TRAFFIC INJURY RESEARCH FOUNDATION



DISTRACTED DRIVING & WORKPLACE SAFETY POLICIES: A Business Case for Employers EXECUTIVE SUMMARY



The Traffic Injury Research Foundation

The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries. TIRF is an independent, charitable road safety research institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in identifying the causes of road crashes and developing program and policies to address them effectively.

Drop It And Drive®

Drop It And Drive[®] (DIAD) is a Traffic Injury Research Foundation (TIRF) education program focused on preventing distraction-related road user fatalities and injuries. DIAD works with employers to make the workplace safer, protect the health of their workforce and increase community road safety, and delivers school seminars to youth. Since 2010, DIAD has delivered seminars to more than 60,000 workers and youth across North America.

This initiative was made possible by collaboration with, and a charitable contribution from,

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Traffic Injury Research Foundation 171 Nepean Street, Suite 200 Ottawa, Ontario K2P 0B4 Ph: (613) 238-5235 Fax: (613) 238-5292 Email: tirf@tirf.ca Website: tirf.ca

Traffic Injury Research Foundation Copyright © September 2020 ISBN: 978-1-988945-94-1







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EXECUTIVE SUMMARY

Robyn D. Robertson, Stephen W. Brown & Karen Bowman

ACKNOWLEDGEMENTS

The Traffic Injury Research Foundation (TIRF) gratefully acknowledges the contribution of the Canadian Coalition on Distracted Driving in developing this report. The input, expertise and advice shared by members during the 3rd Annual Meeting were instrumental in the development of this report.

TIRF also extends their gratitude to Geoffrey Wood (Vice-President, Canadian Trucking Alliance), Mike Millian (President, Private Motor Truck Council of Canada), and Michelle Roberts (Project Director, Infrastructure Health and Safety Association) for their cooperation hosting a December 2018 workshop of experienced professionals representing the trucking industry. This workshop enabled TIRF to identify and explore critical issues as part of the business case and facilitated the gathering of practical experiences and perspectives from a broad cross-section of industry.

Industry leaders who contributed to the workshop are recognized and warmly thanked for their participation and their knowledge of management and frontline operations that they shared to inform this report. Special thanks to:

Tom Boehler Director of Safety and Compliance Erb Group of Companies

Ron Cameron Director of Safety Liberty Linehaul Inc.

Mario Da Silva Corporate Risk, Safety & Security Manager Manitoulin Group of Companies

John Harrison Director, Transportation Operations CPC Logistics Canada

Trevor Kurtz Manager Brian Kurtz Trucking

Kaitlyn Moor National Health and Safety Manager Martin-Brower Steve Newton Director of Safety Challenger Motor Freight

Jordan Nierop Supervisor, Operations Canada Colors and Chemical Distribution Ltd.

Scott Smith President J.D. Smith and Sons Ltd

Norm Sneyd Vice President, Business Development Bison Transport

Jim Thomson President & CEO Thomson Group of Companies

EXECUTIVE SUMMARY

Introduction

Motor vehicle collisions are a leading cause of traumatic workplace deaths in transportation, construction and health care industries. Fatalities and serious injuries resulting from distraction impose immeasurable personal costs on families and communities. Moreover, businesses are adversely affected by resulting economic losses due to employee absenteeism (due to injuries), damaged equipment and/or destroyed goods. These costs are exponential when roadways are closed, and goods are delayed and/or cannot be transported before they perish.

Preventing distraction-related crashes in the workplace is a top priority for businesses. To assist employers in strengthening workplace safety programs, the Traffic Injury Research Foundation (TIRF) and its Drop It And Drive[®] (DIAD) program, in partnership with The Co-operators, developed this business case. Diverse expertise was gathered from members of TIRF's Canadian Coalition on Distracted Driving (CCDD) and a broad range of stakeholders who attended the 3rd Annual Meeting. TIRF also worked closely with the Canadian Trucking Alliance (CTA), Private Motor Truck Council of Canada (PMTC), and the Infrastructure Health and Safety Association (ISHA) to refine the business case with a focus on the transportation industry.

This business case describes the costs of prevention programs and compares them to collision costs. It illustrates the value of integrating distracted driving policies into workplace safety programs and reinforcing them in day-to-day safety practices. It also contains a Call to Action for employers in this industry to implement distracted driving policies as a standard component of workplace safety programs. Tools are included to help employers estimate the costs to their business and quantify the value of distracted driving safety policies. This step can protect their staff and improve safety in the communities where they live and work.

Types of Costs & Valuation Models

The consequences, and thereby the costs of distracted driving behaviours and collisions are generally classified according to direct or indirect costs. Direct costs are immediate, tangible and can be assigned a quantifiable value whereas indirect costs are more intangible, may occur over an extended period, and are more difficult to assign a value. The aim is to demonstrate how much money would be saved if crashes were prevented. For the purposes of this report, the Real Dollar Estimates Model¹ has been utilized because these types of costs are most readily available and conservative in value. Costs are presented according to three distinct chronological periods: crash scene, post-crash short-term and post-crash long-term.

Distracted Driving Prevention Costs

Investment in preventing distracted driving in the workplace has tremendous benefits for employers. While the development and implementation of orientation and training programs, new safety technologies, and workplace safety programs cost employers in terms of financial and human resources, distracted driving collisions cost employers, and the whole transportation industry more, and are entirely preventable. There are three primary reasons employers should invest in distracted driving prevention:

> Investment creates a tremendous return on investment.

Real Dollar Estimates Model aims to quantify costs incurred as a direct result of crashes; in other words, how much money would be saved if crashes were prevented or avoided. This model includes tangible, clearly understood, and readily available costs that can be directly linked to the collision, such as police, fire and ambulance services, property damage, medical expenses, legal expenses, travel delay costs and the costs associated with lost time from the workplace. To this end, results of a 2018 Alberta study of collision costs in the Capital Region estimated the direct costs of a fatal collision at \$225,558. In addition, an injury collision was estimated to cost \$48,341 whereas a property damage only (PDO) crash was estimated to be \$14,065 (de Leur 2018). However, this model does not account for broader harm to the society resulting from a crash such as losses in terms of productivity and quality of life or the emotional stress that results from collisions (Manitoba Public Insurance 2016).

- > Investment creates the foundation for a strong safety culture and safety record that attracts employees.
- > Failure to invest in prevention results in much greater liability and costs.

Aside from the intangible value of prevention activities that is not easily quantified, there are many tangible investment costs which create a return on investment, including:

- > **Driver training and orientation programs and materials.** This is a key investment for employers and costs are typically a function of four factors:
 - » the level and length of training that is required for new employees;
 - » annual or biannual driver training of drivers currently in the workforce;
 - » whether transportation companies develop their own training program or use a subscriptionbased service; and,
 - » whether companies have dedicated full-time or part-time orientation staff.
- Safety equipment and technologies. Investments in tie-downs, reflective vests, and flares to warn oncoming traffic of lane reductions or disabled vehicles have long-been standard safety equipment, however, in the last decade, several new safety technologies are rapidly being adopted such as:
 - » mobile and phone applications that discourage distracted driving;
 - » vehicle safety features such as lane-departure and forward-collision warning systems, automatic braking, and electronic stability control are most common; and,
 - » driver monitoring technologies, including electronic logging devices and forward-facing cameras, are increasingly adopted and create opportunities for coaching and there is some evidence they result in fewer collisions involving entry-level drivers.
- Workplace safety programs. Costs for these programs vary according to company size so quantifying these costs can be challenging. However, most employers recognize they are important components of their operational budget, and consist of:
 - » in-cab training;
 - » general safety messages reinforcing practices;
 - » online training programs; and,
 - » post-incident defensive driver training programs.

Employers are encouraged to consider tracking important measures of distracted driving incidents to improve safety. Sharing these measures internally can help to focus attention on the importance of this issue and inform the development of workplace safety programs. Key metrics include: the number of distracted driving incidents, the number of drivers involved in these incidents, the number of near misses involving distracted driving, and the immediate crash costs of each of these incidents.

Distracted Driving Collision Costs

Costs related to distracted driving crashes can occur during three distinct chronological periods.

- > Crash costs are incurred immediately following a collision:
 - » vehicle damage;
 - » towing costs;
 - » loss or damage to goods;
 - » cost of staff attending collision scene;
 - » environmental costs (e.g., paying to clean up after a spill); and,

- » public relations and media coverage.
- > Short-term crash costs are incurred within 30 days of a collision:
 - » traffic tickets for driving violations;
 - » legal costs;
 - » fuel loss from idling during traffic delays;
 - » time lost due to road closures or traffic delays (trucking industry);
 - » temporary replacement of employees;
 - » payments to workers' compensation as a result of a Ministry of Labour investigation;
 - » repair or replacement of vehicles; and,
 - » interruptions in the supply chain of goods and/or parts.
- > Long-term costs are incurred more than 30 days after a violation or collision:
 - » increased insurance premiums;
 - » increased health insurance for employees;
 - » legal costs; and,
 - » replacing employees who may have been killed or injured.

Call to Action

Distracted driving is a factor in one in four fatal crashes and is one of the most common behaviours that contribute to road crashes. These costs are substantial, and according to industry leaders, the greatest costs include the liability and exposure to litigation; onsite cleanup, towing, and repairs; insurance costs; and negative publicity.

However, these are not just numbers. Distracted driving collisions are preventable. To help place the costs in context, employers are encouraged to use the data and estimates shared in this report along with knowledge of their own company costs to calculate how much a single distracted driving collision may potentially cost them. This cost can be compared to the amount of money that employers invest in prevention, which is assuredly much lower.

All employers in the transportation industry have an important role to play in reducing distracted driving collisions. Leadership from both large and small companies is essential. The value of a distracted driving workplace policy is clear, and most employers who have implemented cell phone bans and distracted driving policies report that it does not negatively impact productivity.

Employers that do not yet have a distracted driving policy in place should make this a priority. Employers with a policy in place should focus attention on its implementation, ensuring that it is reinforced through operational practices, and integrated with safety and training programs. Engaging employees to identify potential risks as well as solutions is a critical step to fit the features of the policy to the functions of the workplace.

In summary, employers agree, "If anyone thinks safety is too expensive, they need to measure the cost of an unsafe operation, workplace injuries and fatalities against the cost of education and effective policies."

For a complete list of references please refer to the full report:

https://tirf.ca/download/ccdd_distracted_driving_workplace_safety_policies_employer_business_case_ trucking/

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APPENDIX A: DISTRACTED DRIVING CRASH COSTS & PREVENTION COSTS CHECKLIST

Distracted Driving Crash Cost Checklist

Employers are encouraged to use this checklist along with the Prevention Costs Checklist in order to compare the value of investing in prevention versus the cost of collisions. Additional lines are provided at the end of the checklist for any additional costs that may be specific to your industry/operation.

Description	Direct	Indirect	Amount
Crash scene costs			
Vehicle damage	\checkmark		\$
Towing costs (including towing operator labour)	✓		\$
Loss or damage to goods	\checkmark		\$
Replacement of lost or damaged goods (e.g., not covered by insurance)		✓	\$
On-site staff/supervisor attending scene	✓		
Environmental costs (e.g., spill clean-up)	✓		\$
Negative publicity (incl. Public relations services, media management)		\checkmark	\$
Short-term costs			
Fines imposed on drivers and/or employers	\checkmark		\$
Legal costs (litigation)	\checkmark		\$
Time spent in court for affected personnel			
Vehicle storage	✓		\$
Cargo storage	\checkmark		\$
Fuel loss	✓		
Road closure/delay time lost		✓	
Training costs (e.g., replacement/temporary workers)		✓	
Vehicle/equipment repair or replacement	✓		
Supply chain interruption	✓		

Description	Direct	Indirect	Amount
Long-term costs	·		
Increased insurance premiums	\checkmark		\$
Increased health insurance	\checkmark		\$
Legal costs (ongoing criminal/civil proceedings)			
Employee replacement due to injury or death			
Reduced productivity (e.g., loss of skill and workplace efficiency)		\checkmark	\$
Collision paperwork (e.g., office administration hours)		\checkmark	\$
Liability and exposure to external litigation (e.g., civil suits resulting from collisions)		\checkmark	\$
Other costs			
Sub-total (Direct costs):	~		\$
Sub-total (Indirect costs)		~	\$
TOTAL			\$

Distracted Driving Prevention Costs Checklist

Employers are encouraged to use this checklist along with the Collision Costs Checklist in order to compare the value of investing in prevention versus the cost of collisions. Additional lines are provided at the end of the checklist for any additional costs that may be specific to your industry/operation.

Description	Direct	Indirect	Amount
Driver training and orientation programs/materials			
New driver training & orientation			
In-house	\checkmark		\$
Subscription-based	\checkmark		\$
On-the-road/on-the-job	\checkmark		\$
Workplace safety programs		,	
In-house	\checkmark		\$
Trainer fees & expenses	\checkmark		\$
Production shutdown		\checkmark	\$
Workforce travel & accommodation	\checkmark		\$
Subscription-based	\checkmark		\$
On-the-road/on-the-job	\checkmark		\$
Policy review and updates		~	\$
Workforce notification & corporate culture integration			
Safety messages/materials (e.g., posters, decals, electronic)	\checkmark		\$
Ongoing training for each worker (annual)	✓		\$
Post-incident / repeat incident training			
Driver support / coaching	\checkmark		\$
Out-of-service vehicle		\checkmark	\$

Description	Direct	Indirect	Amount
Driver safety equipment and technologies			
Fleet upgrades (e.g., new vehicles, vehicle safety features)	\checkmark		\$
In-vehicle apps/driver monitoring technologies		1	
Lane-departure warning system	\checkmark		\$
Forward-collision warning system	\checkmark		\$
Forward-facing camera (e.g., dash cam)	\checkmark		\$
Inward-facing camera	\checkmark		\$
Electronic logging device (ELD)	\checkmark		\$
On-board monitoring system	\checkmark		\$
Fleet management and navigation systems	\checkmark		\$
Communication technology	\checkmark		\$
Software			
Monthly monitoring fees	\checkmark		\$
Other costs		1	
Available discounts			
Insurance premium discount for training compliance (if applicable)	\checkmark		-\$
Other:			-\$
Sub-total (Direct costs):			\$
Sub-total (Indirect costs)			\$
TOTAL			\$

APPENDIX B: SAMPLE DISTRACTED DRIVING POLICIES

Road Safety at Work

Jurisdiction: Access: Bans:	British Columbia Downloadable Word documents Handheld (hands-free ban included as an option)
Year: URL:	2014 https://roadsafetyatwork.ca/tool-kits/ distracted-driving/distracted-driving- policy-examples/

National Safety Council Safe Driving Kit

Jurisdiction:	United States
Access:	Submit online form to access
Bans:	TBD
Year:	Unknown
URL:	http://safety.nsc.org/safe-driving-kit (Note: not specific to distracted driving)

Infrastructure Health & Safety Association

Jurisdiction:	Ontario
Access:	Download Word document(s)
Bans:	Handheld and hands-free
Year:	Unknown
URL:	https://www.ihsa.ca/Road-Safety-
	Solutions/Steps-on-Building-Your-
	Program/Step-2-Do.aspx

HR Insider

Jurisdiction:	Canada
Access:	Download Word policy development guidance document
Bans:	Handheld and hands-free
Year:	2014
URL:	https://hrinsider.ca/wp-content/ uploads/2014/07/distracted-driving_ sample_company_policy.docx

CNA

Jurisdiction:	United States
Access:	Download PDF
Bans:	Handheld and hands-free
Year:	2019
URL:	https://bit.ly/CNACellPhoneUseGuide

Mason Contractors Association of California

Jurisdiction:	United States
Access:	Download PDF
Bans:	Handheld, hands-free and other
	electronic devices
Year:	Unknown
URL:	https://www.mca-ca.org/
	attachments/article/132/Sample_ Distracted_Driving_Policy.pdf

OHS Insider

Jurisdiction: Access:	United States. Downloadable PDF and customizable Word documents
Bans: Year: URL:	Handheld and hands-free devices 2017 https://ohsinsider.com/wp-content/ uploads/2017/11/Distracted-Driving-
	Policy.pdf

APPENDIX C: EXAMPLES OF WORKPLACE SAFETY MATERIALS

Infrastructure Health & Safety Association

Distractions and Solutions for Commercial Vehicle Drivers https://www.ihsa.ca/roadsafetysolutions

Liberty LineHaul

Liberty Linehaul Inc. gives permission for anyone to use in part or as whole as needed.

Videos used for distracted driving campaigns

https://www.youtube.com/watch?v=CUhhx5GMrXw

https://www.youtube.com/watch?v=E9swS1Vl6Ok

https://www.youtube.com/watch?v=AZVc9XSH7pA

Liberty LineHaul - Letter from Employers: See Appendix C-1

Liberty LineHaul - Distractions Pledge: See Appendix C-2

APPENDIX C-1: LIBERTY LINEHAUL LETTER FROM EMPLOYERS

Liberty Linehaul Inc. gives permission for anyone to use in part or as whole as needed.

	ched are a confirmation receipt and a copy of the new Distraction Avoidance Policy that effect immediately.
	·
	ployees are advised to read the policy and then sign the confirmation of receipt and retur ipt to their Supervisor within ten (10) days.
	to acknowledge that I received a copy of LIBERTY LINEHAUL INC.'S Distraction nce Policy.
I unders	tand that compliance with the Distraction Avoidance Policy is a condition of employment.
	to adhere to LIBERTY LINEHAUL INC.'S Distraction Avoidance Policy will resu ary action up to and including termination.
SIGNA	TURE
NAME	(PRINTED)
DATE	

DISTRACTION AVOIDANCE POLICY (Policy)

The Company currently has policies limiting/prohibiting certain behaviour in order to keep our employees/contractors and the general public safe. While the use of cellular phones/electronic devices is a growing cause of driver distraction, other types of distractions also have the potential to cause accidents when a person's attention to their job is diverted. This Policy sets out specifics on what the Company considers to be best practices in focusing on the moment and avoiding distractions.

This Policy if adhered to is designed to make our Company, including its employees and contractors as safe as possible. It will also keep the public that interacts with us safe from incident or injury.

Object of the Policy

The objective of the Policy is to prevent three main distractions:

- Visual: Taking your eyes off the task you are performing;
 - Manual: Taking your hands off the task you are performing;
- Cognitive: Taking your mind off the task you are performing.

FOR ALL EMPLOYEES/WORKERS/CONTRACTORS

Types of Distracted Behaviour Prohibited

Distracted behaviours prohibited under this Policy include the use of all electronic devices (including cell phones), eating, drinking, smoking/grooming, reading, reaching for fallen items, and other activities that take attention away from driving/operating equipment or any workplace activity.

As a point of clarification, electronic devices are defined as wireless and/or portable electronic handheld equipment that may be hands-free or not. This includes, but is not limited to, cellular phones, smartphones (including Blackberries and i-Phones), two-way pagers, portable internet devices, MP3 players, iPods, Bluetooth devices or headphones or earbuds of any type, and any other portable electronic devices. Use of an electronic device includes, but is not limited to, making or receiving telephone calls, texting, playing games, reading, e-mailing, Internet browsing, or listening to music or other audio content.

Further Specifics on How to Avoid Distractions

Electronic devices are responsible for most incidents/accidents. Therefore anyone driving/operating equipment/working in the warehouse for our Company should not only avoid the use of electronic equipment but should ensure that these devices are turned off and stored away. The only electronic devices approved to be in operation are On Board Computers and mounted GPS and approved devices that never require operation while equipment is in motion. As new devices/technology enter the market, pre-approval for use will be required from the Company's Safety Department and added to this Policy.

These distractions are not only concerns while operating any equipment, they also are safety risks when working at your desk or walking in the office/warehouse/yard. To prevent slips, trips and falls the focus must be on your job function. The following are specific potential distractions which apply to everyone:

- To prevent slips, trips and falls and to avoid being distracted in high traffic areas, walking and using electronic devices in traffic areas is prohibited. (Stop in a safe area and take necessary calls, if required.)
- Always step back and ensure zero distractions in the work area: stop and take personal time if your mind is not focused on the task you are performing. LMRA (Last Minute Risk Assessment) should be performed before starting a task; if task changes, stop and perform a second LMRA;
- Always avoid knowingly sending texts, or speaking on a phone with employees or contractors operating equipment or performing a task on duty. This can cause both parties to be in violation of this Policy;
- Never have animals/pets or unauthorized individuals with you while performing a Company task at hand;
- Never perform grooming activities while performing a Company task;
- Never allow objects to be in the way of your task;
- Never perform more than one task at a time unless you are sure there is zero risk of incident (avoid multi-tasking, not keeping your eyes and mind on the task).

Family Contact/Emergencies

It is your responsibility to provide family members with the Company's emergency hotline. This allows a family member to reach you through the emergency line in the event of a family emergency. Furthermore, most employees will still be able to access their cellular phones to check for messages and make calls if necessary on breaks.

ADDITIONAL RULES FOR DRIVER OF COMMERCIAL MOTOR VEHICLES OR OPERATORS OF ANY EQUIPMENT

- Do not reach for something that would cause you to move your body and hands from their proper positions, or that would cause you to take your eyes off of the road or in your path;
- If you must drink something, use a straw and avoid open cups that might easily spill;
- Pre-select radio stations;
- If conversing with a passenger or co-driver, keep your eyes focused on the road ahead. Do not look at the person to whom you are speaking. Avoid any discussion, or conversation, that is controversial or causes you to lose focus on your driving responsibilities;
- Never write or handle paperwork while the vehicle/equipment is in motion;
- Do not read a map or atlas while the vehicle is in motion. Study your map and directions while parked;
- Pre-program your GPS with origin and destination points, before moving your vehicle;
- Before starting the vehicle, all objects in the vehicle are to be secured, placed on the floor or other locations where they will not fall or otherwise distract the driver;
- Drivers are to avoid any activity that diverts attention from the driving task such as reading, writing, adjusting controls, etc. unless the vehicle is stopped or parked;
- Loose objects can become a distraction if having to brake quickly, or travelling on rough roads or equipment is being moved;
- Always ensure prior to performing a company task that snacks and drinks are prepared and accessible without your mind or eyes leaving the task;
- Avoid reaching for anything while equipment is in motion;
- Never reach for anything with both arms while equipment is in motion;
- If you are a Company-approved passenger/trainer, do not distract operator from the task at hand;
- In some cases, to help investigators in determination of root cause and prevention of future incidents, always allow at any time while conducting investigation into the alleged use of electronic devices the Managers or Safety Department the opportunity to review your actual device for usage logs and in some cases, work with the Company and/or government officials to gain logs from your service provider.

Tips on Preventing Distractions

- Inform family and friends of your work schedule and share the risks of distractions with them;
- Provide the Company with an Emergency number to family members so they can reach you in case of an emergency;
- Use your breaks to check and respond to messages;
- Turn off electronic devices while performing a Company task;
- Have a daily plan or journey management plan so that you are prepared for weather, directions, food/snacks, break downs, fuel, work load, time and can remain focused on the task at hand;
- Always perform a Last Minute Risk Assessment before starting a new task or if the task changes;
- Work with your Manager or Supervisor on a plan that does not contravene this Policy if you are expecting an urgent call/text (notification must be made prior to any violation);
- If you are not sure how to prevent a distraction, speak with the Safety Department or your Manager;
- Keep items that can cause distractions such a communications devices, loose objects, hanging objects, things stuck in windows; floors should be clean and free of debris and all properly stored to prevent distraction.

APPENDIX C-2: DISTRACTIONS PLEDGE





Traffic Injury Research Foundation (TIRF) 171 Nepean Street, Suite 200 Ottawa, Ontario Canada K2P 0B4 www.tirf.ca Toll Free: 1-877-238-5235 Fax: 613-238-5292 Email: tirf@tirf.ca Registered Charity No. 10813 5641 RR0001