PARLIAMENT OF NEW SOUTH WALES

Joint Standing Committee on Road Safety (Staysafe)

REPORT 4/55 — NOVEMBER 2014

SPEED ZONING AND ITS IMPACT ON THE DEMERIT POINTS SCHEME

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The motto of the coat of arms for the state of New South Wales is "Orta recens quam pura nites". It is written in Latin and means "newly risen, how brightly you shine".

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Terms of Reference

That the Committee inquires into and reports on the process of determining speed limits on NSW roads and the imposition of demerit point penalties for speeding offences with particular reference to:

a) The contribution of speed to crash rates on NSW roads.

b) The rationale for and current operation of speed zones on NSW roads.

c) Key factors governing the establishment of speed limits.

d) Mechanisms for reviewing the appropriateness of maximum speed limits.

e) The operation of speed limits in other jurisdictions.

f) The appropriateness of current thresholds in the Demerit Points Scheme for speeding offences.

g) The impact of demerit points in reducing speeding behaviour.

h) Any other related matters.

Chair's Foreword

It is undeniable that speed plays a major role in the road toll and is one of the chief contributors to crash intensity and injury severity. Technological advances in design and enhanced vehicle performance act to both increase the capacity to speed, and also enable monitoring and modification of risky driver behaviour, when appropriate devices are installed.

The Safe System philosophy of road safety adopts a holistic approach, aiming to minimise the risk of death or serious injury on the roads by taking into account the interaction between roads, vehicles, speed and road users. It recognises that, while people are fallible and often make mistakes, road trauma should not be accepted as inevitable.

This report, the fourth Staysafe report tabled in the 55th Parliament, examines the role of speed in vehicle crashes, the evidence base governing current speed zones and its framework of operation. Consideration is also given to the appropriateness of speed limits and approaches adopted in other jurisdictions. The report looks at the adequacy of existing enforcement strategies, the deterrent value of demerit points and the importance of education and training for drivers, as well as for all other road users.

The Committee has made a number of recommendations to isolate speed as a causal factor in crash rates by improving data collection and conducting specific research to identify the triggers for speeding, particularly in rural and regional areas. The report also calls for greater use of point-to-point speed cameras, in order to create a behavioural shift in attitudes to speeding.

A particular emphasis in the report is the need to create greater awareness of the dangers associated with low-level speeding, which is not treated as harshly as higher-level speeding offences and seems to have resulted in greater community tolerance of such behaviour. It is always important to balance fairness against the imposition of appropriate penalties and the Committee considers that this must be redressed. An increased educational focus on low-level speeding will also assist with the need to change prevailing attitudes to this practice.

As the final inquiry undertaken by Staysafe in the current Parliament, I am confident that the implementation of the Committee's recommendations will continue to safeguard the interests of all road users and contribute to ongoing efforts to improve the road safety record in NSW.

I am pleased to present the report and thank my fellow Committee Members and the Committee Secretariat for their contributions and assistance.

Greg Aplin MP
Chair

List of Findings and Recommendations

The Committee recommends that the NSW Government, through the Working Group on Demerit Points, conducts a review of double demerit points periods in order to:

- Strengthen the evidence base.
- Examine its objective fairness, in light of earlier changes made to reduce penalties under the Scheme to make it more lenient.

The Committee recommends that the NSW Government investigates the safety impacts of the reduction in demerit points for speeding offences for driving less than 10km/h above the speed limit, with specific reference to whether the decrease from 3 points to 1 point:

- May have the unintended consequence of increasing community acceptance of lower-level speeding.
- Requires additional countermeasures to overcome such acceptance, such as increased fines or participation in additional driver awareness programs.

The Committee recommends that the NSW Government raises the lack of uniformity in the application of demerit points and the impediments to a nationally consistent demerit points scheme for consideration at the next Transport and Infrastructure Council meeting.

The Committee recommends that the NSW Department of Education and Communities includes a specific module on the risks of low-level speeding as part of the PDHPE 7-10 syllabus dealing with road safety.

The Committee recommends that Transport for NSW ensures that more emphasis be placed on the risks and consequences of low-level speeding as part of the Graduated Licensing Scheme and the Safer Drivers Course, with the aim of changing attitudes of novice drivers towards this practice.

The Committee recommends that Transport for NSW investigates the operation and benefits of the UK Speed Awareness Course for low-level speeding offences, with a view to implementing a similar program in NSW as an alternative to a loss of demerit points for such offences.

The Committee recommends that Transport for NSW consults more extensively with Road Safety Officers in the design and implementation of community based safety awareness campaigns and ensures their representation on inter-governmental road safety consultative forums in the delivery of road safety messages.

Glossary

ATC	Australian Transport Council
CBD	Central Business District
COPS	Computerised Operational Policing System
DPS	Demerit Points Scheme
ECM	Electronic Control Module
IRTAD	International Road Traffic Accident Database
ISA	Intelligent Speed Adaptation
ITS	Intelligent Transport System
KSI	'Killed or serious injury'
LGRSP	Local Government Road Safety Program
MUARC	Monash University Accident Research Centre
NMAA	National Motorist Association of Australia
NRMA	National Roads and Motorists' Association
OECD	Organisation for Economic Cooperation and Development
PDHPE	Personal Development, Health and Physical Education
RMS	Roads and Maritime Services
RSO	Road Safety Officer
RTA	Roads and Traffic Authority of NSW
SCOTI	Standing Council on Transport and Infrastructure
SER	Self-explaining roads
TADS	Traffic Accident Database System
TARS	Transport and Road Safety Research
UNSW	University of New South Wales

Chapter One – Introduction

1.1 On 16 October 2013, the Joint Standing Committee on Road Safety (Staysafe) resolved to inquire into speed zoning and the Demerit Points Scheme. The inquiry focussed on a range of issues including how significantly speed contributes to the road toll, how current speed zones are determined, mechanisms for reviewing speed limits and the success of the Demerit Points Scheme in reducing speeding behaviour.

1.2 The Committee called for submissions, advertising the inquiry on the Parliament's website, in the *Sydney Morning Herald* and by writing to relevant professional bodies, road safety experts, non-government organisations and government agencies. The closing date for submissions to be lodged was 28 February 2014.

1.3 In total, the Committee received 32 submissions from private citizens, professional bodies, road safety experts, non-government organisations and government agencies. A full list of the submissions received can be found at Appendix One and copies of the submissions are available on the Committee's website.

1.4 As part of the inquiry, the Committee also held two public hearings in Sydney, on 5 and 6 June 2014. The public hearings gave the Committee an opportunity to further explore the issues raised in submissions and to examine a range of stakeholder views on the appropriateness of the current speed setting and sanctions regimes.

1.5 A full list of witnesses who appeared before the Committee can be found at Appendix Two. Transcripts of the evidence provided are available on the Committee's website. Details of the Committee's meetings are provided in the extracts of minutes at Appendix Three.

Chapter Two – The Role of Speed in Vehicle Crashes

2.1 Speed is a significant contributor to crashes on NSW roads. The extent to which it is possible to determine the precise nature of its role is dependent on the reliability and validity of data collection. This chapter addresses the definition of speed and speed related crashes, the collection and processing of crash statistics and other factors contributing to crash rates.

2.2 The chapter also examines the impact of speed on crash risk and outcomes, and survey measures adopted in other jurisdictions, including the Safe System approach to road safety and its application in NSW.

THE SAFE SYSTEM APPROACH

2.3 On 20 May 2011, the National Road Safety Strategy 2011-2020 was released by the former Australian Transport Council (ATC), which is now overseen by the Standing Council on Transport and Infrastructure. The strategy is based on the Safe System approach and is guided by the vision that no person should be killed or seriously injured on Australia's roads.[1] By 2020, the strategy target is to reduce the annual number of road crash fatalities and serious injuries by at least 30%.[2]

2.4 The Safe System approach, which was officially endorsed by the ATC in 2004 and adopted by all Australian State and Territory road authorities, advocates for a safer road system, which is 'better adapted to the physical tolerance of its users'.[3] Under this approach, avoiding death and serious injury is a priority.

2.5 Australia's Safe System approach shares principles in common with strategies such as Sweden's *Vision Zero* and the Netherland's Sustainable Safety approaches. Moreover, it reflects international best practice as defined in the Organisation for Economic Cooperation and Development's (OECD) report *Towards Zero: Ambitious Road Safety Targets and the Safe System Approach*.[4]

2.6 Speed is a critical factor in the Safe System approach, which is based on an understanding that:

> The human body is vulnerable and unlikely to survive an uncushioned impact at a speed of more than 30 km/h. The aim is to ensure that in the event of a crash, 'the impact forces released are within the boundaries of human tolerance and that no fatalities should occur and serious injuries are reduced.[5]

[1] Australian Transport Council, *National Road Safety Strategy 2011-2020*, May 2011, p1.

[2] Australian Transport Council, *National Road Safety Strategy 2011-2020*, May 2011, p1.

[3] Submission 30, NSW Government, p15.

[4] Roads and Traffic Authority of NSW, *Speeding – Did you know? 'Safe System' – the key to managing road safety*, July 2011, p1.

[5] Roads and Traffic Authority of NSW, *Speeding – Did you know? 'Safe System' – the key to managing road safety*, July 2011, p2.

2.7 Key components of road safety including safer people, safer roads, safer vehicles and safer speeds are integral to the Safe System approach and these key elements cannot be viewed in isolation from one another.[6] It reinforces the message that the determination of safe speed limits must take into consideration a number of factors including the number and types of hazards within a road environment, as well as the presence and movement of different types of road users.[7]

2.8 Furthermore, the Safe System approach recognises that road user behaviour, including speeding, can be addressed via a number of strategies including education, engineering and enforcement. Therefore, the Safe System approach implies that those who design, operate and manage the road transport system are accountable for the safety performance of the system as a whole. [8]

2.9 The safety goals and targets adopted in the *NSW Road Safety Strategy 2012-2021*, also reflect the Safe System approach. The NSW Government Strategy, in establishing the direction of road safety in NSW for the next ten years, sets the target for reducing fatalities on NSW roads to 4.3 per 100 000 by 2016.[9]

SPEED CAPTURE IN DATA COLLECTION

Definitions – speeding and speed-related crashes

2.10 According to the current Strategy, speeding is classified as driving above the speed limit (excessive speed) or driving too fast for the prevailing conditions (inappropriate speed).[10]

2.11 In its submission to the inquiry, the NSW Government defines a speed-related crash as a crash which involves at least one speeding motor vehicle. A motor vehicle is assessed as having been involved in a speed-related crash if either:

- the vehicle controller (driver or rider) was charged with a speeding offence, the vehicle was described by the Police as travelling at excessive speed, or the stated speed of the vehicle was in excess of that permitted for the vehicle controller's licence class or the vehicle weight; or

- the vehicle was performing a manoeuvre characteristic of excessive speed such as the vehicle skidding, sliding, losing control, jack-knifing on a curve; or the vehicle ran off the road while negotiating a bend or turning a corner and the controller was not distracted by something or disadvantaged by drowsiness or sudden illness and was not swerving to avoid another vehicle, animal or object and the vehicle did not suffer equipment failure.[11]

[6] Submission 30, NSW Government, p15.

[7] Submission 30, NSW Government, p15.

[8] Submission 30, NSW Government, p15.

[9] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p6.

[10] Transport for NSW, *NSW Road Safety Strategy 2012-2021*, December 2012, p30.

[11] Submission 30, NSW Government, pp8-9.

Data collection and processing

2.12 Official responsibility for the initial collection of crash data resides with police officers arriving at the scene of a crash. Upon reaching the crash site, attending police are required to enter relevant information directly into a data program known as the Computerised Operational Policing System (COPS). The police also make a sketch of the crash site, referred to as the site diagram, which is forwarded to a central office of the NSW Police Force for scanning and logging.

2.13 The raw data is then subject to a series of further refinements. Completed and verified crash information is transferred on a weekly basis to the Centre for Road Safety, within Transport for NSW, which loads this data into its Traffic Accident Database System (TADS) for enhancement and validation.

2.14 The Centre for Road Safety also shares this data with Spinal Cord Injuries Australia, which is contracted to the Centre for Road Safety to provide a coding and data entry service. Accurate location information and a description summary are entered for each crash, subject to further interpretation and validation. This enhanced information is used to make additions to TADS via an on-line data entry system.

2.15 As a further refinement, a computer checking process is performed every night to identify inconsistencies and errors which may have occurred, along with daily editing to obtain a clean file for every crash.

2.16 In addition to the above process, Centre for Road Safety also obtains blood alcohol analyses from the Sydney West Area Health Service's Forensic and Analytical Science Service. In the case of a fatal crash, police officers send a preliminary report, also generated from COPS, to the Centre for Road Safety by facsimile. This system enables the Centre for Road Safety to monitor and analyse fatal crashes on a daily basis.

2.17 The Centre for Road Safety crash reporting database, CrashLink, is used extensively within Transport for NSW to monitor road safety trends and to aid research, strategic planning and the production of reports. It is also used by other road safety agencies, research bodies and members of the public for information relating to road safety.[12]

Inquiry evidence

2.18 Questions regarding the adequacy of the current process for collecting and analysing crash data have been raised in evidence to the inquiry. One identified issue concerns whether police officers are adequately skilled and trained to investigate all the circumstances surrounding a crash.

2.19 According to the submission provided by the Motorcycle Council of NSW, '…police fail to canvass causal factors in a crash and tend to preoccupy themselves with simply how the crash happened and whether any offence was committed'. Moreover, the Council claimed that: '…police find the investigation

[12] Transport for NSW, *Road Traffic Crashes in New South Wales – Statistical Statement for the year ended 31 December 2012*, p10.

of crashes a mundane and routine job and that attending crashes falls within the competing priorities of a general duties officer's busy shift.'[13]

2.20 The Motorcycle Council acknowledged that in cases of serious injury or fatality, specialist crash investigation police officers usually attend and conduct investigations and that this is a preferable option. Transport and Road Safety Research (TARS), from the University of New South Wales (UNSW), similarly argued that the Crash Investigation Squad is better equipped to carefully collect data and reconstruct the crash, but that this happens only in cases where there is a crash fatality and somebody is to be charged.[14]

2.21 The rationale for the deployment of expert crash investigation police and the possible engagement of crash specialists at all crash sites is that it will provide better general crash data. In addition, the Motorcycle Council submitted that it would also contribute to a better understanding of why collisions occur and provide a significant benefit in the design and implementation of successful crash prevention strategies.[15]

2.22 A related issue raised with the Committee concerns the adequacy of technical equipment available to police officers with responsibility for crash investigation. TARS suggested that available technologies are not sufficiently deployed in police crash investigation and reporting. As a result, TARS suggested five technologies which may improve data quality and details. These are: laptop computer software; digital photography; on-board crash recorder; satellite images; and internet communication.[16]

2.23 TARS concluded that the use of these technologies would result in the following advantages:

- Dramatically improved COPS information and databases of crashes.
- Improved assessment of road safety challenges.
- More effective evaluation of new safety programs.
- Vehicle safety improvements.
- More timely source of information on State regulated roads.[17]

2.24 TARS further submitted that adoption of these technologies 'would add little, if any cost or time to conduct police crash investigations while saving time, money and lives. It also argued that the cost for equipment and training could easily be covered by traffic fines, considering NSW is now hypothecating camera and speed fines to road safety'.[18]

[13] Submission 23, Motorcycle Council of NSW, p18.
[14] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July, 2014, p1.
[15] H.M. Simpson, 1998 in Submission 23, Motorcycle Council of NSW, p18.
[16] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July 2014, p2.
[17] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July 2014, p2.
[18] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July 2014, p2.

2.25 When questioned by the Committee about the use of technological tools to assist in the conduct of investigations, Acting Assistant Commissioner Smith of the NSW Police Force, stated 'These days, the Government has spent a considerable amount of money updating the technology in crashes so that we can plug into airbags and ECMs [Electronic Control Module] so that we can get that information.'[19]

2.26 According to TARS, police crash investigation is conducted at a very basic level. The crash report is described as typically consisting of a one to two page form, in an outdated format, containing: details of the drivers and vehicles; the crash location and conditions; personal injury and property damage; as well as witness statements. However, TARS does not consider that these police statements provide information about crash details and injury severity to the extent which would allow a detailed analysis of the circumstances which have led to the crash.[20]

2.27 The lack of proper investigation of causality surrounding a crash was a consistent theme expressed in evidence to the inquiry. Mr Ivanoff, representing the Motorcycle Council of NSW, made the following point:

> What needs to happen is there needs to be a change to the directions made to police officers when they turn up to crash investigation. There should be an investigation of cause. There is what is known as a 13-point plan, which still exists under what is known as the standard operating procedures for police when they turn up to a crash, and the investigation of cause remarkably is not there and it needs to be.[21]

2.28 Another witness described the actions of police at a crash site it in the following terms:

> He ticks yes or no in a box. Then he gets to the box on the form labelled speeding. He looks at the glass, he looks at the vehicles smashed, he thinks of the trauma and he ticks the box to say that, yes, there was speeding. So there is no proper mathematical consideration given. Police are not trained in this.[22]

2.29 The submission from the National Motorists Association of Australia (NMAA) reinforced this point, stating that State and Territory governments in Australia do not analyse crash causation factors properly. This results in little or no data existing for non-serious injury crashes and means that the data for more serious crashes is, at best, unreliable.[23]

2.30 In countering this view, the Centre for Road Safety referred to the range of factors which can contribute to crashes, including speed, fatigue and distraction, and claimed that these are recorded appropriately in the data. At the same time,

[19] Acting Assistant Commissioner Stuart Smith, Commander, Traffic and Highway Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p13.

[20] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July 2014, p1.

[21] Mr Peter Ivanoff, Delegate, Motorcycle Council of NSW, Transcript of evidence, 6 June 2014, p14.

[22] Mr Lex Stewart, Private Citizen, Transcript of evidence, 5 June 2014, p59.

[23] Submission 27, National Motorists Association of Australia, p2.

the General Manager of Centre for Road Safety, appearing before the Committee, acknowledged the difficulty of capturing the precise cause:

> Many crashes will have a potential for speed, fatigue and indeed impairment and distraction. We use the police data to code accordingly. We do not tag a lead cause. There will be multiple contributing factors.[24]

2.31 However, critics argue that in contrast to the situation in Australia, countries such as the UK and the USA have clear methods in place to define the root cause of an accident. The Motorcycle Council contends that 'various international studies have advised that speed, as a causal factor of fatal crashes, is significantly lower than any stated by the various State road authorities in Australia'.[25]

2.32 Finally, the issue of comparability of data across jurisdictions has been highlighted as another concern. The NRMA (National Roads and Motorists' Association) queried the data collected on speed related crashes in NSW and pointed out that NSW statistics do not match those of other jurisdictions.

2.33 To illustrate this discrepancy, the NRMA made reference to New Zealand figures indicating that 20% of accidents are caused by speed, matched by 21% in Queensland.[26] These statistics, however, are in stark contrast to the 40% of crashes attributed to speeding in NSW.

2.34 According to the NRMA, the lack of consistency in the way statistics are reported makes it difficult to compare figures across jurisdictions.[27] This view was reinforced in the submission from the NMAA, which stated that the inconsistency between State and Federal bodies makes the attribution of crash causality questionable, given that the statistics in this area are considered unreliable. [28]

Previous investigations

2.35 The issue of the adequacy of crash data collection has been addressed in earlier inquiries. In its *Follow-up of the Auditor General's Performance Audits April 2011 to September 2011*, the NSW Legislative Assembly Public Accounts Committee found that Transport for NSW should be more specific in its reporting of statistics regarding fatal crashes.

2.36 The report stated that more detailed information should be captured in cases where speed was not the only reason for a crash. The Public Accounts Committee expressed concern that 'incidents where speed is involved but is not the main cause, are not reflected adequately in the statistics reported by Transport for NSW'.[29]

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[24] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p13.

[25] Submission 23, Motorcycle Council of NSW, pp4-5.

[26] Mr Mark Wolstenholme, Senior Policy Advisor, Traffic and Roads, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, p24.

[27] Mr Mark Wolstenholme, Senior Policy Advisor, Traffic and Roads, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, p24.

[28] Submission 27, National Motorists Association of Australia, p2.

[29] NSW Legislative Assembly Public Accounts Committee, *Follow-up of the Auditor General's Performance Audits April 2011 to September 2011*, Chapter 6: 'Improving Road Safety: Speed Cameras', May 2013, p46.

2.37 In its response to the Public Accounts Committee's report, the Government stated that it did not support the recommendation, maintaining that 'no one factor can be identified as a primary cause of road crashes in NSW'.[30]

2.38 Evidence presented to the Committee indicated that data collection systems used in other countries allow for a more comprehensive analysis of road crashes, including causality. An example of this is the road crash cause analysis method used by the UK police.

2.39 The UK system involves a two-step process, initially describing the conditions of the crash, followed by a second stage, determining the reasons that have led to the crash. The system allows investigators to 'select up to six contributory causes which are determined and reported in a standard format'.[31]

Conclusions

2.40 The Committee acknowledges the challenges involved in collecting crash data and, in particular, determining crash causality. Previous Staysafe reports have made recommendations to improve data collection and public access to data and the Committee is pleased that action is being undertaken to implement its earlier recommendations.

2.41 The current inquiry has identified additional data issues related to the collection, classification and processing of causal factors in crash involvement. The Committee considers that Transport for NSW should explore options to improve the identification of the contributing causes of crashes.

2.42 More precise information about the root cause of a crash will enable better policy development and improved targeting of road safety strategies. Greater accuracy and transparency of crash data collection, enabling the identification of primary and secondary causes of crashes, will also instil greater public confidence in road safety messages delivered by the NSW Police Force and Transport for NSW. This will ultimately lead to improved compliance and safety on the roads.

RECOMMENDATION 1

The Committee recommends that the NSW Police Force provides more extensive crash data collection and crash evaluation training to police officers, in order to improve the quality of crash data at the point of capture. More accurate data will enable the development and implementation of targeted policies addressing speed related factors contributing to crashes on NSW roads.

RECOMMENDATION 2

The Committee recommends that the NSW Police Force reviews the adequacy of equipment and resources provided to officers in the conduct of investigations at a crash site.

[30] The Hon. Barry O'Farrell MP, Premier of NSW, 'Correspondence - Government Response to Report No. 9/55 - Examination of the Auditor General's Performance Audits April 2011 – September 2011', 28 November 2013, <www.parliament.nsw.gov.au/Prod/Parlment/committee.nsf/0/aa8b21810c0a05c2ca257b7f0009c05e/$FILE/NSW%20Whole%20of%20Government%20Response%20to%20PAC%209-55.pdf>, p5.

[31] Submission 27, National Motorist Association of Australia, p3.

RECOMMENDATION 3

The Committee recommends that the NSW Police Force, in consultation with Transport for NSW, makes refinements to the Computerised Operational Policing System to identify more precisely the involvement of speed in road crashes. The results of more targeted cause related data should be used to develop and implement improved policy responses to address speeding on NSW roads.

CRASH TRENDS

Fatality rates

2.43 The number of fatalities and injuries on NSW roads has been steadily declining since 1978, when fatalities peaked at 1 384.[32] More recently, the period 2004-2013 has seen a 40% reduction in fatalities per 100 000 population.[33]

2.44 According *to Road Deaths Australia*, the annual bulletin published by the Bureau of Infrastructure Transport and Regional Economics, 339 fatalities were recorded on NSW roads in 2013. This is 30 fewer than the previous year and the lowest number of fatalities since 1924. The significant reduction in fatalities is particularly striking when contrasted with the trebling of population growth and the increased number of registered motor vehicles, which has increased from less than 150 000 in 1924 to nearly five million in 2013.[34]

2.45 The submission from the NSW Government reported that the 2013 fatality rate of 4.58 per 100 000 population is the lowest since records began in 1908 and is lower than for the whole of Australia, which was recorded at 5.16 per 100 000 population in 2013. Overall, NSW has outperformed the rest of Australia in reducing fatalities over the past decade.[35]

Rural vs. urban rates

2.46 Based on a recent crash review by Monash University Accident Research Centre (MUARC), 86% of all fatalities in NSW occur on rural high-speed roads and at intersections.[36] This has been supported in evidence provided by the George Institute for Global Health.

> We do have a high proportion of fatal crashes and serious injury in rural areas, mainly speed related. Seventy per cent of fatalities and 85 per cent of serious casualties are outside major cities and nearly 50 per cent of those rural road fatalities involve speed.[37]

2.47 Information provided in the latest *NSW Road Safety Strategy* also indicates that country residents have a fatality rate per 100 000 population more than four

[32] Submission 30, NSW Government, p6.
[33] Transport for NSW, Response to the questions on notice, 16 July 2014, p2.
[34] Submission 30, NSW Government, p6.
[35] Submission 30, NSW Government, p6.
[36] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p12.
[37] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p43.

times that of their metropolitan counterparts.[38] The relatively higher fatality rate in rural NSW is a concern, particularly when taking into account that one third of the population resides in country areas and two thirds of all fatalities occur in those areas.[39]

2.48 According to TARS, there are a number of reasons for a higher crash rate in rural, relative to urban areas. One of these is the greater exposure to fatigue and high severity crashes by country residents travelling longer distances at higher speeds compared to urban residents.[40]

2.49 Secondly, TARS suggests that medical resources in rural areas are not as responsive as in urban areas, mainly because of lack of specialists and equipment, readily available in urban areas.[41] Finally, overall non-compliance with a range of road safety rules is more prevalent in rural areas.[42]

Road user profiles

2.50 Evidence provided by Professor Grzebieta highlighted the disproportionate involvement of children in fatal vehicle crashes.

> Road fatalities are the highest killer of young children—unintentional injury of 14 years or younger. It is one of the highest unintentional injury causal factors in the Australian population. It is something that we need to address.[43]

2.51 The *NSW Road Safety Strategy* indicates that the majority of fatalities (68%) are vehicle occupants (drivers and passengers), with the remaining third comprising vulnerable road users, including pedestrians, cyclists and motorcyclists.[44]

2.52 The Strategy also outlines the distribution of fatal crashes by age group, indicating that young adults aged 17 to 25 years account for one-quarter of all deaths. Furthermore, the 30 to 59 years age group accounts for more than 40% of all deaths, while those aged 80 years and older account for 7% of deaths.[45]

2.53 The statistics in relation to gender indicate that for the period 2008 to 2010, nearly three times as many men as women were killed on NSW roads.[46]

COMPOUNDING FACTORS IN CRASH INVOLVEMENT

2.54 As previously indicated, the validity of the attribution of speed as a causal factor in vehicle crashes was a recurring theme in submissions and other evidence presented to the inquiry. NRMA Motoring and Services stated that while speed may be a factor in collisions, there are a number of compounding factors,

[38] Transport for NSW, *NSW Road Safety Strategy 2012-2021*, December 2012, p14.
[39] Transport for NSW, *NSW Road Safety Strategy 2012-2021*, December 2012, p14.
[40] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July, 2014, p3.
[41] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July 2014, p3.
[42] Transport and Road Safety Research, UNSW, Response to questions on notice, 2 July 2014, p3.
[43] Prof. Raphael Grzebieta, Professor of Road Safety, Transport and Road Safety Research, UNSW, Transcript of evidence, 5 June 2014, p33.
[44] Transport for NSW, *NSW Road Safety Strategy 2012-2021*, December 2012, p14.
[45] Transport for NSW, *NSW Road Safety Strategy 2012-2021*, December 2012, p15.
[46] Transport for NSW, *NSW Road Safety Strategy 2012-2021*, December 2012, p15.

including fatigue, distraction and alcohol.[47] This view was shared by many contributors to the inquiry.

2.55 According to the *NSW Road Safety Strategy*, speeding accounted for 42% of all fatalities in the period 2008-2010. This compared to 20% for illegal alcohol and 16% to driver fatigue in the same period.[48] The complex nature of the range of contributing factors is a source of controversy in the determination of the relative role of speed in these figures.

Fatigue and drink driving

2.56 The *National Road Safety Strategy 2011-2020* cites fatigue as a contributing factor in crashes, especially as a result of long trips, extensive periods of continuous driving and sleep deprivation.[49] Evidence suggests that sleep deprivation can have similar hazardous effects to alcohol consumption.[50]

2.57 According to the Australian Transport Council, more than a quarter of total crashes involve a driver over the legal Blood Alcohol Concentration limit. Alcohol therefore continues to be a major factor in serious casualties on Australian roads.[51]

2.58 The Liaison Officer of the National Motorists Association of Australia made reference to the difficulties in determining the relative contribution of speed and the role of fatigue in crashes during his appearance before the Committee:

> …we are very concerned that there is an overemphasis on speed. The mere fact that this Committee is talking about that one singular issue concerns us greatly. One of the reasons we would suggest why the focus is on that is because it is something that is easy to measure with technology. The major cause of fatalities and serious injuries is actually inattention, but how do you measure inattention? There is no meter for it. Another one is fatigue. Again, how do you measure that? It is very hard to look at a person and say they are at about 80 per cent so they had better go and have a rest. You just cannot measure it.[52]

2.59 The existence of multiple contributing factors and the lack of reliable data, as discussed earlier in the chapter, pose difficulties for road safety practitioners in devising and targeting appropriate countermeasures and strategies to address speeding behaviour.

Speeding

2.60 The Centre for Road Safety describes the following process for determining speeding involvement in crashes:

> The identification of speeding (excessive speed for the prevailing conditions) as a contributing factor in road crashes cannot always be determined directly from the

[47] Submission 29, NRMA Motoring and Services, p1.

[48] Transport for NSW, *NSW Road Safety Strategy 2012-2021*, December 2012, p15.

[49] Australian Transport Council, *National Road Safety Strategy 2011-2020*, May 2011, p83.

[50] Australian Transport Council, *National Road Safety Strategy 2011-2020*, May 2011, p83.

[51] Australian Transport Council, *National Road Safety Strategy 2011-2020*, May 2011, p87.

[52] Mr Graham Pryor, National Liaison Officer, National Motorists Association of Australia, Transcript of evidence, 5 June 2014, p36.

> police reports of those crashes. Certain circumstances, however, suggest the involvement of speeding. The Centre for Road Safety has therefore drawn up criteria for determining whether or not a crash is to be considered as having involved speeding as a contributing factor. Speeding is considered to have been a contributing factor to a road crash if that crash involved at least one speeding motor vehicle. A motor vehicle is assessed as having been speeding if it satisfies the conditions described below under (a) or (b) or both.
>
> (a) The vehicle's controller (driver or rider) was charged with a speeding offence; or the vehicle was described by police as travelling at excessive speed; or the stated speed of the vehicle was in excess of that permitted for the vehicle controller's licence class or the vehicle weight (introduced 1 January 2010); or
>
> (b) The vehicle was performing a manoeuvre characteristic of excessive speed, that is: while on a curve the vehicle jack-knifed, skidded, slid or the controller lost control; or the vehicle ran off the road while negotiating a bend or turning a corner and the controller was not distracted by something or disadvantaged by drowsiness or sudden illness and was not swerving to avoid another vehicle, animal or object and the vehicle did not suffer equipment failure.[53]

2.61 The City of Sydney does not consider that the Centre for Road Safety criteria adequately reflect all instances of speeding. In answers to supplementary questions from the Committee, the City stated that it 'does not capture many low speed, but still speed related crashes'.[54]

2.62 The City of Sydney therefore suggested expanding the criteria to consider 'whether the driver was driving at a speed from which they could stop under control if a pedestrian, a bike rider, or other vehicle moves into their path'.[55]

2.63 While acknowledging speeding as a serious factor in road crashes, the NRMA stated that the focus on speeding may lead to over simplification and distraction from some other compounding factors in crash involvement.[56] As highlighted by the National Motorists Association of Australia, the preoccupation with speed as a primary cause of vehicle crashes results in the subsequent development of inappropriate policy decisions.[57]

2.64 As a counter to this argument, the General Manager of the Centre for Road Safety told the Committee that:

> Excessive speed is still the most prevalent of all. We know that speed has been growing while other factors such as alcohol have been decreasing. We know that speed is the number one issue. We can all dance around the facts such as I am a really good driver and I can speed because I have never had a crash, but at the end of the day we will never beat the road toll unless we deal with speed.[58]

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[53] Transport for NSW, *Road Traffic Crashes in New South Wales – Statistical Statement for the year ended 31 December 2012*, 2012, p14.

[54] City of Sydney, Response to questions on notice, 25 June 2014, p3.

[55] City of Sydney, Response to questions on notice, 25 June 2014, p3.

[56] Mr Luke Turner, Senior Policy Advisor, Road Safety, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, p25.

[57] National Motorist Association of Australia, Response to questions on notice, 5 June 2014, p1.

[58] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p13.

2.65 According to the *National Road Safety Strategy 2011-2020*, speeding was a contributing factor in around 34% of fatalities and 13% of all serious injuries in Australia.[59] In NSW, speed is identified as a causal factor in around 40% of fatal crashes.[60] In 2013, this figure was 42%.

2.66 This is double the incidence for driver fatigue (20%) and illegal alcohol (reported to be around 13%).[61] Based on these figures, excessive or inappropriate speed is considered by the Centre for Road Safety to be the main behavioural factor in road fatalities in NSW.[62]

Speeding in other jurisdictions

2.67 In contextualising speed involvement as a contributor to crashes, the NSW Government submission commented that:

> The identification of speed involvement as a contributing behavioural factor by other jurisdictions is highly dependent on the nature of the crash data collected and how strictly the definition complies with excessive (meaning in excess of the posted speed limit) or inappropriate speed.[63]

2.68 According to the International Road Traffic Accident database (IRTAD), inappropriate speed was a factor in:

- 26% of fatal crashes and 14% of injury crashes in Italy.
- 30% of fatal crashes in the USA.
- 35% of fatal crashes in Switzerland.
- 26% of injury crashes in Germany.
- 14% of fatalities in the UK.[64]

2.69 The NSW Government submission claims that the above percentages are lower than those in NSW due to different approaches to the identification of speed as a contributing factor in crashes.

Distraction

2.70 Another factor increasingly acknowledged as a major crash contributor is distraction. Staysafe conducted a review of driver and road user distraction last year and tabled a report with recommendations to address the current shortcoming in the Crashlink data system, which fails to specifically identify distraction as a factor in injury and fatality statistics.

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[59] Submission 30, NSW Government, p9.

[60] Roads and Traffic Authority of NSW, *Speeding – Did you know? How does speeding increase the chances and severity of a crash?*, July 2011, p1.

[61] Submission 30, NSW Government, p8.

[62] Submission 30, NSW Government, p7.

[63] Submission 30, NSW Government, p9.

[64] Submission 30, NSW Government, p9.

2.71 In its response to the Committee's recommendations, the NSW Government agreed to develop a standard definition for distraction. The Government also agreed to improve Crashlink by collecting better quality data on distraction factors causing crashes and to provide clearer regulatory measures targeting driver distraction risk. The Committee is pleased that this issue is receiving attention with the aim of further enhancing data collection.

Conclusions

2.72 The Committee is concerned about the relatively high road fatality rate in rural NSW, which is four times the metropolitan rate per 100 000 population. It is important to determine the basis for this and to develop and implement additional policies to address the high crash rate in rural areas.

2.73 The Committee also notes that the percentage of road crashes attributed to speeding in NSW is relatively high compared to other jurisdictions. While acknowledging that the discrepancy in figures may be a result of different data collection practices, the Committee considers that there is a need to review whether the identification of speed as a factor in crashes in NSW accurately reflects its true contribution.

RECOMMENDATION 4

The Committee recommends that Transport for NSW commissions research into the causes of the high road crash fatality rate in rural NSW and develops and implements specific policies to reduce its impact.

RECOMMENDATION 5

The Committee recommends that Transport for NSW commissions a comparative analysis and review of the definition of speeding as a causal factor in crashes to determine whether the current definition allows adequate comparability across jurisdictions and is the most appropriate for NSW.

IMPACT OF SPEED ON CRASH RISK AND OUTCOMES

2.74 In 1984, international research by the Lund Institute of Technology established a direct causal relationship between speed and crash risk. Since then, this causal link has been reviewed and reaffirmed a number of times, including by Elvik, Christensen and Amundsen (2004).[65] According to the Nilsson research 'a five per cent increase in speed leads to 15 per cent increase in serious injury crashes and a 22 per cent increase in fatal crashes'.[66]

2.75 While not considered the primary cause of all crashes, speed is an aggravating factor in the severity of all crashes. The reason for this is the notion that as the vehicle's speed increases, so does the distance travelled during the driver's reaction time (reaction distance) and the distance needed to stop (braking

[65] Austroads, *Model National Guides for Setting Speed Limits at High-risk Locations*, March 2014, p6.

[66] Nilsson G, 2004. 'Traffic safety dimensions and the Power Model to describe the effect of speed on safety', Lund Institute of Technology and Society, Traffic Engineering in Australian Transport Council, *National Road Safety Strategy 2011-2020*, May 2011, p59.

distance). Moreover, the higher the speed, the greater the amount of kinetic (moving) energy that must be absorbed by the impact in a crash.[67]

2.76 The community's attitude to speed was summed up in evidence presented to the Committee by the Director of the Injury Division of the George Institute for Global Health, Professor Rebecca Ivers:

> Speed in our country certainly is something that is accepted. We have a trade-off between safety and mobility. At a community level people seem to think that we have a right to speed and actually modifying people's behaviour in relation to speed is a difficult thing because most people do speed.[68]

2.77 In addressing questions concerning how best to change cultural attitudes and behaviour around speeding, Professor Ivers provided the following comment:

> We actually need to make a statement to say, "This is not behaviour we are willing to accept." We need to link it with death and serious injury. We need to move towards understanding. We need more research into really understanding the burden of serious road-related injury in the community, because we do not have great data on that. We need to tie that all in and send a strong message out to the community that we are not prepared to tolerate this anymore—that we are going to put in place heavier penalties and we are going to enforce this better. The behaviour and then the culture will actually change.[69]

2.78 Information provided in the TARS submission graphically illustrates outcomes of speed-related crashes by reference to the following statistics:

- Occupants in speed-related crashes are 2.7 times more likely to die if they are injured compared with vehicle occupant casualties where speeding was not a factor.
- Occupants in a speed-related crash are 6.7 times more likely to die compared with being injured in a crash where speeding is not involved.[70]

2.79 The George Institute also reported that in the case of a head-on collision, when travelling at a speed greater than 70 km/h, there is more or less no chance of survival.[71]

Low-level speeding and crash outcomes

2.80 While it is generally accepted that speeding increases the risk of a crash, a large percentage of motorists drive faster than the speed limit in most countries.[72] According to figures provided by the NSW Police Force for 2013, 158 000 infringement notices were issued for speeding 10 km/h above the speed limit.

[67] Submission 30, NSW Government, p16.

[68] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p44.

[69] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p47.

[70] Submission 26, Transport and Road Safety Research, UNSW, p2.

[71] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p43.

[72] Wegman and Goldenbeld, 2006 in Submission 30, NSW Government, p18.

This compares with 29 616 infringement notices issued for speeding less than 10 km/h above the speed limit.[73]

2.81 The NSW Government contends that the acceptance of low-level speeding is increasing, while tolerance of high-level speeding is decreasing.[74]

2.82 The acceptability of low-level speeding may stem from a lack of understanding of the impact of low-level speeding on crash outcomes. According to an Austroads survey report from 2013, drivers considered that 'low-level speeding was generally acceptable, common and a safe enough behaviour' and demonstrated a 'lack of understanding of the safety implications of low-level speeding'.[75]

2.83 A Senior Research Fellow from TARS reinforced this finding in evidence to the Committee:

> I think we have a huge challenge ahead of us to change the culture of speeding in this State, because people do have the expectation that going 10 kilometres over the speed is cool and they are not going to get booked for that.[76]

2.84 The Centre for Road Safety acknowledged that the issue of the social acceptability of low-level speeding was an issue which needed to be addressed. In evidence to the Committee, the General Manager of the Centre for Road Safety remarked:

> We know that 10 kilometres [K] makes a difference. We know that the community does not understand that low-level speeding is a great risk. We are doing a lot of work nationally to work out what we can do to address low-level speeding…If you hit a pedestrian at 50 kilometres an hour, they are twice likely to die as if you hit them at 40 kilometres.[77]

2.85 The NSW Government has also provided evidence that small increases in travel speed can result in large increases in braking distances. This affects impact speed and, as a result, significantly increases the risk of vulnerable road users such as a bicycle rider or a pedestrian being killed or seriously injured.[78]

2.86 Professor Grzebieta from TARS provided the following response to questions concerning the safety implications of low-level speeding:

> I think that people are not aware of how dangerous it is when you stand next to a vehicle that is travelling at 60 kilometres per hour: it is instant death. It is like standing on the precipice of a cliff and I do not think the general community understand that. We regularly see pedestrians taking risks around Sydney and in the suburbs. Those risks are pretty high. They are not aware that if the person or driver

[73] Acting Assistant Commissioner Stuart Smith, Commander, Highway and Traffic Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p10.
[74] Submission 30, NSW Government, p19.
[75] Submission 30, NSW Government, p21.
[76] Ms Lori Mooren, Senior Research Fellow, Transport and Road Safety Research, UNSW, Transcript of evidence, 5 June 2014, p30.
[77] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p2.
[78] Submission 30, NSW Government, p18.

> in the vehicle suddenly had a heart attack or had to swerve for some reason they are effectively dead if the speed is anywhere above 50 kilometres per hour.[79]

2.87 Contrary to popular belief, in aggregate terms, minor speeding is found to constitute a greater danger to the community than excessive speeding. This means that 'the cumulative effect of a small additional risk multiplied by a high number of drivers results in more casualty crashes than the cumulative effect of a few drivers who speed by a large margin'.[80]

2.88 According to wide-ranging research, even modest reductions in travel speed will result in substantial reductions in the incidence and severity of road crashes. For instance, according to the OECD and the European Conference of Ministers for Transport, reductions in average speed of approximately 5% would yield a reduction in fatalities by as much as 20%.[81] In NSW, for instance, the reduction from 110 km/h to 100 km/h on the Great Western Highway in 2000 led to a reduction of 26% in casualty crashes.[82]

Inappropriate speed and crash outcomes

2.89 Evidence presented to the Committee has also highlighted the lack of information and data on the effects of driving at inappropriate speed under the legal limit, which may also result in serious injury and fatality.[83] Specific reference was made in public hearings to the dangers caused by a combination of bottlenecks and slow drivers:

> The driver in that situation is immediately faced with a choice: Okay, do I overtake? If I do so in order to do so as expediently as possible to minimise other considerations of danger, you are going to go way over the speed limit, whether it is 20 or 30 kilometres an hour, momentarily to get around that person…the other decision is that that in itself present some inherent dangers in doing that, so, no, I had better sit behind this car. Then, of course, if everyone takes that view that way, then you end up with this traffic situation and it creates a danger.[84]

2.90 This raises the issue of road safety education and its role in alerting drivers to the impact of road congestion and traffic delays on driver behaviour:

> People get very irritated when they can see that there is unnecessary congestion or an unnecessary delay and irritated drivers are not safe drivers. It leads to road rage on occasions. I am thinking more of delays which are unnecessary and I have many

[79] Prof. Raphael Grzebieta, Professor of Road Safety, Transport and Road Safety Research, UNSW, Transcript of evidence, 5 June 2014, pp28-29.

[80] Roads and Traffic Authority of NSW, *NSW speed zoning guidelines*, 2011, p10.

[81] European Conference of Ministers of Transport (ECMT), Speed Management 2006, <www.internationaltransportforum.org/Pub/pdf/06Speed.pdf> in Roads and Traffic Authority of NSW, *Speeding – Did you know? How are speed limits set and reviewed and how does reducing speed limits save lives?*, July 2011, p2.

[82] Roads and Traffic Authority of NSW, *Speeding – Did you know? How are speed limits set and reviewed and how does reducing speed limits save lives?*, July 2011, p2.

[83] Mr Christopher Burns, Delegate, Motorcycle Council of NSW, Transcript of evidence, 6 June 2014, p20 and Submission 29, NRMA Motoring and Services, p2.

[84] Mr Christopher Burns, Delegate, and Mr Peter Ivanoff, Delegate, Motorcycle Council of NSW, Transcript of evidence, 6 June 2014, p20.

> examples of that… I was thinking more about educating people on ways to reduce unnecessary congestion and delays.[85]

2.91 The Committee elaborates on the role of road safety education and driver training in Chapter 6 of the report.

2.92 Enforcement strategies to reduce inappropriate speeding are covered in more detail later in the following chapter.

Speeding driver profiles

2.93 While the impact of speeding reflected in the current crash data is significant, as previously described, the proportion of speeding drivers identified in enforcement data sets seems to be relatively small. According to Transport for NSW, 'the majority of drivers do not speed, more than 70% of drivers do not have any demerit points, and about 99% of drivers who drive past a speed camera are compliant and are not infringed for speeding'.[86]

2.94 It should be noted that this may understate the true prevalence of speeding. The NSW Government refers to research indicating that in annual speed surveys conducted by the Centre for Road Safety, speeding behaviour remains prevalent in certain circumstances, particularly on roads with higher speed limits.

2.95 The surveys indicate that 'self-reports of the prevalence of speeding are supported by observations of actual speeding behaviour in NSW, with 28% of vehicles detected speeding by up to 10km/h above the posted speed limit in 100km/h speed zones'.[87]

2.96 The circumstances under which people speed include 'speeding on roads with higher speed limits', when 'feeling in control of the vehicle' and when they have believed that they are unlikely to be caught'.[88] Moreover, according to a 2013 study conducted by the Centre for Road Safety, 31% of drivers reported speeding 'mostly' or 'every time' they drove, with the figure being highest for drivers aged 17 to 29.[89]

2.97 Although the Committee did not receive substantial evidence about the profile of people who speed and their reasons for speeding, a paper supplied to the Committee by a former (Roads and Traffic Authority of NSW) RTA Community Relations Officer, has explored this issue.[90]

2.98 The paper attempted to determine the effect of socio-economic variables on road user behaviour and road safety performance in western NSW. The research found that:

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[85] Mr E Robert Y Smith, Private Citizen, Transcript of evidence, 6 June 2014, p32.

[86] Transport for NSW, Response to questions on notice, 16 July 2014, p1.

[87] Transport for NSW, Response to questions on notice, 16 July 2014, p1.

[88] Transport for NSW, Response to questions on notice, 16 July 2014, p1.

[89] Transport for NSW, Response to questions on notice, 16 July 2014, p1.

[90] Mr Lex Stewart, Road Safety and Community Relations Manger Western Region, NSW Roads and Traffic Authority, Survey of Rural Attitudes to Road Safety and some of the Behavioural Programs that followed, Paper to National Road Trauma Advisory Council Rural Road Safety Seminar, 'Focus for the Future, Wodonga, 20 & 21 April 1995, p4.

- 'Speeding and poor attitudes to speeding are a wide cultural problem across all age groups'.
- 'Advertising/education directed at changing attitudes in young people in relation to speeding will not be effective unless similar campaigns simultaneously aim to change attitudes in young people's parents, grandparents and guardians'.
- A significant number of research participants were illiterate and had a variety of learning dysfunctions, which are attributed to drug and alcohol abuse, and poor experiences within the school system. The implication of this is that 'traditional advertising and educational strategies are not going to be as effective in reaching a significant proportion of the lower socio-economic group'.
- Only six per cent of participants learned to drive with a driving school. As a result, bad habits of parents and peers are imparted to learner drivers.[91]

2.99 The study also found that anti-social and irresponsible road safety attitudes are part of a wider social and cultural environment, which may be simplistically expressed as 'us' versus 'them'. One of the key findings of the study was that socio-economic alienation can hinder the effectiveness of road safety messages.[92]

2.100 Whereas reference has been made in individual submissions to factors influencing speeding behaviour, these are anecdotal in nature and postulate, for instance, the role of everyday stress.[93] It does serve to illustrate, however, the lack of empirical research into the underlying causes of speeding.

Community attitudes to speeding

2.101 A number of studies have been conducted to gauge community attitudes in relation to speeding. Key findings include:

- 2009 - speeding was not yet socially unacceptable, other than in extreme cases.
- 2011 - small reductions in the perceived acceptability of speeding, although only in lower speed zones.
- 2013 - increased incidence of self-reported speeding, with one third of all drivers having claimed to speed mostly or every time they drive.

[91] Mr Lex Stewart, Road Safety and Community Relations Manger Western Region, NSW Roads and Traffic Authority, Survey of Rural Attitudes to Road Safety and some of the Behavioural Programs that followed, Paper to National Road Trauma Advisory Council Rural Road Safety Seminar, 'Focus for the Future, Wodonga, 20 & 21 April 1995, p4.

[92] Mr Lex Stewart, Road Safety and Community Relations Manger Western Region, NSW Roads and Traffic Authority, Survey of Rural Attitudes to Road Safety and some of the Behavioural Programs that followed, Paper to National Road Trauma Advisory Council Rural Road Safety Seminar, 'Focus for the Future, Wodonga, 20 & 21 April 1995, p9.

[93] Submission 18, Ms Kim Zwulik, p2.

- The proportion of drivers involved in low-level speeding (speeding less than 10 km/h over the speed limit), has increased since 2009. On the other hand, the proportion of drivers speeding more than 10 km/h over the limit has progressively decreased since 2009.[94]

2.102 The George Institute for Global Health drew parallels with the decreased community tolerance for drink driving, when referring to current attitudes to speeding:

> I think at the moment we do still have a very high tolerance for road deaths in the community and people do regard speeding as something they have a right to do. Coming back to drink-driving, I do not think it is that dissimilar to the way in which we thought about drink-driving before we brought in random breath testing. I think we probably need to learn some lessons from that and go back and say that we probably know the answer to it—it is just that we have to be prepared to actually do something about it.[95]

2.103 Issues related to enforcement and education strategies to change community perceptions about the acceptability of speeding will be addressed later in the report.

Conclusions

2.104 The Committee acknowledges that the acceptability of low-level speeding may stem in part from a lack of understanding of its impact on crash outcomes. The Committee therefore considers that there is a need to accurately determine the current level of community awareness of the risks of low-level speeding in NSW, and to develop appropriate strategies to increase public awareness of its consequences.

2.105 While noting concerns that driving at inappropriate speeds under the legal limit can lead to road crashes, there seems to be a lack of data and information on its impact on safety. Therefore, the Committee considers that there is a need for more information about this issue.

2.106 The Committee also noted that there is a lack of up-to-date information about the reasons people speed. The Committee considers that this information is vital in order to develop adequate policies to address the underlying reasons for speeding behaviour.

RECOMMENDATION 6

The Committee recommends that Transport for NSW develops and implements strategies to increase awareness of the risks and combat the acceptability of low-level speeding in NSW.

RECOMMENDATION 7

The Committee recommends that Transport for NSW commissions research into the impact of travelling at inappropriate speed under the legal limit.

[94] Submission 30, NSW Government, p19.

[95] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p47.

RECOMMENDATION 8

The Committee recommends that Transport for NSW commissions research into underlying causes of speeding behaviour, in order to fill the existing information gap in this area. Research results and data should be used to develop better targeted policy responses to address speeding on NSW roads.

Chapter Three – Current Operation of Speed Zones

3.1 An impetus for the conduct of the inquiry stems from expressed concerns about the range of speed limits and appropriateness of current speed zones in NSW. This chapter addresses these issues with reference to: the rationale for speed zones on NSW road; key factors governing the establishment of speed limits; mechanisms for reviewing the appropriateness of maximum speed limits; and the operation of speed limits in other jurisdictions.

ESTABLISHMENT AND RATIONALE FOR SPEED ZONES

3.2 Transport for NSW defines a speed zone as a length of road over which a particular speed limit applies.[96] According to the NSW Government submission, the rationale for having speed limits is to control traffic speeds and provide a more uniform environment in which drivers can more safely undertake difficult manoeuvres such as stopping, overtaking and turning.[97] In NSW, speed limits are set to balance safety and mobility needs to reduce the risk of a crash occurring and to ensure that collisions are likely to be survivable.[98]

Regulatory rules and standards

3.3 The establishment of speed zones in NSW is guided by the standards for regulatory speed control, set out in part 4 ('Speed Controls') of the Australian Standard AS1742 – 2008 Manual of Traffic Control Devices. The publications *Austroads Guide to Traffic Management Part 5: Road Management* (Austroads 2008a) and the *Austroads Guide to Road Safety Part 3: Speed Limits and Speed Management* (Austroads 2008b) also provide guidelines for the different types of speed limits and their application to the road environment.[99]

3.4 As an overriding principle, the establishment of speed limits in NSW uses default unsigned speed limits of 50 km/h in urban built-up areas and 100 km/h in rural open-road environments. Due to differences that may prevail on roads across the road network, varying sign posted speed limits are applied ranging from 10 km/h for shared pedestrian vehicle road spaces (e.g. car parks and pedestrian malls), to 110 km/h for high standard highways and freeways.

3.5 As well as the rules described above, a range of varying speed zones apply across jurisdictions in order to reflect specific road characteristics and to accommodate local practices and requirements.[100]

[96] Roads and Traffic Authority of NSW, *Speeding – Did you know? Why do we need speed limits?*, July 2011, p2.
[97] Submission 30, NSW Government, pp14-15.
[98] Submission 30, NSW Government, p25.
[99] Submission 30, NSW Government, p33.
[100] Submission 30, NSW Government, p35.

Setting speed zones

3.6 Key responsibility for the establishment of speed zones in NSW resides with Transport for NSW and Roads and Maritime Services (RMS). While Transport for NSW is responsible for the development and maintenance of the NSW Speed Zoning Guidelines and other speed zoning policies, RMS reviews and sets speed limits in accordance with those policies.[101]

3.7 As set out in the NSW Government submission, the purpose of the NSW Speed Zoning Guidelines is to guide the review and establishment of speed limits to:

- Ensure that speed limits and speed zones are set to balance road safety with mobility needs.
- Ensure an appropriate balance of speed zones which are sensitive to changes in conditions along the length of a road without an excessive number of changes.
- Ensure that community views are considered in speed zone management.
- Identify and investigate aspects of speed zone policy to ensure that they are practical and balance mobility, road safety and community concerns.[102]

3.8 Specific elements of road design governing the establishment of speed limits in NSW include road geometry and physical road infrastructure. Furthermore, the application of engineering and design principles complies with the Safe System framework, having regard to all road users, including vulnerable road users such as pedestrians and bicycle riders, and the vehicles. The engineering and design principles which govern the establishment of speed zones, include:

> Sight Distance – the distance measured along the road over which visibility occurs between a driver and an object or between two drivers at a specific height above the carriageway in their lane of travel. A principal aim in road design is to ensure that a driver has sufficient sight distance to be able to perceive any road hazards in sufficient time to take action to avoid mishap.
>
> Geometric Elements are also vital when determining the speed limit. It is accepted that drivers will change their desired speed to suit a road alignment. What must be delivered by the geometric design is an alignment that leads a driver to reduce speed in a comfortable manner.
>
> Roadside Environment – in setting speed limits, it is important to identify the presence of road and roadside furniture and other treatments, including consideration of: safety barrier type; safety barrier deflection; terminal treatments; and verge widths to allow for barrier deflection.
>
> Design Speed – this is the speed adopted for the design of the individual geometric elements of an existing or selected speed environment. Design speed is the constant

[101] Submission 30, NSW Government, p30.
[102] Submission 30, NSW Government, p25.

> which is used to co-ordinate geometric elements so that a driver negotiating each element at its design speed will not be exposed to unexpected hazards.[103]

3.9 Safe System principles are also taken into account by RMS when determining speed limits.[104] The Safe System approach, as described in the previous chapter, entails the use of human biomechanical and performance competencies as design parameters for the road and traffic system and when determining speed limits.[105]

3.10 The Centre for Road Safety stressed that determination of speed limits is a scientific process, which takes into consideration:

> …road design, lane width, alignment, road quality, sight distance, crash risks, crash history, the complexity of the road network, how many intersections, driveways are coming into that, and what the adjoining land use is.[106]

3.11 The complexity of the process is not easily appreciated and, in evidence to the Committee, the General Manager of the Centre for Road Safety emphasised that drivers do not fully understand the risks on the road:

> You may drive along the Hume and think, "Wow, I could be going at 130, 140 and I'd be okay." That is, first, because the driver does not think they are going to crash and, second, they cannot actually see what the risks are. The risk could be a driveway, the alignment, the elevation—it is a number of things.[107]

85th percentile principle

3.12 Critics of the current method of setting speed limits suggest that the 85th percentile principle may be a better determinant of appropriate speed. This method, recommended by the US Institute of Transportation Engineers, sets speed limits at or below that at which 85% of drivers travel. [108]

3.13 Proponents of this approach base their argument on the premise that reasonable drivers will take account of prevailing road conditions when selecting their travel speed.[109] In evidence to the Committee, the NMAA suggested that the USA and Canada have successfully implemented the 85th percentile methodology. The Association cited statistics demonstrating that roadways with speed limits set at the 85th percentile have fewer accidents than roads where the posted speed limit is above or below the travel speed used by a majority of drivers.[110]

3.14 On the other hand, critics of the 85th percentile principle point out that drivers are ill equipped to correctly assess road travel risks.[111] Reference is also made to

[103] Submission 30, NSW Government, pp26-30.

[104] Submission 30, NSW Government, p15.

[105] Submission 26, Transport and Road Safety Research, UNSW, p8.

[106] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p3.

[107] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p3.

[108] Roads and Traffic Authority of NSW, *NSW speed zoning guidelines*, 2011, p16.

[109] National Motorists Association of Australia, Response to questions on notice, 18 July 2014, p1.

[110] National Motorists Association of Australia, Response to questions on notice, 18 July 2014, p1.

[111] Gregersen, 1996, Groeger & Brown, 1989; Job, Sakashita, Mooren & Grzbieta, 2013; Svenson, 1981; Wilde, 1994. in Submission 26, Transport and Road Safety Research, UNSW, February 2014, p9.

a phenomenon called "evolution of speed", whereby 85th percentile speeds drift up over time.[112]

CURRENT FRAMEWORK OF OPERATION

3.15 Speed limits in NSW are based on the following system of default speed limits, speed restrictions, and speed zoning :

(1) Default speed limits are statutory speed limits which apply in the absence of speed limit signage and do not require signposting. In NSW, there are two types of speed limits – 50 km/h in urban (built-up) areas and 100 km/h in rural (non-built-up areas).[113]

(2) Speed restrictions are based on vehicle class or licence class, such as Learner drivers.

(3) Speed zoning applies to areas which require speed limits to be signposted, including 60, 70, 80, 90 and 110 km/h speed zones on road lengths, which have been assessed as safe.

(4) Lower speeds are used to improve the safety of more vulnerable road users, such as 40 km/h in high pedestrian areas and 10 km/h in shared zones.[114] The existing speed zones and their application in different road environments is summarised in the table below.

Table 1 - Key features of speed limits in NSW[115]

Speed (km/h)	Key features
10	• Shared zones
40	• High pedestrian activity areas • Local traffic areas • School zones (prescribed times) • School bus black spot zones
50	• Default urban speed limit
60	• Significant urban undivided arterial access (with direct driveway access)
70	• Significant urban divided arterial roads (with limited driveway access) • Urban fringe undivided road
80	• Urban high standard divided roads (without driveway access) • Undivided arterial and sub arterial roads on the fringes of urban areas • Lower quality rural roads • Undivided rural roads with less than 5.6m wide sealed pavement

[112] Hauer, 2009 in Submission 26, Transport and Road Safety Research, UNSW, p9.

[113] Submission 30, NSW Government, p14.

[114] Roads and Traffic Authority of NSW, *Speeding – Did you know? Why do we need speed limits?*, July 2011, p2.

[115] Submission 30, NSW Government, p33.

Speed (km/h)	Key features
	or no marked dividing line
90	• High volume urban motorways • Lower quality roads
100	• Default rural speed limit • Urban motorways • Rural undivided road with sealed pavement greater than 5.6m • Rural divided roads
110	• Maximum allowable speed limit in NSW • Motorways (freeways/tollways) in non-built-up areas • High quality rural divided roads • Undivided rural roads with low traffic volume in western part of NSW

MECHANISMS FOR REVIEWING SPEED ZONES

3.16 Speed limits evolve according to changing community and road safety practitioner priorities for the road network.[116] The RMS monitors and regularly reviews lengths of the NSW road network to ensure that the speed limits reflect the risk of using the road. Reviews of speed zones utilise the *NSW Speed Zoning Guidelines*, formulated by Transport for NSW.

3.17 The RMS uses a 10 step process to review speed zones. These are as follows:

(1) Receive request or identify the need for speed review.

(2) Conduct crash analysis.

(3) Conduct first site inspection.

(4) Speed survey.

(5) Review data from analysis, inspection, and surveys, and consider minimum lengths.

(6) Discuss with RMS business units.

(7) Conduct second site inspection, location of new signs.

(8) Speed zone authorization.

(9) Advise community and stakeholders.

(10) Post installation checks.[117]

3.18 The trigger for a review typically comes from a range of sources, including: the police; members of the public; the RMS; politicians; local councils; and/or

[116] Roads and Traffic Authority of NSW, *Speeding – Did you know? How are speed limits set and reviewed and how does reducing speed limits save lives?*, July 2011, p1.

[117] Roads and Traffic Authority of NSW, *NSW speed zoning guidelines*, 2011, p18.

advocacy groups.[118] Further reviews may also be prompted by a change to existing land use, such as residential or other developments on the periphery of cities and towns altering the intersection and parking arrangements along a route.[119]

3.19 An additional measure for the review of speed zones used in NSW is the 85th percentile speed, which as previously described is the speed at or below which 85% of drivers travel.[120] While the 85th percentile speed does not indicate the safe speed limit, the measure is used by RMS to design, implement and evaluate speed management initiatives. In cases where the 85th percentile is higher than the reviewed speed limit of a road, the RMS may implement a broad speed management program with the purpose of reducing speeding. Such a program may include speed signs, enforcement, public education and a reduced speed limit.[121]

3.20 In 2011, the RMS launched a website called *Safer Roads NSW* <www.saferroadsnsw.com.au>, to enable community participation in the review of speed limits and speed zones in NSW.[122] The website provides an interactive map, allowing members of the public to advise RMS about issues warranting a review of speed limits and speed limit signs. Agency road safety experts use this feedback, together with crash data and other road safety engineering information, to determine the priority of roads that may require a speed zone review.[123]

3.21 A 2011 review by Transport for NSW of the Speed Zoning Guidelines and the top 100 speed limits resulted in significant community feedback about suggested changes to speed limits.[124] As a consequence, there are now 37 fewer speed zones across the State. Moreover, the review led to an increase in 18 speed zones, a decrease in 18 speed zones, and a mixture of increases and decreases in 12 zones.[125]

3.22 Since then, RMS have conducted over 400 speed zone reviews, which have led to 262 speed zone changes.[126] The review of speed limits has since become an ongoing process and the website remains live for public suggestions or queries.[127]

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[118] Roads and Traffic Authority of NSW, *NSW speed zoning guidelines*, 2011, p18.

[119] Transport for NSW, Response to questions on notice, 16 July 2014, p2.

[120] Roads and Traffic Authority of NSW, *NSW speed zoning guidelines*, 2011, p16.

[121] Roads and Traffic Authority of NSW, *NSW speed zoning guidelines*, 2011, p16.

[122] Acting Assistant Commissioner Stuart Smith, Commander, Traffic and Highway Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p2.

[123] Roads and Traffic Authority of NSW, *Speeding – Did you know? How are speed limits set and reviewed and how does reducing speed limits save lives?*, July 2011, p2.

[124] Acting Assistant Commissioner Stuart Smith, Commander, Traffic and Highway Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p2.

[125] Submission 30, NSW Government, p31.

[126] Submission 30, NSW Government, p31.

[127] Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transport for NSW, Transcript of evidence, 5 June 2014, p4.

APPROPRIATENESS OF MAXIMUM SPEED LIMITS

Variability and consistency

3.23 As part of the inquiry, the Committee examined the appropriateness of the number and range of the current nine zones, set at 10, 40, 50, 60, 70, 80, 90, 100 and 110 km/h.

3.24 In discussing its 2011 review of the Speed Zones Guidelines, the Centre for Road Safety informed the Committee that the purpose of the review was to examine the effectiveness of the existing zones in order to rationalise and provide greater consistency across NSW. As part of that review, the Centre for Road Safety examined the sections on the road network with greatest variability and those with 70 and 90km/h speed zones.[128]

3.25 The necessity of the 70 and 90km/h zones was tested in evidence by the Committee. In its response, the Centre for Road Safety stated that there is a need to consider the individual characteristics of the road. As a result, removing the 70 and 90km/h speed zones generally, without examining their appropriateness for each individual length of the road, was unlikely.[129]

3.26 Furthermore, Centre for Road Safety informed the Committee that the process of determining speed zones involves an overriding attempt to rationalise variability and ensure consistency:

> The problem we sometimes face in setting speed zones is that we try to zone a lower speed just around the risk point. So you are trying to keep the higher speed for the longer length but around that risk point you are trying to put in the lower speed to mitigate that risk. What that then does is work against consistency. So it is a delicate balance.[130]

3.27 An additional factor taken into consideration in rationalising speed zones is the length of a proposed speed zone, which can affect a number of issues such as traffic flow, compliance, enforceability and community acceptance. Compared to other Australian and New Zealand jurisdictions, NSW has longer minimum speed zone lengths. The main rationale for this is to ensure consistency and decrease the level of variability across speed zones in the State.[131]

3.28 The submission from the NRMA expressed the view that while there may not be a need to reduce the actual number of speed zones, there may be a need to reduce the variability along a route, as multiple speed limit changes along a route can cause confusion to motorists.[132]

3.29 This critique has been supported by other witnesses. The Motorcycle Council of NSW stated that:

[128] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p22.
[129] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p22.
[130] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June, p3.
[131] Submission 30, NSW Government, p36.
[132] Submission 29, NRMA Motoring and Services, pp2-3.

> …between the centre of Annandale and King Street Sydney CBD, which is a distance of five kilometres, there are seven changes in speed zones…As a result, this effectively redirects the focus of the driver from what is going on around them to what speed they are travelling at.[133]

Increased speed limits

3.30 The adequacy of current maximum limits and the case for increasing existing upper thresholds was also canvassed with the Committee. The General Manager of the Centre for Road Safety made reference to the current maximum of 110 km/h on NSW roads:

> 110 kilometres an hour is the World Health Organisation's best practice for the higher speed limit. We previously had discussions, in the context of that Wheels event, about higher speed limits. If you doubled the price of a road and that road potentially had no horizontal or vertical curvature, if it had no super elevation, if there were no access points at all, if the pavement was of a sufficient friction and quality, if the lane width was very wide, and the gradients were such, it may be considered appropriate. At the end of the day no road that we know of is like that. There are always risks at play, there are always curves, alignments, shoulders and no other country except Germany with the autobahns has lifted the speed limits to that degree.[134]

3.31 Road safety experts from TARS advised the Committee that in order to increase the speed limit, there is a need to provide the appropriate road infrastructure:

> …if you have got the roadside barriers, the runoff areas, and effectively what we call in the international road assessment program a five star road, then you can raise your speed limits.[135]

3.32 The Committee was further advised that the lack of appropriate infrastructure compromises safety, particularly when travelling at a higher speed:

> If you have not got the appropriate safeguards if that person had a heart attack and veered off the road at 130 kilometres per hour and travelled across the wide median on the Hume Highway – where I presume he drove – there is not barrier and he will take out whoever he cuts across into the opposing traffic.[136]

3.33 The importance of road infrastructure in determining speed limits was also emphasised by the George Institute for Global Health. The evidence provided by the Director of the Injury Division stressed the following point:

> One hundred kilometres per hour plus speed limits should only be put in place where there is no possibility of a front or a side-on crash such as highways and roads that have good clear separation from traffic in opposite directions.[137]

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[133] Submission 23, Motorcycle Council of NSW, p6.

[134] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p4.

[135] Prof. Raphael Grzebieta, Professor of Road Safety, Transport and Road Safety Research, University of NSW, Transcript of evidence, 5 June 2014, p29.

[136] Prof. Raphael Grzebieta, Professor of Road Safety, Transport and Road Safety Research, University of NSW, Transcript of evidence, 5 June 2014, p29.

[137] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p43.

3.34 Supporting sound road infrastructure, the Motorcycle Council of New South Wales argued that well-designed roads carrying higher speeds will always be safer than those roads with lesser safety measures but lower speed limits. To this end, the Council referred to the 2012 NSW crash data, which shows that 110km/h signposted roads represented just 7.7% of fatal crashes as opposed to 46% on rural roads with lower speed limits.

3.35 Furthermore, the Motorcycle Council stated that data from injury crashes shows that 5.4% occurred on 110 km/h roads, while 27% happened on other rural roads, implying that over 66% happened on metropolitan roads with speed limits typically below 90 km/h.[138]

3.36 In relation to the issue of revising the maximum speed limit, the Committee also noted evidence by the NRMA which emphasised that there is no push from their membership to increase the speed limit from 110 km/h on NSW highways.[139]

Decreased speed limits

3.37 The Committee also received evidence advocating a reduction in speed limits in NSW.

3.38 One argument for lowering speed limits was to reduce casualty crashes. The NSW Government made reference to Australian research demonstrating that the risk of a serious casualty crash doubles with just a 5 km/h speed increase on 60 km/h urban roads.[140] Consequently, the level of speed involved in a crash determines crash severity and survivability and road transport systems need to align speed limits with the survivability of likely crash types in specific environments.[141]

3.39 This point was reinforced by the George Institute for Global Health. In evidence to the Committee, the Institute stressed that 50 km/h is too high for most urban roads where there is possibility for pedestrian conflict. As a result, they recommended reducing the speed to 30 km/h in urban settings.[142]

3.40 This is consistent with OECD recommendations for speed limits of 30 km/h or less in environments where conflicts with pedestrians are possible, such as residential areas and shopping precincts. A number of countries which have implemented 30 km/h zones have achieved positive results in this regard.

3.41 The introduction of 30 km/h zones in the Netherlands has resulted in nearly a 70% drop in road casualties since their introduction in 2002.[143] Aiming to achieve similar outcomes, the City of London has announced the introduction of a 20

[138] Motorcycle Council of NSW, Response to questions on notice, 1 July 2014, p6.

[139] Mr Mark Wolstenholme, Senior Policy Advisor, Traffic and Roads, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, pp22-23

[140] Kloeden et al, 1997, 2001 and 2002 in Submission 30, NSW Government, p16.

[141] Submission 30, NSW Government, p18.

[142] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p44.

[143] Ms Lori Mooren, *For safer roads we need to lower the speed limit to 30 km/h*, <www.smh.com.au/comment/for-safer-roads-we-need-to-lower-the-speed-limit-to-30kmh-20140527-zrpn5.html> , viewed on 28 May 2014.

mph (32 km/h) limit on all its roads in the Capital's financial hub (known as the square mile). [144]

3.42 While a 30 km/h speed zone has not been introduced in NSW, there have been speed reductions in specific parts of the road network. On 26 May 2014, the NSW Roads Minister announced a new zone in Sydney's CBD, where the speed limit would be reduced to 40 km/h.[145] The Minister emphasised that the move was an effort to improve pedestrian safety.[146] This change has now been effected.

3.43 The rationale for the implementation of lower speed limits is detailed in the submission from the NSW Government, which quoted research demonstrating that lower speeds:

- Allow road users more time to assess hazards and avoid potential crashes.
- Reduce the distance travelled while reacting to the hazards.
- Reduce the vehicle stopping distance after application of the brakes.
- Provide a greater opportunity for road users to avoid a collision.
- Make it less likely that a driver will lose control.
- Reduce the impact forces in the event of a crash, reducing the severity of the outcomes.[147]

3.44 A contrasting view expressed by the Motorcycle Council claimed that the rationale for lowering the speed limit is mainly driven by emotive issues rather than being based on objective scientific evidence.[148]

Conclusions

3.45 The Committee agrees that appropriate speed setting is an essential safety measure to protect all road users from risk of injury and death. The determination of appropriate speed limits must also, however, be based on soundly based and verifiable evidence, as education and/or enforcement may prove futile if drivers do not perceive the posted speed limit to be appropriate.

3.46 The rationale for specific speed limits needs to be plausible and well-reasoned and drivers should be persuaded and reassured that the speed limit has been determined following systematic and scientific procedures. As the last major review of the *Speed Zoning Guidelines* was conducted in 2011, the Committee believes that there is a need for another general review of the current range of speed zones to provide greater consistency of speed zone operations across NSW and to reinforce public confidence in the current settings.

[144] City of London, Press Release, <www.20splentyforus.org.uk/Prel/COL1.pdf>, viewed 3 July 2014.

[145] The Hon. Duncan Gay MLC, Minister for Roads and Freight, Leader of the Government Legislative Council, *Media release – Improving Pedestrian Safety in the CBD: New 40 km/h speed limit zone*, 26 May 2014, p1.

[146] The Hon. Duncan Gay MLC, Minister for Roads and Freight, Leader of the Government Legislative Council, *Media release – Improving Pedestrian Safety in the CBD: New 40 km/h speed limit zone*, 26 May 2014, p1.

[147] Submission 30, NSW Government, p16.

[148] Submission 23, Motorcycle Council of NSW, p5.

RECOMMENDATION 9

The Committee recommends that Transport for NSW reviews the current range of speed zones in the State and examines the merits of reducing the number of zones to provide greater consistency of speed zone operations across NSW.

SPEED LIMITS IN OTHER JURISDICTIONS

3.47 In order to make an assessment about the usefulness of adapting international best practice experience, a brief analysis of developments relating to speeding and speed zones in other comparable jurisdictions was also carried out as part of the inquiry.

3.48 An examination of speed setting methods in OECD countries showed that the approach used to determine speed limits is similar to that used in NSW. Distinctions are made in the OECD between urban arterial and urban local and collector roads on the one hand and higher speed limits on motorways, highways and rural roads on the other.[149]

3.49 In the case of the Netherlands, speed limits range from: 120 km/h on freeways; 100 km/h on highways; 80 km/h on most rural roads; 60 km/h on most rural access roads; to 50 km/h in built-up areas.[150] In Sweden, the general speed limit is 70 km/h in non-metropolitan areas and 110 km/h on motorways, although some roads allow 120 km/h.[151]

3.50 The United States speed limit guidelines vary between states and according to road hierarchy, as follows:

- Highway speed limits – mostly 70 mph (112 km/h), with some at 75 mph (120 km/h).
- Collector roads – usually 55 mph (88 km/h) or lower.
- Local roads – speed limits 35 mph (56 km/h) or lower.[152]

3.51 In the UK, a default speed limit of 60 mph (97 km/h), which is often referred to as the 'National Speed Limit', applies to any single-carriageway road where there is no street lighting and no signs indicating any other speed limit.[153] The Committee also noted that in New Zealand speed limits are set in multiples of 10 km/h between 10 and 90 km/h, as well as holiday (seasonal), temporary, and variable limits.[154]

3.52 While the autobahn is often cited as allowing driving at unrestricted speed, Germany has now reinstated speed limits on selected stretches of the autobahns and over one third are now covered.[155] Germany's move to reinstate the speed

[149] Submission 30, NSW Government, pp34-35.
[150] Submission 30, NSW Government, p38.
[151] Submission 30, NSW Government, p38.
[152] Submission 30, NSW Government, p39.
[153] Submission 30, NSW Government, p37.
[154] Submission 30, NSW Government, p37.
[155] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p5.

limits may be interpreted as a response to its relatively high fatality rates compared to other European countries. According to the IRTAD data from December 2012, Germany had 2.0 fatalities per billion vehicle kilometres travelled for German autobahns. This was higher than Finland (1.6), France (1.8), Denmark (1.0), and Great Britain (1.2).[156]

3.53 The Committee is also aware of recent changes to speed limits in Australia. In February 2014, the Northern Territory removed the speed limit on a 200 km stretch of the Stuart Highway between Alice Springs and the Barrow Creek area, as part of a 12 month trial.[157] No fatality or serious injury has been recorded to date since the introduction of the districted speed limit trial.

3.54 However, according to the Centre for Road Safety, the trial was conducted on a stretch of the highway without adjacent land use constraints. Moreover, it has been noted that the fatality rate for the Northern Territory is over 16% per 100 000 population, which compares unfavourably to the NSW fatality rate of five per cent.[158]

Conclusions

3.55 In its review of best practice relating to speed and speed zones, the Committee found that overall speed limits and zones used in NSW are on par with those of other jurisdictions. The Committee noted recent changes to speed limits in the Northern Territory.

[156] Submission 30, NSW Government, p10.

[157] Northern Territory Government Newsroom, <www.newsroom.nt.gov.au/mediaRelease/8717>, viewed on 7 July 2014.

[158] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p5.

Chapter Four – Speed Enforcement Strategies

4.1 Speeding remains prevalent on Australian roads, despite the range and intensity of speed enforcement measures. Drivers are increasingly adapting their driving behaviour to avoid detection and punishment by site-learning and modifying behaviour only in the immediate vicinity of speed enforcement. Consequently, punishment avoidance may do more to reinforce speeding behaviour than punishment does to discourage it.[159] This chapter will explore approaches to combat speeding and to improve enforcement strategies.

4.2 A number of speed management initiatives have been deployed in NSW. These include: police and camera enforcement; speed limit reviews; public education campaigns; 40 km/h speed limits in school zones and areas of high pedestrian activity; and a 50 km/h general urban speed limit.[160] All these strategies are recognised by the OECD as international best practice for improving road safety.[161]

POLICING AND SPEED CAMERAS

High visibility policing

4.3 Evidence provided to the Committee has stressed the importance of high visibility police enforcement as a critical part of managing speed. According to the George Institute for Global Health:

> There is a high degree of community acceptance and people like to see police on the roads and police with radars collecting people…What is a cost-effective and critical way of managing speed is visible police enforcement. [162]

4.4 The Motorcycle Council of NSW also emphasised the vital role of immediate enforcement of penalties by high visibility policing. One of the main reasons given was that police have the ability to deal with speed offenders on the spot. This, it has been argued, provides more effective education to offenders as it immediately establishes the link between cause and effect. According to a Council delegate:

> …there seems to be a preference by most people I have spoken to for it being better to be dealt with straightaway rather than being flicked something later on: "When the hell was that? I don't remember that." They become a lot more resentful about

[159] Glendon, 2007; Glendon & Sutton, 2005; Roads and Traffic Authority, 2000; 2009; Walker, Murdoch, Bryant, Barnes & Johnson, 2009 in Austroads, *Point-to-Point Speed Enforcement*, September 2012, p2.
[160] Transport for NSW, Response to questions on notice, 16 July 2014, p3.
[161] Transport for NSW, Response to questions on notice, 16 July 2014, p3.
[162] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p46.

> the whole process rather than seeing it as almost an educational tool to say, "You do the wrong thing, you need to be dealt with expediently and wear it", sort of thing.[163]

4.5 Furthermore, the George Institute stressed that mass media also has a critical role in managing speed. In the words of the Director of the Injury Division:

> Mass media supporting visible police enforcement is critical because the community needs to have the perception that if they speed they will be caught. Having that visible police presence is important, particularly with mass media campaigns, there is no denying that.[164]

Speed cameras

4.6 Another way to enforce speed limits in NSW is by using speed cameras, which are available in four configurations on NSW roads, namely: fixed; red light; mobile; and point-to-point.[165] The following table expands on their application:

Table 2 - Speed cameras used in NSW[166]

Type	Main purpose	Introduced	NSW program
Mobile	General network deterrence	First introduced in 1991. Ceased operation in December 2008 and re-introduced in 2010.	45 vehicles operating at about 2,500 locations for 7,000 hours per month
Red-light speed	Location specific(to address high risk intersections)	2009	Planned for 200 cameras at 45 intersections by end of 2014
Fixed	Location specific (to address back spot/high risk)	1997	133 cameras at 108 locations
Point-to-point	Route enforcement (For heavy vehicles only)	2010	25 lengths

Mobile cameras

4.7 The main purpose of mobile speed cameras is to reduce speeding through the use of 'anywhere, anytime enforcement'. The locations for mobile speed cameras are selected based on three criteria, namely: actual history and potential risk of a crash; via police nomination; and via community nomination.[167] The perception that speeding can be enforced anywhere at any time, as mobile cameras can be

[163] Mr Christopher Burns, Delegate, and Mr Ivanoff, Delegate, Motorcycle Council of NSW, Transcript of evidence, 6 June 2014, p21.
[164] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p45.
[165] Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transport for NSW, Transcript of evidence, 5 June 2014, p5.
[166] Submission 30, NSW Government, p60.
[167] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p13.

moved around the road network, is said to be conducive to producing a sustained change in driver behaviour.[168]

4.8 Mobile speed cameras are reported to have produced significant reductions in mean travel speed, crashes and casualties. An evaluation of such cameras in the UK found a 19% decrease in the overall crash rate, as well as a 44% decrease in crashes involving fatalities or serious injuries.[169] According to Transport for NSW, since the re-introduction of the mobile speed camera program in 2010, mobile speed cameras have delivered positive road safety benefits in NSW.[170]

Fixed speed cameras

4.9 Fixed speed cameras reduce speeding in the immediate vicinity of the camera, the location of which is associated with a demonstrated crash history. The safety benefit of these cameras is restricted to a total perimeter of approximately 500 metres for each camera. Taking into account that there are 131 fixed speed cameras operating at 103 locations in NSW, this implies that these cameras only enforce 103 km of the 188 000 km total length of the NSW road network. Nevertheless, according to figures provided by Transport for NSW, in the first five years fixed speed cameras were installed, 36 lives and 546 injuries were saved.[171]

Red-light cameras

4.10 Red-light speed safety cameras, like fixed cameras, are location-specific. They are designed to tackle speeding as well as red-light running at intersections where drivers and pedestrians are vulnerable to right angle crashes.[172] This type of camera has been reported as being effective in reducing crashes by 26% and injuries by 34% in the initial 57 locations where they were installed.[173]

4.11 When questioned about the precise number of red light cameras in NSW and their use in enforcing speed limits, the Centre for Road Safety outlined that it is planning for the next batch of red light cameras to be introduced:

> There are 126 red light speed cameras out there now. There is another 20 being constructed. We are currently doing the selection for the further ones. What I need to add and what is a critical point is that is actually rolling out a little slower than we anticipated. That is because we come up with the locations with the highest crash risk.[174]

Point-to-point cameras

4.12 Point-to-point speed enforcement entails measuring a vehicle's average speed over a larger distance to determine overall speed levels. According to Transport

[168] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p10.
[169] Jones et al. 2008 in Submission 30, NSW Government, p61.
[170] NSW Centre for Road Safety 2013 in Submission 30, NSW Government, p61.
[171] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p11.
[172] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p11.
[173] Submission 30, NSW Government, p62.
[174] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p18.

for NSW, this type of camera is mostly used over a larger distance to determine whether a driver was speeding or not.[175]

4.13 Currently in NSW, point-to-point speed cameras are only used for heavy vehicle detection. The Centre for Road Safety acknowledges that other jurisdictions, including Victoria and Queensland, use average speed limits for all vehicles.

4.14 When questioned about its potential for further rollout to all vehicles, the Deputy Director General, Policy and Regulation, Transport for NSW told the Committee:

> …the criteria we are applying for point-to-point at the moment is to target heavy vehicles. We have a program that is relatively new and we will continue to monitor it in terms of its effectiveness and evaluation over the next couple of years; that will tell us how effective it is for trucks as the targeted road user. I also indicated we are well aware of what is happening internationally and we will continue to monitor the effectiveness of those programs.[176]

4.15 An argument for the introduction of a point-to-point system is its association with a decrease in 'killed or serious injury' (KSI) statistics. Evaluation studies of point-to-point systems throughout the UK showed a decreased KSI in the order of 33% to 85%.[177] Given such positive results, TARS suggested that point-to-point camera enforcement should apply to all vehicles.[178]

4.16 However, installing more cameras needs to be carefully considered. As noted by NRMA Motoring and Services, appearing before the Committee:

> There is certainly a view from our membership that there are a lot of cameras out there and this would just be another camera. We know that point-to-point cameras are reasonably expensive to install and operate.[179]

4.17 The *National Road Safety Strategy 2011-2020 – Implementation status report*, has outlined progress made in jurisdictions across Australia in relation to the installation of point-to-point cameras to improve speed compliance among all vehicles. The report noted that most jurisdictions have introduced or have plans to introduce point-to-point systems and made reference to the release of an Austroads report on best practice in point-to-point speed enforcement.[180]

Effectiveness of speed cameras

4.18 The Committee was presented with a range of views regarding the effectiveness of speed camera technology. The Centre for Road Safety conducts annual NSW

[175] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p15.
[176] Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transcript of evidence, 5 June 2014, p6.
[177] Glendon, 2007; Glendon & Sutton, 2005; Roads and Traffic Authority, 2000; 2009; Walker, Murdoch, Bryant, Barnes & Johnson, 2009 in Austroads, *Point-to-Point Speed Enforcement*, September 2012, p13.
[178] Prof. Raphael Grzebieta, Professor of Road Safety, Transport and Road Safety Research, UNSW, Transcript of evidence, 5 June 2014, p31.
[179] Mr Mark Wolstenholme, Senior Policy Advisor, Traffic and Roads, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, p23.
[180] Australian Transport Council, *National Road Safety Strategy 2011-2020 – Implementation status report*, November 2013, p11.

Speed Camera Performance Reviews. In these reviews, the effectiveness of cameras is measured by two general criteria, namely:

- Their ability to slow drivers down and thereby reduce crashes and causalities.
- Achieving greater speed compliance through a reduction in infringement rates.[181]

4.19 Following a recommendation by the NSW Auditor-General in 2011, Transport for NSW now examines crash and casualty data to make statistically significant assessments of a camera's effectiveness.[182] In cases where cameras are not considered effective, alternative road safety countermeasures are examined.

4.20 The latest speed camera review, conducted in 2013, showed that speed cameras are continuing to improve road safety in NSW.[183] This is demonstrated in the following table:

Table 3 - Effectiveness of speed camera program review 2013[184]

Camera type	Size of NSW program as at 31 December 2012	Program effectiveness
Mobile	642 locations; approximately 930 hours of enforcement per month	Overall, the trend in road fatalities and annual speed surveys demonstrates that the small-scale interim mobile speed camera program continues to deliver positive road safety benefits, compared with results prior to the re-introduction of the mobile speed camera program in 2010. The provisional 2012 road toll of 370 persons killed on NSW roads is the second lowest annual figure since 1932 (with 366 fatalities). The results of the 2012 annual speed survey were mixed with a decrease in the percentage of light vehicles exceeding the speed limit by up to 10km/h in most speed zones. However when looking at the percentage of light vehicles exceeding the speed limit by more than 10 km/h, while there was continued suppression of speeding in 40km/h school zones, 50 km/h and 100 km/h speed zones, there was a slight increase in speeding in the remaining speed zones compared to 2010 and 2011. The increase in speeding observed in 2012, compared with 2010 and 2011 results can be expected given the size of the program and provides evidence that the general deterrence effect provided by mobile speed cameras can be enhanced by a larger program.

[181] Submission 30, NSW Government, p63.
[182] Submission 30, NSW Government, p63.
[183] Submission 30, NSW Government, p63.
[184] Submission 30, NSW Government, p64.

Camera type	Size of NSW program as at 31 December 2012	Program effectiveness
Red-light speed	106 cameras at 91 intersections	Overall, when comparing the five years before the red-light speed cameras were installed to the post installation period there has been a 30 per cent reduction in casualties at these locations
Fixed	133 cameras at 108 locations	Overall, when comparing the five years before the fixed speed cameras were installed to the most recent five years there has been a 41 per cent reduction in injuries at camera locations
Point-to-point	19 lengths	Preliminary analysis of point-to-point enforcement lengths shows that there has been a low number of heavy vehicle crashes since camera operation. Infringement data for average speed offences in point-to-point enforcement lengths show a high level of compliance and a low number of infringements.

4.21 Alternative evidence presented to the Committee questioned the effectiveness of cameras in changing behaviour and encouraging people to adhere to speed limits. The National Liaison Officer of the National Motorists Association of Australia told the Committee:

> Just sending somebody a fine through the mail, say, 10 days after a speed camera has clicked them does not relate to people. It really does not change their behaviour. They get annoyed, they pay the fine, they cop the demerits and someone may lose their licence but it really does not work like being pulled over by a police officer who says, "What do you think you are doing?"[185]

4.22 The Committee also received evidence that due to the punitive nature of cameras, their educational value is reduced, thereby compromising their effectiveness in changing behaviour. According to a former RTA road safety manager and engineer, rather than investing in cameras as an enforcement tool, it is better to focus on roving police officers.

> Yes, you need a lot more roving police officers and a lot more blue flashing lights. When I was road safety manager of the western region, I used to get extra police up from Sydney and we, in a sense, perhaps misused the random breath test to pull people over during school holiday periods and warned them of fatigue. The police officer would pull them over, "Blow here." "Okay." "Where are you from?" "Oh, we left Adelaide this morning." "Where are you going to?" "We are going to get to Brisbane tonight." "Here is a leaflet from the RTA with the motels and rest areas. Don't you think you should stop off at Gilgandra at the motel?" It made the police the good guys. They were not always punishing.[186]

4.23 Another criticism relates to the visibility of marked cameras limiting their longer term deterrent value in relation to speeding behaviour. The George Institute for Global Health told the Committee that:

[185] Mr Graham Pryor, National Liaison Officer, National Motorists Association of Australia, Transcript of evidence, 5 June 2014, p39.
[186] Mr Lex Stewart, Private Citizen, Transcript of evidence, 5 June 2014, pp61-62.

> Having unmarked speed cameras at random locations is an effective way of monitoring speed. If people can anticipate speed cameras they will modify their speed at that point in time. It has no impact on their speeding behaviour the rest of the time. There is a halo effect around the speed camera; they will slow down where they see the signs, but they will speed up later on.[187]

4.24 The Committee also questioned NSW Police Force representatives about the implications of the number of speed camera infringement notices exceeding the number issued by police. In his response, Acting Assistant Commissioner Smith stated:

> I think partly we have to apply the tools where they are meant to…broadly putting strategies in place so that the roadside cameras need to plug holes where highway cars cannot police due to safety.[188]

4.25 As previously described and outlined in the *NSW Speed Camera Strategy*, cameras play an important supporting role in the enforcement of speed limits in NSW.[189]

Technical reliability of speed cameras

4.26 Another criticism of speed cameras raised in evidence concerns their technical reliability. The National Liaison Officer from the National Motorists Association of Australia claimed that camera accuracy can be called into question:

> The message that technology speed camera companies put across is that they are scientifically infallible. I would prefer to talk about the Australian examples of false bookings. As quoted in the text of our submission, there were over 80,000 fines in Victoria that were refunded from 19 speed cameras that were faulty, incorrectly giving fines. The same thing has happened in other States. We have quoted South Australia where an internal audit found exactly the same thing. We would suggest they are not the perfect piece of equipment that manufacturers claim.[190]

4.27 In response to questions about whether such problems exist in NSW, the NMAA stressed the need for an independent evaluation of all cameras. Another witness pointed out that all such cameras need regular calibration and maintenance to safeguard their accuracy:

> …whenever you have equipment you will have calibration and maintenance problems…I am not favouring zero cameras, but less, and more people on the roads…Calibrations can drift. All machinery calibration can drift and it has to be maintained regularly.[191]

4.28 The Committee was informed that approved camera technicians assess and evaluate speed camera enforcement locations, to ensure compliance with

[187] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p45.

[188] Acting Assistant Commissioner Stuart Smith, Commander, Traffic and Highway Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p24.

[189] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p20.

[190] Mr Graham Pryor, National Liaison Officer, National Motorists Association of Australia, Transcript of evidence, 5 June 2014, p39.

[191] Mr Lex Stewart, Private Citizen, Transcript of evidence, 5 June 2014, p63.

technical, operational and safety requirements. According to Transport for NSW, this certification and testing documentation is available online for community evaluation.[192]

Performance audit

4.29 In April 2011, the NSW Auditor-General conducted a performance audit of fixed, mobile and red-light speed cameras in NSW to determine whether speed cameras were being used appropriately. The audit assessed whether cameras were optimally positioned in places with significant road safety risk and whether they reduced speeding and the number and severity of road crashes.[193]

4.30 The results of the audit, released in July 2011, found that in general, speed cameras change driver behaviour and have a positive road safety impact in NSW. According to the audit, there was a demonstrated reduction in the number of speeding offences and the total number of crashes, injuries and fatalities after the introduction of fixed speed cameras.[194]

4.31 While the NSW Auditor-General recognised that fixed cameras and red-light cameras were effective in reducing speed at specific locations, he also found that there was a need to do more in order to reduce speeding across the road network.[195]

4.32 A key recommendation from the 2011 audit was the need to develop an overarching strategy for all speed camera types. This recommendation resulted in the implementation of the Transport for *NSW Speed Camera Strategy*, which was completed in 2012. It provides the strategic framework guiding camera speed enforcement in NSW.

4.33 The *NSW Speed Camera Strategy* also aims to improve the transparency and public acceptance of the use of speed cameras in NSW through increased community engagement and education.[196]

Community attitudes

4.34 According to a survey conducted in March-April 2011, there was a high-level of support for existing speed enforcement practices in NSW, such as mobile speed cameras.[197] Essentially, 72% of drivers 'either strongly approve or somewhat approve of marked mobile speed cameras'.[198] According to more recent attitudinal research, the highest level of approval for speed cameras was in school zones (90%).[199]

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[192] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p15.

[193] Submission 30, NSW Government, p62.

[194] Submission 30, NSW Government, p62.

[195] Submission 30, NSW Government, p62.

[196] Submission 30, NSW Government, p59.

[197] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p5.

[198] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p5.

[199] Transport for NSW, Response to questions on notice, 16 July, 2014, p1.

4.35 In order to counter media criticism that cameras are used to raise revenue, the NSW Government has maintained that revenue derived from traffic fines is redirected to fund road safety improvements in NSW.[200] The hypothecation of fine revenue is designed to dispel suggestions that cameras are used primarily to raise revenue for the Government.[201]

4.36 Nevertheless, the NRMA submission called for a review of speed cameras and speed limits in locations where a large number of speed infringements have been issued. Speed cameras on Cleveland Street and at Moore Park were cited as locations where more than $26 million has been generated since 2008. The NRMA considered that the size of the revenue derived from these locations does not persuade motorists that these cameras are there solely for road safety purposes.[202]

Conclusions

4.37 The Committee is persuaded by evidence received that point-to-point cameras are highly effective in encouraging adherence to posted speed limits. Furthermore, the Committee notes the *National Road Safety Strategy* support for point-to-point cameras, in order to improve speed compliance for all vehicles.

4.38 The Committee acknowledges that Transport for NSW is currently monitoring the effectiveness of speed averaging for light vehicles in Victoria and Queensland. However, the Committee is not persuaded by the current approach of limiting point-to-point cameras in NSW to heavy vehicles only. The Committee therefore believes that there is a need to consider extending point-to-point cameras to cover all vehicles in NSW.

RECOMMENDATION 10

The Committee recommends that Transport for NSW considers extending the use of point-to-point cameras to cover all light and heavy vehicles, in order to ensure improved compliance with speed limits on NSW roads.

4.39 The Committee also notes that fixed speed cameras cover a relatively small percentage of the NSW road network. Although research undertaken to date indicates that fixed cameras have been effective in saving lives and injuries, the Committee supports a cost-benefit analysis of all types of cameras used in NSW to determine which types are most effective and efficient.

RECOMMENDATION 11

The Committee recommends that Transport for NSW commissions a comparative cost/benefit analysis of the four types of speed cameras used in the State. The results should be used to guide NSW's future speed camera strategy in prioritising the implementation of the most effective and efficient types of speed cameras across NSW.

[200] Prof. Raphael Grzebieta, Professor of Road Safety, Transport and Road Safety Research, UNSW, Transcript of evidence, 5 June 2014, p31.
[201] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p8.
[202] Submission 29, NRMA Motoring and Services, p3.

4.40 In responding to criticisms regarding the technical and operational reliability of the systems guiding speed cameras and as a means to reassure the public about the reliability and accuracy of their use, the Committee considers that regular technical reviews of speed cameras should be implemented.

RECOMMENDATION 12

The Committee recommends that Transport for NSW, in response to criticisms regarding the operation of speed cameras, develops improvements to the process of regularly reviewing and reporting on the proper functioning of speed cameras across the State.

ADDITIONAL APPROACHES TO SPEED ENFORCEMENT

4.41 As well as high visibility policing and the use of speed cameras, inquiry evidence has also highlighted the capacity to deploy supplementary speed enforcement methods to reduce speeding behaviour. This covers a broad range of alternatives, as set out below.

Intelligent speed adaptation

4.42 Intelligent speed adaptation (ISA) is an in-vehicle Intelligent Transport System (ITS), using advanced computer, communications, sensor and control applications. ITS technology has been installed in vehicles as well as on road infrastructure. In-vehicle ITS available in Australia includes route navigation and adaptive cruise control systems, whereas ITS technology embedded within the road infrastructure includes electronic tolling systems and variable message signs.[203]

4.43 It is recognised that ITS technology has the potential to lead to a new wave of road safety benefits on Australian roads. As such, a national ITS strategy, *E-Transport*, was launched in 1999 and is currently being updated. Research carried out by Monash University indicates that, while there has been a focus on the provision of advanced traffic management systems, Australia is lagging behind the world in relation to in-vehicle ITS technologies.[204]

4.44 ISA systems warn drivers and automatically limit vehicle speed when a driver, intentionally or inadvertently, travels at or over the posted speed limit. This is done using two variants of ISA, namely speed alerting and speed limiting systems. The speed alerting systems warn drivers via auditory and visual cues when they exceed the posted speed limit. There is also an actively supporting variant, where the ISA provides the driver with a tactile warning in the form of increased upward pressure or a vibration felt through the accelerator pedal.[205]

[203] Michael A. Regan, Thomas J. Triggs, Kristie L. Young, Nebojsa Tomasevic, Eve Mitsopoulos, Kren Stephan & Claes Tingvall, Monash University, *On-road evaluation of Intelligent Speed Adaptation, Following Distance Warning and Seatbelt Reminder Systems: final results of the TAC SafeCar project*, 2006, p5.

[204] Michael A. Regan, Thomas J. Triggs, Kristie L. Young, Nebojsa Tomasevic, Eve Mitsopoulos, Kren Stephan & Claes Tingvall, Monash University, *On-road evaluation of Intelligent Speed Adaptation, Following Distance Warning and Seatbelt Reminder Systems: final results of the TAC SafeCar project*, 2006, p5.

[205] Michael A. Regan, Thomas J. Triggs, Kristie L. Young, Nebojsa Tomasevic, Eve Mitsopoulos, Kren Stephan & Claes Tingvall, Monash University, *On-road evaluation of Intelligent Speed Adaptation, Following Distance Warning and Seatbelt Reminder Systems: final results of the TAC SafeCar project*, 2006, p7.

4.45 Another type of ISA device is described as a limiting device and makes it impossible for the driver to exceed the posted limit. It is mainly controlled via mechanical devices regulating the level of fuel input to the engine or via speed retarders, installed on vehicle transmission braking systems, to control vehicle speed continuously by creating a braking force.[206]

4.46 Information regarding the position of the vehicle and the speed limit that applies can be obtained via electronic signals transmitted to the vehicle from beacons attached to speed signs or other roadside infrastructure surrounding speed signs. Global positioning system technology also provides this information.[207]

4.47 A trial of ISA in NSW found that 89% of vehicles reduced speeding when fitted with ISA devices.[208] Furthermore, research conducted by MUARC showed that fitting every vehicle in Australia with intelligent speed adaptation systems would lead to a reduction in road fatalities of 8% and serious injury crashes by up to 6%.[209]

4.48 The same study showed that ISA reduced mean, maximum and 85th percentile speeds, including speed variability in most speed zones. Additionally, evidence revealed that ISA reduced the percentage of time drivers spent travelling above the speed limit, without increasing travel times.[210]

4.49 The MUARC study noted that the positive effects on driving performance persisted only as long as the in-vehicle ITS, such as ISA, were active.[211]

4.50 In a response to further information following the public hearing, TARS suggested that consideration be given to introducing compulsory fitment of non-voluntary ISA, at the driver's expense for repeat offenders. Under this proposal, drivers who lose their licence due to excessive speeding would be given an opportunity to regain their licence on the condition they allow their vehicle to be interlocked to an ISA device.[212]

[206] Michael A. Regan, Thomas J. Triggs, Kristie L. Young, Nebojsa Tomasevic, Eve Mitsopoulos, Kren Stephan & Claes Tingvall, Monash University, *On-road evaluation of Intelligent Speed Adaptation, Following Distance Warning and Seatbelt Reminder Systems: final results of the TAC SafeCar project*, 2006, p7.

[207] Michael A. Regan, Thomas J. Triggs, Kristie L. Young, Nebojsa Tomasevic, Eve Mitsopoulos, Kren Stephan & Claes Tingvall, Monash University, *On-road evaluation of Intelligent Speed Adaptation, Following Distance Warning and Seatbelt Reminder Systems: final results of the TAC SafeCar project*, 2006, p7.

[208] Creef et al., 2011 in Submission 26, Transport and Road Safety Research, UNSW, p18.

[209] Mr Graham Pryor, National Liaison Officer, National Motorists Association of Australia, Transcript of evidence, 5 June 2014, p37.

[210] Michael A. Regan, Thomas J. Triggs, Kristie L. Young, Nebojsa Tomasevic, Eve Mitsopoulos, Kren Stephan & Claes Tingvall, Monash University, *On-road evaluation of Intelligent Speed Adaptation, Following Distance Warning and Seatbelt Reminder Systems: final results of the TAC SafeCar project*, 2006.

[211] Michael A. Regan, Thomas J. Triggs, Kristie L. Young, Nebojsa Tomasevic, Eve Mitsopoulos, Kren Stephan & Claes Tingvall, Monash University, *On-road evaluation of Intelligent Speed Adaptation, Following Distance Warning and Seatbelt Reminder Systems: final results of the TAC SafeCar project*, 2006.

[212] Transport and Road Safety Research, UNSW, Response to questions on notice, 16 July, 2014, p4.

4.51 In a further development, in February this year the Government released a smartphone app, *Speed Adviser*, designed to provide a reminder of the speed limit while driving.[213]

Aerial speed enforcement

4.52 The effectiveness of aerial speed enforcement, as a strategy to improve compliance with speed limits, was also raised as part of the inquiry. When the Committee questioned the extent to which the aerial speed enforcement program was still part of the overall strategy, the NSW Police Force reported that the program had been reviewed and downgraded:

> We have recently reviewed it and provided advice to our executive that we think it is now a secondary enforcement strategy to high visibility policing by marked police cars in the same area. We think it is more effective and the advice we have certainly from point-to-point and those systems is that there is a downturn in excessive speed. We now have an asset there that is pretty much replacing it… Is it taking a backward step, yes, it is. It is on its way but we class it still as a secondary enforcement. We still, here in double demerit points this weekend included, advertise about it and the plane will be up.[214]

Good driver reward scheme

4.53 The Committee also received evidence about the Fair Go for Safer Drivers initiative, introduced by the Government in July 2012. The program was a response to community calls to reward good drivers by providing a 50% incentive discount on licence renewal fees for drivers who held NSW unrestricted licence and who maintained a driving record with no relevant offences for a five-year period before the renewal date.[215]

4.54 According to a submission advocating positive incentives for road safety compliance, this initiative does not appear to be well advertised to the public.[216]

Self-explaining roads

4.55 Another speed enforcement strategy referred to in evidence is known as self-explaining roads. According to the submission from TARS, the self-explaining road concept is one that advocates a traffic environment that elicits safe behaviour simply by its design.[217]

4.56 The Committee inquired about the extent to which self-explaining roads, designed to intuitively reduce the likelihood of crashes, are considered to be an effective speed enforcement method. According to the Centre for Road Safety, a self-explaining road requires a lot of infrastructure and only operates in limited

[213] Centre for Road Safety, *Intelligent Speed Adaptation*, February 2014, <www.roadsafety.transport.nsw.gov.au/aboutthecentre/research/roadsafetytechnology/isa/isa.html>, accessed on 28 August 2014.

[214] Acting Assistant Commissioner Stuart Smith, Commander, Traffic and Highway Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p21.

[215] Mr Greg Aplin MP, Chair, Joint Standing Committee on Road Safety (Staysafe), Transcript of evidence, 5 June 2014, p25.

[216] Submission 18, Ms Kim Zwulik, p1.

[217] Submission 26, Transport and Road Safety Research, UNSW, p12.

European locations. The Centre also pointed out that there are cultural differences between Europe and Australia in terms of acceptance of ideas such as SERs.[218]

4.57 TARS advocated the possibility of introducing self-explaining roads, as was done in New Zealand, as a means of addressing misleading cues in the road environment.[219] TARS also quoted research conducted in the Netherlands indicating that such changes in road infrastructure accounted for a 9.7% reduction in fatalities in the country.[220]

4.58 Evidence provided by the NRMA supported the idea of SERs. The NRMA stated that self-explaining roads (gateways) were effective in making people understand why a certain speed is set in that area. As such, they made it easier for people to comply with the speed zones:

> … It is all about trying to change the behaviour. We were successful in getting the gateway treatment in Urunga which was the scene of that tragic crash where the B-double went onto that house and killed a young boy. I suppose the beauty of gateways is that it can be localised. So in some locations you can have dry stone walls, you can have the local community getting involved in designing the gateway and it makes it a bit more personal and tells people to drive slowly through their area.[221]

Electronic speed advisory signs and variable message boards

4.59 The Committee also explored the use of electronic speed advisors, which indicate the exact speed of travel, as an option for speed enforcement on major highways. These advisors display a smiley face if a driver is keeping within the speed limit and a disgruntled face if a driver is exceeding the speed limit.[222]

4.60 Evidence presented to the Committee suggested that speed advisors are effective as they give motorists educational, rather than punitive feedback.[223]

4.61 According to the NRMA, research from Queensland and Victoria has proven that electronic advisory signs are effective in reducing speed, giving a message during wet weather or warning drivers about road curves. Moreover, the NRMA informed the Committee that electronic advisory signs are relatively cheap, costing between $10 000 and $20 000.[224] Finally, the Committee noted that

[218] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p26.
[219] Ms Lori Mooren, Senior Research Fellow, Transport and Road Safety Research, UNSW, Transcript of evidence, 5 June 2014, p29.
[220] Submission 26, Transport and Road Safety Research, UNSW, p12.
[221] Mr Mark Wolstenholme, Senior Policy Advisor, Traffic and Roads, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, p27.
[222] Mr Greg Aplin MP, Chair of the Joint Standing Committee on Road Safety, Transcript of evidence, 5 June 2014, p63.
[223] Mr Lex Stewart, Private Citizen, Transcript of evidence, 5 June 2014, p64.
[224] Mr Mark Wolstenholme, Senior Policy Advisor, Traffic and Roads, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, p24.

electronic advisory signs can be energy efficient if they are operated using solar panels.[225]

Conclusions

4.62 The rapid development of a range of electronic vehicle devices and road infrastructure based systems provides scope for increased use of such technology to improve driver compliance with speed limits. The reported effectiveness of Intelligent Transport Systems such as ISA can assist in enhancing existing enforcement strategies and provide a safer environment for all road users across the State.

4.63 Such systems can also act to reinforce road rules when used for behaviour modification in the case of repeat speeding offenders.

RECOMMENDATION 13

The Committee recommends that Transport for NSW investigates the introduction of compulsory, user-pays installation of Intelligent Speed Adaptation Systems for repeat speeding offenders, in order to improve driver compliance with posted speed limits.

4.64 The Committee sees the *Fair Go for Safer Drivers* initiative as a positive and innovative speed enforcement method, but does not consider that it has been sufficiently marketed. Public awareness of its benefits should be promoted more widely, as part of a strategy to encourage improved driver compliance with road rules.

RECOMMENDATION 14

The Committee recommends that Transport for NSW advertises the *Fair Go for Safer Drivers* initiative, to increase awareness about existing rewards for drivers complying with speed limits and other road rules in NSW.

4.65 The Committee is persuaded that electronic advisory signs and variable message boards are effective and efficient speed enforcement method if used solely for road safety messaging. Therefore, the Committee considers that their use should be expanded on NSW roads.

RECOMMENDATION 15

The Committee recommends that Transport for NSW examines and reports on the option of increasing the number of electronic speed advisory signs and variable message boards on NSW roads, in order to improve speed limit compliance across NSW.

4.66 Based on the positive experiences of international jurisdictions with self-explaining roads as a speed enforcement method, the Committee considers that the application of this strategy should be investigated in more detail.

[225] Mr Greg Aplin MP, Chair, Joint Standing Committee on Road Safety (Staysafe), Transcript of evidence, 6 June 2014, p24.

RECOMMENDATION 16

The Committee recommends that Transport for NSW explores and reports on the option of introducing self-explaining roads in NSW, in order to improve speed limit compliance across the State.

COMMUNITY ATTITUDES TO SPEED ENFORCEMENT

4.67 A critical component of any strategy to encourage compliance with speed limits is changing current community attitudes to speeding behaviour. Studies carried out in 2009 and 2011 indicated a high level of support for existing speed enforcement practices in NSW, including the use speed cameras.[226] According to Transport for NSW, most drivers are supportive of speed enforcement, with recent attitudinal research showing that over 70% of drivers either 'strongly' or 'slightly' approve all speed enforcement measures in NSW. [227]

4.68 While research indicates general support for such measures, it seems that there remains some doubt about their effectiveness. Evidence presented to the Committee suggested that the perceived likelihood of being caught has decreased and that this specifically relates to fixed speed cameras and police with radars.[228]

4.69 On the other hand, police with radar guns and red-light cameras were viewed as the most effective detection methods. It seems that increased visibility and awareness of the use of these speed enforcement methods is beneficial. In fact, according to a 2013 study, around half of the respondents stated that they would like to see police presence increased.[229] This is in line with an Austroads report from 2013, indicating that most respondents were deterred more by the threat of immediate licence suspension (76%) than by a fine (32%) or demerit points (25%).[230]

4.70 Finally, the Committee notes that enforcement strategies in NSW seem to be relatively effective. This is illustrated by the fact that 70% of all licence holders do not have any demerit points and that around 99% of drivers are not infringed for speeding by cameras.[231]

Conclusions

4.71 The Committee accepts that there is general compliance with and community support for speed enforcement in NSW, with high police visibility being the preferred enforcement method. In the Committee's view there is a need to review whether the use of cameras, as opposed to high visibility policing, adequately reflects the relative effectiveness of and community preference for this type of speed enforcement.

[226] Fernandes et al., 2013 in Submission 30, NSW Government, p19.
[227] Transport for NSW, Response to questions on notice, 16 July 2014, p1.
[228] Submission 30, NSW Government, p19.
[229] Submission 30, NSW Government, p20.
[230] Submission 30, NSW Government, p21.
[231] Transport for NSW, *A way forward for speed cameras in NSW – The NSW Speed Camera Strategy*, June 2012, p8.

RECOMMENDATION 17

The Committee recommends that the NSW Police Force reviews the effectiveness of cameras, as opposed to high visibility policing, as an optimal speed enforcement strategy and whether this reflects contemporary community views about the relative effectiveness of this type of speed enforcement.

Chapter Five – Demerit Points Scheme

5.1 Demerit points have been utilised in NSW for 45 years and are characterised as providing a balance between enforcing the road rules and rewarding good driving behaviour. An assessment of the effectiveness of the Demerit Points Scheme is provided later in this chapter.

OPERATIONAL BASIS FOR THE DEMERIT POINTS SCHEME IN NSW

Underlying rationale

5.2 Applying demerit points to a driver's record and licence is a widely adopted practice to encourage safe and responsible driving in compliance with the road rules. Various demerit points schemes (DPS) are in operation across the EU, USA, Canada, parts of Asia and all Australian States and Territories.

5.3 The first Australian jurisdiction to adopt a DPS was Queensland (1967), followed by NSW (1969) and most recently the Northern Territory (2007).[232] Demerit points are now an integral part of driver licensing systems across Australia.

5.4 Along with financial penalties, penalty points (demerits) are allocated for a range of driving offences as a strong incentive to obey the road rules. Once a certain number of demerit points have accumulated within a given timeframe, drivers are penalised by licence suspension or withdrawal.[233]

5.5 While this penalises infrequent offenders for isolated or 'one-off' incidents, repeat offenders who have accumulated a greater number of demerit points incur more onerous sanctions. This includes licence cancellation once an individual points allocation exceeds the maximum threshold.

5.6 TARS is supportive of the rationale for the DPS, submitting that:

> Demerit points systems are often considered a levelling penalty structure in contrast to fines which affect drivers differently in accordance with their income or wealth. As a sanction, demerit points also have an advantage over fines in that their purpose cannot be misconstrued as revenue-raising.[234]

5.7 The awarding of demerit points is intended as part of a strategy of behaviour modification designed to:

1) Make offenders associate repeat traffic violations with more severe sanctions to the extent that they lose their licences, as a deterrent to unsafe driving behaviour.

2) Reduce the likelihood of traffic accidents, by removing drivers who repeatedly violate road rules from the road transport system.

[232] Submission 30, NSW Government, p40.

[233] Submission 30, NSW Government, p40; and Roads and Maritime Services, *Demerit points*, <www.rms.nsw.gov.au/roads/safety-rules/demerits/index.htm>l, accessed 17 Sept 2014.

[234] Submission 26, Transport and Road Safety Research, UNSW, p14.

3) Provide an incentive for drivers to rectify inappropriate behaviour at the wheel.[235]

5.8 In order for the system to operate effectively, the NSW Government adds that:

> …it is essential that the level of enforcement is at a sufficient level so that drivers who have been caught once feel that there is a real risk of being caught again if they commit further offences. In this sense, 'specific deterrence' is the principle that supports the use of a demerit points scheme for specific driving offences, such as speeding. Specific deterrence occurs when a motorist who has been apprehended and punished for a speeding or other offence refrains from further unsafe behaviour for fear of incurring additional punishment. Thus, in order for the 'fear of punishment' in regards to a demerit points scheme to be effective, drivers must believe that the likelihood of being caught for speeding and other driving offences is relatively high.[236]

5.9 A common critique made by motorists is that demerit points (and associated fines) are imposed by the Government both as a punitive measure and, more cynically, as a 'revenue raising' opportunity.

5.10 The General Manager of the Centre for Road Safety, countered this view:

> Demerits act, albeit that they are a penalty, as a disincentive. They encourage people to do the right thing, and they have been quite successful at doing so.
>
> When the normal driver gets a demerit point—or, indeed, three demerit points or whatever according to the offence—it actually does change their behaviour. Nearly 50 per cent will not offend again within the next five years. It is enough of a disincentive for the normal, compliant citizen to actually change their behaviour."[237]

5.11 In sum, the NSW Government has identified the core rationale of the DPS as ensuring:

1) That the threat of demerit points is designed to reduce the frequency of illegal driving behaviour.

2) That this is expected to lead to reduced frequency and severity of crashes.[238]

Operational principles

5.12 The operation of the DPS in NSW is set out in the following Table:

Table 4 - The NSW Demerit Points Scheme[239]

Accumulating Points
A driver who has not committed any offences has zero points. If a driver commits an offence that carries demerit points, the points are added to their driving record. If a driver incurs the

[235] Submission 30, NSW Government, p40.

[236] Submission 30, NSW Government, p40.

[237] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transport for NSW, Transcript of evidence, 5 June 2014, pp9-10.

[238] Submission 30, NSW Government, p40.

[239] Adapted from Roads and Maritime Services, *Demerit points*, <www.rms.nsw.gov.au/roads/safety-rules/demerits/index.html>, accessed 17 Sept 2014.

threshold number of demerit points within a three-year period, a licence suspension or refusal is applied. The three-year period is calculated between the dates the offences were committed. It ends on the day that the most recent offence was committed. The thresholds are:

- Unrestricted licence – 13 points
- Professional drivers – 14 points
- Provisional P2 licence – 7 points
- Provisional P1 licence – 4 points
- Learner licence – 4 points
- Unrestricted licence with a good behaviour period – 2 points within the term of the good behaviour period.

Suspension and refusal

Reaching or exceeding the demerit points limit results in licence suspension or refusal. A Notice of Suspension or Refusal will then be issued, specifying the date the licence suspension or refusal begins. For unrestricted licence holders, the period of suspension depends on the number of points accumulated:

- 13 to 15 points - three months
- 16 to 19 points - four months
- 20 or more points - five months
- For provisional and learner licence holders, the suspension period is three months.

Refusal of a licence

RMS may refuse to renew a licence if a driver has exceeded their demerit points threshold, or has committed a serious speeding offence. The periods that a licence may be refused are the same as those that apply for suspensions.

Good behaviour period

Unrestricted licence holders who receive a Notice of Suspension due to the accumulation of demerit points can apply for a 12 month good behaviour period instead of serving the suspension. This option is not available to provisional or learner licence holders or those already serving a good behaviour period. If a driver accumulates 2 or more demerit points while serving a good behaviour period, their licence will be suspended for double the original suspension time.

Professional drivers

Unrestricted licence holders who reach or exceed 13 demerit points are sent a Notice of Suspension, or are refused a licence if they apply for one. However, professional drivers have a demerit points threshold of 14 points, provided they meet certain criteria.

Learner drivers

To help reduce young driver deaths, learner licence holders are included in the demerit points scheme. Under the scheme, a learner licence will be suspended, or a licence application or renewal refused, for a period of three months if a driver incurs four or more demerit points within a three-year period.

The minimum number of demerit points for a speeding offence committed by a learner is four. This means that a learner licence will be suspended, or an application for a learner licence refused, under the demerit points scheme for three months for any speeding offence.

Learner drivers can also lose their licence for higher levels of speeding. An additional three-month suspension applies for exceeding the speed limit by more than 30 km/h and a six-month suspension applies for speeding more than 45 km/h. Police can also suspend and confiscate a learner drivers licence at the roadside for speeding more than 30 km/h over the limit or if you drive without a supervisor.

Appeals

There is no right of appeal against the suspension or refusal of an unrestricted licence on the grounds of demerit points.

Double demerit points

Double demerit points apply for speeding, seatbelt and motorcycle helmet offences during all holiday periods such as long weekends, Christmas, New Year and Easter. Double demerit point periods applies from midnight of the start date to midnight on the finish date.

2014 double demerit periods

Period	Start date	Finish date
Australia Day 2014	21 January 2014	27 January 2014
Easter	17 April 2014	21 April 2014
Anzac Day	24 April 2014	27 April 2014
Queen's Birthday Please note that Friday 6 June 2014 is a gazetted school day, therefore double demerit points apply to all relevant school zone offences committed on that day.	6 June 2014	9 June 2014
Labour Day	3 October 2014	6 October 2014
Christmas 2014 and New Year 2015	24 December 2014	4 January 2015

School zones

Certain driving and parking offences attract an additional demerit point if committed in an operating school zone. Double demerit points can also apply when school zones are in operation during holiday periods. If a driver commits a speed, seatbelt or helmet offence during this combined period, the demerit point value applying for the school zone will be doubled.

Serious speeding offences

A driver may be disqualified or have your licence suspended for serious speeding offences:

- Driving more than 45 km/h above the speed limit – six months
- Driving more than 30 km/h but not more than 45 km/h above the speed limit – three months

In addition to the suspension and disqualification periods, these offences also carry demerit points which are added to a drivers record. If these demerit points cause a driver to reach or exceed their demerit points threshold, then an additional suspension or refusal period may apply under the Demerit Points Scheme.

Licence suspension for ANY speeding offence for a learner or a provisional P1 licence holder

Holders of a learner or a provisional licence will receive a minimum of 4 demerit points for any speeding offence. This means that both learners and provisional P1 licence holders will have their licence suspended or refused for at least three months for any speeding offence.

Demerit point offences that are heard in court

If the court rules that a person is not guilty of a demerit point offence, it is the end of the matter. There are no fines to pay or demerit points to be recorded. If a court finds a person guilty of the offence and convicts the person, the court usually orders a fine. In this case the offence will be recorded on the offender's traffic record and RMS must apply the relevant number of demerit points. If a court finds a person guilty of the offence and dismisses the offence under Section 10(1) of the *Crimes (Sentencing Procedure) Act 1999*, the demerit points

related to the offence will not be recorded.
Demerit points age with time
Any demerit points incurred are not deleted. They remain on drivers' records along with the offences they relate to. Over time, demerit points will age and there is a point in time after which they will not be counted even though they, along with other offences you have committed, have resulted in a driver reaching the demerit point threshold in a three-year period.

APPROPRIATENESS OF CURRENT THRESHOLDS

5.13 In recent years, successive NSW Governments have reviewed DPS thresholds and made adjustments, amending previous policies and precedents set by other States and Territories. This also applies to speeding offences.

5.14 The Committee has received evidence from the NSW Government about reviews and consequential adjustments made to the DPS in recent years. A key reason for this is the increase in automated speed enforcement, using fixed speed and red light speed cameras. The Government has sought to balance the perception of an increased likelihood of being caught speeding with unintentional human error whilst driving. This approach has introduced a measure of fairness and leniency and also recognised the needs of professional drivers.

5.15 The NRMA has lent its support to the current thresholds for speeding offences, which it considers as appropriate.[240] Contrastingly, the Committee received evidence to suggest that current thresholds may not be fair when applied universally.

Current DPS thresholds

5.16 Current DPS thresholds have been shaped by changes introduced since 2009, illustrated in Table 5, which sets out variations in the application of demerit points for speeding offences since 1 July 2009.

Table 5 - NSW Demerit Points Scheme - Pre and Post 1 July 2009[241]

Pre 1 July 2009		Post 1 July 2009	
Speed Range (km/h)	**Demerit Points**	**Speed Range (km/h)**	**Demerit Points**
0 to 15	3	1 to 10	1
16 to 30	3	11 to 20	3
-		21 to 30	4
31 to 45	4	31 to 45	5
>45	6	>45	6

5.17 This introduced the following changes:

- 10km/h bands.

[240] Submission 29, NRMA Motoring and Services, p4.

[241] Submission 30, NSW Government, p44.

- 1 demerit point incurred for the lowest level speeding offence in NSW (0-10 km/h), down from 3 demerit points.
- Smaller increments for speeding offences, giving drivers who commit offences at the lower end of the scale some leniency, while getting tougher on those who commit more serious speeding offences.
- Changes to fines and demerit points for higher level offences (over 10 km/h). In most cases these were increased.
- Additional changes to address speeding by provisional drivers so that any two speeding offences resulted in licence suspension.[242]

5.18 The effect of these changes is that there is more leniency and flexibility in cases where motorists are exceeding the limit by a small amount over the posted speed (1 point and an $81 fine). When this increases to the next band (11-20), 3 points and a more significant fine are applied.

5.19 This would suggest that speeding at this level and above is now considered to be a more serious offence, as it is difficult to argue that the difference in speed is simply caused by driver error.

5.20 In 2010, the Government established a Working Group on Demerit Points, comprising relevant Government agencies, representatives of the NRMA Motoring and Services, the Law Society of NSW, the Pedestrian Council of Australia and driver safety experts. Based on advice from the Group, additional reforms to the DPS were introduced in 2011, as follows:

- The threshold for unrestricted licence holders in NSW was increased from 12 to 13 demerit points within any three-year period.
- The concept of a professional driver was introduced, giving these drivers one extra demerit point to recognise the additional time these drivers spend on the roads.
- Demerit points were removed for 20 offences that were unrelated to road safety.[243]

5.21 Additionally, the *Fair Go for Safe Drivers* initiative was introduced by the NSW Government in 2012 as a reward for safe driving. This provides drivers with a 50% discount on licence renewal fees, provided that they hold a NSW unrestricted licence and have maintained a driving record with no relevant offences for the five year period before the renewal date.

5.22 The NSW Government submits that:

> While penalties do play an important role in influencing driver behaviour, the 'Fair Go for Safe Drivers' initiative complements the penalty regime by providing a

[242] Submission 30, NSW Government, p43.
[243] Submission 30, NSW Government, p43.

> balance to reward drivers who display safe driving practices by remaining offence free.

5.23 In 2013, the NSW Government announced two new measures aimed at reducing re-offending, operating in tandem with DPS threshold. These measures, to commence no earlier than February 2015, introduce the following provisions:

- Unrestricted licence holders who exceed their demerit points limit on a second occasion within a five-year period are required to complete a Driver Knowledge Test and attend a driver education course.
- Provisional licence holders who exceed their demerit points limit on a second occasion within a five-year period are required to complete a Driver Knowledge Test.[244]

5.24 In an earlier survey conducted in 2009 to gauge public attitudes towards the DPS, the NSW Government canvassed 1 500 customers, receiving 1 025 completed responses. Results from this survey found that:

- 52% of participants considered the NSW DPS to be fair.
- 60% of participants considered the use of double demerit points to be effective in reducing crashes during periods of heavy road use.[245]

5.25 However, the NMAA is not supportive of the current DPS thresholds, submitting that "that the current highly prescriptive system does not adequately consider all circumstances and thus the range of thresholds for imposition of points is unreasonable."[246]

5.26 To illustrate its case, the NMAA referred to the following examples:

> …31 km/h over the limit in an urban area during the day would be reprehensible but 31 km/h over the limit while overtaking a road train or B-Double may be prudent driving but both would earn 5 points, a heavy fine and a licence suspension.
>
> Overtaking a large vehicle at a low differential speed could mean driving on the wrong side of the road for more than a kilometre; accelerating hard can reduce this to less than 300 metres. No prudent driver would risk their own and others lives by doing it slowly but there would be a risk of prosecution for exceeding the speed limit by a large margin.[247]

5.27 This is a valid criticism and shows that demerit point thresholds can appear unjust as they are applied universally and without consideration of the context or specific circumstances involved. Five km/h on a 50km/h suburban street compared with 5km/h in a 110km/h freeway are seen as comparable, whereas the relative speed margins in relation to the posted limits are obviously not directly equivalent.

[244] Submission 30, NSW Government, pp44-45.
[245] Submission 30, NSW Government, p50.
[246] Submission 27, National Motorists Association of Australia, p14.
[247] Submission 27, National Motorists Association of Australia, p14.

Double demerit points

5.28 The use of double demerit points has also created some controversy during the inquiry. Double demerit points for all speeding offences (and a single demerit point for other offences) were first introduced to cover the Easter school holiday period by the NSW Government in 1997 and then extended in 1998 to cover all holiday periods.[248]

5.29 The NSW Government submission provided context for this decision:

- Following an evaluation report in 1998, a significant proportion of drivers reported that they slowed down during the double demerit points trial periods. The reductions in the numbers of infringements issued by the NSW Police Force also support this improved driver compliance, with a 22% reduction in fatalities and an 8% reduction in serious injuries associated with the double demerit points trial.

- Between 1997 and 2013, over the 86 holiday periods (491 days), in which double demerit points have applied, there have been 632 fatalities, 304 (32%) fewer fatalities on the number of fatalities for the same holiday periods immediately prior to the introduction of double demerit points. Similarly fatal crashes were down by 250 (31%).

- From 2010-2012 there has been an average of 1.06 fatalities per day during public holidays (days when double demerit points are usually applied). For weekends outside the holiday periods the daily fatality rate was 1.20, which represents a 13% increase.[249]

5.30 While these statistics lend support to the effectiveness of double demerit points, it could also be argued that the increased police presence on the roads, and the increased chances of apprehension, may also be a factor. See also Figure 3 and Figure 4 (p61). This, along with other safety initiatives recently undertaken may further complicate attempts to draw a direct causal relationship between reduced fatality rates, driver compliance and double demerit periods.

5.31 When queried on the data supporting the benefits of double demerit periods, Transport for NSW officials confirmed that no studies had been undertaken since 2011 and that monitoring was only undertaken during holiday periods. Government witnesses further stated that no consideration had been given to reviewing the impacts of double demerit points.[250]

5.32 This seems to be at odds with more extensive research studies into other aspects of the DPS, and highlights the relative paucity of evidence to support the benefit of the double demerit points periods in isolation from other enforcement measures.

5.33 The objective fairness of double demerit points periods was questioned by Mr Lex Stewart, who submitted the following example to the Committee:

[248] Submission 30, NSW Government, p49.
[249] Submission 30, NSW Government, p49.
[250] Transcript of evidence, 5 June 2014, pp15-16.

> For example one could be travelling at 81kph in one of the many 60 zones in the Blue Mts where the limit varies frequently between 60, 70 and 80, and it is difficult to know (due to lack of reassurance signs) what the limit is. Suddenly in one booking a driver could lose 8 points in a holiday period.[251]

5.34 Delegates of the Motorcycle Council of NSW also expressed their concerns to the Committee:

> There have been situations with the helmet laws in New South Wales where people have been coming through New South Wales from interstate and they are wearing a perfectly legally helmet purchased in Queensland that meets the Australian standards. It is not legal to wear it in New South Wales, they are unaware of it, double demerit points. That is six points for the rider, six points for the pillion. That is your licence gone for something that was not particularly your fault.[252]

> I am just concerned that for certain offences such as Mr Burns has outlined, where you have a blanket double demerit system in place, someone can be adversely affected for a fairly innocent or fairly innocuous type of situation. I think it is a little bit unfair.[253]

5.35 The objective fairness of double demerit points periods can also be called into question when it amplifies the severity of an offence to the point where a driver is suddenly at risk of losing their licence. While the DPS has been altered to introduce a measure of fairness and proportionality, double demerit points do not seem to have been reviewed along with other provisions and resultant amendments to the DPS in 2009.

Conclusions

5.36 There seems to be some inconsistency in the Government's identified concerns about the community acceptance of low-level speeding and the introduction of 1 demerit point in place of 3, for lower level speeding offences. Changing community attitudes to low-level speeding is covered in greater detail in the following chapter.

5.37 The Committee acknowledges that increases in automated speed enforcement and smaller margins for driver error have increased the chance of being caught. However, the punitive leniency of the offence does not seem to correspond with the seriousness of lower level speeding. The fact that low-level speeding is not seen as a major offence and enables drivers to infringe 12 times before facing punitive sanctions may contribute to drivers not taking lower level speeding seriously.

5.38 The argument that low-level speeding does not merit harsh sanctions, particularly with increased speed surveillance, seems to run counter to the approach taken with double demerit points periods. Furthermore, the link between double demerit points and improved road safety outcomes needs a stronger evidence base.

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[251] Submission 1, Mr Lex Stewart, p12.

[252] Mr Christopher Burns, Delegate, Motorcycle Council of NSW, Transcript of evidence, 6 June 2014, p16.

[253] Mr Peter Ivanoff, Delegate, Motorcycle Council of NSW, Transcript of evidence, 6 June 2014, p16.

RECOMMENDATION 18

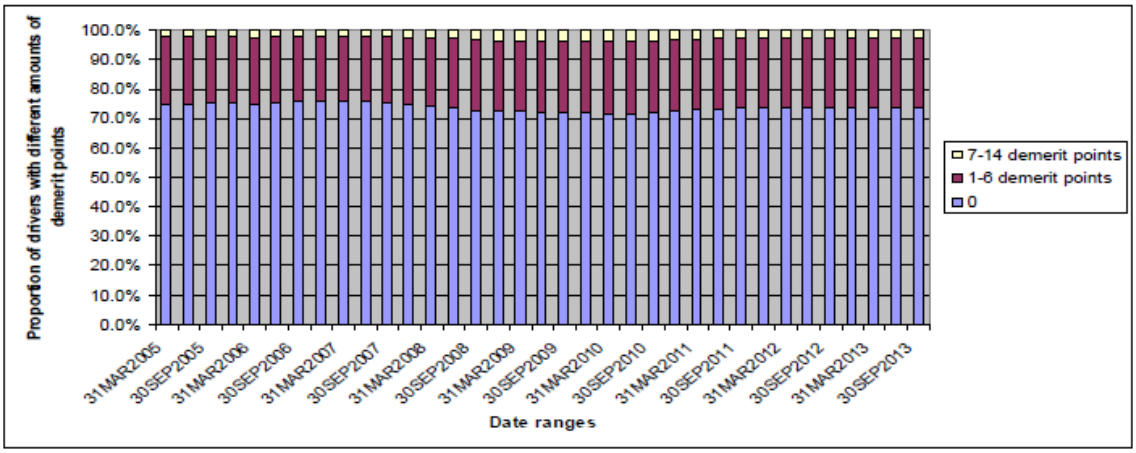
The Committee recommends that the NSW Government, through the Working Group on Demerit Points, conducts a review of double demerit points periods in order to:

- **Strengthen the evidence base.**
- **Examine its objective fairness, in light of earlier changes made to reduce penalties under the Scheme to make it more lenient.**

DEMERIT POINTS AS A SPEED DETERRENT

5.39 Demerit points profiles indicate that a majority of drivers in NSW (70%) have their full complement of points. This contrasts with less than 5% of drivers having between 7 and 14 demerit points recorded between 2005 and 2013.[254] See Figure 1:

Figure 1 - Proportion of NSW drivers with different amounts of demerit points (March 2006 - September 2013)[255]



** More than 12 demerit points were only calculated after March 2011*

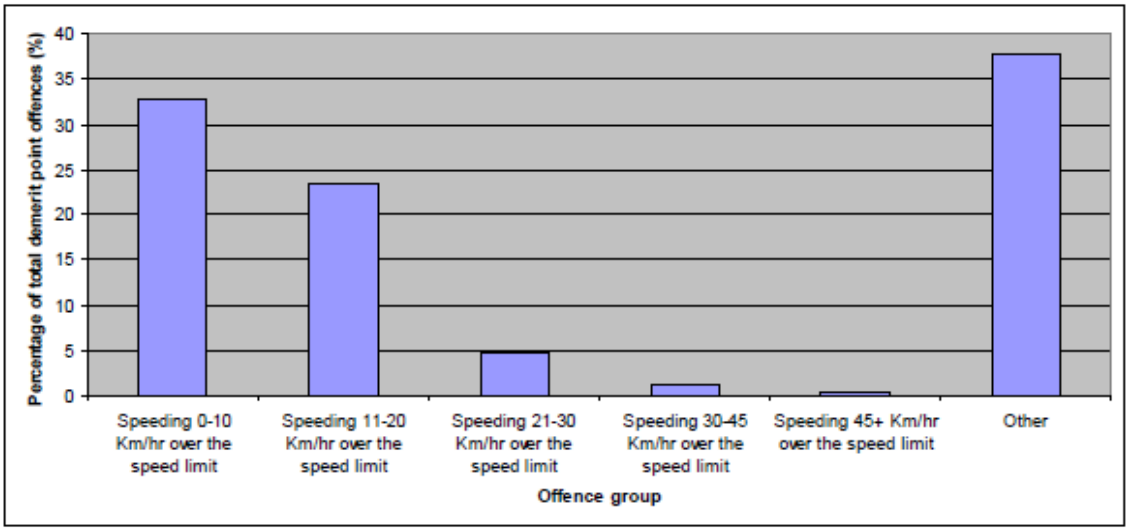
5.1 These figures suggest that, whereas the majority of drivers in NSW are adhering to the road rules, a small but significant number have accrued demerit points and a minority of those are approaching licence suspension or disqualification.

Lower-level speeding offences

5.2 In the year ending 30 June 2013, drivers and riders on NSW roads received a total of 956 957 demerit points. Almost two thirds of all demerit points were for speeding offences (596 732), primarily low-level speeding (i.e. 0-10 km/h over the speed limit).[256] See Figure 2:

[254] Submission 30, NSW Government, p53.
[255] Submission 30, NSW Government, p54.
[256] Submission 30, NSW Government, p53.

Figure 2 - Proportion of demerit points for different levels of speeding offences (July 2012-June2013)[257]



5.3 The NSW Government submission highlights that in 2008/09, vehicle drivers incurred 641 540 speeding offences and accumulated 2 249 882 demerit points. The following year (2009/10) saw a reduction in these figures, with 623 011 speeding offences and 1 692 645 accumulated demerit points. This represents a 600 000 points decrease in the demerits issued to drivers and coincides with the reduced points burden for lower-level speeding offences.

5.4 The Government acknowledges that the changes made in 2009 may have contributed to changing community acceptance towards lower-level speeding and a resultant higher level of speed-related casualties. The Government submission claims that that the NSW Speed Cameras Strategy is addressing this trend.[258]

5.5 Perceptions of the comparative deterrent impact of penalties is illustrated in the following two figures, which would seem to indicate that demerit points are not necessarily considered a strong deterrent in their own right. According to the results of this online survey conducted in 2010, the primary deterrents to speed are fines, court appearances or loss of license. It is reasonable to assume that as demerit points accrue, loss of points becomes a stronger disincentive to speed, as loss of licence becomes more likely.

[257] Submission 30, NSW Government, p52.
[258] Submission 30, NSW Government, p54.

Figure 3 - Perceptions of penalties - speeding between 10km/h and 20km/h[259]

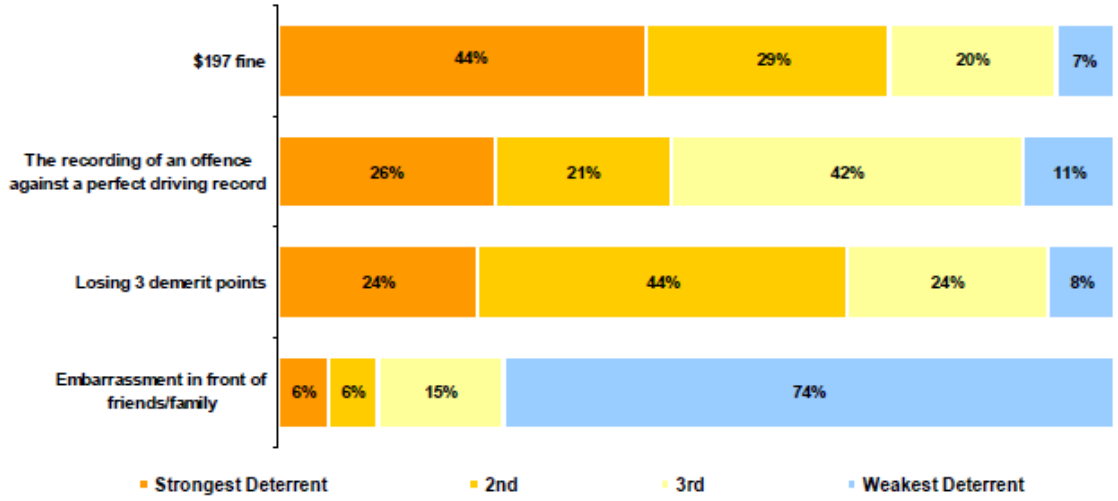
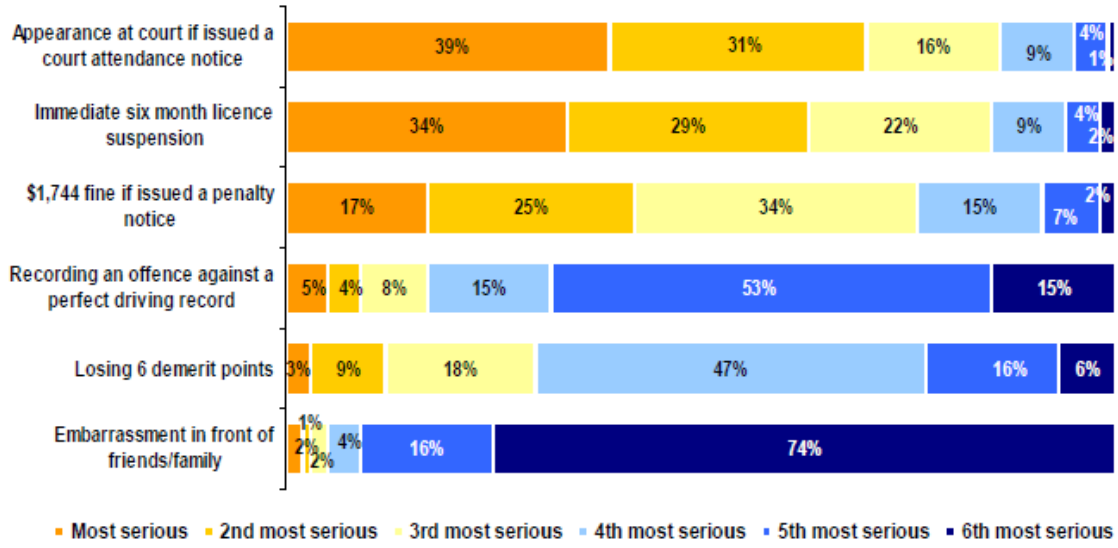


Figure 4 - Perceptions of penalties - speeding more than 45km/h[260]



5.6 The submission from the NRMA supported this proposition:

> …impact of demerit points in modifying driver behaviour depends on the number of offences a driver commits within a three year cycle. For a person with a clean record, the prospect of accumulating demerit points for speeding is unlikely to provide a deterrent. However, a driver who is close to exceeding their allocated points has a clear purpose to obey the speed limit.[261]

5.7 The view that demerit points assume a larger deterrence factor for repeat offenders was also cited in the submission from the NMAA, which suggested that

[259] Submission 30, NSW Government, p51.
[260] Submission 30, NSW Government, p52.
[261] Submission 29, NRMA Motoring and Services, p5.

demerit points will only be a consideration for drivers when they are one offence away from licence suspension.[262]

5.8 Other evidence to the inquiry also criticised the reduction in demerit points for low-level speeding as contributing to community acceptance of this practice. The George Institute for Global Health made the following point:

> While some may argue that less than 10km/h speeding offence is inadvertent behaviour, if a driver can be caught for less than 10km/h speeding offence 13 times before receiving a licence suspension such speeding behaviour is no longer 'inadvertent' but in fact habitual.[263]

5.9 The reduction in demerit points for these offences was meant to be offset by the increased use of mobile cameras and the increased certainty of punishment for speeding behaviour[264]. However, it is reasonable to argue that lower level speeding poses a significant road safety risk in an urban environment.

5.10 Professor Ivers, representing the George Institute for Global Health, advocated the reinstatement of 3 demerit points for speeding less than 10 km/h:

> Actually getting the behaviour change is the most important thing. If we put in place three demerit points then your behaviour will change. You would be much less likely to speed at a low level if you knew that you were going to get three demerit points and you had been picked up for it a couple of times. If you get picked up twice then you have earned six demerit points and you are starting to be at risk of losing your licence. Your behaviour will change.[265]

> …we have one demerit point incurred for less than 10 kilometres per hour speeding offence, which is not in keeping with an effective system. It gives the message that because the penalty is so low, low-level speeding is okay. Drivers need to be caught 13 times before they are at risk of losing their licence. They are not essentially being punished each time they are caught until they have done it 13 times. That is likely to increase the likelihood of speeding….When it comes to speeding at a community level very small differences in the average speed across the community are effective at reducing the crash rate overall. [266]

5.11 This risk was acknowledged in evidence provided by Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transport for NSW:

> …in 2009 the change made to the demerit point scheme reduced the number of demerit points to one for low-level speeding… it is certainly a key issue for us in the NSW Road Safety Strategy to focus on the social unacceptability of low-level speeding.[267]

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[262] Submission 27, National Motorists Association of Australia, p17.

[263] Submission 21, The George Institute for Global Health, University of Sydney, pp3-4.

[264] Submission 30, NSW Government, p54.

[265] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p46.

[266] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p44.

[267] Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transport for NSW, Transcript of evidence, 5 June 2014, p2.

5.12 However, Mr Reardon also suggested that demerit points alone will not address this issue and that a range of other measures also have to be considered.[268]

Conclusions

5.13 The Committee is concerned by the prevalence and possible community acceptance of lower-level offences. As highlighted in Figure 2, the majority of demerit points have been applied to speeding less than 10 km/h above the speed limit.

5.14 The Committee is of the view that the reduction in penalties from 3 to 1 demerit points for speeding less than 10km/h above the posted limit does not provide an adequate disincentive for low-level speeding and, with the exception of fixed speed camera areas, lower-level speeding is not adequately addressed and countered by the DPS system.

5.15 The impact of demerit points alone only becomes a significant speed deterrent for drivers who habitually break the road rules and are at risk of losing their licence.

RECOMMENDATION 19

The Committee recommends that the NSW Government investigates the safety impacts of the reduction in demerit points for speeding offences for driving less than 10km/h above the speed limit, with specific reference to whether the decrease from 3 points to 1 point:

- **May have the unintended consequence of increasing community acceptance of lower-level speeding.**
- **Requires additional countermeasures to overcome such acceptance, such as increased fines or participation in additional driver awareness programs.**

DRIVER LICENCE DISQUALIFICATION IMPACTS

5.16 As previously described, the Demerit Points Scheme balances requirements for deterrence against a certain amount of leniency for errors of judgement, mitigating overly onerous penalties, licence suspension and disqualification. As such, the ultimate purpose of demerit points is to penalise drivers who habitually break the road rules.

5.17 Demerit points work in tandem with fines, which act as a further disincentive to break the road rules. For more serious offences and/or the accumulation of 13 or 14 demerit points within a three year period, licences may be suspended or cancelled.

5.18 In the case of driving prohibition, a Notice of Suspension or Refusal will be issued by RMS for the following periods:

[268] Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transport for NSW, Transcript of evidence, 5 June 2014, p9

- 13 to 15 points - three months.
- 16 to 19 points - four months.
- 20 or more points - five months.
- Provisional and learner license holders – three months.

5.19 Alternatively, unrestricted licence holders may apply for a 12 month good behaviour period instead of serving a suspension. The suspension period is doubled if a driver loses 2 more points in this period. Furthermore, if a person can demonstrate that they are a professional driver, having first accumulated exactly 13 points, their refusal or suspension will be withdrawn, but reapplied when they reach 14 points.[269]

5.20 Although it is acknowledged that licence suspension and disqualification act as powerful disincentives for persistent breaches of the road rules, the Committee recognises that the impact of these penalties may adversely affect some drivers more than others. This is particularly the case for persons requiring a licence for employment, for family dependency reasons or in the case of professional drivers.

5.21 The Committee is also aware of a related inquiry conducted by the Legislative Assembly Committee on Law and Safety, *Driver Licence Disqualification Reform*. In its report, the Law and Safety Committee found that 52% of licence suspensions in 2012 were the result of the non-payment of fines (147 592) compared to 16% for the accumulation of demerit points (45 328).[270]

5.22 Five recommendations in the report are of direct relevance, namely:

Recommendation 1
The Committee recommends that the NSW Government establish a right for those who have been convicted of road traffic offences to apply to have licence disqualification periods removed or reduced after they have completed a minimum offence-free period and that this right be administered by the NSW Courts.

Recommendation 2
The Committee recommends that the NSW Government, in establishing this right to apply to the court and the relevant offence-free period, balance:
- the possible impacts on court workload
- public safety
- the level of seriousness of different road traffic offence/s, and
- providing an incentive for offenders to be of good behaviour during their licence disqualification period.

Recommendation 3
The Committee recommends that the NSW Government ensure that, in determining whether a licence disqualification period should be removed or reduced, the courts consider:

[269] Submission 30, NSW Government, pp45-46.
[270] Submission 30, NSW Government, p52 and NSW Parliamentary Committee on Law and Safety, *Driver License Disqualification Reform*, Report 3/55, November 2013, pp8-9.

- the character of the individual
- the individual's conduct since the original licence disqualification period was imposed
- the nature of the offence
- public safety, and
- any relevant circumstances.

Recommendation 8
The Committee recommends that the NSW Government introduce amendments to the *Road Transport Act 2013* to remove the mandatory licence disqualification periods for unauthorised driving offences and replace them with automatic and minimum licence disqualification periods which include:
- a minimum disqualification period
- a default disqualification period that would apply unless the court selected another period of time, and
- no maximum period.

Recommendation 9
The Committee recommends that the NSW Government ensure that, when prescribing minimum and default (automatic) disqualification periods, driving while disqualified is treated as more serious than driving while licence suspended or cancelled (whether or not for fine default), and driving while never having been licensed.

5.23 In its response to the Law and Safety report in June 2014, the Government supported the recommendations, noting a commitment to introduce amended legislation to address identified issues.

Conclusions

5.24 The Committee welcomes the NSW Government's response to the Law and Safety Committee report and its intention to introduce legislation to amend the *Road Transport Act 2013*. The implementation of the recommended changes to the Act will enable drivers to make an application for the removal or reduction of their licence disqualification or suspension, after a two or three year minimum period.[271]

5.25 The Committee also supports the rationale for expansions of a motorist's right to appeal the loss or suspension of a licence in certain circumstances. This will act as an incentive for drivers that comply with their restriction until a minimum offence-free period is served.

5.26 However, the Committee is concerned that the imposition of double demerit points can cause an immediate loss of licence in a manner which may be considered to be unduly unfair. Recommendation 19, set out earlier in the chapter, addresses this issue.

[271] The Hon. Duncan Gay MLC and the Hon. Brad Hazzard MP, 'Correspondence - Government Response to Report No. 3/55 - Driver License Disqualification Reform', 20 June 2014, <www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/925282e84b35c5b0ca257c2a001b7b4c/$FILE/Government%20Response%20to%20Report%20on%20Driver%20Licence%20Disqualification%20Reform.pdf>, accessed on 30 September 2014.

APPLICATION OF DEMERIT POINTS IN OTHER JURISDICTIONS

5.27 As previously stated, demerit points are issued to drivers across all Australian States and Territories. Each jurisdiction maintains responsibility for its own iteration of a DPS, reflected in the principles of the agreed National Transport Commission's *Policy Principles for a National Driver Licensing Scheme*. This agreement provides for a generally consistent application of demerit points and licence suspensions across Australia.[272]

5.28 The National Scheme contains 36 'core' offence groups, representing approximately 160 traffic offences. The Scheme has a schedule of agreed demerit point offences, which are transferred to a driver's home jurisdiction when the driver commits an offence in another State or Territory. Under the current national agreement, jurisdictions apply the number of demerit points to an offence as though it was committed in the driver's home jurisdiction.[273]

5.29 Table 6 provides examples of speeding levels and demerit points for different jurisdictions:

Table 6 - Demerit points scheme speed bands and demerit point punishments in Australian jurisdictions[274]

State/Territory	Speed Bands (km/h)	Number of Demerit Points
NSW	<11	1
	11-20	3
	21-30	4
	31-45	5
	>45	6
QLD	<13	1
	13-20	3
	21-30	4
	31-40	6
	>41	8
VIC	<10	1
	10-24	3
	25-34	4
	35-44	6
	>45	8
SA	<10	2
	10-19	3
	20-29	5
	30-44	7
	>45	9

[272] NSW Government, Answers to questions on notice, 5 June 2014, p6.

[273] Submission 30, NSW Government, p41.

[274] Submission 30, NSW Government, p43.

State/Territory	Speed Bands (km/h)	Number of Demerit Points
WA	9-19	2
	20-29	3
	30-40	5
	>40	7
TAS	0-14	2
	15-29	3
	30-37	5
	>38	6
NT	<15	1
	15-30	3
	31-45	4
	>45	6
ACT	<15	1
	15-29	3
	30-44	4
	>45	6

5.30 As illustrated in Table 6, there is only partial uniformity in the way demerit points are allocated across Australia, with each jurisdiction being able to determine their own level of penalties under the National Scheme. A number of States apply higher demerit point penalties for higher-level speeding offences, namely: Queensland (8); South Australia (9); and Western Australia (7) (compared to 6 in NSW). This demonstrates the significant variance across jurisdictions with regard to the bands set and demerit points applied.

5.31 Another point of variability is the introduction of 13 demerit points for unrestricted licence holders in NSW (14 for professional drivers) compared to other States and Territories, which allow 12 demerit points.

5.32 Furthermore, double demerit points are applied during holiday periods in NSW, ACT, Queensland and Western Australia, but not in Victoria, Tasmania or the Northern Territory.

Conclusions

5.33 It is apparent that NSW is comparatively more lenient in its application of demerit point penalties than some other jurisdictions. NSW provides an additional 1 demerit point (or 2, for professional drivers) and a maximum of 6 demerit points for high-level speeding offences (although it should be noted that other sanctions would likely apply in such instances).

5.34 It is also of note that three jurisdictions (Victoria, the Northern Territory and Tasmania) do not have double demerit points periods in place. Ultimately, each Australian jurisdiction is responsible for adjusting its DPS to a level it considers appropriate, resulting in only partial conformity across Australia.

5.35 Therefore, despite the National Transport Commission's *Policy Principles for a National Driver Licensing Scheme*, there is still a lack of uniformity and significant variance in the application of demerit points across Australia.

RECOMMENDATION 20

The Committee recommends that the NSW Government raises the lack of uniformity in the application of demerit points and the impediments to a nationally consistent demerit points scheme for consideration at the next Transport and Infrastructure Council meeting.

Chapter Six – Road Safety Education and Training

6.1 Previous chapters have dealt with speed as a significant factor in motor vehicle crashes. The report has already described the importance of reliable information on which to base sound policy and to reinforce safer driving behaviour. Effective enforcement of speed limits and compliance with road rules is also assisted by well-targeted education and training programs. These should be supplemented by public campaigns, designed to model safety awareness and promote safer conduct for all road users.

6.2 This chapter discusses the availability of existing speed awareness education programs, driver training and the needs of vulnerable road users as part of the policy framework for safer travel on the road network.

EDUCATION AND SPEED AWARENESS

6.3 According to the Australian Transport Council, the general public needs to be constantly provided with information about the 'influence of speed on deaths and injuries and the substantial benefits resulting from even small reductions in speed."[275],

6.4 Speed awareness is an integral component of road safety education programs, driver training schemes and mass media messages designed to engender safer behaviour on NSW roads.

School based education

6.5 Transport for NSW has an extensive road safety education program developed in partnership with the NSW school sectors, including the NSW Department of Education and Communities, the Association of Independent Schools of NSW and the Catholic Education Commission. The program aims to increase student road safety knowledge, understanding and skills and is a long-term integrated education strategy, supporting the development of positive road user attitudes and safer behaviours in young children.[276]

6.6 During 2012, a significant effort was directed to the development of early childhood resources, such as *Safe Journey Out and About working with Aboriginal Communities* and *Road Safety: A Guide for Parents and Carers of Children 0 – 5 years*. These publications contain a range of safety messaging for parents in a single booklet.[277]

6.7 School based driver education is taught as part of the NSW Board of Studies Personal Development, Health and Physical Education (PDHPE) 7-10 syllabus, which is mandatory for all government and non-government schools. Educational

[275] Australian Transport Council, *National Road Safety Action Plan, 2009 and 2010*, December 2009, p27.
[276] Transport for NSW, *Road Safety Progress Report For NSW Parliament on 2012 Activities*, November 2013, p9.
[277] Transport for NSW, *Road Safety Progress Report For NSW Parliament on 2012 Activities*, November 2013, p9.

resources take account of childhood developmental stages and individual learning styles.

6.8 Curriculum based education is supplemented by a range of externally provided courses run by private and community based organisations such as Rotary Youth Driver Awareness, U-Turn the Wheel and Skilled Driver Courses delivered by motor vehicle insurers.

Driver training

6.9 As discussed in this and earlier Staysafe reports, young drivers are overrepresented in speed related crashes, particularly male drivers under 25 years of age.[278]

6.10 The attainment of safer driving skills underpins the Graduated Licensing Scheme, by which all novice drivers obtain their driving qualifications. First commenced in 1996, the current Scheme was implemented with major revisions in July 2000 and has subsequently been refined to improve licence testing and regulation of novice drivers.

6.11 Under the Scheme, a novice driver must progress through three phases and four tests before obtaining a full driver's licence. The first phase is the learner licence period, which requires 120 hours supervised on-road driving experience over a period of at least 12 months.

6.12 The second phase is the provisional P1 licence period of 12 months or greater duration, allowing unsupervised driving with certain restrictions such as 90km/h speed limit and a zero blood alcohol limit. The third phase is the provisional P2 licence period, operating for a minimum of 24 months, accompanied by some relaxation of restrictions, such as a higher speed limit of 100km/h.[279]

6.13 Graduated licensing, designed to extend the driving experience of novice drivers over the trial period, also aims to reduce risk taking by incrementally increasing the allowable driving speed as the driver progresses to a full licence. This has had encouraging results.

6.14 In her appearance before the Committee, the General Manager of the Centre for Road Safety made the following observations of the Scheme:

> The issue is before we introduced the graduated licensing scheme in 2000, and enhanced it again in 2007, there was a woeful record for young drivers; we were killing too many people on our roads. Since the separation of P1 and P2 came in in 2000, there has been a 50 per cent reduction of young driver involvements. Since the regime in 2007 where we added a lot of extra really important measures—zero tolerance to speeding, zero alcohol, not using mobile phone at all for P1's, 120 log hours—there has been another 30 per cent reduction.[280]

[278] NSW Parliament Joint Standing Committee on Road Safety (Staysafe), *Report on Young Driver Safety and Education Programs*, No. 1/54, November 2008.
[279] Audit Office of NSW, *Improving road safety: Young drivers, Performance Audit*, October 2011, p2.
[280] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p6.

6.15 In order to assist young novice drivers with licence qualification, Transport for NSW introduced a Safer Drivers Course in July 2013, to establish improved driving practices for Learner Drivers. The Safer Drivers Course is a combined theoretical and practical course for drivers under 25 years of age, who have completed 50 log book driving hours.

6.16 The course was developed by a board of independent road safety experts, based on the latest research in young driver safety and specifically designed for young learner drivers. In practical terms, the course involves a three-hour facilitated group discussion on how to manage risks on the road. The second part of the course is a two-hour in-vehicle coaching session to help learner drivers practise a range of safe driving behaviours.

6.17 Speed management forms an essential part of the Course, which aims to help learners identify situations that will put them at greater risk of a crash and develop effective avoidance strategies. It has now been extended across NSW to service almost 250 locations.[281]

6.18 It was described in the following terms by Transport for NSW:

> …we pulled together a fairly significant task force with a whole range of stakeholder representation to come up with a process to get the right balance with what you were saying about how we put them on to the road and the progression between L and P plates. That resulted in a Safer Drivers Course being part of the total package of how you progress from an L to a provisional licence.[282]

6.19 In its contribution to the inquiry, the Motorcycle Council of NSW discussed the provision of rider education and training to improve safety and to minimise risks to motorcycle riders and other road users. In evidence to the Committee, the Council detailed the safety benefit of their pre-permit scheme:

> Since the introduction of the pre-permit learner scheme across New South Wales and the ACT, which was about the mid-80s, the crash rate for motorcycle riders has dropped. We do not have air bags, ABS, seatbelts or any artificial electronic gimmickry and yet we have seen the fatality rate in the past 10 years on motorbikes go from 7.2 per 10,000 registrations down to 2.9. All we have got is training and the learner approved motorcycle scheme where you are put on a motorbike that has a limited power to rate ratio and you get training, pure and simple… If they applied decent driver training to drivers in the future it has been proven to work with motorcycle drivers, therefore it has to work with car drivers as well.[283]

Advanced driving courses

6.20 The maintenance and enhancement of safer driving skills is augmented by a variety of advanced driver courses delivered by a range of providers. An example

[281] NSW Centre for Road Safety, *Safer Drivers Course*, <www.roadsafety.transport.nsw.gov.au/stayingsafe/drivers/youngdrivers/youngerdriverscourse.html>, viewed 29 July 2014.
[282] Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transport for NSW, Transcript of evidence, 5 June 2014, p6.
[283] Mr Christopher Burns, Delegate, Motorcycle Council of NSW, Transcript of evidence, 6 June 2014, p19.

of such a course, inspected by the Committee in 2012, is the AAMI Skilled Drivers Course.

6.21 This is a one-day, young driver awareness course open to all drivers under 25 years of age who hold a current drivers licence. It is delivered free to AAMI comprehensive policy holders under 25 and to the children and grandchildren of such policy holders.

6.22 The Skilled Drivers Course focuses on reducing speed, increasing the space around young drivers and maintaining a greater level of concentration. In the course outline, AAMI states that the training deals with self-awareness and how most common crashes occur.

6.23 According to the course descriptor:

> The course addresses human factors like overconfidence and risk taking and explore the consequences of making the wrong choices. Then, in their own car young drivers get to experience for themselves just how much difference a few kilometres per hour and one or two seconds can make.[284]

6.24 The benefits of advanced driver training are subject to some disputation. Previous evidence provided to the Committee by the then Roads and Traffic Authority made a distinction between advanced and defensive courses and claimed that the safety benefit of such courses was not significant. Moreover, it was suggested that such courses can result in driver overconfidence and greater risk taking.[285]

6.25 The submission from the NSW Government to the current inquiry also makes reference to such training courses and reiterates that many driver education courses are not effective in improving or changing road safety behaviour. This view is modified, however, by the comment that targeted courses that focus on identifying risk and developing strategies to manage such risks have been shown to be effective.[286]

6.26 This view is reinforced in the submission from the National Motorists Association of Australia, which supports the benefits of such training during the learning phase for young drivers.

6.27 Post licence training can also be administered as part of an enforcement strategy for low-level speeding offences. The NRMA advocates investigating the benefits of the UK Speed Awareness Course for such offences in NSW. In evidence to the Committee, the NRMA Senior Policy Officer stated:

> …in lieu of accumulating demerit points—in the United Kingdom it is also the monetary fine—drivers should have an option of taking a speed awareness course. The report that we reference in our submission cites that around 90 per cent of those people who undertake the course report a change in their behaviour behind

[284] AAMI Skilled Driver Course, Background Notes, June 2012.

[285] NSW Parliament Joint Standing Committee on Road Safety (Staysafe), *Report on Young Driver Safety and Education Programs*, No. 1/54, November 2008.

[286] Submission 30, NSW Government, p41.

> the wheel and in applying what they learnt in the course. We believe that there is a safety benefit there and if you implement it properly it is not an easy way out of being penalised. In fact, it could be a way for people in certain circumstances to avoid significant hardship if they get a licence suspension and they are unable to work or to get to work… We definitely see it as something that we would like to see in New South Wales.[287]

Conclusions

6.28 Early education programs form a critical part of awareness raising. School based road safety curriculum studies provide the basis for teaching road safety knowledge, understanding and skills and support the development of positive road user attitudes and safer behaviours in young children.

6.29 This early general learning is consolidated for drivers through the licensing process and participation in a range of advanced and defensive driving courses. The Committee is not convinced that sufficient emphasis is given to low-level speeding as part of the early education phase of the curriculum. This lack of emphasis may contribute to the current tolerance of low-level speeding, reflected in acquiescent community attitudes to this practice.

RECOMMENDATION 21

The Committee recommends that the NSW Department of Education and Communities includes a specific module on the risks of low-level speeding as part of the PDHPE 7-10 syllabus dealing with road safety.

RECOMMENDATION 22

The Committee recommends that Transport for NSW ensures that more emphasis be placed on the risks and consequences of low-level speeding as part of the Graduated Licensing Scheme and the Safer Drivers Course, with the aim of changing attitudes of novice drivers towards this practice.

6.30 Post licence training can also be administered as part of an enforcement strategy for low-level speeding offences. This has been adopted in the UK, which administers a Speed Awareness Course for such offences.

RECOMMENDATION 23

The Committee recommends that Transport for NSW investigates the operation and benefits of the UK Speed Awareness Course for low-level speeding offences, with a view to implementing a similar program in NSW as an alternative to a loss of demerit points for such offences.

ROLE OF LOCAL GOVERNMENT

6.31 Local Government councils also deliver road safety awareness and educational programs within their local communities. The Local Government Road Safety Program (LGRSP) supports Road Safety Officers (RSOs) attached to Councils, who have responsibility for planning, developing and implementing community road safety educational projects.

[287] Mr Luke Turner, Senior Policy Adviser, NRMA Motoring and Services, Transcript of evidence, 6 June 2014, p25.

6.32 The LGRSP is a 50/50 partnership program between Transport for NSW and participating local councils across NSW. The program funds 73 RSO positions, supporting more than 90 council areas with localised road safety programs for their community. The program is administered through RMS with programs identified using local crash data and police intelligence. During the 2012/13 financial year, RSOs delivered more than 360 local community road safety projects.[288]

6.33 Under the revised LGRSP guidelines issued in 2014, RSOs have a pivotal role in the development of and implementation of a range of road safety projects, including safe speed. Specific reference is made to the following project components:

- Public education to support Transport for NSW publicity campaigns using material available from Transport for NSW.
- Public education to support police enforcement.
- Public education/consultation related to road safety engineering projects (speed related).
- Local media releases and promotions linking local issues with regional and state- wide campaigns.
- Consulting with communities to address specific speed problems, using courtesy speed checks, police enforcement and public education initiatives.
- Promoting compliance with posted local speed limits.
- Ensuring speed messages are delivered to local communities and /or identified risk groups such as commuters on high speed roads.
- Identifying road sections where increased speed enforcement appears to be necessary and draw to the attention of police and RMS.
- Identifying road sections where the speed limit appears inappropriate and draw to attention of RMS.
- Identifying locations for 40km/h High Pedestrian Activity Area speed zones.[289]

6.34 The vital role played by local government RSOs was reinforced in evidence provided by the City of Sydney:

> The local government road safety program covers the education side of all road users. Through the road safety officers program, grants and so on we would be able to continue and perhaps even enhance the programs that we have been using… With regard to driver education we do have the "Watch Out People About" program and you have probably seen the banners. There is a lot of advertising, promotional material and work with the police and motorcycle response team, which has been in operation for 18 months.[290]

[288] Transport for NSW, *Road Safety Progress Report For NSW Parliament on 2012 Activities*, November 2013, p10.
[289] Transport for NSW, *Local Government Road Safety Program Guidelines*, February 2014, p13.
[290] Mr Len Woodman, Road Safety Officer, City of Sydney, Transcript of evidence, 5 June 2014, p57.

6.35 In addition to developing safer driving programs and workshops for all road users, RSOs also provide a focal point for road safety issues in their local community. Previous inquiries conducted by the Committee have stressed the valuable role played by local council Road Safety Officers in coordinating road safety education and awareness campaigns in concert with State and Federal initiatives.

6.36 The *Implementation Status Report* of the *National Road Safety Strategy 2011-2020* refers to the involvement of all levels of government in the provision of educational resources for local communities.[291] The Committee supports the role of RSOs in this regard.

6.37 According to Transport for NSW, local government continues to be a major focus in road safety efforts. The NSW Government is committed to increasing its work with local councils "to develop and deliver localised road safety programs for their communities with a range of support services and information".[292]

Conclusions

6.38 Local council RSOs form an essential part of the overall NSW road safety strategy. As their role has evolved within the Local Government Road Safety Program, there are now further opportunities for their greater involvement in the delivery of road safety programs across the State.

6.39 In addition to their contribution to specific projects, the Committee supports their greater involvement in road safety policy development and collaborative projects with Transport for NSW. This includes their participation in inter-governmental consultative forums and in the design and implementation of community based safety awareness campaigns, particularly in relation to speeding.

RECOMMENDATION 24

The Committee recommends that Transport for NSW consults more extensively with Road Safety Officers in the design and implementation of community based safety awareness campaigns and ensures their representation on inter-governmental road safety consultative forums in the delivery of road safety messages.

PUBLIC EDUCATION CAMPAIGNS

6.40 In 2012-13 Transport for NSW delivered 11 major road safety public education campaigns and a range of supporting initiatives. The program included:

- Three existing campaigns focused on key behaviour issues; speeding, driver fatigue and wearing seatbelts.

[291] Department of Infrastructure and Regional Development, *Implementation Status Report, National Road Safety Strategy 2011-2020*, November 2013, p12.
[292] Transport for NSW, *Road Safety Progress Report For NSW Parliament on 2012 Activities*, November 2013, p14.

- Three existing enforcement campaigns; Double Demerits Points, Heavy Vehicle Point to Point Speed Cameras and the Enhanced Enforcement Campaign.[293]

6.41 The campaigns were supported with below the line marketing such as website content development and production of support materials delivered through stakeholder and community engagement initiatives, including RMS Regional and local government activities.

6.42 The NSW Government continuously monitors road safety campaigns through ongoing effectiveness testing. According to the Government, the campaigns continue to deliver key messages to their target audiences and contribute to positive changes in attitudes and behaviours.[294]

6.43 The NSW Police Commander of Traffic and Highway Patrol, in his appearance before the Committee, detailed some of the more recent speed specific educational strategies adopted in conjunction with the Centre for Road Safety:

> If I can add to education about speeding, last year we had 141 deaths out of 339 which we directly related to speed, and the others where it is a contributing factor. With the Centre for Road Safety we developed an educational campaign called Operation Momentum. We are travelling to 37 regional shows and major events with Operation Momentum, which is a way to engage with the community and get highway patrol talking directly to and answering questions from community members. We expect about two million people will come through those shows throughout the country. The theme is speed; the theme is "don't rush". Additionally, we have 416 marked vehicles with high-visibility marking. So we make no bones about being able to see a highway patrol car these days. They have road safety advertising on them, and 25 per cent of those have speed advertising campaigns on the rear bumper.[295]

6.44 Social media platforms are also employed to deliver messages to road users. As Commander Smith outlined:

> …we have a Facebook site now at Traffic and Highway Patrol Command. We are allowing members of the community to actually engage in posts on speed, speed detection, crashes that happen and we have motorcycle riders, pushbike riders, truckies all having a debate. It is not just a debate by individuals who feel they are aggrieved or something or other in relation to speed. We have surgeons from casualty wards now discussing the benefits of helmets on the Facebook site. Our reach is now 625,000 a week. What we are probably doing is what we used to do in the way of a survey is just letting them engage about the issue of speeding and other casualty crash-related stuff. What we are trying to do is do what we are all struggling with, that is, getting them to understand that any speeding is dangerous.[296]

[293] Transport for NSW, *Road Safety Progress Report For NSW Parliament on 2012 Activities*, November 2013, p10.
[294] Transport for NSW, *Road Safety Progress Report For NSW Parliament on 2012 Activities*, November 2013, p10.
[295] Acting Assistant Commissioner Stuart Smith, Commander, Traffic and Highway Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p2.
[296] Acting Assistant Commissioner Stuart Smith, Commander, Traffic and Highway Patrol Command, NSW Police Force, Transcript of evidence, 5 June 2014, p3.

6.45 Targeted education campaigns are directed to road user groups at greatest risk, such as young drivers. Transport for NSW, through the Centre for Road Safety, has initiated new programs tailored to new generation drivers in a variety of ways:

> We have tried to introduce just enough humour and use some punchy taglines to target a certain group. We are cutting through reasonably well for mobile phones, we are going okay with Plan B and we continue to evaluate the effectiveness of those programs but they are clearly targeted at those groups where they have—and we have sat in discussions here previously about driver distraction—a lot more distractions in front of them than the previous generation. We are trying to use their language, trying to go directly to them, and trying to use their distribution channels such as YouTube, Twitter and every other way we can capture their attention.[297]

6.46 It is also important to continually monitor the road user population to anticipate changing trends in safety awareness and to respond appropriately by adjusting messages to newly identified risk groups. An example of this was highlighted in evidence to the Committee by the General Manager of the Centre for Road Safety:

> One of our biggest challenges these days is actually communicating to the middle aged. We are seeing in our speeding, fatigue and alcohol crashes these days is a stronger and stronger prevalence of the 40-to-60-year-olds, including motorcyclists. We know that is very prevalent in motorcycle crashes. We have to segment our communications and we are getting the help of the young to help us talk to the youth and to young people. But we actually need to work out how to engage with the middle-aged as well because they are the ones who are probably a bit set in their ways and are less likely to listen to messages.[298]

6.47 As previously discussed in Chapter 4, education campaigns must complement effective enforcement measures to deliver optimal outcomes. This point was reinforced in evidence in relation to repeat offenders. The combination of demerit points and direct education for such offenders act to reinforce safety messages and increase the propensity for changed behaviour.[299]

6.48 The George Institute also supported this complementary approach to behaviour change with the use of sanctions and media campaigns:

> …it is important that drivers recognise that there is a severe, swift and highly perceived risk of getting caught. In terms of doing that the demerit point scheme needs to be promoted to the public as an effective way of reducing speeding behaviour. In this way it needs to be supported by ongoing mass media coverage. Additionally, we feel that campaigns that dispel the myth of safe speeding and increase the visibility of enforcement may be more beneficial to modifying speeding behaviour than the demerit point scheme and sanctions alone.[300]

[297] Mr Tim Reardon, Deputy Director General, Policy and Regulation, Transport for NSW, Transcript of evidence, 5 June 2014, p6.

[298] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p7.

[299] Ms Margaret Prendergast, General Manager, Centre for Road Safety, Transcript of evidence, 5 June 2014, p10.

[300] Ms Patricia Cullen, The George Institute for Global Health, Transcript of evidence, 5 June 2014, p44.

Vulnerable road users

6.49 Other groups of road users at great risk of speed related death and injury include motorcyclists, pedal cyclists and pedestrians. These are categorised as vulnerable road users and require specifically targeted public education and mass media campaigns.

6.50 The Director of the Injury Division of the George Institute for Global Health discussed the need for a targeted approach for this group in evidence to the Committee:

> When it comes to cycle safety and other vulnerable road users such as motorcyclists and pedestrians, it is about a culture shift. We have a significant problem around cycling at the moment. That will become more of an issue as more people cycle. Again, it is about recognising that they have got an equal right to use the road and they are more vulnerable.[301]

6.51 The City of Sydney, similarly made a strong case for the special treatment of vulnerable road user groups:

> …we need to ensure that the City that we create puts the safety of our most vulnerable road users at the top of our list of priorities. The city centre in particular has a very high concentration of people walking and cycling comparative to other parts of New South Wales. For example, 92 per cent of trips made in the city centre are on foot. This creates a greater risk of collision as there are just more people around. We know that if a person walking or cycling is hit at 50 kilometres an hour he or she is twice as likely to be killed compared to being hit by a vehicle travelling at 40 kilometres. Lower speeds in areas with high pedestrian activity are even more critical in reducing fatalities and injuries.[302]

6.52 The Road Safety Officer from the City of Sydney referred to efforts to target pedestrian safety in the City:

> The responsibility of a pedestrian when crossing the road should be—and we emphasise the very basics of looking, thinking, being sure that it is safe to cross and concentrating. Probably if you have seen in our media releases or comments that I have made, I have been trying to make the comment, "switch off your mobile phone and switch on your concentration"…We need also to come back to yes, there is responsibility for the pedestrians but start thinking in the same way as Paris, New York and London, where the people come first. We should have a hierarchy of road users and at the top of it should be people walking and coming down through the process.[303]

6.53 The National Motorists Association of Australia similarly discussed the need for expanded pedestrian education campaigns:

> The best advertisements the government came out with for pedestrians were called "Watch Out Cars About". It basically is a matter of warning pedestrians of how physically strong a car is and how frail their body is…We would certainly encourage

[301] Prof. Rebecca Ivers, Director, Injury Division, The George Institute for Global Health, University of Sydney, Transcript of evidence, 5 June 2014, p50.
[302] Ms Bonnie Parfitt, Acting Executive Manager, City of Sydney, Transcript of evidence, 5 June 2014, p51.
[303] Mr Len Woodman, Road Safety Officer, City of Sydney, Transcript of evidence, 5 June 2014, p54.

> you to bring those advertisements out again and try to get the message across to pedestrians. It is said by others that 73 per cent of pedestrian fatalities are either partly or wholly due to the fault of the pedestrian. We need to get some educational process going to get that across.[304]

6.54 As an example of the way local councils approach education for vulnerable road users, Mr Woodman made reference to the initiatives developed for the City of Sydney:

> There are pedestrian programs, the cycling programs and there will be a number of programs planned in the near future for the interaction between motorists and cyclists. We have had discussions with some key groups on that that have been effective. There have been discussions between cyclists and State transit bus drivers that have worked out very well so they have found out what each other's needs and requirements are in order to work together. Incidents involving buses and cyclists —I cannot remember when we have had one. That is the sort of area we would look at.[305]

6.55 All of these programs and initiatives feed into local State and Federal road safety strategies and it is essential that these efforts are effectively coordinated in order to optimise their impact and safety outcomes.

Conclusions

6.56 Public education and community based media campaigns to raise awareness of road safety risks and to encourage safer road behaviour complement existing road safety education and training programs. Specific targeting of vulnerable road users and identified high risk behaviour enables tailored messages to be delivered in the most effective way.

6.57 The examples cited above illustrate the benefits of this approach. A particular area of concern to the Committee is the current acceptance of low-level speeding and its impact on road safety. Greater awareness of speed has a protective function in raising awareness of safety risks and focussing on low-level speeding serves to draw attention to the role of speed in crash rates.

RECOMMENDATION 25

The Committee recommends that Transport for NSW develops a public education campaign and related strategies to combat the acceptance of low-level speeding in the community, with a view to increase general awareness of speed as a significant factor in crash involvement.

NATIONAL FRAMEWORK

6.58 NSW has been represented on the National Road Safety Executive Group which has overseen the development and implementation of the National Road Safety Strategy 2011-2020. A large portion of the Strategy is reliant on research being undertaken by the Austroads Safety Taskforce. This will underpin future road safety developments with evidence based research.

[304] Mr Graham Pryor, National Liaison Officer, National Motorists Association of Australia, Transcript of evidence, 5 June 2014, p38.

[305] Mr Len Woodman, Road Safety Officer, City of Sydney, Transcript of evidence, 5 June 2014, p57.

6.59 In November 2012, following the third meeting of the Standing Council on Transport and Infrastructure (SCOTI), the NRSS documented Australia's collective effort and action plan for the first three years. SCOTI emphasised the importance of continued efforts and the annual convening of the National Road Safety Forum with a focus on vulnerable road users.[306]

6.60 One of the actions documented in the *Implementation Status Report* of the *National Road Safety Strategy 2011-2020* issued in November 2013, was the "…development of a national public information campaign about the community safety benefits of complying with speed limits. This will provide education resources suitable for use by government agencies, local governments and community forums."[307]

6.61 The Report reinforced the importance of collaboration with all levels of government to expand the number and scope of projects designed to implement safe speed limits. The Report also emphasised the benefits of harmonised legislation and cross border enforcement strategies.

6.62 Community acceptance of safer speed relies on a multi-targeted approach including: continuing dialogue with all stakeholder groups; education campaigns to improve community understanding of speed compliance; and demonstrating the individual, environmental and economic benefits of safer behaviour on the roads.

6.63 This approach must be underpinned by a commitment to collaboration at all levels of administration and management.

Conclusions

6.64 Speeding remains a significant challenge for the NSW Government to address and make socially unacceptable. It requires a range of strategies to balance the competing demands of safety and mobility.

6.65 While acknowledging past efforts to increase public knowledge and awareness of the hazards of speeding, the Committee considers that more can be done to more effectively change community attitudes and shape future behaviour of all road users in relation to their tolerance of speed.

RECOMMENDATION 26

The Committee recommends that Transport for NSW continues to strengthen its involvement in collaborative community based strategies, as part of a coordinated national approach to achieve greater compliance with speed limits.

[306] Transport for NSW, *Road Safety Progress Report For NSW Parliament on 2012 Activities*, November 2013, p13.
[307] Department of Infrastructure and Regional Development, *Implementation Status Report, National Road Safety Strategy 2011-2020*, November 2013, p12.

Appendix One – List of Submissions

1	Mr Lex Stewart
2	Mr John Shingleton
3	Ms Nicole Gastrell
4	Mrs Anna Moneva
5	Mr Ian Dean
6	Mr Don Mills
7	Mr Ralf Pantenburg
8	Mr Warwick Kelly
9	Mr Peter Mayman
10	Mr Gary Russell
11	Mrs Lesley Carroll
12	Mr Peter Williamson
13	Mr Barry Moon
14	Ms Margaret Barlow
15	Mr Ian Horsburgh
16	Confidential
17	Mr Mike Wrenford
18	Ms Kim Zwulik
19	Safety and Policy Analysis International
20	Name Suppressed
21	The George Institute for Global Health
22	Mr Erhard Dehmelt
23	Motorcycle Council of New South Wales
24	Global Road Safety Solutions
25	Name Suppressed
26	Transport and Road Safety Research, University of New South Wales
27	National Motorists Association of Australia
28	Mr William Burton
29	NRMA Motoring and Services
30	New South Wales Government
31	Mr E Robert Y Smith
32	Pedestrian Council of Australia
33	City of Sydney

Appendix Two – List of Witnesses

5 June 2014, Macquarie Room, Parliament House

Witness	Organisation
Mr Tim Reardon Deputy Director General, Policy and Regulation Ms Margaret Prendergast General Manager, Centre for Road Safety Mr Evan Walker Principal Manager, Safe Systems, Centre for Road Safety Mr Steven Head General Manager, Network Management, Roads and Maritime Services	Transport for NSW
Acting Assistant Commissioner Stuart Smith Commander, Traffic and Highway Patrol Command	NSW Police Force
Professor Raphael Grzebieta Professor of Road Safety Ms Lori Mooren Senior Research Fellow	Transport and Road Safety Research, University of NSW
Mr Graham Pryor National Liaison Officer	National Motorists Association of Australia
Professor Rebecca Ivers Director, Injury Division Ms Patricia Cullen PhD Student, Injury Division	The George Institute for Global Health, University of Sydney
Ms Bonnie Parfitt Acting Executive Manager, City Access and Transport Mr Len Woodman Road Safety Officer	City of Sydney
Mr Lex Stewart	Private Citizen

6 June 2014, Macquarie Room, Parliament House

Witness	Organisation
Mr Harold Scruby Chairman	Pedestrian Council of Australia
Mr Christopher Burns Delegate Mr Peter Ivanoff Delegate	Motorcycle Council of NSW
Mr Mark Wolstenholme Senior Policy Advisor, Traffic and Roads Mr Luke Turner Senior Policy Advisor, Road Safety	NRMA Motoring and Services
Mr E Robert Y Smith	Private Citizen

Appendix Three – Extracts from Minutes

MINUTES OF PROCEEDINGS OF THE JOINT STANDING COMMITTEE ON ROAD SAFETY (NO. 26)

1.00pm, Wednesday, 16 October 2013
Room 1254, Parliament House

Members Present

Mr Aplin (Chair), Mr Colless, Mr Holstein, Rev Nile, Mr Park, Mr Secord, Mr Webber, Mr Williams.

Staff in attendance: Bjarne Nordin and James Newton.

The Chair commenced the meeting at 1.01pm.

1. Committee membership

The Chair welcomed Mr Holstein to his first meeting with the Committee.

2. Confirmation of minutes

Resolved, on the motion of Mr Secord, that the draft minutes of the deliberative meeting conducted on 16 September 2013 be confirmed.

3. Consideration of potential topics for new inquiry

The Committee deliberated on potential topics for a new inquiry.

Resolved, on the motion of Mr Holstein, that Committee staff prepare draft terms of reference for an inquiry into speed limits and the demerit points system for consideration at the next meeting.

5. Adjournment

The Committee adjourned at 1.24pm until 1.00pm Wednesday, 30 October 2013 at Parliament House.

MINUTES OF PROCEEDINGS OF THE JOINT STANDING COMMITTEE ON ROAD SAFETY (NO. 27)

1.00pm, Wednesday, 30 October 2013
Room 1254, Parliament House

Members Present

Mr Aplin (Chair), Mr Colless, Rev Nile, Mr Park, Mr Secord, Mr Webber, Mr Williams.

Apologies

Mr Holstein.

Staff in attendance: Bjarne Nordin and James Newton.

The Chair commenced the meeting at 1.02pm.

1. Confirmation of minutes

Resolved on the motion of Mr Park, that the minutes of the deliberative meeting conducted on 16 October 2013 be confirmed.

2. Inquiry into speed zoning and its impact on the demerit points scheme

The Committee deliberated on draft terms of reference.

Resolved, on the motion of Mr Colless, that the Committee adopt the terms of reference.

Resolved, on the motion of Rev Nile, that the Committee advertise the inquiry on the Committee's website and in the Sydney Morning Herald.

3. Adjournment

The Committee adjourned at 1.08pm until 1.00pm Wednesday, 20 November 2013 at Parliament House.

MINUTES OF PROCEEDINGS OF THE JOINT STANDING COMMITTEE ON ROAD SAFETY (NO. 28)

1.00pm, Wednesday, 5 March 2014
Room 1254, Parliament House

Members Present

Mr Aplin (Chair), Mr Colless, Mr Holstein, Mr Park, Mr Secord, Mr Webber, Mr Williams.

Apologies

Rev Nile.

Staff in attendance: Bjarne Nordin, James Newton, Dora Oravecz, Elaine Schofield.

The Chair commenced the meeting at 1.00pm.

1. Confirmation of minutes

Resolved on the motion of Mr Williams, that the minutes of the deliberative meeting conducted on 30 October 2013 be confirmed.

2. Inquiry into speed zoning and its impact on the demerit points scheme

The Chair provided an update on the progress of the inquiry to date.

4. General business

The Chair informed the Committee that hearings for the Inquiry into Speed Zoning and its impact on the Demerit Points Scheme would be held on dates to be determined in June 2014.

5. Adjournment

The Committee adjourned at 1.22pm until 1.00pm Wednesday, 26 March 2014 at Parliament House.

MINUTES OF PROCEEDINGS OF THE JOINT STANDING COMMITTEE ON ROAD SAFETY (NO. 29)

1.00pm, Wednesday, 26 March 2014
Room 1254, Parliament House

Members Present

Mr Aplin (Chair), Mr Colless, Mr Holstein, Mr Park, Mr Secord, Mr Webber, Mr Williams.

Apologies

Rev Nile.

Staff in attendance: Bjarne Nordin and Vedrana Trisic.

The Chair commenced the meeting at 1.00pm.

1. Confirmation of minutes

Resolved on the motion of Mr Williams, that the minutes of the deliberative meeting conducted on 5 March 2014 be confirmed.

2. Inquiry into speed zoning and its impact on the demerit points scheme

Publication of submissions

Resolved on the motion of Mr Williams, that the Committee receives and authorises the publication of submissions, in accordance with the list circulated, with personal details redacted as appropriate, and orders that they be placed on Parliament's website.

Confirmation of hearing date and witness list

Resolved on the motion of Mr Colless, that the Committee invites selected organisations on the list circulated to appear as witnesses at public hearings on 5 and 6 June 2014.

5. Adjournment

The Committee adjourned at 1.07pm until 8:45am Thursday, 5 June 2014 at Parliament House.

MINUTES OF PROCEEDINGS OF THE JOINT STANDING COMMITTEE ON ROAD SAFETY (NO. 30)

8:45am, Thursday, 5 June 2014
Macquarie Room, Parliament House

Members Present

Mr Aplin (Chair), Mr Colless, Mr Holstein, Mr Park, Mr Secord and Mr Webber.

Apologies

Rev Nile, Mr Williams.

Staff in attendance: Bjarne Nordin, Vedrana Trisic, James Newtown, Abegail Javier.

The Chair commenced the meeting at 8:45am.

1. Confirmation of minutes

Resolved on the motion of Mr Colless, that the minutes of the deliberative meeting conducted on 26 March 2014 be confirmed.

2. Inquiry into speed zoning and its impact on the demerit points scheme

a. *Publication of additional submission (City of Sydney)*

Resolved on the motion of Mr Secord, that the Committee receives and authorises the publication of the submission from the City of Sydney, with personal details redacted as appropriate, and orders that it be placed on the Parliament's website.

b. Admission of media

Resolved on the motion of Mr Holstein, that the Committee authorises the audio-visual recording, photography and broadcasting of the public hearing on 5 June 2014 in accordance with the Legislative Assembly guidelines for the coverage of proceedings for Parliamentary committees.

3. Public Hearing - Inquiry into speed zoning and its impact on the demerit points scheme

The Committee commenced its hearing at 8:57am.

Press and public were admitted.

The Chair made an opening statement in connection with the Inquiry.

The following witnesses representing **Transport for NSW and NSW Police Force** were called and examined together:

- Mr Tim Peter Reardon, Deputy Director General, Policy and Regulation, Transport for NSW; Mr Steven Head, General Manager, Network Management, Roads and Maritime Services, Transport for NSW; and Mr Evan Daniel Walker, Principal Manager, Safe Systems, Centre for Road Safety, Transport for NSW were affirmed and examined.

- Ms Margaret Joan Prendergast, General Manager, Centre for Road Safety, Transport for NSW; and Acting Assistant Commissioner Stuart Geoffrey Smith, Commander, Traffic and Highway Patrol, NSW Police Force were sworn and examined.

Evidence concluded, the witnesses withdrew.

The following witnesses representing **Transport and Road Safety Research** were affirmed and examined together: Professor Raphael Hillary Grzbieta, Professor of Road Safety; and Ms Lori Elise Mooren, Senior Research Fellow.

Evidence concluded, the witnesses withdrew.

The following witness representing the **National Motorists Association of Australia** was sworn and examined: Mr Graham Pryor, Committee Member.

Evidence concluded, the witness withdrew.

The following witnesses representing the **George Institute for Global Health** were affirmed and examined together: Professor Rebecca Ivers, Director Injury Division; and Ms Patricia Cullen, PhD student, Injury Division.

Evidence concluded, the witnesses withdrew.

The following witnesses representing the **City of Sydney** were called and examined together:

- Ms Bonnie Jean Parfitt, Acting Executive Manager, City Access and Transport affirmed and examined; and
- Mr Leonard Paul Thomas Woodman, Road Safety Officer, sworn and examined.

Evidence concluded, the witnesses withdrew.

Mr Alexander Cornell Stewart, private citizen, was sworn and examined.

Evidence concluded, the witness withdrew.

4. Publication orders

Resolved on the motion of Mr Secord, that the corrected transcript of evidence given today (and any tendered documents, which are not confidential) be authorised for publication and uploaded on the Committee's website.

5. Next meeting

The Committee adjourned at 4:22pm until 8:45am Friday 6 June 2014.

MINUTES OF PROCEEDINGS OF THE JOINT STANDING COMMITTEE ON ROAD SAFETY (NO. 31)

8:45am, Friday, 6 June 2014
Macquarie Room, Parliament House

Members Present

Mr Aplin (Chair), Mr Colless, Mr Holstein, Mr Park, Mr Secord, Rev Nile, Mr Webber.

Apologies

Mr Williams.

Staff in attendance: Bjarne Nordin, Vedrana Trisic, James Newtown, Abegail Javier.

The Chair commenced the meeting at 8:45am.

1. Admission of media

Resolved on the motion of Mr Holstein, that the Committee authorises the audio-visual recording, photography and broadcasting of the public hearing on 6 June 2014 in accordance

with the Legislative Assembly guidelines for the coverage of proceedings for Parliamentary committees.

3. Public Hearing - Inquiry into speed zoning and its impact on the demerit points scheme

The Committee commenced its hearing at 8:58am.

Press and public were admitted.

The Chair made an opening statement in connection with the Inquiry.

The following witness representing the **Pedestrian Council of Australia** was affirmed and examined: Mr Harold Scruby, Chairman.

Evidence concluded, the witness withdrew.

The following witnesses representing the **Motorcycle Council of NSW** were sworn and examined together: Mr Christopher James Burns, Facilities Manager; and Mr Peter George Ivanoff, Delegate.

Evidence concluded, the witnesses withdrew.

The following witnesses representing **NRMA Motoring and Services** were called and examined together:

- Mr Mark Wolstenholme, Senior Policy Adviser, Traffic and Safer Roads sworn and examined; and

- Mr Luke Turner, Senior Policy Adviser, Road Safety affirmed and examined.

Evidence concluded, the witnesses withdrew.

Mr Ernest Robert Yarwood Smith, private citizen, was sworn and examined.

Evidence concluded, the witness withdrew.

4. Publication orders

Resolved on the motion of Rev Nile, that the corrected transcript of evidence given today (and any tendered documents, which are not confidential) be authorised for publication and uploaded on the Committee's website.

5. Next meeting

The Committee adjourned at 12:01pm until 1.00pm on Wednesday, 13 August 2014.

Minutes of Proceedings of the Joint Standing Committee on Road Safety (no. 34)

1.00pm, Wednesday, 22 October 2014
Room 1254, Parliament House

Members Present

Mr Aplin (Chair), Mr Colless, Mr Holstein, Rev Nile, Mr Rohan, Mr Secord, Mr Williams.

Staff in attendance: Bjarne Nordin, James Newton, Vedrana Trisic.

The Chair commenced the meeting at 1.01pm.

1. Committee Membership

The Chair welcomed Mr Rohan to his first meeting as a Member of the Committee.

2. Confirmation of minutes

Resolved on the motion of Mr Holstein, that the minutes of the meetings conducted on 13 August and 17 September 2014 be confirmed.

3. Consideration of Draft Report

The Committee deliberated on the Chair's draft report on Speed Zoning and its Impact on the Demerit Points Scheme.

Resolved, on the motion of Mr Williams, that the Committee consider the report recommendation by recommendation.
Recommendation 1, on the motion of Mr Williams, agreed to.
Recommendation 2, on the motion of Mr Colless, agreed to.
Recommendation 3, on the motion of Mr Williams, agreed to.
Recommendation 4, on the motion of Mr Colless, agreed to.
Recommendation 5, on the motion of Mr Holstein, agreed to.
Recommendation 6, on the motion of Mr Secord, agreed to.
Recommendation 7, on the motion of Mr Williams, agreed to.
Recommendation 8, on the motion of Mr Colless, agreed to.
Recommendation 9, on the motion of Rev Nile, agreed to.
Recommendation 10. Debate ensued.

Resolved on the motion of Mr Williams, that the recommendation reading "The Committee recommends that Transport for NSW reviews whether 30km/h zones should be implemented in residential areas and shopping precincts in NSW" be omitted.

Recommendation 11, on the motion of Mr Colless, agreed to, Mr Secord dissenting
Recommendation 12, on the motion of Mr Holstein, agreed to.
Recommendation 13, on the motion of Rev Nile, agreed to.
Recommendation 14, on the motion of Mr Colless, agreed to.
Recommendation 15, on the motion of Mr Holstein, agreed to.
Recommendation 16, on the motion of Mr Rohan, agreed to.

Recommendation 17, on the motion of Mr Colless, agreed to.
Recommendation 18, on the motion of Mr Williams, agreed to.
Recommendation 19, on the motion of Mr Williams, agreed to.
Recommendation 20, on the motion of Rev Nile, agreed to.
Recommendation 21, on the motion of Mr Holstein, agreed to.
Recommendation 22, on the motion of Mr Williams, agreed to.
Recommendation 23, on the motion of Mr Holstein, agreed to.
Recommendation 24, on the motion of Mr Williams, agreed to.
Recommendation 25, on the motion of Mr Holstein, agreed to.
Recommendation 26, on the motion of Rev Nile, agreed to.
Recommendation 27, on the motion of Mr Holstein, agreed to.

Resolved, on the motion of Mr Williams, that the Committee adopts the amended draft report, signed by the Chair for presentation to the House.

Resolved, on the motion of Mr Colless, that the Secretariat be authorised to make appropriate final editing and stylistic changes, and publishes the tabled report on the Committee's website.

4. Other Business

Mr Rohan raised his concern about the high number of speed zones operating over short distances. The Chair referred to the discussion of this issue in the report and its coverage in Recommendation 9.

The Committee discussed the recent Government announcement concerning the possible introduction of demerit points for unauthorised parking in disabled parking areas. The Committee agreed that this was outside the scope of the current inquiry and agreed that the Chair is able to comment on this matter on behalf of the Committee.

5. Adjournment

The Committee adjourned at 1.35pm *sine die*.