

THE LEGISLATIVE COUNCIL SELECT COMMITTEE ON ROAD SAFETY MET AT NSW PARLIAMENT HOUSE, MACQUARIE STREET, SYDNEY, ON MONDAY 2 FEBRUARY 2009.

DISCUSSION WITH **Dr SOAMES JOB**, DIRECTOR, NSW CENTRE FOR ROAD SAFETY, AND **Ms MAUREEN ELLIOTT**, MANAGER, YOUTH COMMUNITY AND EDUCATION, NSW ROADS AND TRANSPORT AUTHORITY.

Ms ELLIOTT - The way that we work with children's services across the State is that we have a program with the Institute of Early Childhood at Macquarie University. They are at the forefront in working with children's services, in educational curriculum, safety and just general policy. So we use that model. They work for services on a whole lot of levels and deliver our road safety program through that model. It has been integrated and amalgamated with a whole range of things. If they are developing policy for children's services, such as through the Department of Community Services, and they need to develop a policy on transport and children, then our road safety policy and education will come into that. So it is a nice holistic package.

Ms FORREST - So you have staff who are trained to go out to the child-care centres and schools?

Ms ELLIOTT - Yes, we have a system of consultants whereby we enter into a program agreement with, in this instance, the Institute of Early Childhood. But if it was schools it would be the Department of Education, and Catholic education in independent schools. Our program agreement with them is to fund consultants who are teachers but also have an expertise in road safety and their role is to work with all teachers in schools. So we actually do not go into the classroom and teach students. We up-skill the teachers with resources and professional development so they can embed it into normal lessons on a continuum.

In New South Wales road safety is a part of a mandatory curriculum, so we are lucky in that respect, in that it needs to be taught. We give them the skills and the resources to make it easy for the most novice teacher or the most experienced teacher. In that respect we can be reasonably comfortable that road safety is getting to every student at every stage of their education.

Ms FORREST - How is it funded?

Ms ELLIOTT - We have funding for the consultants for their salary and for teacher release so that they can either go into the schools and work one on one with the teachers or they can do professional development where they get a cluster of teachers together and take them through a couple of hours session on a particular issue. Generally it is built around the educational resource that we have produced. We pay for the consultant and the teacher release. Internally, in the Centre for Road Safety, we develop the educational resources. Even though we develop them in conjunction with the educational agencies, we take responsibility for the production and they are distributed free to every school.

Ms FORREST - So it comes out of the Department of Roads' budget then?

Ms ELLIOTT - Yes.

Ms FORREST - Nothing out of the education budget?

Ms ELLIOTT - No, it is in-kind, almost, from the education agencies.

Dr JOB - Because it is part of the curriculum the education agencies in effect are paying for the teaching and we will pay for the in-service, training and materials, but the actual delivery is part of the curriculum taught in schools.

Ms FORREST - When was it made part of the curriculum; is that a fairly recent thing?

Ms ELLIOTT - No, I would say it has been about 12 years.

Ms FORREST - We often hear teachers say, 'Not another thing to teach'. That probably happened here, did it, and how did you overcome it?

Ms ELLIOTT - Yes, and it still does. I think it is that we make the resources that we produce so easy and living to the teacher that they cannot help but use them. So we have gone very much in the last couple of years down the technology line. We have a lot of on-line interactive activities that the teacher can teach at the front of the classroom. The students can work on it from their computers. There is a lot of small group work and there is a lot of information that gets taken home for activities to do with parents and so forth. So we have a number of streams in which we make sure that the messages and the road safety education is being delivered. Obviously we have different categories of students across the State. We have our indigenous community, which has a different learning style, so we might modify the resources for those needs. The resources are broad enough to be adapted to any classroom need, and that is what we think is probably the strength of the way we deliver the education program and why we do not go into classrooms. In fact we try to strongly advocate that schools do not have the once-off person coming in and doing a presentation because, not understanding the learning needs of those students or the personal history of the students, you could come in and talk about the all the gore and everything you want to but you may not hit one student.

Ms FORREST - You discover the one who has lost a mother to a car accident the week before.

Ms ELLIOTT - Exactly, and we have had evidence of that as well.

Dr JOB - I was describing an effect which is generally called the 'optimism bias' or the illusion of invulnerability. If you ask people about their future in terms of good things or bad things, you get a very distinct pattern. That is, most people believe that good things are more likely to happen to them than their peers - the average people around them - and they believe that bad things are less likely to happen to them than their peers. Most of us believe we are more likely than average to be successful, to have a happy marriage, to have successful children, to be financially secure. We believe we are less likely than average to have a heart attack, to die of cancer, to have numerous negative things happen to us. That misperception, while it has a value in many aspects of society, has a disadvantage in terms of general risk-taking and public health, including on-road

behaviour. So most drivers believe they are better than average drivers. In New South Wales only 2.1 per cent of drivers believe they are worse than average; more than half believe they are better than average. Statistically that is just not right. Most of us cannot be better than average. What this tells us is that people's perception of personal risk is very inaccurate. It also informs us that the reason a lot of very high-fear-gore-type messages do not work is that people do not perceive them to apply personally. In fact if you ask people about those messages, very often they will tell you how good they are and also things like, 'I'm glad you're telling them this', but they do not see it as a message for themselves personally.

CHAIR - We would be glad to hear from you about the main initiatives that are being taken by your department in terms of road safety, particularly any innovations.

Dr JOB - Maureen has given you an extensive description of the education program we have in schools; that is a significant ongoing part of our work which we constantly update. There have been many updates at every stage of that work over the years. Recently it was introduced to the English curriculum so that we get years 11 and 12 of high school as well as all of the previous years, all the way back to kindergarten.

Ms ELLIOTT - The RTA funds through the various education agencies an extensive road safety education program that is built into the mandatory curriculum from K-10. We also have an extensive early childhood program. The model is based on funding of the educational agencies for the employment of consultants, who are expert teachers but also up-skilled in road safety. Their role is to work with schools across the State to help them to deliver road safety on a day-to-day basis or on a curriculum-stage basis, as needed. We produce all the educational resources required for road safety education. We do that in conjunction with the board of studies and the three education agencies and we carry the cost of those and provide them free to every school in the State. I am more than happy to provide you with any copies that you might like to have a look at. At a later date we can get them to you.

So the education program is evaluated every four years to make sure that it is being delivered in adequate amounts to schools across the various stages. Historically, as Soames mentioned, we have had somewhat of a difficulty getting it into that very vulnerable area of years 11 and 12, the last two years of schooling, because the only mandatory curriculum that they have in those two years is English. So to try to offset that issue we have now developed a road safety education resource that is based on the English curriculum. It looks at a whole lot of advertisements, radio and articles and gets the students to review them, critique them, look at them in terms of their provoking imagery and so forth.

Ms FORREST - It is a communication tool, basically?

Ms ELLIOTT - It is a communication tool but it is linked absolutely to the HSC syllabus so we have been lucky and it has been embraced very well by English teachers.

Ms FORREST - In Tasmania there are, I think, three English subjects at years 11 and 12: communication, English studies and English writing. I can see how you could fit it in English communication. Kids only have to do one English subject, though some do two over the two years. Is that an issue here?

Ms ELLIOTT - It is and it isn't. We have two types of English curriculum - standard and advanced - and this resource can dip into a number of the core elements of each element of that curriculum. Marketing and communication is one, writing is another, so from the lowest level English there are at least two or three entry points for which this can be used to meet the outcomes of that curriculum. We have moved. Although predominantly road safety sits in the PDHPE curriculum - Personal Development, Health and Physical Education - because that's where the safe living element is, we have moved into other areas of the curriculum to try to pitch it from different angles. Legal studies, for example, have taken some road safety and built it around crash investigations. Mathematics have used the crash data to try to get some analysis there, so even though we do for the most part use the PDHPE curriculum, our venture into English has been very good and very well received by teachers.

We have had a road safety questionnaire in the last two out of three school certificates, and one HSC question, so slowly but surely it is being integrated into a number of areas that we feel are useful because by the time they get to years 11 and 12 I don't think they want to hear the words 'road safety' any more. If we do pitch it in terms of peer relationships, peer pressure, decision-making and risk-taking, it is possible that we can influence them and get them talking and thinking about those decisions that they make.

Ms FORREST - So is it totally theoretical; there's no in-car work at all?

Ms ELLIOTT - That's correct. However, because we have become more interactive, we put in a number of things for a student to work through. There will be some crash scenarios and some animation footage for them to think about, but in terms of driving instruction, no, we don't do that. It is very much about education.

Ms FORREST - Are there any organisations that provide that driver training to school students of that age? What do they do?

Ms ELLIOTT - Seventy per cent of the schools are Department of Education schools, the rest are a mix of 20 and 10 per cent Catholic and independent. The Department of Education has fairly strict guidelines on driver education within the school setting. There are four criteria. It must be done in a dual control car, it must be at no expense to the student, it must be done out of school hours, and it must be undertaken by a fully qualified driving instructor. To meet all those criteria is quite difficult, and if you have a classroom of even only 20 to 25 students, to provide driving instruction is quite difficult. So the Department of Education are not saying no, but there is little likelihood that a school will take up that option because it is not anywhere in the curriculum, and the teachers are all about delivering the curriculum.

Ms FORREST - The schools have to individually fund it through their own budgets.

Ms ELLIOTT - That's right, yes. There are a few independent schools that bring in private driving instructors because they don't come under a board as such. They have their own school board, so there are a few of those occurring but not on a regular basis. There is no quality control about them and it doesn't give them any accreditation towards their driving licence. It is really to fulfil a school community need that driving instruction is absolutely what is needed.

We would argue that perhaps it's not the driving skill that's putting these young people into difficulty on the roads; it's their attitude when they get behind the wheel. Most of them will pass their driving test without too much of a struggle, so giving them additional tuition in a school environment we don't think would have any particular road safety benefit.

Ms FORREST - So what do you think has the biggest impact on preparing them to be as safe a driver as they can be?

Ms ELLIOTT - I honestly believe that increasing on-road experience that we are requesting as part of their learner phase -

Ms FORREST - How many hours?

Ms ELLIOTT - A hundred and twenty.

Ms FORREST - So 50 to 120 straightaway?

Dr JOB - Yes. We previously required 50 hours in the log book. Now we require 120, including the night-time supervision, partly because the research showed a disproportionate number of night-time crashes for young drivers. I think it is worth talking a bit about this driver training issue. Classic studies show that off-road in-vehicle training offered by schools does not give a road safety benefit. In fact those studies generally indicate a road safety disbenefit; you get an increase in crashes because you simply encourage people to get their licence earlier. Crash rates for young people are affected by the amount of experience they have; the more experience they have the fewer crashes. It is also, separate from experience, influenced by how old they are. Someone who starts older with the same experience will have fewer crashes than someone who starts younger with the same amount of experience. That tells us that the earlier you encourage people to start the more crashes you will have.

Ms FORREST - At what age can a person get a learner's licence here?

Ms ELLIOTT - It is 16 years.

Dr JOB - Then they have to spend one year on their L-plates. If they go through in the absolute fastest time they can start solo driving at 17. That starts them onto the P1 phase - the provisional first level. They have to spend one year on provisional 1 licence. There is then another test to go to provisional 2 licence and they are on that licence for two years. They then have another test to go to an unrestricted licence. So there are four tests in five years: one to get your L, one to go from L to P1, another to go from P1 to P2, and another to go from P2 to unrestricted.

Ms FORREST - So with the big jump from 50 to 120 hours, there are people who currently complain about the 50 hours in Tasmania because of fuel prices and getting those hours up when there may be only one family car. I am sure it would have been an issue, but how did you overcome it? That was the way it was and they just had to do it? How did you mitigate the discontent that would have come with it?

Dr JOB - Partly it was a message to the community that gave the basis for it. Scandinavian research shows that people who had done around 120 hours of driving before going to solo driving had a substantially lower crash rate over the subsequent two years compared with people who had done 40 or 50 hours. The research says that there is clearly a road safety benefit in taking on those extra hours of supervised driving before you become a solo driver.

Ms ELLIOTT - We also tried to work fairly closely with the parents of learner drivers. We established a two-hour workshop for parents who were going to be supervising the learner drivers. This was not only to talk through the processes that were to be required in this graduated licensing process; it was also to give them the why and wherefore that the 120 hours was so critical to the safety of their child. We run between 250 and 300 workshops across the State each year. Even though the new licensing system has been in for 18 months with the most recent changes, we are still getting quite large numbers of parents or supervising persons coming to those groups. They network together and it gives them a bit more ammunition to say to their young person, 'No, I'm not going to sign your book off because that suggests that I'm going to let you drive without the recommended amount of hours that are required'. In the end it is an honesty system but most parents say to us, 'We wouldn't sign them off because then we're creating exactly what we don't want. It's putting them at risk'.

Mr DEAN - In that learning phase do you have a position where they can drive above, say, 80 kph? Some evidence we have been given is that, if they are taught to drive up to 80 kph, at that speed they very rarely pass another vehicle, therefore they don't have the skills to pass vehicles. You don't have that at all?

Ms ELLIOTT - No.

Dr JOB - We certainly hear this issue a lot. It is a balancing act. Are you going to say, 'In this phase you can drive over 80 kph', but under what conditions and when. There is a balance between, 'At this stage of your driving you are not as capable as a more experienced driver of handling that speed versus when do you eventually get the experience of that speed. Obviously you eventually need to get the experience above 80 but our view is that the evidence suggests that speed is such a profoundly important factor in crashes that restricting someone to 80 until they have at least passed that second test and demonstrated their capabilities seems a reasonable balance.

Mr DEAN - There is evidence to suggest that people get a licence to drive a sedan, small car and then all of a sudden they go into a 4x4 or a much heavier vehicle. Do you have any grading, any testing to move into larger and bigger vehicles?

Ms ELLIOTT - We have power/weight restrictions. In one phase they can't drive a turbo -

Dr JOB - A V8 turbo supercharged if it's petrol and various other specific cars that have a very high power. In fact that means that we are restricting the very high acceleration vehicles rather than the heavy vehicles.

Mr DEAN - Right.

Ms ELLIOTT - We do have some exemptions for when that car is the only car in the family, but the family has to demonstrate that quite clearly and we reject more appeals than we allow for exactly that reason.

Dr JOB - The reason we introduced a restriction of that form rather than on heavier vehicles was that the evidence seemed to indicate that the over-representation of young drivers in very serious crashes seemed more to do with the high-powered vehicles than heavy weight vehicles.

Ms FORREST - Has there been any research looking at particular car makes? I ask this because I know where I come from, in the rural part of Tasmania, the young boys of 17, 18 and 19, my sons' cohort of friends, all hankered after the Nissan Skyline, and the old Nissan Skyline because they couldn't afford the new ones -

Dr JOB - Because the old ones were very powerful.

Ms FORREST - That's correct. There was a crash yesterday in a Nissan Skyline with a learner driver who was over the limit being supervised by a 21-year-old driver who may have an unrestricted licence at that age but only just, and one of my son's friends was killed driving a Nissan Skyline a couple of years ago - at great speed, I admit. Have you looked at particular vehicles rather than just the power?

Dr JOB - We have not done a specific study into those vehicles but it is certainly our impression that certain vehicles like that are problematic and that was part of the reason for banning those particularly high-powered vehicles.

Ms FORREST - You made reference to a lot of evidence regarding the risk of speed in car crashes and the impacts. What evidence can you directly point us to that clearly articulates that?

Dr JOB - If you look around the world - and there are numerous studies to say this - you will see that where you put speed limits up, crash rates go up; where you put speed limits down, crash rates go down; where you increase the enforcement on speed, crash rates go down; where you reduce the tolerance at which you are enforcing speed, crash rates go down. In Australia the experience certainly supports that.

We have roads where we have changed the speed limit up and put it back down because the crash rate changed. There is a lovely study showing the Victorian experience. More speed enforcement was introduced and the tolerance at which they enforced speed was reduced and in the year they introduced that their fatalities reduced by more than 60 in a single year by virtue of that one change of policy about speed.

A good international analysis of it by Nelson shows that there is a power/function relationship so if you reduce mean speed by 1 kph you will get a 4 per cent reduction in fatalities. So each 1 kph down in mean speed will reduce your fatalities in the area where you do it by 4 per cent.

Ms FORREST - People could drive around at 20 kilometers an hour and probably would never have an injury on the road, but we would feel very frustrated. Is there a point where it becomes not workable?

Dr JOB - I am sure there is but in a sense that is a social question and a legitimate one. That does not mean that there is a point at which you stop getting road safety benefit but there is a point at which you have to balance the road safety benefit with the ultimate purpose of the road, which is for us to conduct transport and get mobility, and that is a balancing act between mobility and road safety. What we do know is that if you reduce speeds you get more road safety. It is really a public policy decision as to at what point you are going to make a cut and say okay, this is the minimum speed at which it is acceptable for us to have our mobility maintained.

Ms FORREST - There is a section of the road on the north-west coast that had a very serious crash record and prior fatalities. A few years ago on a wet day a car left the left-hand side of the road and crossed into the path of an oncoming vehicle and five young women were killed in the car. The people who ran into them were injured but not badly. There was no divider on that section of the road and the road surface was not particularly good; it was only new.

The roadworks were done to put a wire rope barrier up the middle, the road surface was upgraded but it had to be ripped up again six months later and was done again. At the end of the day the upgrade was undertaken on the road and they dropped the speed limit down to 80; previously it was 100. All this money was spent on the road, the coroner's recommendations were followed to address the issues, and the road safety people looked at it as well. They left the limit at 80 in spite of all the work. Then we have other sections of the highway that are quite windy and narrow, and only single lanes that are 100, just down the road.

When you see things like that happen people get a bit frustrated that this dual lane highway is still at 80 when it was 100. Yes, there was a nasty crash, and yes, lives were lost, but since then a lot of work has been done. So do we have to look at the roads as much as the speed?

Dr JOB - I do not know the particular road that you are talking about. I heard about the crash but I have not seen the road so I could not comment on that one in any detail. I think in broad terms what you are talking about is a profoundly important issue. The countries that are performing the very best in the world in road safety are doing so primarily by focusing on the road and the vehicle, not by focusing on people.

The issue is the safe systems approach to road safety, which essentially says we have to operate a system that is safe for people's transport. There is an obligation on the road builders and people who manufacture and register the vehicles to make those safe for who people to drive them.

The solution to road safety is not people's behaviour, the solution is to recognise that we are human and that we will always make mistakes. We should not expect people to suddenly become perfect or even to slowly become perfect drivers or perfect pedestrians. We never will.

Humans inevitably make mistakes. What the system should do is accommodate those mistakes by providing a road that is extremely safe, and vehicles that are safe. Indeed the kind of thing that you are talking about is a classic example. Wire rope median and

wire rope barriers on the outside of outside of curves are major solutions to road safety. They deliver very substantial benefit for the cost compared with behavioural programs for this reason. Where people keep coming off the outside of the curve, failing to take the curve, I may never find out why, but I can guess and start treating them. It may be because they are drink driving, it may be because they are fatigued and fail to see the curve, it may be because their headlights were not shining far enough, it may be because they are speeding, it may be because the road surface is wearing, it may be because they were distracted whilst on the mobile phone, it may be because they were changing the radio station.

I can then go and do behavioural programs on all of those things and get a little effect. Or I can put a wire rope barrier around the outside of the curve so if they fail to take that curve because they are speeding, fatigued, distracted or anything else, they hit the wire rope barrier and they do not get killed. So I solve every behavioural problem with one engineering solution. I think that is the kind of thing that works for road safety and that is the approach that we have been taking to our highway reviews.

In the last several years we have reviewed the entire rural section of the Pacific Highway that runs from just north of Newcastle to the Queensland border.

CHAIR - Did you use the laser bus from Monash?

Dr JOB - Good heavens no, we did a safety review. I would not recommend that, frankly. I think that is excessive technology looking for a use rather than a legitimate assessment of the safety of a road. For most of our roads we have enough data to know. What people should do more of is look at crashes. Where are the crashes happening; what is happening; what do you need to do about them? We do not need a technological guess as to where they will happen in the future. Most of us are in the ugly position that we already have enough crashes happening to know what we should be doing. We do not need technology to tell us where crashes will happen. If they are not already happening there you are not going to get good value spending money there. If they are not already happening there the chances are they won't in the future. You have lots of other locations where they are happening. Treat those locations.

Ms FORREST - We took evidence, and I cannot remember who from, almost contradicting that in saying that the majority of crashes happen in places where there has not been a crash before.

Dr JOB - A great many do because you have a huge road network. New South Wales has about 180 000 kilometres of road and almost 400 fatal crashes. If you spread those around the road network they are going to be very rare events. That does not mean that you do not get an overlap of injury crashes and fatal crashes.

Let me tell you the outcome of this. We started the Pacific Highway Safety Review in 2003. In that year on that section of the highway there were 55 fatalities. We took three years to deliver \$35 million worth of work on it and the year we finished there were 25 fatalities. There is no way you can cut and dice that where you do not conclude that we have more than halved the fatalities at an incredible bargain. That is 30 lives a year saved for the life of those works, which may be 15 years, and many more injuries. It saved far more injuries than fatals for \$35 million.

Ms FORREST - You could put a dollar figure on a death and on a serious injury to a certain extent.

Dr JOB - So you will get a very large cost-benefit ratio for those works. We then did a similar project on the Princes Highway from just south of Wollongong to the Victorian border and the fatalities on that reduced from 24 a year to four. Those programs work by focusing on where the crashes are happening and doing exactly the kind of thing referred to in the median wire rope barrier, in straightening curves, improving the road surface, separating the traffic, putting more forgiving barriers on the outside of curves where you know the crashes will happen and managing people's speed.

Ms FORREST - Is what you are saying effectively that rather than getting expensive analysis of the highway you can use commonsense approach that corners are likely places for crashes, so let us look at all our corners? Is that the approach you took?

Dr JOB - I would not call it a commonsense approach. I would call it a skilled analysis of crashes, engineering and of the psychology of how people drive. It is a careful analysis by a large group of experts, including road engineers, psychologists and traffic engineers. It is a very skilled analysis but it is not excessively technologically-based. It is based on where crashes are happening. Most roads in Tasmania, like New South Wales, have existed for years. You can look at the crash history and identify the problems.

Ms FORREST - When you know an area has had a number of serious crashes and fatalities, how do you get action on those accidents?

Dr JOB - That is a question about where Government put its priorities for road safety and how much resource is supplied for that agency to do road safety.

Ms FORREST - Unfortunately we are never going to stop some people speeding or taking excessive alcohol or drugs before driving. When one of these factors is the cause of a crash, does that mean the area still needs to be looked at?

Dr JOB - I would say you are right, there are some people who will behave in this manner and so it is very difficult to see how you could stop them from crashing. Nonetheless, if you look at the detail of how that crash occurred you might find for instance that they went straight ahead on a curve. That is a fairly common scenario for a high-speed, impaired driver. If you had a wire rope barrier there, you would not have stopped a crash but you probably would have stopped the fatality. It still comes down to providing a system which mitigates the consequence of those crashes. You may not stop those people from doing that, but there are things you can do to mitigate the consequence of their doing it.

I think a wire rope median is especially legitimate for that because sadly so often a driver crosses the road and kills an innocent person on the other side of the road. If you have that wire rope median, that will not happen. You could take away the head-on crash with an effective wire rope median. The wire rope median also means that you don't have a very severe crash when they hit the wire because on a piece of road, even with a relatively sharp curve, you can't at high speed hit that wire rope barrier at a very direct angle. You are still only going to hit it at a relatively gradual angle, and given that angle

of impact the wire rope barrier will gradually return the car into a more appropriate path. It won't bounce it off the road like another barrier, resulting mainly in vehicle damage, not an injury or a fatality. Even though those behavioural factors are very difficult to manage, sometimes you can appropriately manage the consequence with good engineering. There is also more you can do with a vehicle. You can consider why that person was able to purchase, especially if they have a record of speeding, a vehicle which will do 150 kph. Why do you need a vehicle which will do 150 kph? There isn't an open road anywhere in Australia which has a speed limit of 150 kph.

Mr DEAN - That was raised with us this morning.

Dr JOB - There are still things we could do as a nation if we really bit the bullet on that kind of issue.

CHAIR - The Northern Territory didn't have any until recent years, and now it's 130 kph, I think, but the crash rates are very high.

Ms FORREST - Not something to be aimed for.

Dr JOB - The Northern Territory's choice of 130 kph is something that perhaps should be reconsidered.

Ms FORREST - I guess it remains to be seen if there's a reduction in their rates from that alone.

Dr JOB - I think the jury's in. The 2008 road toll went up substantially. You might look at that and say, 'We introduced an open road speed limit, then why did it go up?' I think if you were able to go back and collect the data, you would find that the answer is that they have increased the mean speed. A lot of people driving on those roads who did not see a speed sign would have thought, 'I can drive at 110 on this, or I can add my fudge factor, I'll drive at 120 on this'. Once you put a speed limit that says 130 kph, you are saying to the community, 'You'll be safe to drive this road at 130'. I suspect you would find the speeds have actually gone up slightly.

Mr HARRISS - Somewhat controversial commentators on road safety such as Will Hagon must cause some interesting debate. We had a chat with him this morning, and we have heard him on the radio in the past, as I guess you have as well. He subscribes to some challenging views, as do others. Are you familiar with his line of thinking regarding road safety and addressing the matters related to driver fatigue, being on the roads for less time, so therefore don't whack the speeding limits too much?

Dr JOB - I am not familiar with this particular gentleman, but I am familiar with that argument. I hear that argument repeatedly in two terms. First, that if you slow down drivers, they are on the road for longer and so you get more fatigue; second you get so bored that you go to sleep anyway. They are two common arguments against reducing speed limits, but I find it odd that people make these arguments. These are people who are normally very practical, but some of them go to a very theoretical position. They say in theory you are making people more fatigued, but they don't have any evidence for that. However, there is a resplendent body of evidence that says repeatedly all around the world that when you lower speed limits, or speeds you get an improvement in road

safety. That is already taking into account. We have all this guesswork - like you have to look at your speedo more so you get more fatigued. We could all come up with 50 reasons why it could go one way or another but the jury is in. The jury, the data, says that with consistently lower speeds road safety improves. We can talk theory all we like but that is the bottom line and that is the answer. The answer is that the data says you are wrong - nice theory, but the data says you are wrong.

Mr DEAN - We had a piece in the *Examiner* recently by an editor of the paper who challenges people to show where speed alone has been the cause of the accident. What he was saying in that article was - and he had done some research on it - that normally with speed there are other factors. You have mentioned some: inattention, poor road surface, alcohol, drugs or what have you. It is almost always accompanied by something else. What he is saying is that the stone-cold sober driver, driving on the road, exceeding the speed limit, not tired and all the rest of it, seldom has an accident. I am just wondering if you have a view on that.

Dr JOB - We certainly see many serious and fatal crashes every year where the only behavioural factor identified is speed. We do see that. What I would say, though, is two more things. First of all it is certainly true that a lot of serious speeding crashes will also involve other error factors but I do not see why that means we should not address speed. It means that error factor combined with speed led to a fatal crash whereas that error factor without speed may have led to a tow-away crash. The speed adds dramatically to the severity of the crash. Furthermore, there certainly are crashes not only in our data but logically where you can see that speed alone will cause a crash where a crash would not otherwise have happened. For example, people fail to take curves because their speed is such that it is impossible to get that vehicle around that curve at the speed they are doing, so speed alone in a very alert driver will still cause them to leave the road on that curve. You can also see numerous crashes where speed is a factor in intersection crashes because someone is pulling out from a give-way sign onto a road which is speed limited at 50 kph. If they pull out in front of a driver doing 100 then we say they failed to give way, but they are entitled to believe that people are obeying the speed limit. They are entitled to believe that car is approaching them at 50 kph. If it is approaching at 100 then the speed is the cause of the crash.

Mr DEAN - There has been some evidence that cruise control is a concern for some, particularly where drivers are becoming tired, for instance. They set their cruise control at 110 or 100 if that is the limit and they become tired. The vehicle continues to travel at that speed and of course it crashes and could kill them and somebody else. The normal reaction is, I understand, that you will normally release control of the accelerator and the vehicle will slow down. Do you have a theory on that or is there any evidence to suggest that is a concern?

Dr JOB - We have looked into this issue because it has come to our attention as an issue in several respects. Firstly, some people will argue that if you are not driving perfectly and you put it on cruise control you may forget it is on cruise control and expect it to slow down but it does not. Secondly, there is another version of the argument about cruise control. You find that the cruise control does not work perfectly evenly in many vehicles so if you go from a flat section to an uphill section, part way up the hill the cruise control will suddenly detect the vehicle is below the speed that you have set it at and it will accelerate significantly, perhaps in an inappropriate location. The third argument which

we hear is in the opposite direction - that you are making the driving task less demanding by being able to use cruise control. That has two benefits: first, you can actually drive further before you become fatigued so it provides a fatigue benefit; second, it allows you to focus more of your attention on other factors around you to which you may need to respond. So while there are theories about how cruise control could be harmful to road safety there are also theories about how cruise control could be beneficial to road safety.

I do not know of any study which reveals to us the truth of any of those theories or of the net benefit or disbenefit of cruise control. We try to take an evidence-based approach to all of these issues and as far as I can see there is no evidence to suggest that cruise control is harmful. What I would suggest is that if I am driving with cruise control I do not sit by taking my foot off the accelerator; I sit with my foot just above the brake pedal. A significant part of a driver's reaction time in an emergency is cognition and the detection that they need to do something. By sitting with your foot directly above the brake instead of the accelerator you are removing part of that reaction time. You are more prepared and ready for that situation. There is the possibility for it to be used in that particular way to get that benefit.

CHAIR - On the question of driver education, not physical training in how to handle a car, you said that by years 11 and 12 the students do not want to hear anything about road safety. Are they still receptive to advice and information about what the pitfalls can be or how to drive safely and not to take risks? What do you see as their attitude?

Ms ELLIOTT - There are two elements to that question. It is the time when they are probably preparing to get their learner's licence so they are receptive to anything that is going to help them get there. So they are generally fairly receptive to hearing about road rules. Whether they agree with them or not is another question but they are fairly receptive to those. Where we try to provide a little more educational input is to the consequences if those rules are not adhered to and the impact on themselves, on other drivers, on their family and friends. So we take a number of approaches to that. Rather than just telling them the rules the strategy we have used to try to impart road safety to them is about life experiences. It would appear to us that the models that we are using to engage years 11 and 12 at the moment in more real-life situations seem to be of interest to them. Teachers report that they do have a much greater input and responsiveness from students, whether it is to compare experiences or to give an account of somebody that they knew that did that and what happened to them and so forth.

It is in some ways unfortunate that it does revolve around licensing issues but many of them are actually passengers in the cars of those people who are getting their licence. So we think it is timely and we think we may have the best of a difficult age group in communicating to them. There are a lot of things happening with our licensing program. The classroom is a good conduit to discuss this information, the pros and cons and the whys and wherefores.

Soames may already have alluded to the fact that with regard to speeding we have zero tolerance for our P1s. If you have just moved into the first stage of your independent licence, your provisional-1, and then you speed there are no questions - you will be suspended, disqualified. That resonates very hard from a personal perspective. Nobody wants to be known for losing their licence. Secondly, once they have gained it it is quite a negativity to lose that capacity and freedom to go to and from work, socialising and so

forth. So that has become quite an important element in how we are communicating about desired behaviour behind the wheel.

CHAIR - I am pleased to hear your views because surprisingly we have heard quite a few opinions that it is a waste of time trying to tell teenagers anything because they think they know it all and therefore any requirement that they attend a series of lectures or information sessions about how to drive safely and how to act in the interests of road safety is a waste of time. I take it you would not think that was a waste of time. Do you think it would be a worthwhile idea to require all learner drivers, irrespective of age, whether they are mature age or teenagers, to attend a series of lectures where films are shown about the pitfalls of driving, how to drive safely and matters relating to road safety?

Ms ELLIOTT - Certainly the more information you can give at that time the better. We have recognised that the school is one medium by which we can communicate to that vulnerable age group, but we also recognise that we have young people leaving school at 15 and 16 who never make that cohort in which we are investing quite a lot of time. As a result of that, we have developed a number of programs that are delivered through TAFE and other tertiary institutions. We also have some resources that are developed and delivered out of a community perspective, from PC youth groups and centres like that. Members of the community and special interests groups can work with them. I do not think there is one way that we can best communicate the importance of road safety to these groups but I would think it would be a very brave government that would suggest that road safety education for that age group has little value.

CHAIR - I am very pleased to hear your views.

Dr JOB - I think Maureen is hiding her light under a bushel. The packages that have been developed by Maureen and her staff are exceptionally good, and I think they need to be. It is a very difficult message to get across. It is a tricky one and you have to bear in mind what we're up against. If we require people to come along and they get two hours of road safety in a classroom over a given period of a course or whatever or we get them along and give them three hours of a film and talking or whatever, you are competing with, as are we, thousands of hours with their peers, thousands of hours that say, 'Isn't it fun to speed? You're a hero if you can do this' et cetera. That is not something to be taken trivially. The message has to be elegant, it has to be clever. I think part of what we have been able to show in recent times is what it has to be about.

We have recently commissioned some indepth research where we have researchers who go around and do 10 indepth group discussions on road safety with young people around New South Wales. What that showed is, I think, very unsurprising to people who have been working in road safety for a while, that crashes don't cut it. Talking to people about crashes and the consequence of crashes will not work. Basically all the young drivers will tell you, 'I'm such a skilled driver I won't have a crash. It will only happen if some other idiot runs into me or if some other person does this or that'. They say, 'If someone else is going to do that, it has nothing to do with my behaviour so I'm not going to change my behaviour when you talk to me about crashes'. If you say, however, 'If you get caught speeding we will take your licence away', their ears prick up and they say, 'Hang on, that's something directly to do with my behaviour. I can control whether or

not I speed. I can't control whether or not I have a crash, that will be someone else's fault, but I can control whether or not I speed. I definitely don't want to lose my licence'.

Ms FORREST - The shame is too great.

Dr JOB - If you're giving messages about the consequences in those terms or about how their family is going to feel about them rather than about the blood and gore of a crash, you have a better chance of success. Just to quote you some data - we introduced these changes to P-plate laws in the middle of 2007. We announced it very early in 2007 and it took effect on 1 July 2007. So, leaving that out as the year which is kind of half-affected, in 2006 we had 95 people killed in crashes involving P-plate drivers, in 2008 we had 61. That is a 36 per cent reduction with the impact of any level of speeding and you lose your licence; a curfew on passengers.

Ms FORREST - Can you explain how your curfew works?

Dr JOB - The curfew runs from 11 at night until 5 in the morning and in that time a young driver isn't allowed to have any more than one peer-aged passenger with them.

Ms FORREST - Unless it is family? Can they take family or not?

Dr JOB - There are exceptions for family et cetera. But you can't get your P1 driver out there with five of his mates in the car egging him on and promoting risk et cetera -

CHAIR - Even if they are not egging them on they are having him show off to them.

Dr JOB - That's right. That data say that those kinds of programs and promotion of those kinds of programs give you a very significant road safety benefit.

CHAIR - Do you have any literature on that that we could have at a later time?

Dr JOB - We would be happy to supply it. What we could do is send out the educational materials we sent out to all provisional drivers when we made those changes.

CHAIR - Thank you, that would be very helpful.

Dr JOB - Education based on a change like that is really good education. It has impact, it is newsworthy; it is not 'I have heard this all before' it is 'Well, you have made a change' and this is news.

Ms FORREST - And how it is going to affect me as a provisional driver.

Dr JOB - Yes.

CHAIR - What they learn then at a time if they are receptive will endure and live with them.

Dr JOB - We hope so.

CHAIR - Yes, and time will tell. And time is just about up and we thank you for giving us so much. Is there one more question?

Mr DEAN - Because it is a big problem in our State - and I guess it is here too - I want to know whether you have done anything on motorcycle deaths and what you have done from your research about any changes or strategies?

Dr JOB - Motorcyclist deaths are a significant problem here and one that we are constantly monitoring. I think having effective enforcement is very important, so having speed cameras out there that will detect and deter speeding by motorcyclists is a very important factor.

It is, however, a tricky problem and it is a problem that is going to grow on all of us. With the change in fuel price and with people trying to be more conservative with their money there has been a dramatic upturn in motorcycle sales in New South Wales and, I suspect, all around Australia. It is a problem we will have to manage into the future.

We have been running a number of education campaigns that we have run past the Motorcycle Council and other stakeholders before we put them out. Those included campaigns on good reasons for wearing protective clothing and our most recent one, which we could also send you, is a very nice campaign on educating people about the critical nature of setting up before going into a corner. You can't fix something once you are in the corner. You have to set the bike up, you have to be on the right line to take the corner, you have to be at the right speed going into it, and especially that applies where you have multiple corners one after the other. If you make a slight misjudgment on the first one that puts you in the wrong position for the second and that puts you out even further for the third one and the problem compounds very rapidly. We have a very nice cornering campaign that has been incredibly well received by the motorcycling fraternity on that subject.

Mr DEAN - Is it possible for us to get something on that as well?

Ms ELLIOTT - Yes, I have that down.

Dr JOB - We are always looking for more things to do with motorcyclists. They are very dramatically over-represented in fatality rates compared to cars.

CHAIR - Do you have a particular problem with off-road accidents with motorcycles and trail bikes?

Dr JOB - There is a significant problem there. Because it is not a road or road-related area we don't directly collect data on it but I know, for example, this weekend just gone we had an 11-year-old killed on a quad bike on private property. That is a dreadful tragedy. It is, however, very difficult to do a lot about because the road rules don't apply. You can't inspect licences, you can't even check the vehicle is roadworthy and registrable et cetera because it's on private property. They are a significant issue for all of us and a very difficult one for us to deal with because of our lack of power in those areas.

CHAIR - It is very difficult to know what the solution is there.

Dr JOB - Yes, very.

Mr HARRISS - I turn to the perennial problem of mobile telephone use in vehicles. As we have been travelling around we have heard from various authorities about data gathering and so on. I had never considered this as a proposition until a couple of days ago when we were having a discussion with somebody, and I asked whether it was at all possible that by using a mobile telephone - hands-free - I might be more alert, given that I am talking somebody if I am travelling by myself. I would be focused on the telephone conversation and also focused on the road. Do you have any views about that? You mentioned evidence-based -

Dr JOB - Based on the evidence, I have a view on that. First, the evidence suggests that a great deal of the disbenefit to driver capacity that arises from telephone conversations is not to do with the hand being away from the steering wheel. That is no different than if you are changing gears. What is different is the cognitive demand on you to conduct the conversation and it is a cognitive demand which is potentially distracting. It seems that the reasonable response to that is to say, 'Well, that's the same as talking to a passenger'. But, oddly, it isn't because most passengers will be aware that a driver simply stops talking when coming to a more complex situation, the person in the car understands whereas the person on the other end of the telephone does not. There is more demand in a telephone conversation to keep the conversation going, to maintain your awareness of it and your attention to it, despite the complexity of the driving situation you face. I think that is one of the key reasons mobile telephones create a problem.

There is a good study of mobile telephones and crash rates and again, I would say to you the evidence says they are a problem. This study is by the George Institute, and I think it was published last year. The authors include Mark Stevenson and Rebecca Ivers. If you look up their names you will find it. Their study shows that the distraction of driving with a mobile telephone is much worse for a novice driver because distraction and adding another element to a task is much more of a problem for someone who is not extremely practised at the first task.

It is on that basis that part of our package for young drivers is that we ban all use of mobile phones for P1 drivers. If you are on your provisional licence here you cannot use a mobile phone, hand-held or hands-free or any package - you simply cannot - because the evidence says there is a cognitive distraction there and drivers who are not yet very skilled at the driving task are more affected by that distraction than are more practised drivers.

CHAIR - Thank you very much indeed. We appreciate you sharing your considerable expertise with us. A lot of what you have said has been very encouraging and thank you for being prepared to send us information. We wish you well; you are top of the country at the moment in terms of the number of fatalities per head of population -

Ms FORREST - Victoria disputes that, though.

Laughter.

Dr JOB - We are a little ahead of Victoria, it is very close. I think we were both at 5.7 but we are at 5.6-something and they are at 5.74, so really it is a photo finish. There is not much difference.

CHAIR - We may be seeking to consult you again before we finalise the report.

Dr JOB - We would be happy with that.

CHAIR - Thank you very much for having us and giving us your time.

Mr HARRISS - Is the 100 000 figure as legitimate a measure as the kilometres travelled?

Dr JOB - If you can get kilometres travelled accurately, that would be a very useful figure. We collect the data based on a sample of cars which are followed by a log book for six weeks, so you get six weeks' worth of their driving. Generally, the number of kilometres travelled by that vehicle is assigned to the State of registration. The consequence of that is that any State that has more interstate vehicles travelling on its roads has more exposure than it appears to, and that is New South Wales. New South Wales has far more vehicles travelling from other States than anywhere else and so I think the exposure of New South Wales is underestimated by that process.

There is one other thing that I would say about this statistic and that is that you cannot only take into account the number of vehicle kilometres because if you had 10 million people doing 100 million kilometres versus 2 million people doing 100 million kilometres, the second one should be safer because you have a lot fewer pedestrians to hit. That is partly why population really has to be a factor, not just the vehicle kilometres.

Bear in mind that in most Western jurisdictions pedestrians are 15-20 per cent of the road toll, and that is true of Australia. If you look at other jurisdictions where there are men walking, lots of countries in the Middle East and in South-East Asia, 60 per cent of their fatalities are pedestrians. So the pedestrian problem is very large when you have a big population and less travel. That was too long an answer to a short question.

CHAIR - Thank you.

THE DISCUSSION CONCLUDED.