

Submission

No 23

DRIVER AND ROAD USER DISTRACTION

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Dear Mr Alpin

NRMA Insurance welcomes the opportunity to make a submission to the Staysafe Committee's Inquiry into Driver and Road User Distraction. We have a long history of advocating for road safety and have frequently contributed to the Committee's important work.

This submission provides an overview of our research into the types and pervasiveness of driver distraction as well as the impact of these distractions on driver behaviour and the risk of accident and injury. It also makes recommendations for tackling unsafe driver distraction through a sustained, multi-faceted and coordinated strategy built on partnership between Government, industry and the community.

If you wish to discuss the issues outlined in the submission or make further inquiries, please contact

[REDACTED]

Yours faithfully

[REDACTED]

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SUBMISSION TO STAY SAFE (JOINT STANDING COMMITTEE ON ROAD SAFETY) INQUIRY INTO DRIVER AND ROAD USER DISTRACTION

May 2012

Introduction

NRMA Insurance commends the Stay Safe Committee's decision to examine an issue that is increasingly affecting road safety not only in New South Wales (NSW) but across the globe. In May 2010 the United Nations launched a campaign in May 2010 in an effort to fight distracted driving through a simple message – "Texting while driving kills. No SMS is worth an SOS". We welcome this opportunity to inform the committee about our research into the impact of various types of driver distraction as well as our efforts to combat the risk of driver distraction through community education and awareness.

NRMA Insurance

As the leading general insurer in New South Wales, NRMA Insurance represents the largest division of the Insurance Australia Group.

We are responsible for developing, underwriting, selling and managing claims for personal insurance products that are sold directly to customers. Our products include comprehensive motor insurance, home and contents insurance, CTP, home security, and business insurance. We also offer lifestyle and leisure insurance products including; veteran, vintage and classic car, boat, caravan and travel.

Also operating in Queensland, the Australian Capital Territory and Tasmania, along with Western Australia (SGIO), South Australia (SGIC) and online via Buzz Insurance we have over three million customers and we insure approximately 1.2 million homes and 3 million vehicles.

NRMA Insurance's Interest in the Inquiry

Our contribution to road safety

NRMA Insurance is in the business of ensuring our customers can get back on the road after a motor vehicle accident and rehabilitating people who have been injured in collisions. Our customers are parents, grandparents, professionals, business owners, tradesman, individuals and we've been providing car insurance for generations. Our customers are the Australian community.

We have a long history of advocating for road safety and it is at the very core of the business. We believe that a road safety culture, implemented at all levels of our society will help keep drivers safe, reduce collisions, injuries and damage to vehicles. This can in turn lead to a reduction of claims and frequency which is ultimately in the best interest of the community, our customers and our business. This will also help keep insurance affordable for the long term.

NRMA Insurance has demonstrated its commitment to encouraging safe driving through initiatives such as the 'P Drivers Project' an innovative education program aimed at improving the driving behaviour of young drivers. This joint initiative with Roads and Maritime Services (RMS) and other public and private sector partners was launched in October 2011 and is the largest research project of its type carried out anywhere in the world¹.

We have also been at the forefront of research and education about unsafe driver distraction. In 2005 NRMA Insurance was a major sponsor of the first international conference on distracted driving². We remain committed to increasing awareness of the risks created by distracted driving.

Research Centre

We are the only insurer in Australia to own and operate a physical research centre³ with experts in vehicle design. We undertake research into the effects of automotive design and engineering on the safety, security and repair costs of motor vehicles including motorcycles. This research is used locally and internationally by repairers, manufacturers and research organisations to improve the repair and design of vehicles.

We are also a member of the Research Council for Automobile Repairs (RCAR), an international association of insurance research centres whose primary activity is concerned with influencing the design of vehicles in the areas of vehicle damageability, collision repairs, occupant safety and technical training associated with motor vehicles. Our research centre has been recognised

¹ See attached Media Release

² Australasian College of Road Safety, 2-3 June 2005, Sydney

³ <http://www.iagresearch.com.au/>

internationally and led to NRMA Insurance being the only insurer to be invited into the Australasian New Car Assessment Program (ANCAP). ANCAP has recently adopted our head restraint ratings which will be included in the ANCAP star rating system from 2012.

The Research Centre also advises consumers on car safety issues. In addition, NRMA Insurance regularly conducts survey based research into driver attitudes and behaviour.

What is 'driver distraction'?

Driving is a complex task that requires considerable concentration and focus if the risk of a collision is to be minimised. Drivers put themselves at increased risk of a collision when they attempt to combine driving with another task. Anything external to a driver that may impair their ability to focus their attention on the primary driving task, and consequently affect their driving performance, can be considered a driver distraction.

The sources of these distractions can be both 'in-vehicle' and in the general road environment. In-vehicle distractions can be broadly divided into technology based distractions (for example mobile phones, Global Positioning System (GPS) units, stereos) and non-technology based distractions (for example eating, drinking and passenger interaction).

As the National Road Safety Strategy 2011-2020⁴ notes, the sources of driver distraction have 'increased substantially' in recent years.

Modern vehicles can include on-board DVD, satellite navigation, complex sound systems, climate controls, and audible and visual signals for an array of vehicle operations which compete for driver attention. Although it is very difficult to quantify the effect of all of these and other sources of distraction on serious road casualties, they are recognised as a major and potentially growing problem area.

This submission focuses on 'in-vehicle' distractions rather than those in the general road environment.

Our Research into "Driver Distraction"

In recent years NRMA Insurance has conducted research into different types of 'in-vehicle' driver distraction. Our research covers the types and pervasiveness of driver distraction as well as the impact of these distractions on driver behaviour and the risk of accident and injury. Although our research has concentrated on technology based distractions we have also undertaken some research into non-technology based distractions such as eating and drinking. This research has been in the form of both surveys and road-tests.

Technology based distractions

Technology based devices and the activities they facilitate have the potential to distract drivers, significantly impairing their driving performance and safety. Technological devices include those that are built into the vehicle or 'on-board equipment (such as stereos, entertainment systems and navigational systems) and portable devices that may be used in a vehicle (such as mobile phones, iPods and GPS units).

Mobile phones

Mobile phones (including smart phones) are a potential source of multiple distractions for drivers. The risk of mobile phones as a source of distraction is only increasing as they become more interactive and their functionality expands.

Mobile phones can now be used for a growing range of activities including making telephone calls, texting, emailing, browsing the internet, using social media and applications, taking photos and video footage and playing music.

In addition, a 2011 study conducted by Google with Ipsos Research found that Australia has the second highest smart phone penetration in the world behind Singapore at 37%⁵. Given these

⁴ p 84. *The National Road Safety Strategy 2011-2020 released by the Australian Transport Council on 20 May 2011 outlines broad directions for the future of Australian road safety in the four key areas - Safe Roads, Safe Speeds, Safe Vehicles and Safe People. The Strategy addressed the impact of driver distraction on road safety as part of 'Safe People'.*

statistics it is arguable Australian drivers are subject to a comparatively greater risk of distraction by mobile phones than drivers in the United States, the United Kingdom and Japan.

Effect of mobile phone based activities on driving performance

NRMA Insurance has conducted two studies into the effect of texting on driving performance.

2005 Study

In 2005 NRMA Insurance conducted a study in partnership with Monash University Accident Research Centre (MUARC) and NRMA Motoring and Services aimed at evaluating the effects of text messaging on the driving performance of young novice drivers⁶. Using MUARC's Advanced Driving Simulator twenty drivers aged between 18 and 20 years who had held their driver's licenses for six months or less were asked to complete two identical test drives containing:

- three different tasks requiring the driver to follow another vehicle ('car-following'),
- pedestrian and other traffic hazards tasks, and
- lane-changing tasks.

Each driver experienced four text message episodes per test drive. They were instructed to drive as close as possible to the speed limit, stay in the right hand lane and obey road rules. Eye-tracking equipment was used to assess the drivers' eye-movements while completing the task.

For each of the three car-following tasks:

- the average gap between the driver and lead vehicle was 50% larger when text messaging,
- the average gap between the driver and lead vehicle was 138% more variable when text messaging, and
- the minimum gap between the driver and lead vehicle was 32% larger when text messaging.

The drivers' lane keeping ability was also affected by texting events:

- the lateral position deviation increased by up to 70% when sending texts during traffic light, pedestrian and one of the car following events,
- drivers made 28% and 63% more lane excursions when retrieving and sending texts respectively, and
- the number of incorrect lane changes made increased by 140% when retrieving and sending texts.

During all tasks the amount of time drivers spent with their eyes off the road increased up to 400% when retrieving and sending text messages. Sending texts were found to be more distracting than reading as responding is more cognitively and physically demanding.

The study concluded that text messaging affected drivers lane keeping ability, ability to detect signs and hazards and increased the amount of time spent not looking at the road, and these degradations were likely to greatly increase the risk of a collision.

2010 Study

Research we conducted in 2010 further demonstrated the significant danger of texting while driving. Conducting a road test on a closed circuit private road, ten drivers (aged 20 to 54) texted an identical message - "The quick brown fox jumps over the lazy dog" - while driving at 60km/h. The drivers faces were filmed with eye movements recorded – a single eye movement is referred to as a 'glance'.

The results showed that drivers were challenged to perform the primary driving task while texting and spent almost 70% of the trip glancing at their phone. The road test also revealed the drivers on average glanced at their phone 38 times for an average length of 1.4 seconds during the trip. This means that when a driver was travelling at 60 km/h, they were glancing at their phone for 22 metres at a time – which is almost five car lengths

This research supports the findings from our 2005 study that texting significantly distracts drivers from the primary driving task. When drivers are not able to give the primary driving task the necessary

⁵ <http://www.amta.org.au/articles/Australia.ranks.second.on.smartphone.penetration.says.Google.survey>

⁶ "The Effects of Text Messaging on the Driving Performance of Young Novice Drivers" 2005 Kristie Young, Simon Hosking and Michael Regan (Monash University Accident Research Centre); John Brown (NRMA Motoring and Services); Pam Leicester (NRMA Insurance).

amount of attention their driving performance deteriorates and they put themselves at increased risk of a collision. Distractions that encourage drivers to take their eyes off the road further exacerbate the risk. It may also be possible to extrapolate the findings from our texting research to other mobile phone based activities that similarly encourage drivers to take their eyes off the road such as reading and writing emails, using applications and browsing the internet.

Prevalence of mobile phone use while driving

Since 2006 NRMA Insurance has commissioned a number of surveys to learn more about the extent to which drivers are using mobile phones while driving. By making the results of these surveys public we have also sought to increase awareness of the dangers of using mobile phones while driving.

Each of our surveys has been conducted on a national or quasi-national basis enabling us to compare and contrast the results between different jurisdictions. For the purposes of this submission we have sought to focus on the results for NSW drivers and compared them against 'national' findings where NSW results deviate significantly from national results.

Some of our surveys also provide insight into mobile phone use according to age and gender. The more we know about the profile of drivers who are likely to use their mobile phone or otherwise engage in distracted driving, the better we are able to target mechanisms to address the risk of distracted driving.

2012

Most recently, in January 2012 we commissioned Pure Profile Research to conduct a survey of 415 NSW drivers⁷ about their use of mobile phones while driving. The survey found that 40% used their phone while driving and of these:

- 88% made phone calls;
- 68% texted and read emails;
- 40% used applications – e.g. checking the weather forecast, news headlines;
- 38% took photos; and
- 25% updated their Facebook status or tweeted.

The figure of 40% for NSW drivers who admit to using their mobile phones while driving is significantly higher than the national result of 33%. However of the drivers who do admit using their phone the breakdown between different activities in NSW is generally in line with the national results. Nationally, the survey found that drivers in the 25-34 age group were most likely to use their mobile phones while driving (54%) and that men were slightly more likely than women to use their phones (36% as against 31%).

2011

In a February 2011 survey of over 800 NSW drivers⁸ 46% of NSW drivers admitted to using their mobile phones while driving. The survey also found that around 9% of NSW drivers admitted to updating their status or tweeting. The results of the 2011 survey suggest a fall, both nationally and in NSW, in the number of drivers using their mobile phones between 2011 and 2012. Conversely the proportion of drivers using their phone to update their status or tweet rose.

2010

In response to a February 2010 national survey⁹ 24% of drivers both in NSW and nationally said they contacted people while driving either via phone, text or email. Drivers in the 18-29 age group were most likely to contact people while driving (41%) with men more likely to do so than women (28% to 22%). Very few drivers both in NSW and nationally said they tweeted (1%) or updated their Facebook status (4% and 3%) while driving. Drivers in the 18-29 age group were most likely to either tweet or update their status but even these figures were below 10%.

2009

In a 2009 survey of around 1000 drivers in NSW, Queensland, Western Australia and South Australia¹⁰ 33% of drivers admitted to making or receiving phone calls while driving and 20% said they sent or

⁷ As part of a survey of more than 2500 people nationally.

⁸ As part of a survey of more than 2500 people nationally.

⁹ Survey of more than 2500 people conducted by PureProfile included 500 NSW respondents..

received texts. The results of the 2009 survey also indicated that drivers in the 30-39 age group were most likely to take phone calls while driving (52%), followed by drivers aged between 16-29 (37%) while drivers over 40 were the least likely (24%). In contrast drivers in the 30-39 and 16-29 age bracket were equally likely to text while driving (37% and 38% respectively) while only 8% of drivers over 40 admitted to texting.

2007

In our 2007 national survey of around 2,000 drivers¹¹ more than 40% of male drivers admitted to using hand-held phones while driving, compared to 30% of females. The research also revealed that drivers aged 25 to 34 are the biggest culprits when it comes to talking on the phone while driving, with more than half admitting to using their phones behind the wheel.

2006

In response to attitudinal research we commissioned OmniAccess to undertake in 2006, 43% of NSW drivers admitted to using a hand held mobile phone while driving (as compared to the national figure of 45%) and 31% of NSW drivers said they sent or received text messages (compared to the national figure of 31%). On a national basis 31% of men and 30% of women said they texted while driving while 47% of men and 43% women said they used a hand held mobile phone. The national results according to age revealed that around two-thirds of drivers (66%) in the 25-34 age group admitting to using a mobile phone, 59% in the 35-44 age bracket and 52% of those drivers between 16 and 24 years old. Where texting was concerned the 16 to 24 year olds led with way with 57% followed by drivers in the 25-34 age group at 52%.

Conclusions

The results of our surveys can go some way to confirming anecdotal evidence about the prevalence of drivers' mobile phone use both in NSW and nationally. They can also give us some insight into the profile of drivers most likely to be distracted by mobile phones.

However, there are a number of caveats that need to be remembered in drawing conclusions from the results of these surveys. First, given using a hand held mobile phone while driving is illegal in all Australian states not all survey respondents would have been completely honest about their mobile phone usage. Some respondents will be reluctant to admit breaking the law even when a survey is anonymous. Second, the parameters and methodology for each survey were not identical so the data gathered from each survey will not always be directly comparable. For example, the percentage of NSW drivers who admit to using their mobile phones has proven to be somewhat erratic (43% in 2006, 33% in 2009, 24% in 2010, 46% in 2011 and 40% in 2012).

While bearing these factors in mind it is possible identify the following themes emerging from our survey results:

1. As recently as January 2012 40% of drivers in NSW have used their mobile phone while driving.
2. NSW drivers are using their mobile phones at levels above the national average.
3. Men are marginally more likely to use their mobile phones while driving.
4. Drivers who over 25 and under 40 are most likely to use their mobile phones while driving.
5. Those drivers who do use their mobile phones are primarily doing so to make phone calls. However a significant proportion of these drivers are texting and the number who are using the phone to engage in other activities such as tweeting and updating their status is rising rapidly.

The outcomes of our research are concerning for a number of reasons.

First, it suggests that a significant proportion of NSW drivers are combining driving with mobile phone based tasks. Our road tests have found these tasks significantly impair a driver's ability to focus on the primary driving task. These drivers are putting themselves at a higher risk of collision and making the roads less safe for other users.

¹⁰ Woolcott Research conducted a survey of around 1,000 respondents in February 2009.

¹¹ Undertaken by Woolcott Research October 2007

Second, drivers continue to take these risks even though it is an offence in NSW to drive a vehicle while using a hand-held mobile phone¹².

Third, it suggests efforts over recent years to educate drivers about the dangers of using a mobile phone while driving remain unheeded by a considerable proportion of NSW drivers. The results of the 2012 survey indicate a slight reduction from the previous year in the proportion of NSW drivers using their mobile phones while driving. However, 40% is still an unacceptably high proportion of drivers. The effectiveness of regulation and education in changing driver behaviour in this area is considered in greater detail under the heading "Addressing Risk Created by Electronic Devices and Other Driver Distractions".

GPS and other navigation systems

Mobile GPS units and other satellite navigation systems have considerable potential to improve the ability of drivers to drive safely. Provided equipment is used correctly, drivers are much less likely to become lost and disoriented when using a GPS unit. They also reduce reliance on traditional maps which are potentially extremely distracting even with a passenger reading a map and providing directions. Further, GPS units have the option of voice commands reducing the need for drivers to take their eyes off the road. Research conducted in the United Kingdom by automotive products retailer Halfords found that drivers who use satellite navigation argue less with passengers and make fewer insurance claims than those who rely on traditional maps¹³.

However, our research has demonstrated that GPS units and other navigational systems can also be a source of unsafe driver distraction particularly if they are not used appropriately.

Road test

In 2010 our Research Centre conducted a road-test to investigate the impact of GPS units on driver attention and safety. Six drivers (aged 27 to 59) drove an unfamiliar urban route of 35km on public roads, using the same GPS unit while driving at speeds under the posted speed limit.

The drivers faces were filmed with eye movements recorded – a single eye movement is referred to as a 'glance'. Four GPS unit positions were tested. Laser angles were recorded at each corner of the GPS unit to calculate the invisible area the GPS unit projected onto the road in front of the vehicle.

The road test revealed that drivers glanced at the GPS around 90 times for an average of 1.2 seconds. This means, when travelling at 60 km/h, they were looking away from the road for up to 19 metres at a time – or more than four car lengths.

What this road test shows is how the average driver interacts with their GPS while at the wheel. It suggests drivers are spending too much time looking away from the road to check their GPS screens. The research also indicates that the safest position for a portable GPS unit is the right front lower corner of the windscreen. Of the positions tested, this location created the smallest blind spot for the driver. The least safe positions for a portable GPS unit is in the centre of the windscreen under the rear-vision mirror or directly in front of the driver, as these locations block the field of view creating large areas invisible for the driver.

Survey

NRMA Insurance research also demonstrates using GPS units and navigational systems may be a source of distraction when a driver attempts to reprogram a course without pulling over or when the unit generates an argument between the driver and a passenger/s.

As part of attitudinal research in 2012¹⁴ 40% of NSW drivers said they change the route on their GPS while driving (compared to the national figure of 30%). Men were more likely than women to reprogram their GPS while driving (33% to 25%) as were younger drivers (39% of 18-24 year olds).

Attitudinal research carried out in September 2009 by Pure Profile on behalf of NRMA Insurance found that almost 36% of NSW drivers admitted to getting into an argument after being led astray by their GPS (compared to 30% nationally). In the 18-29 age bracket this proportion rose to 54% or more than 20% higher than the average across all age groups.

¹² Regulation 300 ROAD RULES 2008

¹³ April 2012 <http://www.halfordspressoffice.com/Press-Releases/CALM-DOWN-DEAR-USE-A-SAT-NAV-43e.aspx>

¹⁴

Conclusions

Our research clearly demonstrates that GPS units and navigational systems can be a source of potentially dangerous driver distraction. Of particular concern is the tendency of drivers to look at the screen on the GPS unit rather than the road ahead of them and the placement of portable units in the driver's line of sight. However, our research also shows that the risk of unsafe distraction largely stems from inappropriate use of the technology and could be reduced by following a number of rules:

- relying on voice directions rather than looking at the map on the screen,
- ensuring it is positioned in your line of sight but not blocking your field of view,
- enabling a warning if you try to access the screen while driving, and
- pulling over to reprogram a route.

Stereos, iPods and MP3 players

While listening to the radio or a CD can be a source of driver distraction, iPods and other MP3 players create a higher risk of distraction given they encourage increased interaction (for example scrolling through music looking for specific songs and artists). This increased interaction creates a greater risk that the driver will take their eyes off the road for longer periods and give excessive attention to their device at the expense of the primary driving task.

Our February 2009¹⁵ survey of over 600 drivers in NSW, Queensland, South Australia and Western Australia found that 70% of drivers change the radio or CDs while driving. This figure was relatively consistent across age groups. In contrast only 13% of all drivers said they use an iPod or MP3 player but this figure rose to 44% for drivers under 30 (as compared to 15% for those aged 30-39 and only 8% for those over 40).

This research also revealed 17% of drivers under 30 (or one in five) use headphones while driving. This is particularly concerning as wearing headphones is likely to make the driver less aware of surrounding driving conditions including reducing their chances of hearing surrounding traffic, horns and sirens.

The results of our 2012 attitudinal research revealed a marked increase since 2009 in the number of drivers using an iPod or MP3 player while driving. In response to our survey 33% of NSW drivers said they connected their iPod or MP3 to the radio and changed songs while driving. This was slightly above the national figure of 30%. Nationally, more than half (53%) of drivers in the 18-24 age group said they used their iPod while driving. This figure fell to 35% for drivers in the 25-34 group and then to 18% and 4% of drivers in the 35-44 age group and over 45 respectively. Female drivers were slightly more likely to use their iPod than men (32% to 26%).

Given vehicles are increasingly fitted with entertainment systems that enable iPod and MP3 player connectivity it is likely that the number of drivers using iPods and MP3s will continue to increase. We also note that people are increasingly using their smartphones to listen to music. Given it is illegal to use a hand held mobile phone while driving but not an iPod or MP3 this creates a regulatory inconsistency explored further below under the heading "Addressing Risk Created by Electronic Devices and Other Driver Distractions".

Future trends for the use of electronic devices

The past five years has seen the rapid convergence of media and technology with electronic devices increasingly integrated into every aspect of our lives. This trend is only set to continue as electronic devices become smaller, more user-friendly and adaptable. Consequently, we can expect that electronic devices will become even more pervasive and generate further opportunities for driver distraction. Another emerging potential sources of in-vehicle distraction are in-vehicle personal computers. Basic in-car computers have been available for post-purchase installation for a number of years. However, carmakers are increasingly making in-car computers a factory option. Functionality varies between carmakers but can include online connectivity enabling drivers to email and browse the internet from their dashboards via touch screens.¹⁶

Non-Technology based distractions

Given the explosion in smart phones and the growing sophistication of on-board equipment technology based driver distractions have been the focus of research, regulation and discussion in recent years. However, some non-technology based distractions can be equally dangerous. Any

¹⁵ Conducted by Woolcott Research

¹⁶ BMW Connected Drive is one example of in-vehicle personal computers being rolled out by vehicle manufacturers.

activity or object that competes for the driver's attention may cause them to lose focus on the primary driving task and undermine their ability to drive safely.

Eating, drinking, applying make-up and even talking to a passenger all encourage drivers to take their eyes off the road and create a higher risk of having a collision. A recent study by the Institute for Transport at Leeds University¹⁷ found that drivers' reaction times increased by 44% when eating behind the wheel while reaction times increased by over a fifth (22%) when sipping a drink. Drivers were 18 per cent more likely to experience poorer lane control - unable to maintain a steady central lane position - whilst drinking behind the wheel.

In February 2010 we asked 500 NSW drivers what other activities they engaged in (if any) while driving as part of a wide-ranging national survey about driver behaviour¹⁸. The results revealed that

- 37% of NSW drivers argue with a passenger;
- 36% eat fast food;
- 27% drink a coffee or tea;
- 15% ate breakfast;
- 6% carry out personal grooming including shaving, plucking eyebrows, brushing teeth and applying makeup

The figures for NSW drivers were largely consistent with national figures except for eating fast food where the national figure was higher (43%). On a national basis the results indicated that drivers in the 18-29 and 30-44 age groups were more likely than older drivers to eat and drink while driving. Further over 50% of drivers in the 18-29 age group said they were likely to argue with a passenger while driving.

Our February 2009 survey of driver behaviour in NSW, Queensland, SA and WA found that while driving:

- 68% of drivers eat or drink;
- 26% check their appearance; and
- 11% smoke.

Conclusions

Our research indicates that a significant proportion of drivers across all ages are engaging in a range of non-technology based activities that reduce their ability to focus on the primary driving task. Eating and drinking is the most common potentially distracting activity and drivers in the 18-29 and 30-44 age groups are more likely to eat and drink.

There are likely to be a number of reasons why drivers engage in these activities while driving. One reason may be because people lead busy lifestyles and are increasingly time poor so the car has become a place where we tend to catch up on many of the little things that we don't have time for during the day. It is also possible that engaging in these activities while driving has become normalised and drivers do not consider them to be unsafe. It seems many drivers are either unaware or indifferent to the evidence that any activity that draws a driver's attention away from the primary driving task is potentially unsafe.

Summary of Conclusions Drawn from Our Research

The outcomes of our research can assist in shaping efforts to combat driver distraction by improving our understanding of the impact of driver distraction, the profile of drivers who are being distracted and what they are being distracted by. We need to be able to understand the problem before we can properly develop options to address it. To that end the outcomes of our research also assist in identifying where further research might need to be undertaken.

Below are the key themes emerging from our research into both technology based and non-technology based driver distraction:

- Mobile phone use - particularly sending texts – significantly impairs driving ability.
- GPS units can impair driving ability when used inappropriately.
- Activities that encourage a driver to take their eyes off the road are a particularly dangerous source of distraction.

¹⁷ "Two Hands Are Better than One", Dr Samantha Jamson, Institute of Transport Studies, April 2012. The study commissioned by Esure Insurance

¹⁸ National survey of over 2500 drivers conducted by PureProfile Research.

- NSW drivers are more likely to use their mobile phones when compared to national results.
- Drivers in the 25-34 age group are the most likely to use their mobile phones while driving.
- Although the youngest drivers (18-24) are not the most likely to use their mobile phones while driving when they do use their phone they are more likely to text, tweet, update their status and use applications than drivers in other age groups.
- The number of drivers writing emails, tweeting, updating their status and using applications on their mobile phones has increased rapidly in the past few years.
- Men are more likely than women to use their mobile phones while driving.
- Over half of drivers between 18-24 use iPods in their cars a figure significantly higher than other age groups.
- A large proportion of drivers across all age groups eat and drink while driving.
- In contrast to mobile phone use there is little difference between age groups when it comes to engaging in non-technology based distracting activities.

Extent of distraction as a contributor to crashes and crash casualties on NSW roads?

There is considerable evidence – including research conducted by NRMA Insurance into the impact of texting while driving - that in-vehicle distractions can impair a driver's ability to concentrate on the primary driving task. There is also clear evidence that losing focus while driving, even if it is only for a very short time, significantly increases the risk of having a collision. However, it is difficult to ascertain the extent to which driver distraction directly or indirectly contributes to collisions and accident casualties.

This is because drivers will not necessarily admit when reporting an accident to police or making an insurance claim that they were distracted when a collision or accident occurred. This is particularly relevant in cases where the driver was using a mobile phone as people are reluctant to admit committing an offence. Alternatively drivers may not realise their activity was a relevant factor in the collision. In any event raw data drawn from insurance claims would not provide an accurate picture of the extent to which distraction contributes to collisions. A similar problem arises in trying to draw upon police statistics.

Academic studies have been conducted into the link between mobile phone use and collisions. Some of these studies were summarised and reviewed in a March 2012 paper by the United States Insurance Institute for Highway Safety¹⁹. The paper noted that studies conducted in two different countries – Australia and Canada – 10 years apart found that mobile phone use while driving was associated with a four-fold increase in collision risk²⁰. The Australian study was conducted in Western Australia and used mobile phone billing records to verify the collision involved drivers' mobile phone use. Another study conducted by the Insurance Institute for Highway Safety suggested using mobile phones while driving could account for 22% of all collisions in the US based on how much drivers admitted to surveyors that they use their phone while driving and the estimated risk of driver phone use²¹.

Given the issues around verifying the extent to which distraction contributes to collisions through insurance data and police reports further research in this area specifically focused on NSW would be valuable

Addressing risk created by electronic devices and other driver distractions

The results of NRMA Insurance research illustrate that driver distractions have a detrimental effect on a number of safety-critical driving measures. Our research also shows that a significant number of NSW drivers are engaging in secondary activities that distract them from the primary driving task even when doing so is illegal. Further, drivers continue to engage in these activities in the face of efforts by governments, NRMA Insurance and other organisations to raise awareness about the risks of driver distraction.

¹⁹ "Review of 'Cell Phone Use and Crash Risk: Evidence for Positive Bias' by Richard A. Young", David G. Kidd, Anne T. McCartt, March 2012

²⁰ p 2 Kidd, McCartt

²¹ Status Report, "Special Issue: Phoning While Driving", Vol 45, No 2, 27 Feb 2010, Insurance Institute for Highway Safety

Minimising the incidence and impact of driver distraction requires long-term and widespread behavioural change on the part of drivers. Behavioural change of this magnitude can only be achieved through a sustained, multi-faceted and coordinated strategy built on partnership between Government, industry and the community.

While regulatory and technological mechanisms can assist NRMA Insurance believes the key component of this strategy should be improving driver awareness and education.

Driver engagement and education

While consumer appetite towards technology and communication devices is likely going to grow, practical steps to encourage safe use of devices, and the risk of driver distractions needs to be taken.

NRMA Insurance has sought to raise awareness of the risks of distracted driving by publicising the results of our research and using media interest in our research as an opportunity to promote safe driving behaviours or provide information about how drivers can minimise the impact of potential distractions.

For example, when releasing statistics about mobile phone use we include messages urging drivers to pull over and stop their cars before using their phone. For the results of our GPS road test we provided simple tips such as choosing the automatic lighting option on the GPS unit to prevent it being too bright at night, enabling a warning if the driver tries to access the screen while driving; ensuring it is positioned in the drivers line of sight but not blocking your field of view.

National campaign

NRMA Insurance commends the implementation of comprehensive state-wide driver distraction education and awareness campaigns in several jurisdictions including Queensland and Victoria. We also support the NSW Government's education campaign directed at young drivers through the 'Geared' website²².

We believe these efforts should be reinforced by the establishment of a comprehensive, nationally consistent public education campaign to promote safe driving and safe use of communication devices and technology in cars.

NRMA Insurance recommended a comprehensive, national driver distraction campaign as part of our submission on the draft National Road Safety Strategy²³.

The final National Road Safety Strategy identified the following three priority actions to address 'irresponsible road use' in relation to mobile phones:

- a. Strengthen education and enforcement measures to improve compliance with current laws.
- b. Promote the safety benefits of phone-off policies (including hands-free) with all fleet operators.
- c. Examine the case for extending the coverage of novice driver prohibitions on mobile phone use (including hands-free) to include, for example, all 'P2' drivers or all young drivers under 26 years of age.

The Strategy also identified:

'developing educational and regulatory interventions to minimise the effects of driver distraction' and
'Monitoring and assessing the evidence on driver distraction associated with mobile phones and other communication devices, for identification of potential countermeasures (including for professional drivers),

as 'future steps' to be explored following the implementation of priority steps for addressing driver safety in the first three years of the strategy.

We are encouraged that the Strategy recognises the need to address these issues on a national basis but continue to advocate for the development and implementation of a national education campaign.

In the meantime we would encourage the NSW Government to develop and implement its own broad-ranging state-wide campaign on driver distraction similar to those in Queensland and Victoria.

²² <http://www.rta.nsw.gov.au/geared/index.html>

²³ http://www.infrastructure.gov.au/roads/safety/national_road_safety_strategy/files/0687_stake.pdf

Education and awareness campaigns designed around those most at risk

Existing efforts to raise public awareness about the risks created by distracted driving could be bolstered by both broad-based campaigns and targeted campaigns aimed at those drivers most at risk of being distracted by a particular activity. For example, our research shows that drivers in the 25-34 age group are most likely to use their mobile phones while driving. Therefore it is arguable that this age group should be prioritised in developing advertising or education campaigns on the dangers of using a mobile phone while driving.

NRMA Insurance recommends that education and awareness campaigns should specifically include components aimed at younger drivers. While our research suggests that our youngest drivers (18-24) are using their phones while driving at an unacceptably high level. In addition our youngest drivers are more likely to use iPods while driving with 17% using headphones with their iPods and other mobile devices. Specifically targeting young drivers is critical to discouraging these behaviours at the start of their driving career before habits have been set.

On a positive note the fact that young drivers are not the most likely age group to use mobile phones could indicate that current strategies to educate young drivers about the danger of distracted driving are making headway. We note that the NSW Road Users Handbook for learner drivers includes a chapter covering distracted driving and, as mentioned above, the RMS 'Geared' website includes material about driver distraction. Building on these foundations to strengthen the message being sent to young drivers is critical. For example, the P Driver's Project that is running in a number of locations in NSW and Victoria presents an opportunity to provide intensive and tailored education to young probationary drivers about distracted drivers.

Shaping the message

NRMA Insurance also suggests that awareness and education efforts could be made more effective by ensuring advertising campaigns are directed at making distracted driving socially unacceptable. These types of campaigns have previously proven to be effective, for example in relation to drink driving and smoking. We also suggest messages around driver distraction would achieve greater penetration if the focus of awareness campaigns was on the potential safety consequences of combining driving with other activities rather than the risk of getting caught. This is particularly the case for non-technology based activities where drivers may be less likely to take the potential consequences seriously.

Regulatory mechanisms

Regulation including prohibiting certain activities can assist in discouraging driver distraction but its effectiveness is limited. The results of our research since 2006 demonstrate that a significant proportion of drivers continue to use mobile phones while driving even though it is illegal to do so. It is also arguable that banning mobile phone use simply encourages covert phone use which can be equally if not more distracting than openly using a phone. In addition research conducted in the United States suggests that there has not been a reduction in accident rates in states that have prohibited using a hand-held mobile phone while driving²⁴. Increasing penalties may have a minor impact but they are unlikely to deter all drivers from using their mobile phones.

NRMA Insurance believes any additional regulation of driver behaviour to discourage distracted driving should be carefully and cautiously considered. However, we note that the current NSW prohibitions in NSW do not prevent people from using an iPad or laptop to email or search the internet while driving. Only covering mobile phones seems arbitrary when other devices can be equally distracting or are used to engage in the same activities. For example, the definition of 'use' for the purposes of the Road Rule prohibiting the use of hand held mobile phones includes operating any function of the phone. Consequently the Rule captures drivers using a smart phone to change their music while driving but not those using an iPod or MP3 player in exactly the same manner.

NRMA Insurance considers banning an inventory of activities to be undesirable. In our view the best way to encourage safe driving behaviour is through education and vehicle design rather than trying to legislate for common sense. However, in light of the issues we have identified the current Road Rule should be reviewed with the objective of making it 'device neutral'.

²⁴ The January 2010 study, conducted by the United States Highway Loss Data Institute, an insurance industry group, looked at accident rates before and after cell phone bans took effect in New York, the District of Columbia, Connecticut and California. The study found that month-to-month fluctuations in collision accident claims didn't change before and after cell phone bans took effect. Nor did accident patterns change compared with those in nearby states without cell phone bans
<http://www.iihs.org/news/rss/pr012910.html>

We refer the Committee to the National Road Safety Strategy 2011-2020 which noted that:

“Further investigation is required to fully understand the safety impacts of mobile phones and other potentially distracting devices, and to inform the development of appropriate countermeasures. Any consideration of changes to existing mobile phone laws would require a thorough analysis of the potential safety benefits and other impacts on the community, as well as the scope for effective detection and enforcement of offences under the changed laws.”

While we believe increased regulation should be approached with caution we suggest the Committee could explore some potential regulatory measures aimed at vehicle design and the location of devices rather than driver behaviour.

In its 2003 review of literature and research on distracted driving, MUARC noted that ‘the most effective way to minimise technology-based distraction is to design the Human Machine Interface (HMI) ergonomically’²⁵. MUARC went on to recommend that relevant authorities in Australia monitor the development of draft standards in Europe, North America and Japan containing performance based goals which must be reached by the HMI so that in-car technologies do not distract or visually entertain the driver while driving (for example the European Statement of Principles for Driver Interactions with Advanced In-vehicle Information and Communication Systems). Applying these standards (modified for Australian conditions as appropriate) to local vehicle manufacturers and system developers should also be considered.

In addition to vehicle design standards for in-vehicle technology there is also potential for regulating the placement of ‘portable’ technology such similar to prescribing where a registration sticker should be placed. For example, prescribing where portable GPS units can be located could reduce the level of distraction during use and address the creation of avoidable vehicle blind-spot issues.

Finally, NRMA Insurance supports harmonisation across Australian jurisdictions of any regulation aimed at tackling distracted driving as far as is practicable and appropriate. Given Australian drivers regularly drive interstate they should be able to rely on a level of consistency between the regulatory frameworks of each jurisdiction. In addition, strategies such as adopting vehicle design standards in the mould of the European Statement of Principles for Driver Interactions require national support to be effective.

Technological solutions

NRMA Insurance is aware of a number of potential technological mechanisms for reducing unsafe driver distraction. Most are aimed at discouraging unsafe driving behaviour by monitoring the driver and their vehicle.

Telematic vehicle tracking can be used to monitor the location, movements, status and behaviour of a vehicle. At least one insurance company in the United Kingdom offers an insurance product for young drivers aged between 17-24 where premiums can be reduced subject to their cars being fitted with a ‘Smartbox’ to monitor the drivers’ behaviour. Research conducted by the company suggests that vehicles fitted with a ‘Smartbox’ were found to be 20 per cent less likely to be involved in an accident than those without one and collisions were generally less serious with damage and injury costs almost one third lower²⁶. Installing in-vehicle cameras to monitor driver behaviour is another more intrusive technological option.

Selective use of technology based strategies could assist in reducing the risk of unsafe driver distraction. However, the effectiveness of technological solutions is inhibited by a number of factors including:

- the practicality of implementation on a large scale and across jurisdictions,
- cost to consumers of retro-fitting cars with equipment,
- the additional cost to vehicle manufacturers and consequently consumers for fitting vehicles with distraction minimising equipment, and

²⁵ “Driver distraction: review of the literature” Monash University Accident Research Centre, Report #206, 2003, K Young, M. Regan & M. Hammer

²⁶ <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/insurance/8383361/Lower-insurance-for-young-drivers-using-smartbox.html>

- the fact that vehicle manufacturers operate out of a number of jurisdictions and will not necessarily have a commercial or legal imperative to incorporate distraction minimising technology into their vehicles.

NRMA Insurance supports the exploration of potential technological mechanisms to address driver distraction as part of a comprehensive strategy with driver education and awareness as its primary focus.

Research

Each component of an effective strategy to address driver distraction needs to be informed by the best available research. In this submission we have outlined the extensive research conducted by NRMA Insurance on this issue. There is also a wealth of research on various aspects of driver distraction undertaken by other organisations. However, as mentioned earlier in this submission, there appears to be a lack of NSW specific research into the extent to which driver distraction can be linked to collisions and casualties. In addition, further research into the motives behind driver mobile phone use would be useful in shaping messaging for education and awareness campaigns. Generally speaking, ongoing research into driver distraction is required particularly as technology continues to develop and the scope for driver distraction increases.

SUMMARY OF NRMA INSURANCE RECOMMENDATIONS

Minimising the incidence and impact of driver distraction requires long-term and widespread behavioural change on the part of drivers.

Behavioural change of this magnitude can only be achieved through a sustained, multi-faceted and coordinated strategy built on partnership between Government, industry and the community.

While regulatory and technological mechanisms can assist NRMA Insurance believes the key component of this strategy should be improving driver awareness and education.

EDUCATION & AWARENESS

- establishment of a comprehensive, nationally consistent public education campaign to promote safe driving and safe use of communication devices and technology in cars,
- development and implementation of education and awareness programs targeted at those most at risk of engaging in distracted driving, and
- awareness campaigns should focus on the safety consequences of driver distraction and be designed to make distracted driving socially unacceptable.

REGULATION

- increased regulation to be approached with caution,
- review the Road Rules regulating the use of mobile phones while driving with a view to making them 'device neutral',
- national harmonisation of regulation where appropriate and practicable,
- encourage national authorities to consider applying human machine interface standards aimed at preventing in-car technologies from distracting or visually entertaining drivers to local vehicle manufacturers and systems developers, and
- consider prescribing the location of portable devices in vehicles.

TECHNOLOGY

- explore technological solutions including telematics as part of a comprehensive strategy with driver education and awareness as its primary focus.

RESEARCH

- more research is needed to determine the nature and extent of distraction as a contributor to accident casualties on NSW roads, and
- ongoing research into the impact, incidence and motivators for unsafe driver distraction is required to inform the development of each component of the strategy – education, regulation and technology – and review their effectiveness.

SUMMARY: NRMA INSURANCE DRIVER DISTRACTION RESEARCH

Mobile phones

2012

National survey of over 2500 drivers including 415 NSW drivers.

Activity	NSW	National	Men	Women	18-24	25-34	35-44	45-54	55-64	65+
Use mobile phone while driving	40%	33%	36%	31%	46%	54%	34%	33%	16%	9%
Of these:										
Make phone calls	88%									
Texted and read emails	68%									
Used apps	40%									
Took photos	38%									
Updated Facebook status/tweeted	25%									

2011

National survey of over 2500 drivers including 800 NSW drivers.

Activity	NSW	National	Men	Women	18-24	25-29 & 30-34	35-39 & 40-44	45-49 & 50-54	55-59 & 60-64	65+
Use mobile phone while driving	46%	46%	46%	41%	50%	63%; 67%	59%; 66%	32%; 44%	25%; 46%	24%
Updated Facebook status/tweeted	9%	6%	7%	5%	11%	23%; 13%	9%; 5%	0%	0%	0%

2010

National survey of over 2500 drivers including over 500 NSW drivers.

Activity	NSW	National	Men	Women	18-29	30-40	45-64	65+
Contact people while driving – Phone, text, email	24%	24%	28%	22%	41%	32%	16%	5%
Use Twitter	1%	1%	2%	1%	2%	1%	1%	0%
Update Facebook Status	4%	3%	4%	2%	8%	3%	1%	0%

2009

Survey of around 1000 drivers in NSW, Queensland, Western Australia and South Australia.

Activity	NSW	Total	Men	Women	18-24	25-34	35-44	45-54	55+
Make or take phone calls while driving	35%	33%	36%	29%	27%	55%	45%	34%	14%
Read or send texts while driving	18%	20%	19%	21%	28%	43%	33%	11%	2%

2007

National survey of around 2,000 drivers.

Activity	NSW	National	Men	Women	18-24	25-34	35-44
Use mobile phone while driving	33%	35%	40%	30%	37%	52%	24%

2006

National survey of just under 1000 drivers

Activity	NSW	Total	Men	Women	18-24	25-34	35-44	45-54	55+
Using mobile phone while driving	43%	45%	47%	43%	52%	66%	59%	41%	22%
Read or send texts while driving	31%	31%	31%	30%	57%	52%	37%	23%	5%

GPS and Navigational Systems2012

National survey of over 2500 drivers including 415 NSW drivers.

Activity	NSW	National	Men	Women	18-24	25-34	35-44	45-54	55-64	65+
Change route on GPS while driving	30%	40%	33%	25%	39%	33%	26%	25%	16%	10%

2009

National survey of over 2100 drivers including 500 NSW drivers. Age groups are for NSW drivers.

Activity	NSW	National	Men	Women	18-29	30-44	45-64	65+
Argue because of GPS 'failure'	36%	30%	27%	35%	54%	29%	32%	17%

Stereos, iPods and MP3 players

2012

National survey of over 2500 drivers including 415 NSW drivers.

Activity	NSW	National	Men	Women	18-24	25-34	35-44	45-54	55-64	65+
Connect iPod to radio and change songs while driving	33%	30%	26%	32%	53%	35%	18%	7%	5%	3%

2009

Survey of over 600 NSW, Qld, SA and WA drivers.

Activity	NSW	Total	Men	Women	18-24	25-34	35-44	45-54	55+
Change radio or CD while driving	70%	70%	74%	66%	78%	86%	87%	70%	48%
Use an iPod or equivalent while driving	13%	13%	15%	11%	33%	20%	12%	12%	2%
Use an iPod or equivalent with headphones while driving	6%	7%	7%	4%	13%	14%	3%	3%	1%

Non-technology based distractions

2010

National survey of over 2500 drivers including over 500 NSW drivers.

Activity	NSW	National	Men	Women	18-29	30-40	45-64	65+
Argue with passenger	37%	38%	40%	38%	50%	45%	32%	25%
Eat fast food	36%	43%	46%	39%	55%	52%	37%	16%
Drink coffee/tea	27%	28%	30%	24%	31%	33%	27%	12%
Eat breakfast	15%	17%	18%	15%	28%	22%	11%	4%
Personal grooming	6%	5%	6%	4%	7%	5%	5%	2%

2009

Survey of over 600 NSW, Qld, SA and WA drivers.

Activity	NSW	Total	Men	Women	18-24	25-34	35-44	45-54	55+
Eat or drink while driving	66%	68%	69%	66%	70%	76%	84%	73%	49%
Check appearance	31%	26%	19%	33%	41%	41%	30%	25%	11%
Smoke	8%	11%	12%	10%	20%	14%	16%	10%	4%