Transport for NSW
Centre for Road Safety

NSW Road Safety Progress Report 2019

Contents

Ministers' Message

As the Minister for Transport and Roads and the Minister for Regional Transport and Roads, there is no higher priority than ensuring everyone who uses NSW roads arrives at their destination safely. Tragically that is not always the case. In 2019 we had 353 fatalities on our roads, an increase of six fatalities from the previous year, (with 119 in metropolitan areas and 234 in regional areas). Hospitalisation data for 2019 show that there were a further 11,085 serious injuries, a decrease of 265 from the same period in 2018.

The NSW Government has put great effort into delivering life saving initiatives of the Road Safety Plan 2021 during 2019 and will continue to explore technologies and projects that we know will help us reach our road safety target of zero road trauma on NSW roads by 2056.

We have seen world firsts, with New South Wales being the first jurisdiction in the world to use artificial intelligence backed camera technology to detect and enforce illegal mobile phone use.

We continue to tackle the road toll in country NSW by ramping up the roll out of road safety infrastructure. The 2018–19 Safer Roads Program saw 270 projects under construction, with 171 completed and a total expenditure of $120.7 million. This included New England Highway between Uralla and Armidale, Leggetts Drive, Brunkerville between Leiberts Lane and Gills Lane and Henry Parkes Way between Parkes and Condobolin.

Complementing this was the Saving Lives on Country Roads campaign which encourages country drivers to re-think the common excuses used to justify unsafe behaviour on the road, as well as more Highway Patrol Police Officers based in country areas to encourage people to drive safely.

The importance of the world-first rating system for safe motorcycle clothing – MotoCAP (which Transport for NSW was a key partner for development) – has been recognised through the prestigious Road Safety Award at the Fédération Internationale de Motocyclisme.

We also continued to educate people on how to use the roads safely, including ensuring every child in NSW develops a road safety understanding through mandatory curriculum based road safety education.

Transport for NSW develops a range of road safety public education social media campaigns to reach target audiences with appropriate messages that address key behavioural road safety issues critical to reducing road trauma. The NSW Road Safety Facebook page reaches an average of 1.2 million people per week and has a highly engaged audience with an average of 88,000 page engagements per week.

Above all, we know that speeding is still the highest contributor to deaths on our roads. Our speed camera program has continued to deliver significant road safety benefits. At fixed speed camera locations, fatalities have fallen 80 per cent and injuries have fallen by more than a third since the cameras were installed, compared to the five-year period before installation. Since 2013 every dollar from speed camera detected and red light running fines has been put back into road safety programs in NSW through the Community Road Safety Fund. This report outlines how these funds, and additional funding from the NSW Government, were spent in 2018–19 to deliver the commitments in the Road Safety Plan 2021.

The Honourable Andrew Constance MP
Minister for Transport and Roads

The Honourable Paul Toole MP
Minister for Regional Transport and Roads

December 2020

Road safety outcomes in 2019 overview

Road safety outcomes 2019

The NSW Government is working towards the goal set by Future Transport 2056 of zero trauma on the transport network by 2056. Transport for NSW in conjunction with its road safety partners is doing this by delivering on initiatives and directions set by the Road Safety Plan 2021 (released in February 2018), which outlines an interim target to reduce road fatalities (from 2008–10 levels) by at least 30 per cent by 2021. This would equate to fewer than 287 fatalities on our roads per annum.

NSW has adopted the internationally recognised Safe System approach to improve road safety on NSW roads. The approach is underpinned by these principles:

- People are human and sometimes break the rules or make mistakes – this shouldn't cost anyone their life
- Roads, speeds, roadsides and vehicles need to be designed to minimise crashes or reduce forces if a crash happens
- Road safety is a shared responsibility for government at every level, in business and industry, within communities and at a personal level.

By using the Safe System approach in NSW we can address the factors that cause crashes, and help reduce the impacts if a crash occurs. In 2019 the following fatality free achievements were accomplished:

- 25 of the 129 (19 per cent) local government areas were fatality free
- Over 450,000 people lived in fatality free LGAs (6 per cent of NSW population and 24 per cent of the State by area)
- M2 and M7 Motorways, Hunter Expressway and the Eastern Distributor as well as the Illawarra, Barton, Kamilaroi and Cobb Highways have been fatality free.

Numerous factors have placed upward pressure on road trauma including:

- An increasing population resulting in more travel and people using our roads. Since 2012, the NSW population has increased by 10.8 per cent by 2019. This population growth has contributed to an increase in motor vehicle kilometres travelled by 16.9 per cent between 2012 and 2018. NSW registered motor vehicles have also increased strongly, up by 16.3 per cent between 2012 and 2019
- Increased economic activity. NSW continues to experience strong economic growth as measured by Gross State Product (GSP). Between 2014–15 and 2017–18 the average annual growth rate was around 3.0 per cent, second only to that for Victoria. The increase in GSP in 2018–19 was slightly weaker at 1.9 per cent but remains strong compared with most Australian states. These continued rates of economic growth in NSW result in more travel and therefore exposure to risk
- Increased freight task as result of strong economic activity, resulting in more heavy truck movements. For example, in 2016 over 480 million tonnes of freight needed to be moved in NSW. This is forecast to increase by 28 per cent to 618 million tonnes by 2036. About 80 per cent of the Greater Sydney freight task is undertaken by road
- An ageing population. With fatality rates in 2019 for those aged over 80 years now the highest for any age group and a demographic expected to increase significantly over the next two decades there is an increasing risk of fatality and serious injury for this population
- Travel patterns are changing with the emergence of e-commerce and the gig economy – there may be less commuting / work related travel but an increase in food / parcel deliveries to households and businesses which are also likely to be delivered by light commercial vehicles and personal transport devices with fewer safety features such as e-bikes and other motorised devices. At the end of 2018, 17.8 per cent of vehicles registered that were manufactured after 2000 were light commercial vehicles (up slightly from 16.2 per cent in 2017), which generally have a lower safety rating.

Road toll outcomes

As a result of these pressures, the NSW road toll increased over three consecutive years to 2017. This trend was halted in 2018, which has seen a welcome reduction in fatalities, with 347 fatalities – the lowest since 2014.

The final road toll for 2019 was 353, a two per cent increase compared to 2018 when there were 347 fatalities.

The following key behavioural factors contributed to the 2019 road toll:

- Excessive or inappropriate speed – 136 fatalities (39 per cent of fatalities), up from 135 in 2018

- Fatigue – 61 fatalities (17 per cent of fatalities), down from 67 in 2018

- Illegal alcohol – estimated 61 fatalities (17 per cent of fatalities), down from 64 in 2018

- Presence of an illicit drug in system of a driver/ rider involved in a crash – 84 fatalities (24 per cent of fatalities), up from 69 in 2018

- Restraint non usage – 29 fatalities (8 per cent of fatalities), up from 28 in 2018.

Compared with 2018, the main **increases** were:

- Motorcyclist fatalities increased from 54 to 68 (26 per cent)

- Vehicle – object fatal crashes increased from 107 to 128 (20 per cent)

- 40 to 69 year old drivers and riders involved in fatal crashes increased from 186 to 223 (20 per cent).

Compared with 2018, the main **decreases** were:

- Pedestrian fatalities decreased from 69 to 45 (35 per cent)

- 17 to 20 year old fatalities decreased from 41 to 14 (66 per cent)

- 17 to 20 year old drivers and riders involved in fatal crashes decreased from 50 to 20 (60 per cent)

- Fatalities from P plate driver crashes decreased from 52 to 34 (35 per cent)

- Fatal crashes on roads with a posted speed limit of 60 km/h or less decreased from 131 to 104 (21 per cent).

Figure 1: Road and road related fatalities in NSW, 2012 – 2019
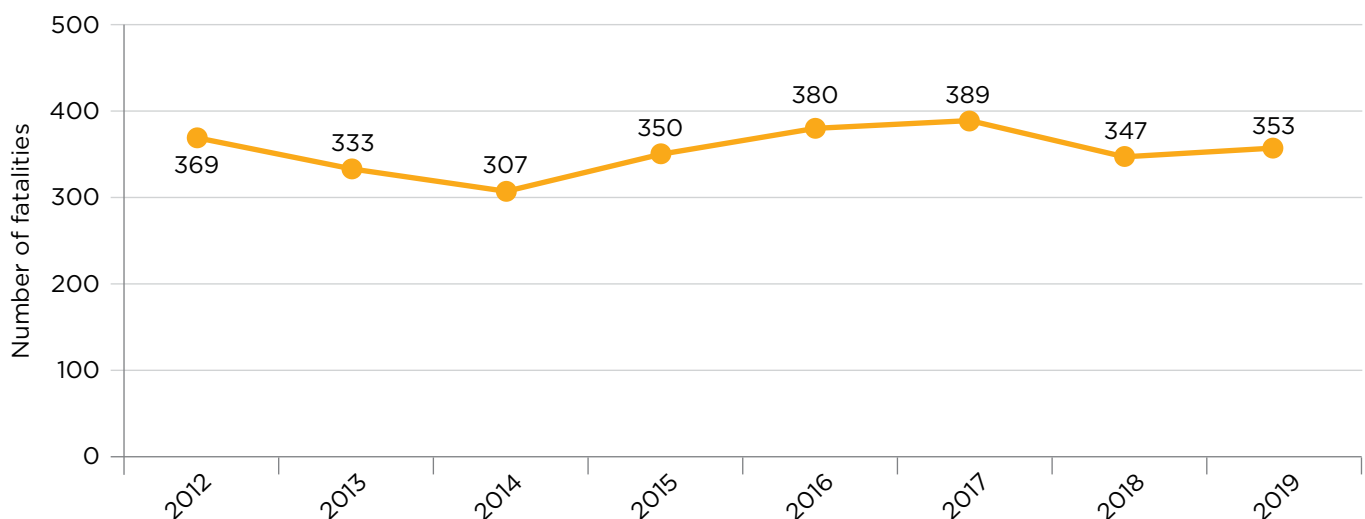
An examination of serious injuries in 2019

Serious injury data for 2018 and prior have been revised following changes to NSW Health Department policy on hospital admissions (Serious Injuries) in 2018.

Final data for 2019 indicate there were 11,085 serious injuries (total hospitalisations). This was a two per cent decrease compared to 2018. The result for 2019 equates to a rate of 137.1 serious injuries per 100,000 population, the lowest calendar year rate since 2012.

Compared with the 12 months ending June 2018, the main **decreases** were:

- Drivers down from 3,732 to 3,578 (4 per cent), pedal cyclists down from 1,974 to 1,847 (6 per cent) and passengers down from 1,374 to 1,348 (2 per cent)

- 17 to 20 year olds down from 1,007 to 921 (9 per cent), 50 to 59 year olds down from 1,526 to 1,418 (7 per cent) and 30 to 39 year olds down from 1,700 to 1,597 (6 per cent)

- Sydney Roads and Maritime Services (RMS)[1] region down from 3,003 to 2,652 (12 per cent) – matched serious injuries only.

Compared with the 12 months ending June 2018 the main **increase** was:

- Motorcyclists up from 2,519 to 2,654 (5 per cent).

Figure 2: Road and road related serious injuries in NSW, 2012–2019
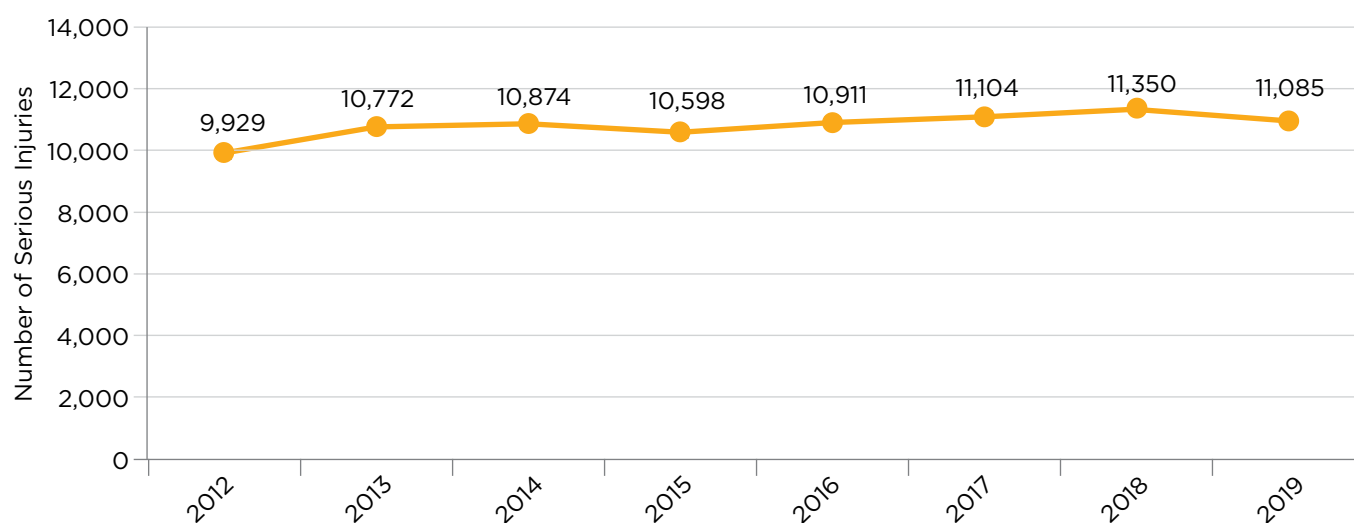
Note: Figures for 2018 and prior have been revised following changes to NSW Health Department policy on hospital admissions (Serious Injuries) in 2018. The data points in the chart now reflect comparable serious injury data prior to the policy change in 2018.

1   Now Transport for NSW

Saving lives on country roads

Two-thirds of all road fatalities occur on country roads, so the Road Safety Plan 2021 focuses on reducing fatalities on country roads. The 2019 data indicates that 72 per cent of fatalities on country roads were country residents who make up only one third of the NSW population.

Funding to boost safety on country roads

The NSW Government is investing $640 million in Saving Lives on Country Roads (SLCR) infrastructure safety upgrades over five years (from 2018–19) to focus on reducing fatalities and serious injuries on country roads.

Saving Lives on Country Roads Program

The SLCR Program delivers targeted safety infrastructure on country roads to reduce the risk of a crash, and reduce casualties and severity of injuries if a crash occurs.

Projects were funded through the Community Road Safety Fund and delivered by Roads and Maritime Services (now Transport for NSW), many in partnership with local councils.

The 2018–19 SLCR Program delivered route based projects, including the installation of wide centreline on the New England Highway between Uralla and Armidale, and commencing the installation of median barrier on the Mitchell Highway between Bathurst and Orange.

During 2018–19, 199 projects were under construction with 123 completed under the SLCR program.

In 2018–19 this included installing 113 kilometres of safety barriers, 3,000 kilometres of rumble strips (audio tactile line marking – ATLM) and 22 kilometres of motorcycle under run to prevent run off road and head on crashes.

For example as part of the SLCR Program, 110 kilometres of ATLM were installed along the Newell Highway between Coonabarabran and Narrabri to reduce crashes caused by fatigue.

Examples of Saving Lives on Country Roads Program 2018–19

The following are some examples of the NSW Government's investment through the 2018–19 SLCR Program.

New England Highway between Uralla and Armidale

The NSW Government invested $8.5 million on the New England Highway between Uralla and Armidale. In total, 15 kilometres of wide centreline, 4 kilometres of safety barrier and 12 kilometres of audio tactile line marking were installed. Bridges and sealed shoulders were also widened under the project and intersection improvements were delivered.

Before

After

Leggetts Drive, Brunkerville between Leiberts Lane and Gills Lane

The NSW Government funded $1.63 million to improve a section of Leggetts Drive. Improvement works resulted in widening of shoulder lanes, and safety barrier being installed along the length of the project.

Before

After

Henry Parkes Way between Parkes and Condobolin

The NSW Government invested $2.8 million to improve road safety on Henry Parkes Way between Parkes and Condobolin. Along this length of road, over 72 kilometres of audio tactile line marking had been installed. Twenty five kilometres of road also had shoulder widening to a width of one metre and clear zones were increased to 6 metres on both sides of the road. Roadside barriers were installed at targeted locations to protect road users from culverts and steep slopes.

Before

After

Safer Roads Program communications

Transport for NSW implemented a communications and engagement plan to support implementation of the SLCR Program and Liveable and Safe Urban Communities Program (LSUC) safety infrastructure initiatives.

Media materials, video and website content were developed to raise community awareness of the projects being undertaken across NSW and to increase understanding about the benefits of various road safety treatments being rolled out such as safety barriers and audio tactile line marking. Further development and dissemination of key messages will take place in 2020.

Saving Lives on Country Roads public education campaign

The 'Saving Lives on Country Roads' education campaign, launched in November 2017, continued to raise awareness of road trauma in country areas in 2019. It encourages country drivers to re-think the common excuses used to justify unsafe behaviour on the road and make safe, positive choices to reduce their risk on the road.

Saving Lives on Country Roads campaign

Local partnerships

Partnerships with local councils, community groups, stakeholders and industry help support delivery of road safety initiatives in country areas.

In May 2019, in partnership with the NSW State of Origin Team (NSW Blues) and some of the biggest names in rugby league, Transport for NSW launched a new phase of the 'Knock-On Effect' to highlight the impact of trauma on those left behind in local communities when lives are lost in road crashes. The NSW squad visited high schools to speak about road safety and highlight that every decision made on the road matters. The partnership is designed to tap into rugby league's popularity across the state to deliver road safety messages at a local level. It also included community interactions in regional locations and ambassador clinics.

In August 2019, Transport for NSW supported regional councils to partner with the Australian Road Safety Foundation to support Rural Road Safety Month. The initiative was designed to highlight the level of road trauma in country NSW and encourage local drivers to adopt safer behaviours.

NSW State of Origin team visiting a high school to highlight the impact of road trauma

Police enhanced enforcement on country roads 2018–19

The Enhanced Enforcement Program provides funding for additional high visibility enforcement to target behaviours known to contribute to road trauma, with 68 operations undertaken in regional NSW to address unsafe behaviours and crashes on country roads. Regional Police Area Commands and Police Districts participated in a number of police operations funded through the Enhanced Enforcement Program. For example, Operation Towards Zero Northern, Southern and Western.

Speed Management Program (country)

Speed zones are regularly reviewed to ensure speeds listed are appropriate to the road design and use. During 2018–19, 106 speed zones were reviewed in country NSW, and the outcome for these reviews resulted in seven speed zones raised and 76 lowered, 16 locations had their existing speed limit lengths changed and a further seven speed limit reviews resulted in no change.

Liveable and safe urban communities

While a significant proportion of road fatalities happen in urban areas (around a third), a high proportion of serious injuries occur in urban areas (around two thirds).

Roads in urban areas perform a range of functions, as quiet local streets, to motorways and movement corridors. Some roads have both a large volume of vehicles and many pedestrians, such as around shopping centres and transport interchanges. The challenge is to take a Safe System approach to keep our urban places liveable and safe, and ensure our vibrant streets allow people to move about safely as demand increases.

Liveable and Safe Urban Communities Program

The NSW Government is investing $182 million in Liveable and Safe Urban Communities Program infrastructure safety upgrades over the five years from July 2018 to better protect vulnerable road users including pedestrians and bicycle riders.

During 2018–19, 71 programs were under construction with 48 completed in the Liveable and Safe Urban Communities Program.

Examples of Liveable and Safe Urban Communities Program 2018–19

The following are some examples of the NSW Government's investment to create liveable and safe urban communities.

Carlisle Avenue and Luxford Road, Mount Druitt

The NSW Government invested $150,000 at the signalised intersection of Carlisle Avenue and Luxford Road, Mount Druitt. The completed works include realigning pedestrian crossings and installing a pedestrian fence which encourages pedestrians to use designated crossing locations.

Re-aligned crossing

Pedestrian fencing

Carlton Parade at Short Street, Carlton

The NSW Government invested $35,000 for a raised pedestrian crossing at the intersection of Carlton Parade and Short Street in Carlton.

Clovelly Road at Fern Street/Mount Street, Clovelly

The NSW Government invested $83,000 to install a raised pedestrian crossing on Clovelly Road west of the intersection with Fern Street/Mount Street.

Pedestrian Protection Program

Traffic signals are being upgraded to protect pedestrians from turning vehicles. The upgrades ensure vehicles are held while pedestrians commence crossing the intersection, providing pedestrians with additional time to clear the 'conflict point' with vehicles and increase their visibility to motorists. This is generally achieved with a red turn arrow. The improvements have been carried out as part of the NSW Government's Pedestrian Protection Program. During 2018–19, 56 projects were completed at a cost of $1.43 million, and 485 sites across NSW had been upgraded as at 30 June 2019 at a total cost of $5.45 million.

In partnership with local councils, six 40 kilometre per hour speed zones were installed in high pedestrian areas, along with supporting road infrastructure in six local government areas.

Pedestrian countdown timers

Pedestrian countdown timers (PCT) encourage pedestrians to cross within the allotted time to reduce the risk of being hit by a vehicle. As at the end of December there were 30 active PCTs.

Local government

Transport for NSW funded the Institute of Public Works Engineering Australasia to update 'A Guide to Developing Council Road Safety Strategic Plans' (October 2019). The Guide is designed to assist local councils to develop road safety strategic plans and integrate them into the Local Government Integrated Planning and Reporting Framework. Based on 'best practice' methodology, research, consultation and feedback, the Guide builds on the experiences of a number of NSW councils

Safe bicycle riding

To support bicycle safety a range of actions were delivered including:

- Support for the Spring Cycle, which promoted road safety messages on social channels in the lead up to the event
- Ongoing 'Go Together' bicycle safety communications, focused on minimum passing distance requirements across social media, websites and on-road messaging (Variable Messaging Signs).

Speed Management Program (urban)

During 2018–19, 26 reviews were conducted in the Sydney region and the outcome for these reviews resulted in one speed zone raised and 26 speed zones lowered.

Using the roads safely

The Road Safety Plan 2021 highlights the need to continue to encourage people to use the roads safely. This is done through road rules, enforcement, licensing requirements and supporting communications. A number of significant reforms have been delivered under this priority area.

Enhanced Enforcement Program 2018–19

The Enhanced Enforcement Program (EEP) continues to deliver high visibility Police road safety enforcement in addition to normal operations, to deter unsafe road use. The NSW Government is spending $250 million over five years from July 2018 for enhanced enforcement, including for 50 additional highway patrol officers, training for up to 1,000 general duties officers in speed enforcement, increased roadside alcohol testing, and a doubling of mobile drug testing to 200,000 tests by 2020.

In the 2018–19 financial year, almost 214,750 additional on-road enforcement hours were committed through the EEP, more than 138,300 roadside mobile drug tests were conducted, and 48 out of the 50 additional regional highway patrol positions were filled.

Enhanced Enforcement operations included nine major routes, with eight conducted in regional NSW each trimester and one within the metropolitan orbital network (targeting the M2, M4, M7, and M5). State-wide operations were generally conducted over long weekends and holiday periods, often complementing double demerit point periods.

Pedestrian safety

Pedestrian safety around buses

Transport for NSW delivered a bus safety campaign ('Be Bus Aware') in August–September 2019, targeting the Sydney metropolitan area. Key messages included; reinforcing that buses are heavy vehicles that are unable to stop quickly, the need for pedestrians to be alert, obey traffic signals and 'look out before they step out'. The campaign included a media event, advertising on the public transport network, distribution of a stakeholder communications toolkit and a series of social media posts which collectively reached more than 100,000 people via the NSW Road Safety Facebook page.

Be Bus Aware campaign

National Walk Safely to School Day

Transport for NSW was a sponsor of the Pedestrian Council of Australia's annual National Walk Safely to School Day held in May 2019.

The day encouraged families to walk children to and from school to help reinforce safe pedestrian behaviour and highlight the environmental and health benefits of regular walking. More than one million school students travel to and from school each day in NSW and this event helped families reinforce the key road safety messages promoted in NSW schools.

Speed camera enforcement

Police speed enforcement is complemented by speed camera enforcement which includes fixed speed cameras (and red-light cameras), mobile speed cameras and heavy vehicle average speed cameras. Additionally, speed surveys are conducted at 175 sites with the data collected used to assess the impact of the Speed Camera Program and inform targeted NSW Police Force enforcement operations.

As at the end of December 2019 there were 110 fixed speed camera locations, 186 red-light speed camera locations, 25 heavy vehicle average speed camera locations and 1,024 mobile speed camera locations.

Running red lights can lead to serious T-bone crashes or vehicles crashing into pedestrians. Transport for NSW is working to expand the red-light speed cameras program. As at December 2019 there were 188 locations, which will be increased to 201 locations in 2020.

The most recently published NSW speed camera review (2018) found fatal and serious injury crashes fell by more than a third at red-light speed camera locations, and pedestrian casualties fell by nearly half.

People can sign up for alerts to changes in camera locations by visiting www.saferroadsnsw.com.au.

The heavy vehicle average speed camera program currently covers 25 lengths primarily in regional areas. To address risks associated with a greater number of truck movements work is underway to implement additional average speed cameras sites in Sydney in 2020.

Speed Adviser app

First released in February 2014, Speed Adviser provides free access to accurate speed zone information across the NSW road network. Up to the end of December 2019, there had been more than 187,000 downloads of this app.

Drink and drug driving

Drink and drug driving penalties

Tougher penalties commenced on 20 May 2019 to further deter drink and drug driving and reduce trauma on NSW roads. Changes included: drivers who commit a first-time lower-range drink driving offence can now have their licence suspended immediately at the roadside, effective for three months, together with a $581 fine (effective 1 July 2020). Penalties for drivers who commit an offence of driving with the presence of an illicit drug for the first time also changed. They can receive a three month licence suspension and a $581 fine (effective 1 July 2020).

The commencement of these penalties represented the second phase of the NSW Government's drink and drug driving penalty reforms. The previous phase, commencing in 2018, included increasing maximum court-imposed penalties for driving under the influence of alcohol or a drug, introducing mandatory alcohol interlocks for all mid-range drink driving offenders as well as vehicle sanctions at the roadside for high-risk repeat drink driving offenders.

The reforms were supported by a state-wide integrated communication and education campaign across digital, social and radio media.

Drink and drug drive enforcement 2018–19

The NSW Police Force conducted more than 5.7 million random breath tests (RBT) in 2018–19 financial year.

During 2018–19, $8.1 million was invested from the Community Road Safety Fund into roadside drug testing, with 138,300 mobile drug tests conducted. The Mobile Drug Testing Program is designed to deter drivers through the unpredictability of roadside drug testing and operates alongside Random Breath Testing Program.

Mandatory Alcohol Interlock Program (MAIP)

The Mandatory Alcohol Interlock Program has operated as a court-ordered penalty for repeat and high-range drink drive offenders since February 2015, with a requirement to only drive a vehicle with an alcohol interlock device installed. In December 2018, the program was expanded to also apply to mid-range drink drive offenders. Interlocks prevent drivers from drink driving, and allow offenders to learn how to separate their drinking from their driving.

By 6 December 2019, a total of 13,863 interlock licences have been issued by Transport for NSW (formerly Roads and Maritime Services) since the mandatory interlock program began in February 2015. In the 12 months to December 2019, a total of 5,517 interlock licences have been issued.

Driver distraction – mobile phones

In September 2018 the number of demerit points for mobile phone offences increased from four to five points (10 during double demerit periods). Legislation came into effect on 1 July 2018 to enable camera-based technology to be used to detect illegal mobile phone use by drivers.

A pilot to investigate new camera enforcement technology to detect illegal mobile phone use was undertaken during 2019. During the pilot, the system checked 8.5 million vehicles and found more than 100,000 drivers using their phones illegally, no penalties were issued under the pilot. Outcomes of the pilot were reviewed and the technology was demonstrated to be effective.

Following the success of the pilot, TfNSW commenced a world first camera detection program for illegal mobile phone use on 1 December 2019. The program includes both fixed sites and relocatable trailer-mounted camera systems. The program will progressively expand to perform 135 million vehicle checks annually by 2023. The program operated in warning letter mode for the first three months to reinforce the 'get your hand off it' message.

The program was supported by a comprehensive communications campaign on radio, TV and online to increase awareness of the road rules relating to illegal mobile phone use and encourage compliance.

There is strong community support for the use of cameras to enforce illegal mobile phone use with 80 per cent of people surveyed supporting the use of the mobile phone detection cameras.
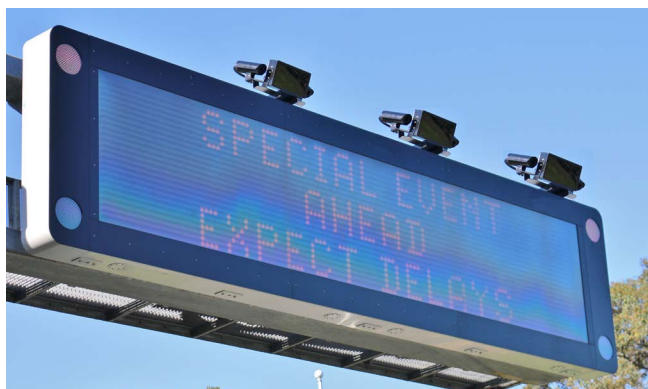
Driver fatigue campaign

The 'Don't Trust Your Tired Self' campaign continued in 2018–19 to improve awareness of driver fatigue and give road users actions they can take to combat fatigue and avoid driving tired. The campaign recognition remains strong with 69 per cent of the target audience recognising the campaign. The campaign website (https://testyourtiredself.com.au/) provides drivers with a way to assess their tiredness before getting behind the wheel. Since its launch in 2013, this website has had over one million visitors and more than 300,000 tired test completions.

Driver Reviver Program

The NSW Government supports Driver Reviver sites across NSW, which are open during peak travel times to encourage drivers to stop and take a break. In 2018–19, Driver Reviver sites across the state were open for the equivalent of 1,388 days.

Safer Drivers Course

Transport for NSW continued to support the Safer Drivers Course (SDC) with $4.85 million in funding for 2018–19 and over 129,600 participants progressing to their provisional licence since it began in 2013, including more than 28,500 learners completing the SDC and progressing to their P1 licence between July 2018 and June 2019. In April 2019, the Disadvantage Initiative eligibility criteria was expanded to offer free places to participants of the Driver Licensing Access Program (DLAP), giving more learner drivers from disadvantaged backgrounds the opportunity to access the benefits of undertaking the SDC.

Safety around emergency vehicles

On 1 September 2018 a new road rule was trialled requiring drivers to slow down to 40 km/h when passing stationary emergency vehicles with flashing blue or red lights. The NSW Government monitored the implementation of the rule from its introduction on 1 September 2018 and how it impacted on the safety of emergency workers and the safety and behaviour of road users.

Following a 12 month trial, the rule was changed on 26 September 2019 to improve safety. The updated rule requires drivers, when passing a stationary emergency vehicle, tow truck or breakdown assistance vehicle displaying flashing lights to:

- Slow down to a speed that is reasonable for the circumstances and provide sufficient space for the stationary vehicle (including changing lanes on multi-lane roads if safe to do so) on roads with a speed limit of 90 km/h or more
- Slow to 40 km/h on roads with a speed limit of 80 km/h or less.

A public education campaign and stakeholder engagement activities supported the implementation of the rule in 2018 and again in September–October 2019 when changes were made.

Slow down, move over and give space public education campaign

Level crossing safety

In 2019, Transport for NSW delivered four level crossing police enforcement campaigns in regional NSW, and three bursts of the 'Don't Rush To The Other Side' level crossing safety education campaign under the Level Crossing Improvement Program.

To improve safety at railway level crossings four major upgrades, plus concept and detailed designs for a further eight major upgrades, were delivered as part of the Level Crossing Improvement Program in 2018–19.

Transport for NSW held a level crossing safety exhibition in August 2019 with NSW Trains and Australian Rail Track Corporation at the AgQuip Field Days to promote level crossing safety messages to regional customers. Transport for NSW also participated at the Henty Field Days (September 2019) and National Field Days (October 2019) events.

Road safety campaigns

In 2018–19, Transport for NSW delivered a range of highly-recognised and effective behavioural communication campaigns to promote safe behaviours on the roads.

The investment in campaigns for 2018–19 was $21.3 million with 78 per cent of NSW motorists recognising a road safety campaign across all channels.

Stop It… Or Cop It enforcement campaign

The 'Stop It…Or Cop It' campaign continued to increase awareness that any NSW Police Force officer can enforce illegal road user behaviour anywhere. High visibility enforcement combined with the perceived certainty of enforcement and immediacy of a penalty is known to provide a strong deterrent to illegal road user behaviour. Enforcement is targeted and coordinated so that Police address risks identified in particular geographic areas and respond to emerging issues. In 2019, the campaign evolved to include drug driving and double demerits.

What's your Plan B? drink driving campaign

The 'What's Your Plan B?' campaign, that commenced in 2012 and continued in 2019, reinforces the idea that people should not drink and drive and the need to plan ahead and make alternative arrangements. The campaign delivery has an emphasis on outdoor, transit and in-venue advertising within licensed venues to target drivers at the point of behaviour. The campaign is supported by statewide social media and regional activity is further supported by radio advertising.

Be Truck Aware heavy vehicle safety campaign

To support improved heavy vehicle safety Transport for NSW continued to deliver the 'Be Truck Aware' campaign. The campaign aims to prevent road crashes and potential fatalities by highlighting the unique driving factors affecting trucks, such as large blind spots and safe distances, and encouraging safe behaviours when travelling around trucks from drivers, and pedestrians, bicycle riders and motorcycle riders.

Ride to Live motorcycle safety campaign

The 'Ride to Live' campaign provides riders with information about the risks they face on the road and how they can manage them. It includes advertising on TV, radio, billboards, online and on buses, as well as YouTube videos, and a 'Ride to Live' website featuring interactive hazard tests. The campaign targets commuter and recreational riders as well as drivers, and has a campaign recognition of 88% based on campaign tracking research conducted in November 2019.

The 'Ride to Live' website (https://ridetolive.nsw.gov.au/) has had more than 300,000 visits since its launch and was enhanced in 2019 to improve its usability on mobile phones.

The 'Roads We Ride' motorcycle safety series continued with a new video on Kangaroo Valley in early 2019. Roads We Ride creates bespoke content by riders for riders, allowing Transport for NSW to integrate safety messaging and risk mitigation tactics into the content. The campaign was awarded with a prestigious Mumbrella Award for Content Marketing Strategy of the year.

Roads We Ride – Kangaroo Valley social media video

Look Out Before You Step Out pedestrian safety campaign

The 'Look Out Before You Step Out' campaign targets metropolitan areas with higher pedestrian volumes, including Sydney, Newcastle and Wollongong. It encourages pedestrians to stay focused when crossing the road and to obey the road rules.

The campaign includes outdoor, radio, print and digital advertising, as well as social media channels, targeting high pedestrian areas and the message is also marked on the ground at known crash locations.

A new 'Head's Up' light rail safety campaign was launched late in 2019 to coincide with tram testing to encourage pedestrians in Sydney to remain alert for trams.

Bus Safety Week

Bus Safety Week took place in February 2019 with the aim of improving the safety of all drivers, riders, pedestrians and passengers, and helping to reduce fatalities and injuries involving buses. NSW has one of the largest metropolitan bus fleets in the country, with around 4,000 buses operating in the Sydney metropolitan area and more than 1,000 in Newcastle, Wollongong and the Blue Mountains. There are also around 3,000 buses operating on regional and country roads. Between 2014 and 2018, 34 people were killed in bus crashes in NSW, and in the five years to June 2018, 454 people were seriously injured.

Fatality Free Friday

Fatality Free Friday was held on 31 May 2019 and supported by the NSW Government with a media conference at Parliament House and the temporary installation of an inflatable car on which Members of Parliament were encouraged to sign a pledge to drive safely.

Bus flashing lights

The 'Bus Flashing Lights' campaign helped promote the rule that motorists must slow down to 40 km/h when bus lights flash. This campaign occurs at the start of each school term and includes radio, social media and web content.

Road safety engagement and partnerships

Yellow Ribbon National Road Safety Week

The arch of the Harbour Bridge was lit up in yellow with projections on its eastern pylons as part of the NSW Government's contribution to National Road Safety Week from 6 to 12 May 2019. This annual initiative is led by the Safer Australian Roads and Highways Group and is supported by all states and territories. The week honours the memory of those killed on the nation's roads each year and encourages everyone to think about their behaviour on the road. Members of NSW Parliament wore yellow ribbons to raise awareness of the week, and NSW Police and Transport for NSW fleet vehicles carried yellow ribbon stickers. Transport for NSW also promoted educational messages through social media.
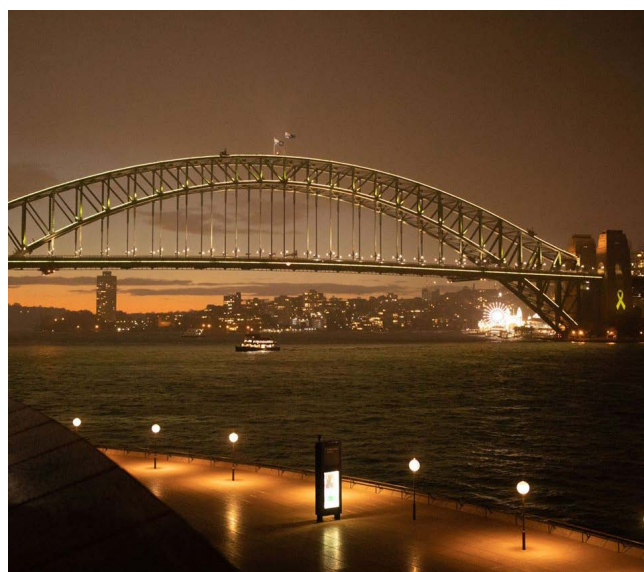
Road Rules Awareness Week

Drivers were urged to brush up on their knowledge during Road Rules Awareness Week from 8 to 14 April 2019. The annual initiative generated significant social media engagement, reaching over 3.3 million people, and activities during the week aimed to inform and motivate road users. The 2019 campaign focused on the three biggest killers; speeding, fatigue and drink driving. The campaign also highlighted the most misunderstood road rules, including those around pedestrian safety and traffic intersections.

Royal Easter Show

Road safety was a key focus of the Transport for NSW stand at the Sydney Royal Easter Show. The NSW Police Force joined the stand under the 'Towards Zero' banner. A display of two vehicles crashed under test conditions at 60 km/h and 100 km/h was used to educate visitors about the impact of speed and the benefits of vehicle safety technologies, while families with babies and young children were able to inspect a child car seats display and ask questions of a fitting expert.

Transport for NSW stand at the Sydney Royal Easter Show

Partnerships

Western Sydney Wanderers

The NSW Government partners with the Western Sydney Wanderers (WSW) A-League soccer team to raise awareness of the dangers of speeding. The partnership enables road safety messages to reach soccer supporters in Western Sydney by leveraging established relationships between clubs, players and fans. The sponsorship includes signage at home games, social and digital access to the team's channels to promote a 'slow down' message.

Cricket NSW

The NSW Government's partnership with Cricket NSW involves NSW Blues and Big Bash League (BBL) teams promoting the 'Plan B' campaign to encourage people to make safe decisions about drinking and driving. As well as better engagement among cricket fans through social and digital promotions, one of the highlights of the partnership for 2019 was a game against the NSW Blues at the Sydney Cricket Ground. To make the squad, entrants needed to demonstrate their reliability, on and off the field, and understand the importance of planning ahead to get home safely when going out drinking. The game provided state-wide Plan B exposure.

Winners of the game against the NSW Blues.

Funded partners

Transport for NSW managed a number of partnerships to support the delivery of road safety programs and messages across the community. The funded partners include organisations such as the Motorcycle Council of NSW, Wheelchair Sports, Road Safety Education Ltd (RYDA), and Kidsafe.

Building a safer community culture

To support road safety as a partnership with the community, a range of activities were implemented to support engagement in road safety and to inform and motivate road users to use the road safely. Aligned to the Road Safety Plan 2021, these activities included:

Younger drivers

Compared to the four years before the introduction of the Graduated Licensing Scheme in July 2000, there has been a 77 per cent reduction in the rate per licence of learner drivers killed on our roads and a 51 per cent reduction in the rate per licence for P1 drivers killed during the most recent four year period 2016–17 to 2019–20p.

Transport for NSW in partnership with local government, delivered free Helping Learner Drivers Become Safer Driver workshop for parents and supervisors of learner drivers. In 2018–19, 98 workshops were delivered across NSW to 1,420 attendees. This included 43 Culturally and Linguistically Diverse (CALD) presentations using language assistance.

In 2018–19, 224 TAFE workshops targeting young apprentices, who are at high risk of crashes due to their age, inexperience and the need to travel long distances, were delivered to over 3,825 participants.

Older road users

In 2018–19, 92 senior Stepping On pedestrian presentations were delivered to a total of 1,540 people. This included 63 CALD presentations, using language assistance for 1,152 participants. These aim to provide road safety messages for older people as part of the Health program designed to build knowledge, strength and confidence to prevent falls and stay active and independent.

In 2018–19, 116 Older Driver (65Plus) workshops were delivered to 2,665 people. This included three CALD presentations, using language assistance. These aim to provide advice and safety tips for road users aged 65 or over to help make safer choices when driving, riding, walking, using a mobility scooter or catching public transport.

Community Road Safety Grants

The Community Road Safety Grants Program provides community groups funding to implement local road safety programs within their communities.

Twenty nine community groups were awarded funds totalling $435,375 to implement road safety projects across NSW under the fifth round of the Community Road Safety Grants, announced in November 2019.

Since 2015–16, 140 projects (including the latest round) have been funded under the Grants.

Towards Zero Community Partnerships

In the second half of 2019, Transport for NSW began work on the Road Safety Plan 2021 commitment to develop a Towards Zero community partnership with local government, institutions and business to improve local road safety across NSW.

A Steering Committee comprising representatives of local government, NSW Government agencies, the community sector and academic and training organisations was established to advise on the project.

The first steps of the project included a statewide survey of local councils and an online discussion forum for council leaders to gather feedback on opportunities and barriers relating to local government partnerships with communities on road safety initiatives.

Working with employers

Almost 30 per cent of workplace fatalities are a result of road crashes, which is why the Road Safety Plan 2021 highlights the need to work with employers. 'Road Safety and Your Work: A Guide for Employers' was released in October 2018 to help employers and industry embed a road safety culture for safe work-related travel. The guide supports organisations with vehicle fleets establish internal policies and guidelines for safe work-related travel. It provides information about the ways employers can help their workers reach their destination safely and improve road safety culture.

In 2019, Transport for NSW further expanded the Road Safety in Your Workplace project in partnership with the State Insurance Regulatory Authority. Training workshops with Transport for NSW staff and local government Road Safety Officers were held throughout the regions of NSW to develop expertise in a suite of resources that have been created to support and enable them to directly engage with employers and industry within their respective regions. Transport for NSW has also held a number of events throughout NSW with the assistance of local industry and local government, and launched a dedicated social media campaign through Facebook and LinkedIn directly targeting employers. Uptake has been strong with a number of small, medium and large employers, as well as NSW Government agencies, adopting aspects of the resources and the Guide.

Aboriginal road safety

The age standardised road fatality rate for Aboriginal people was around 2.1 times that for non-Aboriginal people.

The Transport for NSW Reconciliation Action Plan commits TfNSW to engaging positively with Aboriginal and Torres Strait Islander peoples, and to do this by working collaboratively and respectfully with Aboriginal and Torres Strait Islander staff, Aboriginal Peak Bodies, and with the communities in which it operates.

Transport for NSW uses recognised channels to engage with Aboriginal communities including Aboriginal Peak Bodies, Local Decision Makers, key stakeholders and other NSW Government agencies.

Aboriginal community events

Aboriginal people from across NSW were engaged in conversations about safe road use at several major events in 2019. These events included the Yabun Festival in January, NAIDOC Week in July, and the NSW Koori Rugby League Knockout competition held over the long weekend in October.

At the Knockout, Transport for NSW supported players and spectators by providing free buses to and from the parking site to the sporting complex. Buses were wrapped in Aboriginal designs and 'Bring the Mob Home Safely' messaging was featured on an intercity train and at Tuggerah Station.

First female indigenous AFL youth program

In July 2019, AFL NSW/ACT launched the Female Indigenous Youth Leadership Program in partnership with Transport for NSW. The program aims to encourage road safety awareness, leadership and well-being among young Indigenous women. It also covers decision-making, leadership principles, goal setting, culture and identity.

More than half of the 54 young women aged between 12 and 15 in attendance were from regional NSW and often spend a long time on the road travelling to games.

Transport for NSW has been a partner of the AFL NSW/ACT since 2014, harnessing the power of football to bring young people together from Indigenous communities across NSW.

Driver Licensing Access Program

Transport for NSW continued to deliver the Driver Licensing Access Program (DLAP), which assists people from communities with lower rates of driver licence attainment to obtain and retain their driver licence, including many Aboriginal communities, some Culturally and Linguistically Diverse communities (including refugee and resettlement communities identified by Multicultural NSW), and people from low socio-economic backgrounds. The program was expanded again in 2018–19 with $2.8 million allocated to DLAP funded by the Community Road Safety Fund and included $300,000 from the State Insurance Regulatory Authority. This resulted in 1,010 learner licences and 728 provisional licences being achieved across more than 80 communities.

Early childhood and school road safety education

Transport for NSW has funded the Road Safety Education Program for over 30 years. The program is a partnership between the Transport for NSW, Department of Education, Catholic Schools NSW, the Association of Independent Schools of NSW, and Kids and Traffic Early Childhood Road Safety Education Program. All NSW primary and secondary students learn about road safety as part of the mandatory Personal Development, Health and Physical Education (PDHPE) syllabus. In NSW early childhood services, road safety is integrated as part of the Early Years Learning Framework.

The NSW Government invests $5 million per annum to provide road safety education consultancy support to teachers and classroom resources in over 3,000 primary and secondary schools, and more than 3,500 early childhood services across NSW. The program provides a focus on professional development for school teachers and early childhood educators, and quality learning resources to support the teaching about road safety in NSW.

The Safety Town website (https://www.safetytown. com.au/) for primary school students, has continued to grow in popularity, with new activities focusing on tram safety being added in 2019. More than 68,000 users visited the site during 2018–19, viewing about 855,000 pages.

The On the Move website (https://onthemove.nsw. edu.au/) for secondary PDHPE teachers had more than 5,300 users visit the site during 2018–19, viewing about 41,000 pages.

The Kindergarten Orientation Road Safety Library Bags attracted strong demand again in 2019, with over 70,000 bags ordered by NSW primary schools to share road safety information with new families.

School Crossing Supervisor Program

There was continued investment in the School Crossing Supervisor Program which, at end June 2019, provided protection at 804 crossings at 689 schools across NSW, with an investment in 2018–19 of $14.3 million. New School Crossing Supervisors were announced in August 2019, as part of the January 2019 announcement of $18.5 million over four years for 300 additional Supervisors across the state. As at January 2020, 46 additional supervisors had commenced at 46 additional crossings across the state. Transport for NSW is continuing to work with school communities to assess and identify school crossing supervisor locations, prioritised based on road safety need, throughout the remaining years of the program.

Bstreetsmart event

Transport for NSW was the major sponsor of Western Sydney Local Health District's bstreetsmart event. In September 2019, the event was attended by 23,000 students from 209 high schools. The event compliments what students learn in road safety education programs in schools, such as strategies to help make decisions that improve their chances of avoiding a crash.

To support the bstreetsmart event, over 500 teachers were provided with road safety information and curriculum activities to facilitate student learning back in the classroom.

Road Safety Behavioural Program

Through the Community Road Safety Fund, the Road Safety Behavioural Program in NSW delivers behavioural-focused road safety initiatives at a regional and local level to reduce the incidence and severity of crashes in the NSW road environment. The program delivers a range of sub-programs targeting key road safety behavioural issues and at-risk road user groups with a focus on engagement and education. This includes delivery of a range of works including:

- Programs targeting key behavioural issues i.e. speeding, drink and drug driving, distraction, fatigue, restraint use
- Programs targeting key road user groups i.e. motorcyclists, young drivers, heavy vehicle drivers, bicycle riders, pedestrians and older road users
- Support to the Enhanced Enforcement Program
- Program management of the Local Government Road Safety Program.

Examples of work delivered under the Program include workshops (TAFE, On the Road 65 Plus, Helping Learning Drivers Become Safer Drivers) attendance at road safety related events, public education to support campaigns, Liquor Accord

Initiatives, and collaboration with local Police to increase/target enforcement. Details of the program are covered throughout this report.

Local Government Road Safety Program

The Local Government Road Safety Program is a partnership between Transport for NSW and local councils. Participating councils receive up to 50–50 funding for a Road Safety Officer position and/or funding for local road safety projects. They must also develop a multi-year action plan outlining Council's proposed programs and projects to address local road safety priorities using the Safe System approach to road safety. In 2018–19 the program spent $5.3 million across the State. Of the 129 LGAs in NSW, there are 79 participating in the program employing 76 Road Safety Officers in 2018–19. The continued delivery and refinement of the Local Government Road Safety Program is a commitment under the Road Safety Plan 2021.

Motorcycle safety

The number of motorcyclists on NSW roads is increasing and they are some of our most vulnerable road users, with motorcyclists over-represented in road crashes. Motorcycles only account for around 4 per cent of all motor vehicle registrations but in 2019, 19 per cent of all road fatalities (68 fatalities) were motorcyclists.

Since 2012, Transport for NSW has been sponsoring Motorcycle Awareness Month which was held in October 2019 with the aim of improving safety for riders and other road users.

At a breakfast for motorcycle riders to celebrate the launch of the month, Minister for Transport and Roads Andrew Constance and Minister for Regional Transport and Roads Paul Toole released safety ratings for 30 helmets under the Consumer Rating and Assessment of Safety Helmets (CRASH), a consortium of Transport for NSW, Insurance Australia Group and Transport Accident Commission.

In November 2019, Transport for NSW hosted a stand at the Australian Motorcycle Festival in Wollongong where visitors were given information on safe riding techniques, and encouraged to use the CRASH and MotoCAP ratings to guide their choices of helmets and riding gear.

NSW road safety online activity

The NSW Road Safety Facebook page had a total reach of over 111 million (where people saw posts) and achieved over 4.5 million engagements (when people interacted with posts) from 1 July 2018 to 30 June 2019. Transport for NSW recruited more than 30,000 new followers during 2018–19, resulting in a total Facebook community of more than 187,000 followers.

The top performing published posts on NSW Road Safety Facebook during 2018–19 were the introduction of the new slow down to 40 km/h around emergency vehicles road rule (unpaid reach of 2.9 million) and Crashlab footage of a bicycle rider being hit by an open car door (unpaid reach of 990,000).

In addition, the right of way quiz, mobile phone detection camera pilot video, chevron animation and motorcycle lane filtering animation posts all attracted media attention after being published on Facebook, which facilitated further coverage of the key messages and road safety programs.

More than 2.2 million users visited the Transport for NSW Centre for Road Safety website (https://roadsafety.transport.nsw.gov.au/) during 2018–19, resulting in approximately 5.8 million page views. Some of the most popular pages included the restricted vehicle search for provisional drivers (425,000 page views), child car seats (260,000 page views), know the rules for mobile phone use (237,000 page views) and drink driving reforms (170,000 page views).

The Towards Zero website (https://towardszero.nsw.gov.au/) was regularly updated with content related to the Road Safety Plan 2021, including media releases and topic-based videos. The website had more than 349,000 users in 2018–19, resulting in more than 575,000 page views. Some of the most popular pages included Saving lives on Country Roads (219,000 page views) and the Safe System (103,000 page views).

The Safety Town website (https://www.safetytown.com.au/) for primary school students has continued to grow in popularity, with a new pedestrian activity added for years five and six in 2019. More than 68,000 users visited the site during 2018–19, resulting in approximately 850,000 page views. The On the Move website (https://onthemove.nsw.edu.au/) for secondary PDHPE teachers had more than 5,300 users visit the website during 2018–19, resulting in approximately 41,000 page views.

New and proven vehicle technology

As highlighted by the Road Safety Plan 2021, vehicle design and safety equipment can significantly improve safety when on the road.

Transport for NSW delivers a range of programs to drive safety through vehicle and equipment safety, and also support informed consumer choice.

Safer vehicles

The Safe System approach shows that driving on roads with appropriate safety features at appropriate speeds, in the safest vehicles reduces crashes and crash outcomes. In 2018–19, 90 percent of all new light vehicles sold in Australia had a five star ANCAP rating.

At the end of 2018, 45 per cent of all light vehicles registered in NSW that were manufactured after 2000 had a five-star ANCAP rating, an increase of three per cent from 2017 (41.9 per cent). In metropolitan areas, 48 per cent of light vehicles registered that were manufactured after 2000 (up 3 per cent) have a five-star rating, compared to 41 per cent in regional areas (up 4 per cent).

Bull bars regulatory framework

The NSW bull bar specifications which have been in place through a Ministerial Order since 2014 were made permanent. On 16 September 2019, the Road Transport (Vehicle Registration) Regulation was amended so bull bars are no longer required to comply with Australian Standard AS 4876.1 but instead are required to comply with the 'Technical specification: Requirements for Vehicle Frontal Protections Systems Fitted to Light Vehicles' which is published on the Transport for NSW Centre for Road Safety website. This provides for safety, as well as ensuring clear and consistent guidance for industry and customers.

NSW Government fleet policy reforms

With the increasing uptake of vehicle safety features in new vehicles in the market, more models now meet the criteria specified in the NSW Government's Light Vehicle Procurement Policy. This policy was updated in line with the Road Safety Plan 2021 to include additional safety features. The number of eligible models is increasing and added to the eligible vehicles list as they become available.

Australasian New Car Safety Ratings (ANCAP)

Transport for NSW is a key contributor to and member of the ANCAP Board, Council and Technical Group. ANCAP released safety ratings for 35 light vehicles in 2018–19. In 2018–19, 90 percent of all new light vehicles sold in Australia had a five star ANCAP rating. Vehicles are evaluated against four key areas of assessment: adult occupant protection; child occupant protection; vulnerable road user protection; and safety assist.
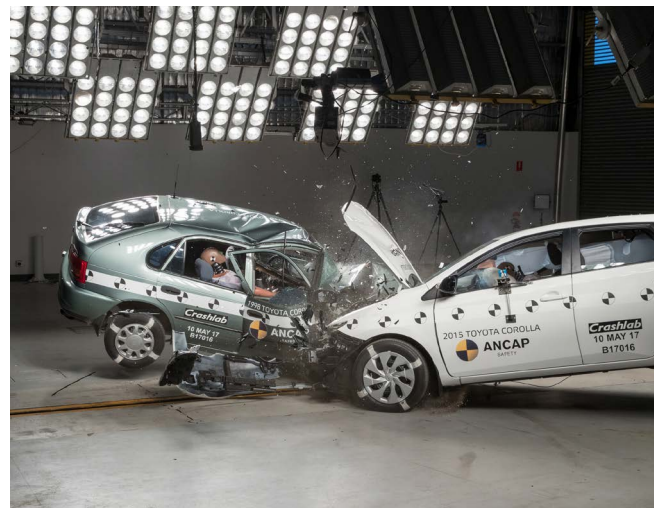
Safer vehicle choices

The 'Safer Vehicle Choices Save Lives' campaign was launched in November 2018 and continued in May 2019 to call on vehicle owners to check the ANCAP or Used Car Safety Rating of their vehicle and/or a vehicle they are intending to buy.

Safer Vehicle Choices Save Lives Campaign

Occupant restraints and child safety

The Child Restraint Evaluation Program (CREP) tested 31 child car seats in 2019. The results are being published as they became available to ensure the currency of information provided to consumers.

The Child Car Seats website (https://www. childcarseats.com.au/) allows parents and carers to compare the price and safety ratings of about 248 different types of seats and to find Authorised Restraint Fitting Stations.

During 2019, more than 351,000 users viewed about 1.25 million pages on the website and since its 2014 launch there have been more than two million visitors to the site.

In 2018–19, 742 restraints were checked at 18 Child Restraint Checking Days were conducted across the state in partnership with local council Road Safety Officers and the NSW Police Force.

Heavy vehicle safety

A new technical specification for wig wag lights fitted to buses carrying school children took effect in February 2019. The specification:

- Increases the size and contrast of warning signs
- Increasing the brightness of the flashing 'wig wag' lights
- Introduced a boundary of 100 mm under the 'WHEN LIGHTS FLASH'
- '40 km/h' speed limit signs to exclude advertising text or images
- The required signs to be placed on the bus so that their appearance is not concealed or distorted in any way.

The Australian Design Rules for heavy vehicle stability control will come into effect for new applicable models from 1 November 2020, and for all new applicable vehicles from 1 January 2022.

In the second half of 2019, Transport for NSW coordinated a submission on behalf of Government agencies on a Regulatory Impact Statement (RIS) to amend national vehicle standards to introduce autonomous emergency braking for heavy vehicles. The outcome of the feedback on the RIS is currently being assessed.

Transport for NSW was part of the Rural and Regional Seatbelt Program Taskforce, which was investigating ways to reduce the risks to children travelling to-and-from school on buses in rural NSW, including ways to allow more children to be carried safely on buses and not be left at bus stops in remote areas.

Crashlab – safety research laboratory

To ensure NSW is at the forefront of vehicle and equipment safety, Transport for NSW, via the Community Road Safety Fund, provides funding for Crashlab, which conducts national research and commercial vehicle crash testing services using the latest technologies in its accredited testing laboratory. Crashlab also carries out tests on child restraints and motorcycle and bicycle helmets.

New 'Future Transport Testing Facility" at former Cudal airport

The future transport test facility at Cudal

To support the development of new and proven vehicle safety systems technology as outlined by the Road Safety Plan 2021, a future transport testing facility has been established at the former Cudal airport in the State's Central West. This facility provides a simulated, open road to enable testing of safety systems such as autonomous braking, lane departure warnings and speed control functions. It can also be used to assess emerging safety related technologies such as vehicle to traffic signal communications and complex vehicle-to-vehicle systems along with continued development of smart highways. In the longer term, it can be used as a testbed for a wide range of future transport options.

Used Car Safety Ratings (UCSR) buyers guide

The '2019–20 Used Car Safety Ratings Buyers Guide' released on 4 September 2019 provides a comprehensive picture of the safety of all different types of used light vehicles on the market. The guide covers about 300 different makes and models of cars and gives safety ratings out of five stars. There are five star vehicles in every category ranging from light cars and SUVs, through to people movers and utes. It also identifies 'safer picks', which are vehicles that give excellent protection to the driver, cause less serious injury to other road users and include crash avoidance technology. The ratings show that some of the highest rating vehicles are priced between $5,000 and $10,000. The guide is based on an analysis of records from more than 8.3 million vehicles involved in road crashes and 2 million injured road users in New Zealand and Australia between 1987 and 2017 to produce the ratings.

Motorcycle Protective Clothing Assessment Program (MotoCAP)

Transport for NSW led the development of the Motorcycle Clothing Assessment Program (MotoCAP) with MotoCAP being a consortium of partners including government agencies, private organisations and motorcycle stakeholders. MotoCAP and the associated website was formally launched in September 2018. MotoCAP is a world-first rating system for motorcycle clothing and aims to improve information for riders, and encourage manufacturers to produce effective protective clothing. By the end of 2019, MotoCAP had assessed 171 items, comprising 43 pairs of pants, 82 jackets and 46 pairs of gloves. The impact MotoCAP has made is demonstrated by it being awarded the prestigious Fédération Internationale de Motocyclisme Road Safety Award for 2019.

Motorcycle helmets

The Consumer Rating and Assessment of Safety Helmets (CRASH) tests motorcycle helmets against a range of criteria including protection and comfort, therefore providing riders with a guide to the safest and best helmets available. CRASH is delivered by a consortium of government agencies including Transport for NSW. By the end of the 2018–19 financial year over 210 helmet models had been rated since CRASH commenced in 2010. This included 30 motorcycle helmet models tested with the results released in October 2018 at the Australian Road Safety Conference.

In October 2019 the CRASH database was increased by another 30 ratings. Both CRASH and MotoCAP were promoted at the Australian Motorcycle Festival in Wollongong in November 2019.

Connected and automated vehicles

The Highly Automated Vehicle Safety Initiative (HAVSI), which commenced in 2018, seeks to increase Transport for NSW's understanding of the road safety risks, infrastructure requirements and potential road safety benefits of highly automated vehicles. The project was expanded in 2019 by conducting assessments in the NSW Snowy Mountains region where issues relating to line marking and road sign recognition were identified. Learnings from the research will be shared with vehicle manufacturers and road authorities to facilitate the introduction of automated and highly automated vehicles in NSW.

Cooperative Intelligent Transport Initiative (CITI) project

The Cooperative Intelligent Transport Initiative (CITI), which commenced in 2012 with the establishment of Australia's first long term cooperative intelligent transport systems testbed, evaluates the road safety potential of connected-vehicle technology. This technology allows the sharing of information between vehicles and roadside infrastructure such as traffic signals. The system can warn drivers of potential road safety hazards. The project was expanded in 2019 by the successful testing of a railway level crossing at Port Kembla, which warns approaching motorists when the crossing is closed to traffic. An additional railway level crossing at Unanderra, Wollongong was also identified as being suitable for inclusion in the testbed. Five additional traffic signal sites were also added to the testbed in 2019. Planning to implement a program of works for the expansion of the CITI program is in the advanced stages. Seven projects have been identified with priority given to projects relating to 'Road Hazard Warning' and 'Extended capability of the CITI testbed'.

Building a safe future

During 2018–19 Transport for NSW advanced work to help better plan, develop, design, operate and maintain the transport system with a view to eliminating future trauma. The following actions were undertaken to deliver this priority area.

Pathways to target setting project

The Road Safety Plan 2021 includes a commitment to set new road safety targets every 10 years to move toward zero trauma. Transport for NSW has been developing a roadmap for setting future road safety trauma targets and performance targets, with the project continuing in 2020. The work is based on methodologies applied in Sweden to manage their road safety performance. Key aims are to:

- Better understand the extent to which existing trauma will be prevented in the future by current and planned measures, and the nature of trauma that will still exist

- Identify the combination of interventions likely to eliminate or reduce future trauma

- Identify a roadmap for setting targets on the way toward zero by 2056, and propose specific interim targets.

A critical part of the project involves detailed investigation of all 2018 fatalities through 'case-by-case analysis', which is a new and innovative approach to analysing current trauma and forecasting future trauma.

Further detailed analysis will allow consideration of different scenarios and additional measures to eliminate future trauma, as well as setting of future road safety targets to drive safety performance improvements across the transport system.

Barrier and signage testing

Transport for NSW undertook testing of roadside barrier designs, and testing of sign posts to ensure they are 'forgiving' if hit by a motorcycle rider.

Safe System training

Transport for NSW continued to facilitate Safe System training in the 'Road Practitioners Guide'. This is targeted as an introduction to Safe System and to complete a 'Safe Systems Assessment Framework' to maximise outcomes across a range of projects. Several workshops have been rolled out targeting road practitioners working in Regional Maintenance and Delivery, Network and Safety, Assets, media and other teams across former Roads and Maritime Services' regions.

Supporting safer road design

Not all roads require the same design to be safe. That is, a high speed motorway needs very different features compared to a local street to make it safe, because the speeds travelled on them and the mix of vehicles using them can vary. During 2018–19 work continued on the development of a stereotype road cross section for high speed roads, to support safe design and implementation decisions across major projects and existing programs. The stereotype demonstrates how higher volume roads can be fitted with flexible safety barrier, widened shoulders and audio tactile line marking as standard practice to achieve Safe System outcomes wherever possible.

For example, safety upgrades funded by the Safer Roads Program have commenced on the Mitchell Highway from Bathurst to Orange, which include median and roadside barrier, shoulder widening and audio tactile line marking in line with the stereotype.

A strong evidence base

NSW has one of the most comprehensive crash data and information assets in the world. The information available is widely published on Centre for Road Safety website (https://roadsafety.transport. nsw.gov.au/) as well as being shared with a range of stakeholders including local councils and NSW Police.

It draws on a range of sources including NSW Police Force crash reports, Transport for NSW licensing and infringements, vehicle registration, NSW Health hospital data and drug and alcohol test results, NSW Ambulance Services data, State Insurance Regulatory Authority (SIRA) Compulsory Third Party claims information, Lifetime Care and Support cases, vehicle safety features dataset and road conditions.

The Transport for NSW Centre for Road Safety database is recognised as a national leader in road safety data in terms of completeness, accuracy and timeliness which is underpinned by a complex data linkage program involving various government agencies in NSW.

Crash data guide

During 2019 the quality, breadth and availability of NSW crash data continued to be improved through:

- Improving the road-based risk analysis information asset
- Commencing development of a gold standard system for reporting, analysis and sharing crash information
- The design and development of a new, fully integrated and comprehensive data model to underpin analysis, reporting and research from a safe system perspective (finished December 2019)
- The release of enhanced crash data to NSW Police
- The publishing of a new heavy vehicles crash data visualization on Centre for Road Safety website
- Re-calculated serious injuries statistics retrospectively from 2005 to address definition changes and policy change impact from NSW Health (delivered July to December 2019)

- Conducted in-depth analysis of Ambulance Services data and linkage with other data sources including crash reports
- Delivered improvements to SpeedLink2 (Speed Management System)
- Delivered enhancements to Safer Roads Program system
- Provided training and user support to CrashLink and Speedlink2 business users
- Added vehicle specification data to the Health data sets.

Transport for NSW continued publication of interactive data visualisations to provide evidence for organisations, researchers and the general public to help with the development of education resources, research and road safety programs and initiatives. The crash and casualty statistics included: road users by behavioural factors in crashes and fatality trends by gender; road user or region; serious injuries crashes and casualties; and Local government area crash characteristics including maps.

Research

Transport for NSW provided easier access to road safety research by Transport for NSW by adding a page to the Centre for Road Safety internet page (https://roadsafety.transport.nsw.gov.au/research/index.html).

Drink driving research

Transport for NSW finalised research into drink driving attitudes and behaviours in NSW with 2,133 NSW licensed drivers who consumed alcohol at least once a month completed an online questionnaire. Differences in attitudes and behaviours were explored between drivers of different ages, genders and location (metro v regional). The findings have been shared with key stakeholders and will be used to inform future programs and potential changes to drink driving messaging.

Field test of connected privately-owned light vehicles

This research is part of the Cooperative Intelligent Transport Initiative project, which involved the fitting of connected-vehicle technology to 47 privately-owned light vehicles in the Illawarra region. This technology provided participating drivers with warnings such as harsh braking vehicles ahead, potential crashes with other vehicles at intersections and when approaching red traffic signals. In 2019 the devices were removed following the data collection phase of the project and the data analysis phase. Driver focus groups were also conducted this year and their feedback is also being analysed. The findings from this project will provide a greater understanding of the road safety benefits and limitations of connected vehicle technology and will assist the development of policy for the future deployment of this technology in NSW.

Heavy truck safety research

Heavy truck safety attitudinal research was undertaken in February 2019 to better understand attitudes and behaviours of heavy truck drivers and other road users (Unpublished Research: Taverner Research (2019) *Heavy Truck Safety*, Transport for NSW, Centre for Road Safety). Over 2,400 drivers, fleet managers, enforcement and other road users participated in face-to-face interviews or online surveys to establish their perceptions of the truck industry.

The findings from the research suggest that there is a disconnect in the views of heavy truck drivers compared to other road users. While heavy truck drivers said that other road users are frequently engaging in unsafe behaviour near them, other road users do not believe they are doing so. Conversely, other road users are concerned about heavy truck drivers acting or behaving in ways on the road that heavy truck drivers don't believe is happening as frequently. For example, the majority of truck drivers said other road users cut in front of them or travel in their blind spot at least weekly (94% and 81%). However, around two-thirds (64%) of other road users claim they never cut in front of heavy trucks.

The unsafe behaviours considered most often engaged in by other truck drivers were tailgating, driving when tired, using a hand-held mobile phone and speeding. While those self-reported to be most frequent were driving while tired, speeding, being distracted by devices/controls in the cabin, not wearing a seatbelt and using a hand-held mobile phone.

Despite this, both heavy truck drivers and other road users did not see 'trucks on the road' as a key contributor to the road toll, compared to factors such as speeding, drink and drug driving, mobile phone use and driving while tired. However other road users spontaneously associated words such as large, powerful, dangerous, and crashes with heavy trucks. Many also expressed feelings of nervousness (45%) or fear (38%) when around heavy trucks, with this significantly greater among females than males.

Heavy truck drivers believe that there is sufficient enforcement of them and that there is a high likelihood of getting caught if they do the wrong thing. However most other road users believe more enforcement of heavy trucks is necessary.

Pressure from truck companies on their drivers does not appear to be extensive but does exist – most frequently in relation to meeting delivery schedules and time slots, and pressure to drive through mandatory rest breaks.

While nearly all truck drivers reported feeling safe driving for their company, 30% believe their company puts productivity above safety. This rises to 37% among metro based drivers.

Safety of audio tactile line markings for motorcyclists

Audio tactile line markings (ATLM), sometimes known as rumble strips, are a safety feature to alert drivers and riders who veer out of their lane. The ATLM creates a vibration that resonates through the vehicle and helps prevent crashes resulting from tiredness or inattention. However some motorcycle riders have raised concerns that riding over ATLM can affect motorcycle stability, especially on wet roads or around corners. Transport for NSW commissioned a qualitative study of a small group of motorcyclists who rode over ATLM at the NSW Crashlab in October 2019. After riding over ATLM in straight lanes and on curves at speeds of up to 95 km/h, in both wet and dry conditions, the rider's perceptions were changed where they indicated that they had far less concerns about ATLM's effect on motorcycle stability.

Program evaluations

In 2018–19 the following program evaluations were completed:

Mandatory Alcohol Interlock Program (MAIP) process evaluation

The process evaluation of the NSW Mandatory Alcohol Interlock Program completed in June 2019, aimed to assess program implementation, improve program delivery and refine policy settings. It found that rollout of the Program was an overall success and sentencing patterns reflected the intent of the legislation. Non-compliance offences were very low (<1%). The participant survey showed 82% of respondents approved of the program, though the take-up rate for the Interlock licence (54%) could be improved. Participants said that the Interlock licence helped them separate drinking from driving and maintain work and family commitments.

Safer Drivers Course (SDC) process evaluation

The Safer Drivers Course (SDC) was launched in 2013 as an optional accredited component under the NSW Graduated Licensing Scheme (GLS). It aims to help learner drivers to become safer drivers as they progress to driving solo. This process evaluation completed in September 2018, assessed the overall implementation and delivery of the SDC. Findings indicated the SDC was operating effectively in most aspects of management, course structure and delivery, and access and completion. While the SDC has achieved reasonable reach and access, findings suggest there is greater potential to reach learners in regional and remote areas and from low socioeconomic and non-English speaking backgrounds.

Community Road Safety Fund expenditure 2018–2019

The Community Road Safety Fund was established by legislation in 2012 and came into effect in 2013, and includes (but is not limited to) all speed camera detected and red-light running fines revenue. The total Community Road Safety Fund expenditure for the 2018-19 financial year was $304 million, of which $157 million came from camera revenue. The table below details the allocation of funding across the Road Safety Plan 2021 priority areas.

Priority areas	Expenditure 2018/19 ($ million)
Savings Lives on Country Roads (total)	**103**
Road Safety Infrastructure	100.4
Support Programs	3.4
Liveable and Safe Urban Communities (total)	**31**
Road Safety Infrastructure	29.7
Support Programs	2
Using the Roads Safely (total)	**117**
Police Enhanced Enforcement Program	33.6
NSW Speed Camera Program	36.8
Road Safety Community Education Programs	16.3
School Zone Safety Program	17
Support Programs	13.4
Building a Safer Community Culture (total)	**32**
Road Safety Community Education Programs	5
Road Safety School Education Programs	7.5
Local Government Road Safety Officers Program	5.3
Support Programs	13.7
New and proven Vehicle Technology (total)	**9**
Building a Safe Future & A strong Evidence Base (total)	**12**
TOTAL	**304**

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