

NSW ROAD SAFETY STRATEGY 2012-2021



Transport
for NSW

NSW Road Safety Strategy 2012–2021

December 2012

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Transport for NSW

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FOREWORD

It is with great pleasure I am able to release the *NSW Road Safety Strategy 2012-2021*. As Minister responsible for road safety in NSW, I see and hear about the tragic loss of lives on our roads and think there is more we can do. And there is.

We have seen in NSW significant improvements in the level of road trauma over the last 30 years. From a peak of 1,384 fatalities in 1978, with the lowest road toll in 2011 since 1926, of 364 fatalities. While this overall performance is significant, road crashes are still a leading cause of death for people aged one to 44 years in NSW and they cost the community around \$5.37 billion in 2011. Each year there are around 42,000 recorded road crashes in NSW, with more than 26,000 injured.

It is against this background that this new strategy has been developed to set out a 10 year direction for road safety in NSW.

Death or serious injury on NSW roads is unacceptable for the community. As a step towards a vision of zero deaths or serious injuries on NSW roads, the *NSW Road Safety Strategy 2012-2021* aims to make the roads safer through at least a 30 per cent annual reduction in road deaths and serious injuries by the end of 2021.

As the key next step, the Government is focused on striving to achieve the NSW 2021 target of reducing the fatality rate to 4.3 per 100,000 population by 2016.

Transport for NSW released the draft NSW Road Safety Strategy 2012-2021 seeking community feedback in September. We've listened to what the community raised, and this has been considered as part of the ongoing action plans to deliver the strategy.



There are many new and exciting road safety developments which the Government will explore over the next ten years, including a strong focus on road investment, Local Government and technologies to deliver road safety improvements. Key initiatives from this strategy include:

- A new Safer Roads program
- Continued integrated road safety enforcement
- Working with Local Government to share road safety information and resources
- Increased focus on addressing serious injuries and post crash care and response
- Targeting repeat offenders
- NSW Stars on Cars Program
- Exploring new road safety technologies
- Separate strategies to support speed enforcement, motorcycle safety and Aboriginal road safety.

Additionally, the NSW Government has now established a new NSW Community Road Safety Fund, ensuring any revenue raised from all speed cameras detecting speeding and traffic light offences will now go directly towards improving road safety, including road safety education, high visible police enforcement and road safety infrastructure.

A handwritten signature in black ink, appearing to read 'Duncan Gay'.

The Hon. Duncan Gay MLC
Minister for Roads and Ports



KEY POINTS

The NSW Road Safety Strategy 2012-2021:

- Set key objectives and initiatives for the next decade 2012-2021
- Will be supported by detailed three year action plans
- Focuses equally on lowering fatalities and serious injuries
- Encourages shared responsibility for road safety outcomes
- Supports the delivery of the National Road Safety Strategy 2011-2020.

1. CONTEXT FOR A NEW ROAD SAFETY STRATEGY

The *NSW Road Safety Strategy 2012-2021* establishes the direction of road safety in NSW for the next 10 years. The Strategy is set in the context of the current and future policy operating environments of Transport for NSW. Transport for NSW is the lead agency for road safety in NSW, and therefore will lead and coordinate road safety interventions across State Government, Local Government, stakeholders and the community.

There are a number of key documents which have influenced the development of this strategy. These include:

NSW 2021

The NSW Government's strategic plan for the state of NSW aims to reduce the fatality rate on NSW roads to 4.3 per 100,000 population by 2016. NSW 2021 aims to improve road safety by identifying and upgrading black spots, promoting safety features in cars, enforcing speed limits and other road rules, and education to encourage road users to take less risks on NSW roads.

National Road Safety Strategy 2011 – 2020

The National Road Safety Strategy 2011 – 2020 (released in May 2011) aims to reduce the annual number of fatalities and serious injuries by at least 30 per cent by 2020. On average four people die and 90 people are seriously injured on Australian roads every day. The National Road Safety Strategy 2011 – 2020 aims to elevate Australia's road safety ambitions through the coming decade and beyond.

As part of the National Strategy, NSW has committed to addressing the actions detailed in the one to three year action plan.

NSW Long Term Transport Master Plan

Transport for NSW has developed a Transport Master Plan to address the transport challenges over the next 20 years. The plan identifies solutions and actions that integrate, modernise and manage the transport system in the short term, medium term and the longer term for NSW. More details are included in the Transport Master Plan relating to the uptake of cycling and development of connected networks and infrastructure for cycling and improved pedestrian access and amenity across the network.

United Nations Decade of Action for Road Safety 2011 – 2020

The Decade of Action for Road Safety 2011 – 2020 is a United Nations initiative aimed at halving the projected global road traffic deaths over the next

10 years. Australia is a signatory to the resolution, proclaimed by the UN General Assembly in March 2010.

According to a World Health Organisation report, road traffic injuries are predicted to become the fifth leading cause of death in the world by 2020. Hence the need to take strong action globally. The report found more than 1.3 million people die every year due to road crashes with a further 20 – 50 million injured. This is predicted to grow to 1.9 million deaths by 2020.

Working with the community and stakeholders

The customer is at the centre of the NSW Road Safety Strategy 2012-2021. The Government will work in partnership with the community and stakeholders to deliver the practical road safety initiatives identified in this Strategy to ensure that it delivers road safety benefits in NSW.

NSW 2021 states that:

across the state, Regional Ministers and Members of Parliament will consult with local government and communities to develop local and regional action plans aligned to NSW 2021. These plans will focus on the most important action the NSW Government can take to improve outcomes in each region and locality.

Transport for NSW works with the Roads and Maritime Services, NSW Police and Local Government to address road trauma issues in NSW.

Transport for NSW also works with the Motor Accidents Authority, Ministry of Health, education sectors – Department of Education and Communities, Catholic Education Commission, Association of Independent Schools, NRMA Motoring and Services, industry and road user community groups to deliver a range of initiatives to improve road safety.

Operating Environment

The 10 year strategy for road safety in NSW is set in the context of the current and future road transport environment of the state. Some of the main factors influencing the rate of road trauma in NSW are:

- **The economy** – the continuous expansion of the domestic economy in the last 15 years and associated increased travel exposure has presented a significant challenge in efforts to achieve road safety targets.
- **Increasing fuel costs** – sharp increases in fuel costs over recent years can influence travel patterns and consumer choice in a number of ways. It can affect performance to maintain operator profitability and/or result in less travel or new patterns of travel.
- **Motor vehicle sales** – increases in fuel prices have given rise to an increased popularity of smaller, more fuel-efficient vehicles including scooters and motorcycles.
- **Urban development and travel patterns** – household travel patterns have changed with travel growth greatest in the developing outlying suburbs, reflecting continued population growth and varying levels of access to alternative modes of transport. Travel projections for the Greater Metropolitan Area¹ suggest that aggregate car travel will increase by around one per cent per annum over the life of the strategy.
- **Ageing population** – NSW is the most populous state in the Australia, and Sydney has the largest population of any city in Australia. The projected ageing of the population in NSW means that over time safety issues related to older road users will have a greater impact on the road toll. There is a strong need for state and local government planning to consider the safety of older road users.
- **Increased freight movements** – within NSW there are a large number of key freight routes supporting the vital heavy vehicle industry. Demands for freight services will continue to grow strongly. It is projected that the overall freight task in NSW will almost double over the next 20 years, and therefore it is critical to work in partnership with industry to improve safety. Further, 60 per cent of freight hauled on NSW roads has an origin and destination outside of NSW.
- **Workplace Safety** – increased support is required for companies and industry to recognise that road safety is a key workplace safety issue, in particular for companies with staff who work in their vehicles as a primary place of work.



This ten year road safety strategy presents an opportunity for Government, industry, stakeholders and the community to make a difference on our roads to reduce road trauma. There are a number of key challenges facing NSW in the future which we must act to address.

I am confident that this document will provide a way forward towards achieving our goals.”

*Margaret Prendergast, General Manager,
Centre for Road Safety, Transport for NSW*

¹ Source: Trans Figures: Travel Forecasts 2006-2036, Bureau of Transport Statistics, TfNSW (February 2012)

2. FATALITY AND INJURY TRENDS

Where we are now

In order to be successful in meeting our road safety targets, it is important to understand the nature and extent of serious road trauma across NSW. This section contains an overview of the incidence of road crashes across NSW, classified by factors such as location, crash type and road user type in order to help identify the key problem areas.

The 2011 road toll was 364, representing the eighth annual decrease over the last nine years and the lowest annual total since 1926. There were a further 26,366 persons injured in 2011, of which it is estimated that 6,855 were seriously injured. The

2011 serious injury result represents a decrease of around nine per cent from 1990 levels. These results were achieved despite strong growth in the NSW population, the number of licence holders and registered vehicles over the period 1990 to 2011. This reduction in serious road trauma over the past two decades has been a significant achievement and the challenge is to further reduce the level of deaths and serious injuries across the state.

Appendix A details some of the issues around serious injury and work underway.

Figure 1 - Trends in road deaths, population, licence holders, motor vehicle registrations

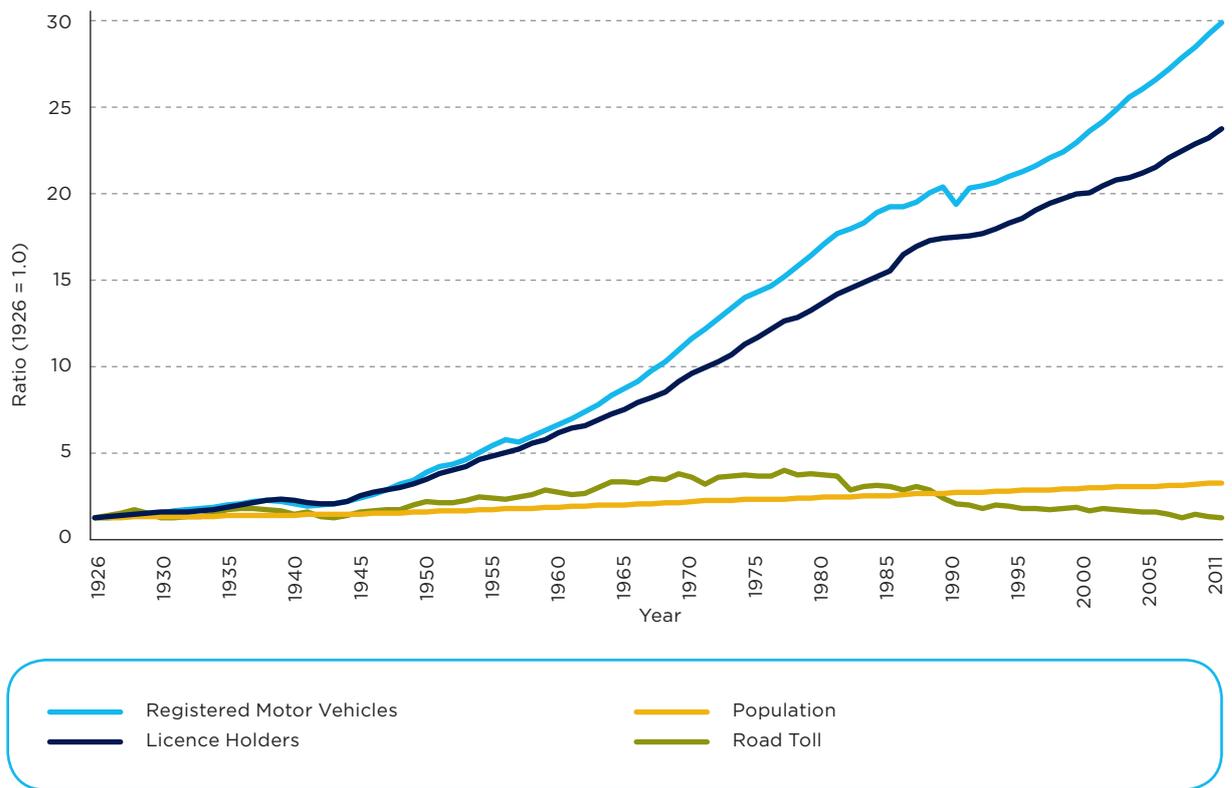


Figure 2 - Road traffic fatalities in NSW 1990 - 2011

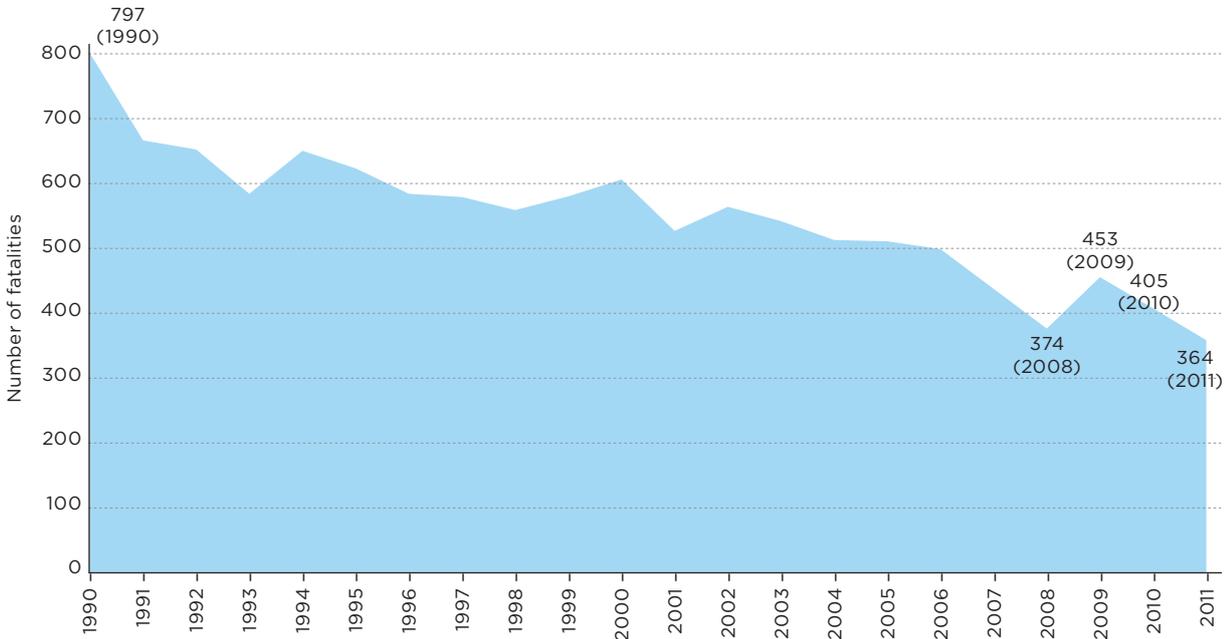


Figure 3 - Road traffic serious injuries 1990-2011

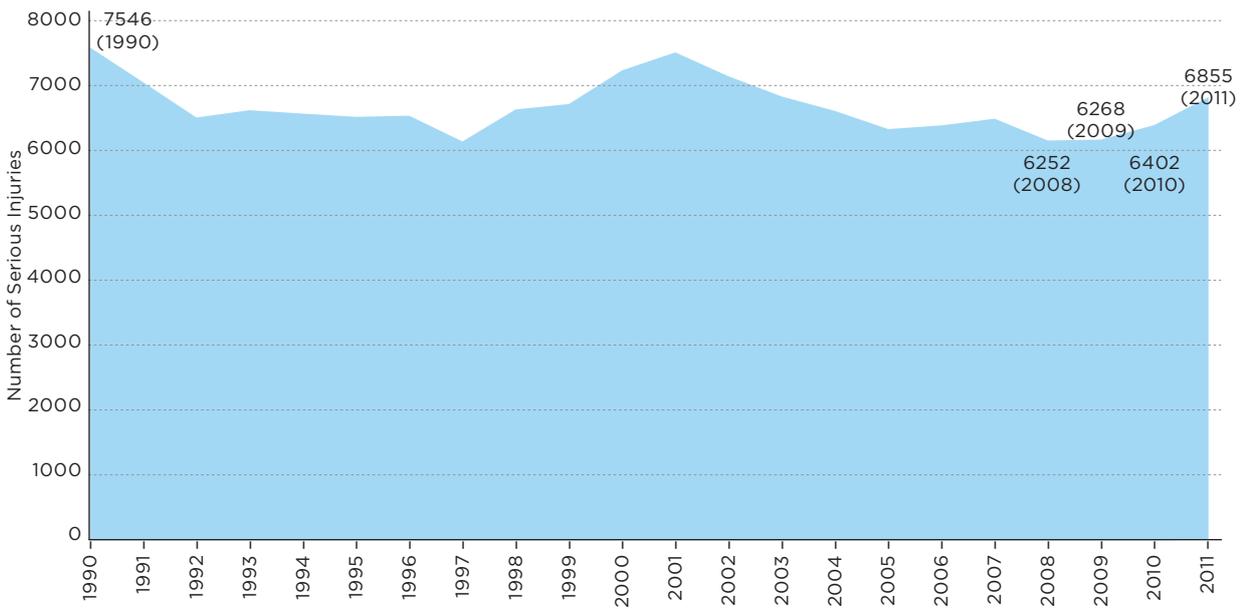


Figure 4 - Road traffic Injuries in NSW 1990-2011

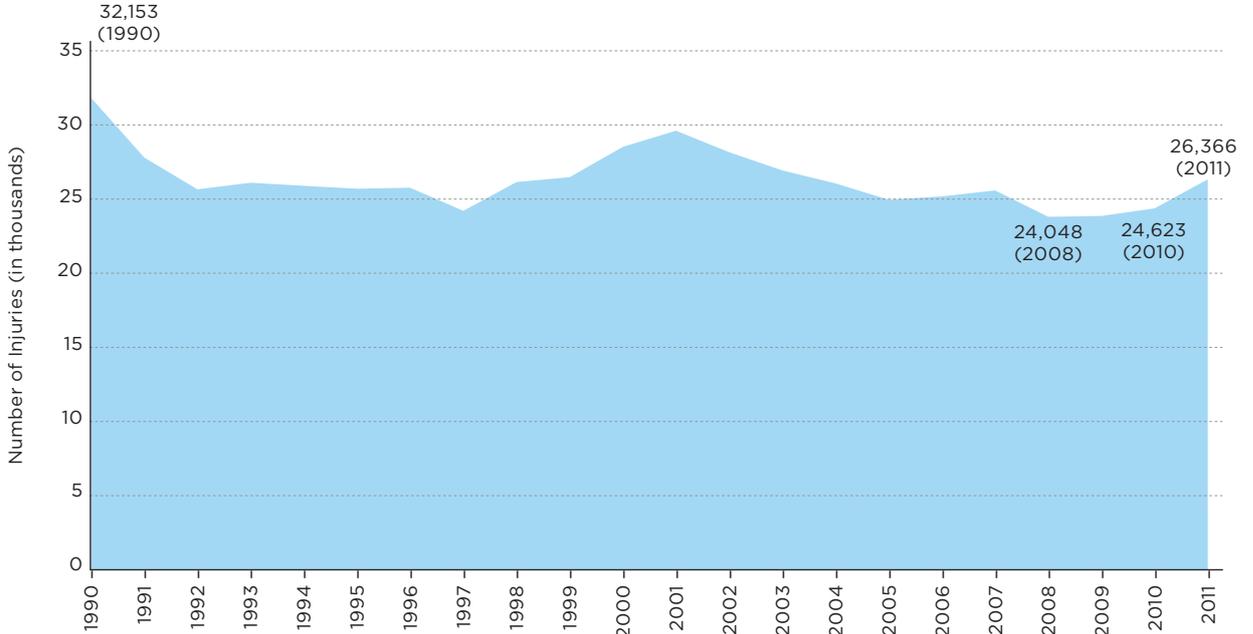


Figure 5 - Road traffic crash fatalities per 100,000 population, NSW, 1908-2011

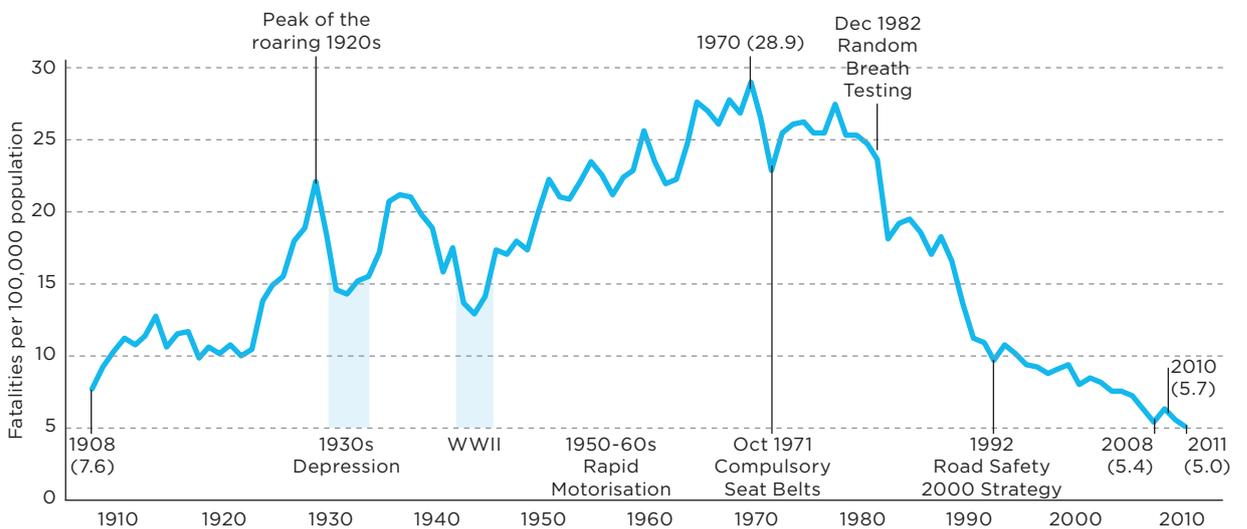


Figure 5 above, shows a range of road safety initiatives which have been implemented successfully across NSW over the past four decades. These key initiatives (and others) have contributed to significant reductions in the fatality rate per population. Similarly, injury trends in NSW have followed those for fatalities since the peaks in the 1970s, with injury levels for 2008 through to 2010 being at the lowest levels since 1962.

Setting the scene for road safety priorities

The extent and nature of the road trauma problem in NSW provides important insight which helps address the key road safety risks and issues. Some key overall road crash data highlights areas of risk that set the scene for road safety priorities is detailed in this section.

The below map has been developed to categorise regions based on population density and access to services. This has been classified into five regions:

- **Major cities** (Sydney, Newcastle, Wollongong) - Dark blue
- **Inner regional** (Bathurst, Coffs Harbour, Albury) - Green
- **Outer regional** (Coonabarabran, Glen Innes, Narrandera) - Yellow
- **Remote** (Cobar, Walgett, Menindee) - Mid blue
- **Very remote** (Wilcannia, Lightning Ridge, Lord Howe Island) - Light blue

The Monash University's Accident Research Centre (MUARC) has undertaken modelling to inform the development of this strategy. As part of this project, and due to the lack of serious injury data in NSW, MUARC derived an estimate of the current levels of serious injuries. MUARC undertook modelling that incorporated NSW crash data, crash types, and class of road user by specified region, and then used Queensland casualty data to estimate the expected levels of serious motor vehicle injury for NSW. The MUARC modelling found that around 25 per cent of injuries were serious injuries for the three year period.

A recent project linking NSW crash data and hospital and Registry of Birth Deaths and Marriages data between 2005 and 2009 confirmed that 26 per cent of injuries in NSW are serious injuries. This is further detailed in Appendix A.

The figures 6 and 7 below highlight the overall road toll and serious injuries based on the five regions along with a breakdown of key casualties.

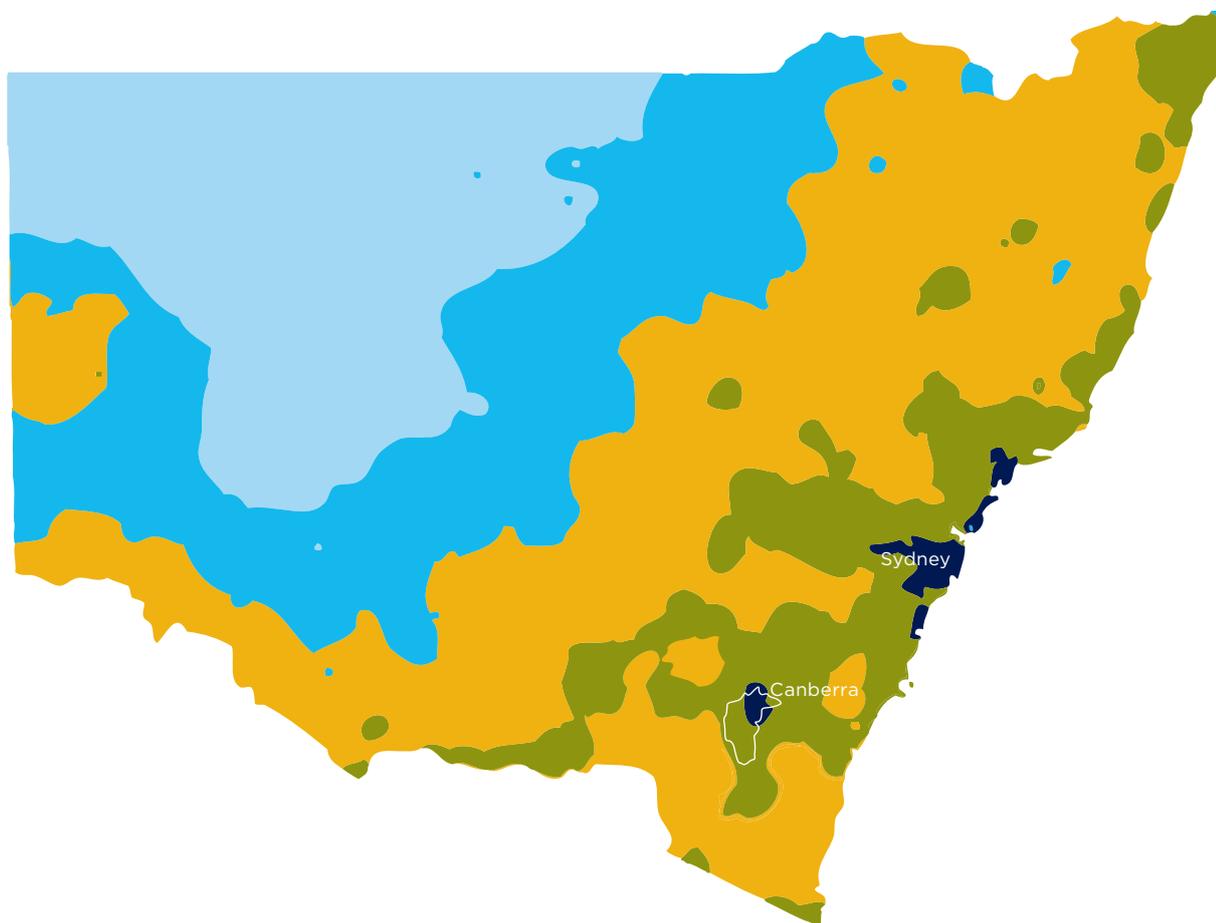


Figure 6 - Fatalities all NSW, 2008-2010



Figure 7 - Serious casualties all NSW, 2008-2010

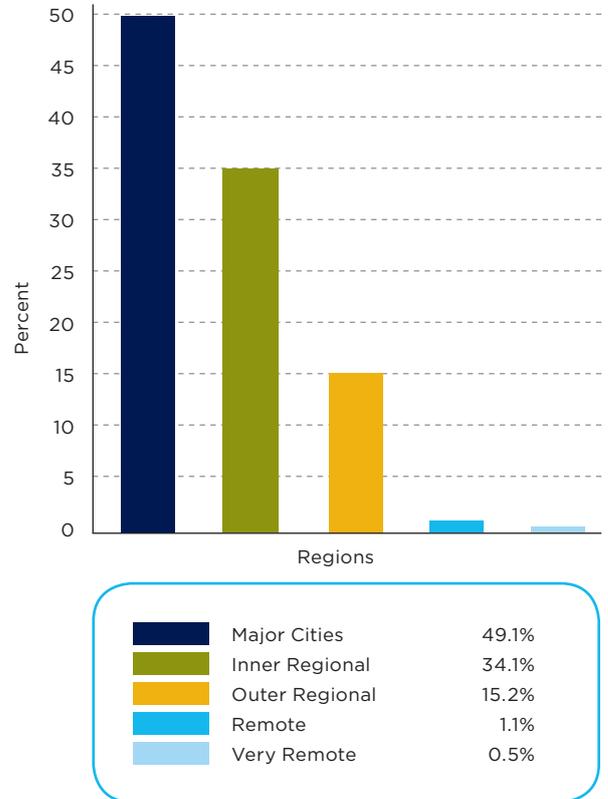


Figure 8 - Run-off road serious casualties, 2008-2010



Figure 9 - Head-on serious casualties, 2008-2010



Figure 10 - Young driver serious casualties, 2008-2010

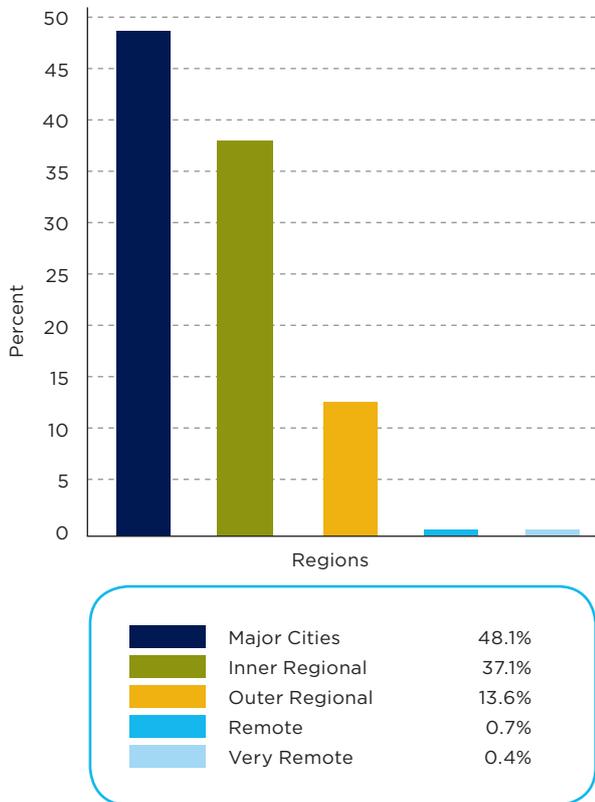


Figure 11 - Pedestrian serious casualties, 2008-2010

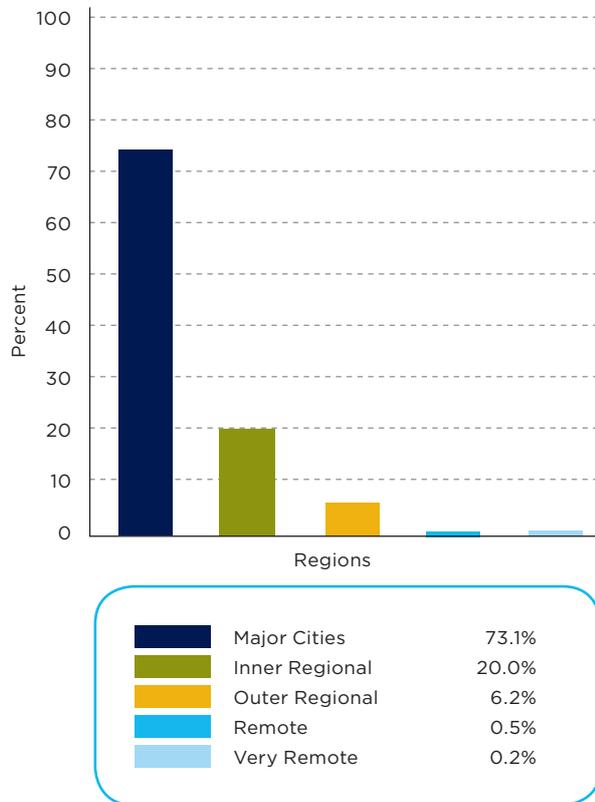


Figure 12 - Drivers and riders involved in fatal crashes in country NSW, 2008 to 2010, residence of driver/rider

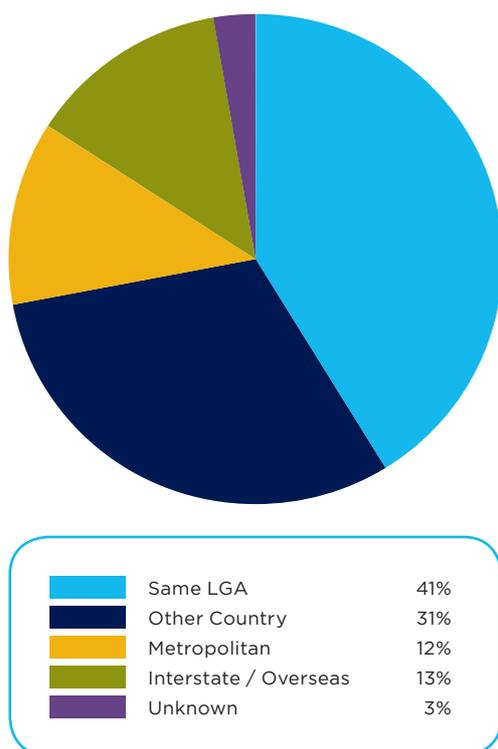
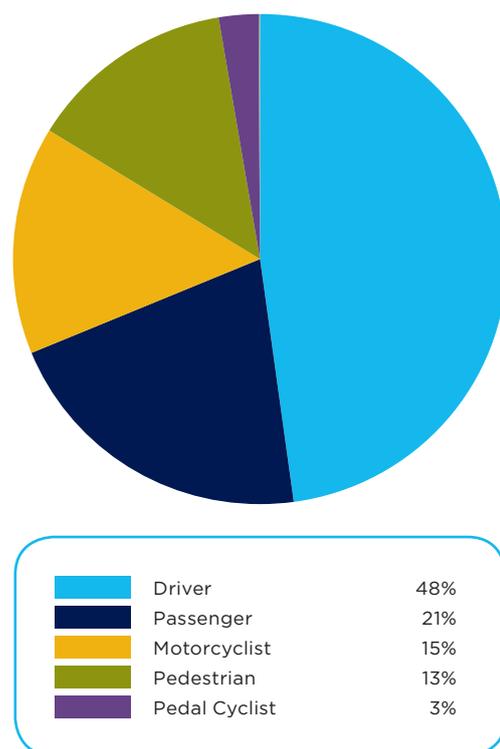


Figure 13 - Fatalities, NSW, 2008 to 2010, class of road user



Location

- While only one third of the NSW population resides in country areas, two-thirds of all fatalities occur there. On a rate basis, country residents have a fatality rate per 100,000 population more than four times that of their metropolitan counterparts.
- In country areas, the majority (72 per cent) of drivers and riders involved in fatal crashes are country residents, with around half of these living in the same Local Government Area as the location where the crash occurred (see figure 12).
- A large proportion of fatalities in country areas occur on 100km/h roads.

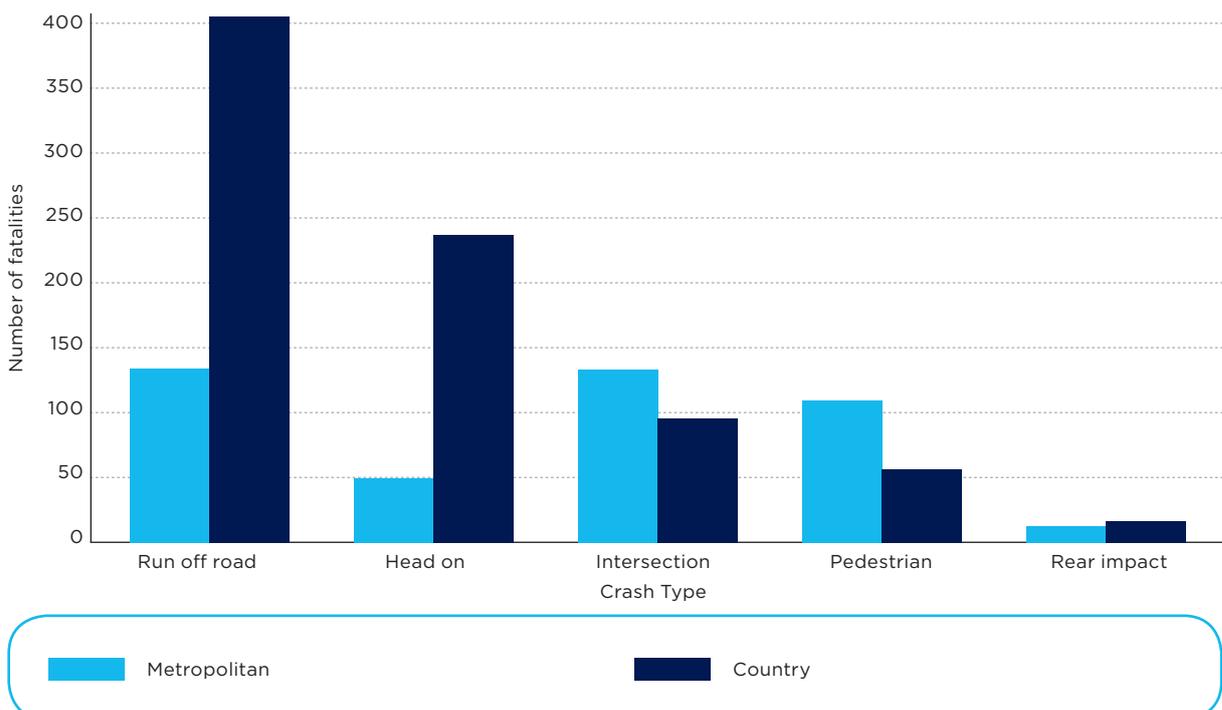
Road user type

- The majority of fatalities (68 per cent) are vehicle occupants (drivers and passengers) while nearly one third of all fatalities are vulnerable road users (pedestrians, cyclists and motorcyclists).

CRASH TYPE - THE MOST COMMON TYPES OF FATAL CRASHES ARE:

- Vehicle-to-vehicle head-on (not overtaking)
- Run off path on straight or curves (generally in country areas)
- Intersection
- Vehicle-pedestrian crashes - usually in built-up areas.

Figure 14 - Fatalities by crash type by urbanisation NSW 2008 to 2010



Risk Taking Behaviours

- As part of the crash reporting process, NSW Police provide assessments of the likely key contributing factors to crashes that they attend. It is this information that forms the basis for estimates of behavioural factors in fatal crashes described in Figure 15 below.
- During the three year period 2008 to 2010, excessive or inappropriate speeding accounted for 42 per cent of all fatalities, illegal alcohol for at least 20 per cent and driver fatigue for 16 per cent of all road deaths whilst restraint non usage was recorded for one in six vehicle occupant deaths.

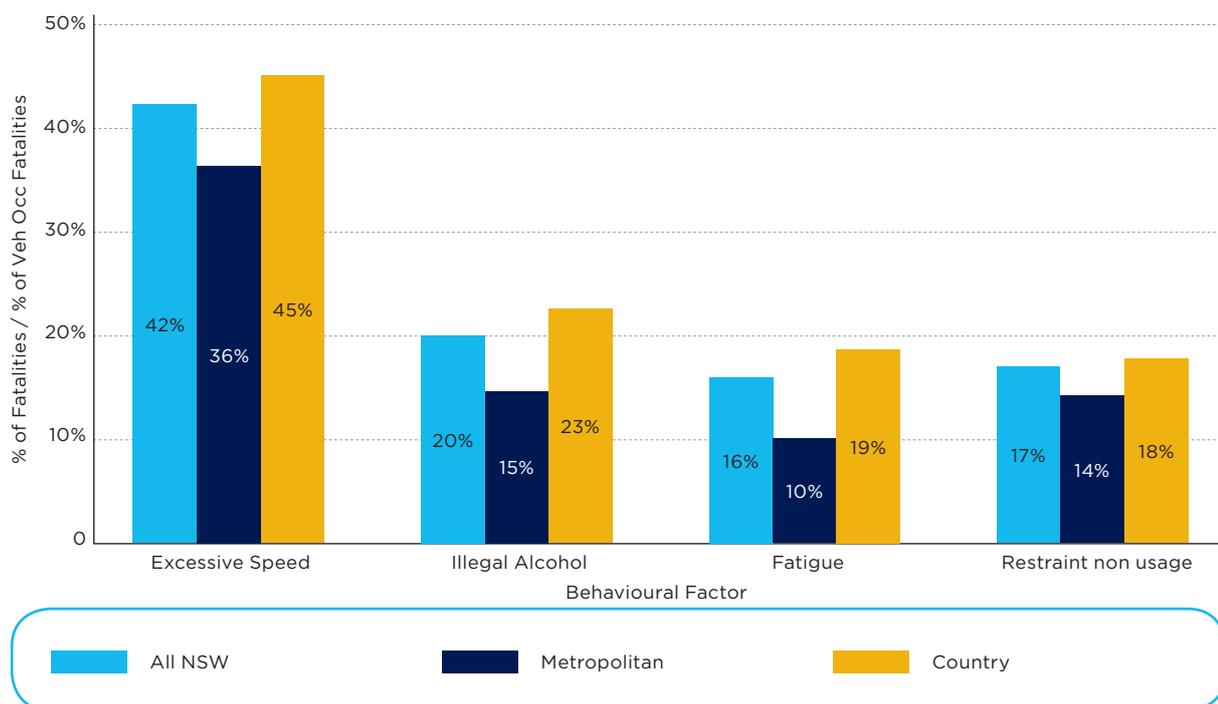
Age

- A distribution of fatal crashes by age group shows young adults aged 17 to 25 years account for one-quarter of all deaths, the 30 to 59 years age group for more than 40 per cent of all deaths and those aged 80 years or more account for seven per cent of deaths.

Gender

- In NSW, during the three year period 2008 to 2010, nearly three times as many males as females were killed on the roads. Males also figure more prominently in taking risks on the road including speeding, illegal alcohol levels, driver fatigue and the non-use of restraint or helmet.

Figure 15 - Fatalities by behavioural factors NSW 2010



SUMMARY OF MAJOR ROAD SAFETY ISSUES:

- Addressing fatalities in rural regional NSW - Head on, run off road and curve crashes
- Addressing serious injury crashes in urban/metro areas
- Speeding, illegal alcohol, non restraint usage, driver fatigue
- Pedestrian, cyclists and motorcyclists
- Male drivers

3. VISION AND TARGETS

Vision

The Safe System approach is a pathway that has an end goal of no death or serious injury occurring on the road transport network. Crashes may continue to occur because, as humans, we make mistakes but the consequences need not be death or life disabling injury.

The vision of the *NSW Road Safety Strategy 2012-2021* is:

"Working Towards Vision Zero"

However, this vision cannot be achieved in the 10 years of the life of the strategy. The initiatives to be introduced as part of the strategy will be the start of constructing a truly safe system for road travel.

Target

The target for the *National Road Safety Strategy 2011-2020* is the reduction of the annual number of fatalities and serious injuries by at least 30 per cent by the end of 2021.

NSW is committed to achieving a reduction in the fatality rate to 4.3 per 100,000 population by 2016, and at least a 30 per cent reduction in fatalities and a 30 per cent reduction in serious injuries by the end of 2021.

The 30 per cent reduction in fatalities and serious injuries represents a significant commitment to reducing road trauma in NSW.

Historically, NSW has seen fatalities fall by around 30 per cent per decade – a 35 per cent reduction, from 931 in 1988-1990 to 603 in 2000 and a 30 per cent reduction from 579 in 1998-2000 to 405 in 2010. These achievements have been made even with a growth in motor vehicle travel and population growth. The projected growth of the NSW population and associated growth motor vehicle travel, will present a challenge to achieve the targets of the strategy. However, experience has shown successful implementation of the appropriate strategies could still deliver substantive road trauma reductions.

During the period in which data for serious injuries was available, the reductions for serious injuries have not been as great as those for fatalities. For example, serious injuries decreased by only 26 per cent between 1988-90 and 1996 whilst fatalities decreased by 38 per cent over the same period. Given that improvements in the reduction of serious injuries have been around half to three-quarters of those for fatalities, a 30 per cent reduction in serious injuries represents a significant challenge.

A detailed section has been included on serious injuries as appendix A.



Figure 16 - Fatalities per 100,000 population target

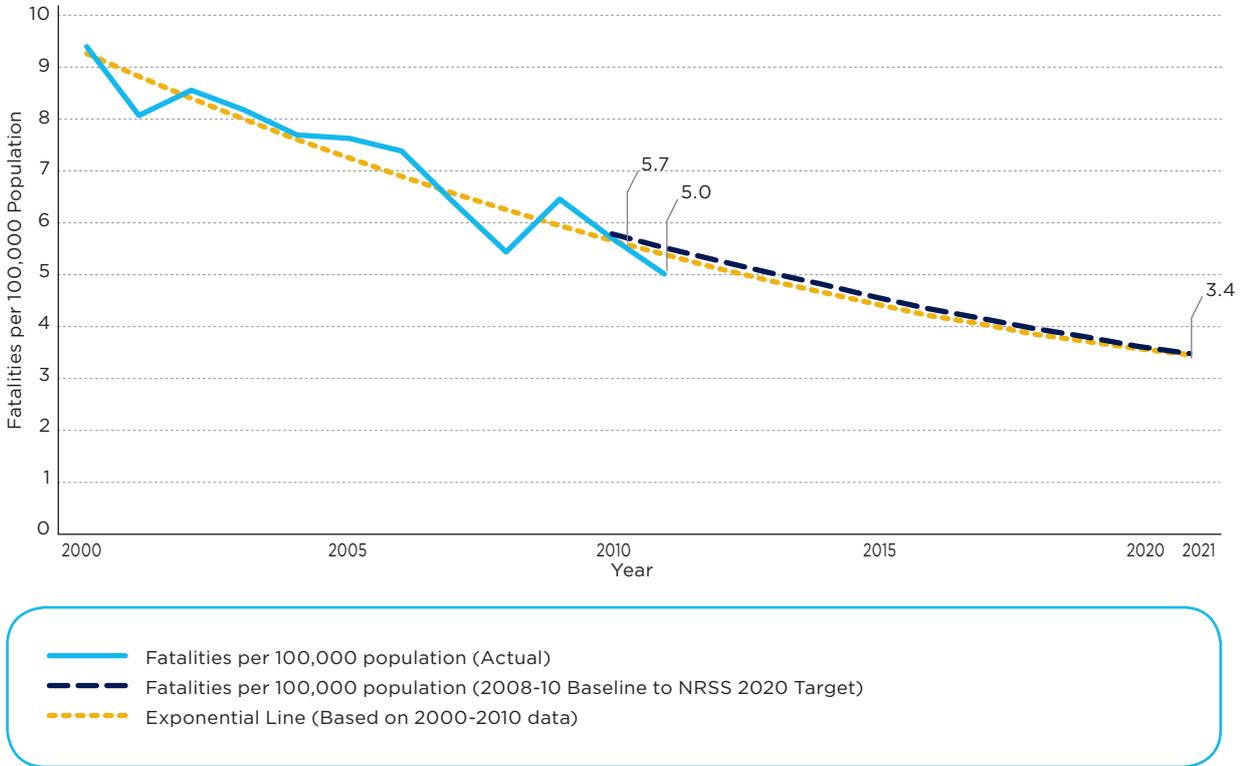
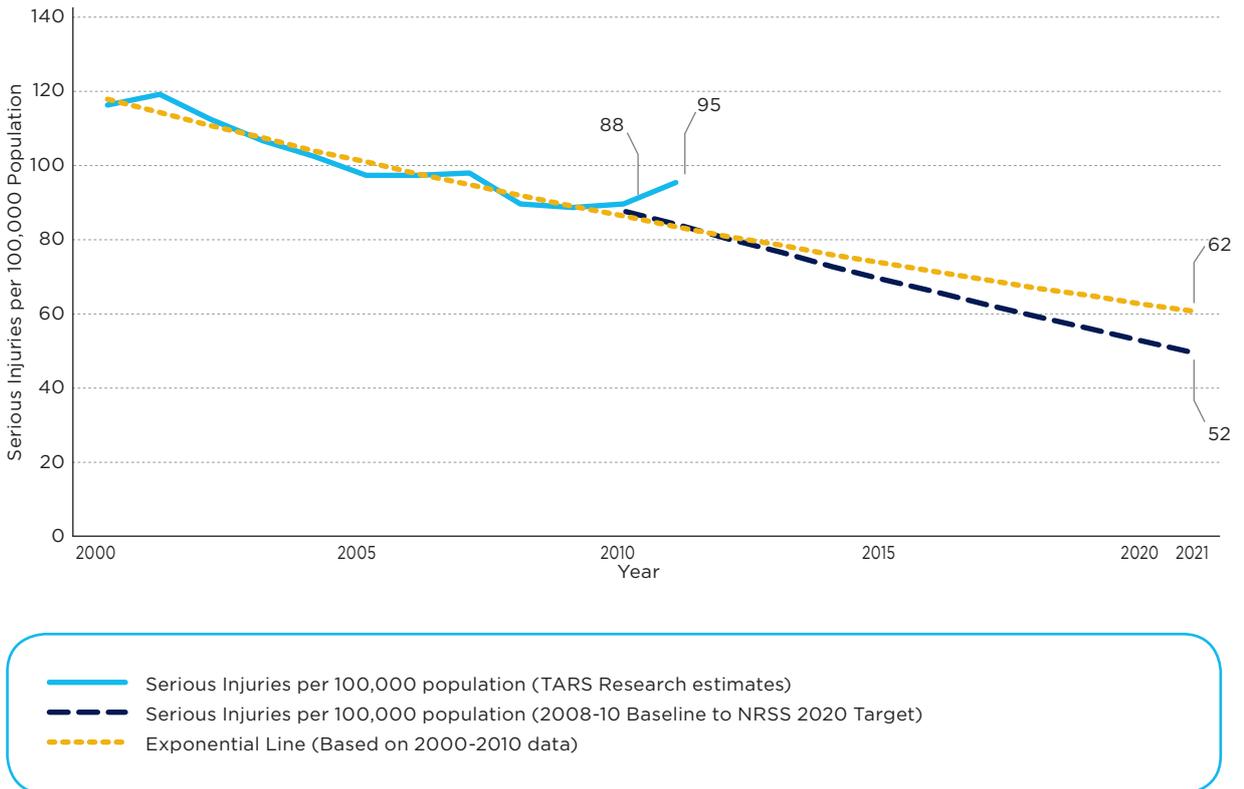


Figure 17 - Estimated serious injuries per 100,000 population target



4. KEY CHALLENGES

The data in chapter two – fatality and injury trends show a snapshot of the factors contributing to the road trauma problem in NSW. They point to a range of behavioural and environmental factors that play a role in the incidence and severity of road crashes. They also point to the best practice framework to support addressing these factors which is outlined in the next chapter – the Safe System approach.

BASED ON THESE FACTORS, SOME OF THE KEY CHALLENGES FOR NSW TO ADDRESS ARE:

- Highlight speed as socially unacceptable.
- Address driver and pedestrian distraction such as mobile phone usage.
- Address heavy vehicle safety.
- Address high-risk groups, including the over representation of young drivers in crashes.
- Reduce death and serious injury arising from the four key crash types – run-off-road, head-on, intersection and pedestrians.
- Protect vulnerable road users – pedestrians, cyclists, older road users, children, young people and motorcyclists.
- Encourage the availability and take up of safer vehicles, especially by those most at risk.
- Form closer partnerships with local government to further progress road safety outcomes.
- Address a growing disparity in the size and mass of freight vehicles introduced on the network.



NRMA believes there are three important pillars to saving lives - safer cars, safer drivers and safer roads. NSW has seen a gradual decline in the road toll over the last few decades, however hundreds of people are still dying on our roads each year and we need to get that figure down. The NSW Road Safety Strategy can be the catalyst to bringing down that toll if it focuses on those three crucial pillars. Too many people are still dying on our roads - we must all work together to help save lives.”

Wendy Machin, President NRMA Motoring & Services

5. “SAFE SYSTEM” DIRECTIONS

The *NSW Road Safety Strategy 2012-2021* is underpinned by the Safe System approach to improving road safety. This approach takes a holistic view of the road transport system and the interactions among the key components of that system – the road user, the roads and roadsides, the vehicle and travel speeds. It recognises that all components of the system have a role to play in helping to keep road users safe.

The system builders, including the road authorities and the vehicle manufacturers and importers, and system users including drivers and motorcycle riders, passengers, pedestrians, cyclists and heavy vehicle operators all must play a part.

The key principles underpinning the Safe System approach are:

- Inclusive view of the whole road transport system and the interactions between all elements: roads and roadsides, vehicles, travel speeds and all users of the system.
- There are physical limits to what the human body can endure. The impact forces in any major crash type are well known and, if they are exceeded, can result in death or serious injury.

We must therefore design a road transport system that is forgiving of human error to ensure that users are not killed or seriously injured in any crash.

We must also ensure that we have safe and compliant road users.



6. SAFE SYSTEM ISSUES AND INITIATIVES

The following section outlines the *NSW Road Safety Strategy 2012-2021* initiatives aligned with the Safe System framework: safer roads, safer vehicles, safer people, safer speeds and post crash trauma treatment. Two additional sections have been developed to meet the needs of NSW: heavy vehicle operations and Aboriginal safety.

The strategy will build on existing safety programs and involve new initiatives over the next 10 years. Three year action plans will be developed throughout the life of the strategy to address road safety trends and provide detailed actions to be undertaken.

A number of key consultation sessions have been conducted with the Road Safety Advisory Council and the heavy vehicle industry to develop a range of initiatives for this strategy.

Safer roads

Issues

The Safe System approach places particular importance on the design of safe roads and roadsides. The construction of safe roads that match the specific environment, travel needs and road user behaviour contributes significantly to road trauma outcomes. Some of the broad crash data show the main crash types that need to be considered when developing safer roads. They include:

Major crash types

Serious casualties by type of crash, 2008 to 2010 average

	Fatalities		Serious Injuries*	
	Number	%	Number	%
All Crash Types	411		6307	
Intersections	76	19%	2984	47%
Run Off Road	179	44%	1735	28%
Head On	95	23%	347	6%
Rear Impact	10	2%	1352	21%

* Serious Injuries have been estimated using 26% match rate from the TARS research study

Safe System principles recognise that human error in the road environment is inevitable and that road infrastructure should accommodate this error and minimise the consequences. Safer Roads applies to safety aspects relating specifically to road design, traffic management, the roadway and its adjoining surroundings and environmental conditions.

The ongoing development and upgrade of the NSW road network is essential to improve road safety. NSW will continue to invest in road infrastructure and, given that NSW experiences the highest level of travel in Australia, the NSW Government will also advocate for Commonwealth funding to support road development and safety programs.

SAFER ROADS KEY FOCUS

Developing innovative and cost effective treatments for safe road use are highly important to reaching the Strategy targets.

There is potential to address fatal and serious injury crashes on the road network through improved intersection design, eliminating or shielding road users from roadside objects or from opposing vehicles and by considering pedestrians and bicycle riders particularly in urban areas. Following the Safe System approach will bring positive road safety outcomes.

In line with the NSW crash information and the safer roads principles, the following initiatives have been identified to improve the NSW road network:

- Ensure road safety is considered throughout the design, construction, maintenance, operation and audit of the road network for all road users including targeting treatments to address head-on, intersection, run-off-road crashes.
- Implement and enhance a NSW Safer Roads program with targeted infrastructure safety works programs including safety barriers, highway route reviews, local roads, pedestrian safety measures, and motorcycle recreational routes.
- Work with agencies to develop pro-active approaches to road safety engineering, including road safety audits.
- Continue to deliver Nation Building and State programs with road safety objectives, including the program of highway duplications.
- Develop and promote land use planning procedures and policies and urban development guidelines at State and local levels to incorporate Safe System principles.
- Strengthen links between road safety, land use planning and active transport policy and planning.
- Implement and maintain road infrastructure on state and local roads leading to Aboriginal communities to enhance road safety.
- Research and implement innovative or cost effective infrastructure treatments to enhance safety outcomes for all road users including motorcyclists, for lower volume routes and vehicle to infrastructure communications.
- Address the safety needs of vulnerable road users through infrastructure and traffic management treatments, including lower speed limits and traffic calming measures.
- Work with local government to improve consistency and guidance on road safety for vulnerable road users including on road and off road bicycle facilities.
- Investigate infrastructure treatments to enhance road safety on the highway network for heavy vehicle drivers and to support enforcement activities.
- Establish systems to assess the performance of the road network for road safety outcomes based on the Safe System principles.

Safer vehicles

Issues

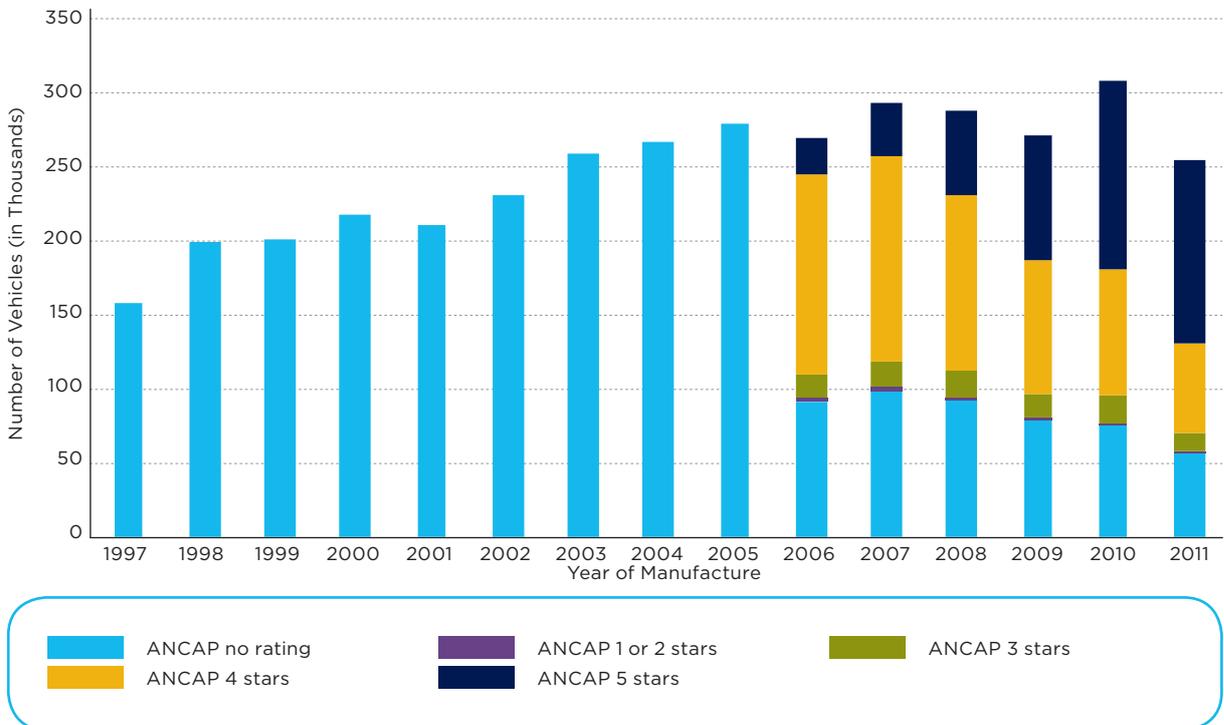
Vehicle safety has improved dramatically in recent times and this is reflected in road trauma data. Air bags, electronic stability control, child restraints, seat belts, anti-lock braking systems and speed limiters are just some of the vehicle improvements that have contributed to positive road safety outcomes.

However, some key issues that are still impacting safe vehicle use include:

- Younger drivers are more likely to drive older, less safe vehicles.
- The average age of the vehicle in a fatal crash driven by a young driver is three years older than for a middle-aged driver similarly involved.
- The improvement in safety of passenger cars over the past two decades, has not been matched in the safety of light commercial vehicles.
- The risk of death or serious injury in a crash is lower for later model cars, with the risk of a 2007 vehicle about half that of a vehicle produced in 1987¹.
- Mobility scooters have become increasingly popular.
- Heavy vehicles account for around 17 per cent of fatal crashes on NSW roads, with the NSW road network carrying approximately 60 per cent of all land based goods movements within Australia.

The graph below displays light vehicles registered in NSW (as at December 2011), and from 2006 includes the proportion of the vehicles ANCAP safety rating.

Figure 18 – Light vehicles registered in NSW and in later years, includes the proportion of the vehicles' ANCAP safety rating.



¹ Newstead S, Watson L and Cameron M, 2009 Vehicle Safety Ratings estimated from Police reported Crash Data, report 287 MUARC, Clayton, Vic

SAFER VEHICLES KEY FOCUS

The aim of making vehicles safer is to reduce the number and severity of injury incidents by improving the safety characteristics of vehicles and protective equipment for all road users.

Research is already showing a growth in demand for safer vehicles and manufacturers are increasingly incorporating new safety features in their vehicles. Historically, these features have served to protect the occupant in the event of a crash (passive safety), but attention is now turning to the role that technologies can play in preventing a crash from occurring (active safety) as well as securing further benefits in passive safety and safety features in other road vehicles.

The intelligent vehicle of the future will have the capacity to deliver strong safety returns to the NSW community. Key vehicle safety initiatives in the next 10 years to improve vehicle safety include:

- Investigate improvements to the safety standards for new vehicles.
- Work with industry to improve safer vehicles and technology availability.
- Trial and work with industry on the development and deployment of fatigue, distraction monitoring and collision avoidance technologies.
- Promote consumer awareness and uptake of road safety technologies.
- Investigate methods to increase the uptake of safer vehicles in the NSW fleet.
- Work with the Federal Government and other jurisdictions to continue improving vehicle standards.
- Promote road safety through effective schemes for the roadworthiness of in-service vehicles and ensuring modified vehicles comply with safety standards.
- Undertake research and assessment of the impact of alternative vehicles and new technologies.
- Undertake further research in the areas of vehicle design, crash studies including roll-over, and occupant protection.
- Conduct further research into heavy vehicles to ensure safety and productivity objectives are balanced.
- Promote improved technologies to increase the safety of heavy vehicle operations.
- Develop a NSW Stars on Cars program to promote safer vehicle purchases at the point of sale.
- Continue to support the ANCAP crash testing program and the assessment of Used Car Safety Ratings.
- Continue supporting the national working group on alternative vehicles.
- Research and promote motorcycle safety features.
- Continue research into restraints including safer child restraints.



The advances in road safety achieved since the Staysafe Committee was formed 30 years ago are remarkable. These include substantial reductions in injury and fatality rates, improved road safety infrastructure on all roads and evidence based solutions to create safer road environments. This is a testament to the Committee's work, as well as to all whose job it is to keep motorists, passengers and pedestrians safe. There is still more work to be done and I know that the past and present contributions of Staysafe, together with the experts at Transport for NSW and Roads and Maritime Services, will continue to further the goal of reducing risks on NSW roads. We all look forward to building on the very solid safety foundations which have been achieved to date"

Greg Aplin MP, Chair, Staysafe Committee

Safer road users

There is no doubt that human decision-making and actions, whether inadvertent or deliberate, contribute significantly to the incidence of serious road crashes. The Safe System approach acknowledges that people make mistakes and that the transport system should accommodate those mistakes. There is also a strong need for road users to be educated, licensed and have access to information to improve their own safety so their behaviour does not put them at risk in a system that would otherwise be safe.

As road users, we need to drive responsibly and comply with the road rules to minimise the risk of a crash. Impaired road users, whether fatigued or under the influence of alcohol or drugs, are endangering their own lives as well as other road users. Action must be taken to reduce unsafe behaviour on our roads.

The interaction between road users also leads to crashes. There is a need to address behaviours that create this crash risk by the development of a share the roads message to address interaction issues and create a level of respect between different road users.

Road user initiatives will be supported by positive and engaging road safety communication campaigns.

At-risk road users

Children and young people

Children and young people, because of their inquisitive and unpredictable behaviour, are at risk of injuries and in particular, road related injuries. Risk taking is a normal and expected developmental element. Education on road safety issues is a key component to assist parents, carers and school professionals. Education materials and resources need to be age appropriate, ongoing and sequential to reinforce road safety messages throughout their schooling. It is important through partnerships between schools and homes for road safety education to be further developed in the real traffic environment.

NSW currently has an extensive program of measures in place focusing on the safety of children and young people. In accordance with the above, the NSW Staysafe Committee in 2011 conducted an inquiry into school zone safety. The Committee recommended a range of further policy developments which are being considered by the NSW Government.

Novice drivers aged under 26 years represent 16 per cent of licensed drivers but they are involved in around 28 per cent of all fatal crashes. A combination of factors is likely to account for this over-representation. They include inexperience, a propensity to take risks, travel at high-risk times of the week and access to older, less safe vehicles, as mentioned earlier.

From 2000 to 2010, the number of fatal crashes involving young drivers (aged under 26 years) has fallen by 47 per cent. This is nearly twice the decrease for fatal crashes not involving a young driver. Although these are very substantial improvements, we should not be complacent.

KEY FOCUS FOR CHILDREN AND YOUNG PEOPLE

- Continue the rollout of flashing lights to enhance the visibility of school zones and at risk road users.
- Review the licensing arrangements for learner drivers, develop a Safer Driver Course and programs to support disadvantaged people.
- Further review the graduated licensing scheme in a national context.
- Support education on safe cycling and walking practices in the road traffic environment.
- Continue to develop and refine the road safety education program in schools for Kindergarten to Year 12 and early childhood programs to highlight key road safety issues that is developmentally appropriate.
- Improve data, initiatives and communications to reduce low speed run over crashes (e.g. driveway crashes).



Pedestrians

Pedestrians are considered at risk road users due to the lack of protection provided by the vehicle in the event of a crash, which results in more severe outcomes.

Pedestrians account for 14 per cent of the NSW road toll and are a significant group among road users killed in the Sydney Region. At least 33 per cent of pedestrian fatalities between 2008 and 2010 were alcohol impaired and 40 per cent of pedestrian fatalities were aged 60 years or more.

There is a strong desire for pedestrian safety across the road network. This includes the provision of 40km/h High Pedestrian Activity Areas which are being progressively rolled out at identified locations and 10km/h Shared Zones, pedestrian fencing and other infrastructure treatments, along with safer vehicles which are pedestrian friendly. These will all contribute to the achievement of the targets of this strategy.



KEY FOCUS FOR PEDESTRIANS

- Improve pedestrian crossing safety, including reviewing signal phasing for pedestrians.
- Work with local government to undertake road safety audits to address the maintenance and upgrade of pedestrian facilities.
- Support the Long Term Transport Master Plan and the walking investment program to address the infrastructure needs of pedestrians.
- Trial innovative technology solutions to address pedestrian safety, including vehicle to person systems and vehicle based pedestrian detection systems.
- Landuse planning guidelines to consider pedestrian requirements, especially at transport hubs, new residential developments and in regional NSW.
- Research pedestrian distraction devices and the effects within the road environment.
- Develop communications and awareness campaigns to promote safety with pedestrians and other road users.
- Review the application of shared paths and safer interaction between pedestrians and bicycle riders.

Bicycle riders

The NSW Government is committed to encouraging and increasing the level of bicycle riding in the NSW community. To allow for this, infrastructure must be appropriate to allow for the safety of bicycle riders, together with respect from other road users. A combination of infrastructure and behavioural education campaigns to support safe cycling will result in fewer serious and fatal injuries.



KEY FOCUS FOR BICYCLE RIDERS

- Support the Long Term Transport Master Plan development of a connected cycling network and a long term NSW cycling investment program.
- Work with local government to undertake assessment of new bicycle routes with bicycle community and address maintenance and upgrading of cycling facilities, with a focus on improved safety.
- Develop consistent standards and guidance for cycling facilities, including shared paths, to ensure the consistent application of treatments.
- Develop programs and communications to support bicycle riders to increase usage of helmets, riding skills and confidence, bicycle maintenance and visibility.
- Landuse planning guidelines to consider the requirements of bicycle riders, especially at transport hubs and in regional NSW.
- Investigate opportunities to enhance signage on and around popular bicycle cycling routes to highlight their presence to drivers.
- Develop communication and awareness campaigns to promote safety of bicycle riders with other road users. .
- Conduct bicycle surveys to gain insights into unsafe behaviours of bicycle riders.

“ A Safe System is effective when all road users benefit from improved safety. Bike riders are one of the most vulnerable road users currently. The Amy Gillett Foundation strives to work with Transport NSW to reduce all road user fatalities and serious injuries by 30 per cent over the next 10 years. That is, to realise for bike riders the safety gains made for motorists over the past 30 years.”

*Tracey Gaudry,
Chief Executive Officer , Amy Gillett Foundation*

Motorcyclists

Motorcycle crashes tend to result in serious road trauma in NSW. While motorcyclists represent less than four per cent of registered motor vehicles and less than one per cent of overall vehicle travel, they accounted for 15 per cent of all fatalities between 2008 and 2010. On a 'per kilometre of travel' basis, motorcyclists are around 20 times more likely to be killed compared to an occupant of a passenger vehicle.

Transport for NSW has been working with the motorcycling community in the development of a new NSW Motorcycle Safety Strategy 2012-2021.

The number of motorcycles on the road network in NSW is increasing. There is currently very strong growth in both the number of motorcycle registrations and rider licences in NSW. This growth is more pronounced than the growth in other transport modes.

In addition to engineering treatments aimed at improving the safety of motorcyclists, there is a need to address specific behaviours that lead to crashes involving motorcyclists.

Older road users

As detailed earlier, the ageing population is projected to increase across the next decade. NSW is the most populous state in Australia and Sydney is the most populous city. A key focus is to address the safety of older road users. Two key areas are older pedestrians and older drivers.

Older pedestrians, older drivers and passengers are over represented in fatal crashes. This is due to frailty and a reduced tolerance from the force of a crash, rather than risk taking.

There is a strong need to maintain mobility and access for older road users, with a large proportion living in suburban locations.

KEY FOCUS FOR MOTORCYCLISTS

- Research impacts of fatigue upon motorcyclists.
- Increase motorcycle awareness and risk management among other road users.
- Develop communications to highlight light vehicle awareness of motorcyclists.
- Investigate enforcement strategies and education campaigns to deter risk taking behaviour.

KEY FOCUS FOR OLDER ROAD USERS

- Develop programs with local government to provide safe convenient transport options for older people.
- Work with road authorities to provide facilities for older road users including improved pedestrian access, longer green light phasing and local education campaigns.
- Improve mobility scooter safety for older road users.
- Review the driver licensing for older drivers.
- Deliver communication campaigns to target older pedestrian safety.
- Progress road safety related actions from the NSW Ageing Strategy.

Impaired road users

Issues

Impaired road users refer to people affected by alcohol, drugs, fatigue or distraction. Over the past two decades, NSW has had considerable success in reducing levels of high-risk driving behaviours, such as drink driving, drug driving and driving while fatigued. Well-publicised enforcement activity, coupled with appropriate penalty systems have proved to be a highly effective means of reducing this unsafe behaviour and associated road trauma.

Despite improvements over recent years in NSW, drink-driving continues to be a major factor in death and serious injuries with at least 20 per cent of all fatalities between 2008 and 2010 involving a driver or rider with an illegal blood alcohol concentration.

The evidence obtained from research is unequivocal; there is a corresponding rapid increase in crash risk as motorists' blood alcohol levels increase. This is true for all motorists but risks are significantly higher for young drivers. While levels of drug driving are not yet detailed in crash data, research has shown that the use of drugs, both illicit and prescription can increase crash risk.

Between 2008 and 2010, fatigue was a factor in 16 per cent of all fatalities, equating to 197 deaths. The majority of fatigued drivers and riders involved in casualty crashes are males, particularly aged 17 to 49 years.

“Country areas critically depend on roads to get people where they need to go. Many people from the Parkes, Forbes and Lachlan Shire Council areas travel extensively on the roads – many in the course of their work. We are acutely focused on ensuring the roads are as safe as possible and that motorists and other road users are educated about safe behaviour. Every life saved on the state’s roads is a win and through this strategy and beyond I hope we can continue to make real gains in this area.”

*Melanie Sutor – Injury Prevention Officer,
Parkes, Forbes and Lachlan Councils*

IMPAIRED ROAD USERS KEY FOCUS

Strong education campaigns coupled with Police enforcement have seen strong improvements in changing the community's attitude to drink driving. However, there is currently no specific legislation for light vehicle driver fatigue management. This means that education strategies need to stand on their own, unlike fatigue management for heavy vehicle drivers. Impaired road users, whether fatigued, under the influence of alcohol and/or drugs and driver distraction remain a key focus for NSW. To reduce the impact NSW will:

- Work with NSW Police to strengthen random breath and drug testing programs, unlicensed driving detection and illegal mobile phone use, including a focus in rural NSW.
- Develop revised education communications and programs, to address drink driving including alcohol interlocks.
- Continue to research road user distraction and facilitate an in-vehicle naturalistic study research program to better understand the behaviours of drivers, including the impact of distractions.
- Develop a strategy to address mobile phone use, including strengthening enforcement and communication about its danger.
- Monitor the proliferation of devices used in vehicles that may have an impact on driver distraction.
- Work with medical associations to research issues around the combination of prescription drugs.
- Develop a strategy to address light vehicle driver fatigue.
- Enhance NSW crash data to include information about the involvement of drugs and driver distraction in the reporting of crashes on NSW roads.

Safer speeds

Issues

In NSW speed is a factor in about 42 per cent of road deaths, resulting in 520 fatalities over the three year period from 2008 to 2010.

Speeding, which encompasses excessive speed (driving above the speed limit) and inappropriate speed (driving too fast for the prevailing conditions) is recognised as a major contributing factor in both the number and severity of crashes.

As a vehicle's speed increases so does the distance needed to stop. This means that as speed increases, so does the risk of a crash. Also, higher vehicle speed equates to a greater amount of kinetic energy that must be absorbed in the event of a crash.

Current and past research in Australia and internationally provides compelling evidence that increased travel speeds, even at low levels, are directly related to both the likelihood of a crash occurring and the severity of crash outcomes.

A critical component of the Safe System approach to road safety is that speed limits are set so that they are safe for the type of road, and road users.

The Government is committed to balancing safety and mobility needs and achieving improved consistency of speed zoning in NSW. The Safer Roads NSW website (www.saferroadsnsw.com.au) has been successful in facilitating community input on speed zoning issues and the revised speed zone guidelines provide guidance in setting appropriate

speed limits. The capability of the Safer Roads website has also been expanded to allow the community to nominate locations to be considered for speed camera enforcement, harnessing the high level of community support for speed camera activities.

Speed limits alone, without engineering measures and enforcement, are insufficient to achieve road safety outcomes. Research conducted by the NSW Centre for Road Safety has found that almost a quarter of people report that they speed all or most of the time. Annual speed surveys also suggest that broadly eight per cent of drivers exceed the speed limit by more than 10km/h.

The challenge in achieving safer speeds is to address the social acceptability of speeding through a comprehensive speed management strategy, while balancing safety with the mobility needs of motorists. The success of drink driving campaigns and other measures demonstrate the possibilities to change the social acceptability of risky behaviour

A NSW Speed Camera Strategy was announced by the Government in June 2012. The strategy outlines how speeding impacts upon the community, how sites are selected for the four types of speed cameras used in NSW, and how the Government will monitor speed camera performance and reporting of this back to the community to ensure speed cameras are improving road safety.



The past decade has certainly seen some great improvements in road safety but as we embark on this strategy and look to the next 10 years I feel confident we can achieve much more. A decade ago people probably saw road safety as being an important, but separate issue but that can no longer be the case. In much the same way as OHS and Environmental issues have been engrained in our thinking over time, so too must road safety. Everyone must take ownership and play their part."

*Brad Turner, Regional Manager Southern Region
Roads and Maritime Services*

SAFER SPEEDS KEY FOCUS

The adverse consequences of speeding, particular the risks imposed on others from an individual driver's speed choice, require a multi-faceted Safe System approach. This would include the setting of appropriate speeds for the environment, implementation of engineering measures to minimise the severity of crashes and enforcement to ensure compliance. The following key initiatives have been identified in accordance with the Safe Systems approach for safer speeds:

- Maximise coordination between traditional police speed enforcement and automated speed camera enforcement activities.
- Increase high visibility police enforcement.
- Implement the over-arching speed camera strategy to guide effective speed enforcement activities, including:
 1. Improved communications with the community around speed cameras and locations, annual reporting of speeding crash trends, revenue and infringements.
 2. Revised site selection criteria for camera locations.
 3. Establishment of NSW Community Road Safety Fund, into which money raised from red-light, point-to-point and speed cameras will be directed to fund road safety programs.
- Continue to develop and maintain the NSW Speed Zoning guidelines in line with the Safe System approach and best international practice in speed management.
- Develop systems to encourage the uptake of Intelligent Speed Adaptation for motorists.
- Regularly review speed limits across the network to achieve greater consistency of speed zones, including the ongoing consideration of feedback via the Safer Roads NSW website.
- Monitor and evaluate speed limit compliance across the network to decrease levels of speeding.
- Utilise lower speed limit schemes for high pedestrian activity areas and roads with high volume of on-road cyclists.
- Address the wide-spread social acceptability of speeding through the continued development and implementation of public education campaigns and greater involvement of the community about speed related trauma.
- Develop improved information and communications around the speed problem.
- Implement more consistent application of the general urban 50km/h speed limit across the network.
- Improve the safety of pedestrians and bicycle riders through the utilisation of lower speed limit schemes, including 40km/h high pedestrian activity areas and shared zones.

Safer heavy vehicle operation

Issues

Heavy vehicle operation is an industry that is vital within NSW to support economic growth through freight delivery and passenger transport. Demands for freight services will continue to grow strongly over the next decade. The NSW Government acknowledges the road safety improvements which have been seen to date through ongoing partnerships with the heavy vehicle industry, increased workplace safety focus from companies and the acquisition of newer safer vehicles and combinations.

Heavy trucks are often involved in serious road trauma in NSW. This is in part because the mass of a heavy truck involved in a crash, elevates the crash forces, increasing the severity of the crash. While they represent only 2.2 per cent of registered motor vehicles and seven per cent of all motor vehicle travel², **heavy trucks were involved in 17 per cent of fatalities on NSW roads between 2008 and 2010.**

In a positive development, fatalities involving heavy trucks have fallen more than overall fatalities in NSW in recent years.

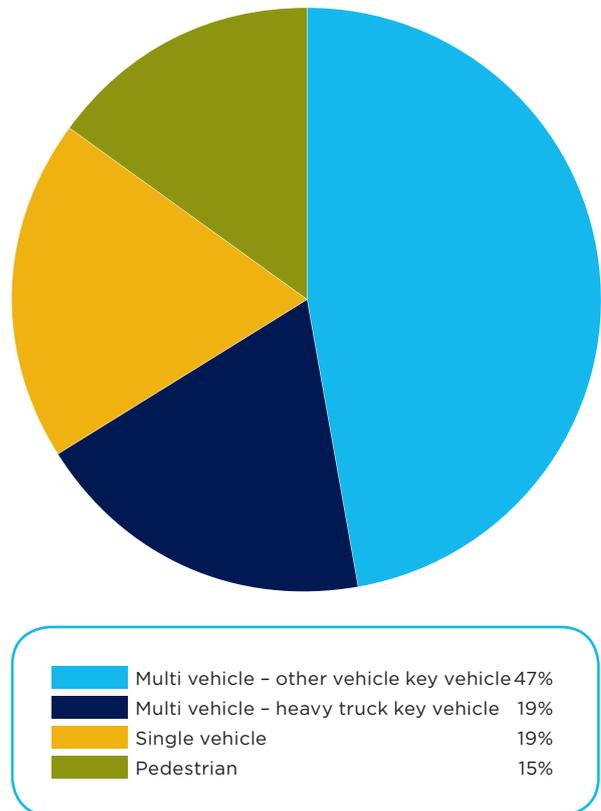
Figure 19 below shows a break-down of fatal crashes involving heavy trucks by the type of first impact over the period 2008 to 2010 in NSW.

Around two thirds of all fatal crashes involving a heavy vehicle involve at least two vehicles. Of these multi vehicle fatal crashes, heavy trucks are considered to be the ‘at fault’ vehicle (key vehicle) in one quarter, while the other vehicle is considered to be ‘at fault’ in three quarters of these crashes.

Further, nearly 30 per cent of fatal crashes involving heavy vehicles, involve interstate heavy vehicle drivers on NSW roads.

With the imminent introduction of the National Heavy Vehicle Regulator, many of the proposed heavy vehicle initiatives could be investigated and implemented nationally.

Figure 19 – Heavy vehicle fatal crashes, 2008-2010



“Professional drivers in the heavy vehicle industry spend a great deal of their life on the roads, with it being our primary place of work. Initiatives to make the road network safer - through road improvements including the provision of suitable rest areas at appropriate locations, safer vehicles and increased driver education will all see my workplace safer.”

Rod Hannifey, Heavy Vehicle Driver & Road Safety Advocate, Truckright (also ATA national professional driver of the year in 2001).

² ABS Survey of Motor Vehicle Usage, 2010

HEAVY VEHICLES KEY FOCUS

While the freight industry grows over the next decade, so will the safety risks for industry and other road users. Improvements in vehicle design, behaviours and compliance will see continued reductions. A range of initiatives includes:

- Target crash risk assessment on higher volume roads, using the route safety review process across the key freight routes.
- Consult with industry with a view to bringing forward technologies that deliver a significant safety outcome, including vehicle to vehicle technologies and Intelligent Speed Adaptation trials.
- Investigate a trial of Dedicated Short Range Communications systems to improve levels of communications for heavy vehicle operators.
- Improve heavy vehicle compliance through targeted enforcement to address speeding, fatigue, drug impairment and distraction in a partnership approach between Transport for NSW, Roads and Maritime Services, NSW Police, WorkCover NSW and industry.
- Work with industry to further develop workplace safety messages for heavy vehicle operators.
- Work with the industry and associations (in the whole supply chain) to develop effective communications to strengthen awareness of objectives associated with Chain of Responsibility legislation.
- Transport planning to consider heavy vehicle routes around ports and the provision of rest areas to meet heavy vehicle needs on major routes.
- Develop and extensively promote a heavy vehicle safety feature guide to encourage the introduction of safer trucks and the uptake of safety technology across the transport sector.
- Investigate a 5 star trucking scheme to provide information on the safety focus of different operators.



Road safety for Aboriginal communities

Issues

Nationally, Aboriginal people are involved in road deaths at three times the rate of non-Aboriginal people. The reasons are complex and relate to behaviours, isolation and access to licensing services, safety support and advisory services.

The high involvement of Aboriginal people in severe road crashes may be due to a variety of reasons including the tendency for many to live in remote or rural areas where risk factors are generally higher than in built up areas, lifestyle factors as well as the need to travel long distances to support extended families. Socio-economic factors can also mean that many Aboriginal people only have access to older, less safe vehicles.

Recently, NSW completed a data linkage project matching data from the National Coroner Information Systems with the Centre for Road Safety data, which resulted in the identification of 90 fatalities involving Aboriginal people from 2000 to 2009.

Key findings from this report were that a significantly greater proportion of crashes compared to overall crash factors for NSW, involved Aboriginal pedestrians, intoxication and the non-usage of restraints.

Additionally, the reports found a higher percentage of vehicle controllers associated with these fatalities were unauthorised (did not possess a current licence) at the time of the crash and many of these crashes happened within a short distance of Aboriginal communities.

ABORIGINAL ROAD SAFETY KEY FOCUS

Addressing road safety issues for Aboriginal communities is a high priority for the NSW Government. The information detailed above leads to a range of complex issues requiring consideration and development including:

- Develop culturally appropriate education materials.
- Develop programs to increase driver licensing opportunities for Aboriginal people.
- Work with local communities, Department of Attorney General and Justice and local government to reduce levels of unauthorised driving through programs and partnerships.
- Ensure that road safety education in the school education curriculum conveys key messages and meets the needs of children, parents and carers in Aboriginal communities.
- Devise workable options to help disadvantaged families purchase safer child restraints.
- Enhance reporting of crash data and licensing data to enable further analysis and a more in-depth understanding of the nature and extent of the road safety related problems facing Aboriginal communities.

Post crash response and trauma treatment

Issues

Improving post crash response times and emergency medical services has the potential to reduce the severity of crash outcomes and the cost to the community of road trauma. In emergency medicine, the golden hour refers to a time period lasting from a few minutes to several hours after traumatic injury is sustained. During this time there is the highest likelihood that prompt medical treatment will prevent death. Prompt retrieval of crash victims from the crash site, effective immediate on site medical assistance and early access to high standard hospital trauma care are all critical elements in seeking to prevent death and avoid long term disabling injury.

The development and implementation of improved rescue response to road crashes is the responsibility of the NSW Police Force, whilst the NSW Ministry of Health is responsible for improving medical care given to casualties following a crash through the NSW Ambulance Service and Public Hospital Trauma Centres.

Improvements will be seen over the decade through Information and Communication Technology, a focus area will be the consideration of such technology to improve road safety, including greater communication and support to road users and emergency services.

POST CRASH RESPONSE AND ROAD TRAUMA TREATMENT KEY FOCUS

There may be significantly improved road safety outcomes through the development of closer relationships through the coordination of emergency retrieval and medical services to crash victims. Technology improvements in the future will also play a role in notification of serious crashes.

- Establish a whole-of-government approach to post crash care and response that identifies areas for potential improvement to minimise the impact of injuries in crashes. A partnership between emergency retrieval services and emergency medical services along with the Motor Accidents Authority to improve injury outcomes.
- Investigate options for automatic crash notification systems, including collision detection and avoidance systems.
- Educate drivers about the added risks of crashes in remote areas.
- Provide clearer advice to road users on what to do if they breakdown or crash and on safety issues near incident sites.



7. MANAGING THE STRATEGY



This road safety strategy supports the National Road Safety Strategy, with challenging safety targets and innovative actions that have the potential to achieve sustainable road safety benefits.

There are a number of agencies responsible and accountable for road safety delivery across NSW, requiring strong coordination from within Transport for NSW. The Centre for Road Safety will lead the development of action plans and coordination across key Government agencies delivering road safety improvements, including RMS, NSW Police and Motor Accidents Authority.

This strategy will be supported by detailed action plans which set out priority actions that will be undertaken to support the achievement of the targets of this strategy. This strategy has referenced the 1 - 3 year actions from the National Road Safety Strategy 2011 - 2020, which the NSW Government has committed to investigating for NSW.

The Road Safety Advisory Council has been established by the NSW Government to consult with on key road safety developments. The Council consists of key road safety stakeholders from Government, interest groups and community and will be actively consulted throughout the ongoing implementation of the strategy.

The new NSW Community Road Safety Fund will use camera detected and traffic light offences to fund road safety initiatives.

Legislation and regulatory changes to existing and emerging road safety issues or problems will be made as required. Partnering with other jurisdictions will also be essential for national regulatory changes. Additionally, the review of existing policy positions, licensing and offence systems will be required throughout the duration of this strategy.

A strong component of this strategy will see the development of strategies and programs with local government. A large proportion of the State's network is managed by councils. Mainstreaming road safety within councils and road agencies will see road safety benefits on locally managed roads.

POLICE ENFORCEMENT AND ROAD SAFETY

The NSW Police Force is a key road safety stakeholder in delivering improved road safety outcomes to the NSW community. NSW Police play a vital role in enforcing road rules across the state to ensure road users are compliant.

The NSW Police Force, through the Traffic and Highway Patrol Command is responsible for the development and dissemination of advice on all matters relating to traffic policy, enforcement, education and road trauma. This centralised Command oversees the deployment of strategically directed police enforcement operations across NSW.

The Road Safety Strategic Coordination Group has been formed to examine emerging significant road safety issues for NSW and develop coordinated approaches to address these. This group also coordinates roadside drug testing and mobile speed camera operations with other police enforcement operations, ensuring a truly integrated approach to Police enforcement.

The Centre for Road Safety within Transport for NSW contributes over \$14 million annually to fund the Enhanced Enforcement Program. This partnership between NSW Police and Transport for NSW aims to enhance the level of visible police enforcement activity over and above normal operating requirements to reduce road trauma.

The program funds operations to target key behaviours across the network, including speeding, drink driving, non-wearing of seatbelts and driver fatigue. Enhanced enforcement operations are supported with public education campaigns run locally and state-wide.

During 2011/12 financial year, NSW Police carried out 7 state-wide and 228 additional operations resulting in more than 232,000 additional enforcement hours committed to road safety in NSW.

The new strategic coordinated approach to police enforcement operations has seen key operations target specific road safety issues across the network at key times. This includes operations on major routes, including the Pacific, Hume and Great Western Highways.

More recently, this program has seen the establishment of the Sydney CBD Motorcycle Response Team. This team is addressing congestion and safety at trouble spots across Sydney CBD along with improving safety of pedestrians.



“ NSW Police have worked closely with Transport for NSW on the development of this Road Safety Strategy to ensure it addresses the needs of the NSW Community. NSW Police will continue to work closely with our partners to deliver improved road safety outcomes across NSW. This strategy represents an opportunity to further tackle the road toll and serious injuries, with improved road safety programs to address driver behaviours.”

*John Hartley,
Assistant Commissioner NSW Police Force*

INJURY PREVENTION

In NSW the Compulsory Third Party Scheme and Lifetime Care and Support Scheme provide support to people injured in motor vehicle crashes. This includes payments for medical treatments, rehabilitation and care, as well as compensation payments such as loss when the crash that caused the injury was caused by someone else. These schemes are funded by the nearly five million registered vehicle owners purchasing Compulsory Third Party (CTP) insurance (Green Slip) policies required to register a vehicle in NSW. Since the scheme was introduced in 1999 almost \$8 billion has been paid in benefits to injured people. The NSW Road Safety Strategy must take into account the impact of injuries sustained in crashes as these costs are directly passed on to NSW's registered vehicle owners through Green Slip policies.

The Compulsory Third Party and Lifetime Care and Support Schemes collect data relating to the claims arising from injuries sustained in crashes. There are significant gains to be made in further analysing this data to better understand and apply the information available on the cost and impact of injuries and design intervention strategies in response.

The Centre for Road Safety and the Motor Accidents Authority have developed a Memorandum of Understanding outlining how they will work together to reduce the incidence and severity of road crashes. The Motor Accidents Authority as part of its legislative charter commits funding for initiatives and projects that provide road safety education, and prevent and minimise injuries to people in road crashes – this is now being strategically coordinated with the Centre for Road Safety.

The MAA funding is targeted towards initiatives that particularly address prevention with the MAA's priority areas. Currently this includes:

- Vulnerable road users such as pedestrians, motorcyclists, their pillion passengers and pedal cyclists. These groups represent small numbers of claims with high claims cost due to their susceptibility to serious injury in a motor vehicle crash.
- At risk road user groups, including those that provide higher claims exposure or risk. For example, young drivers who are deemed the at-fault driver in 27 per cent of CTP claims, while making up only 14 per cent of licence holders; and children and the elderly who are exposed to higher claims costs due to their vulnerability and related treatment and care costs when injured.
- Specific crash types that can be linked to injury patterns that represent relatively high claims costs. For example, spinal cord injuries are commonly sustained in roll-over crashes and derive high costs per claim; and whiplash injuries sustained most commonly in rear-end crashes represent 46 per cent of CTP claims.

The collaboration between the MAA and the CRS is developing with mutual understanding of each agency's role, focus in injury prevention and the information that drives respective priorities. An important aspect of managing the Strategy will be further developing this collaborative approach to road safety and injury prevention in NSW.

MANAGING THE STRATEGY KEY FOCUS

To ensure the success of the strategy implementation, the following initiatives will be undertaken:

- Improve engagement with stakeholders and the community.
- Work closely with key partners including the Roads and Maritime Services, NSW Police Force, Motor Accidents Authority, Ministry of Health and Department of Education and Communities.
- Work in partnership with Roads and Maritime Services to ensure the ongoing mainstreaming of road safety.
- Continue funding of Police enhanced enforcement program to ensure road users comply with the NSW Road Rules and are safe and compliant.
- Develop further innovative public education campaigns with a strengthened focus on positive prevention.
- Continue to promote road safety as a key workplace safety issue.
- Develop and implement Safe System training for road authorities.
- Ensure accountability of road safety programs with regular reporting and publishing of program results.
- Enhance data collection and systems to further improve the quality of crash data, in particular for serious injuries.
- Provide access to crash data for other agencies and local government.
- Work with local government to improve engagement, road safety capacity, knowledge sharing opportunities.
- Develop a strategy to target repeat offenders.
- Investigate alternative sources of funding for road safety programs.
- To meet the United Nations Decade of Action for Road Safety 2011-2020, NSW will improve the dissemination of information on road safety research and initiatives to developing countries.
- The Centre for Road Safety will report annually on the progress of the strategy.
- A review of the strategy will occur in accordance with the development of new action plans.

APPENDIX A – SERIOUS INJURIES

Data for serious injuries was captured in the NSW road traffic crash database from 1976 until the late 1990s.

During this period the serious injury data was used in conjunction with the fatality data as the prime road safety analysis data set. The serious injury data set was used during this period to:

- identify the key factors involved in serious crashes
- evaluate the effectiveness of road safety countermeasures
- benchmark road safety performance against other jurisdictions
- measure overall road safety performance in NSW.

When reliable data was available, the serious injury data was an essential component for road safety research purposes. Whilst the number of serious injury crashes only represented around 12 per cent of all recorded crashes, the estimated cost of these crashes was around 85 per cent of the total crash costs. Serious injury crashes alone were estimated to account for half of all total crash costs.

Analyses of the crash data by severity at the time showed that fatal and serious injury crashes tended to differ markedly from less severe crashes in the crash database. For example, serious injury crashes were more likely to involve:

- risk taking behaviours
- head on impacts
- off road impacts with unforgiving roadside objects
- collisions with pedestrians.

In contrast, an analysis of all recorded crashes at the time would have suggested that rear-end crashes in the metropolitan areas were the major crash type. However rear-end crashes have a low severity outcome.

Indeed in the very first NSW road safety strategy, Road Safety 2000, published in January 1992, one of the stated primary targets was to reduce the number of serious casualties (fatalities plus serious injuries) from the 1988 to 1990 average of 9,090 to

6,800 by 2000. This would represent a 25 per cent reduction over the period. In addition, the strategies outlined in the document were based on the existing evidence derived from the serious casualty data covering the three year period 1988 to 1990.

However, from July 1997 the NSW Police reporting of road traffic crashes changed from a paper based system to a computerised system, Computerised Operational Policing System. Extensive investigation of the serious injury data from July 1997 indicated that it had become unreliable. Reporting on the serious injury category ceased from 1998.

The NSW Centre for Road Safety commissioned the Transport and Road Safety (TARS) Research group to investigate the links between NSW crash data and the hospital and Registry of Births Deaths and Marriages datasets. One aim was to better define serious injury and routinely match serious injuries reported in the hospital systems with serious injuries in the crash data for the purposes of road safety performance reporting and case study analyses of specific road safety issues.

TARS Research successfully linked around 62 per cent of crash casualty records over the period 2005-2009. Most of the unlinked records occurred because as expected, many crash injuries did not present to a hospital – for example, injuries which were self treated or treated by a local doctor. This is a comparable linkage rate with similar approaches undertaken in other jurisdictions.

Using the newly agreed national standard definition for a serious injury (admitted to hospital) TARS Research then estimated that around 26 per cent of all injuries over this period were deemed to be serious injuries. This percentage of injuries was found to be uniformly consistent for each reporting year of the linked injury data during this period.

Further detailed analysis of the new serious injury dataset will be conducted. This information will be invaluable in focussing strategies and actions to achieve a reduction in serious injuries.

APPENDIX B – GLOSSARY

- **Alcohol Interlocks**
A device that prevents a driver from starting a vehicle when it detects alcohol above a preset blood alcohol limit. Most current devices require a driver to undertake a breath test as part of a vehicles startup procedure.
- **Chain of Responsibility**
Chain of Responsibility under the Heavy Vehicle Driver Fatigue reform requires all parties involved in the supply chain to manage heavy vehicle driver fatigue.
- **Dedicated Short Range Communication**
A radio transceiver using a specific radio frequency to communicate and receive safety information from other vehicles and roadside infrastructure. In Australia the 5.9 GHz frequency of the radio spectrum has been set aside for this purpose by the Australian Communications & Media Authority (ACMA).
- **Intelligent Speed Adaptation**
A system which knows the legal speed limit of the section of road on which a vehicle is travelling. The system can warn (Advisory ISA) drivers when they exceed the speed limit. Supportive and limiting ISA systems interact with a vehicle's fuel or braking systems to physically prevent a vehicle from exceeding the speed limit.
- **In-Vehicle Naturalistic Study**
A naturalistic driving study investigates ordinary driving under real-world conditions in order to make the driving experience safer. Vehicles in naturalistic studies are fitted with cameras, radar, and other sensors to capture data as they go about their usual driving tasks.
- **Head on Road Crash**
A crash in which two road vehicles from opposing directions collide.
- **Run off Road Crash**
A crash in which a road vehicle leaves the carriageway to the right or to the left without striking an object or vehicle on the carriageway. Note that an object or vehicle may be struck after leaving the carriageway.
- **Rear Impact Crash**
A crash in which the front of a road vehicle collides with the rear of another road vehicle travelling in the same lane in the same direction. The front vehicle may be moving or stationary (but not parked).
- **Intersection Crash**
A crash for which the first impact occurs at or within 10 metres of an intersection.
- **Fatality**
A person who dies within 30 days of a crash as a result of injuries received in that crash.
- **Serious Casualty**
A person involved in a traffic crash who as a result of the crash either is killed or is injured and admitted to hospital.
- **Landuse Planning**
Landuse planning sets guidelines for the development of land and changes to existing land use.
- **Light Vehicle definition**
A road vehicle with a tare weight of 4.5 tonnes or less.
- **Heavy Vehicle definition**
A truck or bus with a tare weight in excess of 4.5 tonnes.
- **Mobility Scooter definition**
A mobility scooter is a mobility aid equivalent to a wheelchair but configured like a motorscooter. For current statistical purposes in NSW, a mobility scooter is classified as a motor vehicle, not as a pedestrian.
- **Route Safety Review**
A Route Safety Review is a process of reviewing an identified highway to improve safety. This includes fatality and injury analysis, community consultation, review of the highway to identify safety risks and the development of works program and behavioural strategies to improve road safety.
- **Serious Injury**
A person involved in a traffic crash which results in the person being confirmed admitted to hospital.





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