

TRANSURBAN INSIGHTS: ROAD SAFETY

November 2023

Transurban Insights reports use data and research from our business, as well as surveys we commission, to explore specific issues relevant to road transport. We share these insights with government and industry and use them to inform driver and community education campaigns.

In this edition of Transurban Insights we examine driving behaviours that contribute to the likelihood of a road incident occurring and the severity of injury. We also explore how stressed people feel on the road when encountering various hazards and driving situations.

Research

Online survey conducted between 22 June and 17 July 2023

1,682 respondents aged 18+ with a driver licence from: Brisbane, Melbourne and Sydney (Australia); the Greater Washington Area, covering Virginia and Maryland (United States); and Montreal (Canada).¹

Survey commissioned by Transurban and conducted by Nature



Speeding

Across Australia road fatalities have been climbing. In August 2023, there were 1,250 road fatalities in the 12 months ending August 2023 – representing a 8.4% increase on the previous year and a 6.0% increase on pre-pandemic levels (12 months ending August 2019).²

common source of distraction, and one that nearly half of all respondents in the Greater Washington Area admit to using illegally. While these figures are slightly lower in Montreal and the Australian cities surveyed (31% and 26% respectively), they are still high and cause for concern.

When an incident does occur, proper seatbelt use can prevent, or reduce the severity of injury. We found self-reported seatbelt use was high across the board, however younger drivers aged 18 to 29 years are less compliant than older drivers.

As a road operator with more than 10 million customers across Australia and North America we plan to use these findings to increase awareness of the prevalence of dangerous driving behaviours such as speeding and mobile phone use, and the associated risks.

Though not directly associated with crash outcomes, many people surveyed (79%+) also report feeling stressed while driving at least some of the time. The most stressful driving scenarios for respondents are being tailgated and driving in bad weather or in congestion. We plan to use these findings to help educate our customers about how to navigate these scenarios safely.



Seatbelts

In North America, the United States' National Highway Traffic Safety Administration estimates that road fatalities declined for the fifth straight quarter to June 2023.³ While an encouraging trend, the decline is coming off a high base, with significant increases in road fatalities recorded over the past couple of years.⁴

While it is unclear what has driven these increases in road fatalities, we know that some driving behaviours such as speeding, choosing not to wear a seatbelt, and distracted driving can contribute to the likelihood of a crash occurring and/or the severity of injury when a crash does occur.

A survey of 1,682 people across Australia and North America, commissioned by Transurban, found most people (72% of Australian respondents and 86%+ of North American respondents) admit to driving above the posted speed limit, even if only on rare occasions. Mobile phones are a



Mobile phones



Stressful driving scenarios

¹ Over 300 respondents from each Australian city, the United States of America and Canada

² Bureau of Infrastructure and Transport Research Economics, Road Deaths Australia Dashboard

³ United States Department of Transport, National Highway Traffic Safety Administration, NHTSA Estimates Traffic Fatalities Continued to Decline in the First Half of 2023, Press release, 28 September 2023

⁴ United States Department of Transport, National Highway Traffic Safety Administration, NHTSA Early Estimates Show Record Increase in Fatalities Nationwide, Press release, 17 August 2022



Speeding

Speed is a contributing factor in the likelihood of an incident occurring and the severity of injury when an incident does occur.

According to Nilsson's Power Model – developed by the Swedish researcher Göran Nilsson in 1982 – a 1% increase in average speed results in approximately a 2% increase in injury crash frequency, a 3% increase in severe crash frequency, and a 4% increase in fatal crash frequency.⁵

Research by the National Health and Medical Research Council's Road Accident Research Unit in Australia found the risk

of being involved in a fatal crash roughly doubles with each 5km/h increase of speed on roads with a 60km/h speed limit⁶ and with each 10km/h increase on rural roads with higher speed limits.⁷

Though it is illegal to drive above the speed limit in all jurisdictions surveyed, we found that between 72% and 87% of respondents admit to driving above the posted speed limit, depending on the city surveyed (Figure 1). These figures were consistent across demographics such as gender and age.

Those who drive above the posted speed limit report they are more likely to speed on highways, rural roads or arterial roads (Figure 2). Concerningly, over 50% of those who speed said they do so on residential roads, which are not designed for higher speeds.

At Transurban we seek to work with enforcement agencies to address speeding by supporting policing operations along our toll roads and the interfacing roads.

Respondents from the Australian cities surveyed reported they are more likely to speed through roadworks when compared to respondents from the Greater Washington Area and Montreal. As an operator of motorways in Australia and North America, we regularly conduct maintenance on our assets which can require roadwork zones to be set up and speed limits to be lowered.

To address the risk posed by speeding through roadwork zones we run regular customer and community communications campaigns to increase awareness of the importance of slowing down to the posted speed limit.

Transurban's road safety performance

Transurban commissions Monash University Accident Research Centre (MUARC) to analyse crashes on our Australian assets and compare our roads' performance to like roads in each market.

The most current analyses show that, compared to like roads in each state, our roads in Victoria and Queensland are more than twice as safe, and in New South Wales they are more than three times as safe.

⁵ Nilsson 1982 cited in OECD and International Traffic Safety Data and Analysis Group, *Speed and Crash Risk*, 2018

⁶ Kloeden CN, McLean AJ, Glonek, B. 2002. *Reanalysis of Travelling Speed and the Risk of Crash Involvement in Adelaide South Australia*. CR 207. Australian Transport Safety Bureau. Canberra, Australia

⁷ Kloeden CN, Ponte G, McLean AJ. 2001. *Travelling Speed and the Risk of Crash Involvement on Rural Roads*. CR 204. Australian Transport Safety Bureau. Canberra, Australia

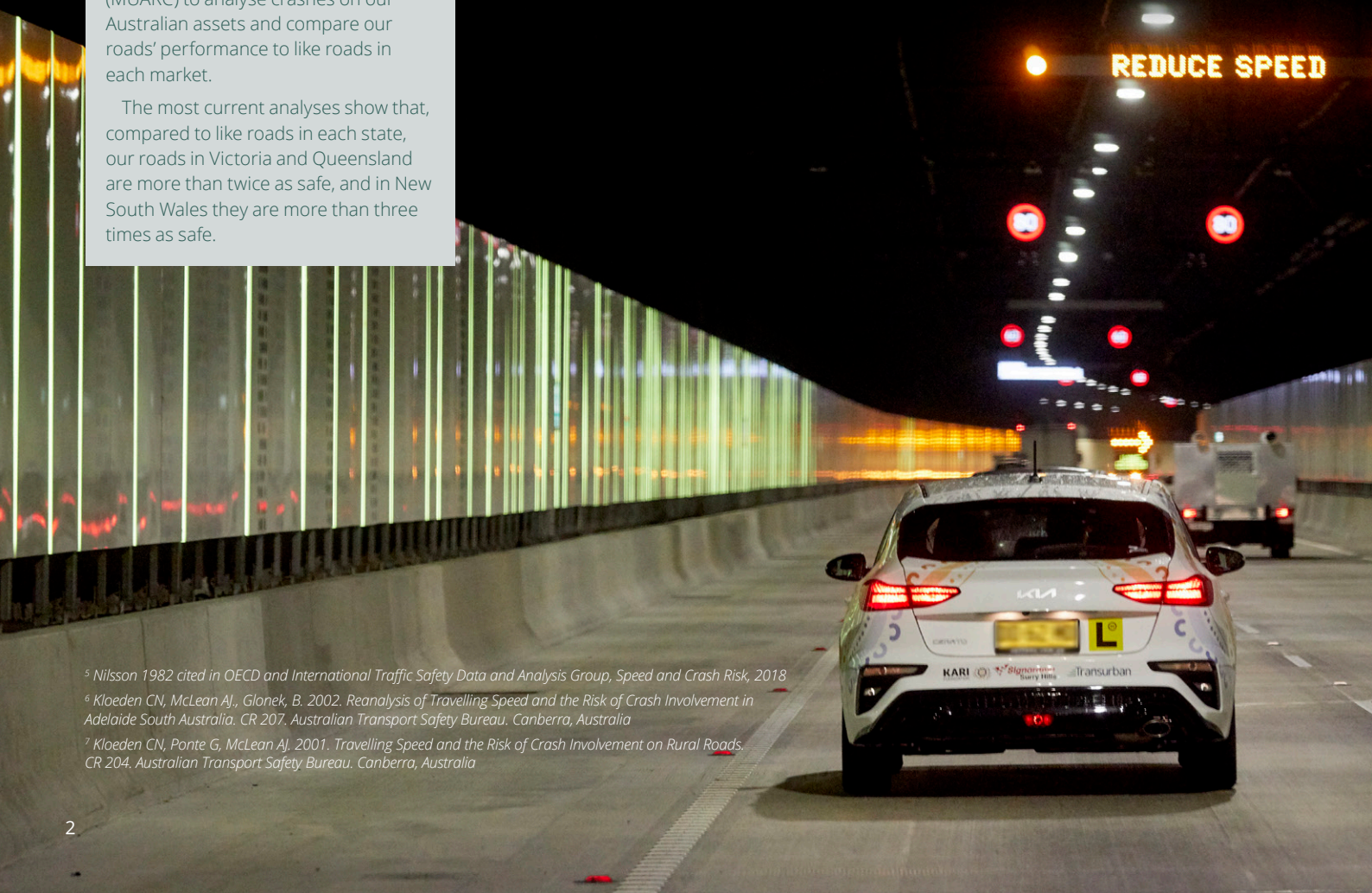
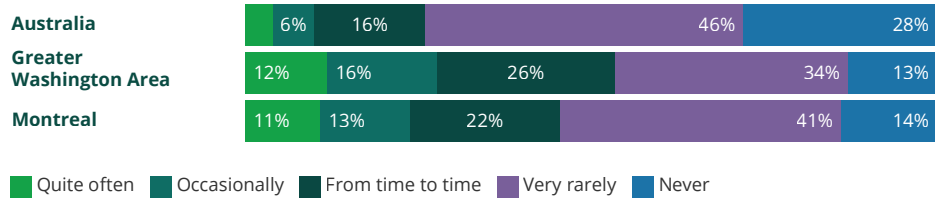
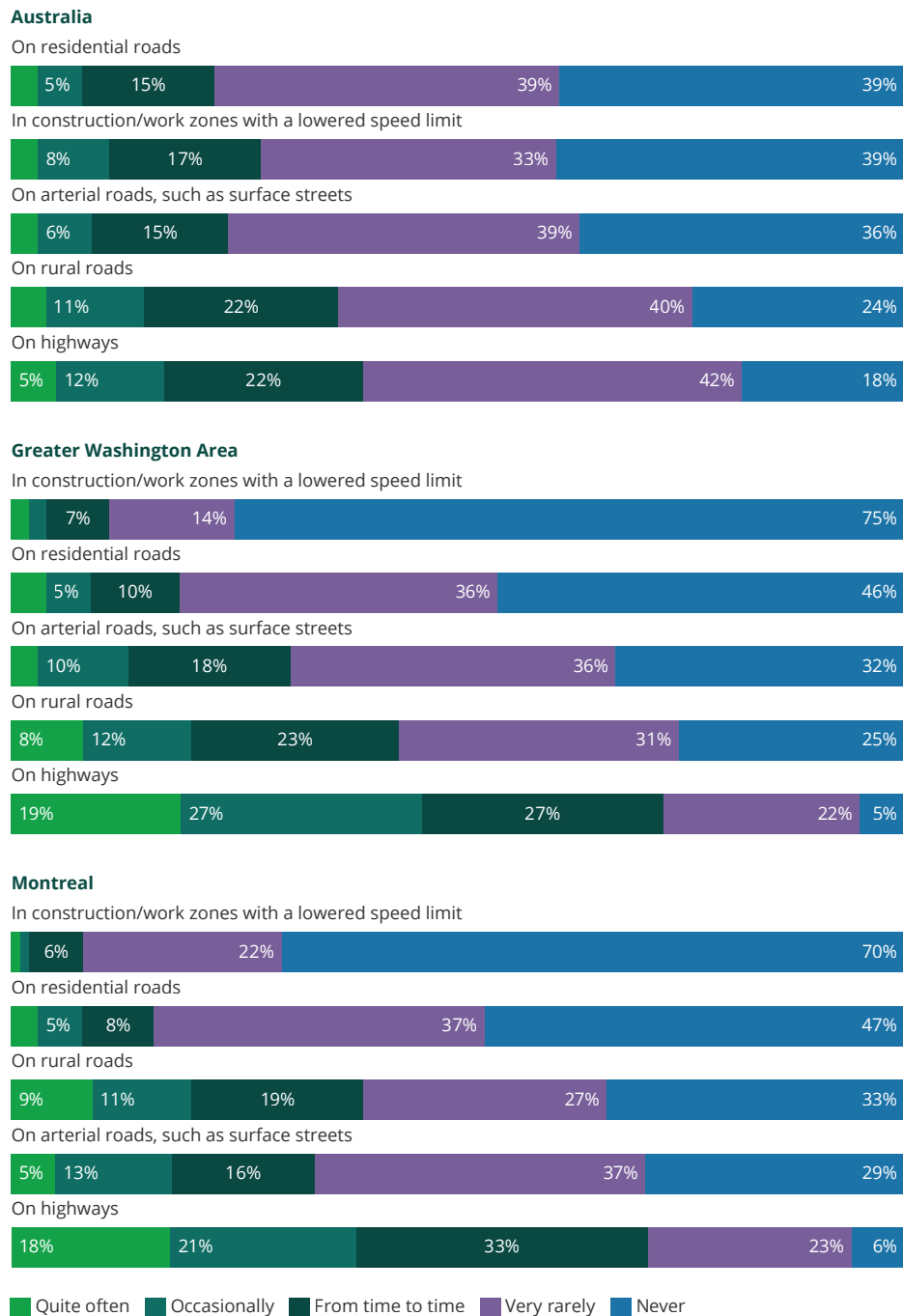


Figure 1: How often people drive above the posted speed limit - Australia, Greater Washington Area, Montreal



Q. How often do you drive above the posted speed limit?

Figure 2: How often people drive above the posted speed limit, by road type - Australia, Greater Washington Area, Montreal



Q. How often do you drive above the posted speed limit?

Seatbelts

It is mandatory for drivers and passengers to use seatbelts when in a moving vehicle in all surveyed jurisdictions, and for good reason. Proper seatbelt use can prevent, or reduce the severity of injury in the event of a road incident occurring.

The New South Wales Government in Australia advises that people are twice as likely to survive a car crash if they are wearing a seatbelt.⁸

Our survey found that self-reported seatbelt use is high in all surveyed cities (Figure 3 and 4) however those aged 18 to 29 years are less compliant than older drivers. In Australia and the Greater Washington Area, 6% fewer 18- to 29-year-olds report that they always wear a seatbelt driving when compared to the average. In Montreal, the difference is more pronounced with 15% fewer 18- to 29-year-olds reporting they always wear a seatbelt when compared to the average.

In order for a seatbelt to be effective in reducing injury it must be used correctly. Importantly, child car seats must be installed correctly, and children must not transition to an adult seatbelt before they are ready. We explored these topics in an earlier Insights report available [here](#).

⁸ NSW Government, *Seatbelts save lives, Fact sheet*

Figure 3: Driver seatbelt use - Australia, Greater Washington Area, Montreal

	Always	Most of the time	Occasionally (1 in 5 trips)	Rarely (1 in 10 trips)	Never
Australia	96%	4%	0%	0%	0%
Greater Washington Area	91%	5%	3%	1%	1%
Montreal	94%	5%	1%	0%	0%

Q. When driving in a vehicle (i.e. car, van, truck, bus) how often do you wear a seatbelt?

Figure 4: Passenger seatbelt use - Australia, Greater Washington Area, Montreal

	Yes, everyone	Only children or teenagers	No	Other
Australia	97%	1%	1%	0%
Greater Washington Area	91%	4%	5%	0%
Montreal	94%	4%	2%	0%

Q. When you are the driver of a car, do you insist all passengers wear a seatbelt?



Mobile phones

Using a mobile phone significantly increases the likelihood of a crash occurring. The Victorian Transport Accident Commission advises that drivers are at 10 times the risk of crashing if they are texting, browsing or emailing on their mobile phone, and that drivers who take their eyes off the road for two seconds or more double their crash risk.⁹

In all surveyed jurisdictions it is illegal to operate a hand-held mobile device while driving. Provided the mobile phone is properly secured and not being held, a driver can use it to make or receive phone calls, play audio and use navigation functions.

There are additional restrictions in place for probationary drivers and those under 18 years of age, which vary by jurisdiction.

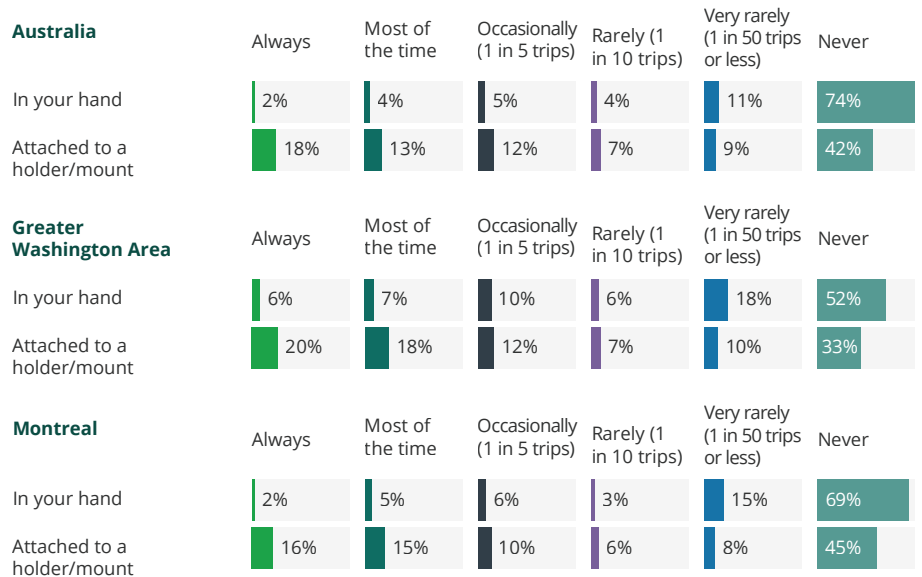
Despite this, we found nearly half of all respondents in the Greater Washington Area admit to using an unsecured mobile device while driving, followed by 31% in Montreal and 26% of the Australian cities surveyed (Figure 5). A greater proportion of respondents aged between 18 to 44 years admit to using an unsecured mobile device, and do so more often, when compared to older drivers.

The most common reason reported for using an unsecured mobile device is to talk on the phone, get driving directions, play music or to send a message (Figure 6).

Even those who use a designated mobile phone holder admit to breaking the law by using their phone to check messages/emails, make video calls and browse social media (Figure 7).

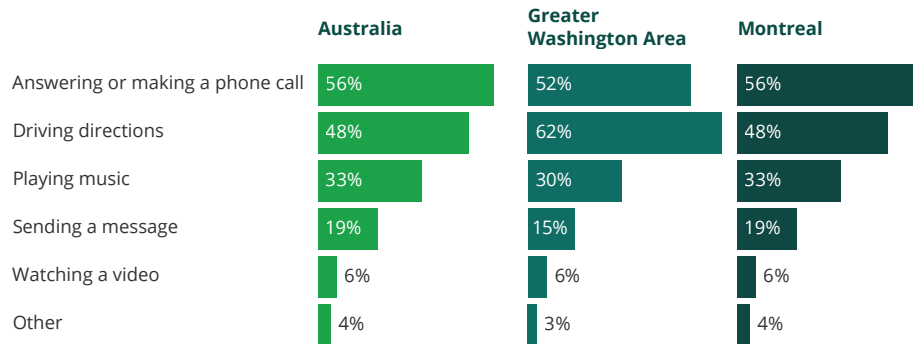
Recognising the serious risk mobile phone use poses to all road users, Australian law enforcement agencies are now using mobile phone detection cameras to target illegal mobile phone use.

Figure 5: How frequently people use a mobile device while driving - Australia, Greater Washington Area, Montreal



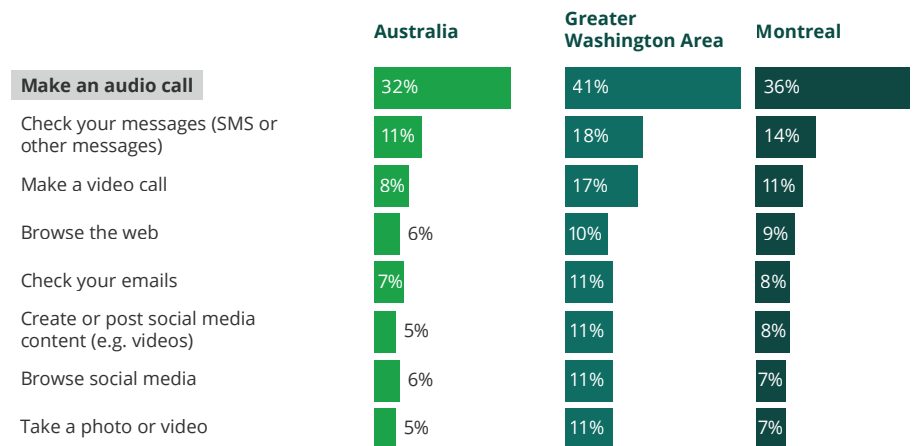
Q. How often do you use a mobile/cell phone in your hand or through a hands-free connection (e.g. through your car's audio system or with your phone attached to a phone mount)?

Figure 6: Reasons for using unsecured mobile device while driving - Australia, Greater Washington Area, Montreal



Q. You said you use an unsecured mobile/cell phone while driving. When you do, what are you typically using your phone for?

Figure 7: Reasons for using secured phone while driving - Australia, Greater Washington Area, Montreal



■ Legal use of secured phone

Q. Which of these things do you use your mobile/cell phone for while driving, with your phone attached to a holder/mount?

⁹ Transport Accident Commissions, *The facts - distractions and driving*, Webpage

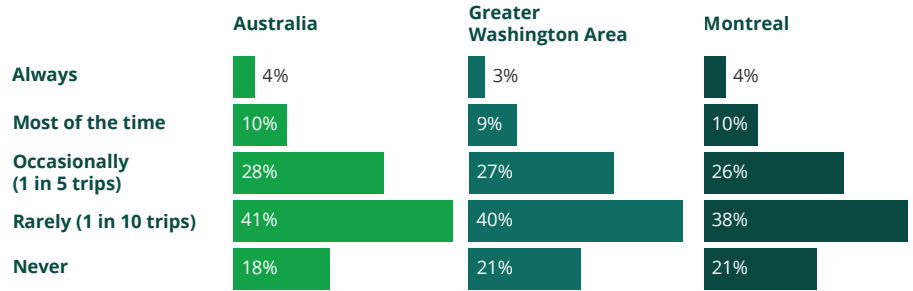


Stressful driving scenarios

For some people driving can be a stressful experience. We found around 80% of respondents feel stressed while driving at least some of the time (Figure 8). More women than men report feeling stressed while driving.

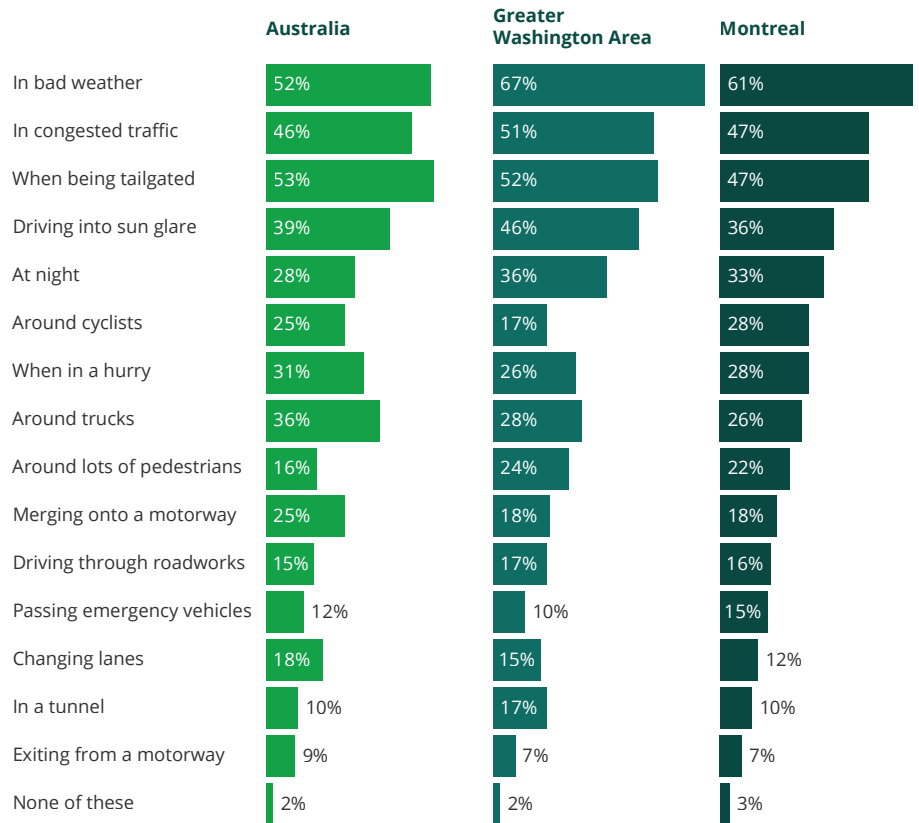
The most stressful driving scenarios for respondents are when being tailgated, and when driving in bad weather or in congested traffic (Figure 9). More than 1 in 4 respondents report feeling stressed when driving around trucks. Given the high volume of trucks that travel on Transurban's Australian roads, we regularly run communications campaigns to educate our customers about how to drive around trucks safely, including awareness of truck blind spots. You can find out more [here](#).

Figure 8: How often people feel stressed while driving - Australia, Greater Washington Area, Montreal



Q. How regularly do you feel stressed while driving?

Figure 9: Scenarios that cause drivers to feel stressed - Australia, Greater Washington Area, Montreal



Q. Which, if any, of the following situations are you likely to feel stressed while driving? (Asked only of people who said felt stressed while driving in the previous question.)

Top tips to navigate stressful driving scenarios



Driving in bad weather

Extreme heat and sun glare

- Plan ahead and check conditions
- Check coolant, oil levels and tyre pressure regularly
- Get your battery checked
- Clean your windscreen, dust can make sun glare worse
- Never leave children or pets alone in the car
- Travel with extra water

Wet and windy

- Don't drive unless necessary
- Take your time and allow plenty of braking space between you and the vehicle in front

Cold

- Plan ahead and check conditions
- Add anti-freeze to car radiator
- Check tyre pressure and tread
- Get your battery checked
- Use steering, brakes and accelerator as little as possible if you encounter black ice



Being tailgated

- Maintain a steady speed
- Pull over when safe to do so and let the tailgating vehicle pass
- Avoid eye contact with occupants of the tailgating vehicle



Driving around trucks

- Become familiar with truck blind spots, more information can be found [here](#)
- Kept left unless overtaking
- Allow plenty of space between you and trucks in front or behind you

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