Institute for Sensible Transport - Submission

Joint Select Committee on Road Safety

August 2021

Institute for Sensible Transport

The committee has redacted minor elements of this submission, in accordance with the sub-judice convention. This is to ensure that matters referred to in the submission cause no prejudice to court proceedings.

Prepared by Vaughn Allan, Liam Davies and Dr Elliot Fishman

Institute for Sensible Transport

Contents

1. Introduction 4

2. Road safety statistics 6

3. Safe System Approach 9

3.1 Safe Roads 10

3.2 Safe vehicles 12

3.3 Safe Speeds 13

3.4 Safe People 14

4. The gig economy and transport safety 15

5. Appendix 1 Case study 18

List of figures

Figure 1 Road deaths by state, last 30 years 7

Figure 2 Deaths by road user, last 30 years 8

Figure 3 Safe Systems Approach 10

Figure 4 Complete Streets concept 10

Figure 5 Understanding people's requirement for separation 11

Figure 6 Bicycle infrastructure selection 11

Figure 7 Pop up bike lanes, Sydney 11

Figure 8 Increase in vehicle size and pedestrian visibility 12

Figure 9 Garbage truck with improved visibility 12

Figure 10 USPS future vehicle design 12

Figure 11 Speed and the chance of survival 13

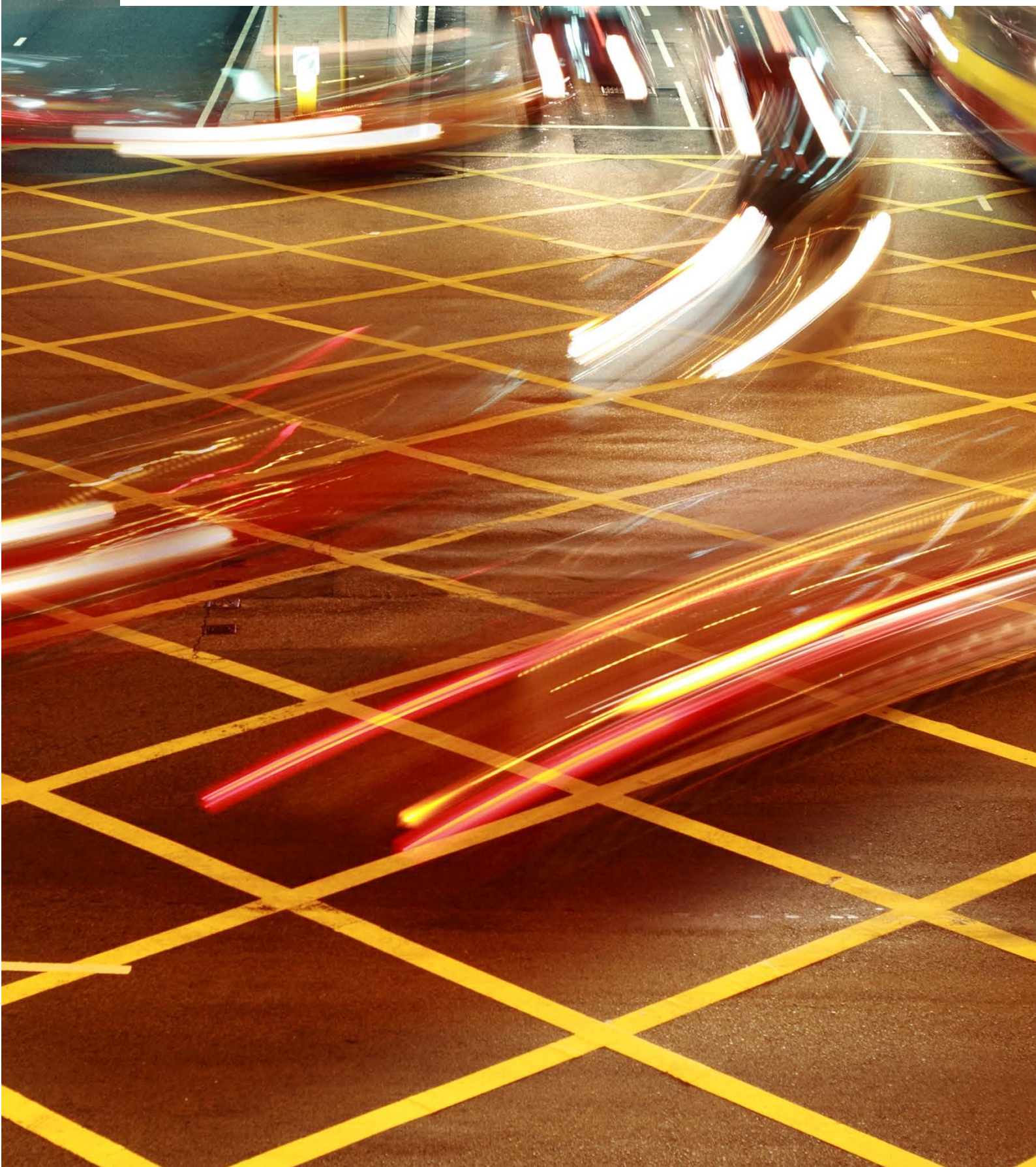
Figure 12 Creating visual cues to reduce speeds 13

Figure 13 Dutch *'living streets'* (Woonerf) 14

Figure 14 Factors impacting on delivery rider safety 16

Figure 15 SMS records 19

1. Introduction



Our team thank the Joint Select Committee on Road Safety for inviting us to make a submission into this important Inquiry.

Road safety is a priority for all Australians. Whether young or old, urban or rural, pedestrian or truck driver, we all have an interest in enhancing road safety outcomes. Australia's road safety performance has improved considerably over the last 40 years. Past gains have now begun to stagnate and new measures are required to continue the road safety improvements of previous decades.

Past gains in road safety have now begun to stagnate and new measures are required to continue the road safety improvements of previous decades.

This submission highlights the role of government in regaining Australia's place as a world leader in road safety. Importantly, our submission highlights the need to remove the '*blind spots*' in Australia's road safety focus, with an emphasis on vulnerable road users: pedestrians, people on bikes and the emerging class of gig economy riders. These people have not enjoyed the road safety improvements of motorised modes of travel and will need a fresh approach from government to ensure they too are included in the *Vision Zero* ambition.

This submission is structured around the pillars of road safety and the Safe Systems approach, focusing on:

- Safe roads
- Safe speeds
- Safe vehicles
- Safe people.

This submission relates to all five Terms of Reference, which are noted as follows:

1. measures to support the Australian Parliament's ongoing resolve to eliminate road crash fatal and serious injuries with a focus on ways to achieving Vision Zero by 2050;
2. the effectiveness of existing road safety programs across Australia; opportunities to improve them and encourage broader take-up of effective approaches;
3. opportunities for government policy in health, education, industry, transport and other areas to contribute to road trauma elimination, integrating Safe System principles;
4. opportunities to embed road trauma prevention across Australian Government portfolios and agencies; and
5. opportunities to reduce road trauma in the workplace, working with Work Health and Safety agencies and employers across Australia; including a focus on heavy vehicles and the gig economy.

2. Road safety statistics

This section offers a very brief snapshot of some basic road safety statistics. Figure 1 illustrates the number of transport deaths by jurisdiction in Australia over the last 30 years. This shows that while significant gains were made between 1989 and 2008, safety outcomes have now begun to stagnate.

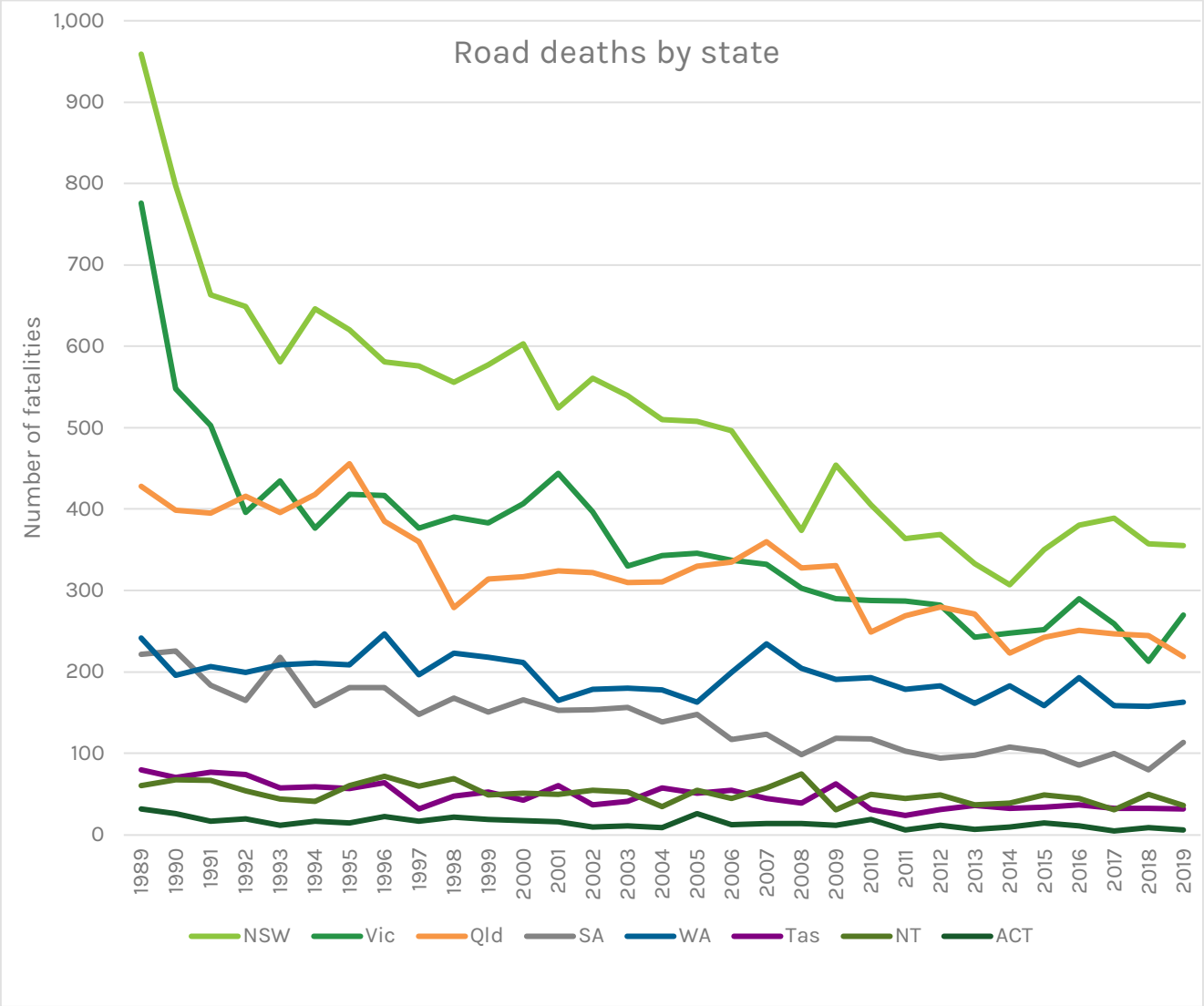


Figure 1 Road deaths by state, last 30 years

Source: https://www.roadsafety.gov.au

Figure 2 shows the performance of each mode of transport. This highlights that the rate of safety improvement for motor vehicle drivers and passengers have been the most pronounced, while numbers of Australians being killed while walking and cycling have remained at the same level they were in 2008 and 1998 respectively.

The number of Australians being killed while walking and cycling has stagnated, in contrast to the safety gains for people travelling in motor vehicles.

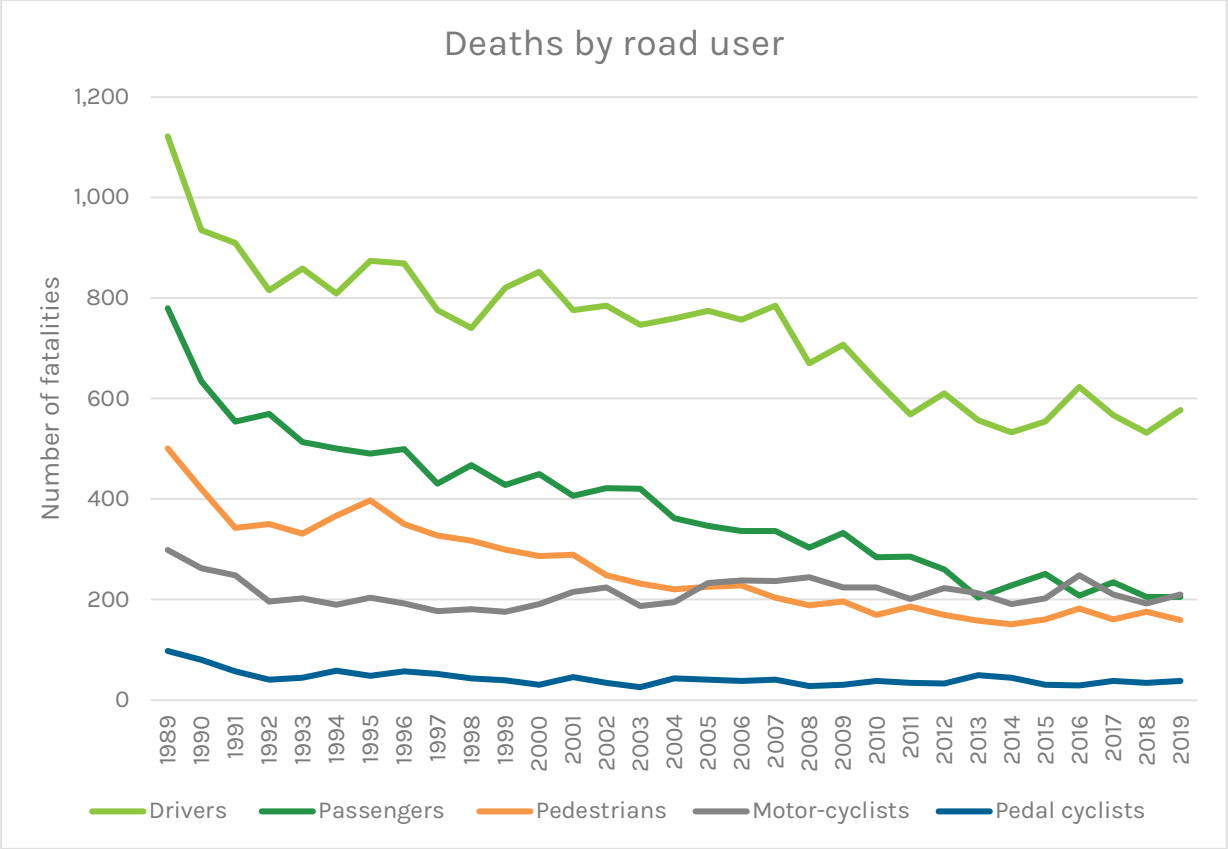
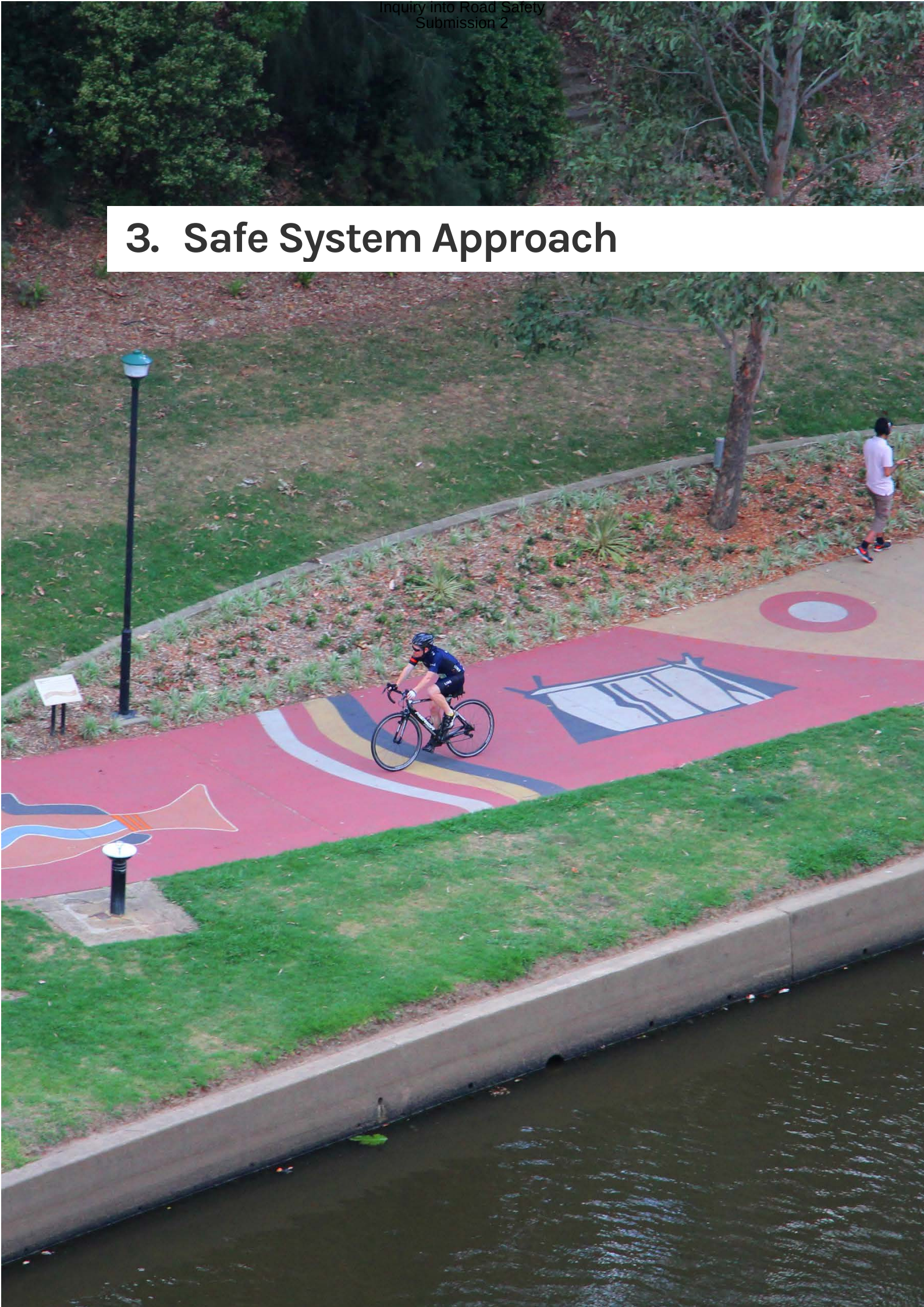


Figure 2 Deaths by road user, last 30 years

Source: https://www.roadsafety.gov.au/nrss/safe-system

The *National Cycling Participation Survey* shows that cycling levels have also stagnated, which suggests that the *risk* of a cycling fatality has not substantially changed over recent years.

3. Safe System Approach



In the last decade, the Commonwealth and state governments have adopted a *Safe Systems* approach to road safety. This approach, sometimes called the *Vision Zero* approach, acknowledges the fallibility of the road user and builds a forgiving environment in which harm is minimised. The principle behind *Vision Zero* is that zero is the acceptable level of death on the transport network and policies must be implemented that are capable of bringing the number of people killed on our roads to zero.

Considerable literature exists on the Safe Systems approach and this submission does not seek to replicate this work. Rather, this submission applies the Safe Systems approach to enhancing the sustainability of the transport system, with a particular focus on the most vulnerable modes of transport.

Figure 3 highlights the Safe Systems framework.

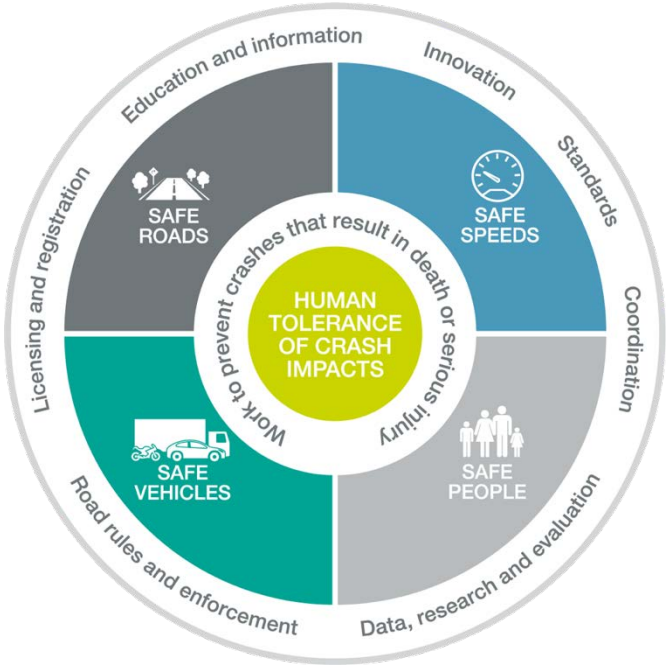


Figure 3 Safe Systems Approach
Source: https://www.roadsafety.gov.au/nrss/safe-system

3.1 Safe Roads

Creating a safe road environment, appropriate to the needs and limitations of the people and vehicles that will use them is a central responsibility of government.

The way in which a street is designed, in terms of the allocation of space to different modes is central to the safety outcomes of that street.

Figure 4 Complete Streets concept

3.1.1 Designing a safe system for cycling

While improvements to the cycling network have been made over the last two decades, all cities in Australia, with the exception of Canberra have an *underdeveloped* cycling network that fails to meet the minimum requirements for safe and convenient travel. Figure 5 offers the results from a market research exercise commissioned by the City of Melbourne that found only 6% of people say they would feel confident riding in mixed traffic. The same survey found 83% of people would feel confident riding with protected bicycle lanes.

When examining the findings shown in Figure 5, it is important to understand:

- The overwhelming majority of streets in Australian cities and towns have no bike infrastructure.
- Most Australian cities have bicycle networks that are predominantly *proposed* rather than *existing* (i.e. they have identified where they would like their future network, but have not yet implemented these).
- In contrast to most other OECD countries, Australia does not have an established, federal program to fund a safer bicycle infrastructure network.

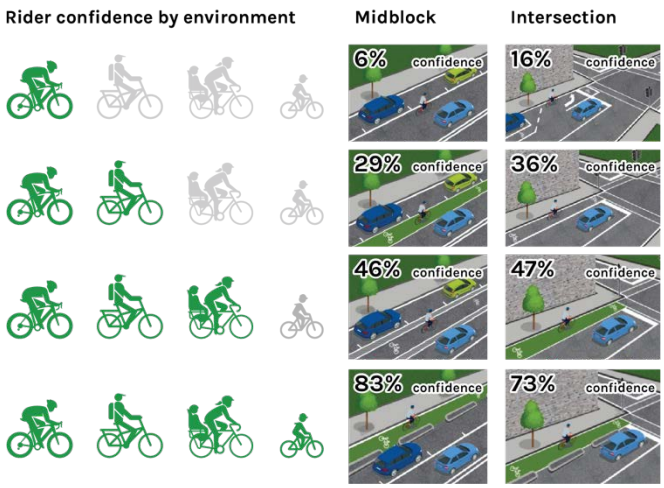


Figure 5 Understanding people's requirement for separation

Source: https://tinyurl.com/25m7j3cs

Determining the appropriate type of bicycle infrastructure is an important starting point in the development of a *user focused* cycling network. Figure 6 offers a tool we have developed to enhance the consistency and safety associated with selecting the appropriate type of bicycle infrastructure based on the *speed* and *volume* of the road. The critical elements of Figure 6 are that:

- Bicycles are able to safely mix with other traffic when the volume of traffic is low and the speed is 30km/h or less.
- Separated, protected infrastructure is required with higher speeds and traffic volume.

One of the experiences arising from COVID-19 is that the quantum of protected bicycle infrastructure can be increased quickly with *pop up* lanes. This infrastructure can provide the level of physical separation required, at a fraction of the usual cost and time.

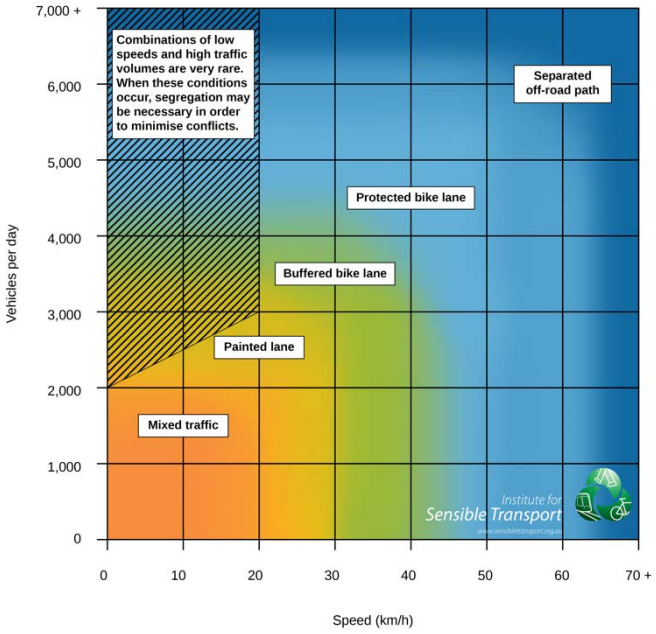


Figure 6 Bicycle infrastructure selection

Source: Institute for Sensible Transport

A picture of one of the pop-up bike lanes that have become part of the COVID-19 response is shown in Figure 7.

Figure 7 Pop up bike lanes, Sydney

Source: TfNSW

3.1.2 Recommendations

1. Create a federal funding program for local governments to build walking and cycling infrastructure, beginning with an annual budget of $130M, which equates to $5 per head of population.
2. Require federally funded transport projects to include integration with active transport networks.

3.2 Safe vehicles

Significant advances in vehicle technology, such as seat belts and front crumble zones have had a significant impact on the reduction in road fatalities.

Vehicle design has largely focused on safety improvements for people *inside* the vehicle. This has followed trends in consumer preference for larger vehicles, such as SUVs. Figure 8 offers an extreme example of the general trend towards larger vehicles. While these vehicles can reduce injury risk to occupants, they can *increase* the risk to those on the outside of the vehicle, such as pedestrians, cyclists and other motor vehicles. From a *Safe System* perspective, this change at best does not factor other road users into the design process, and at worst completely disregards them.

The trend to increase the size of passenger and light commercial vehicles, and the subsequent increase in risk is in contrast to trends in commercial vehicles. Figure 9 shows an updated garbage truck vehicle design while Figure 10 shows the United States Postal Service's new prototype van. Both seek to improve driver sight lines, which is effective in reducing collision with pedestrians, cyclists and other vehicles.

Failing to consider pedestrian, and other road user impacts, into the design standards of passenger vehicles in Australia could off-set advancements in vehicle design in other vehicle types.

Figure 8 Increase in vehicle size and pedestrian visibility

Source: https://www.bloomberg.com/news/articles/2021-03-11/the-dangerous-rise-of-the-supersized-pickup-truck

Figure 9 Garbage truck with improved visibility

Source: https://www.waste360.com/trucks/then-and-now-look-how-garbage-truck-has-evolved

Figure 10 USPS future vehicle design

Source: https://www.motortrend.com/news/oshkosh-ngdv-usps-mail-van-first-look-review/

3.2.1 New technology

Several new technologies are currently in operation in Australia that seek to improve safety for the vehicle user and those around them. These new technologies include vehicle speed limiters and restricting vehicle operations to areas via GPS.

Both technologies are currently applied to newer forms of personal mobility devices, such as electric-assist bicycles and shared e-scooters. Heavy vehicles, such as trucks, have also had speed limiters applied to improve road safety.

Efforts to apply safer vehicle design, including embedding new safety technology, to passenger vehicles would deliver the most substantial improvements in overall road safety, due to the sheer number of them. The notion of governors that limit the speed of a vehicle is not new and has been recommended to Australian governments in the past (see https://tinyurl.com/vd2a3jud).

3.2.2 Recommendations

1. Update Australian Design Rules to include enhanced consideration of the safety of road users *outside of the vehicle*.
2. Mandate speed limiting technology for all new vehicles sold in Australia by 2026, and begin consulting with industry regarding the standards required.
3. Work with state and territory governments on a voluntary (opt in) program offering automated speed limiting technology to be retrofitted to Australian vehicles.

3.3 Safe Speeds

Excessive speed is a major contributor to the trauma caused on Australian roads. Figure 11 provides a clear illustration of the chance of a pedestrian surviving a collision with a vehicle at different speeds. It shows that when a vehicle is travelling 50km/h (the default speed limit in residential areas), there is only a 15% chance of survival. This compares to a 90% chance of survival at 30km/h.

Reducing the speed limit has been shown to be one of the most effective measures in reducing road safety risk. The international trend is to move towards a 30km/h speed limit in residential streets.

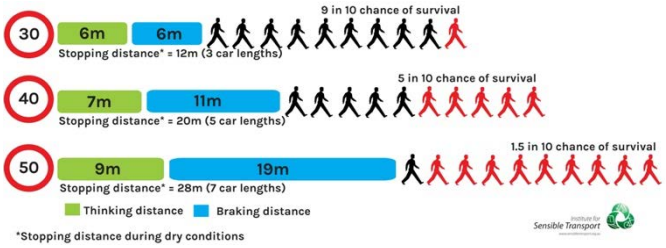


Figure 11 Speed and the chance of survival

The creative, strategic use of paint can be applied to provide important visual cues to reduce speed and increase safety. An example of such an approach is shown in Figure 12.

Figure 12 Creating visual cues to reduce speeds

Small residential streets with low volumes of motor vehicle traffic offer excellent opportunities to create human scale, safer and more neighbourly streets. Figure 13 offers the four elements of a Dutch 'living street' (known as a *woonerf*), which are suitable for small residential streets with less than 600 vehicle movements per day.

Figure 13 Dutch *'living streets'* (Woonerf)
Source: Humankind

3.3.1 Recommendations

1. Develop a federal funding program to enable local governments to convert selected streets to low speed, neighbourhood environments that offer higher amenity and safety outcomes.
2. Develop a federal funding program to create safe speed zones through street design innovation around primary schools, in cooperation with local government
3. Work with the Australian states and territories to develop a harmonised framework for creating consistent, safer speeds in Australian cities and suburbs.

3.4 Safe People

Human behaviour is a contributing factor in around 90% of crashes. While the Safe Systems approach is intended to minimise the risk of error, human behaviour will always play an important role in enhancing safety outcomes. This submission is focused primarily on the other pillars that make up the Safe Systems approach. Section 4 of this submission focuses on the industrial relations aspects of road safety, which has a strong connection to *safe people*.

4. The gig economy and transport safety

The gig economy, which includes food delivery, ride sourcing services like Uber and the commercial freight industry more generally is a fast-growing sector of the economy.

This section of our submission focuses on the fundamental disconnect between the gig economy and safety. It examines how the prevailing business model incentivises dangerous decisions. We offer practical measures that government can take to make this growing part of our economy safer and fairer.

Labour relations for people working to transport goods or services has a direct impact on road safety. In Australia, we have a range of jobs that involve this work including, but not limited to:

- Truck drivers
- Taxi / Uber / ride share drivers
- Couriers
- Postal workers
- Delivery riders.

For many of these workers, they rely on contract-based work for income. In essence, these workers are often paid per delivery and if they do not perform a certain number of jobs within a given length of time, they will suffer financial penalty.

The following provides a case study to demonstrate how working conditions can influence road safety outcomes.

4.1.1 Food delivery riders

The number of food delivery riders has grown rapidly in the last five years. Consumers have become accustomed to ordering food from a delivery App such as Uber Eats, Deliveroo etc. The typical business model is for the platform to not employ these riders and drivers, but rather to see them as '*partners*', which avoids the usual obligations an employers has for their employees health and welfare. Delivery riders in particular are put at risk because their workplace is the *street*, and these streets rarely have the infrastructure to minimise the risk of a collision. Five delivery riders died within two months in 2020 (https://tinyurl.com/7suha5eh), with a number of bodies and transport experts calling for enhanced safety provisions.

The safety of delivery riders is compounded by a number of factors, as highlighted in Figure 14. These are briefly discussed below.

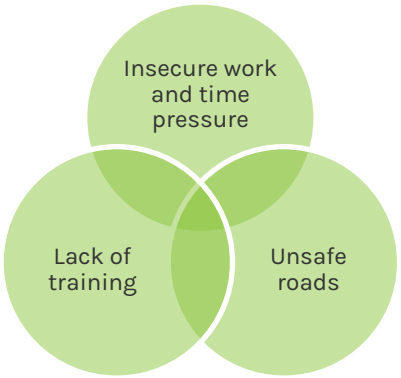


Figure 14 Factors impacting on delivery rider safety

Insecure work and time pressure: As highlighted earlier, delivery riders are typically not employees of the digital platform for which they work and this minimises their job security and the obligation these platforms have for their safety.

Delivery riders are also put under pressure to complete jobs within a certain timeframe or risk being cut from the App. The time pressure placed on riders results in a perverse incentive for riders to take the fastest route, which, due to sparse or non-existent bicycle infrastructure means riders take dangerous routes that amplifies their risk of collision.

Unsafe roads: Delivery riders' workplace are the streets that make up our cities. The known risks of riding on high volume streets without low (30km/h or less) speed limits places professional delivery riders at unacceptable risk levels. The limited coverage of safe bicycle infrastructure networks mentioned earlier results in a workplace for these workers that would not meet minimum standards if they worked in a conventional office/factory environment.

Lack of training: Delivery riders are not offered any mandatory safety training course. In many instances, riders have not been in Australia for a significant period of time before they begin delivery

riding, and this coupled with no comprehensive rider training puts them at a higher risk of collision and serious injury.

4.1.2 Recommendations

1. Mandate that all 'gig economy' rider and drivers are employed by the delivery platform and provided with an hourly wage.
2. Mandate a comprehensive rider training program, in which the rider is paid to participate.
3. Fast track the development of high quality, separated bicycle infrastructure in all cities in which delivery riders operate, with a focus on areas with the higher level of activity.
4. Require delivery platforms to provide front and back safety lights to all of their riders.

5. Appendix 1 Case study

On the 22nd April, 2020, Mohinder Singh crashes into a stationary vehicle on the Monash Freeway in Melbourne, resulting in the death of four police officers. Sleep deprivation and drug intoxication were sighted as contributing factors to Mr Singh losing control of his 19-tonne semi-trailer. He pled guilty to four counts of culpable driving causing death, three charges of drug trafficking and one of possessing drugs. He was sentenced to 22 years in jail.

This horrific story highlights the duty of care of those who drive on public roads, particularly those with heavy vehicles. The potential for catastrophic damage is very real, and the consequences for almost all those involved were severe.

It is also important to understand the environment within which may have contributed to Mr Singh's actions and behaviours.

In evidence tabled as part of Mr Singh's court case, friends and fellow truck drivers noted his erratic behaviour and were aware that he was using methamphetamines and suffering from insufficient sleep. A supervisor for the company receiving a delivery from Mr Singh the day before told the court that his behaviour the day before the crash "set alarm bells" off. That supervisor, , reported Mr Singh's behaviour to one of his supervisors at the company he was contracted to, Connect Logistics. In court testimony, , the supervisor at Connect Logistics who received the report noted that he thought Mr Singh needed a few days off for rest but did not believe there was cause for further concern. Though it was direct supervisor, , who is facing more than 80 charges, including manslaughter, over his failure to manage Mr Singh.

Before Mr Singh started his shift on the 22 April 2020, Mr Singh and discussed the "witches curse" Mr Singh believed he was under (due to narcotic-induced psychosis), held a "prayer ritual" to expel said curse, and check the interior of Mr Singh's car. then gave Mr Singh the green light to drive his trucking shift. After 40 minutes he veered off the road and into the four police officers at the traffic stop.

SMS records (Figure 15) between Mr Singh and show Mr Singh's own concern for his well-being and ability to operate a truck.

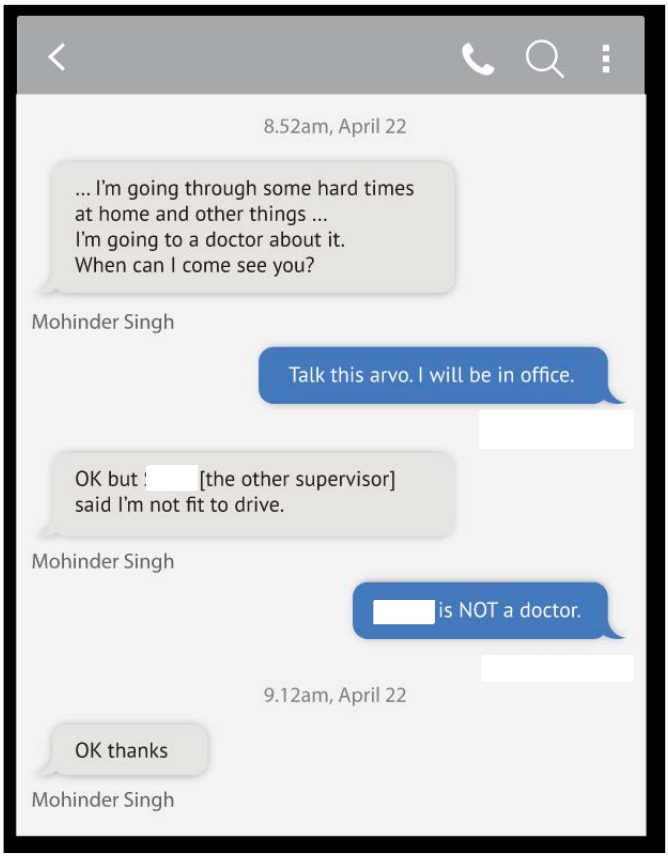


Figure 15 SMS records

Source: The Age, 12 March 2021

The court testimony shows that on two separate occasions, supervisors at Connect Logistics failed to take corrective action in preventing Mr Singh from driving a truck when he was unfit to do so. No recourse was made to ensure a safe working environment for this truck driver, resulting in an unsafe road environment for everyone else.

Mr Singh had noted in testimony his difficult home circumstances and feelings of being under immense stress.

What caused both supervisors at Connect Logistics to ignore or downplay potential unsafe behaviour? What caused Mr Singh to be under immense pressure and to develop a history of methamphetamine dealing and use? For this, we need to look outside of the transport system and look at the labour relations that underpin the way

Mr Singh, related to one-another.

The lack of stable employment, hourly wages and sick leave contributed to unsafe choices and behaviours, leading to tragedy.

Institute for Sensible Transport
[redacted]

Institute for
Sensible Transport