

TRANSCRIPT

LEGISLATIVE ASSEMBLY ECONOMY AND INFRASTRUCTURE COMMITTEE

Inquiry into the impact of road safety behaviours on vulnerable road users

Melbourne—Tuesday 8 August 2023

MEMBERS

Alison Marchant—Chair

Kim O’Keeffe—Deputy Chair

Anthony Cianflone

Wayne Farnham

John Mullahy

Dylan Wight

Jess Wilson

WITNESSES

Professor Stuart Newstead, Director, Monash University Accident Research Centre and

Associate Professor Janneke Berecki-Gisolf, Director, Victorian Injury Surveillance Unit, Monash University Accident Research Centre.

The CHAIR: Welcome to the public hearing of the Legislative Assembly Economy and Infrastructure Committee's Inquiry into the impact of road safety behaviours on vulnerable road users. All mobile phones should now be turned to silent.

All evidence given today will be recorded by Hansard and broadcast live on the parliamentary website.

While all evidence taken by the Committee is protected by parliamentary privilege, comments repeated outside this hearing, including on social media, may not be protected by this privilege.

Witnesses will be provided with a proof version of the transcript to check. Verified transcripts and other documents provided to the Committee during the hearing will be published on the Committee's website.

We will do some introductions and then we will hand over to you. I am Alison Marchant, the Member for Bellarine.

Jess WILSON: Jess Wilson, Member for Kew.

John MULLAHY: John Mullahy, the Member for Glen Waverley.

Wayne FARNHAM: Wayne Farnham, Member for Narracan.

Anthony CIANFLONE: Anthony Cianflone, Member for Pascoe Vale.

The CHAIR: Thank you. And we will be joined by Dylan Wight, who is from Tarneit, as well in a moment. If you want to do a brief introduction or opening statement, we are more than happy to hear that as well.

Professor Stuart NEWSTEAD: Certainly. My name is Stuart Newstead. I am the Director of the Monash University Accident Research Centre. MUARC was established about 36 years ago at the initiative of the State Government Road Safety Partners to provide independent and objective research evidence around road safety. It is what we call a transdisciplinary research centre, so it brings together people from all disciplines to collaboratively undertake research. Our aim is excellence in research on injury prevention and the safety sciences, and our objective is to provide the highest quality objective, independent evidence and to help people to understand that evidence and use it to its best effect.

Janneke, would you like to introduce yourself?

Associate Professor Janneke BERECKI-GISOLF: Janneke Berecki. I am the Director of the Victorian Injury Surveillance Unit, and we are a unit within MUARC.

The CHAIR: Wonderful. Thank you.

Professor Stuart NEWSTEAD: Excellent. Most of what we want to cover today has obviously been put forward in our submission, which we tried to make as comprehensive as possible. Obviously MUARC has an enormous breadth of research around road safety generally, which could inform many of the aspects you have identified in your terms of reference for this submission. We have really focused on some of the more recent evidence we have produced as part of a couple of research areas that we have undertaken. The first was the study looking at the impacts of COVID on road safety performance that we did for the Victorian Road Safety Partners. The second is some work that has been undertaken by VISU, monitoring emergency department presentations and hospital admissions over that period in response to COVID, with a particular focus on transport but also covering other aspects.

Just a few key summary points around that in relation to the terms of reference: I think there is no doubt that COVID has an impact on road safety. Our evidence shows that it radically changed travel exposure patterns, which is no surprise, since we were locked down for many months over two years. But with that it has also changed risk-taking behaviour, and the evidence is quite clear. If risk-taking had not changed, you would have expected road trauma to drop in line with the drop in exposure, but that certainly was not the case. Those people that continued to travel in between lockdowns certainly had changed behaviour. Our analysis was not specific to vulnerable road users, which is a particular focus with this Inquiry, but certainly many of the general observations we have made in our study would be directly relevant to vulnerable road users as well.

I might say, the ability to do those studies was very much dependent on having access to data, which was provided to us for the study by the various agencies around Victorian Government bureaucracy. That data was collected mainly over the years 2020 and 2021, where we had the significant disruptions of our lockdowns. I might say up-front that although we have looked at general trauma trends in the last two years or 18 months particularly—2022 and 2023—we do not have specific or as detailed information of what has happened over those years.

I think our study has been quite innovative in actually defining some measures of risk-taking behaviour out there in the community. One of the things we would note is measures of what we would call road safety performance indicators. Things that people are actually doing out there on the network, rather than just fatalities and serious injuries as an outcome, are generally not systematically collected in this State for us to be able to see how those patterns have progressed over time. And that is certainly something we have highlighted in our submission that would be good to have, because this is not the first time a parliamentary Inquiry has made reference to what is driving the road toll. We have had bad years previously, and Inquiries have addressed that, and some of the same recommendations that were made in those Inquiries would probably be relevant here as well.

Of course fatalities in road trauma are really quite well measured, but serious injury remains a problem. Again, that has been a focus of a previous parliamentary Inquiry. Although the government agencies are making progress on that, defining what serious injury is and measuring it appropriately still remain a problem, not only in this state but across this country. We have organisations like Austroads undertaking projects in collaboration with the Australian Institute of Health and Welfare and the bureau of transport economics at the Commonwealth level to try and address this, but we are not there yet. So the question is: what should we consider as a serious injury? And what is in scope as a road safety issue injury? Because of course the boundaries blur when you talk about a pedestrian riding a scooter or walking on the footpath or someone on a motorbike in their own paddock. What constitutes a road safety problem, and how can that be addressed? You have to define that scope if you are going to define how to address it as well.

The other thing I think is often ignored in assessing road safety performance is that there are clear economic impacts on road safety. There are many studies that have been conducted over history looking at those associations, and socio-economic factors generally are quite important to consider. For example, when population grows, it just puts more stress on the system generally because we have more people travelling. But other economic factors that exist as well are also important. What is the state of the economy—is it vibrant or is it flat?—and all of those things. I think we have been on a learning journey across the country in terms of seeing what the economy has done subsequent to the COVID pandemic, and I do not think anyone could have predicted where that was necessarily headed. So they are things that need to be accommodated, but as I say, I think the general road safety story as it relates to COVID is also the road safety story that we need to be following to address the broader problem generally. I know we are certainly headed in the wrong direction for fatalities this year, but it shows there is a lot of work to be done and it is not only in relation to the pandemic. I think I will leave that statement there and turn over to questions.

The CHAIR: Wonderful. Thank you so much for that and the comprehensive submission that you made. It was very interesting reading. We will open it up to some questions, and we might get around a couple of times. Jess, we will start with you.

Jess WILSON: Thanks, Chair. Thank you very much for appearing today and for your submission. I was interested in your submission around the point you spoke about just there, around economic conditions and the potential correlation or causation that might have with road trauma and the point you make in the submission around unemployment in particular. We saw unemployment tick up during the pandemic, and we saw road trauma fall. We have now got a period of sustained low unemployment, but we have seen road trauma spike in recent months. Do you have a sense of why that might be the case? What is the linkage there if there is a clear linkage, or do you think it just happens to be potentially just one of those things that happens?

Professor Stuart NEWSTEAD: No. People have been studying the association between socio-economic factors and road trauma for decades now, and in many countries—not just Australia—there has been a clear association between the level of economic activity and road trauma. How you measure that economic activity can vary slightly, and in the work that we have done we have looked at a number of indicators. It can include things like number of people employed, it can include things like gross state product, it can include things like

unemployment rate. We look at those and we find an indicator that has the best correlation with the outcome, and we generally work with that. It is important to understand how these factors may influence road trauma in the future, because they are essentially outside the control of the general road safety remit.

What you tend to find is that in times when the economy is vibrant, so unemployment is low, road trauma actually goes up. That association has been found by quite a number of people. Why that is the case is actually an unanswered question in research. There are some theories and hypotheses around that that are currently untested, but they can include things like, 'Well, if people are employed, they're travelling more because they're working and they're moving about.' But it does not seem to be only that, because even when you correct for travel exposure there is still an influence there. So it could be things like discretionary travel. How much are they holidaying? How much are they travelling at night for events? It could also be their mindset. 'Do I mind if I get a traffic fine?', for example. 'If I've got a job and I've got cash, then I'm not so worried if I get fined.' But the truth is we actually do not know that. It would take a reasonably well-structured longitudinal study to actually bring those associations, where you can get cause and response at an individual level to understand how people's attitudes and behaviours change in different economic circumstances. But the fact that the association is there and has been there for such a long time suggests there is a cause and effect.

During the pandemic lockdowns it was probably a different aspect, because there was a real disconnect between travel and the economy in those times. But what we have seen very clearly is that after that lockdown period things actually returned to what we would expect quite quickly. Now, when we look at the association—the association is particularly strong with fatalities—for every 1% decrease in unemployment rate you get about a 0.3% increase in fatalities that you observe on the road. So if you think about the current situation, pre pandemic we were running at about a 5.1% unemployment rate. We are now running at about 3.5%. Based on the associations we have, that would indicate an increase in fatalities of about 8% just by that factor alone. So it is a significant contributor.

Jess WILSON: Thank you.

The CHAIR: John.

John MULLAHY: Your submission raises long-term problems with hospital data. We had it raised earlier in some previous evidence that the data that is being picked up in hospitals is not the best. Why is hospital data so important, and what are the main issues limiting its use when analysing road trauma?

Professor Stuart NEWSTEAD: Well, hospital data is important, because we know that people who are hospitalised from road trauma tend to have the most severe long-term outcomes. They also represent one of the biggest cost burdens to society in their treatment and rehabilitation, because for every fatality you have an order of magnitude—a higher number of serious injuries. So they are a significant burden in terms of road trauma. Often basing road safety policy on fatalities alone is difficult, because fortunately in this country and in this state they are relatively rare, even though there is a way to go still. When you are trying to do good research, fatalities alone are very limiting in terms of the statistical power you have in your analysis. So having a broader set of serious consequences to work with allows you to generate better research evidence on what works, what does not work and to monitor trends. They are actually quite critical data.

Now, the issue seems to be, firstly, if you are relying simply on hospital admission, there may be influences of things like hospital admission policy on what that series looks like. So it is not just the road safety performances that are affecting that trend, it is actually other underlying administrative factors that can affect that trend too. How much that impacts, we do not quite understand. Also we know that hospital data covers much more than has been reported by police. Police have limited resources. They report obviously what they can diligently, but there are always other things that go unreported for whatever reason. So having a secondary validation of what that bigger problem looks like is actually really important. If we look at New South Wales, who actually have a very strong linkage program with their hospital data and their police-reported crash data, it shows that for certain road use groups, like pedestrians and cyclists, more than 50% of the problem can actually go unreported by police. It is important to have that broader information.

One of the limitations of hospital data of course is that it is very limited in the circumstances surrounding it, so we do not know necessarily where the event happened. We do not know the circumstances of the event and who else is involved. Enhancing that data with, for example, a linkage to ambulance information, and

enhancing it in whatever way we can, would provide a really great dataset to work with. I think in our submission we showed that some of the trends we saw from the hospital, the ED presentations and the hospital admissions, were quite different to what we saw in the official police data. It is important to understand that.

Hospital data also is important because it has a higher level of detail on injury outcomes to people. If you want to develop very specific countermeasures, like ‘What is an airbag in a car going to do for trauma?’ for example, you need to understand what injuries are actually being sustained in what context so you can actually target the best countermeasures to those injuries. Hospital data has an absolute richness of information about the injury mechanism and outcome, the body region severity and all those sorts of things. It also provides you, picking out with other metrics, a basis for reporting serious injuries. You have probably heard of the abbreviated injury scale—that is a mechanism by which we can classify the severity of injuries. We can then start to look at the trends in injuries of various severity, which is also important, to see how we are progressing with road safety and what those countermeasures should look like. Do you want to add anything there?

Associate Professor Janneke BERECKI-GISOLF: I think you covered most of it. I would have said that for an injury of a road user type like a cyclist injury, you are really not capturing it anywhere else. So I think if you compare it to a police report or TAC claims data, you are not going to see many of those in a completely different order of magnitude to what you pick up in the hospital data. Most of the cycling injuries are not actually crashes with motor vehicles; they are falls or they are hitting stationary objects. You will not see them anywhere else. That is some of the importance—you cover all of transport, not just crashes.

One of the other limitations, apart from the ones you have already pointed out, is that what hospital data does not tell you is time and place where it occurred, especially the place, which for transport is quite different to the residential area of the person who is injured, which you do get.

Professor Stuart NEWSTEAD: That is why linkage of things with ambulance data, for example, can be really informative, or setting up other mechanisms to collect that data to complement what you are doing.

John MULLAHY: Excellent. Thank you.

The CHAIR: Dylan.

Dylan WIGHT: Thank you, Chair. I just want to ask about road infrastructure improvements. A lot of the evidence that we have heard today has spoken about how critical infrastructure is in reducing risk for vulnerable road users. So I am just wondering if you have got any specific examples of where infrastructure has positively influenced people’s behaviour around road use.

Professor Stuart NEWSTEAD: I think, as you have probably heard from other submissions, vulnerable road users are particularly prone to injury, which is why they are called vulnerable, and really there are two mechanisms that you need to improve that. One is, where there has to be interaction with other traffic, to make sure the speeds are particularly low so you are operating within that boundary of injury tolerance—30 k an hour is a figure that is often put forward and 40 kilometres an hour is another one. But really if you want to address that problem in the pure sense of a safe system, you need to try and separate vulnerable road users from regular traffic. There has been quite a number of initiatives to try and do that. Dedicated cycling paths are a fantastic infrastructure for getting cyclists away from cars—absolutely it should be a facility where there is big cycling exposure. But also pedestrians—providing facilities where you are separating pedestrians and cars. For example, in the CBD here we have got lowered speed limits and we have got some particular infrastructure to try and support that.

Where we find the problems occur, though, and the most severe problems, particularly with things like pedestrians, are as we move out into the suburbs and the outer-urban areas where speeds go very high. You are needing access to pedestrian facilities, so things like transport interchanges. They are they not currently being managed very well, and our speed limits around them are often not appropriate for that interaction.

There are many things in infrastructure you can do. Separation is the best, but if you are going to allow interaction, you have got to manage speed in that environment. You can do that by innovative treatments which force people to drive slowly or you can have enforcement accompanying that as well. All that is part of the systems approach to try and improve a vulnerable road user’s safety.

Wayne FARNHAM: Thank you, Chair. Thank you so much for your submission. One thing we are talking about in what we are doing now is driver behaviour. Aggression seems to be a big part of that. Many submissions have stated that drivers appear to be more aggressive and inconsiderate on the roads since the pandemic. To what extent does the research back this observation?

Professor Stuart NEWSTEAD: Aggression is a difficult one to measure. I do not know that we actually have a valid measure of aggression on the road, an actual measure of how that has changed over time, so I think the short answer is we do not have good evidence. A lot of the evidence we see that is presented is anecdotal, and I think it is not unreasonable anecdotal evidence in that space. Certainly in other domains like, for example, school environments we have found people's attitude to community and connectedness has changed radically, possibly as a result of lockdowns, and potentially that inability to interact and understand that you are in a community and you need to sort of be taking care of and accommodating one another may have stretched into the road space as well. But there is just so much more work that needs to be done in understanding what people's behaviour is, getting objective measures, looking at that over time and then seeing what can be done about that.

In the workplace driving space, MUARC has recently done some research looking at helping people manage aggression and frustration in the car. We call it our reducing angry driving program, and it has actually been quite effective because we know that in the workplace particularly people are very stressed and want to get their job done and so they often get frustrated and push the boundaries. It is not only in the workplace—I think it was mentioned before that around school pick-up time there is a lot of angst and frustration from parents about getting there, getting the kids picked up. These programs show that people have that anxiety and there are ways to deal with that, but it is early stage development of those processes so far. I think there is room to improve in that space but as yet we just do not know enough about it. There is a lot more research to be done in this space.

But I agree, anecdotally I think certainly that has been the case. As you have seen in our submission, during the lockdown periods those people who continued to use the roads had essentially great freedom so they could speed more, they could do whatever they want. Adjusting back to having to deal with congestion and traffic is probably very frustrating for those people essentially that had two years of free rein on the road. Understanding that and understanding how to deal with it appropriately, whether it is enforcement, whether it is other educational programs, whether it is technology in vehicles, the best way to approach it, I think, is something that we really need to think more carefully about, because it shows people's behaviour and attitudes can actually change very quickly based on the circumstances they are exposed to. Understanding how to deal with that, what the motivators are and what the pressure points would be for change in that really need to be understood carefully.

Wayne FARNHAM: Thank you.

The CHAIR: Anthony, do you mind if I just jump in just to build on that question as a follow-up? Then I will come back to you.

Anthony CIANFLONE: Yes, please. Of course, Chair.

The CHAIR: With the aggression, I was going to ask a very similar question but as it relates to the stress and fatigue that we might have felt during lockdowns or burnout or trying to juggle family, working from home and all those other things and then we are still feeling may be a little bit of that fatigue in our new norm. Obviously your fuse gets a little bit shorter when you are tired and stressed and all those things. Can you measure that? Police talk about fatigue as well on our roads. How do you research that?

Professor Stuart NEWSTEAD: There has been quite a wealth of research around what fatigue is. Fatigue differs from person to person, and it can vary from day to day for an individual too. There are attempts to measure that through various technology devices now, so with MUARC's work we have seen machines, we have looked at things like eye tracking and fatigue monitoring, particularly in the trucking industry. A lot of vehicles are now coming with fatigue monitoring devices so they can look at things like steering wheel angle, because your variance in steering wheel angle is a giveaway that you are becoming fatigued, and also eye-tracking units in some of the more sophisticated systems.

The ANCAP program is I think in the future going to be introducing that as a protocol itself, so I think there are tools coming to measure that and there are objective measures based on that. It is going to be important that we

actually evaluate the effectiveness of that, because it is a recent, developing area where we now have the technology and the metrics to actually ascertain what fatigue is and how to advise people. Of course when you talk about in-vehicle systems, for example, the vehicle might warn you but you have also then got to respond appropriately to that, so there is a human factor element of the response. I think there is a lot to learn in that space. It is definitely an issue.

I am sure fatigue has come up as an issue post pandemic as people get back into their normal routines again. And there is something that has also been noted in the research too, that we have what we call a 'low mileage bias', where people develop a fitness to drive, if you like. When they are not driving very often they sort of forget the process that they use to drive, and we see it a lot with older people, so the crash rate is commensurately higher per kilometre driven because they do not have that sort of broad experience in dealing with traffic, hazard perception, response and managing their own day-to-day stresses in that pathway. I suspect—although again there is not a lot of concrete evidence around this—there has been an element of that in the recovery from the pandemic, that as people get back to returning to the workplace we are probably seeing some of that low mileage bias effect creeping in as well, which over time will probably resolve itself but it is again one of those things that could spike road trauma in that period after a major disruption.

The CHAIR: Thank you for that. Anthony.

Anthony CIANFLONE: Thank you, Chair. Thank you for your work and your submission; we very much appreciate it. Obviously MUARC has been established since 1987. You are one of the longest standing, most credible and well-known institutes in terms of what you do, so thank you. That should be acknowledged. My question is more around the next phase of reform for road safety and what you think the priorities should be. I guess in Victoria's context for a long time we have had some landmark reforms over the years introduced as firsts in many respects. In 1970 we had seatbelts introduced, in 1976 breath testing, in 1986 speed cameras, in 1990 bike helmets, in 2001 the 50-kilometre speed limit, in 2004 random drug testing commenced rollout and in 2011 stability control was made mandatory in new vehicles. I guess in your mind, based on all the research, the work and the evidence you have collated, what do you think are the priorities that we should look into or consider further in terms of the next big waves of key reforms to protect all road users but particularly vulnerable road users and pedestrians, cyclists, the elderly and others.

Professor Stuart NEWSTEAD: Yes, excellent question. Victoria, like so many other jurisdictions, now has this philosophy of aiming for what we call a 'safe system', so it is where people can make legitimate mistakes and they will not get killed or seriously injured or have long-term consequences on that road network. That is an incredibly noble cause, but it requires us to think about what is the practical pathway to do that? All the things you have just talked about are on that pathway; they are really important aspects. But what we still find we have in a system is we have—it is important when you talk about defining what a safe system is to understand that humans have tolerances, and if you exceed those tolerances, you are going to kill or injure them. We have got to have a system that forgives that. Currently in most places in the world there is still a defined mismatch between the speeds at which we allow people to travel and the infrastructure that they are travelling on or in, so that includes the car and the road itself as well.

Now, I think to make the next big step in road safety we need to acknowledge that and think how we address that mismatch. There are clearly two ways to do it. Firstly, and what would be most preferable in the minds of the population, is you spend the money on the infrastructure and upgrade it to a point where they can still have the same mobility and access to mobility but if they make a mistake, then they do not pay for that mistake. Clearly continuing to spend on infrastructure and continuing to progress vehicle safety, acknowledging the interaction between those two, is really important. But there are going to be elements of the system where you cannot afford to do it immediately, so you have got to look at things like speed management. It is always a difficult conversation to have with the population, to say we need to lower speeds on the road, and particularly in regional areas where people need that mobility and they need that access, but it is a conversation we need to start to have because if you do not address that mismatch on either one side or the other, you are still going to have trauma occurring. It is a difficult conversation, because one says you have got to spend a lot of money, and economic circumstances are tight, and the other says you have got to start to curtail people's access and use of the system to some degree. We have to get that balance right, but we have to have the conversation: which way do we want to go, and how do we need to do it?

But we need to also acknowledge that the transport system exists for a purpose of facilitating economic activity and transport, so going too far down the road of curtailing use is problematic. It suggests you still have to invest in that infrastructure to make sure that the underlying tenets of the transport system are still met, so it is really important. Another important issue in that conversation is to say, in the assumptions of making a system safe, there are boundary conditions, as we call them, where people must be behaving in a certain way. Now you can put technology, for example, in cars that says, 'This technology won't allow you to speed, it won't allow you to drink drive', all those sort of things—you can do that. That is there on the table. The other way you can do it is through enforcement, and I think a combination of those two things is also important to put into the mix to say that we need to make sure that people are compliant with those boundary conditions. The sort of things we are talking about now are exactly people speeding, people drink driving—all of those sorts of things are problematic because they are exceeding the boundary conditions of that system.

You need to consider all that and make sure you are balancing it. It is absolutely not an easy thing to do from a political context, because as I say you have to either spend lots of money or you have to curtail the ability of the people to use the transport system in certain ways. But if you want to make it to that end point, which I think everyone notionally does, you need to have that conversation and you need to have that conversation really honestly with the population about what are you doing and what the consequences are of doing that, and of not doing it, as well. It is a really difficult conversation, but it needs the evidence presented to the population as well to say, 'If we do this, this is the consequence.'

Not wanting to sound self-serving, but research is really important to back that up. For example, when the previous government changed we had a lot of questions about, 'Well, the speed camera program, is it doing the right thing, or is it just a revenue-raising activity?' The research evidence was able to inform the VAGO inquiry and come out and say, 'No, this is actually a good thing. What we need to do is communicate what the program is doing better with the population so they understand it is a benefit.' And I think that goes for so many aspects that we see in road safety, that we need to have that conversation and we need to be pushing it, not saying, 'Oh we can't do this because the population won't like it.' Well, if you do not explain it, the population will not know why you are doing it, either.

The CHAIR: And I think it goes—John had a question—

John MULLAHY: Yes, I was going to lead onto but how do you actually communicate that through to the public? Obviously you are doing all this great work at MUARC and the research that you do. How do you actually communicate that and start those conversations?

Professor Stuart NEWSTEAD: I think it is a role for education, a role for the media. It is a role for the politicians as well to take the time, and this is where research often falls down a bit. We talk about academics in their ivory towers, but research needs to go beyond just the research itself: we need to talk about the research translation—getting people to understand what that research means, what it is telling you, what it is not telling you—and be able to communicate that in a way that can be understood by the population.

At MUARC we get lots of requests from the media to talk about our research, and that is a great way to talk about it. Talking about it just today: what are the issues around our penchant for buying four-wheel drive utes and what impact does that have on vulnerable road users? Well, it is quite significant. We have a lot of evidence around that, and most people do not think about that when they go and buy a vehicle; they go, 'This will be great for the weekend, I can put my bike in the back and away we go.' But if they are not thinking about that other dimension, then they are not making an informed decision. There are so many examples we can give of that, so using the media, getting the academic fraternity to help you to understand and translate that research so it is actually accessible by the bureaucracy, the population, anyone who wants to know about it, is actually a really important investment, and often we do not invest in that side of it so much, it is done sort of as an extra. I know I spend a lot of my personal time talking to the media in an unpaid capacity almost to do that. We need to acknowledge that that is a really important thing to do, and I think we are getting better at those communication aspects now.

John MULLAHY: Excellent.

The CHAIR: Thank you. Jess.

Jess WILSON: Thanks, Chair. Professor Newstead, you touched on this little bit previously, but: what impact does the older vehicle fleet have on road safety and road trauma? I think Australians tend to hold onto vehicles for quite a period of time, and with newer vehicles coming onto the market that have safety requirements or safety mandates, whether that is—many new vehicles will not even start moving unless you have got your seatbelt on, they have got rear-vision cameras, they have got blind spot indicators. What impact does that older fleet have on road safety more broadly, and will that, do you think, over time, as we see more newer cars come onto the market, help change that? Given we are in a cost-of-living crisis, fewer people are probably thinking about changing over their car at this point.

Professor Stuart NEWSTEAD: I think our historical research shows that the contribution of improved vehicle safety to not only maintaining the line but improving our road safety performance has been absolutely critical. Largely the disbenefits we have seen from population increase have been offset and more, almost singularly attributable to the improved vehicle fleet. So it is actually critical that we get the best possible vehicles out there as quickly as possible. I think year on year you are looking at about a sort of 2 to 3% reduction in road trauma, just from turnover to the fleet, and that is significant. So if we did not have that over a 20-plus-year period, it would be a significant problem. And I think with the new technologies coming in for crash avoidance—we are still getting benefits from improved occupant-protection performance, from airbags et cetera, but the newer driver-assist technologies are going to add to that as well.

I think what we have seen recently in the change in economic circumstances is a concern. Firstly, as a result of the pandemic, we have had supply constraints on new vehicle sales. That will hurt the average age of the fleet, and that is not good. A study we did a couple of years ago with the AAA showed that if you even reduced the average age of the fleet by one year, you could have significant road trauma benefits—about 5% trauma benefits for every year of age you can reduce that, potentially. Also the other thing is the cost of living, because the price of vehicles has gone through the roof. Now, there are some people who can still afford to buy them. That is good. But what we know is particularly that the cost of getting our most vulnerable and most at-risk population, our novice drivers, into safe vehicles is critical. Our research shows you could reduce novice driver road trauma by 60% if you could just get them into the safest vehicle even of the age that they had. This is substantial. There is really untapped benefit in that as a countermeasure. But with vehicles getting more expensive and second-hand vehicles more expensive too, it actually limits the access.

Now, if they are not buying a vehicle at all and taking public transport, that may solve the problem, but if they are forced into very old vehicles, it is only going to exacerbate the problem that we have already measured in that space. So it is something that I think we need to keep a careful eye on. Things like the vehicle replacement program that has been offered for novice drivers by the Victorian Government makes an excellent start. ‘How can that be broadened?’ and ‘How can that be targeted at the most vulnerable?’ are really key things for people that actually really need that vehicle to go about their daily life, whether it is to hold a job or attend education or whatever.

The other thing that concerns me too is with the shift to electrification, obviously. Vehicles are going to be even more expensive, because electric vehicles cost \$20,000, \$25,000 more in terms of real cost. That is going to limit accessibility in the new vehicle fleet. And that is not to say we do not want the environmental benefits, but we have got to be very conscious of what that might do to the age of the fleet and accessibility particularly for our most vulnerable and our novice drivers.

Some recent research we did shows the typical novice driver inherits a vehicle that is between 10 and 15 years old, usually from someone who looks an awful lot like their parents or grandparents—and that is a typical pathway to vehicle ownership for a novice driver. Very few novices will get a nice new vehicle with all the things needed on it, and it is strange, because we have a complete paradox in vehicle allocation. Our least-likely-to-crash cohort—our middle-aged, wealthier drivers—are the ones that have all the best quality vehicles that do not actually crash, and they probably do not need them. They should be given to other people. So free market economies do not work in optimisation in that space.

Jess WILSON: One quick one: you touched on electric vehicles. Is there any research that suggests that people are holding back from purchasing a new car because they are waiting to see whether electric vehicles fall in price in the coming years? You spoke more broadly about supply constraints in getting new vehicles into the country. Electric vehicle hybrids are particularly difficult to get in at the moment. Are there any data points that show people are holding back from purchasing new cars, waiting for that next wave?

Professor Stuart NEWSTEAD: Not that I am aware of. It is not a question I can give you a definitive answer for, unfortunately. What I will add to the last point though is one of the biggest problems we have is our heavy vehicle fleet—it is ancient in this country—and finding mechanisms to actually replace that. The average lifetime of a heavy vehicle in this country is about 35 years on the road, and of course it moves sort of down the tree to smaller operators, and probably less safety conscious operators, as that vehicle ages too. So it is not just our light vehicle fleet; it is actually our heavy vehicle fleet that needs particular attention as well. And that is a growing problem, because we know heavy vehicle exposure, with the move to things like online purchasing et cetera, is actually growing faster than anything else. So let us not just talk about light vehicles and electric; it is actually the heavy vehicle fleet we need to address as well.

But in response to your original question, I do not know. It is possible that people are, but whether that is just caught up in the supply chain issues, I am not sure. It is something that, again, needs a bit more thought, and really thought about what policy would look like to actually change that behaviour.

Dylan WIGHT: Chair, can I –

The CHAIR: Yes.

Dylan WIGHT: Very quickly, on top of the point you just made around our heavy vehicle fleet, is there any research that has been done, or even anecdotal comments you can provide, on the sort of benefit that the Victorian Government's policy to significantly turn over the bus fleet before 2030 might be able to make in this space?

Professor Stuart NEWSTEAD: Unfortunately, from the work we have done on heavy vehicles, buses are not the particular problem. It is actually rigid vehicles, and particularly those operating in urban areas, which are the significant problem. If you want to make the big road safety gain, you would focus on that as a vehicle cohort to try and improve the performance of that type of vehicle. Buses fortunately are often driven by people who have probably better standards of training and operation and scrutiny because they have got very precious cargo on board, typically. So when we look at the crash statistics, buses are a relatively small part of the problem. When it goes wrong, it goes spectacularly wrong, and that is a huge issue, so we will want to ensure bus safety is as good as possible. But in talking about the total trauma burden from the heavy vehicle fleet, it is the rigid fleet, particularly in urban areas, that needs the focus.

The CHAIR: Wayne.

Wayne FARNHAM: Thank you, Chair. It was stated that risky driving increased during COVID. What I am curious about is: did you do a study between regional and metro—the difference between driving behaviour in regional and metro? And why do you think people took more risks during COVID, and do you think that will continue?

Professor Stuart NEWSTEAD: As I say, measuring risky behaviours is difficult. We were able to look at some differential between the two regions, using the traffic camera data as a basis. That is not ideal because it is not necessarily a fully representative sample. I think there were some differences. Whether we can hang our hat on that evidence to say for sure that there is a difference—but how we address it and how it is recovered is difficult. I think to some degree things like speed behaviour have been curtailed in urban areas, again by congestion. That is not how you want to curtail speed behaviour; you want people to be compliant generally. But it shows there is also always in this space a role for enforcement to try and curb behaviour. I know people hate things like speed cameras, but the evidence around shows that they are incredibly effective for getting compliance in the population in speed behaviour. Also, the additional other automated enforcement technologies are going to be beneficial. But again, it is why we need the conversation to say, 'The evidence shows when you do this, this is what you achieve and you are safer because of it'—or not safe. Sometimes we get these things wrong and we need to say, 'Okay, we need to change where we put this or how we operate that', and again, that is why the research is important.

Again, understanding beyond what we have been able to propose as metrics from our study, I think it is important to actually think about a metric of driving behaviour and an ongoing measurement of that so you can actually see what is going on, so we can understand both: what is the need for addressing this as a behaviour, and how do we best address it with the countermeasures that are available? Because there is a big black hole in the understanding of what that sort of behaviour in particular looks like. People see it day to day—that is why

they are reporting on it as part of these submissions. But we really do need a proper, objective measure that is looked at in an ongoing sense so we can track what that is and understand people's motivation behind doing it as well. All that needs to be established, because once you understand the extent of the problem and the drivers of the problem, you can then understand how to address that problem adequately.

Dylan WIGHT: Thank you.

The CHAIR: Thank you. We are out of time. I am sure we could ask a lot more questions. It is fascinating research that you do, and I thank you for your submission and your time today. We really appreciate it.

Professor Stuart NEWSTEAD: Thank you for the invitation to present to you.

Witnesses withdrew.