de mener une étude sur la causalité des collisions impliquant de gros camions (large truck collision causation study (LTCCS)). En résumé, cela impliquerait une reconstruction détaillée sur les lieux du plus grand nombre possible de collisions, ce qui est une approche coûteuse qui tend à se concentrer seulement sur les causes proximales de la collision. À la place, le LTCCS récemment achevé par le MTO s'est appuyé sur des groupes de discussion composés d'industries et de spécialistes de l'application de la loi pour guider l'analyse statistique de données détaillées relatives aux conducteurs, aux véhicules, aux collisions et aux transporteurs gérées par le MTO. De façon plus efficiente, cette étude a fourni des informations sur certains facteurs de causalité qui auraient pu être difficiles à évaluer via une approche de reconstruction typique.

Large trucks (>4,500kg) are a vital part of Ontario's economy, moving approximately $1.24 trillion of goods along Ontario roadways each year[9]. Despite the substantial increase in activity within this transportation sector over the past couple of decades, including an 80% *increase* in the number of large trucks registered within the province over the period from 1996 to 2015, the number of fatalities due to large truck collisions has *decreased* by 41% over the same period[10]. Nevertheless, basic physics tells us that collisions involving large trucks tend to have more serious consequences than collisions involving only light duty vehicles. This fact is borne out by Ontario collision statistics, which show that roughly one in five roadway fatalities in the province involve a large truck. Moreover, preliminary evidence is suggesting that the continual safety improvements we have worked for and observed for many years are plateauing, both in Ontario and elsewhere. We must ask: How do we intervene to re-establish the trend towards continuously improving large truck safety without threatening the economic benefits brought by the tens of thousands of companies and hundreds of thousands of drivers working in this industry sector?

Interventions intended to reduce the human and economic burden produced by large truck collisions may be targeted at a variety of levels, ranging from the prevention of collisions through the reduction of exposure to driving itself (e.g. providing better mass transit, moving goods through alternate modalities, etc.) to reducing the severity of injuries after crashes occur (e.g. decreasing paramedic response time, or developing improved treatments for collision-related injuries). A large truck collision causation study (LTCCS) focusses somewhere in the

[9] Based on data contained in: IBI Group (2015) *Final Report, 2012 Ontario Commercial Vehicle Survey: Provincial Commercial Vehicle Travel Profile.* Toronto, ON: Queen's Printer for Ontario
[10] See the "Large Trucks" table in the Foreword Section of the *Ontario Road Safety Annual Report* (2014), which can be found at: http://www.ontario.ca/orsar; ORSAR 2015 is scheduled to be released this spring.

middle: through the identification of modifiable collision causation factors and associated interventions, a reduction in collisions is sought for a given level of exposure.
Perhaps the most well-known LTCCS in recent years is NHTSA/FMCSA's "Large Truck Crash Causation Study", which was based on collision scene reconstruction[11]. This type of study involves a highly trained team rapidly attending the scene of a large truck collision and performing extensive on-site measurements of involved vehicles, infrastructure, environment, etc., as well as detailed interviews with drivers, witnesses, police, and so on. Reconstruction reports produced by these teams go far beyond what can be recorded in standard police collision reporting forms and provide deep insight that can only be attained through the specialized training of team members. There is no doubt as to the value provided by such detailed reconstruction, especially when applied to a sufficiently large number of collisions for patterns of causation to emerge. As with any approach there are also limitations, including the expense associated with having a team of highly trained professionals on constant standby to travel and investigate at numerous locations. The costs of the reconstruction approach limit the number of investigations that can actually be performed in this type of study. Moreover, at-the-scene reconstruction "sees" the proximal causes of collision, but without more in-depth follow-up involving companies, driver history, etc., it is possible the deeper causes of collision may be missed in some cases.

At Ontario's Ministry of Transportation (MTO) we have recently completed an LTCCS[12], which was based on a different approach. We initially held focus groups with large truck drivers, carrier risk/safety managers, Ministry enforcement officers, and police collision reconstructionists to solicit their observations and beliefs around the causes of large truck collisions in the province. Along with literature review, results from these focus groups were used to develop targeted areas for deeper investigation that was performed through quantitative analysis of MTO's extensive data holdings. MTO databases contain detailed information on the driving and medical history of millions of drivers; exposure, performance, sanction, inspection and audit information on tens of thousands of commercial motor vehicle transportation companies (carriers); detailed police reports on hundreds of thousands of collisions per year; and more. This cost-effective data mining approach is not a replacement for detailed collision reconstruction, but rather a complimentary method that has produced certain results which could not easily be obtained through the more expensive method. Below we provide two illustrative examples.

First, large truck driver fatigue is very difficult to measure after a collision in part because the physiological arousal produced by the collision event will counteract any readily observable indications of fatigue in the driver. In fact, police collision reports in Ontario suggest fatigue is a contributing factor in less than one percent of large truck collisions in the province. With this in mind, it is no wonder that policy attention has turned towards newer or more visible topics like distraction and substance-based impairment. However, combing data from police collision reports with the comprehensive data recorded by MTO enforcement officers from roadside inspection of large truck drivers, we were able to generate an Ontario-specific estimate of the

[11] For example, see: Craft, R. (2007). *Large Crash Causation Study Analysis Brief, Publication No. FMCSA-RRA-07-017*. Federal Motor Carrier Safety Administration, Washington, DC. https://www.fmcsa.dot.gov/safety/research-and-analysis/large-truck-crash-causation-study-analysis-brief
[12] Final report and journal manuscripts in preparation

prevalence of fatigue as a causal factor in large truck collisions. Our estimate that at least one in five large truck collisions may be due to large truck driver fatigue suggests we not lose focus on this important factor[13].

As a second example, our focus group participants noted that industry pressures may be having a negative effect on driver behaviour in some cases. By combining our driver record, collision, and inspection data we were able to show that carriers do influence the riskiness of drivers they employ, but that for a minority of drivers, their own "personal" risk surpasses the level that can be mitigated by a carrier. In other words, a small group of drivers will be at an elevated collision risk no matter who employs them. In the current environment of driver shortage it may also be difficult for some carriers to remove such drivers or to avoid hiring them. Our work now allows MTO to better understand who these drivers are and opens the possibility of applying specific countermeasures to change unsafe driving behaviour.

The methods we employed to conduct our LTCCS complement the reconstruction method and will be of use to jurisdictions that collect comprehensive data on drivers, collisions and carriers. In addition, for jurisdictions that are considering the reconstruction approach to an LTCCS, it may be useful to implement our focus-group inspired "data mining" as a first step in order to isolate target areas to improve the efficiency of a reconstruction study.

[13] Results concerning Large Truck driver fatigue from our LTCCS were initially presented at the 2018 CARSP Annual Meeting in Victoria, BC

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 lonueur de 300 à 1000 mots, plus les images et les graphiques qui l'accompangnent.

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

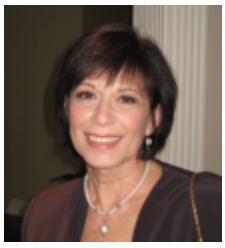
Safety Network Newsletter (SNN) Editorial Committee Members

Each edition of the SNN will profile different members of the Editorial Committee. If you are interested in joining the SNN Editorial Committee, please contact Pamela Fuselli, Chief Editor at pfuselli@parachutecanada.org.

Adam Bell

Adam Bell, is the National Vision Zero Lead and Team Leader, Traffic & Safety at WSP Canada. With over 17 years of experience he specializes in the areas of transportation operations, planning, design and construction. Adam has worked in both the consulting and municipal sectors with a primary focus on the development of Safe Systems and Vision Zero. Adam serves as the Director of Engineering on the Ontario Traffic Council (OTC) and is a member of the Transportation Safety Standing Committee with the Transportation Association of Canada (TAC). He is also a member of the Ontario Road Safety Forum Organizing Committee and the Expert Advisory Board for the Child Active Transportation Safety and the Environment (CHASE) study.

Geni Bahar



Geni Bahar, P.Eng. P.E., RSP, is the President of NAVIGATS Inc.. Geni is a civil engineer with 39 years of professional experience as a researcher and a practitioner. Geni brings a unique blend of experience with analytical methodologies and tools for road safety management; traffic and road safety analysis of existing and new road facilities; multi-disciplinary strategic safety programs, policy development, among others.

Geni has participated in key Canadian and USA national safety initiatives in the past three decades. She provided leadership as a Principal Investigator, as well as a technical expert contributing to several federal, state, provincial, and local agency project teams. Some of the initiatives were the development and implementation of AASHTO Highway Safety Manual (2010), *SafetyAnalyst*analytical tools, Towards Zero Death Data Systems and Analysis Tools - White Paper; Institute of Transportation Engineers (ITE), National Highway Institute (NHI), and agency focused course development and delivery, and development of several guidelines for US Federal Highway Administration (FHWA) and Transportation Association of Canada (TAC).

Geni was the recipient of the Transport Canada/TAC's 2007 Transportation Person of the Year award in recognition of her leadership, excellence, and achievements. Geni continues to support tirelessly all safety efforts as an active volunteer at committees nationally and internationally. Geni is a Emeritus member of ITE Transportation Safety Executive Council; an active member of the TAC Road Safety Standing Committee (Past Chair), TRB Committee for Transportation Safety Management, TRB Safety Workforce Development Subcommittee, and TRB Highway Safety Performance Committee, and several related subcommittees. Geni is serving at several expert panels for projects under administration of the National Academy of Sciences in Washington, D.C., including the development of the 2nd Edition of the AASHTO Highway Safety Manual, and under the Transportation Professional Certification Board (TPCB) for the development of the pioneer Road Safety Professional (RSP) Certification. She was appointed as the first certified RSP representative on the TPCB Board of Directors.

Acknowledgements

This issue of The Safety Network Newsletter was produced through the contributions of the following individuals:

Editorial Board
Geni Bahar, NAVIGATS Inc
Adam Bell, WSP
Jean-François Bruneau, Polytechnique Montréal, Montreal
Mary Chipman, University of Toronto, Toronto, ON
Daphne Dethier, City of Montreal, QC
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

Guest Contributors
Patrick Bryne, ON Ministry of Transportation
Transport Canada