THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

REPORT ON ROAD SAFETY GENERALLY

INCLUDING

- DRINK DRIVING
- DRIVER ATTITUDES AND BEHAVIOUR
- SPEED, AND
- DISREGARD OF ROAD LAW AS A FACTOR IN CRASHES

REPORT OF THE HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON ROAD SAFETY

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HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON ROAD SAFETY

Terms of Reference

On 4 May 1983, the Committee was appointed by Resolution of the House of Representatives to inquire into and report on:

(a) the main cause of the present high level of the road toll in Australia;
(b) the most effective means of achieving greater road safety in Australia;
(c) the particular aspects of the problem to which those concerned with road safety could most advantageously direct their efforts, and
(d) the economic cost to the community of road accidents in Autralia in terms of -
  (i) material damage;
  (ii) loss of man-hours and earning capacity; and
  (iii) cost of treatment of accident victims.

The Committee, on 6 July 1983, resolved to inquire into and report on:

(1) Drink-driving
(2) Driver attitudes and behaviour
(3) Speed as a factor in road crashes; and
(4) Disregard of road law as a factor in crashes.

Membership of the Committee

Chairperson	Mrs E.E. Darling, M.P.
Deputy Chairman	The Hon R.C. Katter, M.P.
Members	Mr J.M. Brumby, M.P.
	Dr R.I. Charlesworth, M.P.
	Mr B.J. Goodluck, M.P.
	Mr R.N.J. Gorman, M.P.
	Mr D.P.M. Hawker, M.P.
	Mr D. McM. Wells, M.P.
Secretary to the Committee	Mr A.J. Kelly[1]

1. Mr Kelly replaced Mrs Lyn Simons as Secretary to the Committee on 12 March 1984.

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ABBREVIATIONS

ARRB	Australian Road Research Board
ATAC	Australian Transport Advisory Council
BAC	Blood Alcohol Concentration
NH & MRC	National Health and Medical Research Council
OECD	Organisation for Economic Cooperation and Development
RACV	Royal Automobile Club of Victoria
RBT	Random Breath Testing
RTA	Road Traffic Authority, Victoria

RECOMMENDATIONS AND CONCLUSIONS

CONCLUSIONS

The Committee draws attention to a previous recommendation of the Committee that:

> Commonwealth and State Governments support the development of mechanical devices to deter drunk driving and, when perfected, require that they be fitted to the vehicles of recalcitrant drivers, at their own expense, as a pre-requisite to any renewal of their driving licences.[14] (Para 30, 33)

This Committee concludes that further research to develop interlock devices could make a worthwhile contribution to the elimination of drink-driving. (Para 30, 33)

1. The Committee believes that a set of standardised statistics should be devised and collected throughout Australia to provide a more substantial road safety data base for Australia. Road safety research priorities should be developed at a national level by a Commonwealth-State cooperative body. (Para 236.)

2. Based on adequately researched road safety priorities, a program of short and long-term measures should be developed at a national level by a Commonwealth-State cooperative body. This body should plan, coordinate and in some cases develop road safety programs at the national level. (Para 237.)

3. On the basis of national priorities, Commonwealth grants could be made for specific research, program development or education campaigns. (Para 238.)

4. The Commonwealth needs to initiate and promote uniformity in Australia road safety statistics and the adoption of best practice in road safety measures. The Committee believes that greater cooperation at the national level is essential to make the maximum use of the expertise and financial resources available. (Para 239.)

CONCLUSIONS AND RECOMMENDATIONS

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5. The Commonwealth needs to initiate and promote uniformity in Australia road safety statistics and the adoption of best practice in road safety measures. The Committee believes that greater cooperation at the national level is essential to make the maximum use of the expertise and financial resources available. (Para 239.)

6. The Committee believes that through coordination, better use can be made of limited resources with better road safety programs as the end product. (Para 240.)

RECOMMENDATIONS

The Committee recommends that:

1. the Minister for Transport through the Australian Transport Advisory Council encourage the States to introduce legislation and enforcement to fully implement random breath testing in all States and Territories of Australia. (Para 39.)

2. the Federal Office of Road Safety in conjunction with State and Territory road traffic authorities examine the desirability of drivers being referred to a specialist clinic for an assessment of their drinking problems following their first drink-driving conviction and that the courts take note of clinic reports both in sentencing and in re-issuing of licences. (Para 46.)

3. action be commenced to inform applicants for driving licences of the dangers of drug taking in relation to driving. (Para 65.)

4. licence applicants be tested on their knowledge of the effects of alcohol and other drugs on driving ability. (Para 66.)

5. the Department of Health take immediate steps to ensure that all commonly prescribed drugs which may impair driving related skills are appropriately labelled to inform consumers of the relationship between drug consumption and driving impairment. (Para 71.)

6. television campaigns be produced to raise the awareness of drivers of cars and other larger vehicles to the presence and particular difficulties of two-wheeler drivers. (Para 102.)

7. priority be given to road safety research aimed at investigating and improving driver attitude and behaviour. (Para 105.)

8. through the Australian Transport Advisory Council, State and Territory traffic authorities be encouraged to use speed zoning depending on road and traffic conditions when setting speed limits. (Para 133.)

9. through the Australian Transport Advisory Council, the implementation of uniform blanket speeds be encouraged throughout Australia. (Para 133.)

10. the Federal Department of Aboriginal Affairs and the Federal Office of Road Safety, in conjunction with the Northern Territory and other road safety bodies, develop publicity campaigns specifically for Aboriginal and other outback communities. (Para 199.)

11. the Commonwealth establish and maintain a national road safety data base, providing access to the data base and disseminating research results. (Para 214.)

12. data needs be established in conjunction with the States and standardised reporting developed throughout Australia. (Para 214.)

13. a national register be established of driving licences, driving offences, disqualifications of drivers and car registrations to provide road safety statistics and quick access to information by law enforcement agencies. (Para 218.)

13. a road safety research program advisory committee be established consisting of Commonwealth and State representatives, together with representatives of other major road safety bodies, to develop research priorities and facilitate the coordination of road safety research. (Para 224.)

14. the Federal Office of Road Safety in cooperation with Commonwealth and State Departments develop a national program of short and long-term road safety objectives and report back to the Federal Government on the means of achieving them. (Para 228.)

CHAPTER 1

ROAD SAFETY - COMMUNITY OPINION

Introduction

1. In mid-1983, the Standing Committee on Road Safety, in conjunction with the Office of Road Safety developed a Road Safety Questionnaire. The questionnaire was designed to give the Committee a clear picture of concerns felt by the public on a wide range of road safety issues. Areas covered included driver behaviour and attitudes, the road network, education and licensing and vehicle safety. A copy of the Questionnaire is at Appendix 4. Space on the questionnaire was provided for respondents to voice concerns not specifically covered in the body of the questionnaire. The Committee was heartened by the wide range of views expressed by respondents and sees such a response as an indication of widely-based community dismay at the high road toll.

2. The questionnaires were distributed through the electoral offices of Federal Members of Parliament and through the Committee secretariat following a wide publicity campaign supported by the media and were returned directly to the Committee by respondents. Returns were then processed by a private data processing firm in Melbourne.

3. Of the twelve issues nominated in the questionnaire four were identified as being of major concern. These four, in order of concern:

- drink driving,
- driver attitude and behaviour,
- speed, and
- disregard of road rules

became the basis of the terms of reference for public hearings held around Australia from July to September 1983.

The Survey

4. In any examination of the questionnaire it is important to keep in mind the limitations of the survey. The survey was not random and the results cannot be extrapolated to the population as a whole. Response to the questionnaire was voluntary, and in many cases the forms were specifically sought out by respondents. The opinions of the 'silent majority' may not be well represented. The Committee makes no apology for what could well be considered in the context of data collection and analysis as deficiencies in the approach. But the major aim was

to provide interested members of the community with an opportunity to contribute their ideas and opinions to a committee that reports to the Commonwealth Parliament. The survey accomplished this aim successfully, with a return rate of over 50 per cent. The other major function was to heighten community awareness of the significance of road safety as an issue and to mobilise community action to improve our road safety record. Driver attitude and behaviour is heavily influenced by social acceptance and aberrant behaviour and it is the community that must reject this behaviour. The Committee is convinced that the good response to the survey is an indication that Australia's widely held national opinion that speeding drink-drivers are part of our national image, is gradually changing.

5. Two major problems that are necessarily part of any community survey are the method of distribution and the nature of respondents. As was previously mentioned, the majority of questionnaires were distributed through the local offices of Federal Members and Senators. The distribution of such a survey through the offices of Members of Parliament certainly has shortcomings, but for a Federal Committee such as this, it was an ideal way to involve Members and Senators from all political parties, Australia-wide, in this important national problem. Funding constraints also meant that without the cooperation of Members and Senators, the survey could not have been so widely distributed.

6. The media also played a key role in drawing the attention of the public to this opportunity to give their views and the Committee believes that the enthusiastic response by the public is to a great extent attributable to the assistance of the electronic and print media.

7. In a limited survey of this nature respondents reply on the basis of a desire to express an opinion or have a voice heard. A reply is not compulsory and so it is reasonable to assume that respondents are already concerned and actively thinking about road safety. The Committee acknowledges that the survey has succeeded in obtaining the attitudes of that sector of the community which has already considered the issue. However, it has provided an opportunity for those concerned members of the community to make their voices heard.

8. Almost 9 000 questionnaires were distributed with over 4 000 returned from all States and Territories. This is indeed a heartening response from a voluntary survey of this nature. However, the fact that the survey was not random and could reasonably be expected to contain some bias must be kept in mind when examining the results of the survey. It should be noted that not all of the responses were processed as some were returned long after the due date and others provided insufficient data. However, all additional comments were included in the Committee's deliberations.

Survey Results

9. The Committee believes that despite shortcomings and any resulting biases in the results, the survey contains valuable information that will be very useful in planning future road safety campaigns. A summary of the major statistical results is at Appendix 5.

10. After providing some details about their age, driving experience and occupation, respondents were asked to choose what they considered to be the three most important causes of road crashes. The bulk of the questionnaire asked for opinions regarding preventive measures in seven key areas of road safety.

Characteristics of the Sample Group

11. Of the total of 3217 replies processed the majority came from men (63.3 per cent compared with 33.3 per cent from women) and of those many were in the 40-59 years of age group. Not surprisingly this age group also recorded the largest proportion of drivers with the longest record of driving experience - 87.7 per cent with nine years of driving or more. Of the age group under 20 years (5.1 per cent of total), 71.5 per cent had had less than three years of driving experience. It was in this age group and the 20-29 year old group that the Committee received more replies from women than men, perhaps reflecting a greater awareness of the problems of road safety among young women.

Contributing Factors in Road Crashes

12. One of the key points for inquiry by the Committee was community perception of the major contributing factors to road crashes. Respondents were asked to choose, in order, the three most important out of a list of twelve factors linked with road crashes. For the total sample, as well as for all sex, age and driving experience sub-groups, the results showed that drink-driving, driver attitudes and behaviour, speed and disregard of road law were the four contributing factors selected most frequently by the majority of respondents.[1] The only slight aberration to this trend was for respondents under 20 years of age who felt speed was more important than driver attitude. This result is interesting when considered against the fact that speeding has been shown to relate directly with age and with young men particularly. Research statistics indicate the younger the driver, the more likely he/she is to be involved in speeding offences and in accidents which involve speed.[2] Apart from this small difference the Committee found the clear consistency of results in this key section of the questionnaire significant.

PREVENTIVE MEASURES

Drink-Driving

13. Because of the clear importance of drink-driving in road safety, the questionnaire sought community opinion on the most important preventive measure in this area. The consistent result for all variables (total sample, sex, age, driving experience and State breakdown) was that random breath testing (RBT) is seen as the most important measure in cutting road trauma associated with drink-driving. This was generally followed by public information campaigns, involving changing social attitudes and then by the suspension of licences. The notable exception is in the under 20 years age group and those drivers with less than three years driving experience (basically synonymous) where both groups strongly believed that heavier fines were a more effective measure than public information campaigns. This is in contrast to all other groups.

Road Network

14. When questioned on the three most important preventive measures in the area of the general road network, the responses showed remarkable consistency. Spot improvements to bad accidents sites were seen as the most important measure by all variable groups. Again, there was a strong consistency in the opinion that overtaking lanes on rural roads were the second most important measure; there was little difference between removing hazardous roadside objects and safety design standards for new roads as the third most important preventive measure. The real exception to this grading of measures was for the under 20 years age group, who felt strongly that better warning of hazards was more important after spot improvements than either roadside objects or new road safety design. This may again be related to speed. As younger drivers travel faster, current hazard warnings may not be adequate at higher speeds. As drivers with less than three years experience (virtually the same group) emphasised this factor as well, it may represent a greater need for advisory signs by less experienced drivers.

Traffic Law

15. Respondents were then asked to choose the three most important preventive measures in the area of traffic law. Over the total sample and by sex breakdowns, results showed that the most important measures were increased visibility of police, speed limits reflecting road design and uniform laws across States and Territories. Respondents under 20 years felt speed limits were more important than police visibility, and those between 20-29 years of age also gave uniform laws a higher

priority than police visibility. By State breakdown New South Wales, Victoria, Western Australia and the Australian Capital Territory confirmed the total sample results, whereas Queensland and Tasmania felt speed limits were the most important measure and South Australia saw uniform law as the most important.[3]

Driver Training and Licensing

16. Responses to the question on preventive measures in the area of driver training and licensing again showed clearly that the public was unanimous in its choice of the key measure. For all independent variables that choice was training in roadcraft. This key measure was far ahead of measures chosen as second and third, where a range of measures was chosen. The most consistent choices were the need for periodic driver testing, refresher courses in road law and, to some extent, an initial 12 month alcohol ban on new drivers.[4]

Road Safety Education

17. It was in the replies to the question on road safety education that the Committee saw the most marked agreement on the two or three key measures to the virtual exclusion of all other suggested measures. The use of television (selected as the most important preventive measure by 45.6 per cent of total sample) and road safety education in schools (39.7 per cent) stood out as the key measures from the public's point of view. Third was the need to make parents more responsible for the safety of their children (9.5 per cent), but it must be stressed that the results were massively in favour of both television and school education as the key methods of road safety education.[5]

Vehicle Safety

18. Answers to the question on vehicle safety measures are less clearly delineated, and a marked preference for one or two measures over any others less apparent. In all groups by age, sex and State , respondents felt that seat belts and child restraints were the single most important measure available. In all cases, except those respondents of less than three years driving experience, a vehicle inspection scheme was considered the second most important measure followed by improvements in tyre standards. For drivers of less than three years of driving, tyres were seen as more important followed closely by the inspection scheme (44.1 per cent compared with 41.8 per cent). The significance of tyres in this age group may also reflect the higher driving speeds of young drivers.The general trend of seat belts, vehicle inspection schemes and tyres in order of importance was also reflected in State response figures, and

clearly indicated to the Committee the great need for improvements in all these areas, especially regarding the wearing of seat belts and child restraints.

Summing Up

19. For the first time, the Australian public has been given an opportunity, if on a limited scale, of expressing their opinions on a wide range of road safety issues directly to a national body. While the extent to which the results accurately reflect community attitudes across the whole population is unclear, it is quite clear that people are concerned about road safety and consider this national tragedy worth comment, thought and action on a national scale. Guided by the opinions expressed, the Committee looked further at the four areas identified as major factors in road crashes. In looking at these areas the Committee also took into consideration the preventive measures identified by the survey as being most important. The Committee believes the opinions expressed provide useful guidance to those authorities responsible for road safety measures.

ENDNOTES

1. See Appendix 5.

2. See Chapter 4.

3. See Appendix 5.

4. See Appendix 5.

5. See Appendix 5.

CHAPTER 2

DRINK-DRIVING AND THE EFFECTS OF OTHER DRUGS

20. Alcohol is still the greatest single cause of trauma on our roads. Statistics validate this and it was clearly recognised by respondents to the questionnaire who nominated drink driving as the most important contributing factor to road crashes. It was nominated as most important by 45.9 per cent of respondents. Drink-driving was also identified by researchers at the public hearings as the single most important factor in road crashes.[6]

21. Alcohol increases the probability of some sort of road crash because it affects the perceptual judgments of individuals. It depresses the central nervous system and impairs the performance of tasks demanding accurate assessment and motor skills. One of the most important effects of alcohol is that it reduces a person's capacity to deal with a crisis situation. Alcohol is associated with about 40 per cent of road fatalities in NSW and Victoria. This compares with about 50-55 per cent of fatalities before random breath testing (RBT) was introduced.[7]

Other Drugs

22. It is becoming increasingly evident that other drugs, particularly medication, are also contributing to crash involvement. Drugs other than alcohol probably play the major role in causing 5-10 per cent of traffic accidents and 10-15 per cent of all road deaths.[8]

Drink-Driving countermeasures

23. The introduction of random breath testing has had a definite impact on the road toll. Dr Swann, Chief Road Safety Officer, Road Traffic Authority Victoria (RTA) told the Committee that the effective element in random breath testing is the fact that the drinking driver cannot be sure of when it is safe to drink and drive.[9] The Committee was also advised that the randomness itself is a large part of the deterrent. This is more effective than having a fixed testing area (e.g. outside particular hotels). A high visibility of RBT activity is a major part of its effectiveness along with the certainty of conviction if the blood alcohol content (BAC) is over the limit.

24. Although RBT has had a definite impact on the road toll, it is unclear if this trend will continue. RBTs initially heighten drivers' perceptions of their chances of being caught. However, random breath testing has an educative effect on drivers' attitudes. Random breath testing is carried out in all States and Territories except Queensland and Western Australia.

25. Currently the legal blood alcohol content while driving is .08 in Western Australia, South Australia, Northern Territory and the Australian Capital Territory. In Queensland, New South Wales, Victoria and Tasmania the level is .05. The graph at Appendix 6 shows how the risk of crashes increases with the amount of alcohol in the blood. At BAC levels of more than .05 the risk of crashing increases. At .08 a driver or rider has 4 times more chance of being involved in a crash, than a driver with no alcohol in the blood. This compares with twice the chance of a crash if the BAC is .05.

26. Some witnesses advised the Committee that the level should be decreased to .05 across Australia. Dr Jadhav of the South Australian Alcohol and Drug Addicts Treatment Board stressed that young drivers have a low tolerance to alcohol and that uniform legal standards were necessary.[10]

27. Mr R J Homel, Senior Lecturer, School of Behavioural Science, Macquarie University advised that the proportion of fatal crashes that have involved a positive blood alcohol level has gone down over the last five years in Victoria from about 55 per cent to 40 per cent.[11] This suggests that anti-drink-driving measures are being effective, and that random breath testing is an important part of these measures.

28. The Committee was told of a study conducted by Mr Homel on the effects of penalties on drinking drivers, who had been caught and convicted. The study involved 1 000 people who were convicted in 1972. These people were studied three years later to see if those who had received heavier penalties had a lower rate of reconviction than those who had received lighter penalties. Results indicated that there was no correlation between either the severity or the type of penalty and the chances of reconviction. Approximately 50 per cent of drivers who had their licences disqualified continued to drive. Licence disqualification would therefore not appear to be an effective deterrent to drink-driving nor to driving itself. Mr Homel believes that an ignition interlock device which would prevent a car being started by a drunk driver is required.[12]

29. Several witnesses submitted that drivers with repeated drink-driving convictions at high blood alcohol levels require more than education and sanctions to prevent their dangerous behaviour. Rehabilitation is an obvious requirement. In addition, physical constraints to driving have been advocated such as ignition interlock devices which prevent the car being started if the driver, who must blow into a breathalyser or pass an electronic or other test of sobriety to operate the ignition, is over the approved BAC. The Traffic Authority of NSW called for tenders for the construction of such a device in 1978. Witnesses suggested that the cost of the device fitted to the cars of offenders, estimated at $100 per unit, could be borne by the offender as part of the penalty.[13]

30. The Report of the House of Representatives Standing Committee on Road Safety on Alcohol, Drugs and Road Safety, 1980, recommended that:

> Commonwealth and State Governments support the development of mechanical devices to deter drunk driving and, when perfected, require that they be fitted to the vehicles of recalcitrant drivers, at their own expense, as a pre-requisite to any renewal of their driving licences.[14]

Dr A J McLean, Director, NH&MRC Road Accident Research Unit, University of Adelaide advised that work was proceeding at his Unit on the development of an ignition interlock.

31. Interlock devices appear to have some limitations. The main one is that the drunken driver can get a fellow non-drinker, perhaps a child or friend, to operate the device and start the ignition. A problem encountered in the United States has been that drinkers have used mechanical devices to blow into breathalyser interlock machines.

32. The Committee heard evidence that interlock devices could be disconnected or bypassed but that they would be harder to remove than anti-pollution devices. There would need to be legal sanctions against the removal of devices.[15] Other problems that could be encountered are the lack of public acceptance of the device and difficulties in determining when and if a device should be removed from an offender's vehicle.

33. Recurring offences by drink-drivers is a difficult problem. While the Committee may have reservations about the complete effectiveness of interlock devices it does believe that they are well worth trying. Further work may overcome the apparent limitations such that the devices could make a worthwhile contribution to the elimination of drink-driving.

34. Mr R.V. Kennedy, Director of Drug-Arm Queensland advised the Committee[16] that in March 1983 a survey was conducted by an independent Queensland research organsiation. This survey revealed the following startling results:

- the incidence of drinking among young people 12-17 years old is 64.5 percent,
- 53.3 percent of these young people drink at hotels, licensed clubs or discos,
- 43.8 percent of underaged drinkers who do not think that they look 18 drink on licensed premises, and
- 20.6 percent of 12-17 year olds get drunk more than once a month.

These findings indicate that our cultural demands are such that many young people develop an established drinking pattern before they are legally eligible to drive a motor vehicle. This behaviour is an indication of prevailing community attitudes. This was reinforced by a finding of the 1977 Royal Commission on Human Relationships.[17] It was found that in Australia, drinking alcohol was not only accepted but was considered expected social behaviour.

35. Drug-Arm believes that community attitudes can be modified. They propose a "Five Year Plan" whereby the community will be educated through the media with the end result being that any person on any occasion will be able "to choose a non-alcoholic drink naturally and without comment."[18] There is a need for the evaluation of attitudinal change campaigns to provide feedback for future planning in this area.

36. Queensland currently has "discretional breath testing" as opposed to random breath testing. However, the reults of a Morgan Gallop Poll held in Brisbane in 1981 showed 80 percent of the people surveyed favoured RBT. Random breath testing is designed as a tool for deterring potential drink drivers and as Drug-Arm pointed out "until the doctrine of general deterrence is firmly in the collective government and public minds, we will not progess very far toward solving the problem of the drink-driver."

37. The Committee agrees with Dr I. Johnston, then a Principal Research Scientist at the Australian Road Research Board, (ARRB) that the main advantage of random breath testing, apart from its short or long-term gain, is that it tends to begin the process of changing people's attitudes towards drinking and driving.[19] Dr M. Lay, Executive Director, ARRB stressed that long-term changes in attitudes is the only road safety education that is useful. Dr Swann advised that studies done on the cost effectiveness of RBT indicate that the costs of policing are fully offset by fines imposed, but more importantly there is an eleven-fold return on costs in terms of trauma reduction.[20]

38. The Committee believes that random breath testing is acceptable to a very high proportion of the community (more than 80 per cent) and that its effectiveness has been demonstrated.

39. The Committee recommends that:

the Minister for Transport through the Australian Transport Advisory Council encourage the States to introduce legislation and enforcement to fully implement random breath testing in all States and Territories of Australia.

40. Drink-drivers' courses are a method being used to re-educate drink-driving offenders. For example courses have been run at the Eaglehawk Community Health Centre, Bendigo, since 1978. A course runs for 4 weeks and a participant attends for 2 hours a night, 4 nights a week. The magistrates in Bendigo do not reinstate licences until the drivers have done the course. This provides a strong incentive to undertake the course. The main aim of the course is to make drinking drivers examine their drinking behaviour and drinking habits. This includes social problems resulting from alcohol abuse. Evaluation of the course is just beginning, but it is being constrained by lack of financial resources.

41. A 'Classroom Approach' has been operating in Phoenix, Arizona, since 1966. This course is based on the premise that drinking drivers will be more able to change their behaviour when they are:

(a) informed of the influence of alcohol on driving skills and the consequences of drunken driving;

(b) encouraged to assess their own drinking and driving behaviour; and

(c) allowed to explore the ramifications of their behaviour in a non-judicial setting.

42. The course is seen as an educational rather than a law-enforcement procedure. Sessions include:

(a) The Drinking Driver;
(b) Alcohol and Driving Skills;
(c) Problem Drinking, and
(d) Personal Action.

Magistrates have been more lenient to drivers who attend the course. However, the overall effect of the Course has not been evaluated. Research is needed in this area. Active participation in such courses must be more likely to contribute to success as opposed to the student/teacher type of lecture.

43. Dr R. Jadhav, Superintendent of the Driver Assessment Clinic, South Australian Alcohol and Drug Addicts Treatment Board, tolo the Committee, that the clinic assesses drivers convicted and referred by the Courts, for driving under the influence of alcohol and/or drugs for the second or subsequent time.[21] The clinic tries to determine whether or not these drivers suffer from an addiction to alcohol and/or drugs. An asssessment is then forwarded to the court. After receiving this report the magistrate decides the sentence. Since its inception on 1 March 1977, 3 000 drivers have been assessed at the clinic. Dr. Jadhav considered that a well designed and ongoing

evaluation of all treatment programs should be instigated at the commencement of each program. The Committee deals further with the need for program evaluation in Chapter 7.

44. Dr. Jadhav recommended that the legal age for obtaining a driver's licence should be increased to 18 or 20 years. This was due to the emotional immaturity of young people which tended to make them act impulsively and carelessly. A high proportion of drink driving convictions involved these young people. Dr. Jadhav suggested that applicants for driving licences should be tested with reference to their knowledge of the effects on driving of alcohol and/or drugs. Drivers passing through the Clinic had shown little or no knowledge about this area. Dr Jadhav also suggested that all drink-drivers apprehended by the police should be admitted to a detoxification clinic instead of a police cell. This would enable alcohol dependent drivers to come into contact with treatment facilities in the early stage of the disease when it is more readily treated.

45. Dr R. Jadhav, claimed that 15 per cent of those drivers convicted of two drink driving offences within three years, were suffering from severe psychopathic personality disorders.[22] A number of studies have found no predictive factors to identify drink-drivers in screening tests other than their first drink-driving conviction. The Committee is concerned at the evidence given about recurrent drink-drivers.

46. The Committee recommends that:

> **the Federal Office of Road Safety in conjunction with State and Territory road traffic authorities examine the desirability of drivers being referred to a specialist clinic for an assessment of their drinking problems following their first drink-driving conviction and that the courts take note of clinic reports both in sentencing and in re-issuing of licences.**

47. The Report on Education, Training and Licensing of Drivers by the House of Representatives Standing Committee on Road Safety, May 1982, recommended that:

> a pilot study of graduated licensing be undertaken in one State, in co-operation with the Office of Road Safety.[23]

South Australia announced at the last meeting of the Australian Transport Advisory Committee, in July 1984, that a pilot program of graduated licensing for new drivers under 25 would be commenced. Aspects to be covered by graduated licensing include daytime driving, nighttime driving, speed, level of supervision and absence of alcohol in the blood.

48. The Western Australian liquor industry in conjunction with the Taxi Control Board of WA and the National Safety Council of WA decided to look at their responsibilities in regard to road safety and conducted research over a numbers of years. They came to the conclusion that a campaign was needed to re-educate the public with regard to drinking and driving. As a result, the 'Skipper' Program was introduced into Western Australia. This is a campaign whereby a person in a group of drinkers in a pub or club elects not to drink alcohol for that night. This person then drives his/her friends home. The Skipper is provided with free non-alcoholic drinks for the night by the pub or club. The 'Grab a Cab' campaign was introduced at the same time for people not drinking in groups or who otherwise did not have a non-drinking Skipper. The campaign has received wide publicity resulting in favourable reactions from the community as well as licensees of pubs and clubs.

49. The successful 'Skipper' campaign in Western Australia was recognised by the House of Representatives Standing Committee on Road Safety as providing one positive solution to the problem of drinking drivers. The Committee has adopted the campaign and has launched it in Queensland, New South Wales, Tasmania, Victoria and South Australia. The Committee views this campaign as a positive step towards dealing with the drink-driving problem. The 'Skipper' program is complementary to other effective drink-driving counter measures such as RBT and television campaigns (i.e. the Guardian Angel series).

50. In recent years carefully researched anti-drink-driving *campaigns have been conducted through television advertising.* The Cronin Campaign ('Would you let a friend drive if he has had too much to drink?') and the Guardian Angel Campaign, both organised by the Federal Department of Transport in conjunction with State and Territories Governments were shown nationally on television on both the commercial and ABC stations. These campaigns were run at Christmas and Easter - times when the road toll rises considerably. The Committee believes these campaigns have been very successful in altering community attitudes, across a wide spectrum of the Australian community. The Northern Territory Government pointed out that these campaigns were aimed predominantly at urban white middle-class drivers. Consequently, they do not have the necessary relevance to outback situations, aboriginal or migrant groups for individuals in these groups to indentify with those in the advertisements. All categories of people need to be targeted if these commercials are to succeed with a wider audience. Separate advertisements may need to be developed and screened for these groups.

51. Recent research has shown that by trialling and assessing different road signs, traffic signals and road markings using drivers with a blood alcohol content sufficient to affect their driving ability, better traffic management devices for sober drivers are identified. The devices found most effective under these conditions are more forgiving of drivers

who are tired, momentarily distracted or even under the influence of alcohol. While the method appears somewhat unorthodox, if the result is safer roads for everyone it is a worthwhile approach.

Drugs - Prescribed and Non Prescribed

52. Drugs other than alcohol can affect driving ability and many of these are widely used in the community. These include analgesics (pain relievers), sedatives, and tranquillisers which affect the nervous system.

53. Some drugs are still commonly prescribed as long-term relaxation aids, instead of as emergency relief for anxiety, which was the initial intention. Heavy usage is such that dependence upon these drugs is not uncommon. Many potentiate with alcohol and have a direct effect on motor skills, coordination and discrimination. The Federal Government has attempted to restrict consumption of prescribed tranquillisers in Australia by prohibiting repeats on prescriptions for drugs such as Valium, on the National Health Scheme.
n
54. Antihistamines are often sold over-the-counter and are used chiefly in the treatment of allergic disorders and colds. All antihistamines sold in Australia carry the warning. "This medication may cause drowsiness. If affected do not drive a vehicle or operate machinery. Avoid alcohol." Although this message appears on medications there does not appear to be an adequate awareness of the dangers within the community. Education is needed to increase this awareness together with reminders by both pharmacists when selling the products and doctors when prescribing.

55. In quantitative terms the most important illegal drug to be considered in connection with driving (and particularly its interaction with alcohol) is cannabis. Dr G Milner, points out that cannabis is responsible for altering the perception of time and distance, impairs psychomotor skills and judgment and interacts with alcohol.[24] While it takes 40 minutes for alcohol consumption to gradually decrease motor skills, it takes only five minutes for marijuana smoking to affect the senses. A study currently being conducted at Sydney University (August 1984) by Dr G. Chester, Department of Pharmacology concluded that it takes 1.5 milligrams of the active ingredient of marijuana, tetrahydrocannabinol (THC), to produce the same level of impairment as that caused by a blood alcohol concentration of .05 per cent. This is equivalent to approximately one marijuana cigarette. Alcohol has a gradual and predictable effect on the body, but marijuana is more difficult to assess. With alcohol the deterioration is steady but with marijuana there is a jump from sober to strongly-affected and the same dose can achieve different effects either at different times or with different

people. The effects depend on both the potency of the dose and mental attitude. The amount of THC in the body peaks while the person is smoking and the effects remain for hours. No method is available at present for measuring drug usage through simple tests such as blood tests. Dr Chester suggests that as marijuana smokers cannot be monitored in the same way as drinkers, there is a greater need for education about the effects of smoking and driving. Marijuana used in conjunction with alcohol greatly increases the danger of alcohol used by drivers. This may be so even though the alcohol consumed is less than the amount which would otherwise significantly impair driving ability.

56. At a public hearing in Brisbane the Committee was advised that in a survey, the Hornsby and Ku-Ring-Gai Hospital found that almost 25 per cent of those tested who were involved in a driving crash had been tested positively as being consumers of cannabis.

57. Glue sniffing for an intoxicating effect results in disorienting the individual and promotes loss of self control and consciousness. High doses can lead to seizures and death. Other substances inhaled as intoxicants include chloroform (which is also a human carcinogen affecting the liver), aerosols (which also affect the heart) and leaded petrol (which also causes lead poisoning and may retard brain development in the young). Sniffing these substances results in a loss of rational thinking and can result in feelings of immunity from death or damage. Affected individuals may become aggressive and fail to heed dangers around them. The inhalation of such chemicals is mainly performed by children or young adolescents. If sniffing is undertaken prior to driving then there is a much greater likelihood of these persons being involved in traffic accidents.

58. The habitual use of such substances is likely to be based on troubles in the child's life at home and/or school. It is important that both parents and schools play roles in educating students about the dangers of substance abuse. Parents and teachers must be made aware of the warning signals. These include sores around the nose and mouth, pallor, fatigue, forgetfulness, inability to think clearly, weight loss, depression, irritability and paranoia. Death may result through asphyxiation or abnormal heart reactions. It is necessary for parents, education authorities and police officers to take not merely an enforcement approach, but a caring approach to adolescents with their problems.

59. The abuse of these substances frequently leads to the abuse of other drugs, such as alcohol, cannabis and hard drugs. It is therefore important that the problem be identified and tackled at an early stage.

60. In educating drivers as to substances which can impair their driving ability, attention also needs to be given to industrial chemicals used in the workplace and their possible effects upon workers. Some chemicals such as solvents used in dry cleaning, printing or adhesives for example can have an adverse neurotoxic or narcotic effect on workers, particularly after they have been inhaled all day. These can have an effect on driving ability and this effect can be multiplied when combined with alcohol or other drugs. It is obvious that further research and particularly education of drivers is needed in these areas.

Countermeasures

61. In Australia information on drug usage in the population is scarce and research on the effects of individual drugs and/or their combination with one another, particularly with alcohol, on driving performance has been minimal.

62. The Report of the House of Representatives Standing Committee on Road Safety on Alcohol, Drugs and Road Safety, May 1980, recommended among other things that:

> the Departments of Transport and Health initiate and support research into whether specific drugs other than alcohol impair driving related skills, the degree of impairment at usual dosage levels, the relationship between dosage level and impairment, the mechanism of impairment, and the techniques for the detection of drugs potentially important as a hazard on the roads, especially cannabis and diazepam (Valium).
>
> The Departments of Transport and Health initiate and support research into which drugs when combined with alcohol impair driving related skills, the degree of impairment, the mechanisms of impairment, and the relationship between dosage level and impairment.[25]

The Government's response noted that:

> there are some hundreds of drugs that could affect driving. When it is considered that many of them are taken in combinations with other drugs, and that the effects of the combination may be different to the particular effects of each of the drugs taken separately, it can be seen that there is a large volume of work required.

The Recommendation was supported but it was noted that "further research is considered to have low priority." [26]

63. However, research is currently being undertaken on behalf of the Federal Department of Transport by the Ministry of Police and Emergency Services Victoria and the Department of Pharmacology, University of Sydney into drug screening of drivers and pedestrians killed in road crashes and the effects of cannabis and alcohol on driving skills and performance.

64. The use of a wide range of drugs in the community and the level of drug abuse are such that this area must be considered one of importance in terms of research, regardless of the large volume of work involved. The Alcohol Report also recommended that:

> All States and Territories adopt procedures whereby applicants for learner drivers' permits or for licence renewals are informed of the effects of alcohol and drugs on driving and the laws and penalties for driving while under the influence.[27]

The Government responded that all States were in the process of having some material on the effects of alcohol on driving as part of the information given to applicants for driving licences. However, no State provided any material on drugs other than alcohol.

65. This Committee recommends that:

> **action be commenced to inform applicants for driving licences of the dangers of drug taking in relation to driving.**

66. The Committee further recommends that:

> **licence applicants be tested on their knowledge of the effects of alcohol and other drugs on driving ability.**

Conclusions

67. The widespread use of drugs in our society requires further research and education as to their effects on driving. Both blood and urine tests have some value in determining the presence of drugs. Even breath analysis may be of assistance as a negative BAC reading may lead to further tests being carried out to determine the cause of unusual driver behaviour. However, testing drivers for drug intake is very involved and very costly, and this area needs to receive further attention in the future. Community attitudes towards drugs needs to be studied.

68. Education is needed to provide a better understanding of the problems and a long-term change in attitudes. It is neither expedient nor just, that drug-driving legislation should involve only punishment and deterrence. Treatment, rehabilitation and education of offenders must also play some part in countermeasures if they are to be effective. There is a clear need for a range of penalities with some discretionary powers. Sentences imposed need to be framed for the individual offender and therefore flexibility is necessary. Drinking drivers need to better understand their own problems and recognise the need to adjust their behaviour to a standard that is less harmful to themselves and to others. A blend of therapeutic and punitive measures is more likely to be successful than punitive measures alone.

69. The community needs to be better informed regarding the use of common drugs currently on the market, and a clear labelling system is obviously needed for these drugs. Many pharmacists do apply small warning labels to medication containers warning against use with alcohol or that drowsiness may be induced. The community may read the warnings on these drugs but not fully comprehend the resultant effects on their driving skills.

70. Driving while adversely affected by drugs is illegal. Public awareness is needed of the relevant laws and the consequences of breaking them. The promotion of such knowledge is a continuing responsibility of Governments, the medical profession, drug companies, pharmacists, police, the liquor industry and the media.

71. The Committee recommends that:

the Department of Health take immediate steps to ensure that all commonly prescribed drugs which may impair driving related skills are appropriately labelled to inform consumers of the relationship between drug consumption and driving impairment.

ENDNOTES

6. Evidence, p.752.

7. Federal Office of Road Safety, Summary of National Road Crash Statistics, August 1984, Canberra, p.2.

8. G Milner - Drugs and Driving, p. 106.

9. Evidence, p.755.

10. Evidence, p.386.

11. Evidence, p.666.

12. Evidence, p.668.

13. Evidence, p.669.

14. Alcohol, Drugs and Road Safety Report, May 1980, p.87.

15. Evidence, P.674.

16. Evidence, p.611.

17. Evidence, p.611.

18. Evidence, p.612.

19. Evidence, p.1068.

20. Evidence, p.753.

21. Evidence, p.377.

22. Evidence, p. 382.

23. Para 264.

24. Milner G., "Drink, Drugs and the Driver, 1974.

25. Para 48.

26. p.3 Ministerial Statement tabled 28 October 1982.

27. Para 160.

CHAPTER 3

DRIVER ATTITUDE AND BEHAVIOUR

Introduction

72. Driver attitude and behaviour has long been recognised as one of the most important factors in road crashes but one of the most difficult to tackle. Respondents to the questionnaire rated driver attitude and behaviour, second only to drink driving as the most important contributing factor to road crashes. In the survey 24.7 per cent of respondents nominated it as the most important factor.

73. It should be noted that the other three areas identified in the survey as being the most important contributing factors to road crashes - drink driving, speed and disregard of road rules - are themselves very much reliant on driver attitude and behaviour. They all relate to the driver rather than to vehicles or the road.

74. In its 1982 Report on Education, Training and Licensing of Drivers, the Committee noted that 'Attempts to modify driver behaviour through education, training, licensing and the imposition of legal sanctions are usually costly, and the results are, at best, unpredictable'.[28] That Report went on to say: 'However, it is recognised that road user behaviour must be changed if there is to be a major impact in this area. Research is required to establish how behaviour can be influenced and how motivational factors affect road user behaviour'.[29]

75. Mr A.G. Flint, Director, Division of Road Safety and Motor Transport of South Australia accurately summed up the present position:

> Driver attitude and behaviour is certainly an area which requires a great deal of attention. The broad perspective, as I see it, is that this has been the rather difficult area to approach and, accordingly, over the last decade or so, road safety authorities have tended to concentrate on the road environment and vehicle safety and I feel that this area has been somewhat neglected. I think we have reached a stage when further attention to the road environment and vehicle safety, while necessary and commendable, is tending to be less cost effective than efforts in the area of driver attitudes and behaviour, I therefore see that as a priority area for attention.[30]

76. The Expert Group on Road Safety in 1972 pointed out that:

> The behaviour of the road user is nearly always the final link in the chain of circumstances which lead to a road accident.

An important corollary of this statement is that driver behaviour can very often sever that final link to avoid a crash. Not only do bad driver attitudes and behaviour cause road crashes but good ones can do a great deal to avoid potential crashes. Dr M. Lay, of ARRB, says that researchers have estimated that the driver provides somewhere between 65-95 per cent of the prime causes of crashes with the vehicle and the road providing the remainder.[31]

Significance

77. Driver behaviour is seen as dependent on two variables - the driver's ability and his/her motivation or attitude. An individual's road behaviour depends partly on what he/she is able to do (ability) and partly on what he/she chooses to do (motivation).

78. Of these two factors research has consistently found that motivation is the most important influence on behaviour and well outweighs a driver's ability in determining the safety of road behaviour. It is also clear that the degree of difficulty of driving depends on what the driver chooses to do, rather than the inherent difficulty of the driving task. A driver chooses to take sharp corners at high speed, to overtake in heavy traffic or to simply drive recklessly.

79. A driver's motivation to choose and perform such driving tasks depends on all other human factors; choices therefore depend on such variables as tiredness, blood alcohol content, the effect of other drugs, sense of urgency and perception of speed together with other factors such as mood, attitude to other drivers, frustration, preoccupation or concentration. Unsafe behaviour can also be motivated by the desire to conform to peer expectations and the desire to use the motor vehicle as a status symbol or even as a vicarious source of power.[32]

80. Safe behaviour can be motivated by a cooperative attitude, a desire to avoid crashes or simply to avoid penalties for breaking the law.

'Bad Drivers'

81. Dr M. Lay points out that the population of drivers involved in road crashes is noticeably different in sociological terms to the general population of drivers. A significant number of drivers involved in serious road accidents have been identified in studies as being socially maladjusted.[33] As mentioned in the last chapter, Dr R. Jadhav, claimed that 15 per cent of those drivers convicted of two drink-driving offences within three years, were suffering from severe psychopathic personality disorders.[34] On a wider basis, the factors commonly associated with serious road accidents include youth, transitory emotional stress, fatigue, chronic violation of the law, distractions, anti-social behaviour and an unstable family background[35] While many people see the identification and removal from the roads of drivers with these characteristics as being a promising preventative, not all drivers with these characteristics will be involved in serious accidents.[36] Dr Lay states:

> An individual's past accident record has little predictive power with respect to his future accident record, mainly because of the relative rarity of an accident occuring. If all of the people who had had accidents were removed from the driving population, there would be almost no effect on the subsequent accident statistics.[37]

82. From the statistics available, the correlation between drivers with high rates of committing traffic offences and those drivers with high accident rates is not as high as might be expected. The statistics available in Australia identify an individual drivers conviction rate but not his or her accident rate so it is difficult to derive accurate correlations. A better statistical base, and one that keeps national records not just a drivers convictions and accidents in one State, would provide a more accurate tool for identifying consistently bad drivers and other road safety trends. Its ability to identify bad drivers in advance is still very doubtful. This matter is dealt with further in Chapter 7.

83. Like all human attitudes and behaviour, those of drivers comprise a multitude of complex factors operating concurrently. While recognising the difficulties of changing driver attitudes and behaviour in order to improve road safety, there are positive signs emerging. Research and education campaigns have identified some aspects that are more amenable to improvement and these are worth focussing on. The research base on which to base campaigns for attitudinal changes is still meagre, as is the amount of accurate evaluation of campaigns already conducted. The Committee believes that national coordination of research is necessary to address both these deficencies.

84. As will be discussed later, in Chapter 5, attitude and behaviour are both affected by the perceived likelihood of being apprehended and punished for unsafe behaviour that breaks road rules. Representatives of the Northern Territory Government stated:

> Some people tend to be plain anti-social and cannot be told. The majority of drivers are prepared to obey the law if they see it as reasonable and are reinforced in this if they have an expectation that transgressions will be apprehended and suitably punished.[38]

Education and campaigns to change community and individual driver attitudes are more productive than external enforcement measures as they are capable of providing a high level of compliance through self-enforcement. External enforcement is still necessary to reinforce voluntary compliance and curb those unable or unwilling to comply voluntarily, however the resources available for such enforcement are limited and therefore so is its effect.

Education

85. It is believed that long-lasting positive attitudes to driving safely come from an education that provides on understanding of road safety measures and their necessity. As with nearly all social education, many witnesses suggested that it should start from an early age.[39] There was agreement that positive attitudes to other road users, as with positive attitudes to other people generally, should be taught from an early age in school education as well as by parents.

86. One note of caution was made about the value of early education and that concerned early driver training. As the results of that type of training are equivocal and it has not clearly produced the desired results, further research is needed. Mr Homel of Macquarie University said:

> I do not think we should abandon education at school. I think that ought to be pursued. But we have to be very clever about it and we have to put a lot of resources and research into it in a way that will really work.[40]

The Committee deals further with the question of research priorities in Chapter 7.

87. It is more difficult educating drivers who already have licenses or re-educating those who, despite driving for many years, continue bad habits and attitudes. While effective broad band education of these drivers is difficult, specific subject education campaigns, such as those on drink-driving, are more

effective in changing their attitudes and behaviour. Such campaigns need to be carefully researched, designed and targeted to be effective. Those in the advertising industry have had considerable experience in modifying human behaviour. The questionnaire conducted by the Committee showed respondents to strongly believe in the effectiveness of television campaigns. However, the Committee believes that the effectiveness of individual campaigns should be carefully evaluated to ensure they actually achieve their objectives.

88. Safety devices, such as seat belts or child restraints, or some safe driving practices are seen as costing money or time which acts as disincentive. There is a need for better public education of the costs of crashes to the community and individuals in monetary terms as well as pain, suffering and disability.

Changing driver attitudes and behaviour

89. Many researchers have examined driver attitudes, motivations and behaviour in an attempt to find strategies for action. The demonstrably large part human factors play in road crashes makes it critically important that priority be given to examining how attitudes are formed and behaviour determined as a basis for formulating practical strategies to change such attitudes and develop safer behaviour. When one realises the extent of road trauma in our community this need becomes an imperative.

90. While legislation such as that for random breath testing has been effective in changing attitudes, there is a need for road safety and education planners to look at attitude development in a wider sense. In the past, the countermeasures of blaming the victims and punishing them have had little or no significant long-term effects. Consequently substantial resources have been spent with little beneficial effect. Rather we should examine the society in which the driver lives and his or her position and lifestyle within that society. This approach to road safety planning cannot provide quick solutions but may promise something more substantial in the long term. The uncritical importation of countermeasures from one society to another in the hope that they will be universally effective is to be avoided in the area of attempting attitudinal changes. Such programs have to be culture-specific.[41]

91. The Committee heard evidence that educational materials were often inappropriate for particular target groups. Materials should have clear objectives and target groups and not be used in situations to which they are unsuited. Northern Territory education officers felt that materials which were adopted from southern States without modification were aimed at too high a reading level. Officers spoke of the need for specific road

safety and alcohol education materials for low literacy groups, as well as for some Aboriginal and transitional migrant groups.[42]

92. What are needed are well designed effective education campaigns with clear target audiences. This is particularly true of media campaigns. The recent television drink driving campaigns by the Federal Office of Road Safety have clearly demonstrated that target audiences can be identified and advertisements designed accordingly. To ensure effectiveness, new campaigns should be followed by assessment to determine which approaches or appeals have the greatest lasting effect. It has been shown that bland assertions such as 'speed kills' are less effective in changing long-term behaviour than researched advertisements that capture the attention of the viewer and provide strong points of identification for the viewer as part of conveying the message. The message has to be understandable to the point to being self-evident, acceptable and attractive.

Community Attitudes

93. The importance of community attitudes in influencing driver attitudes cannot be overemphasised. While to some extent it is a truism that changing community attitudes changes driver attitudes, there are important additional benefits. Social pressures provide additional long-term persuasion to discontinue unsafe practices. The wearing of seat belts and more recently the success of random breath testing and anti-drink-driving campaigns have shown that more positive attitudes can be engendered in the community. Through community acceptance and endorsement, pursuasion and enforcement is effectively implemented at the social and community level rather than relying solely on police enforcement.

94. The strongest illustration of the important role played by community attitudes in improving road safety has been the changing attitude towards drink-driving. The Committee in its 1980 Report on Alcohol, Drugs and Road Safety concluded that permissive community attitudes to drinking and driving are a fundamental impediment to measures aimed at minimising the problem.[43] Most witnesses agreed that the introduction of random breath testing together with recent drink-driving television campaigns (e.g. the Paul Cronin advertisements 'Would you let a friend drive if he has had too much to drink?' and the Guardian Angel advertisements) have led to definite changes in community attitudes and behaviour. At the very least, social pressures to drink alcohol when it is known the person is driving or to 'have one for the road' have eased.[44] Positive pressures are growing for people to remind drinking friends that they are driving afterwards or to insist that friends who have been drinking not drive rather than hoping they make it home.[45] The Chairman of the Road Safety Council of South Australia, Mr D. Beard, described this change:

> I am also involved a lot in sport, so I do go to sporting functions where a lot of drinking goes on - there are changes. Towards the end of the evening, where in the past people tended to speed up their drinking because they had to get a few in before they went home, there are a lot of people - older people and younger people - who do reduce the amount they drink late in the evening or maybe they have an orange juice or another cup of coffee or something like that. People talk about it, they say that they slow down their drinking because they might get caught.[46]

95. These changes in community attitudes to drink-driving have been substantial. Acceptance of random breath testing has been very high,[47] measured by very few complaints about police powers or delays, with consequently a high persuasive effect on drink-drivers being influenced by other community members. The community concern about drink driving expressed in the survey is fully reflected in the acceptance of RBT.

96. It should be noted that when it is said that community opinion has changed we are really talking about the middle ground that has moved. There still remain considerable numbers of people who perpetuate the permissive or even anti-social attitudes to drink-driving that were referred to earlier. The Northern Territory Government described the problem:

> There still appears to be a lack of real concern by many at the implications of drinking and driving. This is often reinforced by either peer group pressures or at the very best peer group pressure is still not strong enough to take a strong stand on those who seek to drink and drive.[48]

97. Since the introduction of random breath testing and the effective drink-driving campaigns of recent years, the proportion of fatal crashes that has involved a positive blood alcohol level have gone down in Victoria and New South Wales from around 50-55 per cent to around 40 per cent.[49]

98. Mr R.J. Homel, of Macquarie Univerity, said of random breath testing:

> Criminologists talk about the educative effects of law, that people's attitudes change to fall in line with the law. I think this could have been a factor in Victoria, that it is not just the strict deterring impact but that people have actually changed their behaviour because they now believe more strongly that drinking and driving is a dangerous thing.[50]

This change can occur where the law is based on well established facts, where public understanding is focussed on the reason for the law and its necessity is largely self evident.[51] Perhaps not all road safety measures meet these criteria.

99. Several witnesses referred to the high voluntary use of motorcycle helmets and seat belts before they were made compulsory. This, and the high level of compliance with current mandatory requirements, is largely due to their obvious benefits. It is important that adequate research verifying the effectiveness of safety measures is carried out and the results widely publicised. Drivers much more readily conform to safe practices they believe have a proven safety effect. These practices then become largely self enforcing.

Motorcyclists

100. A matter which has been raised by motorcycle groups is the attitude of car and other drivers to motorcyclists. There is clearly a problem of motorcyclists not being perceived by car drivers.[52] Motorcyclists have argued strongly that this is not merely a problem of conspicuity but also of attitude affecting perception or the response to the perception. It was noted that motorists have a much clearer perception of approaching police motorcyclists than of other motorcyclists. One witness suggested that it was because motorcyclists "were not perceived and recognised as something to do something about as they aproached."[53]

101. Greater awareness and appreciation is necessary to overcome this problem as well as further investigation of improving conspicuity. Heightened awareness and appreciation of other road users generally would greatly improve the safety of all motorists, cyclists and pedestrians, not just motorcycle riders. The effectiveness of advertising in changing community attitudes was referred to as being a suitable way to address the problem and the Committee believes that this is a most appropriate method.

102. The Committee recommends that:

television campaigns be produced to raise the awareness of drivers of cars and other larger vehicles to the presence and particular difficulties of two-wheeler drivers.

103. Several witnesses raised the attitude and behaviour of roadmakers as a problem for minority road users. Resurfacing of roads using loose surface gravel and road grates capable of trapping bicycle wheels were two matters particularly endangering two-wheeler road users.

CONCLUSION

104. Driver attitudes and behaviour are major factors in road crashes as well as major factors in avoiding them. Attitude and behaviour have long been regarded, with considerable justification, as the most difficult road crash factors to improve. We have evidence that real long-term improvements can be made in this area but it is also clear that due to its complexity we need to allocate substantial research resources to designing programs that will produce improvements. As with all road safety programs, careful evaluation is required to measure and ensure their effectiveness. Attitude and behaviour is closely related to the other areas nominated in this Report as being of public concern. Research and development also needs to be related to those areas.

105. The Committee recommends that:

priority be given to road safety research aimed at investigating and improving driver attitude and behaviour.

ENDNOTES

28. Report, p.1

29. Report, p.4

30. Evidence, pp.229-30

31. Lay, M.G., Source Book for Australian Roads, Australian Road Research Board, October 1981, p. 333

32. Klein, D., "Social Barriers to Traffic Safety", 7th International Conference on Alcohol, Drugs and Traffic Safety, Melbourne, 1977, p.351.

33. Lay, M.G., p.334

34. Evidence, p.382

35. Lay, M.G., p.334

36. Lay, M.G., p.334

37. Lay, M.G., p.334

38. Evidence, p.96

39. Evidence, pp.91, 1069

40. Evidence, p.675

41. Klein, 1977, p.358

42. Evidence, p.102

43. Report, p.36

44. Evidence, p.356

45. Evidence, p.356

46. Evidence, p.356

47. Evidence, p.243

48. Evidence, p.91

49. Evidence, p.666, Federal Office of Road Safety, Summary of National Road Crash Statistics, August 1984, Canberra, p.2.

50. Evidence, p.688

51. Evidence, p.321

52. Evidence, p.339, p.707

53. Evidence, p.711

CHAPTER 4

SPEED

Relationship Between Speed and Crashes

106. The main function of the road network is to provide for the safe and efficient transport of people and goods between a wide range of origins and destinations. The setting and enforcement of speed limits are attempts at compromise between transport efficiency and safety.

107. Speed was ranked third in the survey of the most important factors contributing to road crashes, with 12.7 per cent of the sample making it their first choice.

108. Speed has long been blamed as one of the major causes of death on our roads. The causal factor is not merely one of absolute speed. Researchers do not believe that speed in itself is the cause of crashes. Rather, it is speed in relation to the prevailing conditions that is the problem.[54] These researchers, however, believe that a reduction in actual speeds driven, not merely speed limits which may not be observed, would lower the rate and severity of crashes. The Committee believes that the higher the speed of a vehicle the greater is the potential for serious injury or death from any mishap.

109. The Committee received varying evidence on the degree to which speed, itself causes accidents. Speed, like most other factors which influence accidents, cannot be considered in isolation.

110. The Committee was told by Mr Max Cameron, then Principal Safety Officer, Royal Automobile Club of Victoria (RACV), that:

> there are some people who believe that vehicle speed is an accident causation factor, that it causes accidents to occur. The research evidence suggests that that is very tenuous, that if there is an effect, it is a very weak link. But of course, we all know that vehicle speed implies a greater kinetic energy of the travelling vehicle and hence a greater amount of energy that has to be dispelled, sometimes in the form of human injury.[55]

111. Mr T.O. Kelly, Director of Road Safety, Tasmanian Transport Department told the Committee:

> if people slowed down to the point where they were safe in the circumstances, we would have hardly any work to do. I mean, so many accidents happen because the speed at the time - whether the speed is 20 or 110 kilometres per hour - is just not appropriate for the conditions. The conditions could be wet, dry, winding road, or whatever.[56]

The *Director of the Division of Road Safety and Motor Transport* of South Australia, Mr A.G. Flint, said:

> accident occurrence in relation to vehicle miles of travel is much lower on high speed freeways than on normal rural roads and indeed urban roads. I have no basis to say that there is any need to vary the speed limits or that they are not right ... I suppose speed is part of driver behaviour really and driver attitude but the main point I was making was that it is speed in relation to the conditions, the road and traffic conditions, rather than speed in itself. [which is the cause of accidents.][57]

112. The problem of speed in accident causation is of speed relative to the prevailing conditions. A speed of 100 km/h is not excessive on a high standard freeway in good daytime weather. A speed of 60 km/h would be excessive in a narrow urban street with parked cars, intersections and many pedestrians on a wet night. An important condition in identifying speed problems is speed differentials. Dr. A.J. McLean, Director of the NH & MRC Road Accident Research Unit said:

> If one is travelling faster than the rest of the traffic one is more likely to be involved in an accident and under some circumstances travelling much slower.[58]

This was supported by Mr Cameron and Mr Christie of the RACV and other witnesses.[59] Of rural roads Mr Cameron stated:

> vehicles travelling at more than 25 kilometres above the average speed - I stress the words 'average speed' have inflated accident risk. It also turns out that in Australia the average speed on rural highways are about the speed limit.[60]

Mr Christie added:

> there is perhaps an increased risk of accident where you have got a deviation at the lower end of the scale from the average speed of the traffic, which is something that is rarely mentioned.

113. It seems that rather than the speed at which a car is driven, it is the inability of the driver to control the car at that speed and to react quickly enough to hazards or the actions of other drivers that lead to crashes. Rather than the maximum speed it seems to be the variability of speeds within a traffic stream that is a significant determinant of the likelihood of a collision.

114. The importance of speed differentials in accident causation has important ramifications on the effect of speed limits. If speed limits are observed the variations from the average speed on a particular road are limited at least on the higher speed side. But if speed limits are not observed, and it is strongly suggested that they are not when the limit is seen by most motorists to be unrealistic, then a wider spread of speeds could be expected on a road.[61]

115. It is widely accepted that the severity of a crash is increased with increasing speed. A lowering of driving speeds, should therefore reduce accident severity, and thus the degree of injuries of the occupants. In the United States when speed limits were reduced in response to the oil crisis in the 1970s, road injuries were reduced. The Committee, however, was cautioned by experts on a number of occasions that the relationship between speed and crashes is not straightforward. Mr Cameron of RACV noted that: 'In contrast with, say, the drink driving field, which is well researched, the relationship between speed and accident risk has been very poorly researched'.[62]

116. Despite these qualifications, several researchers made strong claims for overall speed reductions. Dr P. Swann, Chief Road Safety Officer of the Road Traffic Authority of Victoria described drink driving as the greatest cause of trauma on the roads and went on to say:

> speed is very important, in that speed not only determines the severity of an accident but also increases the number of accidents. If we can lower speeds we can change accidents that could have been fatalities into simple property damage. We will also lower the number of accidents.[63]

Dr A.J. McLean of the NH & MRC stated:

> If involved in an accident, the faster one is travelling the greater the likelihood of being killed or injured, and the greater the likelihood of killing or injuring someone else ... I am sure that if speed limits were lowered, and I refer both to the urban area speed limits and also country speed limits, if they were lowered and the lower speed limits could be adequately enforced, that would be a major road safety advance. This

> has been demonstrated in the United States where the absolute speed limit is 55 miles per hour which is slightly faster than the speed of traffic on our urban arterial roads. There are many qualifications that have to be made but it has probably saved around about 6 000 lives a year over the last 10 years in the United Sates. They are just fatalities quite apart from serious injuries.[64]

117. Of peoples ability to drive at greater speeds Dr McLean said:

> I am aware that there is a view in some quarters that certain people are more capable of travelling faster than other people. This may well be true on a racetrack but it is entirely fallacious when travelling on the open road because being able to control one's own vehicle is only a part and probably a very small part of the risk of being involved in an accident. It is the way in which other people respond to the presence of your vehicle.[65]

Dr Swann said:

> The facts are that people exceed the speed limits grossly in Victoria and throughout Australia. I believe that people drive according to their perception of the road conditions and I believe the subsequent number of accidents that we have, with speed as an important factor, indicates how badly an individual's judgment is in this very important area. With that overall general observation, we have a very complicated process for setting speed limits in Victoria. I would think the important thing to do is to get the community to obey the existing limits.[66]

Effective Speed Reduction

118. While acknowledging that the relationship between speed and the accident rate is not simple, there seems to be general agreement that if speeds could be reduced there would be fewer, less-serious crashes.

119. The Committee is aware that there may be economic disbenefits with reduced speed limits, such as increased freight charges, but this Committee is concerned primarily with road safety. In this context it is important to consider just how authorities should approach the problem of reducing speed.

Speed Limits

120. As it is speed which is excessive for prevailing driving conditions that is the major contributing factor to crashes, failure to correctly assess conditions or deliberate risk taking is an attitude or behaviour problem.[67] It is very difficult to effect behavioural changes in drivers. Education, changes in community attitudes and the likelihood of apprehension and punishment are factors which appear to be able to change driver attitude and behaviour. Evidence suggests that speed reductions will be most effective if the driving public can be convinced that the new limits are reasonable, and the limits are rigorously enforced.

121. The Committee notes an OECD report of 1972,[68] which analysed the effects of speed limit changes in 10 countries, using 30 different studies. The Report made the the following points:

- where speeds have been reduced by reducing speed limits there has been an accompanying overall reduction in accidents or casualties;
- in the few instances where speeds were unaffected there was no appreciative change in accidents;
- where a limit was removed speeds and accidents both subsequently increased;
- accidents were not only fewer but were less serious with the limits in operation; and
- there were no indications in any of the investigations to suggest that the imposition of speed limits had, on average, led to increased accidents.[69]

122. However, the following cautionary note was added to the Report:

> Although the reported studies indicate that speed limits have often succeeded in reducing accidents, sometimes not enough is known in detail on the statistical significance and scientific validity of these indications, on the quantitative measure of that reduction or on the adverse effects of the speed limit.[70]

Very little, if anything, was said in the studies surveyed about the contributions made by police enforcement of the speed limit regulation, although this is obviously crucial to the overall effect.[71] Other researchers surveying the literature on speed

enforcement have pointed to the lack of substantial evidence of enforcement producing long-term speed reductions. Most studies have been criticised on methodological grounds.

123. A Victorian Parliamentary Committee inquiry into freeway speed limits recommended, in March 1983, an increase in the speed limit for private motorists from 100 km/h to 110 km/h on freeways designed to high safety standards, whilst retaining the 100 km/h limit on older earlier design freeways. After detailed consideration the Committee concluded that the average motorist would continue at present speed levels and would not exceed the new maximum levels. Evidence was given to show that in general motorists currently exceed the 100 km/h limit by 10 km/h on high standard freeways.

124. In the absence of adequate research data, any statement regarding the effects of speed reduction must be heavily qualified. Identification of improvements due to speed changes is usually made difficult by other innovations which could influence the figures, e.g. introduction of seat belt and motor cycle helmet legislation, improved standards in roads and vehicles.

125. Speed limits must be set at realistic levels. Evidence indicates that limits that are set too low are substantially ignored. They provide an almost impossible enforcement problem and actually increase the likelihood of accidents by creating a *greater spread of speeds*.

126. The Australian Road Research Board refers to three main forms of speed limits:

- Blanket limits - the most widely used form of speed limit, so called because they apply over an entire area, such as an urban district, or as a maximum for the entire State. Such limits have the advantage of being administratively simple and generally understood by the motoring public. Their obvious disadvantage is that one maximum speed level is rarely suitable for all road conditions within a prescribed area.

- Speed zoning - speed zones, above or below any blanket level in force, are often tailored to the particular conditions of road sections where the existing general limit is unsuitable. Being better suited to the conditions, speed zones often result in greater observance of the limit, better speed distributions, and more respect for speed limits in general.

. Special limits - these may be applied to particular vehicles, special conditions such as roadworks, or used in an advisory capacity to warn of particular hazards.

127. There is a valid argument for increasing speed limits in some cases if it will lead to reduced variation. For example, if there is an unrealistic low limit on a high standard freeway, most of the traffic will ignore the limit and travel at what they consider to be a 'safe' speed. These motorists together with those who obey the speed limit are increasing the range of speeds and creating a traffic hazard. Speed control should, therefore, not only attempt to prevent excessively high speeds, but should aim to reduce the range of speeds in a traffic stream. The rate of accidents compared with vehicle distance travelled is much lower on high speed freeways than on normal rural roads or urban roads.

128. There is a strong justification for providing a speed limit differential between high standard freeways and lower grade roads. It is important that this difference be recognised, and speed limits adjusted according to road standards. If speed limits are to be effective and largely self-enforcing, they must be a logical response to road standards, not an arbitrary imposition. 'Not to recognise this in the setting of speed limits for the two classes of road is to miss an important opportunity for encouraging responsible driver behaviour.'[72]

129. Traditionally, zoned speed limits have been set at or near the observed 85th percentile speed of traffic (the speed at, or below which, 85 per cent of drivers choose to travel). This is recognised as the speed which most motorists would regard as a maximum safe speed in the absence of enforcement.

130. The advantage of using the 85th percentile is to reduce the spread of speeds, and to reduce the need for heavy enforcement.

131. In summary, it must be recognised that the act of reducing speed limits does not automatically lead to reduced speeds unless accompanied by rigorous and continuous enforcement. It is considered that reasonable levels of enforcement of speed limits considered by the average motorist to be appropriate for the given road conditions is more conducive to overall traffic safety than unrealistically low limits. This view is borne out in the results of the nationwide survey conducted by the Committee where 24.6 per cent of respondents felt that speed limits reflecting road design standards was the most important preventive measure available in the areas of traffic law and road safety.

132. The Committee is convinced that speed zoning is preferable wherever possible to blanket limits. If drivers can see that limits are imposed realistically and vary according to road conditions, the limits are more likely to be self-enforcing, and lead to better driver behaviour. The Committee also considers it would be a major advantage if speed limits could be made uniform for similar conditions throughout Australia.

133. The Committee therefore recommends that:

- **through the Australian Transport Advisory Council, State and Territory traffic authorities be encouraged to use speed zoning depending on road and traffic conditions when setting speed limits;**

- **through the Australian Transport Advisory Council, the implementation of uniform blanket speeds be encouraged throughout Australia.**

Enforcement

134. While speed limits should be designed to maximise self-enforcement, police enforcement is required. Research indicates that highly visible police activities are better deterrents than the use of unmarked vehicles to catch offenders. Marked vehicles increase the perception of being caught and lead to a more sustained behaviour change. As one witness said, 'the best single deterrent to a motorist speeding is a visible police presence'.[73] The Committee was told that a study of the benefits of police enforcement would probably show that visible speed monitoring is very cost effective.[74] The effectiveness of deterrents are discussed further in Chapter 5.

135. Speed limits appear to be most enforced on the safest roads.[75] It is important if the police are to retain a high level of credibility with the public that speed enforcement be done at the times and places that accidents occur.[76]

136. The Committee believes that the primary aim of speed enforcement is to reduce the incidence of excessive speeding, and thereby reduce the number and severity of accidents. Revenue raising should be considered as incidental. It is therefore essential that a close liaison be maintained between police, traffic authorities and road safety authorities to ensure that high accident locations are given special attention. Publicity should also be given to the reason for the selection of particular sites which may aid public acceptance of speed enforcement and reduce the number of violations regardless of police presence.

Engineering Measures

137. Speeding is also a serious problem in residential areas where vehicles come into conflict with pedestrians, particularly children. There are a number of engineering measures suitable for use in residential areas which will reduce both speed and the volume of traffic on particular roads. As well as reducing the speed of vehicles which use residential streets, engineering measures can dissuade through-traffic from using such streets. The most commonly used device in Australia is the speed hump. Humps both reduce speed and increase driver alertness. A Swedish report on speed-reducing devices in residential areas[77] recommended that for maximum effect, humps should be no less than 3 m long. Shorter humps jolt cars even at low speeds, and the effect is often diminished as the speed of the passing vehicle increases. These humps can also be dangerous for cyclists and motorcyclists.

138. Chicanes are barriers of various kinds intruding into the road space in residential streets to narrow the effective road width and to disrupt the free flow of traffic.

139. The use of chicanes, by providing an obstacle for the driver to negotiate, is an effective method of reducing speed in residential areas. Research studies have shown that the wider a road, the faster vehicles using that road travel. If the width of residential roads can be restricted at intermittent intervals, then speeds can be reduced. It is useful if roads are narrowed where pedestrians or cyclists are likely to cross. This increases the awareness of drivers and reduces the amount of road pedestrians must negotiate. Pedestrian refuges and median strips separating traffic flows assist pedestrian safety in crossing roads.

140. Other engineering measures include the conversion of crossroad intersections by use of culs-de-sac, T-intersections and the closure of diagonal intersections. The Commonwealth Department of Transport has produced a pamphlet entitled 'Town Planning and Road Safety' which describes various measures designed to reduce conflict between vehicles, or between vehicles and pedestrians. Many planning bodies, including those in Canberra, have adopted these practices in new developments. It has been found that in general they have provided greater aesthetic and community amenity as well as aiding road safety.

Public Awareness Campaign

141. The importance of setting limits which are largely self-enforcing has been discussed earlier in this chapter. The degree to which the public abide by speed limits can be increased using public awareness campaigns. The Committee has found members of the general public overwhelmingly supportive of

actions to reduce the road toll, and believes that if the public is made aware of the reasons behind administrative and enforcement actions, compliance will be forthcoming.

142. Any campaign designed to alert the public to the dangers of excessive speed must contain as much justification and information as possible. Slogans are not sufficient. The public must be asked to consider the problem and accept the reasoning behind the need to reduce speed. The other major requirement of any campaign is that it be targeted at the main offenders, in this case they are predominantly young, male drivers.

The Speeding Driver

143. There are indications that serious speeding is associated with young male drivers with little driving experience, and also with drink-driving.[78] The association between speeding and drink-driving is sufficiently high as to provide a useful method of detecting the drink-driver. It has shown to be as effective as selective patrolling during night-time hours. Speeding is mainly a night-time and weekend problem. Evidence indicates that young male drivers are over-represented in both speeding and in accidents involving speeding, although the evidence is not altogether consistent. It appears from a Victorian study that recorded speeds, when speeding offences are committed, have an inverse relationship with driver age.[79] Public education campaigns should therefore be developed on the basis of this information.

Conclusions

144. Overseas experience has shown that the reduction of speed limits has resulted in a reduction in the extent of injuries received and particularly has reduced the number of fatalities.[80] The imposition of speed limits can reduce speeds as long as the limits are both adequately enforced and are seen by the majority of drivers as reasonable for road conditions. Artificially low speed limits can be counterproductive in terms of accident prevention by increasing the range of speeds and therefore increasing the risks of accidents.[81]

145. Different road conditions call for different speed limits. The higher safety standards of divided roads should be recognised with higher limits applying than on undivided and otherwise lower standard roads.

ENDNOTES

54. Evidence, pp.942, 230-1.

55. Evidence, pp.861-2.

56. Evidence, p.1098.

57. Evidence, p.236.

58. Evidence, p.325.

59. Evidence, p.943.

60. Evidence, p.870.

61. Evidence, p.943.

62. Evidence, p.870.

63. Evidence, p.752.

64. Evidence, pp.325-6.

65. Evidence, p.325.

66. Evidence, p.575.

67. Evidence, pp.1098, 757, 758.

68. 'Speed Limits Outside Built-up Areas' - a report prepared by an OECD Road Research Group, August 1972.

69. Report, pp.15-16.

70. Report, p.16.

71. Report, p.16.

72. Quayle,G. M. L., "Rural Freeway Speed Limits" Office of Road Safety, Working Document WD 68, 1983, p.4.

73. Evidence, p.752.

74. Evidence, p. 326.

75. Quayle, p.4.

76. Evidence, p.758.

77. The Swedish Road Safety Office - Report No. 4 Traffic and Information Division 1982.

78. Cowley, J. E., Characteristics of the Speeding Driver, Report 8/8/83 (GR), Road Traffic Authority, Victoria, October 1983, p.25, 8/83.

79. Cowley, p.32-33.

80. Evidence, p.325-6.

81. Evidence, p.943.

CHAPTER 5

DISREGARD OF ROAD RULES

147. Disregard of road rules was the fourth most-important contributing factor in road crashes identified by those surveyed, being regarded as most-important by 6.4 per cent of the sample. It is closely related to "ignorance of road rules " (0.9 per cent) and "driver attitude and behaviour" (24.7 per cent).

148. The most important functions of road rules and their enforcement are to facilitate the movement of traffic and minimise road crashes and their resulting costs and suffering. The effectiveness of traffic law and its enforcement in promoting road safety and minimising the injury and economic costs of crashes is the relevant issue here.

149. The Northern Territory Government listed examples of different forms of disregard of road law. These were:

- straight out flouting and intimidation of other motorists, by some individuals - either as they see fit or when fortified with alcohol or peer group pressure
- consistent abusers - i.e. those who habitually ignore double lines, stop signs or try to sneak through on red light changes
- those who will do such things only when they feel pressed for time
- those who simply make wrong decisions as a wrong immediate reaction
- carelessness
- those who do not see themselves as setting out to break the law but do so through inertia or personal weaknesses e.g. those who drink too much and then drive.[82]

That Government went on to say that data is not easily available to relate these various aspects to road accidents, particularly in the Northern Territory, except that the high level of alcohol in road casualties is well known.[83]

150. In examining enforcement and deterrence there is a need to look at the effectiveness of the various types and levels of enforcement, together with the legislation on which they are based, in minimising unacceptable road user behaviour as well as general and specific deterrents to such behaviour. Legislation needs to accurately reflect road safety priorities.

Effectiveness of Legislation

151. Devices and rules to regulate unsafe driver behaviour take several forms. Some of the devices, such as well designed and correctly placed traffic islands, are virtually self enforcing. Other physical constraints on the dangerous movement of traffic, particularly in urban areas, are speed humps, 'rumble' strips, roundabouts and deliberate narrowing or closing of through streets.

152. Recent examination of sixty such devices installed in East Roseville in Sydney found several advantages. Devices had been successful in reducing the number of cars using the area by as much as 10 000 per day and spot speeds had been reduced by 9 km/h. A survey of residents found that the most widely accepted devices were the roundabouts. Slow points, where the road had been narrowed, were least popular of all devices.

153. Other devices to control driver behaviour, such as stop signs, depend, to a degree, on enforcement for their effectiveness. It has been found that the frequency with which they are controlled, directly affects drivers' perceptions of the risk of flouting the device or rule. A number of witnesses believed that there was an inadequate police presence on the roads to ensure general compliance with road rules. Given a limited amount of enforcement the effectiveness of any device will decrease as the number of such devices rises. As far as possible, the road safety advantages of any device, such as a stop sign or a give way sign should be made self-evident or be well publicised. Observance of the rule is likely to be low if drivers do not accept the need for such a rule in a certain place or perceive the risk of apprehension for breaches as low.

154. The increased frequency of such devices poses problems of effectiveness other than enforcement. A proliferation of devices such as pedestrian crossings in a relatively short length of roadway can reduce their effectiveness. It is therefore obvious that some restraint be exercised in determining the number of devices such as speed limits, pedestrian crossings or stop signs to be deployed in a given area. They should be used with some discretion and with appropriate enforcement. The Department of the Environment in the United Kingdom has fixed a maximum number of pedestrian crossings for each area and requires that one be removed for every new one installed.

155. An important assumption in the preparation of traffic law is that the rules promote safe behaviour and violation of the rules constitutes unsafe behaviour. This assumed causal relationship between violations and accidents is not firmly established but it is crucial to the development of legislation. In addition, if the majority of drivers do not hold the view that a breach of the law may result in an accident or detection by enforcement officers then the effectiveness of legislation will remain minimal.

156. Several studies have demonstrated very low positive correlations between convictions and accidents. Research to date has suffered from two weaknesses. Firstly, conviction data rather than violation data have had to be used. The number of violations committed is far larger than the number detected and the extent to which recorded convictions are representative of actual violations is unknown. Secondly, the research has attempted to be all-embracing. Given the diversity of traffic law and its dual purpose of promoting a safe and expeditious traffic flow, it would seem more profitable to seek relationships between specific types of accidents and violations. The Committee discusses the need for an adequate national data base in Chapter 7.

157. At present, many of the rules relevant to crashes, for example, those relating to overtaking improperly, are extremely difficult to enforce. On the other hand, rules which are more easily enforced, such as those related to speeding or defective vehicles, may not always be the most relevant to the cause of accidents. Since the effectiveness of traffic law enforcement in accident reduction must be determined by the relation between breaking the rules and crashes, more research is needed on this relationship. Research should also try to determine which accidents can or cannot be controlled by enforcement, and for those accidents which can be, what form the enforcement might take. Such research would provide a better basis for the evaluation of the main body of traffic law.

158. In the area of injury reduction studies have established the important safety benefits which accrued from the introduction of compulsory wearing of seat belts and compulsory wearing of helmets for motor cyclists. In this area of safety legislation Australia has led the world.

Enforcement

159. Traffic enforcement accounts for the largest single proportion of police duties. A work study on a 10 per cent sample of Victorian policemen at the rank of sergeant and below found that 21 per cent of total time was devoted to duties related to traffic. Preparing for and attending court cases accounted for a further 10 per cent of the total time. On the basis of this study police appear to spend nearly one quarter of their total time on traffic enforcement and related matters.

160. Overseas research, which is well summarised in an OECD publication 'Research on Law Enforcement', Paris, 1974, indicates that the general effect of enforcement is to promote road safety but at the same time warns that it must be integrated into an overall, well balanced road safety policy that includes sound engineering, education and road safety propaganda.

161. There is a need to consider all elements of the traffic enforcement system in developing an effective enforcement policy. Both traffic rules and enforcement must be seen as parts of an integrated kit of road safety tools. It is important to choose carefully the driving rules which will have priority in the allocation of enforcement resources. This involves clearly identifying those violations most involved in crashes, especially serious crashes, and the context in which those violations occur i.e. times of day, locations. This information is necessary if enforcement resources are to be accurately targeted for the greatest road safety benefit.

162. A number of witnesses sought a stronger police presence on the road. It was also suggested that a highly visible police presence was an effective deterrent. The Committee believes that further investigations are warranted to determine the most cost-effective enforcement deterrent options. The possibility of a separate specially trained traffic police force might be an option.

163. There exists a considerable body of research relating to the effectiveness of enforcement in modifying road user behaviour and in reducing accidents. Most studies, however, are methodologically inadequate and few firm conclusions can be drawn from them.[84]

164. The majority of enforcement studies concern speeding. Passive, visible enforcement - conspicuous police vehicles, signs warning of radar traps and so on - significantly reduces the number of drivers who exceed the speed limit. The visible presence of traffic patrols has repeatedly been shown to be effective in gaining compliance of road users with the traffic code. However, any concerted enforcement activity, additional to routine surveillance, requires additional manpower. The effect of visible police presence, however, is highly localised in both space and time. Speed reductions do not generally continue beyond 1 000 metres past a stationary symbol of enforcement. In the case of a police vehicle moving in the traffic stream, but not intercepting violators, speed reduction is detectable in vehicles only within about five kilometres or four minutes after their having passed the police vehicle.

165. Enforcement involves the use of a limited resource. Rules which depend heavily on enforcement for compliance should therefore be used sparingly. If enforcement is increased in one area it will have to be reduced elsewhere and the net result could be a decline in road safety. The main areas where it has been suggested that increased enforcement effort is likely to be of value in reducing casualty accidents are intersection offences and excessive speeds on rural highways.

Compliance

166. The greater the degree of non-compliance with the traffic code the greater the threat to the efficiency and safety of the system. If the goal of traffic law enforcement is to achieve a high degree of compliance then one measure of success is the extent to which compliance occurs. However, since we seek compliance with traffic law in order to achieve safe and efficient traffic flow, success can also be measured in terms of the number of accidents and their cost and the extent of traffic delays. Unfortunately, relatively little sound, evaluative research has been done in this area, particularly in Australia.

167. Compliance with road rules ranges from almost universal (the wearing of helmets by motorcyclists), very high (the wearing of seat belts by vehicle occupants), moderate (observance of priority rules) to low (speeding).

168. There is no doubt that respect for traffic law is not high in many areas and might be improved through a greater concurrence between the community view of the seriousness of various offences and the treatment of these offences by the police and the courts. The effectiveness of deterrents is discussed below.

169. For any driver there is a probability that he/she will not fully comply with road rules and for such a driver there are two probabilities of detection for committing an offence - the objective probability and the subjective probability.

170. Objective probability is generally very low. Pocock and Landauer (1979) estimated that in Australia a drunken driver can travel between 50 000-60 000 km before being stopped. Even in Canada where drink-driving laws are strictly enforced, a drink driver can travel 26 000 km before being stopped. The Australian figures represent the position before the introduction of RBT. Landauer and Howat told the Committee that the probability of being caught with an illegal BAC was quite low.[85]

171. They also stated that drivers are aware of this and quoted a study that showed that up to 35 per cent of male and 24 per cent of females in the 25-29 age group have driven at times with a BAC in excess of .08 per cent.

172. The subjective probability of being caught is therefore generally in line with or above the objective probability. The publicity 'blitzes' given to police crackdowns on offences such as drink-driving are designed to raise the subjective probability perceived by the community. Mr Homel has suggested that selective publicity strategies designed to increase the subjective probability of detection of one particular group of offenders, for example young drivers, are ineffective. He maintains that 'across the board' enforcement strategies that increase perceived probability of apprehension among all groups of drivers are more effective. It is also true that such publicity raises the subjective probability disproportionately to any increase in objective probability brought about by increased police resources.

173. The introduction of legislation to enable police to stop drivers at random and test their blood alcohol concentration (BAC) is essentially an effort to increase and reinforce the perceived probability of detection. Most witnesses confirmed this effect of random breath testing.

174. Increasing subjective probability involves not merely the changing of community attitudes towards offending drivers, although this is a large part but also creating deterrents that genuinely raise a driver's fear of impending detection.

175. Many studies have involved researching the impact on driver behaviour of measures such as blitzes on speeding, vehicle safety inspections, random licence tests and police helicopter patrols. Results of such studies have sometimes been contradictory. A review of such studies[86] found that there is no conclusive evidence that these deterrents to offending drivers can improve safety. Although studies have claimed accident reductions, it has been noted that the bulk of studies have been scientifically inadequate and firm conclusions cannot be drawn. The Committee heard evidence that deterrence generally has only a temporary impact on driver behaviour and does not of itself change drivers' attitudes to unsafe behaviour.[87] The Committee strongly believes that for deterrence to work effectively in the long term it is necessary "that people's attitudes change to fall in line with the law",[88] or at least on those aspects that have most effect on road safety.

176. Armour stresses the need to concentrate on improvements in enforcement and deterrent techniques. For example, in speed control, improvements in road engineering were mentioned as one effective means of enforcing speed limits especially in urban areas.

Sanctions

177. Assessing the deterrent effect of sanctions for law-breakers is a complicated process, as the effect on a driver depends on the interaction of a number of variables. These include the probability of detection, the driver's perception of this probability, the certainty of punishment and its severity, any perceived leniency or delays in legal processes and the degree to which the individual responds to the punishment by ceasing the unsafe behaviour. The Committee heard evidence suggesting that in terms of making an impact on road safety the certainty of punishment is a more effective deterrent than its nature or severity.[89] Further the Committee heard that there was no correlation between the type or severity of penalties and the likelihood of later conviction.[90] Another important factor is the degree to which the society endorses the punishment or condones the offence. A major barrier to establishing a system of effective traffic law sanctions is the lack of an adequate research data base.

178. At present the main administrative sanctions are on-the-spot fines, and point demerit schemes. The introduction of on-the-spot fines has helped to relieve the considerable load on the court system but there is no evidence that such fines have led to fewer violations or accidents.

179. In points demerit schemes, conviction for certain offences results in a set number of points being recorded against the driver, who, if he/she accumulates a given total within a specified time period, is then subject to automatic licence suspension. Points demerit schemes originated in the United States where they are used to identify persistent offenders who are then directed to some driver improvement scheme. In Australia, the number of points assigned to any particular offence appears to be based on an arbitrary judgment of its seriousness and the resulting scale is not uniform between States. Ideally, demerit points should be allocated according to the extent to which each particular offence is related to the occurrence of serious accidents. Research to establish these relationships should be undertaken. The Committee believes that points demerit schemes are worthwhile but that their effectiveness should be established by research. The feasibility of referral to driver improvement programs being incorporated into points demerit schemes in Australia should also be investigated.

180. Another important sanction used widely in Australia, particularly for drink-driving offences is licence disqualification. Studies both in Australia and overseas have found that licence withdrawal is far from totally effective both as a deterrent to drink-driving and to the act of driving. In Victoria, 36 per cent of a sample of disqualified drivers admitted to driving while disqualified with over 40 per cent of this sample driving on more than 20 occasions. One witness told

the Committee he felt that 50 per cent of convicted drink drivers would continue to drive after disqualification making disqualification an ineffective deterrent to drinking and driving.[91]

181. The introduction of RBT in several States and photo licenses in Victoria will assist in apprehending unlicensed or disqualified drivers. A national register of licence disqualifications is necessary to ensure replacement licences are not gained interstate. Where people persist in offending by driving while disqualified heavier penalties may be required. Heavier penalties utilised in parts of Europe include: on-the-spot suspension of licences, mandatory gaol terms and in some circumstances confiscation of vehicles. The Committee notes that in Victoria, drivers exceeding the speed limit by more than 30 km/h are subject to a licence cancellation of one month.

182. There are strong social and personal factors which limit the deterrent effects of sanctions against unsafe driving. Lengthy delays in court proceedings and consequently in the imposition of sanctions are common. There is considerable variation in the level of sanctions imposed for similar offences between courts in the one State and between States. Present systems are often described as being inadequate by the motoring public, by those who have suffered loss through accidents and by the judiciary.

183. On the question of the punishment fitting the crime, witnesses from the Northern Territory Government pointed out that seat belt wearing was a major measure to reduce injuries in road crashes but the penalties for not wearing seat belts are relatively minor.

184. There is evidence that the proportion of alcohol related fatalities has recently declined from 50-40 per cent of total fatalities. This is gratifying news and an indication that recent drink-driving campaigns including enforcement, are having an effect and that both community attitudes and individual driver's behaviour is changing. However as alcohol still accounts for about 40 per cent of road fatalities, work must continue on all fronts in an effort to reduce this tragic situation. In Chapter 2 the Committee discussed the possible contribution of ignition interlock devices to deter recurrent drink-driving offences.

CONCLUSION

185. From the evidence received the Committee believes that the effectiveness of various enforcement procedures including penalties is in need of review. This area is worth detailed examination by the Committee in the future.

ENDNOTES

82. Evidence, p.96

83. Evidence, p.96

84. Evidence, p.1066

85. Pocock, D. and Landauer, A., "To make the punishment fit the crime", Australian Quaterly, September 1979, pp.55-61. Evidence, p.1227

86. Armour, M., "A Review of the Literature on Police Traffic Law Enforcement," ARRB 14(1), March 1984, pp.17-25

87. Evidence, p.688

88. Evidence, p.688

89. Evidence, p.799

90. Evidence, p.668

91. Evidence, p.668

CHAPTER 6

ABORIGINAL ROAD SAFETY

Introduction

186. Alcohol is seen by many as the greatest modern threat to the welfare of Australian Aboriginals. The impact of alcohol on Aboriginal communities is profoundly disturbing and seriously affects not only the family structure and the wider social relationships but also aggravates tensions in an individual's community and in his place of work. There is strong evidence that alcohol is also instrumental in breaking down traditional authority structures and the relationship between the individual and traditional clan and tribal groups.

187. The Committee is deeply concerned about these impacts on Aboriginal lifestyle and is particularly concerned about the clear links between high alcohol consumption and road accidents in both Aboriginal and white communities in large areas of outback Australia. Road safety attention, education and funding should not only go to urban Australians on the basis of the higher media profile urban road safety issues attract.

188. Although the bulk of the Committee's evidence on this matter was taken in the Northern Territory, many of the road safety issues raised are of concern to outback and Aboriginal communities in other parts of Australia.

Driving in Remote Areas

189. The difficulties and dangers of driving in remote areas of Australia are well known. Drivers face long distance, often under extremely enervating climatic conditions. Witnesses spoke of poor roads characterised by dust, surface corrugations and monotonous surroundings. During its visit to the Northern Territory in July 1984, the Committee was struck by the poor road conditions in many areas. Add alcohol to this picture and we have the dangerous mix of high speed, unrealistic driver perceptions and unsafe roads.[92] The improvement of outback roads would be a major contribution to improving road safety but the Committee recognises the severe constraints imposed by high road building costs in these areas.

190. Several witnesses expressed concern that heavy drinkers will often travel long distances to obtain alcohol and so avoid bans or restrictions on dry reserves. Witnesses felt, and the Committee concurs, that the combination of alcohol and the long distances can be fatal. The Committee found that residents of

Oenpelli would often drive to Jabiru, a round trip of ninety minutes, to obtain alcohol and that accidents would occur on the drive back.[93] The combination of alcohol, long distances and poor roads does not only affect Aboriginal drivers.

Wet and Dry Areas

191. There are a large number of Aboriginal communities in the Northern Territory that independently determine the drinking requirements of their area. In these areas, alcohol laws are a direct reflection of the wishes of the community. On a growing number of reserves and in some towns and settlements Aboriginal community groups and associations have chosen to ban or at least limit the rate of consumption of alcohol. The Committee is vitally interested in the effect these laws have on road safety.

192. The Committee recognises the particular concern of Aboriginal people with the harmful effects of alcohol on their communities. Their strong desire to ban or restrict alcohol in their communities for these reasons should be respected. However, the Committee believes that Aboriginal community leaders and road safety planners need to examine the implications for road safety of the declaration of areas as dry or wet. Witnesses expressed the view that it was not the job of road safety planners to ask Aboriginal communities to change the status of their reserves on the basis of purely road safety issues,[94] but the Committee believes more communication is needed on both sides to help in whatever way possible to reduce the alcohol related death and injury on our roads.

193. Witnesses spoke of drivers bringing alcohol to reserve limits, drinking and then driving onto reserve roads and through settlement areas.[95] Clearly there are strong conflicts of interests involved as the decisions of reserve members are not primarily concerned with road safety issues outside reserve limits. The Committee believes that Aboriginal communities and their leaders are aware of these problems and in most, if not all cases, positive attempts are being made to address them and find solutions.

194. Such solutions will only come as community attitudes and behaviour are changed. The attempts amongst many Aboriginal groups to change the drinking behaviour of their communities by bans, can limits and restricted drinking hours are part of the answer. The Committee heard evidence that in Warrabri less than 10 per cent of the population drink alcohol.[96] While this very low figure is due largely to a total alcohol ban in the area, it clearly indicates that fairly major changes in community attitudes can be achieved over time.

Vehicle Loading

195. Residents of outback Australia, including the Northern Territory, are highly dependent on their motor vehicles. Distances travelled in the general course of living are enormous with distances measured in driving hours rather than kilometres travelled. Aboriginals particularly are very dependent on their vehicles and four-wheel drives for transport and recreation.

196. Serious overloading of motor vehicles, especially four-wheel drives, was raised with the Committee by several witnesses. Serious concern was expressed that vehicles became top-heavy under certain conditions and four-wheel drive vehicle roll-over was mentioned as a key cause of single vehicle accidents on Northern Territory roads. It was also stated that in many single vehicle roll-over accidents, high speed was not a major contributing factor.[97]

197. The Committee was assured that legislation is currently being considered to limit the number of passengers allowable in trucks, particularly four-wheel drive "tray top" trucks. Often Aboriginal communities will modify vehicles with "cages" to enable large groups to be accommodated. Evidence suggested that such containers, resulted in some dangerous situations. A case was cited of a truck's exits becoming jammed in a roll-over making it very difficult for people to escape. In this case escape exits had been welded up to stop people leaning out. Northern Territory Police feel that the danger would change from being one of people falling out of moving vehicles to one of *people trapped in a simple roll-over*[98] *Police also expressed* gross fears for passenger safety should a vehicle roll-over into a river.[99]

Aboriginal Road Safety

198. The Northern Territory Department of Education through community educators has been encouraging the safe use of motor vehicles through teaching basic vehicle care and maintenance practices. Access to suitable information is a problem. The Northern Territory has been developing Aboriginal access to vehicle, road safety and alcohol information among other things. The Department has 26 adult educators for the whole of the Northern Territory. Video magazines have been produced by the Office of Aboriginal Liaison in the Chief Minister's Department to disseminate road safety information to Aboriginal communities where the use of videos is extensive.[100] The Committee would like to see a greater Aboriginal involvement in providing road safety information to Aboriginal communities and in designing programs for Aboriginals.

199. The Committee recommends that:

> the Federal Department of Aboriginal Affairs and the Federal Office of Road Safety, in conjunction with the Northern Territory and other road safety bodies, develop publicity campaigns specifically for Aboriginal and other outback communities.

200. In this regard, a new film dealing with four-wheel drive safety recently produced by the Office of Aboriginal Liaison is to be welcomed.[101] At the same time the Road Safety Council of the Northern Territory has produced four short video films on child behaviour in cars, drink-driving, seat belts and behaviour in the backs of trucks.[102] Such ventures are to be applauded and the Committee hopes that more will be done in future to back up these initial steps and encourage on-going education. The Committee believes that these low-key approaches to education are more effective than higher profile education programs for long-term development of safer driver and passenger behaviour.

ENDNOTES

92. Evidence, p.91.

93. Evidence, p.124.

94. Evidence, p.126.

95. Evidence, p.125.

96. Evidence, p.125.

97. Evidence, p.150.

98. Evidence, p.162.

99. Evidence, p.163.

100. Evidence, p.131.

101. Evidence, p.131.

102. Evidence, p.133.

CHAPTER 7

NATIONAL ROAD SAFETY PLANNING

201. A major concern issuing from the evidence of a number of witnesses was the need for national coordination of road safety matters. Several raised the lack of uniformity of road laws. Witnesses also pointed out that some States treat the same offence more seriously than others. Statistics on a number of aspects are collected on different bases in each state such that national figures cannot be established. It was made abundantly clear that there is still an inadequate data base for road safety research in Australia.

202. The need for a national approach was raised by Mr D. Beard of the Road Safety Council of South Australia, who stated that the number of deaths and injuries in Australia "is a national epidemic and ought to be treated nationally ... it transcends State boundaries."[103] Mr Gordon Trinca, National Chairman, Road Trauma Committee of the Royal Australasian College of Surgeons, stated, "a national problem needs a national approach."[104]

203. The Committee agrees with those witnesses who sought a much higher level of coordination in Australia in tackling major road safety issues. For a national approach to succeed, much will depend on the cooperation of Commonwealth, State and local governments together with other agencies involved with road safety.

Traffic Law, Licences and Statistics

204. The Australian population is becoming increasingly mobile and differences in traffic laws between States continues to be a problem. It has always been a problem in border and holiday areas. Uniformity of road laws was seen by many respondents to the Questionnaire as an important preventive measure.

205. Evidence given to the Committee emphasised the differences between States. However, we should not overlook the large measure of uniformity that does exist. The introduction of uniform requirements for Stop signs and the priorities at T-junctions are good examples of uniformity being achieved. A Draft National Traffic Code has been developed and this should assist in eliminating the difference in traffic rules between States. The Australian Design Rules for vehicles and Draft Vehicle Standards have operated successfully to facilitate uniform, high standards being developed and implemented for the designs of many classes of vehicles throughout Australia.

206. A number of witnesses drew attention to the need for national records of driving licences, driving offences and particularly disqualifications of drivers. Similarly national records of car registrations would provide information for road safety statistics as well as being of use to law enforcement agencies.

207. Mr D. Beard, of the Road Safety Council of South Australia, agreed that it would be of value to set up a national register of accidents and a national register of drivers. Disqualified drivers in one State would then not be able to obtain a licence in another State[105] Mr Beard confirmed that he would like to see a program at the Federal level which coordinated resources available in Australia.

208. The Northern Territory Government's submission also supported a national register to record all licences and offences in Australia and provide fast access to those records. It also sought a more positive identification of drivers to better identify habitual offenders.[106] The Northern Territory has a high proportion of visiting drivers as well as new residents. Drivers are used to different traffic conditions and rules. The Territory believes that more than any State, it can gain from uniform national traffic laws. It is currently working to relate all its traffic requirements to the National Road Traffic Code as endorsed by ATAC.[107]

209. The Northern Territory Government's submission noted that a major problem to date has been the more lenient treatment of drinking drivers in small country centres because of the close contact between those implementing the law and offenders. It suggests the standardisation of minimum penalties for serious offences throughout Australia might help reduce this problem.

210. The Committee fully endorses these calls for uniformity of road safety measures. However, it is worth repeating here the Committee's comments on uniformity in its Report on 'Education, Training and Licensing of Drivers'[108]

> The Committee would like, at the outset, to clarify the issue of uniformity. Almost all witnesses called for standardisation in licensing as well as a uniform traffic code. Although the Committee supports the concept of an Australian licence, this should still allow each State or Territory sufficient flexibility to modify the system to cope with regional differences. However, these variations should not influence the development of common standards in many areas. Uniformity purely for the sake of uniformity is not necessarily advantageous. In some cases a uniform code of licensing would mitigate against innovation. For example, if compulsory seat belt

> legislation had not been introduced until all States had reached agreement, it may never have been introduced. The same is true of random breath testing and motorcycle training programs. There are considerable benefits to be gained by allowing one State to 'blaze the trail'. Other States can assess the effect of changes, and can benefit from operational experience. Any move towards uniformity must recognise the need to retain this flexibility.[109]

In continually striving for uniformity in road safety management in Australia the objectives should be to minimise unnecessary differences, to allow trialling of new programs and to promote the adoption of best practice.

National Data Base

211. The inadequacy of the data base for road safety research has long been recognised. Accident data are still collected incompletely and unevenly and as such are not capable of providing accurate monitoring of road safety developments. The effectiveness of many road safety programs is at present only measurable, if measurable at all, in gross terms. A data base more sensitive to change is necessary if road safety measures are to be effectively monitored.

212. Dr A.J. McLean of the NH & MRC observed:

> On accident records I regret to say that in South Australia it is not possible to go to the routine statistics and find out how many accidents a particular individual has had. One can find out how many violations he has had but not how many accidents... the concern I think should be primarily with accidents, not with violations, but the system has evolved so that there is much more concern with violations than with accidents.[110]

213. Mr M. Cameron, Principal Safety Officer, of the RACV pointed out that at a national level as opposed to a State level it would be possible to make time-series comparisons of fatalities. The number of accidents at the State level would not provide enough data for this type of survey.[111] It was pointed out to the Committee that in Victoria and Tasmania only casualty accidents are reported to the police. In all other Australian States accidents involving damage above a certain dollar value are reported.

214. The Committee believes that the Commonwealth has a role in establishing and maintaining a national road safety data base. The Committee recommends that:

- the Commonwealth establish and maintain a national road safety data base, providing access to the data base and disseminating research results;

- data needs be established in conjunction with the States and standardised reporting developed throughout Australia.

215. The Federal Office of Road Safety as part of it mass data program has commenced a comprehensive data base for all road fatalities in Australia commencing from 1981. This includes considerable detail on a number of factors for each crash gathered from several sources, e.g. coroners inquests and engineers reports, not just from police reports. Like all newly commenced data collections there will be a considerable lead time before it can build up its usefulness. These long lead times emphasise the necessity to allocate resources now to allow appropriate levels of research and development to be carried out in the future.

216. National figures would allow earlier identification of trends than State-only figures while still providing information needed at the State or local government level.

217. State and local governments should take part in determining statistical needs as they are the bodies primarily involved in inplementing most road and traffic design work.

218. The Committee recommends that:

a national register be established of driving licences, driving offences, disqualifications of drivers and car registrations to provide road safety statistics and quick access to information by law enforcement agencies.

Research

219. In quite a number of areas described earlier in the Report the Committee has drawn attention to the lack of availability of adequate research information. It is clear from that more detailed research is necessary on road safety factors and driver behaviour if more effective road safety preventive measures are to be developed. A more comprehensive and more detailed data base is necessary to facilitate such research. Mr Flint of the South Australian Road Safety and Motor Transport Division pointed to a long-existing problem:

> Too often, I think it is the case that it is someone's intuitive judgment that provides the basis for a road safety program rather than proper sound research. That intuitive judgment is not always reliable as a means of arresting accidents.[112]

He went on to say:

> Road safety authorities generally need to have in their organisational arrangements a unit concerned with data collection, statistical analysis and research, leading to both policy formulation and program development.[113]

220. There are a number of road safety research bodies operating in Australia such as those in Commonwealth and State Government agencies, universities and professional bodies. Highly developed expertise in different areas is unevenly distributed across these bodies. The overall quantity of quality research is still too low. There is a very strong case for road safety research within Australia to be coordinated at a national level.

221. As noted earlier in the Report, the greatest scope for further substantial gains in road safety is through improvements in driver attitude and behaviour. Given the advances made over the last 10-15 years, further improvements in road and vehicle safety offer relatively less scope for dramatic improvement. Bringing about attitudinal changes requires a high level of research and expertise. Attitudinal change campaigns are consequently expensive to design and produce. There is an obvious need to pool resources to produce national campaigns.

222. The objectives of coordination would be to establish priority areas for research, to identify those bodies best able to carry out the research, to avoid unnecessary duplication of research work, and enable maximum dissemination of research results. Such coordination should maximise the value of the research dollar.

223. On the question of national coordination, the Director of Road Safety and Motor Transport in South Australia, Mr A.G. Flint observed:

> You mentioned national coordination and you made another reference to national government coordination and I think we need to draw the difference between those two. The States have established a very effective means of co-ordination in the road safety area through the conference of road safety authorities. Whilst that

> is very new we are feeling the benefits of that quite significantly at present. Coordination..... must be a willing cooperative effort.[114]

224. The Committee recommends that:

> a road safety research program advisory committee be established consisting of Commonwealth and State representatives, together with representatives of other major research bodies, to develop research priorities and facilitate the coordination of road safety research.

225. Another major deficency of road safety research in Australia that was drawn to the attention of the Committee is the lack of evaluation of road safety programs.[115] As Mr Flint has pointed out intuitive judgments are not enough in designing or evaluating programs. The Committee believes that designing and conducting an evaluation of each new program should be an integral part of the program if their effectiveness is to maximised.

226. A research program advisory committee could also assist in providing peer review of research work undertaken and advise on research methodologies.[116] Faulty methodologies have seriously limited the usefulness of the findings of many road safety research projects in the past. As part of its national research coordinating role the coordinating panel should be mindful of research projects overseas to avoid duplication and trying wherever possible to utilise overseas results while at the same time contributing to the international research base. As noted in Chapter 3, care needs to be taken as social attitude work done in other countries may not be relevant to Australian conditions.

National Priorities

227. Most road safety problems are experienced nationally. Research and the development of programs are becoming increasingly expensive. The Committee believes there is considerable merit in developing priorities in road safety at a national level and developing programs and campaigns at a national level where appropriate. This might involve identifying successful programs already operating in some States, e.g. the Victorian Bike-Ed program, for adoption around Australia. Where suitable programs are not available in priority areas, suitable material could be developed either at the national level or by the most suitable State, with funds provided by either the Commonwealth or Commonwealth-State joint funding.

228. The Committee recommends that:

> **the Federal Office of Road Safety in cooperation with Commonwealth and State Departments develop a national program of short and long-term road safety objectives and report back to the Federal Government on the means of achieving them.**

229. There are many aspects of road safety which require promotion on a national basis. The recent Guardian Angel series of anti-drink-driving advertisements is a good example. Drink driving is a major problem across Australia, as well as in other countries, and a pooling of resources and expertise is necessary to develop a carefully researched and produced campaign. Not all programs or campaigns warrant a national launch in the first instance. Trialling of campaigns in one State or local region is often desirable or necessary. The high degree of homogeneity of the Australia States and Territories is such that progams successful in one State are highly likely to be successful in other States. However, the Northern Territory Government pointed to the need for specially targeted material for some groups, e.g. outback road users. Good examples of material produced in one State being used successfully in others are the Victorian Bike-Ed program and Bicycle Helmet Usage campaign.

Education

230. If road safety education is to commence from the earliest age then the development of suitable materials, or perhaps the selection of existing effective material, for use nationally is highly desirable. If positive long-term attitudes to road safety can be developed through school based education then it is well worth devoting sufficient resources to develop educational material of a high standard and suited to a wide range of children.

231. As well as curriculum development and materials such as kits, the teacher training aspect should not be neglected. The Bike-Ed program initiated in Victoria has teacher training as an essential element.

232. The Woman's Christian Temperance Union of South Australia told of their work educating young people about the effects of alcohol and various drugs by showing films and supplying information kits to school resources centres. The dangers of alcohol and drugs is currently being taught in health lessons. It is important that young people learn about alcohol and drug use before they leave the school environment and before they are old enough to obtain a driver's licence.

233. The Committee believes that cooperative efforts at the national level are essential to identify the most effective education and intervention programs to combat both drink-driving and other drug-driving.

234. The Northern Territory Government, suggested that printed educational information by the Federal Office of Road Safety is often at too high a reading level. This problem is aggravated by further communication difficulties with Aboriginal and migrant groups. National coordination would assist in providing special material for Aboriginal and migrant groups.[116]

235. The need for the Commonwealth to play an active role in coordinating teaching material was also stressed by Mr T. Wright, Chairman, Motorcycle Council of New South Wales at a hearing in Sydney.[117] Information at present on the road safety problem appears to be geared primarily to the specialist and not to the community. The Commonwealth would be able to play an active role in the preparation of teaching material for motorcycle training schemes.

Conclusion

236. The Committee believes that a set of standardised statistics should be devised and collected throughout Australia to provide a more substantial road safety data base for Australia. Road safety research priorities should be developed at a national level by a Commonwealth-State cooperative body.

237. Based on adequately researched road safety priorities, a program of short and long-term measures should be developed at a national level by a Commonwealth-State cooperative body. This body should plan, coordinate and in some cases develop, road safety programs at the national level.

238. On the basis of national priorities, Commonwealth grants could be made for specific research, program development or education campaigns.

239. The Commonwealth needs to initiate and promote uniformity in Australian road safety statistics and the adoption of best practice in road safety measures. The Committee believes that greater cooperation at the national level is essential to make the maximum use of the expertise and financial resources available.

240. The mechanisms the Committee is suggesting would not mean replacing the work of a wide range of groups working in such diverse areas as highway engineering, drink driver rehabilitation or driver training. Rather by providing information exchange and coordination at the most effective level the productivity of these groups should be considerably enhanced. There is at present a considerable amount of

duplication as each State develops its own program to address problems experienced nationally. The phrase "reinventing the wheel" seems to be frequently used by observers of the State-by-State approach to road safety research and development in Australia. The Committee believes that through coordination, better use can be made of limited resources with better road safety programs as the end product.

E.E. DARLING
CHAIRPERSON

4 October 1984

ENDNOTE

103. Evidence p.360.

104. Evidence, p.724.

105. Evidence p.358.

106. Evidence, p.93, 139, 200.

107. Evidence, p.93.

108. May, 1982.

109. Report, paras 170-171.

110. Evidence, p.317-8.

111. Evidence p.862.

112. Evidence, p.228.

113. Evidence, p. 228.

114. Evidence, p.235.

115. Evidence, p.1066.

116. Evidence, p.233-4.

117. Evidence, p.102.

118. Evidence p.709.

APPENDIX 1

CONDUCT OF THE INQUIRY

In early 1983 the Committee in conjunction with the Federal Office of Road Safety developed a road safety questionnaire. The questionnaire was distributed Australia-wide through the offices of Federal Members of Parliament. Replies were sent direct to the Committee and were processed by a private data processing firm in Melbourne.

On the basis of the questionnaire results the Committee resolved on 6 July 1983 to inquire into and report on four aspects of road safety. These were the four areas chosen by respondents to the questionnaire as being the most important areas of road safety:

- Drink-driving;
- Driver attitude and behaviour;
- Speed as a factor in road crashes; and
- Disregard of road law as a factor in crashes.

The Committee visited major metropolitan and regional centres around Australia, from July to September 1983, inviting interested parties to appear and give evidence.

The Committee held ten public hearings at which 1412 pages of evidence and thirteen exhibits were taken. A list of exhibits is given at Appendix 3. Evidence taken at public hearings is available for inspection at the Committee Office of the House of Representatives and National Library of Australia.

WITNESSES

List of witnesses including date of appearance before the Committee and transcript reference number.

ASPINALL, P.J.	Youth and Education Officer, Anglican Diocese of Tasmania, Anglican Youth Synod, GPO Box 748H, Hobart, TAS, (2 Sep 1983), pp. 1167-1175
BAILEY, J.D.	Presiaent, Northern Territory Motorcycle Association Inc. PO Box 2210, Darwin, NT, (20 July 1983), pp. 166-189
BEARD, D.	Chairman, Road Safety Council of South Australia, Warradale, S.A., (21 July 1983), pp.349-369
BENSON, Chief Supt. C.	Officer-in-Charge, Traffic Region, Region 'T' Police Barracks, Thebarton, S.A., (21 July 1983), pp. 226-251
BEST, K.	Consultation Officer, Youth Affairs Council or South Australia, 1st Floor, 12 Waymouth Street, Adelaide, S.A., (21 July 1983), pp. 304-314
BURCW, P.K.	Shire Clerk, Cardwell Shire Council, PO Box 401, Tully, QLD, (18 July 1983), pp. 45-57
BURTON, C.R.	Secretary, Institute of Driving Instruction (Inc.) WA, 54 Tate Street, Welshpool, WA, (16 Sep 1983), pp. 1288-1300
BURTON, M.	35 Winns Road, Coromandel Valley, SA, (21 July 1983), pp. 389-403
BYRNE, J.P.	Chairman, Cardwell Shire Council, PO Box 401 Tully, QLD, (18 July 1983), pp. 45-57
CAMERON, M.H.	Principal Safety Officer, Royal Automobile Club of Victoria, 123 Queen Street, Melbourne, VIC, (27 July 1983), pp. 777-878
CAMPBELL, R.W.	1 McLeod Street, Mareeba, QLD, (18 July 1983), pp. 74-79
CHAMBERS, T.F.	Manager, Road Safety Instruction Centre, Road Safety Council of South Australia, PO Box 140, Parkholme, SA, (21 July 1983), pp. 349-369

CHAPMAN, P.C.	Senior Project Officer, Division of Road Safety and Motor Transport, Box 1443, GPO, Adelaide, S.A., (21 July 1983), pp. 226-251
CHRISTIE, R.J.	Traffic Safety Education Officer, Royal Automobile Club of Victoria, 123 Queen Street, Melbourne, VIC, (27 July 1983), pp. 777-878
CLARKSON, D.W.	President, South East Queensland Driver Education Centre (Gympie), PO Box 40, Gympie, QLD, (25 July 1983), pp. 638-653
COLEMAN, Y.	13 Geneff Street, Innaloo, WA, (16 Sep, 1983), pp. 1218-1221
CRAPPA, E.F.	Australian Railways Union, Member of the Combined Railways Union Committee, Railways Department, Cairns, QLD, (18 July 1983), pp. 28-44
DANIELS, L.W.	Private Citizen, 52 Hunter Street, Greenslopes, Brisbane, QLD, (25 July 1983), pp. 530-539
DONNELLY, R.P.	28 Walter Street, Claremont, WA, (16 Sep 1983), pp. 1280-1287
ELLINGSEN, B.D.	Co-ordinator, Bendigo Drink Drivers Course, Kangaroo Flat-Golden Square Community Health Centre, 13/21 Helm Street, Kangaroo Flat, VIC, (31 Aug 1983), pp. 972-997
FIRMIN, C.C.	Chairman, Road Safety Council of the Northern Territory, Sasco House, Darwin, NT, (20 July 1983), pp. 84-165, 202-223
FLINT, A.G.	Director, Division of Road Safety and Motor Transport, Box 1443, GPO, Adelaide S.A. (21 July 1983), pp. 226-251
FOREMAN, A.W.	Leading Hand Driver, Commonwealth Car Pool, 100 McLachlan Street, Valley, QLD, (25 July 1983), pp. 514-529
FOSTER, D.L.	Public Relations Consultant, Liquor Industry Road Safety Association of Western Australia, 438 Vincent Street, Leederville, WA, (16 Sep 1983), pp. 1334-1348
FRASER, Insp. F.J.	Officer in Charge No. 3 Region, Traffic Operation Group, Camp Street, Kangaroo Flat, VIC, (31 Aug 1983), pp. 998-1024

GALTOS, B.J.	President, Queensland Council of Parents' and Citizens' Associations, PO Box 60, Albion, QLD, (25 July 1983), pp. 507-513
GEORGE, Dr. J.	Medical Superintendent, Alcohol and Drug Dependency Service, John Edis Hospital, New Town, TAS, (2 Sep 1983), pp. 1176-1182
GERRAND, J.H.	4/9 Kinkora Road, Hawthorn, VIC, (27 July 1983), pp. 879-886
GILL, W.P.	Manager, Portapress Services Pty Ltd, 31 Dibley Street, Woolloongabba, QLD, (25 July 1983), pp. 407-482
GILL. K.M.	Main Street, Sebastian, VIC, (31 Aug 1983), pp. 1041-1052
GREGSON, L.H.	1/5 Turnbull Crescent, Rosetta, TAS, (2 Sep 1983), pp. 1195-1210
GRIEVE, Dr. R.	Director of Child Study Centre and Senior Lecturer in Psychology, University of Western Australia, Nedlands, WA, (16 Sep 1983), pp. 1312-1325
GROVE, N.	Regional Officer, Victoria State Emergency Service, Bendigo region, 37 View Street, Bendigo, VIC, (31 Aug 1983), pp. 1025-1040
HARRISS, M.J.	PO Box 545, Sandy Bay, TAS, (2 Sep 1983), pp. 1114-1136
HEWITT, J.V.	Director of Land Transport, Department of Transport and Works, Leichhardt Building, Smith Street, Darwin, NT, (20 July 1983) pp. 84-165, 202-223
HIGGINS, B.G.	Private Citizen, c/- Brisbane Administrative Centre, 8th Floor, Medibank House, 82 Ann Street, Brisbane, QLD (25 July 1983), pp. 502-506
HILL-WEBBER, B.J.	Vice-President, Institute of Advanced Motorists (Queensland), 117 Rochedale Road, Rochedale, QLD, (25 July 1983), pp. 577-600
HOMEL, R.J.	Senior Lecturer, School of Behavioural Science, Macquarie University, North Ryde, NSW, (26 July 1983), pp. 662-694

HUBBARD, V.	President, Australian Federation Union of Locomotive Enginemen, also a member of the Combined Railways Union Committee, Railways Department, Cairns, QLD, (18 July 1983), pp. 28-44
HURLE, J.F.	5 Sharps Road, Lenah Valley, TAS, (2 Sep 1983), pp. 1211-1216
HYDE, F.	Recording Secretary, Woman's Christian Temperance Union of South Australia, 145 Hutt Street, Adelaide, S.A., (21 July 1983), pp. 340-348, 370-375
IRVINE, R.D.A.	Consultant, Auditor/Accountant, Liquor Industry Road Safety Association of Western Australia, 438 Vincent Street, Leederville, WA, (16 Sep 1983), pp. 1334-1348
JADHAV, Dr. R.	Superintendent, Driver Assessment Clinic, Alcohol and Drug Addicts Treatment Board, 3/161 Greenhill Road, Parkside, SA, (21 July 1983), pp. 376-388
JOHNSTON, Dr. I.R.	Principal Research Scientist, Australian Road Research Board, 500 Burwood Highway, Vermont South, VIC, (1 Sep 1983), pp. 1054-1082
JOHNSTON, H.	Secretary, Cyclists Action Group, 2 Barsden Street, Cottesloe, WA, (16 Sep 1983), pp. 1379-1412
JONES, M.K.	Engineer, Cardwell Shire Council, PO Box 401, Tully, QLD, (18 July 1983), pp. 45-57
KELLY, T.O.	Director of Road Safety, Transport Department, 1 Collins Street, Hobart, TAS, (2 Sep 1983), pp. 1084-1099
KENNEDY, R.V.	Director, Drug-Arm, GPO Box 590, Brisbane, QLD, (25 July 1983), pp. 601-623
KIRKHAM, Dr. R.	Senior Lecturer, Department of Psychology, University of Western Australia, Nedlands, WA, (16 Sep 1983), pp. 1326-1333
KRAUZE-PORAY, B.	Manager-Director, Biorhythm Research and Information Centre, 22 Mungala Street, Rochedale, QLD, (25 July 1983), pp. 624-637
LAIDELY, P.	Director, Portapress Services Pty Ltd, 31 Dibley Street, Woolloongabba, QLD, (25 July 1983), pp. 407-482

LANDAUER, Dr. A.	Senior Lecturer, University of Western Australia, Nedlands, WA, (16 Sep 1983), pp. 1222-1279
LAY, Dr. M.	Executive Director, Australian Road Research Board, 500 Burwood Highway, Vermont South, VIC, (1 Sep 1983), pp. 1054-1082
LENEGAN, J.A.	President, Western Australian Institute of Advanced Motoring, c/- National Safety Council, 32 Stanmore Street, Mount Lawley, WA, (16 Sep 1983), pp. 1301-1311
LINDEN, C.F.	Founder and First President, Schiffer Foundation for Community Defence of Endangered Young Persons, and also Founder and Principal, Academy of Style, PO Box 183, Preston, VIC, (27 July 1983), pp. 765-766
LUCAS, K.G.	410 Swann Road, St Lucia, QLD (25 July 1983), pp. 562-576
MALCOLM, V.	Secretary, Australian Federated Union of Locomotive Enginemen, also a member of the Combined Railways Union Committee, Railways Department, Cairns, QLD, (18 July 1983), pp. 28-44
MARSHALL, H.E.J.	Member, Institute of Driving Instruction (Inc.) WA, 54 Tate Street, Welshpool, WA, (16 Sep 1983), pp. 1288-1300
MATTHEWSON, J.	8 Elma Road, Sandy Bay, TAS, (2 Sep 1983), pp. 1100-1113
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MAY, H.A.	President, Woman's Christian Temperance Union of South Australia, 145 Hutt Street, Adelaide, S.A., (21 July 1983), pp. 340-348, 370-375
MCADIE, N.A.J.	Executive Officer (Legislation), Department of Transport and Works, Leichhardt Building, Smith Street, Darwin, NT, (20 July 1983), pp. 84-165, 202-223
MCDERMOTT, Prof. F.T.	Deputy National Chairman and Victorian State Chairman, Road Trauma Committee, Royal Australasian College of Surgeons, Spring Street, Melbourne, VIC, (27 July 1983), pp. 722-750

MCLEAN, Dr. A.J.	Director, National Health and Medical Research Council, Road Accident Research Unit, University of Adelaide, Adelaide, S.A. (21 July 1983), pp. 315-327
MEAGHER, Z.	President, Sebastian School Council, Sebastian State School, Main Street, Sebastian, VIC, (31 Aug 1983), pp. 1041-1052
MINSON, Dr. D.	President, Bicycle Institute of Queensland, 27 Ninth Avenue, St Lucia, QLD, (25 July 1983), pp. 540-561
MOLLY, N.J.	Manager, Class Driving, 100 Currie Street, Adelaide, S.A., (21 July 1983), pp. 252-293
NASSAN, M.	Member, Bicycle Institute of Queensland, 27 Ninth Avenue, St Lucia, QLD, (25 July 1983), pp. 540-561
NOBLE, J.	State President, Australian Hotels Association, 25 Melville Street, Hobart TAS, (2 Sep 1983), pp. 1137-1156
O'NEILL, D.J.	President, Liquor Industry Road Safety Association of Western Australia, 438 Vincent Street, Leederville, WA, (16 Sep 1983), pp. 1334-1348
OWEN, J.C.	Management Group Member, South Australian Youth Forum, Youth Affairs Council of South Australia, 12 Waymouth Street, Adelaide, S.A. (21 July 1983), pp. 304-314
PALMER, L.A.	Sebastian Community, Main Street, Sebastian, VIC, (31 Aug 1983), pp. 1041-1052
PARKER, A.A.	Research Officer, Bicycle Institute of Victoria, and Vice-President, Bicycle Federation of Australia, 1A Packer Street, Murrumbeena, VIC, (27 July 1983), pp. 895-941
PARKINSON, R.	Convenor, Road Safety Committee, and State Membership Secretary, Australian Democrats, Western Australian Division, 10 William Street, Perth, WA, (16 Sep 1983), pp. 1349-1378
PEARSE, Insp. R.H.	Officer in Charge No. 1 Division, Police Base, Myer Street, Bendigo, VIC, (31 Aug 1983), pp. 998-1024

PICKWORTH, J.	Executive Director, Western Australian Hotels Association, 438 Vincent Street, Leederville, WA, (16 Sep 1983), pp. 1334-1348
PLEW, B.J.	Executive Officer, Road Safety Council of the Northern Territory, GPO Box 1176, Darwin,NT, (20 July 1983), pp. 84-165, 202-223
READ, J.	R.S.D. Sebastian, Via Eaglehawk, VIC, (31 Aug 1983), pp. 1041-1052
REID, B.C.	'Trelm'. Cradoc, TAS, (2 Sep 1983), pp. 1183-1194
RICHARDSON, R.J.	Metal Workers Delegate of the Railways, also a member of the Combined Railways Union Committee, Cairns Railway Station, Cairns, QLD, (18 July 1983), pp. 28-44
ROBINSON, B.	President, Cyclists Action Group, 2 Barsden Street, Cottesloe, WA, (16 Sep 1983), pp. 1379-1412
RODDA, J.W.	Training Officer for Motor Accidents, Melbourne Metropolitan Fire Brigade, Albert Street, East Melbourne, VIC, (27 July 1983), pp. 887-894
ROWE, Supt, J.	Superintendent-Secretary, Central Victoria District Ambulance Service, 135 Arnold Street, Bendigo, VIC, (31 Aug 1983), pp. 951-971
RUSSELL, I.F.	Manager, Traffic and Safety, Royal Automobile Club of Victoria, 123 Queen Street, Melbourne, VIC, (27 July 1983), pp. 777-878
RYAN, G.N.	Station Officer, Control Room, Central Victoria District Ambulance Service, 135 Arnold Street, Bendigo, VIC, (31 Aug 1983), pp. 951-971
SCHNEIDER, M.J.	Instructor, Class Driving, 100 Currie Street, Adelaide, S.A., (21 July 1983), pp. 252-293
SHAW, E.F.	M.L.A., 155 Pine Street, Wynnum, QLD, (25 July 1983), pp. 483-501
SHAW, M.T.	Project Officer, Northern Territory Drug and Alcohol Bureau, Department of Health, PO Box 1701, Darwin, NT, (20 July 1983), pp. 190-201
SIMPSON, K.H.	12 Earlwood Crescent, Bardwell Park, NSW, (26 July 1983), pp. 695-702

SMITH, Chief.Insp. M. H.	Director, Traffic and Technical Services Directorate, Northern Territory Police, PO Box 63, Darwin, NT, (20 July 1983), pp. 84-165, 202-223
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STEVENSON, R.C.	Vice President, Liquor Industry Road Safety Association of Western Australia, 438 Vincent Street, Leederville, WA, (16 Sep 1983), pp. 1334-1348
SWANN, Dr. P.	Chief Road Safety Officer, Road Traffic Authority, 801 Glenferrie Road, Hawthorn, VIC, (27 July 1983), pp. 751-764
TAYLOR, J.	Safety Officer, Bicycle Institute of Victoria, GPO Box 1961R, Melbourne, VIC, (27 July 1983), pp. 895-941
THOMAS, D.H.	109 Collins Avenue, Cairns, QLD, (18 July 1983), pp. 64-73
TRAYLING, D.	23 Clifford Street, Moonah, TAS, (2 Sep 1983), pp. 1157-1166
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WALKER, G.L.	Transport Driver, Department of Administrative Services, 1012 Wynnum Road, Cannon Hill, QLD, (25 July 1983), pp. 514-529
WALLIS, J.	Co-ordinator, Bendigo Drink Drivers Course, Eaglehawk Health Centre, Seymoure Street, Eaglehawk, VIC, (31 Aug 1983), pp. 972-997
WATMOUGH, P.J.	4/19 Rowena Parade, Richmond, VIC, (27 July 1983), pp. 942-947
WAUGH, D.G.	Chairman, Eacham Shire Council Malanda, QLD, (18 July 1983), pp. 58-63
WILLIAMS, A.	Research Officer, Child Study Centre, Department of Psychology, University of Western Australia, Nedlands, WA, (16 Sep 1983), pp. 1312-1325
WILLIAMS, E.D.	15 Scotia Street, West Croydon, S.A. (21 July 1983), pp. 294-303

WINCKLER, P.	Senior Education Officer - Technical and Further Education, Department of Education, PO Box 4821, Darwin, NT, (20 July 1983), pp. 84-165, 202-223
WINTOUR, R.A.	Honorary Chairman, Cairns Far Northern Branch, Queensland Road Safety Council, PO Box 542, Cairns, QLD, (18 July 1983), pp. 5-27
WOODMAN, G.J.	Secretary, Northern Territory Motorcycle Association Inc. PO Box 2210, Darwin, NT, (20 July 1983), pp. 166-189
WRIGHT, T.	Chairman, Motor Cycle Council of New South Wales, PO Box N43, Grosvenor Street, Sydney, NSW, (26 July 1983), pp. 703-719
YEARSLEY, J.H.	Member of Youth Synod Committee, Anglican Youth Synod, GPO Box 748H, Hobart, TAS, (2 Sep 1983), pp. 1167-1175
YOUNG, Dr. R.V.	1 Wellington Street, Woollahra, NSW, (26 July 1983), pp. 656-661

APPENDIX 3

EXHIBITS

1. Northern Territory State Government:

   (a) 'Driver Education Program for Community Adult Education'
   (b) 'Driver Education Program for School to Work Transition Education Unit'
   (c) 'Student Driver Education - Part A. Course Outline and Notes Secondary Schools'
   (d) 'Student Driver Education Part B. Documentation Requirements Secondary Schools'

2. Northern Territory State Government:

   (a) 'NT Police Force, 1982, Road Accident Statistics.'

3. Dr. Jadhav:

   (a) 'Diagnosis of Alcoholism Among Drunken Drivers and Their Profile'
   (b) 'Alcoholism in SA Drink Drivers'

4. Mr R.V. Kennedy, Director, Drug-Arm, Brisbane, Qld:

   (a) 'Should Alcohol be banned?'
   (b) Drug-Arm - Press Release
   (c) Alcohol and Drug Awareness Week 1983
   (d) Program - Alcohol and Drug Awareness Week 1983
   (e) Paper - 'Alcohol and Road Crashes'
   (f) 'Summary of Results of the Drug-Arm Survey of Community Support for a 5 Point Package to reduce the drink driving problem'
   (g) Paper on Random Breath Testing
   (h) Presentation to the House of Representatives Standing Committee on Road Safety
   (i) Press Release and Research Report on 'Under-age Alcohol Consumption' by Market Facts (Qld) Pty Ltd'
   (j) Submission to Australian Broadcasting Tribunal by Queensland Temperance League.

5. Mr A. Parker, Melbourne: 'Guidelines on Cycling'

6. Mr N. Grove, Regional Officer, State Emergency Service, Victoria Letter to Director re Information on Road Accident Activities VIC SES - Bendigo Region.

7. Australian Road Research Board, Victoria:

   (a) 'Local Area Traffic Management' - R.E. Brindle
   (b) 'The Effects of Roadway Delineation on Curve Negotiation by Both Sober and Drinking Drivers'

8. Mr J. Noble, Hobart:

   (a) Assessment on 'The Effectiveness of Blood Alcohol Limits in Reducing Traffic Accidents', August 1983
   (b) A Submission to the Select Committee of the Legislative Council of Tasmania on Road Safety in Tasmania - April 1983.

9. Anglican Youth Synod, Hobart, 2 September 1983:

   (a) 'Creating Tomorrow Today'
   (b) 'Speak Out!'

10. Mr R.P. Donnelly, Perth, 16 September 1983:

    Papers giving statistics on road accidents.

11. Mr C. Burton, Perth, 16 September 1983:

    Papers concerning Drivers' Licences Regulations.

12. Dr R. Grieve and Ms A. Williams, Child Study Centre, University of Western Australia, Perth, 16 September 1983:

    (a) 'Reducing Road-related Accidents in Children'
    (b) 'Development of A National Road Safety Public Education Program'

13. Mr Hilary Johnston, Secretary and Mr Bruce Robinson, President, Cyclists Action Group, Western Australia:

    (a) W.A. Bicycle Usage and Safety Statistics
    (b) Bicycle Usage and Safety, WA, Nov 82, WA Office of the Australian Bureau of Statistics - Cat. No. 9215.5
    (c) Hospital Morbidity Statistics - Special Studies - Pedal Cycle Accidents 1971-80, Statistics Branch of the WA, Public Health Department Series B, No.1.

HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON ROAD SAFETY

PARLIAMENT HOUSE
CANBERRA, A.C.T. 2600
TEL. 72 1211

ROAD SAFETY QUESTIONNAIRE

The National Road Safety Committee of the Federal Parliament has requested Members to distribute the following questionnaire throughout the community. The questionnaire seeks your opinion on a range of road safety issues. Your participation by completing the questionnaire would be much appreciated.

Please return the questionnaire by 30 June 1983 to: (post-free)

FREEPOST 1
Road Safety Committee
Parliament House
CANBERRA ACT 2600

Tick the appropriate answer ( ).

Sex: M( ) F( )
Age: Under 20 ( ), 20-29 ( ), 30-39 ( ), 40-59 ( ), 60 and over ( ).
Driving Experience: Less than 3 years ( ), 3 years less than 6 years ( ), 6 years less than 9 years ( ), 9 years and over ( ), non-driver ( ).
Occupation:
State or Territory of residence.....

In your opinion, what are the three most important contributing factors to road crashes? Mark them 1 (most important) 2, 3.

(A) Drink driving ( )
(B) Attitudes/driver behaviour ( )
(C) Roads ( )
(D) Vehicle safety ( )
(E) Driver training ( )
(F) Level of police enforcement ( )
(G) Ignorance of road rules ( )
(H) Disregard of road rules ( )
(I) Weather conditions ( )
(J) Speed ( )
(K) Driver fatigue ( )
(L) Other (please specify).....( )

In your opinion, what are the three most important preventive measures in each of the following areas. Mark them 1 (most important) 2, 3.

Drink driving (Mark three most important)

(A) Random breath testing ( )
(B) Raise legal drinking age ( )
(C) Licence cancellation for life ( )
(D) Licence suspension ( )
(E) Public information campaigns/changing social attitudes ( )
(F) Police 'blitzes' ( )
(G) Heavier fines ( )
(H) Low alcohol beverages ( )

Road Network (Mark three most important)

(A) Guarding or removal of hazardous roadside objects (eg poles, trees)( )
(B) Traffic management in residential areas ( )
(C) Spot improvements to bad accident locations ( )
(D) Better streetlighting ( )
(E) Better warning of hazards ( )
(F) Overtaking lanes on rural roads ( )
(G) Safety design standards for new roads ( )
(H) Alternatives to motor car use (eg public transport, bikeways) ( )

Traffic Law (Mark three most important)

(A) On the spot fines ( )
(B) Speed limits to reflect road design standards ( )
(C) Uniform law between the States and Territories ( )
(D) More visible police enforcement ( )
(E) Cyclists to be allowed to ride on footpaths ( )
(F) Use of radar and amphometer to enforce speed limits ( )
(G) Cameras to record driving offences ( )
(H) Enforcement of compulsory seat-belt wearing ( )

Driver Training and Licensing (Mark three most important)

(A) Periodic driver testing ( )
(B) Refresher courses in road law ( )
(C) Training in roadcraft (defensive driving, avoiding hazardous situations) ( )
(D) Training in car craft (practising skids) ( )
(E) First aid training ( )
(F) A graduated licensing system (extending probationary period under strict conditions) ( )
(G) No alcohol whilst driving for first 12 months ( )
(H) Motorcyclists to learn handling skills before riding on public roads ( )

Road Safety Education (Mark three most important)

(A) Use of television ( )
(B) Use of radio ( )
(C) Use of newspapers ( )
(D) Use of handouts, pamphlets, etc ( )
(E) Use of outdoor advertising (bill boards) ( )
(F) Road safety education in schools ( )
(G) Making parents more responsible for the safety of their children ( )
(H) Community organisations ( )

Vehicle Safety (Mark three most important)

(A) Seat belts and child restraints ( )
(B) Tyres (including correct inflation and adequate tread depth) ( )
(C) Visibility of motorcycles ( )
(D) Safety of truck operations ( )
(E) A vehicle inspection scheme ( )
(F) Vehicle safety design/vehicle stability ( )
(G) Carrying first aid kit and information sheet ( )
(H) Occupant protection in vehicles ( )

Other Matters

Are there any other matters in relation to road safety either in terms of contributing factors or preventive measures to crashes or injuries on which you would like to comment?

STATISTICAL ANALYSIS

In 1983 the Committee commissioned Reark Research Ltd of Melbourne to analyse the results of the nationwide road safety questionnaire. The tabular results based on 3,217 questionnaires were presented to the Committee in September 1983 and were divided into 86 different tables. The results of most interest and importance to the Committee and other road safety researchers are those that quantify opinions about causes of road crashes and countermeasures to prevent crashes.

Contributory Factors

Question 1 on the Questionnaire asked the public's opinion of the three most important contributing factors, in order of priority, to road crashes. Results indicate the factors were ranked in the following order of importance:

Contributary Factor	Percentage of Total	
	Most important factor	One of the three most important factors
1. Drink Driving	45.9	80.2
2. Driver attitude and behaviour	24.7	60.9
3. Speed	12.7	51.1
4. Disregard of road rules	6.4	39.4
5. Driver training	2.9	14.5
6. Roads	2.8	16.2
7. Other factors (total)	1.4	3.9
8. Driver fatigue	1.2	8.1
9. Ignorance of road rules	0.9	7.6
10. Weather conditions	0.6	9.9
11. (equal) Vehicle safety and	0.3	3.4
" Level of Police enforcement	0.3	4.5
	100.00(rounded)	300.00(rounded)

In the tabulation of the questionnaires returned Reark Research devoted Tables 1-5 to an analysis of the sample group:

Table 1	Sex breakdown
2	Age Distribution
3	Driving experience and age
4	Respondent's occupation
5	Home State or Territory

A summary of the results of these tables (excluding Table 4 which classified respondants into one of seventy different occupation categories) follows.

CHARACTERISTICS OF SAMPLE GROUP

TABLE 1

Sex	Total Sample	3217	
	Male	63.3%	(This sex breakdown was
	Female	33.3%	reflected approximately
	No answer	3.4%	in the State figures.)

TABLE 2

AGE DISTRIBUTION	TOTAL	M	F
	%	%	
Under 20 years	5.1	4.5	6.9
20 - 29	19.6	16.8	26.4
30 - 39	27.1	27.7	27.7
40 - 59	36.9	40.2	31.7
60 and over	8.5	9.6	6.1
No answer	2.8	1.3	1.3

TABLE 3

DRIVING EXPERIENCE	UNDER 20	20-29	30-39	40-59	Over 60	TOTAL SAMPLE
	%	%	%	%	%	%
Less than 3 years	71.5	7.5	1.1	.4	.4	5.7
3 - 6 years	3.0	25.0	1.3	.6	1.1	5.7
6 - 9 years	1.2	31.3	5.4	2.4	2.2	8.9
9 years or more	.6	29.3	84.0	87.7	86.9	69.3
Non Driver	22.4	2.1	1.3	2.0	5.5	3.3
No answer	1.2	4.9	7.0	6.8	4.0	7.2

Note: All totals rounded

TABLE 4 OCCUPATIONAL GROUP (Not included)

TABLE 5

STATE/TERRITORY OF RESIDENCE	PERCENTAGE OF TOTAL %
NSW	31.1
VIC	24.6
QLD	18.6
SA	6.7
WA	8.9
TAS	2.4
ACT	4.2
NT	0.4
No answer	3.1

MOST IMPORTANT FACTOR CONTRIBUTING TO ROAD CRASHES

TABLE 6

	Total Sample	M	F	U/20	20-29	30-39	40-59	O/60
Drink Driving %	45.9	43.3	51.1	63.7	51.9	47.2	39.5	43.2

Driving Experience

	U/3 yrs	3-6	6-9	O/9	Non Driver
Drink Driving%	62.5	53.4	51.3	42.2	58.6

Table 6 indicates that for whole sample M & F, all age groups and driving experience.

- all believed drink driving was the most important factor contributing to road crashes.
- in each State this variable was also as the most important factor - although Queensland stood out as only 35.6% listed it as such compared with the national average of 45.9%

THREE MOST IMPORTANT FACTORS CONTRIBUTING TO ROAD CRASHES

TABLES 7 & 8

		Total Sample	M	F	U/20	20-29	30-39	40-59	O/60
Drink Driving	%	80.2	78.4	84.2	87.3	83.2	82.5	77.5	75.1
Driver attitude/ behaviour	%	60.0	63.6	56.7	42.0	58.1	61.8	64.2	62.3
Speed	%	51.1	48.2	56.6	53.5	42.2	50.7	53.4	62.3

		Driving Experience				
		U/3 yrs	3-6	6-9	O/9	Non Driver
Drink Driving	%	87.5	85.8	80.7	79.0	89.9
Driver Attitude/ Behaviour	%	47.0	50.6	60.6	64.0	52.5
Speed	%	47.6	48.3	46.8	51.7	58.6

The table shows consistent results: for total sample, M & F - all variables being examined indicate drink driving, attitudes and driver behaviour and speed are three most important factors respectively.

- this was also confirmed by each State.

THREE MOST IMPORTANT PREVENTIVE MEASURES IN AREA OF DRINK DRIVING

		TOTAL	M	F	U/20	20-29	30-39	40-59	O/60
Random Breath Testing	%	73.9	74.2	73.8	84.5	75.7	74.3	72.8	68.1
Public information campaigns changing social attitudes	%	51.2	53.7	46.7	27.3	57.6	57.9	50.0	36.6
Licence suspension	%	47.9	48.6	47.0	54.7	45.6	48.2	48.6	46.9

		Driving Experience				
		U/3 yrs	3-6	6-9	O/9	Non Driver
Random Breath Testing	%	86.6	72.2	74.3	73.5	71.7
Public information campaigns changing social attitudes	%	38.4	56.6	58.8	52.7	27.3
Licence Suspension	%	47.7	44.9	43.0	48.9	49.5

The consistent result for all independent variables (i.e., total sample, M/F, age groups, driving experience and State) was that random breath testing is considered to be the most important preventive measure in area of drink driving.

- this is generally followed by public information campaigns and changing social attitudes

- then 3rd most important measure generally is licence suspension

However, there were some exceptions:

- for the under 20 age group and those drivers with less than 3 years experience (basically synonymous) both groups believe higher fines to be a more important measure than public information campaigns:-

	Public Information Campaigns	Fines
U/20	27.3%	59.0%
DE U/3 yrs	38.4%	48.8%

- this was in quite distinct contrast to other age groups or driver experience groups

THREE MOST IMPORTANT PREVENTIVE MEASURES IN AREA OF ROAD NETWORK

		TOTAL	M	F	U/20	20-29	30-39	40-59	O/60
Spot improvements	%	67.2	65.1	71.1	72.3	71.3	63.6	66.4	68.0

Overtaking lanes on rural roads	%	50.3	51.9	47.5	25.2	50.8	52.6	52.1	51.2
Guarding or removal of hazardous roadside objects	%	41.0	42.4	37.5	39.0	37.2	40.5	41.8	46.7

Driving Experience

		U/3 yrs	3-6	6-9	O/9	Non Driver
Spot improvements	%	77.8	76.0	66.5	65.5	68.0
Overtaking lanes on rural roads	%	27.5	49.7	54.5	53.0	24.0
Safety design standards for new roads	%	37.4	34.3	39.1	44.6	39.0
Guarding or removal of hazardous roadside objects	%	39.2	36.6	33.1	41.8	47.0

All independent variables, including State, indicate

- spot improvements as the first major preventive measure in roadwork, then

- generally overtaking lanes on rural roads
  . little difference between guarding/removal of hazardous roadside objects and safety design standards for new roads as third most important preventive factor

However, there were some exceptions:

For under 20s the three most important measures are spot improvements, better warning of hazards and safety design/guarding hazardous roadside objects

- better warning of hazards was clearly 2nd most important measure of the three indicated by the under 20s - far above (54.1%) other factors

- drivers with less 3 years experience also emphasised this factor.

With respect to the States, results are consistent with those reported above; except for Tasmania in relation to the order of the measures:

1. Spot improvement;
2. Satety design standards for new roads; this factor dislodges
3. Overtaking lanes on rurai roads, which for Tasmania competes with guarding/removal roadside for the third most important preventive measure.

THREE MOST IMPORTANT MEASURES IN AREA OF TRAFFIC LAW

TABLE 15

		TOTAL	M	F	U/20	20-29	30-39	40-59	O/60
More visible police enforcement	%	29.0	30.4	26.2	15.4	22.6	32.0	32.4	28.6
Speed limits to reflect road design standards	%	24.6	25.8	22.3	17.9	27.3	24.2	24.9	23.9
Uniform Laws between States and Territories	%	14.9	15.3	13.8	10.3	15.0	13.6	15.0	19.2

Table 15 indicates that those under 30 years of age and with driving experience of less than nine years believes that speed limits that reflect road design standards are the most important measure in the area of traffic laws.

Older age groups with driving experience of more than 9 years felt that a greater level of police enforcement was a more important measure than speed limits and enforcement laws. This was reflected in results for the total sample.

THREE MOST IMPORTANT PREVENTATIVE MEASURES IN THE AREA OF DRIVER TRAINING AND LICENCING

TABLE 18

		TOTAL	M	F	U/20	20-29	30-39	40-59	O/60
Training in road craft	%	37.4	38.7	35.0	29.7	38.5	40.5	37.5	30.3

Periodic driver testing	%	17.5	16.7	19.4	23.2	20.1	16.7	17.2	12.8
No alcohol whilst driving for the first 12 mths	%	14.5	14.6	13.8	12.3	11.5	12.8	15.6	21.8
Graduated licencing system	%	13.2	14.2	11.6	1.9	6.9	13.8	16.3	20.5

Table 15 showed strong consistency of results with training in road craft being the most important preventative measure in the area of driver training and licensing, followed by periodic driver training and the introduction of graduated licensing system. Younger drivers generally felt that graduated licensing was of little importance compared to other methods.

- when driving experience is considered there was support for road law refresher courses amongst those with less than three years experience.
- drivers with more than three years experience but less than 9 years felt that the teaching of skills to motorcyclists before licensing was more important than graduated licensing scheme.
- non-drivers felt that an alcohol ban for the first twelve months of driving was more important than a graduated licensing scheme.

THREE MOST IMPORTANT PREVENTATIVE MEASURES IN THE AREA OF ROAD SAFETY EDUCATION

TABLE 22

		TOTAL	M	F	U/20	20-29	30-39	40-59	O/60
Use of Television	%	87.9	88.1	88.4	89.8	87.2	88.8	89.4	79.8
Road Safety Education in Schools	%	82.9	81.8	85.4	19.7	81.7	85.3	83.3	84.1
Making parents more responsible for the safety of their children	%	42.8	41.1	45.0	70.7	38.3	43.2	45.1	54.5

- In the area of road safety all variables showed a strong consistency of results. In all cases except two, the use of television, the need for road safety education in schools and the need to made parents more responsible for their children's safety were given as the three most important measures.

- The two exceptions were

  - in the under-20 age group the use of the radio and the use of newspapers rated more highly than parental care but still behind television and road safety education in schools.

  - those over 60 felt that road safety education in school was the most important measure followed by the use of television and parental responsibility in that order.

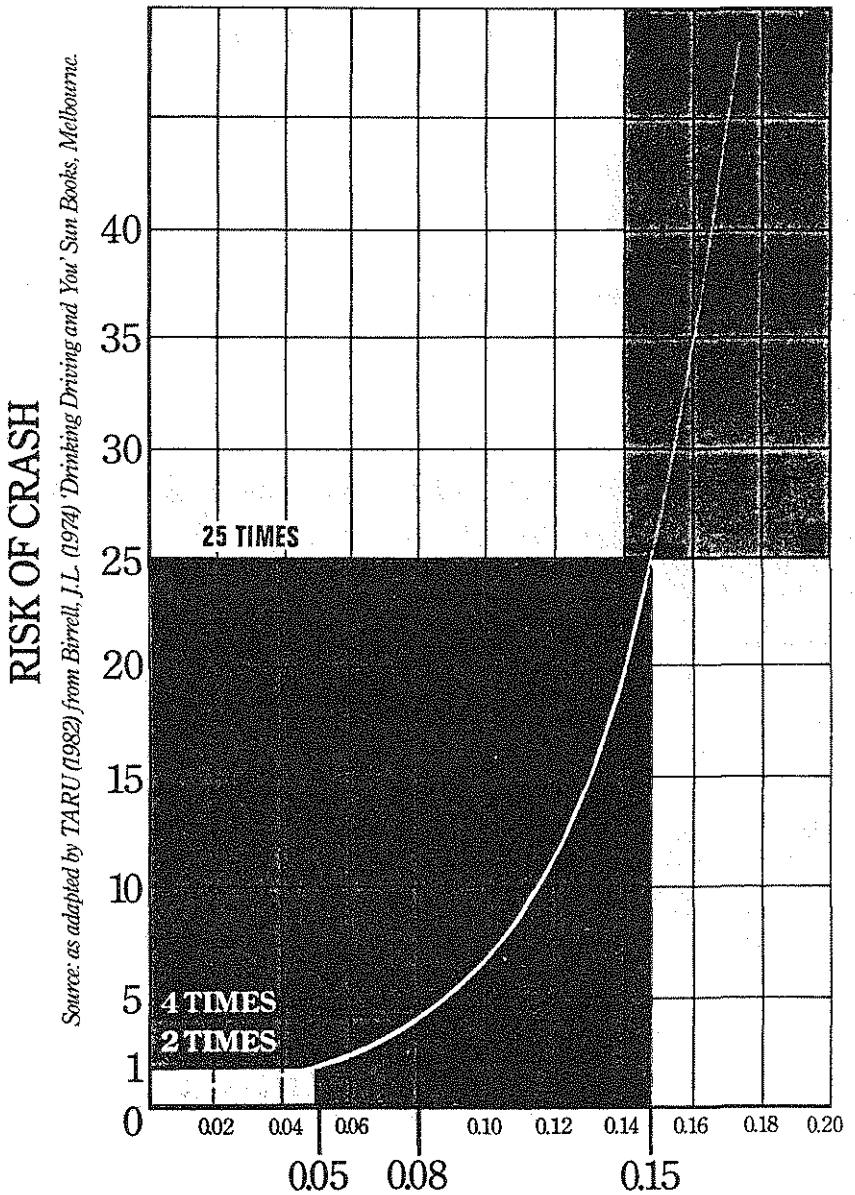
THREE MOST IMPORTANT PREVENTATIVE MEASURES IN THE AREA OF VEHICLE SAFETY

TABLE 25

		TOTAL	M	F	U/20	20-29	30-39	40-59	O/60
Seat belts and child restraints	%	71.4	67.4	78.7	79.5	72.5	73.8	67.8	69.4
Vehicle inspection schemes	%	51.1	52.4	48.8	42.3	52.1	49.8	53.2	50.0
Tyres (inflation and depth)	%	44.6	44.0	44.6	44.2	38.1	43.2	48.8	46.6

Table 25 shows a strong consistency in results asking for respondents to rank areas of vehicle safety in order of importance. In all variables seat belts and child restraints were considered the most important measure followed by vehicle inspection schemes and tyres. Drivers in the 20-29 age group felt vehicle safety and design was more important than tyres.

RELATIVE PROBABILITY OF CRASHING AT VARIOUS BLOOD ALCOHOL CONCENTRATIONS



Source: as adapted by TARU (1982) from Birrell, J.L. (1974) 'Drinking Driving and You' Sun Books, Melbourne.