

**Ministry of Transportation**

**Road Safety Research Office**  
**Safety Policy and Education Branch**  
**Road User Safety Division**  
212-87 Sir William Hearst Ave  
Toronto, ON M3M 0B4



# Ministry of Transportation of Ontario

## **Road Safety Research Partnership Program**

*Guidelines 2016-2017*

### Call to Action

Ontario's roads are among the safest in North America; however, despite significant road safety improvements in recent years, motor vehicle collisions continue to be a leading cause of death, injury, and disability among persons of all ages. Ontario is committed to reducing and, ultimately, eliminating all fatalities on its roads, an approach that is consistent with the Minister of Transportation's mandate letter to "strengthen road safety". This places Ontario alongside other international jurisdictions in pursuit of a "Vision Zero" – zero deaths on the road.

The 2013 Ontario Road Safety Annual Report indicates that one person is killed every 17 hours on Ontario roads, costing society well over \$14 billion annually. Although there were 35% fewer fatalities recorded on Ontario roads in 2013 (518) than in 2004 (799), there is concern that dramatic reductions in fatalities of previous years have now levelled off, demonstrating an imminent need to act.

The Ministry of Transportation (MTO) pursues road safety research opportunities, key to improving road safety and saving lives, and is committed to studying road user behaviour and the social issues surrounding this complex field. Accordingly, MTO provides research funding through the Road Safety Research Partnership Program (RSRPP), which promotes a productive relationship with road safety researchers in the academic community. The purpose of this program is to fund research into the behavioural and social aspects of road user safety in order to identify the factors involved in motor vehicle collisions, suggest ways to reduce its impacts on individuals and society, and monitor the effectiveness of road safety initiatives. Research funded through the RSRPP will support Ontario's efforts to improve road safety and keep the province among the safest jurisdictions in the world.

The Road Safety Research Office (RSRO) within the Safety Policy and Education Branch in the Road User Safety Division administers this program. The RSRO's mission is to:

- Evaluate the effectiveness of Ontario's road safety programs;
- Conduct applied research to inform policy and program development;
- Guide road safety marketing and public education campaigns;
- Support enforcement partners by providing the best tools possible to keep Ontario's roads among the safest in the world;
- Leverage partnerships with international researchers and other road safety stakeholders to advance research that is directly relevant to MTO's programs and road safety mandate.

Ontario's strong road safety record has been built upon relationships established over the years with police services, the medical community, other ministries, municipal and federal governments, industries and associations, and grass root road safety stakeholders. Together, we can achieve our shared goals and improve road safety for all Ontarians.

## Correspondence and Timelines

### *Before submission*

Please direct all inquiries and requests for additional forms to

### *Application submission*

The call for applications opens on **March 1, 2016**. The application deadline is **April 15, 2016**. The successful candidate(s) will be awarded on **June 1, 2016**.

The electronic copy of the application package must be received by the application deadline along with indication that a hard copy is in transit. Please submit electronic applications to [RoadSafetyResearch.PartnershipProgram@ontario.ca](mailto:RoadSafetyResearch.PartnershipProgram@ontario.ca) and send the hard copy, with original signatures, to:

Mary Gallucci  
Road Safety Research Partnership Program  
Road Safety Research Office  
Safety Policy and Education Branch  
Ministry of Transportation  
212-87 Sir William Hearst Ave  
Toronto, Ontario, M3M 0B4

### *After submission*

All correspondence between MTO and successful candidates will be between [RoadSafetyResearch.PartnershipProgram@ontario.ca](mailto:RoadSafetyResearch.PartnershipProgram@ontario.ca) and all principal investigators. Onboarding documents (e.g., letter of agreement and ethics certificate), progress reports, fiscal reports, and the final report will be sent to MTO in electronic format, to the email address listed above.

## 1.0 PURPOSE

The purpose of the program is to encourage applied research on the behaviour and social aspects of road user safety, to facilitate the transfer of knowledge, skills, and methodologies from another discipline to road user safety research, and to promote work that complements the research projects and research expertise within MTO that are available in the academic and broader public sector community.

## 2.0 SCOPE

### 2.1 *Eligible Institutions*

Ontario hospitals, colleges, universities (including their affiliated colleges, research centres, institutes, and hospitals), and other public institutions are eligible for funding by the RSRPP ("sponsoring institution"). The principal investigator(s) must be a member of the faculty (full or part-time) or an employee of the sponsoring institution. Faculty carrying out behavioural and social research in road user safety in departments such as Economics, Engineering, Geography, Medicine, Psychology, and Sociology are encouraged to apply for assistance under this program. An institution that is listed on MTO's Vendor of Record pool for procurement services may not be the sponsoring institution. The successful proponent may not subcontract to outside vendors.

### 2.2 *Eligible Topics*

Possible topics for research on road user safety are diverse. Research activities supported by this program will be in the behavioural and social sciences, including the development of methodology by which behaviour and social factors in motor vehicle collisions are analyzed. To be eligible for funding, research projects must relate to risk factors (e.g., drug consumption, alcohol consumption, dangerous/illegal driving behaviour, driver distraction and inattention, driver fatigue), preventive factors (e.g., technology including automation, connectivity, and telematics), and/or risk groups (e.g., pedestrians, cyclists, high risk drivers, commercial drivers, medically unfit drivers, senior drivers, young/novice drivers) that are of road safety relevance in Ontario. Please refer to the Ontario Road Safety Annual Report (ORSAR)<sup>1</sup> for an overview of priority areas and a description of collision statistics. A list of projects funded to date can be found in Appendix 1.

### 2.3 *Ministry Assistance in Conducting Funded Research*

Research staff in the Road Safety Research Office have extensive experience in carrying out road user safety research in a variety of areas. They are available to assist the principal investigator(s) of accepted proposals in their research, whether to provide names of contacts in the field, advice on the relevance of the research to government stakeholders, or data from MTO databases (subject to availability and confidentiality requirements).

### 2.4 *Available Funds*

The total value of the awards will be \$150,000. In cases where more than one project is to be funded, the total available funds of \$150,000 will be split between projects in a manner decided by MTO. The ministry reserves the right not to grant any funds. Projects may be funded by other grant agencies simultaneously. Sources of additional funding, including in-kind contributions, must be disclosed to MTO. Projects may span a period up to two years; however, researchers cannot apply for additional funding under RSRPP in upcoming grant years for continuation of this project.

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<sup>1</sup> <http://www.mto.gov.on.ca/english/publications/ontario-road-safety-annual-report.shtml>

### 3.0 BUDGET

#### 3.1 General

The detailed budget must include a full account of purchases and activities to be financed by the award. The budget breakdown and supporting information must be in sufficient detail to justify the items relative to the project description. Other sources of funding for the project should be indicated on the application, including in-kind contributions. The proposed budget will be considered by the selection committee when reviewing applications. The selection committee reserves the right to disallow expenditures in the budget that are not adequately justified. Partial support of a project may be recommended by the committee.

#### 3.2 Eligible and Ineligible Expenditures

Expenditures will only be eligible for funding under the RSRPP (an “Eligible Expenditure”) if it meets all of the following general criteria: (1) directly related to and necessary for the successful completion of the research; (2) specifically identified in, and made in accordance with, the budget provided to MTO as part of its application for funding under RSRPP; and (3) documented through paid invoices or original receipts, or both. No changes to the budget will be allowed without the prior written approval of MTO.

**Salaries and Benefits.** The number of persons in each line item should be specified along with the amount of time each individual will spend on the project (e.g., in person-days). Salaries will be in accordance with those considered appropriate by the sponsoring institution. Salaries of graduate and undergraduate students, post-doctoral fellows, research associates, overhead, technical, clerical, and secretarial staff working on the proposed project under the direction of the principal investigator(s) are eligible for inclusion. The salary of the principal investigator(s) will not be funded by this program.

**Equipment.** Hardware includes all equipment essential to the project that is to be purchased, including operating and maintenance costs. Hardware and software should be listed separately and broken down into two categories: purchase and rental. If equipment or supplies are to be purchased, consideration should be given first to Canadian manufacturers and suppliers. Purchases from non-Canadian manufacturers and suppliers will be acceptable if adequate justification is provided in the proposal. Equipment purchased under this program will be retained by the sponsoring institution for further research or teaching. Desktop and portable microcomputers will not usually be eligible for funding unless sufficient argument is made in the proposal for this otherwise standard equipment.

**Other Costs.** These expenses include costs for computing, administration, travel, and accommodation, consulting costs, overhead, supplies and services, and contingency costs. The method for calculating the value for overhead costs must be stated in the budget and must be congruent with that of the sponsoring institution. Overhead costs may not exceed 15% of the total requested budget. Funds may be requested for travel that is essential for the collection of data, for fieldwork, or for the presentation of papers resulting from the project. Travel to centres performing similar work to obtain first-hand information essential to the project will be considered. Travel and accommodation costs should be in accordance with the sponsoring institution's internal guidelines. Supplies and services include expendable materials, telephone, postage, printing, photocopying, and the like. Requests for common office items are not eligible for inclusion.

## 4.0 APPLICATION

The attached application form must be appended with the following components to be considered complete. Information contained in the application package will be treated as confidential, subject to MTO's obligations under the *Freedom of Information and Protection of Privacy Act*.

**Research Proposal.** In addition to the research summary included in the application form, applicants must submit a detailed proposal, with sections corresponding to 1. Background, including purpose, objectives, review of the literature (topic areas, theoretical frameworks, common methodologies), and research questions or hypotheses; and 2. Methods, including population and sampling, instrumentation, data collection, study design, analytic strategy, and timetable. The proposal must be no more than 10 pages, excluding a Table of Contents and references.

**Budget Justification.** Budget items listed on the application form may require additional justification. Please refer to section 3.2 for eligible expenditures and provide an explanation accordingly.

**Curriculum Vitae of Principal Investigator(s).** All CVs should include (as applicable): name, institution, department, contact address, contact phone number, contact email, title, educational background, employment history, academic honours, scholarly and professional activities, publications, and research funding obtained within the last 5 years. Each CV must be no more than 30 pages.

## 5.0 SELECTION CRITERIA

Applications will be reviewed by a selection committee comprising of MTO staff. One or more road safety research experts, external to the MTO, may be requested to review applications, at the discretion of the MTO. The selection committee may request clarification of points contained in proposals.

Research proposals will only be considered if the proposed project could otherwise not be completed in-house (e.g., with a driving simulator, using human subjects, requiring primary data collection, requiring field work). Applications will be evaluated on the following criteria:

1. Clarity of research objectives
2. Demonstrable understanding and expertise on topic area
3. Relevance of the proposed research to road user safety and to current ministry priorities or emerging issues
4. Appropriateness of the study design, methods, and proposed analysis
5. Capacity in project management and quality control
6. Feasibility of accomplishing the stated aims within the estimated time and budget
7. Experience and qualifications of the researcher(s) in road user safety or related fields
8. The potential for the research to result in important understanding of, or improvement in, road user safety in Ontario
9. A realistic and justifiable budget, including the optimal use of proposed personnel.
10. The proposed research challenges or seeks to shift current research paradigms by utilizing novel and innovative concepts and approaches

Each of the above requirements will be rated on a five-point Likert scale as per Appendix 2. Items 3 "Relevance" and 8 "Potential" and 10 "Innovation" will be given a weighting of 1.5. Ratings on each of the 10 requirements will be summed to form an aggregate score. Aggregate scores are then used to generate a rank ordered list of applications. MTO makes its funding decisions based on this list; applications are considered for funding in rank order.

MTO reserves the right to adjust rankings to reflect current ministry priorities. In these rare occurrences, adjustments will be made only after consensus at the Manager and Director level.

### 6.0 NOTIFICATION OF AWARD

MTO will notify successful candidates directly. A letter of award will be sent to the principal investigator(s) at the beginning of the award period. Upon receipt, the principal investigator(s) will be asked to sign a Letter of Agreement to accept of the terms of these Guidelines and to provide a signed certificate (valid for the full duration of the project) from the Research Ethics Board at the sponsoring institution, indicating acceptability of the study on ethical grounds. This certificate must be received by the MTO before funds are released.

The letter of award provides authority to incur project expenses for items and amounts specified in the **approved** budget. Expenses incurred in excess of the approved budget are not the responsibility of MTO. The holders of research awards and their associates are not considered employees of MTO.

### 7.0 FINANCIAL ARRANGEMENTS & REPORTING REQUIREMENTS

At the beginning of the award period, MTO will flow funding for 100% of the approved budget, contingent upon a letter of agreement signed by both parties and receipt by MTO of ethics board approval for the project. Researchers will be required to provide periodic fiscal reports to MTO containing proof of funds spent to date, starting three (3) months after the date of award and continuing on a quarterly basis. Funds that remain unspent by the researchers at the project's stated end date must be returned to MTO within 30 days thereafter.

Reports will include an itemized list of purchases and activities financed by the RSRPP, including equipment that was purchased (in whole or part) with those funds. The following headings will be included in the reports: salaries and benefits, equipment, and other costs. MTO reserves the right to question discrepancies or disallow expenditures that are not adequately justified or previously approved. MTO also reserves the right to audit any project. The institution is required to keep any records that may be required for a financial audit for the duration of the current fiscal year plus an additional seven (7) years. These rights are in addition to any rights provided to the Auditor General pursuant to section 9(1) of the *Auditor General Act (Ontario)*.

#### 7.1 Appropriation of Funds by the Legislature

MTO reserves the right to terminate an award if, in the opinion of MTO, the award recipient: a) fails to comply with any of the requirements set out in these Guidelines and in the letter of agreement; b) uses any of the RSRPP funds for a purpose not authorized by or without the prior written consent of MTO; or c) fails to provide the requested periodic fiscal and progress reports. MTO reserves to terminate an award at any time by providing written notice of termination for the reasons above or for failure by MTO in receiving the necessary appropriation of funds by the Legislative Assembly of Ontario.

If MTO terminates funding, it may: a) demand repayment of any RSRPP funds remaining in the possession or under the control of the award recipient; and/or b) determine the recipient's reasonable costs to end the RSRPP project and permit it to offset these costs against the RSRPP funds remaining in the possession or under the control of the recipient.

### *7.2 Conflict of Interest*

An award recipient receiving RSRPP funds must ensure the RSRPP project is carried out and RSRPP funds are used without an actual, potential, or perceived conflict of interest. A conflict of interest includes any circumstances where the recipient, or any person who has the capacity to influence the recipient's decisions, has outside commitments, relationships, or financial interests that could, or could be seen to, interfere with the recipient's objective, unbiased and impartial judgment relating to the RSRPP project and the use of the RSRPP funds.

## **8.0 AMENDMENTS TO A PROJECT**

MTO must be notified in writing in advance of any intention to alter the direction or intent of the research, deviate from the allocation of funds as outlined in the proposal, terminate the research project, re-assign project responsibilities to researchers other than those named in the original proposal, or alter the project schedule. The principal investigator(s) must obtain written approval from MTO before any alterations in the project are implemented. If the principal investigator(s) is to be absent for a time during the award period, alternative arrangements for responsible supervision of the project must be submitted for MTO approval, prior to the start of the absence.

## **9.0 PROGRESS AND FINAL REPORTS**

### *9.1 Progress Report*

Researchers must submit periodic progress reports alongside the periodic fiscal reports outlined in Section 7.0. Progress reports must detail the project's completed activities to date and work that has yet to be completed. The summary should also discuss any unforeseen circumstances that have led to any deviations from the original project timelines. This section does not replace the requirement of the researchers to inform MTO of any alterations to the project schedule.

### *9.2 Final Report*

Researchers must submit a final report no later than three (3) months after completion of the research project. The final report should include the following an executive summary, a table of contents (including figures, tables, and appendices), and comprehensive background, methods, results, and discussion sections. Discussion should focus on applications of the new findings to the reduction or monitoring of collision risk on Ontario roadways. In addition, the final report shall include plans for publication and for dissemination of results to other road safety professionals and organizations. A copy of a student thesis or dissertation is not a substitute for the final report. Final reports will be kept in the Road Safety Research Office for future reference.

## **10.0 PUBLICATION**

Should researchers choose to publish their findings, MTO requires a copy of the final manuscript accepted for publication at least 30 days prior to the publication date. Should MTO choose to post the final report online, MTO will coordinate with the principal investigator(s) to ensure no impact on the candidacy of the research for future publication.



## Appendix 1 Research Funded to Date

### *“Comparing the acute effects of alcohol and cannabis on young drivers’ simulated driving”*

Funding was used to supplement an initial investigation of the acute and residual effects of cannabis on driving simulator performance with comparable data on the effects of a dose of alcohol (to achieve a BAC of 0.08%) on driving simulator performance. This funding will allow the comparison of driving-related skills affected by the two drugs, an estimation of the level of THC in the blood that will produce impairment comparable to that observed at a BAC of 0.08%, and a comparison of the residual effects of alcohol and cannabis at 24 and 48 hours following consumption.

### *“YouTube High Risk Driving Videos: What are the Effects on Young Male Drivers?”*

Funding was used to examine the content of high risk driving YouTube videos and their effects on young male drivers. Every month, 1,000,000,000 individuals view YouTube and young men are the heaviest users. Social cognitive theory, which posits that behaviours that are observed and reinforced could be imitated, suggests that there is likely to be a tangible link between watching these YouTube videos and driving behaviour. The proposed study investigated the influence of social media on encouraging high risk driving, a potentially emerging area of concern for which there is no published literature.

### *“Using technology for road safety: Distraction monitoring and real time transition from driving assistance to automation function”*

Funding was used to understand the safety effect of driver assistance and automation systems and the extent that these can be adapted to the driving environment and to driver needs. A driving simulator was used to measure driving performance in distracted and undistracted driving in a variety of different road conditions. The data collected was investigated to determine the role of executive working memory in the propensity for distraction, and subsequently used in modeling and micro-simulation for studying the role of driving assistance and adaptive active safety control to improve safety.

## RSRPP Guidelines 2016-2017

### Appendix 2 Evaluation Rating Scale

Descriptor	Rating
The applicant has demonstrated the required knowledge and skills, based on the criteria outlined in the Guidelines, <i>with a very high degree of effectiveness</i> .	5
The applicant has demonstrated the required knowledge and skills, based on the criteria outlined in the Guidelines, <i>with considerable effectiveness</i> .	4
The applicant has demonstrated the required knowledge and skills, based on the criteria outlined in the Guidelines, <i>with some effectiveness</i> .	3
The applicant has demonstrated the required knowledge and skills, based on the criteria outlined in the Guidelines, <i>with limited effectiveness</i> .	2
The applicant has <i>not</i> demonstrated the required knowledge and skills, based on the criteria outlined in the Guidelines.	1