Stephen Bardsley

15<sup>th</sup> July 2021

# To: Parliament of Tasmania (Committee inquiring upon ways to improve road safety in Tasmania)

Dear Road Safety Committee,

Please find this submission for consideration by the Parliament of Tasmania Committee inquiring into road safety in Tasmania.

The submission concerns motorcycle rider safety and includes evidence and findings from around the world regarding the major cause causes of motorcycle accidents, all which are highly relevant to road safety, in particular motorcycle rider safety in Tasmania.

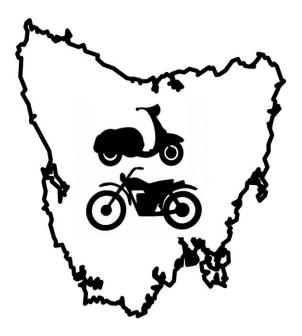
The submission includes conclusions, recommendations are made, including how the safety of motorcycle riders can be improved and lives may be saved with the introduction of road safety campaigns and motorcycle awareness educational programs specifically designed for Drivers.

Regards

Stephen Bardsley

Stephen Bardsley

A SUBMISSION TO THE PARLIAMENT OF TASMANIA (INQUIRY INTO WAYS TO IMPROVE ROAD SAFETY IN TASMANIA)



# THE MAJOR CAUSES OF ACCIDENTS INVOLVING MOTORCYCLES

By Stephen Bardsley MBA, GradDipBA, GradCertBA

# July 2021

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# **EXECUTIVE SUMMARY**

At every opportunity road safety authorities appear keen to announce how motorcycles are over represented in the road toll statistics, yet rarely mention the evidence shows whenever a motorcycle is involved in an accident with another vehicle, the driver not the rider of the motorcycle is usually to blame. Motorcycle riders are portrayed as dangerous road users, the reality though is riders are no more dangerous than any other road users, they are however "endangered" by them. This report therefore suggests road safety campaigns should redress the prevailing attitude that the responsibility for motorcycle rider safety is solely attributable to riders.

Empirical evidence is used in this submission to show how in most accidents involving a motorcycle and another vehicle, the driver and not the rider is usually to blame. Drivers failing to give way to motorcyclists are a major contributor to motorcycle rider trauma and fatalities, in many instances drivers may have seen the motorcycle prior to the collision. The reality is drivers, not riders are the "dangerous" road users.

Roads have become dangerous for motorcycle riders due to a prevailing "law of the jungle" mentality, this where drivers of larger vehicles believe they rule the road and vulnerable motorcycle riders are endangered by their actions. Negative stereotypes and perceptions created by road safety authorities particularly in Victoria (Australia) along with announcements and campaigns, have resulted in other road users viewing motorcycle and scooter riders as "dangerous". Unfairly created negative perceptions, stereotypes and attitudes towards riders make roads less safe for motorcycle and scooter riders.

Conclusions and recommendations are made, including how the lives of motorcycle riders may be saved with the introduction of road safety campaigns and motorcycle awareness educational programs for Drivers. It is quantified how in Victoria (Australia) road safety initiatives could reduce the type of accidents that kill riders by 30% and how it may be reasonably expected even more lives may be saved if recommendations from this report are embraced. Although evidence and findings are from around the World and in particular Victoria (Australia) the findings are highly relevant to motorcycle rider safety in Tasmania.

# **INTRODUCTION**

This road safety report considers how although Victorian road safety authorities appear keen at every opportunity to vilify motorcycle riders by announcing they are over represented in the road toll, what they do not say is evidence shows drivers and not riders are usually at fault in accidents involving a motorcycle and another vehicle. Such announcements by Victorian road safety authorities lead to the creation of negative perceptions and stereotypes of motorcycle and scooter riders, indeed it appears this is why they are made. The inclination of Victorian road safety authorities to focus on the trauma and fatalities resulting from accidents involving motorcycles, this rather than the cause of such accidents is also of concern. Considering such actions by Victorian road safety authorities it is no wonder that motorcycle riders are viewed by other road users as "dangerous", yet the reality is they are endangered and made vulnerable by the actions of other road users.

Road safety authorities frequently promote road safety as a shared responsibility of all road users and this as an essential component of any road safety plan, yet evidence shows in Victoria road safety is far from being a shared responsibility, greater onus and a financial impost is actually placed on motorcycle riders, this under the guise of "safety" by way of the Victorian motorcycle safety levy.

The negative perceptions and stereotypes created for motorcycle and scooter riders has seen a "law of the jungle" mentality prevail on Victorian roads, this where the attitude of road users is that the biggest vehicle always wins and so drivers frequently do not give way to motorcycles when required to do so. Motorcycle accidents are frequently caused by drivers failing to give way to motorcycles, this although the motorcycle has right of way and even when the driver may have seen the motorcycle.

Empirical evidence is used in this report to show how motorcycle riders are usually the victims and not the perpetrators in the majority of accidents involving a motorcycle and another vehicle. Too many Victorian drivers claim not to have seen the motorcycle they collide with, this is the SMIDSY (Sorry Mate I Didn't See You) excuse, which drivers appear to believe resolves them of blame, the reality though is SMIDSY is an admission of guilt.

Conclusions and Recommendations are made, including how road safety educational campaigns should be aimed at drivers and not only riders. Motorcycle awareness and educational programs aimed at drivers are recommended, these to reduce driver error, negativity towards motorcycle riders and "accidents" which kill and maim motorcycle riders. Such steps would only be a start, but at least a start, towards redressing the unnecessary negativity towards riders and reducing driver error and negligence responsible for accidents, injuries and motorcycle rider fatalities.

# **1.0 ROAD SAFETY - A SHARED RESPONSIBILITY IN MODERN SOCIETIES**

Few people will disagree how in any society where serious injuries and fatalities frequently occur on roads, then improving road safety should be of the highest priority and this needs to be a shared responsibility of all road users. In Victoria (Australia) every two hours a person is seriously injured or killed on our roads. In an attempt to reduce such road carnage the Victorian "Towards Zero" road safety initiative was launched, this with the goal to reduce fatalities on Victorian roads to as close to zero as possible. Towards Zero is a joint initiative of the Victorian Government departments of Health and Human Services, Department of Justice and Regulation, Victoria Police, VicRoads and the Transport Accident Commission (TAC), it recognises and promotes road safety as a shared responsibility saying:

"Road safety is a shared responsibility. Everyone can play an important role in helping reduce road trauma and death shouldn't be seen as an inevitable consequence of making a mistake on our roads" <sup>1</sup>

#### 1.1 A shared responsibility for road safety

An obvious problem is how motorcycle riders are unfairly discriminated against in Victoria and unlike other road users have a financial burden imposed upon them, this under the guise of road safety. It therefore cannot be said road safety is an equal and shared responsibility of all road users in Victoria. When considering all the good intention of the Towards Zero and other Victorian road safety initiatives, the fact remains Victorian motorcycle riders are unfairly discriminated against. Riders have additional onus placed upon them, this including a so-called "safety levy", aka the Victorian Motorcycle Safety Levy (MSL). The MSL sees riders of motorcycles with engine capacities greater than 126cc forced to pay an additional sum as part of their TAC premium for new and annual motorcycle registrations. Far from promoting road safety as a shared responsibility, the MSL is in stark contradiction a discriminatory measure directed at just one sector of road user, the motorcycle rider! The MSL does not make sense when the Towards Zero and other Victorian road safety initiatives purport to promote road safety as a shared responsibility, yet only motorcycle riders must pay a road "safety" levy.

The so-called motor cycle "safety" levy epitomises the negative attitude shown to motorcycle riders in Victoria. Instead of equal and shared responsibility for road safety there exists a blame the victim rather than the perpetrator mentality. The MSL not only financially discriminates against, but helps create the negative stereotype of irresponsible motorcycle riders. Such explicit discrimination places greater onus upon riders for road safety than other road users. A further implication of the motorcycle safety levy is it suggests riders are "dangerous", less responsible and so less entitled to use Victorian roads than other road users, they must therefore pay an additional fee to do so.

A justification for placing additional financial burden and increased onus for road safety on motorcycle riders in Victoria is that riders represent only 4% of registered vehicles and just 1% of vehicle kilometres travelled, but account for 19% of road user fatalities. Whereas this disproportionate and shocking fatality rate is true, it is shameful there is little discussion regarding how in most accidents involving a motorcycle and another vehicle, evidence shows the driver, not the rider is usually at fault. Is this justification to place an additional levy on motorcycle riders in the name of safety?

#### 1.2 Why a Motorcycle Cycle Safety Levy?

Although motorcycle riders must pay the motorcycle safety levy there has seldom been a safer time to ride a motorcycle in Victoria and motorcycling has never been more popular. Figures 1 and 2 show increasing motorcycle and scooter registrations and how since 2010 fatalities for Victorian motorcycle riders have reduced significantly. Why then are riders and riders alone forced to pay a "safety" levy in Victoria?

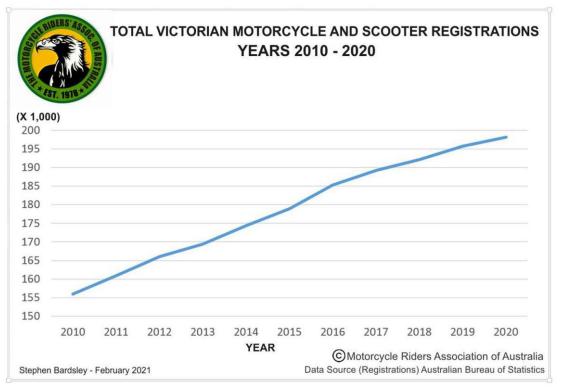


Figure 1 – Increasing Motor Cycle and Scooter Registrations

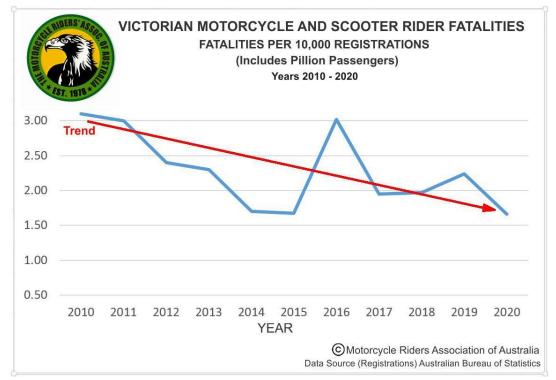


Figure 2 - Reducing Victorian Motorcycle Fatalities

The Victorian Motorcycle Safety Levy (MSL) was implemented in May 2002 by the Victorian Labour Government, it was the only Victorian levy ever directly imposed on a specific category of road user for the purpose of road safety. The initial MSL charge was \$50, this for each motorcycle registration (not for Club Permits), but due to protests from motorcycle and scooter rider advocates it is now only levied on just one motorcycle owned by a rider. The impost has however increased significantly over the years, this by almost 50% and is currently \$74.80 per year. The Levy is understandably seen as both controversial and discriminatory, because it targets only one sector of road user, motorcyclists, yet road and infrastructure works and improvements funded by the levy also benefit other road users. It also needs to be asked why the fee for the motorcycle safety levy is not clearly shown on motorcycle registration invoices and renewal documents, is it something worth hiding?

#### 1.3 Concerns regarding the use of Motorcycle Cycle Safety Levy funds

There has been much criticism of the MSL, by June 2015 the levy had collected \$66.6 million in safety levy fees from motorcycle riders, yet a Freedom of Information application by the Independent Riders' Group (now known as the MRAA), revealed \$18.5 million of fees collected remained unused in Government coffers. The Minister for Roads and Road Safety Luke Donnellan responded by advising the \$18.5 million had been accounted for in recently approved, but not yet publicly announced road infrastructure projects. This is not in any way a criticism of Luke Donnellan and I expect many Victorian motorcycle riders will agree when I say during his tenure as Minister for Road Safety, Luke was very supportive of motorcycle riders and was instrumental in seeing motorcycle Filtering implemented in 2015, which has proven to be highly effective. Luke was a Minister having genuine concern for motorcycle riders, he gave his own personal time generously to attend motorcycle protests and other gatherings and his office door was always open to allow riders to meet with him personally, he was supported by the excellent Victorian Government Road Safety advisor, Roger Willsmith, himself a motorcycle rider.

There have been many concerns raised regarding how Safety Levy funds are used, sometimes not as they should have been, for example to pay for operational enforcement. Further concerns have been raised regarding the transparency relating to expenditures made using Safety Levy funds. In the 2012 Victorian Parliamentary Inquiry into Motorcycle Safety Report from the Victorian Road Safety Committee said:

# "The Committee agrees with the view that information on the safety levy, its expenditure and the outcomes of projects are not adequately reported by VicRoads and the TAC nor made available for public consumption in a way that meets the community's expectations"<sup>2</sup>.

This Road Safety Committee made Recommendation 32 of the Victorian 2012 Parliamentary Inquiry into Motorcycle Safety, this that projects not adhering to the *Strategic guide for expenditure of the motorcycle safety funding* must not under any circumstances receive funding, in particularly those projects proposing motorcycle safety levy funds be used to pay for enforcement of Victoria Police operational costs.

#### 1.4 Motorcycle Cycle Safety Levy discriminatory and recommended for abolition

In the 2012 Victorian Parliamentary Inquiry into Motorcycle Safety Report, the Road Safety Committee showed reservations in regard to many aspects of the motorcycle safety levy, including the funding of projects and how it is discriminatory, saying:

# "the safety levy can only be justified if it is subject to the oversight arrangements which originally applied to its use and if the projects it funds are evaluated appropriately. Nevertheless, the safety levy remains a discriminatory approach to road safety focusing on one road user group" <sup>3</sup>.

In 2012 the Parliament of Victoria Road Safety Committee recommended VicRoads and the TAC report on the effectiveness of the motorcycle safety levy in future annual reports, including the demonstrable effects of the levy in improving rider safety and the effectiveness of individual projects. In regard to governance and concerns relating to the type of projects using motorcycle levy funds, Recommendation 24 of the 2012 Victorian Parliamentary inquiry into Motorcycle Safety was:

# "That the Auditor-General's Office undertake a performance audit of the motorcycle safety levy including those projects funded and implemented since 2002, and its governance arrangements" <sup>4</sup>.

Recommendation 25 of the 2012 Victorian Parliamentary Inquiry into Motorcycle Safety was *"That the Motorcycle safety levy be abolished"* <sup>5</sup>.

# Recommendations: Chapter 9 Recommendation 24: That the Victorian Auditor-General's Office undertake a performance audit of the motorcycle safety levy including those projects funded and implemented since 2002, and its governance arrangements.

#### **Recommendation 25:**

That the motorcycle safety levy be abolished.

Figure 3 – Victorian Parliamentary Inquiry Recommendations

The recommendation to abolish the motorcycle safety levy was not supported in the whole of Government response. In 2002 the Victorian Government opposition leader, Dr. Denis Napthine said the Motorcycle Safety Levy was *"unfair, discriminatory and bloody wrong"* he pledged to abolish the levy if his Liberal Government were elected, it was but the safety levy remained. In 2012 the Parliamentary Inquiry into Motorcycle Safety identified the levy as discriminatory and as shown in Figure 3, recommended it be abolished. The levy still exists today however and has taken more than \$100 million from Victorian motorcycle riders since its introduction. The Victorian Parliamentary Inquiry into Motorcycle Safety was conducted over 18 months and in December 2012 released 64 recommendations supporting safety initiatives for motorcycle riders, yet only 16 of the recommendations were supported in full by the Victorian Government, VicRoads and the TAC the whole of Government response rejecting 15 of them outright.

In 2010 after 11 years in power the Victorian Labour Government was ousted by the Liberal / National Party Coalition. During the election campaign the Coalition released a motorised two-wheel policy, this pledged to implement a raft of proposals if they won the election. They did, Ted Baillieu was sworn in as Premier, there were again hopes the

Motorcycle Safety Levy would be abolished, but in true political style it never was. In 2017 Rodney Brown, an ardent motorcyclists, member of the MRA and long-time campaigner against the motorcycle safety levy, wrote to the Liberal shadow minister for roads David Hodgett, suggesting the so-called "safety" levy was nothing more than an additional tax on motorcycle riders and should be abolished.

The response from the shadow minister was encouraging: *"regarding your specific concerns with the Motorcycle Safety Levy, I have noted these and I am happy to consider your feedback on this matter as we continue to develop our policies towards next year's State election."* The election was won by Labour and the motorcycle safety tax remained.



Denis Napthine on the steps of Parliament House Victoria

Ted Baillieu makes a pledge

The Independent Riders Group (IRG) now known as the Motorcycle Riders Association of Australia (MRA), has protested against the inequity and discrimination faced by motorcycle riders for many years, including against the Victorian motorcycle safety levy. They have also lobbied Governments, Ministers and Shadow Ministers of all political persuasions, they have been disappointed however, in that the "safety" levy has not only remained, but has increased by almost 50% due to being indexed to inflation. The MRA believe the motorcycle safety levy was never just about safety, but it was imposed as an impost to discourage motorcycle riding in Victoria. I can certainly relate to this and recall when as a member of the VicRoads Motor Cycle Advisory Group (MAG) in 2015, a VicRoads official openly made the statement "*we [VicRoads] have done everything in our power to discourage motorcycle riding in Victoria and have failed*". I tendered my resignation from MAG after this. All things considered, one might believe the Motorcycle Safety Levy may have been part of the failed VicRoads attempt to discourage motorcycle riding in Victoria.

# 2.0 CAUSES OF MOTORCYCLE ACCIDENTS

The notion of a safety levy imposed only on motorcycle riders seems absurd, this when there is an abundance of research and evidence from Australia, the United Kingdom, Europe and the USA identifying how in most accidents involving a motorcycle and another vehicle, the driver and not the rider is usually at fault. Drivers failing to give way to motorcyclists have been documented as a major contributor to motorcycle accidents, not only in Victoria but around the World, this over many decades and in many instances the drivers have been identified as having seen the motorcycle prior to the collision.

### 2.1 Australian Motorcycle Accidents

An extensive 2016 study of 235 accidents in Victoria, involving a motorcycle found approximately 33% (77) of the accidents involved only a motorcycle, whilst 66% (158) involved a motorcycle and another vehicle.

The 2016 study found in 158 accidents involving another vehicle, the primary contributing factor to the accident was driver error in 109 (69%), the rider in 48 (30%) and unknown factors in 1 of the accidents. The most common primary contributor was a traffic scan error by the driver, this in 54% of those accidents, the report saying:

# "For multi-vehicle crashes, which represented two-thirds of cases, the most common primary contributor was a traffic scan error on the part of the other road user (n = 86, 54% of multi-vehicle crashes)"<sup>6</sup>

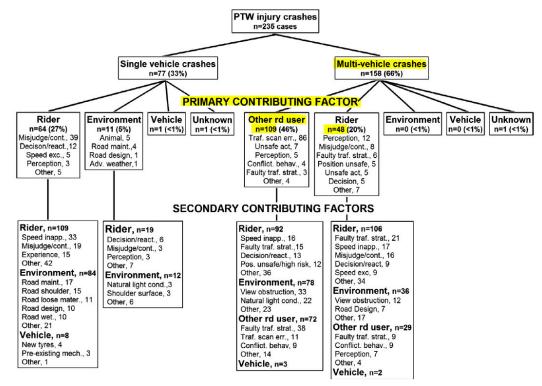


Figure 4 shows the primary and secondary contributing factors to the accidents:

Crash investigation-based judgements of primary & secondary contributing factors to crashes, separated by number of vehicles involved (single vehicle or multi-vehicle). Note that for most (91%) cases 2 or more secondary contributing factors were identified (average 3 secondary factors). See Glossary for list of abbreviations.

Figure 4 – Primary and Secondary Accident Contributing Factors

Victorian motorcycle advocacy groups including the MRA along with riders find it hard to accept such evidence regarding the primary cause of accidents is often ignored and instead the blame is placed on riders, who are usually the vulnerable victims of driver error. Yet motorcycle riders, not drivers have to pay an annual "safety" levy.

#### 2.2 Motorcycle accidents due to driver error

The Victorian 2016 motorcycle accident study showed two thirds of motorcycle accidents which were examined involved another vehicle and most were due to driver error. Similar results are reflected in motorcycle studies around the world, but it is important to note no other Australian State imposes a "safety" levy on motorcycle riders other than Victoria.

Therefore one may legitimately question the rationale of the Victorian motorcycle safety levy. It's worth considering what might be the reaction of Australian bicycle riders, also vulnerable road users, should a "safety" levy have been imposed upon them, this in the name of safety and to fund the many State Government infrastructure projects and bicycle paths which have made the roads safer for them. When the evidence shows most accidents involving a motorcycle and another vehicle are usually the fault of the driver and in many of these accidents the driver actually sees the motorcycle prior to the collision, it's hard to dispute a "Law of the Jungle" mentality exists on Victorian Roads.

This "Law of the Jungle" mentality can also be seen as prevalent when the evidence shows many of these accidents are caused by drivers not giving way to motorcycles that actually have right of way. This was highlighted by VicRoads when developing a strategic motorcycle safety program in 2006 which reported that:

# "Approximately 26% of serious injuries to riders result from crashes at intersections. More often than not, the rider had right of way, but the other vehicle failed to give way"<sup>7</sup>

The VicRoads report being just another example of the empirical evidence showing how many drivers fail to give way to motorcycles that actually have the right of way and in doing so are the cause of the accidents, many resulting in serious injuries and fatalities to motorcycle riders. Yet even though the evidence is clear regarding how drivers endanger riders' lives, in Victoria it's the riders, not the drivers who have to pay a "safety" levy.

# 2.3 Causes of UK Motorcycle Accidents

The evidence from many Australian motorcycle accident studies revealing drivers and not riders are usually at fault in accidents involving a motorcycle and another vehicle is compelling, as is the evidence showing in many of these accidents the driver did see the motorcycle prior to the collision. Perhaps not surprisingly many overseas studies including those from the UK, USA and Europe reveal similar evidence.

For example; evidence shows a major cause of motorcycle accidents in the UK is not the behaviour of riders, but the negligent actions of drivers, who frequently fail to perceive or acknowledge motorcycles prior to a collision. The UK Road Safety Research Report No 254 is an in depth examination of motorcycle accidents, it was commissioned by the UK Department for Transport. The report finds there is a serious problem with driver perceptions of motorcycles, particularly at junctions:

# "There seems to be a particular problem surrounding other road users' perception of motorcycles, particularly at junctions. Such accidents often seem to involve older drivers with relatively high levels of driving experience who nonetheless seem to have problems detecting approaching motorcycles" <sup>8</sup>

A November 2017 road safety report by ROSPA<sup>9</sup> into motorcycle crash causes revealed:

"Motorcyclists are involved in more crashes at all junction types compared to other road users. These accidents are more likely to be the fault of drivers, who fail to see the rider, despite them being in full view". *"the driver of the other vehicle violated the motorcyclist's right of way and caused the accidents in two thirds of all accidents. The main reasons that drivers were at fault were carelessness and thoughtlessness, or the failure to judge the actions of a motorcyclist".* After examining 1,790 motorcycle accidents, statistics from the UK Road Safety research Report No 54 (2004) show three main types of accidents involving motorcycle riders and another vehicle, they are:

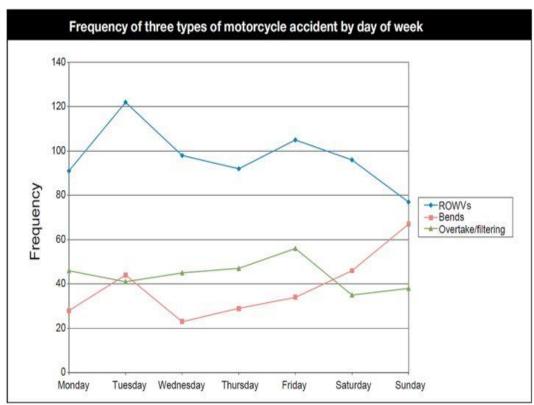


Figure 5 – Frequency of motorcycle accidents (UK)

# 1) right of way violations (ROWV's)

# 2) accidents on bends

# 3) accidents during overtaking or Filtering

As shown in figure 5, Right of Way Violations (ROWV) are the cause of most accidents, they occur up to three times more frequently than other types of accidents involving a motorcycle. The UK research shows the motorcyclist was found to be fully or partly to blame for the accident in less than 20% of ROWV's, the majority were found to be the fault of the driver, not the rider.

This is a higher level of 'non-blameworthiness' for riders than observed in many other indepth studies, e.g. MAIDS (2004) and Hurt et al. (1981). Figure 5 shows the frequency of three types of motorcycle accidents occurring on each day of the week. It can be seen the vast majority are right of way violations committed by drivers.

#### 2.4 UK riders not at fault 80% of the time

The in-depth study of motorcycle accidents commissioned in 2004 by the UK Department for Transport and released in Road Safety Research Report No 54

Accident type	Frequency	% total
L/hand bend lose control	127	7.1
R/hand bend lose control	97	5.4
Rear-end shunt	204	11.4
ROWV	681	38.0
Overtaking accidents	260	14.5
Pedestrian related accidents	47	2.6

Figure 6 – Motorcycle accident types from the accident Data Base

also found for accidents involving a motorcyclists and another vehicle caused by ROWV's (Right of way Violations) the majority of motorcycle right of way violations involving a motorcycle were primarily the fault of the other motorist.

# *"the majority of motorcycle ROWV accidents have been found to be primarily the fault of other motorists"* <sup>10</sup>.

This is an even higher level of 'non-blameworthiness' for motorcyclists in ROWV accidents than observed in other in-depth studies. It was found the most common failure of drivers in motorcycle accidents was failure in the continuity of observation of the road. The accident usually involved a driver failing to see a motorcyclist in clear view of the driver and frequently also in clear view of witnesses and other road users.

As shown in Figure 6, the UK 2004 study lists the accident types in six broad categories accounting for 1,416 accidents, the great majority of these were either right of way violations or rear end shunts. The study identified in 65% of cases the rider was not to blame and identified in ROWV accidents in particular, the other road user had sometimes seen the motorcycle. The researchers noted how sometimes the motorcycle which the driver supposedly failed to see, was in fact so close to the junction there appeared to be no explanation why the driver had not seen the motorcycle. Alarming the motorcycle was often claimed as not being seen even when the rider was wearing a high visibility vest and/or the motorcycle headlight were switched on.

# "Sometimes, accident-involved drivers in motorcycle accidents fail to see riders even when they are verifiably using visibility aids, such as daytime running lights and high-visibility protective clothing" <sup>11</sup>

This evidence shows that as is often the case in Victoria, no matter how careful a motorcycle rider may be in the UK, they have a high chance of being hit by another vehicle in a right of way traffic violation, this even though the driver may have seen them.

# 2.5 USA - Riders not at fault 66% of the time

The 1981 USA report from Hurt<sup>12</sup> was a study conducted by the University of Southern California (USC) with funds from the USA National Highway Traffic Safety Administration. Hurt investigated almost every aspect of 900 motorcycle accidents in the Los Angeles area, he and his staff also analysed 3,600 motorcycle traffic accident reports from the same area. Some of the main findings from the research include:

- 1) In accidents involving motorcycles and another vehicle, the other vehicle was in 75% of cases a car (passenger vehicle).
- 2) The driver of the other vehicle was found to violate the motorcyclist's right of way and was determined responsible for causing 65% of the accidents.
- 3) The failure of drivers to detect and recognise motorcycles in traffic was the predominate cause of motorcycle accidents.
- 4) The driver of the other vehicle involved in a collision with a motorcycle did not see the motorcycle before or until it was too late to avoid the collision.
- 5) Intersections are the most likely place for a motorcycle accident, with the driver violating motorcycle right-of-way and often violating traffic controls.

Category Label	Code	Absolute	Relative	Adjusted
		Frequency	Frequency %	Frequency %
MC Error	1	219	32.8	32.9
OV Violation MC ROW	2	430	64.5	64.7
Roadway Defect	3	3	0.4	0.5
Pedestrian	4	1	0.1	0.2
Animal	5	1	0.1	0.2
Vehicle Failure	6	3	0.4	0.5
Other	7	8	1.2	1.2
Unknown	8	2	0.3	Missing
	TOTAL	667	100	100

Figure 7 – Accident precipitating factors

The evidence from the Hurt report shows the violation of motorcyclist's right of way by drivers is responsible for the majority of accidents involving a motorcycle and another vehicle. The failure of drivers to see, perceive or acknowledge motorcycles in traffic is the dominant cause of accidents involving a motorcycle and another vehicle.

This evidence from the USA once again shows that as is the case in Victoria, no matter how careful a motorcycle rider may be, they have a high chance of being hit by a driver who violates their right of way, sometimes even when the driver has seen them.

# 2.6 European Riders not at fault 70% of the time

The European Motorcycle Accident In Depth Study (MAIDS) is acknowledged as a report providing some of the most comprehensive in-depth data for Powered Two-Wheeler (PTW) accidents in Europe. The MAIDS research was conducted by the Association of European Motorcycle Manufacturers (ACEM) with the support of the European Commission in order to better understand the nature and causes of PTW accidents. This extensive in-depth study took place from 1999 to 2000 in five sampling areas located in France, Germany, Netherlands, Spain and Italy. The methodology used in the MAIDS study was developed by the Organisation for Economic Co-operation and Development (OECD) and was used by all five research groups to maintain consistency of the data in each sampling area. A total of 921 accidents were investigated, resulting in approximately 2000 variables being coded for each accident. **The research found in approximately 70% of accidents involving a motorcycle and another vehicle the motorcycle was not to blame.** 

The MAIDS research revealed the cause of the majority of accidents involving a Powered Two Wheel vehicle (PTW) was human error, in particular perception failure by the driver of the other vehicle.

# "the most frequently reported primary accident contributing factor was a perception failure on the part of the OV driver" <sup>13</sup>

In other words; the most frequent human error was the failure of drivers to see a PTW within the traffic environment, this due to either lack of driver attention, temporary view obstructions, low conspicuity of a PTW or other unknown reasons.

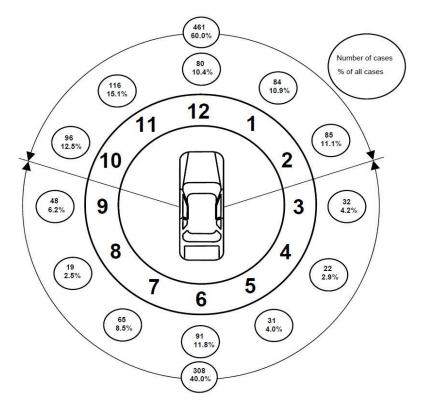


Figure 8 - PTW usually in Driver line of sight prior to collision Diagram from MAIDS<sup>4</sup> & reproduced with the permission of ACEM

The most frequent human error identified in the MAIDS study was the failure of the driver to see or recognise the motorcycle. MAIDS identifies as shown in Figure 8, how in 60% of cases, the driver of the OV was positioned behind the PTW with the rider in good line of sight. The OV impact speed in 76% of collisions was 30 km/h or less. Comparisons of travelling speed and impact speed show in many cases the PTW rider made some attempt at collision avoidance by reducing speed, but was still hit, 75% of collisions were:

- Driver of OV is positioned behind PTW
- PTW is in line of sight of OV Driver
- Driver either fails to see, perceive or acknowledge the PTW
- PTW sees oncoming OV and slows down or takes evasive action to avoid collision
- The OV collides with PTW

In 2008 at the International Transport Forum (ITF) Motorcycle Workshop held in Lillehammer, Norway, Jacques Compagne, the Secretary General of ACEM reported that: *"a major contributing factor to the cause of motorcycle accidents was perception failure and that this failure was almost three times more likely with the Driver of other vehicles (OV's) than it was for motorcycle and scooter Riders"*<sup>14</sup>.

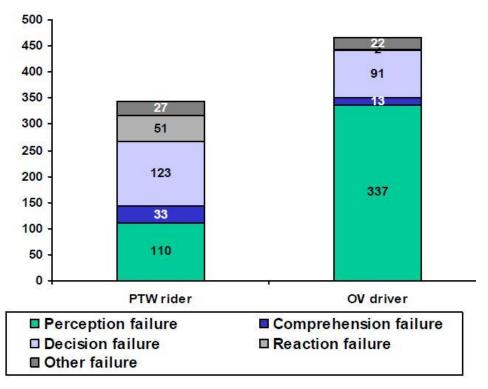


Figure 9 – Primary accident contributing factors

Figure 9 was presented at the 2008 International Transport Forum motorcycle workshop. Shown are the primary accident contributing factors as determined in 921 motorcycle accidents involving another vehicle as examined in the MAIDS<sup>15</sup> in depth study into motorcycle accidents. It can be seen that drivers in the accidents examined in the study were almost three times more likely to have a perception failure than were riders.

# 3.0 THE LAW OF THE JUNGLE ROAD MENTALITY

When considering research from motorcycle accident studies in Australia, the UK, the USA and Europe it can be seen in the majority of accidents involving a motorcycle and another vehicle, the driver not the rider is usually to blame. Many of the accidents were caused by the driver failing to give way to the rider when legally required to do so and even having seen the motorcycle. Examining motorcycle accidents which occurred in Victoria, Report No 234 from the Monash University Accident Research Centre (MUARC) states:

# "Overall, about half of the riders involved in reported casualty crashes in Victoria in 1997-2001 were involved in collisions with vehicles. In the majority of these crashes, it is likely that the other road user failed to give right of way to the rider" <sup>16</sup>

The failure by other vehicles to give way to motorcycles illustrates the "law of the jungle" type mentality on Victorian roads, this where the biggest vehicles feel they rule and so fail to give way to smaller motorcycles, as should a collision occur, the rider will be eaten alive.

Figure 10 is from a flyer produced in 1983 by the Road Traffic Authority (RTA) together with the Motorcycle Riders Association (MRA), it shows the four most common types of accident involving a motorcycle and another vehicle.

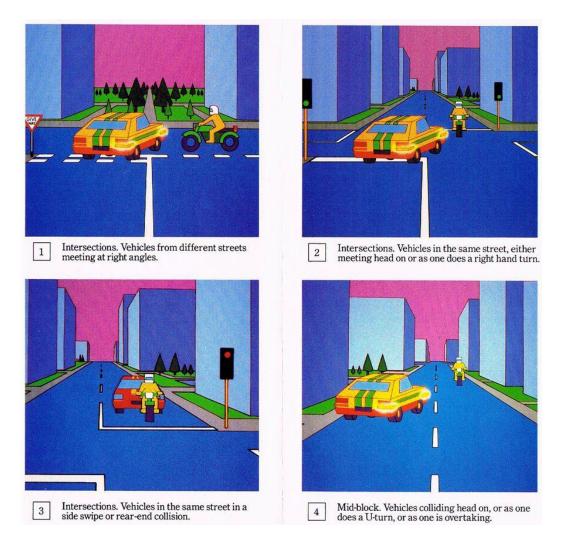


Figure 10 – The four most common motorcycle accidents involving another vehicle

Figure 10 shows the four most common kinds of accidents involving motorcycles and another vehicle, the RTA/MRA flyer states:

# "In over seven out of ten of the accidents the car driver is legally at fault"<sup>7</sup>

The leaflet discusses how drivers are usually to blame when they are involved in accidents with a motorcycle, in most cases because they claim to have not seen or did not expect to see a motorcycle. The most common cause of accidents are identified as; a driver failing to give way to a motorcycle, the driver cutting in front of a motorcycle, the driver tailgating or performing a U Turn in the path of a motorcycle. The leaflet is from a 1983 road safety campaign which urged drivers to *"Look right. Look left. Look bike"*. Yet 37 years later drivers are still the cause of most accidents involving a motorcycle and another vehicle. It appears difficult to claim enough has been done, even though thirty seven years have been available to help make Victorian roads safer for motorcycle riders.

# 3.1 Collisions occur even when the driver sees a rider

Alarmingly many in depth motorcycle accident studies show not only is the driver at fault in most accidents involving a motorcycle or scooter and another vehicle, but also that in many such accidents the driver may have actually seen the rider and that the driver failed to take the corrective action to avoid colliding with the motorcycle. Most collisions are caused by right of way violations by a driver against the rider, the driver claiming not to have seen or perceiving the rider.

# 3.2 SMIDSY no excuse for a driver colliding with a rider

Duncan Mackillop, principal of Total Control in the UK, is a Motorcycle Trainer and an aviation pilot. As a victim of a "sorry mate I didn't see you" (SMIDSY) accident, he has carried out research over the last ten-years to understand the reasons for this type of accident and to develop avoidance and evasion techniques. As shown in Figure 11, his research identifies the ten most common reasons why car drivers do not see motorcycles approaching a T Junction are:

- Camouflage Failure to pop-out from background
- Looming Below threshold of detection
- Threat Seen but not identified as important
- Expectation Rarity of encounter
- Underestimate Speed less than actual
- Negligence, Driver did not look
- Hidden obstruction by foreground object
- Physiology Bad eyesight and restricted movement
- Memory recall Pop-out not retained
- Chemical Impairment drink or drugs

Figure 11 – Most common reasons car drivers do not see motorcycles

Almost half of the reasons for colliding with a motorcycle could be avoided if the driver paid more attention and/or consideration for motorcycles. It is not acceptable for a driver to collide with a rider and say "sorry mate I didn't see you". Neither is it acceptable many accidents are caused by drivers who were negligent, did not look, identified a motorcycle but did not see the threat as important or underestimated the speed of the motorcycle.

# 3.3 Victorian drivers see riders but fail to give way

Victoria's Road Safety and Transport Strategic Action PTW's 2009-2013 acknowledges the Driver is frequently to blame in accidents where a motorcycle or scooter and another vehicle is involved, saying:

# "In a significant number of these crashes the driver of the other vehicle is at fault; many involve the driver of a vehicle failing to give way at an intersection and turning across the path of a PTW travelling straight ahead".<sup>17</sup>

It is identified how it is not that the motorcycle is not seen due to its small size compared to other vehicles, the motorcycle is in fact frequently seen, but the driver still commits a right of way violation which frequently results in a collision. A VicRoads study from 2009 <sup>18</sup> which investigated driver and motorcycle rider attitudes to each other reported:

# "45% of motorcycle accidents resulting in death or serious injury involved another vehicle (Transport Accident Commission [TAC], 2009b). The most commonly reported cause of such accidents is a motorist failing to give way to a motorcyclist, often because the motorcyclist is reportedly not seen,"

It can be seen frequently prior to a collision the motorcycle is actually seen by the driver, but the driver chooses not to give way, failing to recognise or believing the rider is not a hazard to him or his own vehicle. Carrs-Q noted typically car collisions with motorcycles do not occur at high speed, so there should be opportunity for drivers to avoid a collision. Figure 12 from Carrs-Q shows that in a Queensland study comparing PTW crash risk and severity, 90% of PTW accidents occurred at 60km/h or less.

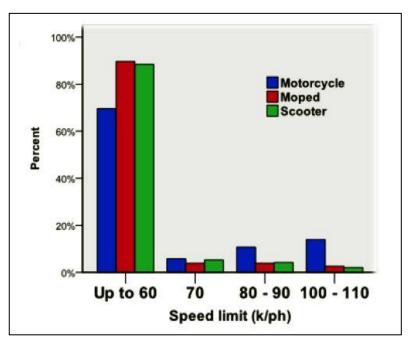


Figure 12 – 90% of PTW accidents occur at 60km/h or less

Evidence shows drivers not riders are to blame in most accidents involving a motorcycle and another vehicle and that sometimes the driver has seen the motorcycle prior to the collision. The "blame game" propensity to blame motorcycle riders for all accidents they are involved has been proven to be false and unwarranted.

# 4.0 NEGATIVE STEREOTYPES, PERCEPTIONS & ATTITUDES OF RIDERS

Research shows negative stereotypes and perceptions of riders have resulted in one third of all Drivers having the attitude motorcycle and in particular scooter riders are a menace on the road; research conducted in 2007 by the Automotive Insurance Company AAMI<sup>19</sup> delivered the following conclusions:

# *i)* Drivers nationally said Motor Scooters are the new menace on Australia's capital City roads.

# *ii) Many Drivers are annoyed with the increased presence of Motor Scooters on major City roads with one third calling them the new "Menace".*

This negative perception of motorcycle and scooter riders as the new road "*Menace*" along with the belief they have less legitimacy on the road than other vehicles, shows how the notion road safety is a shared responsibility is of little concern to many drivers when the other vehicle has two wheels. This attitude is why that on a daily basis scooter riders must compete with 33% of drivers who believe they are a "menace". This negative driver attitude sees scooters increasingly and unnecessarily vulnerable on Victorian Roads.



Figure 13 - 38 times the risk

# 4.1 Unforeseen consequences of road safety advertising campaigns

The TAC is responsible for the majority of road safety campaigns in Victoria, some of which have been highly effective. However there are unforeseen consequences of campaigns which portray riders as being "dangerous" and responsible for most accidents they are involved in. Such advertisements also influence those outside of the campaigns target market and create negative perceptions and stereotypes of motorcycle riders. Of great concern is how some TAC campaigns have used questionable data; for example the "38" times risk of injury claim shown in Figure 13 has been referred to by Professor Mark Stevenson of MUARC as *"inaccurate"*.

Road safety campaigns such as "38 Times" and "The Ride" are part of the "blame game" and contribute to the creation of negative stereotypes, perceptions and attitudes towards riders' <sup>20</sup>

#### 4.2 A new approach to sharing roads and road safety responsibility

Motorcycle riders obviously do not enjoy and should not have to put up with being disrespected, demonised, viewed as dangerous and having a greater onus for road safety placed upon them than other road users. In 2013 the Victorian Scooter Riders Association (VSRA) and the Independent Riders Group (now known as the MRAA) called for a new approach to be used in road safety campaigns. The report "Hitting the wrong target"<sup>21</sup> asked if the TAC and VicRoads might take a different and more conciliatory approach towards motorcycle and scooter riders, this rather playing the blame game and failing to acknowledge drivers rather than riders are usually to blame in accidents involving a motorcycle and another vehicle. The VSRA and IRG suggested instead of using campaigns which create negative stereo types and perceptions of riders, the TAC instead highlight the vulnerability of riders and attempt to redress negative driver attitudes towards riders and also the notion the responsibility for rider safety is only attributable to riders.

It was pleasing to see a more conciliatory approach to road safety was then adopted in the October 2013 TAC "Perfect Ride" campaign, this showed the types of risks riders face every time they go on a recreational ride, some of these due to other vehicles. There was however still some blame game mentality in the campaign, when without any mention of who is to blame in the majority of accidents involving a motorcycle and another vehicle, riders were vilified as accounting for 20 per cent of all TAC's trauma related costs.

In 2019 VicRoads and the TAC disappointingly once again placed the onus for road safety onto riders rather than other road users an again appearing to ignore the idea of road safety as a shared responsibility. The TAC "Every Second\_Always On" campaign was good in that it encouraged riders to check and update riding skills, but there was no mention of who is to blame in the majority of accidents involving a motorcycle and another vehicle. The campaign was also suggestive rider safety is solely attributable to the rider, reiterating motorcycles account for 4 per cent of registered vehicles and 1 per cent of kilometres travelled but 15% of fatalities, this without any mention of how frequently drivers are to blame for motorcycle accidents. There was also an over emphasis on ABS motorcycle brakes and the questionable advice that to avoid being involved in a collision riders must always move away from approaching cars, which would not be necessary if there was not a law of the jungle driver mentality.

That a more conciliatory approach be taken by the TAC in their road safety campaigns was a recommendation of the Victorian Parliamentary Road Safety Committee, with Recommendation 22 of the 2012 Parliamentary Inquiry into Motorcycle Safety saying:

# "That the TAC focus its motorcycle safety advertising on redressing the attitude that responsibility for rider safety is solely attributable to the rider, by ensuring that campaigns dealing with motorcycles raise driver awareness and do not create negative stereo types, perceptions or attitudes among drivers" <sup>23</sup>

Yet some 8 years later, it is highly apparent Recommendation 22 of the Parliamentary Inquiry into motorcycle safety has not always been heeded. It seems remarkable that in 2020 there are no TAC television campaigns promoting motorcycle road safety, this even though more than \$100,000,000 has been taken from riders in so-called motorcycle "safety" levy fees.

# 4.3 Driver Education

A new approach to road safety campaigns is necessary if the negative stereotypes and perceptions of riders are not to be perpetuated. Drivers need to be educated regarding their motorcycle awareness and interaction with motorcycles, this rather than be negatively influenced by road safety campaigns. Driver education programs need to address the negative perception drivers have of motorcycles as "dangerous" and the notion the responsibility for road safety is solely attributable to riders. Driver education is the key to help make roads safer for Victorian motorcycle riders.

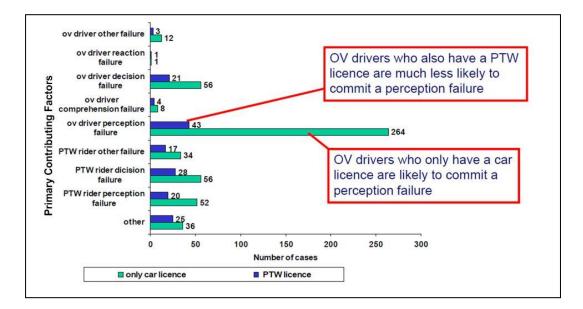


Figure 14 – Drivers with a motorcycle licence are safer

Driver education can certainly be effective, as it is proven drivers with motorcycle rider training and experience are far less likely to commit a right of way violation against a rider. Figure 14 from MAIDS shows how drivers who also have a motorcycle licence are much less likely to commit a perception failure than those who only have a car licence.

# 4.4 For Drivers - USA Motorcycle Safety Foundation

The USA Motorcycle Safety Foundation operates a driver education program which teaches drivers how to safely interact with motorcyclists. It is a ten point program and commences by advising drivers how: "*over half of all fatal motorcycle crashes involve another vehicle. Most of the time, the motorist, not the motorcyclist, is at fault.*"<sup>24</sup>

The program has been designed to educate drivers to respect riders and covers important safety issues drivers need to be aware of. These include motorcycle observation, how motorcyclist slow down changing gears and so brake lights may not be illuminated, how to keep a safe distance, understanding how and why motorcycles change lanes, not to expect a motorcycle is always able to move out of the way, to think about the person under the helmet, and how in a motorcycle accident there are no take backs and so drivers are likely never to forgive themselves if a rider is seriously injured or killed.

# This the type of driver education program that could be introduced in Victoria to prevent serious motorcycle accidents involving another vehicle and so save riders lives.

# 5.0 HOW MANY RIDER LIVES MIGHT BE SAVED?

Statistics show how each year in Victoria around 41% of motorcycle and scooter fatalities involve only a motorcycle as a single vehicle, the majority (59%) of fatalities involve another vehicle. Whereas it is frequently inferred the rider is to blame in most accidents involving a motorcycle and another vehicle, this is not the case, as shown in this report, evidence from Australia, the UK, Europe, the USA all shows in the majority of cases the driver not the rider is to blame, this usually at least 60% of the time.

# 5.1 Calculating how many rider lives might be saved

Statistics from the Victorian TAC show in 2019 there were forty four (44) motorcycle riders *(including pillion riders)* killed in Victoria. 59% of these riders were involved in an accident involving another vehicle, so it may be said were responsible for twenty six (26) deaths. When considering evidence from Australia and around the World shows 60% of such deaths may be attributed to the fault of the driver, it can be seen fifteen (15) motorcyclists were in all probability killed due to driver error. If just 33% of such deaths may have been prevented by road safety campaigns aimed at drivers, then as shown in the calculation at Figure 15; the lives of approximately 5 motorcycle riders may have been saved in 2019.



Figure 15 – Estimation of rider lives that could be saved

The expectation educational programs for drivers could reduce driver error and so the type of accidents that kill riders by 30% each year is certainly not unrealistic, it may be reasonably expected and hoped that even more lives may be saved. Victorian road safety authorities have the funds to introduce and arrange the delivery of such road safety campaigns, as they have already taken it from motorcycle riders in the name of a "safety" levy.

# 5.2 Additional road safety initiatives also need be considered

Saving the lives of five or more Victorian motorcycle riders each year due to the delivery of driver educational programs and campaigns illustrates the possibility how lives may also be saved in Tasmania by introducing such road safety initiatives.

#### 6.0 THE VICTORIAN MOTORCYCLE SAFETY ROUNDABOUT

The mock flow chart below was prepared to illustrate why not enough has been done in Victoria to improve rider safety and which hopefully Tasmania will not follow. Many of the recommendations of lengthy Parliamentary Inquiries are not supported, the negative perceptions and stereotypes of riders continue, as does the unwillingness of drivers to share the road with riders. A reluctance to ensure road safety really is the shared responsibility of all road users prevails in Victoria.

The disproportionate number of accidents involving motorcycles continue and there could be more effort by the Victorian Government and its agencies, including VicRoads and the TAC to try and reduce the number of accidents responsible for maiming and killing motorcycle riders. There needs to be an increased willingness to promote how the majority of accidents involving a motorcycle and another vehicle are the fault of the driver and importantly then implement road safety campaigns to combat this.

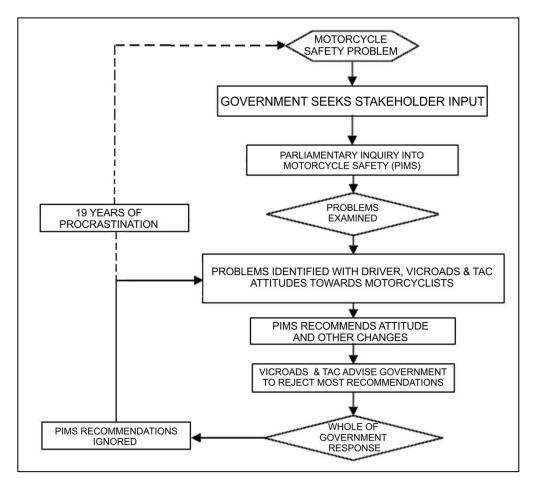


Figure 16 - The Victorian Motorcycle safety roundabout

In regard to improving road safety for motorcycle riders little resulted from the 1993 Victorian Parliamentary Inquiry into Motorcycle Safety and the same is applicable to the 2012 inquiry. The whole of Government response, including that of the TAC was to fully support just 16 of the 64 recommendations made by the Victorian Parliamentary Road safety Committee, this whilst continuing to gouge millions of dollars each year from motorcycle riders, this supposedly in the name of "safety".

# CONCLUSIONS AND RECOMMENDATIONS

# Conclusions

- Empirical Evidence shows drivers not riders are to blame in most accidents involving a motorcycle and another vehicle.
- Motorcycle riders are not more dangerous than other road users, but are endangered by the actions of others.
- Many motorcycle accidents are caused by drivers failing to give way to motorcycles which have right of way.
- Collisions occur between motorcycles and other vehicles even when the driver may have actually seen the motorcycle.
- The propensity for Victorian road safety authorities to portray motorcycle riders as dangerous and responsible for most accidents they are involved in is unfounded.
- Victorian road safety authorities play the "blame game" creating the perception riders are dangerous, this rather than publicising how drivers are usually to blame in accidents involving a motorcycle and another vehicle.
- Negative perceptions and false stereotypes create lack of respect for motorcycle riders.
- False stereotypes and negative attitudes towards riders resulting in drivers seeing motorcycles as less entitled to use the roads than other vehicles.
- SMIDSY is not an excuse, but an admission of driver irresponsibility and guilt.
- The TAC and VicRoads fully supported just 16 of the 64 recommendations of the 2012 Victorian Parliamentary Road safety Committee.
- There is not an equal and shared responsibility for road safety in Victoria.
- The onus for road safety placed on riders is epitomised by the Victorian motorcycle safety levy, only motorcycle riders pay an additional levy in the name of "safety".
- VicRoads has collected in excess of \$100,000,000 from motorcycle riders in the name of road "safety", for which motorcyclists cannot be seen to have obtained value for money.

# Recommendations

- Tasmania should not follow in the steps of Victoria (Australia) and should instead work to redress the attitude that motorcycle rider safety is solely attributable to the rider.
- Tasmania may wish to consider the recommendation of the Victorian 2012 Parliamentary Inquiry into Motorcycle Safety and ensure any campaigns do not create negative stereotypes, perceptions or attitudes of motorcycle riders.
- Tasmanian road safety campaigns should be created, these relevant to motorcycle safety and aimed at drivers. These specifically designed to educate drivers regarding how to effectively and safely share roads with motorcycles.
- Road safety campaigns should be introduced, including on radio and television to change the general public's negative perceptions of motorcycle riders. This by focusing on how motorcycle accidents involving a motorcycle and another vehicle are usually the fault of the driver and not the rider.
- Root Cause Analysis should be conducted to determine if drivers are responsible for most accidents involving a motorcycle and another vehicle in Tasmania and how motorcycle accidents involving another vehicle may be reduced and/or prevented.
- Tasmanian Road safety law enforcement should view SMIDSY claims not as an excuse, but as contributing to driver negligence and the cause of accidents.
- There should be an increased emphasis in Tasmania placed on motorcycle awareness.
- The Tasmanian learner permit and driver licence theoretical and practical tests should include a greater emphasis on motorcycle awareness.

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Figure 6 – Motorcycle accident types from the accident Data Base UK department for Transport, Road Safety Research Report No 54, D. Clarke, P. Ward, C. Bartle & W. Truman. School of Psychology, University of Nottingham, November2004, p41.

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Figure 12 – 90% of PTW accidents occur at 60km/h or less

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Figure 13 - 38 times the risk Victorian Transport Accident Commission, Melbourne, Victoria, Australia.

Figure 14 – Drivers with a motorcycle licence are safer The European Motorcycle Manufacturers Association (ACEM) MAIDS In depth investigations of accidents involving powered two-wheelers, Final Report 1.3, 2004, p84.

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# ABOUT THE AUTHOR

Stephen Bardsley is the Rider Safety Representative for the Motorcycle Riders Association of Australia (MRAA), holds a Masters Degree in Business Administration and has been a motorcycle and scooter rider for almost 50 years. As a former member of the Victorian Government Motorcycle Advisory Group (MAG), past spokesperson for the Victorian Scooter Riders Association (VSRA), a former Chairperson and Secretary of Victorian Incorporated Associations and Clubs representing motorcycle riders, Stephen has actively campaigned to improve road safety for motorcycle and scooter riders for over two decades. A qualified trainer and assessor, Stephen has helped write and deliver motorcycle rider training courses and is the author of many motorcycle articles, manuals, user guides, safety reports and appeals to Government, including:

- E10 Fuel, OK in a Lambretta? (2008)
- Two Stroke Oil Guide for Classic Lambrettas and Vespas (2009)
- Classic Scooter Spark Plug Guide (2009)
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Stephen's motorcycle rider safety reports have been referenced in over 650 works by authors published by Academia, his classic scooter maintenance guides have been downloaded from the Scooter Community website on almost 75,000 occasions.

Stephen is married to Elizabeth (for 38 years), is retired and rides a classic 1967 Lambretta motor scooter, which he is currently restoring.

#### **Contact Details:**