

MCC Survey of Motorcyclists, 2001

A Report

by

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1. Introduction

Australia's record for motorcycle safety stands in stark contrast to our general record of excellence in road safety advances. In 1997, Australia was ranked equal sixth best for road safety amongst the 23 OECD nations except in relation to motorcycles.¹ Australia was ranked sixth worst for motorcycle safety having recorded 5.7 motorcyclist fatalities per 10,000 registered motorcycles compared with a median of 4.0 in the OECD as a whole. At the same time, Australia's fatality record for all road users was 1.2 per 10,000 registered vehicles compared to the OECD median of 2.0.

Despite such figures, motorcyclists have rarely been singled out by road safety agencies for targeted road safety programs apart from novice rider training. In the past it was generally assumed that motorcyclists would be picked up under general road safety campaigns directed at all motorists. A number of factors have contributed to recent moves to reconsider approaches to improving motorcycle safety in Australia. The focus of this report is on motorcycling in NSW because road and traffic management is a state responsibility, however many of the issues discussed are relevant nationally.

1. The motorcycle road toll

Each year there are approximately 2,200 crashes in NSW involving motorcyclists. Although motorcyclists are involved in only a small proportion (4%) of all reported crashes they suffer 10% of all fatalities and 7% of all injuries. Motorcycle crashes are more likely to involve death or injury (90% of all reported motorcycle crashes) compared to 40% of crashes involving other road users.

Despite the poor OECD ranking for motorcycle safety, 1997 was in fact a relatively good year for motorcyclists in NSW. The motorcycle fatality rate was down to 6.4 per 10,000 registered vehicles, an achievement that has not been repeated since.² Although the total motorcycle crash involvement rate is comparable to that of cars (272.1 vs 272.9), motorcyclists are four times as likely to be involved in a fatal crash (7.9 vs 1.9) and more than twice as likely to be involved in an injury crash (236.3 vs 101.1).³

2. Resurgence of motorcycling

There has been a resurgence of motorcycling in recent years, with total registrations in NSW up by 14% to 85,000 between 1995 and 2000). New registrations alone have increased by more than 60% in the past 5 years (21,000 in 1996: 33,781 in 2000).

There has also been a significant change in the age profile of motorcyclists, with a substantial increase in the numbers of riders over 40 years of age. The number of motorcycles registered to people aged 40 and over in 2000 had increased by 57% between 1995 and 2000, whereas the number registered to people under 25 years had decreased by 33%.

The resurgence of interest and changing demographic has coincided with groups such as the Motorcycle Council of NSW (MCC) and the Australian Motorcycling Federation (AMF) at

¹ Australian Transport Safety Bureau (ATSB) (2000), *Motorcycle Safety: Australia's International motorcycle safety performance 1987 to 1997*. Monograph 4, Canberra.

² Crash involvement rates quoted here refer to the number of vehicles involved in crashes per 10,000 registered vehicles of that type. They are taken from Table 11 the RTA Road Traffic Accidents in New South Wales Statistical Statement for the relevant year. Cars include sedans, station wagon, hatchback, taxi-cab, passenger van and four wheel drive passenger vehicles.

³ RTA (2001) RTA Road Traffic Accidents in New South Wales Statistical Statement: Year ended 31 December 2000, Table 11, page 19, Sydney.

the national level becoming more active in lobbying for motorcycling interests and, in particular, for motorcycle safety.

3. International trends

The resurgence of interest in motorcycling and corresponding concern for motorcycle safety is also being observed in Europe and America.

In 1999, the Motorcycle Safety Foundation (MSF) and the National Highway Traffic Safety Administration (NHTSA) in the US published the National Agenda for Motorcycle Safety.⁴ The following year the NHTSA published a report drawing on a wide range of data sources to gain insight into possible reasons for the increase in motorcyclist fatalities and to aid in the design of crash prevention programs.⁵

In 2001, the European Union released a report reviewing statistical information on the use and safety of mopeds and motorcycles in Western European countries. The report reviewed the literature on safety problems and countermeasures including a discussion of relevant legislation.⁶

In Britain, the Royal Society for the Prevention of Accidents (RoSPA) also undertook a review of motorcycle crash risk and issued a position paper on motorcycling safety in 2001.⁷

The Motorcycle Council of NSW Road Safety Strategic Plan

In order to coordinate and maximize their contribution to motorcycle road safety initiatives in NSW, the Motorcycle Council of NSW (MCC) undertook the development of a three-year strategic plan.⁸ The objectives were to:

- ◆ Assess motorcycle safety issues in NSW
- ◆ Determine priorities and establish clear road safety goals for the MCC and other stakeholders
- ◆ Identify strategies for achieving those goals
- ◆ Develop stakeholder support and participation in improving road safety for motorcyclists.
- ◆ Establish a base for coordinated, long term planning for motorcycle road safety initiatives.

Stage 1 Review of the data on road crashes and a casualty profile for motorcyclists in New South Wales in order to develop a better understanding of the types and causes of crashes.

Stage 2. Consultation with a wide range of motorcycle and road safety stakeholders to identify the motorcycle specific issues and determine ways of addressing them.

⁴ MSF (1999), National Agenda for Motorcycle Safety, Motorcycle Safety Foundation of America.

⁵ NHTSA (2001) *Recent Trends in Fatal Motorcycle Crashes*, National Highway Traffic Safety Administration, US Department of Transportation, National Technical Information Service, Springfield, VA 22161

⁶ Noordzij, P.C. (SWOV), Foreke, E.(IFZ), Brendicke, R. (IFZ) & Chinn, B.P. (TRL) (2001) Integration of needs of moped and motorcycle riders into safety measures. A report as part of the PROMISING Project for DG VII of EU.

⁷ RoSPA (2001) *Motorcycling Safety Position Paper*. The Royal Society for the Prevention of Accidents, <http://www.rospace.co.uk/cms/> Birmingham, United Kingdom.

⁸ The Motorcycle Council of NSW (MCC) is the peak body for motorcycling in NSW. Council membership is free and open to motorcycle clubs but not individual members. Through the affiliated clubs, the MCC represents over 20,000 motorcyclists in NSW.

Stage 3 Survey of motorcycle riders to develop a profile for use in designing and delivering motorcycle safety information. The survey also sought information about a range of issues that had been raised by stakeholders in the interviews.

Stage 4 One-day workshop with motorcycle and road safety stakeholders to discuss and negotiate priorities, objectives and strategies for the MCC for the next 3 years.

This paper is a report on the findings of the survey conducted in Stage 3 with reference to the outcomes of stages 1 and 2.

2. Stakeholder interviews

The major source of information and ideas for the strategic plan were road safety experts and other key stakeholders in motorcycling. They included road authorities, police, rider trainers, road safety officers, motorcycle industry and motorcycle media, forensic engineers and road safety researchers. In-depth one-to-one interviews were conducted with representatives of each stakeholder group to obtain their views on the road safety issues confronting motorcyclists and their ideas for addressing these issues.

Individuals were selected for interview by a Working Party representing the MCC working in consultation with the project Steering Committee. The latter included representatives of the MCC, Motor Accidents Authority of NSW and the Roads and Traffic Authority. A number of those selected for interview were motorcyclists in addition to their professional position in the particular stakeholder group. Where possible, motorcyclists were chosen in preference to non-motorcyclists as it was assumed they would be able to provide the dual perspectives of the organization and motorcyclists. However, it was also recognized that non-motorcyclists could also provide important insights into current practices and policy decisions. Fifteen of the 24 people interviewed were motorcyclists.

Figure 1. Stakeholder representatives who were interviewed

	Motorcyclist	Non-motorcyclist
Australian Transport Safety Bureau (ATSB)		1
Commercial Rider Trainers	2	
Consultant Road Safety/ Forensic Engineers	1	2
Federal Chamber of Automotive Industries (FCAI)	1	
Local Council Engineer	1	
Local Council Road Safety Officer		1
Motor Traders Association (MTA)	1	
Motorcycle media	1	
NSW Ambulance Service	1	
NSW Police Service	4	
Roads and Traffic Authority (RTA)	2	3
University Road Safety Researchers	1	2
Total	15	9

There were a number of issues commonly raised in the interviews that were the subject of considerable differences of opinion, particularly between motorcyclists and non-motorcyclists. These issues included:

1. The way the crash reporting system assesses factors contributing to motorcycle crashes with particular reference to speed and road condition.
2. The link between road design, conditions and furniture⁹ and motorcycle crashes.
3. Motorcyclists' attitudes to personal safety (speed, risk taking, protective clothing etc.)
4. Motorcyclists externalising responsibility
5. The provision of novice and post license rider training

Essentially the differences of opinion appear to reflect differing perceptions and approaches to risk by motorcyclists and road safety professionals. Road safety stakeholders, who were not motorcyclists, tended to focus on rider behaviour as the key issue to be addressed. Major

⁹ Road furniture is the term used for all the fixtures in the road environment including fixed objects on the road (e.g. raised line markers or steel plate covers) and in the road reserve (e.g. light poles or safety barriers etc).

concerns were in relation to attitudes to risk, excessive speed and a perception that riders externalize responsibility for crashes.

Given the statistics for motorcycle crashes, it is perhaps not surprising that someone whose work is essentially concerned with identifying and countering risk, would regard anyone who chose to ride a motorcycle as either ignorant or irresponsible. As noted earlier, motorcyclists may not have a higher risk of being involved in a crash than a car driver, but when they are, the consequences are far more severe.

Those stakeholders who were also motorcyclists tended to focus on managing risk rather than avoiding risk. Asked what they saw as the key road safety issues for motorcyclists, they tended to focus on the behaviour of other drivers in crashes and the contribution of road condition. The latter was a major area of concern exacerbated by the perception that the crash reporting system fails to take account of road condition factors contributing to motorcycle crashes.

Rider behaviour as a factor in crashes was considered more likely to be the exception than the rule and was associated with a minority of inexperienced and/ or foolish riders. Other issues related to the provision and quality control of rider training and the lack of reliable information about safety issues and in relation to protective clothing and equipment. An examination of motorcycle crash statistics for NSW in 2000 does provide support for some of the motorcyclists' views (see panel inset, more detail of motorcycle crash statistics is provided in Appendix A.

The consequence of these different approaches to risk has tended to cause motorcyclists to be marginalized in the safety debate and their views discounted in the development of countermeasures. Similar differences in the assessment of motorcycling risks have previously been identified by Bellaby and Lawrenson, (2001).¹⁰ They argue that such different approaches to risk need to be reconciled if motorcycle road safety is to be addressed effectively.

A list of 85 issues were compiled from the interviews and subsequently distilled into 27 core issues for discussion at the stakeholders planning workshop (see Appendix B). Those issues that had divided opinion in the interviews formed the basis of a number of questions for inclusion in the survey of motorcyclists.

¹⁰ Bellaby, P. & D. Lawrenson (2001) Approaches to the risk of riding motorcycles: reflections on the problem of reconciling statistical risk assessment and motorcyclists' own reasons for riding. *The Sociological Review*, Published by Blackwell Publishers, 108 Cowley Road, Oxford OX4 1JF, United Kingdom and 350 Main Street, Malden, MA, 02148 USA.

Unless otherwise indicated, the following data is based on NSW crash statistics for 2000.¹¹

- ❖ In more than two out of every three crashes (68%) between a motorcycle and another vehicle, the other driver was responsible. In intersection crashes, the other driver was responsible in 74% or almost 3 out of every 4 collisions.*
- ❖ Motorcyclists were more likely than car drivers to be involved in a single vehicle crash (36% vs 23%), however the role of road surface condition is not routinely associated with such crashes. Haworth (1999) reported surface features likely to impair traction at the site of 53% of motorcycle crashes and directly contributed to 15% of crashes.¹²*
- ❖ People under age 26 owned 10% of registered motorcycles in NSW, but accounted for 33% of the riders involved in reported crashes and 37% of riders in fatal crashes.*
- ❖ Unlicensed riders were over-represented in all forms of unlawful rider behaviour and associated crashes.*
- ❖ A review of national statistics showed that the fatality rate for lawful motorcyclists is reduced by 53% when high risk (unlicensed and or drunk) riders are removed from the data.¹³*
- ❖ Unlicensed riders comprised 8% of riders involved in crashes but 18% of motorcycle rider fatalities in NSW. The majority (61%) were under 26 years of age.*
- ❖ Unlicensed riders comprised 37% of all riders with an illegal alcohol level who were involved in a crash in NSW. In addition, twenty-five percent of unlicensed rider crashes were alcohol related compared to 3% of crashes involving lawful riders.*
- ❖ Over one third (36%) of crashes involving unlicensed riders involved speed compared with 22% of crashes involving lawful riders.*
- ❖ Almost half (46%) of riders who crashed while not wearing a helmet, were also unlicensed at the time.*

¹¹ RTA (2001) Information provided by the Roads Safety and Road User Management Directorate, Roads and Traffic Authority, Sydney.

¹² Haworth N. (1999) Road Factors in Motorcycle Crashes, Monash University Accident Research Centre, Presentation to the Victorian Motorcycle Advisory Council Workshop on Motorcycling and the Road Environment held at VicRoads, Kew, 8 June 1999.

¹³ Australian Transport Safety Bureau (ATSB) (1999), Road Risk for sober, licensed motorcyclists, Monograph 27 Canberra.

3. The Survey of motorcyclists

Objectives

The objective of the survey was to:

1. Identify the optimal means of reaching motorcyclists to gather or communicate information.
2. Seek further information in relation to issues raised in the stakeholder interviews.

These issues from the interviews formed the basis of a number of questions for inclusion in the survey. Other questions were taken from comparable Australian studies to provide a basis for comparison include reference to Haworth¹⁴ and Kreig.¹⁵ A copy of the questionnaire is included in Appendix D.

Survey Method

The surveys were distributed by members of the Motorcycle Council of NSW (MCC) over a 4 week period in October/ November 2001. A total of 3170 surveys were distributed and 796 were returned, giving an overall response rate of 25%.

There were four methods of distribution used in this study. These were chosen to test different ways of reaching motorcyclists. The four methods were:

1. Personal distribution and collection through the MCC and clubs network and at motorcycling events.
2. Insert in a commercial motorcycle magazine and in club newsletters for return by mail or fax.
3. Attached to handlebars in motorcycle parking areas for return by mail or fax.
4. Distributed through commercial motorcycle dealers and trainers for return by mail or fax.

The most successful strategies involved members of the MCC distributing and collecting surveys on the spot at motorcycling events and meeting places (see figure 2). The overall response rate for this method was 85%. Although labour intensive, it was timing and the provision of spare pens that were apparently keys to success. The 67 surveys collected at the Mt White Café were collected in a single two-hour session one weekend. The collector subsequently reported that he could have surveyed many more motorcyclists but ran out of survey forms.

Distributing surveys through motorcycling clubs to be returned by mail or fax was the next most successful method achieving 40% returns.

Attaching survey forms with rubber bands to the handle bars of motorcycles parked around the Sydney CBD reaped a 33% response rate by fax and mail. However the same method was less successful in university and TAFE parking areas (17%). The lower return rate from those institutions may be a reflection of the timing of the survey, which was during the end of year examination period or perhaps lack of ready access to a fax machine.

¹⁴ Haworth et al (1997), *Case Control Study of Motorcycle Crashes*, Monash University Accident Research Centre, **CR 174** for the Federal Office of Road Safety, Department of Transport and Regional Development, Canberra.

¹⁵ Krieg, Maxine (1995), *Quantitative Report on the Profile of Australian Motorcycle Riders*, **Public Education Market Research Report 2/95**, Prepared by Strategic Research for the Federal Office of Road Safety, Department of Transport and Regional Development, Canberra.

The success of distribution through the motorcycle magazine (Two Wheels) differed markedly between those sent to subscribers (20% response rate) and those sold through news agencies (5%).

Survey forms left on counters in motorcycle accessory shops (13%) and at a rider training school (4%) produced low return rates.

The response rates achieved through the different methods of distribution and collection are summarized in Figure 2, more detail is provided in Appendix C.

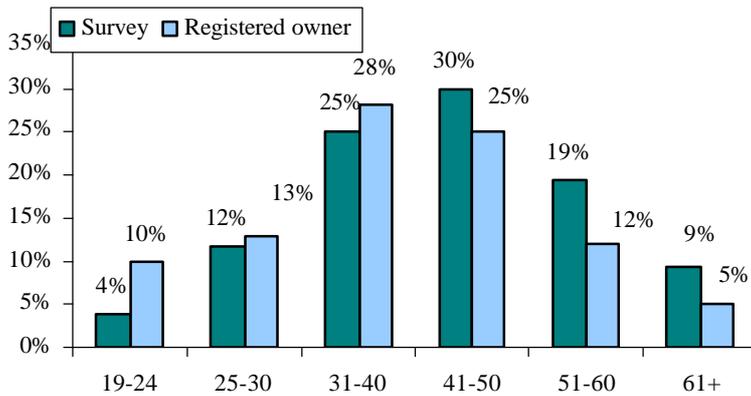
Figure 2. Distribution method and numbers of surveys returned

	Distributed (n)	Returned (n)	Return rate%	Proportion of sample
Personal distribution and collection at motorcycling events	300	212	71%	26%
Personal distribution and collection through clubs	340	228	67%	29%
Mailed out for return by mail or fax	80	30	38%	4%
Motorcycle magazine for return by mail or fax	2000	242	12%	31%
Parking areas for return by mail or fax	250	67	27%	8%
Other for return by mail or fax	200	17	8.5%	2%
Total	3170	796	25%	100%

4. The Respondents

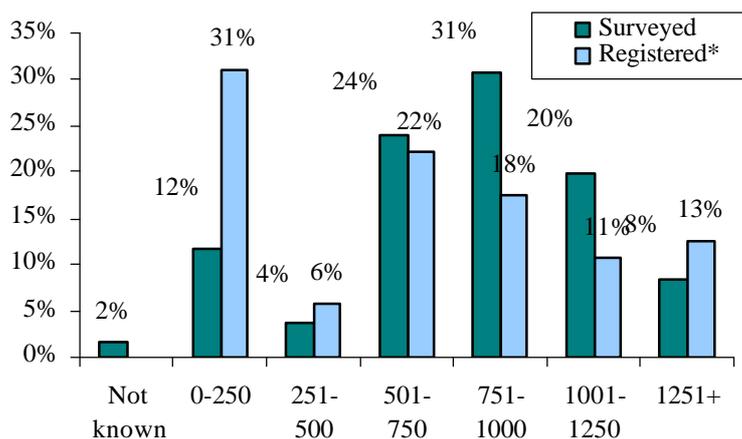
The majority of survey respondents were male (86%, n=684) and their average age was 43.3 years, although the women (13%, n=101) were a little younger with an average age of 38.5. The age distribution was similar to the distribution of registered owners of motorcycles in NSW, although there were disproportionately fewer younger and more, older respondents.

Figure 3. Age group of survey respondents compared to age distribution of NSW owners of registered motorcycles.



The distribution of respondents was less representative of registered owners in terms of the engine capacity of their motorcycles. There was a trend towards larger capacity machines, which may be an outcome of the survey method in targeting more active motorcyclists through club and motorcycle magazines (See figure 4). It is also worth noting that the Australia Post delivery fleet encompasses 8% of all motorcycles under 250cc registered in NSW. A further estimated 20% of under 250cc motorcycles are registered off-road machines.

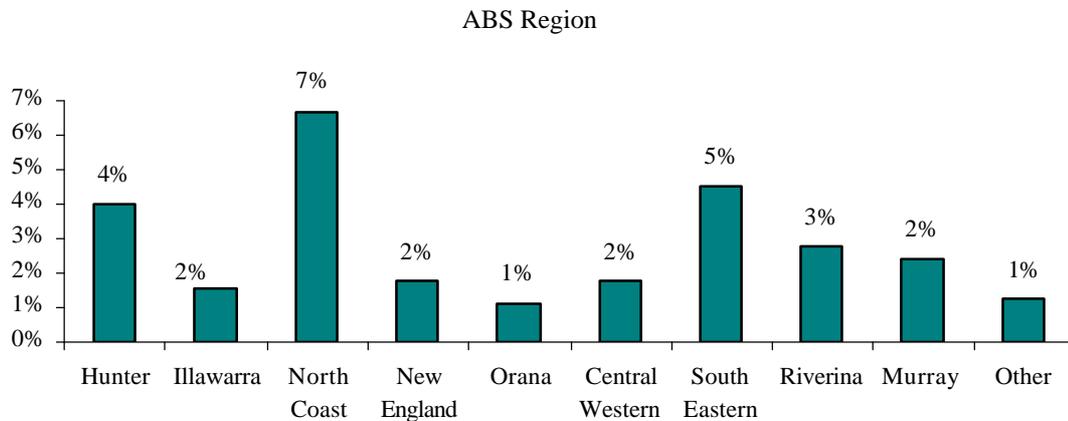
Figure 4 Respondents motorcycles compared to distribution of registered motorcycles.¹⁶



¹⁶ Based on motorcycles registered in NSW 2000 (n= 76,010 excluding Australia Post and registered off road 250 cc motorcycles).

While most of the respondents lived within the Sydney region (72%), the remainder represented a wide distribution of locations from across the state.

Figure 5. Residence of the 28% of respondents not from the Sydney ABS Region.



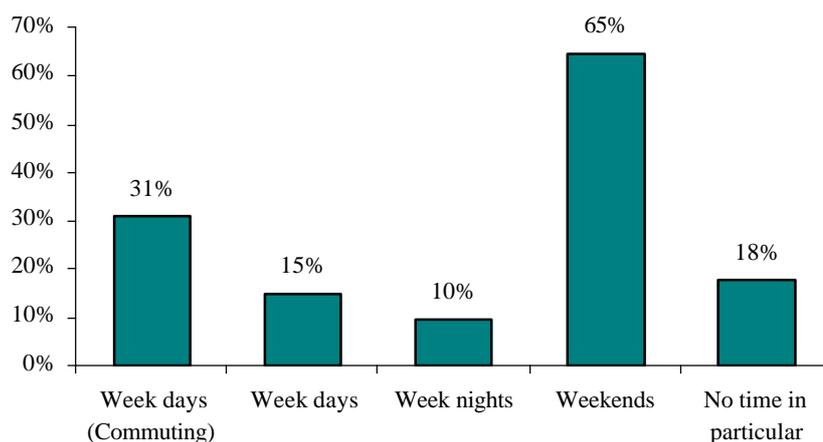
Road user status

The majority of respondents (92%) had a full motorcycle licence, which they had held for an average of 18.5 years. It was 23.4 years since they had first ridden a motorcycle and 61% had been riding continuously since that time. For those who had not ridden continuously, the average length of a break away from riding was 7.8 years. There was a significant gender difference with male riders having held their licence for 20 years compared to 9.4 years for female riders.

Almost all respondents also held a car licence (97%) and cars were the main form of transport for 60% of respondents and motorcycles the main form for 45% (Note some respondents indicated both motorcycle and cars as their main means of transport). Very few used their motorcycle solely for commuting or work related activity (8%). Most used their motorcycle either for recreation only (47%) or for a combination of recreation and commuting (48%). Women riders were more likely than males to use their bikes mainly for commuting (42% vs. 29%).

Only 19% reported carrying pillion passengers regularly. The majority (56%) carried pillions occasionally and 23% claimed they never carried pillions.

The average respondent had ridden on 13 days in the past month. Over half (57%) said that they put off or cancelled riding in wet weather. Most (65%) reported weekends as the main time of the week when they rode. Commuting on weekdays was the main time for 31% of riders and only 9% rode mainly on weeknights (see figure 6).

Figure 6. Time of week when mainly ride

The average distance travelled each week was 254 kilometres with a median distance of 200 kilometres. Over one third of respondents (35%) travelled more than 300 kms each week.

Riders were also asked whether they took long trips. The majority (71%) reported that they had made, what they considered to be, a long motorcycle trip in the past 12 months. Almost one in five (19%) of those long trips had been in excess of 3,000 kms and another 19% had travelled between 2,000 and 3,000 kilometres. The average reported distance was 2,367 km with a range up to 40,000 km. Almost one in five of these long trips was in excess of 3,000 kilometres.

Figure 7. Distance travelled in a long trip over the past 12 months

Distance	Taken long trip (n)	%	All respondents %
1-500 kms	121	21	15
501-1,000 kms	106	19	13
1,001-2,000 kms	126	22	16
2,001- 3,000 kms	107	19	13
3,000 kms +	108	19	14
Total	568	100	71

Motorcycle clubs

Almost two thirds of respondents (64%) belonged to a motorcycle club. This is to be expected as the club network was one of the conduits through which the survey was distributed, however only 33% of responses came directly from distribution through clubs.

Most respondents (76%) were members of just one club, although almost a quarter (24%) of respondents belonged to 2 clubs and 6% listed three or more. The club most frequently named was Ulysses with 256 members represented. The next most frequently mentioned were the Ducati Owners Club (n=50), the BMW Touring Club of NSW (n=36) and Honda Riders Club (n=36).¹⁷

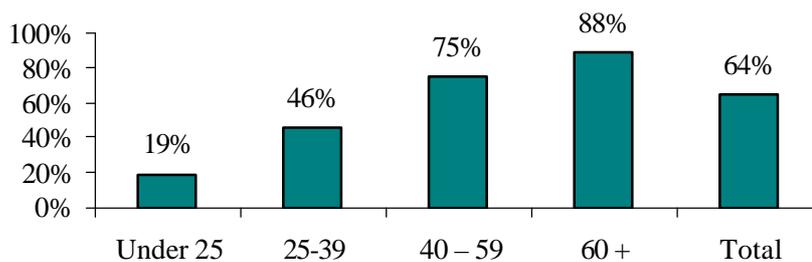
¹⁷ Current NSW membership of key clubs - Ulysses has 7,600 members, the Honda Riders Club has 13,000 members, HOG (Harley Owners Group) has 3,000 members, United Motorcycle Council has approximately 2000 members, DOC (Ducati Owners Club) has 600 members, the BMW Touring Club of NSW has approximately 300 members.

In all a total of 108 motorcycle clubs were listed covering a wide range of interests and associations. They included local community clubs (e.g. Hawkesbury-Nepean Motorcycle Club, Sydney University Motorcycle Club and Canberra District Motorcycle Club) as well as national and international clubs that are either demographically specific (e.g. Ulysses - a club for those over 40 years of age) and WIMA - Women's International Motorcycle Association) or machine specific (e.g. HOG - Harley Owners Group or DOC - Ducati Owners Club).

A high proportion (85%) of all respondents reported riding in groups with other motorcyclists. While there seems to be an age factor with club membership (74% were 40 years or older), riding in groups was not restricted to club members. The types of group rides reported by respondents were most likely to be day trips (77%) although 44% spent time together on holidays, rallies and weekends away.

The survey did not ask whether respondents belonged to ride-groups, although they are an increasing popular organizational structure. Ride-groups operate somewhat like clubs but without a formal structure. The primary purpose of these groups is social and the main activity is organising group rides. Many operate through the internet using a network of web sites, newsgroups and e-mail lists.

Figure 8 Age by club membership



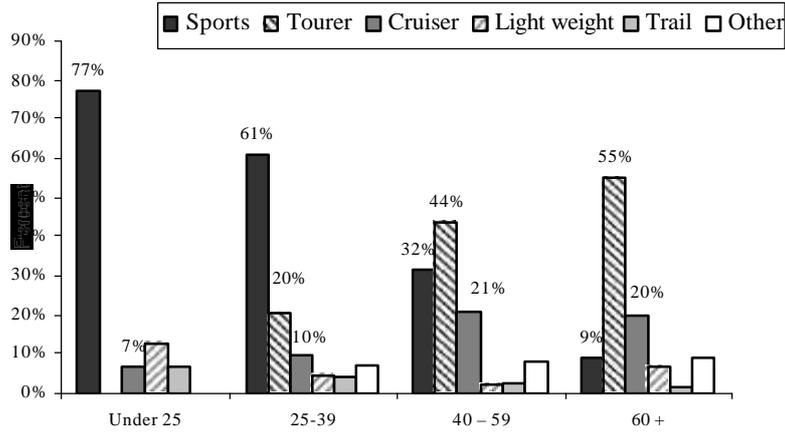
Male riders were more likely than females to spend time at motorcycle tracks (17% vs. 9%) or motorcycle clubs (25% vs. 21%), whereas women showed a preference for socializing with fellow riders at pubs, clubs, restaurants and parties (28 vs. 20%).

Type of motorcycle

Most respondents (97%) owned the bike they currently rode and 33% owned 2 or more bikes. Overall sports models (42%) and tourers (35%) were ridden by the majority of respondents although there was a significant age difference. Sports models were favoured by younger riders, whereas tourers were favoured by older riders. Trail bikes, lightweight commuters and scooters were also more likely to be ridden by younger riders, whereas cruisers tended to be ridden by older riders.

The average age of the motorcycles was 6.3 years although riders reported having ridden their current machine for an average of 4.7 years. This indicates that a high proportion of motorcyclists are riding second hand machines.

Figure 9 Type of motorcycle by age group.



5. Rider training

A major focus of the study was to find out about motorcyclists involvement in training, what sorts of courses they had undertaken and the perceived benefit.

Seventy two percent of respondents had received some form of rider training and almost all of these, (69%) had undertaken training in the last 4 years. As might be expected a higher proportion of younger riders had undertaken training and was predominantly the compulsory training required for licensing. Less than 10% of younger riders had undertaken any post license rider training, 33% of riders between the ages of 25-39 and 45% of riders over 40 years had completed advanced road craft courses. A smaller proportion (11%) had completed high level road based training courses.

Figure 10. Age group by training undertaken.

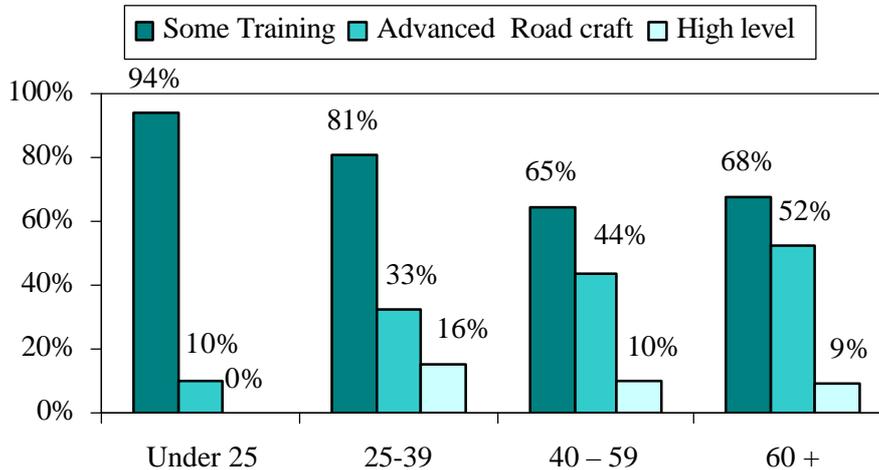
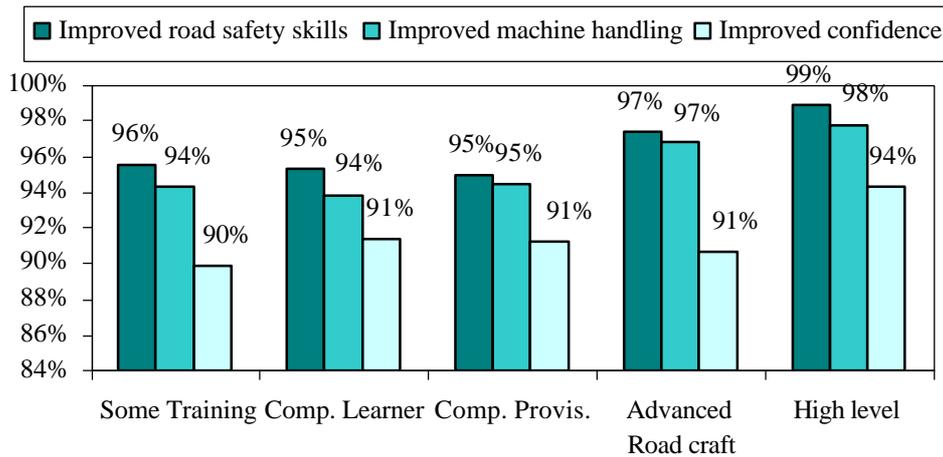


Figure 11. Value of training undertaken.

Asked about the value of the training courses they had completed, most respondents said that it had improved their road safety skills (95%-99%) and machine handling skills (94%-98%). A slightly lower proportion (90%-94%) reported that their courses had improved their confidence on the road.

6. Communicating with motorcyclists

A major focus of the survey was to find out the optimal means of communicating with motorcyclists. Questions in this section asked about their use of various forms of media and the source of any motorcycle safety messages they recalled.

Print media

Over 80% of respondents read motorcycle magazines and 70% read newspapers regularly. A higher proportion of males than females read these magazines (84% vs. 59%) and the motoring sections of newspapers (73% vs. 34%).

The magazines most commonly read were Two Wheels (52% of all respondents), Australian Motorcycle News (30%), Road Rider (15%) and Riding On (11%). Newspapers most commonly read were the Sydney Morning Herald (33%) and the Daily Telegraph (24%)¹⁸.

Internet

A high proportion of respondents (79%) had access to the internet. Older people (aged 51+) were more likely to use print based information sources than were younger people (76% vs. 57%), where the younger group (under 31) were more likely to use the internet (92% vs. 69%).

While more females than males (88% vs. 78%) had access to the internet, males were more likely to use it to access motorcycle information than were women (75% vs. 66%). Both groups reported websites as the preferred means of accessing motorcycle information (48%) with less than 10% using e-mail subscriptions or newsgroups (7% and 7% respectively).

¹⁸ The proportion of respondents who reported reading Two Wheels magazine will have been biased by the fact that one of the survey distribution strategies was as an insert in the magazine. However, while the total number of respondents from Two Wheels distributed surveys was 242, the total number who reported reading the magazine was 413.

Radio

A high proportion of respondents (83%) listened to radio regularly. Morning breakfast shows (70%) was the most common listening time followed by afternoon drive time (47%). The most popular radio station Triple M, was named by 13% of respondents followed by 2WS (11%).

Road safety messages

Respondents were asked about the last motorcycle related road craft/ safety or riding skill message they had heard that made them pay attention. More than two thirds (71%) could recall such a message and 83% said that it had been of value to them. A few slogans (e.g. Look Bike, n=11 and Don't Ride Us Off, n=25) were mentioned but most referred to more complex messages conveyed at an individual level rather than to promotional campaigns. The phrase most frequently mentioned was Stay Upright (n=109), which refers to a rider training company and their educational and promotional material.

Motorcycle magazines were by far the most frequently cited source of safety messages (35%). Rider training courses (20%), television advertisements (11%) and motorcycle clubs (10%) were the next most frequently mentioned sources. The television advertisements mentioned were those designed and funded by motorcyclists through the Celebration of Australian Motorcycling Committee.

Figure 12. Source of motorcycle safety message

Media	n	% sources
Motorcycle magazine	182	35%
Rider training course	105	20%
Television	60	11%
Bike club functions/ magazines	53	10%
Banners, bumper stickers etc	25	5%
Billboard and signs	23	4%
Other riders	20	4%
Internet	13	2%
Newspapers	10	2%
Video	10	2%
Dealer/ shop	4	1%
Other	21	4%

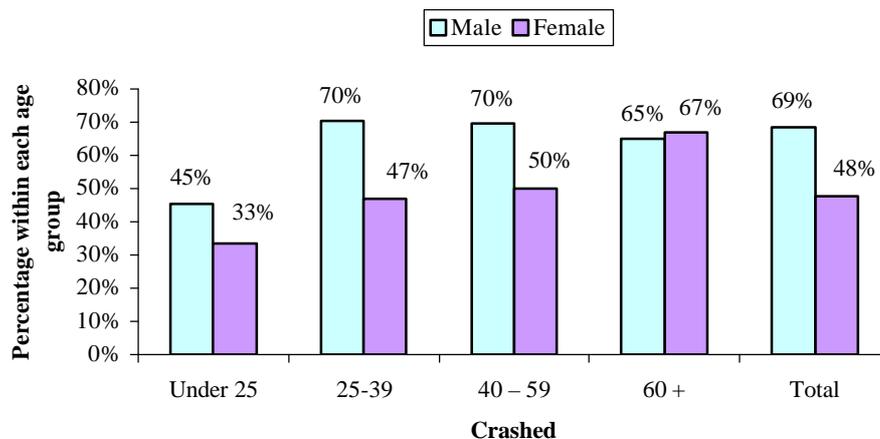
6. Crash experience

The interview program for the strategic plan raised a number of contentious issues relating to the causes of motorcycle crashes and what measures should be used to address them. These issues were incorporated into the survey questions focusing on single vehicle crashes, and riders' perceptions of causes and what they might have done to avoid the crash.

Involvement in crashes

Two thirds (67%) of respondents reported being involved in a motorcycle road crash at some time during their years of riding experience.¹⁹ Of these crashes, 55% had involved another vehicle and 47% were single vehicle crashes. A further 2 % (n=15) reported crashes involving pedestrians. Women riders were less likely to have reported a crash than were male riders (48% vs. 69%).

Figure 13. Proportion of riders within each age group and gender by involvement in crashes.

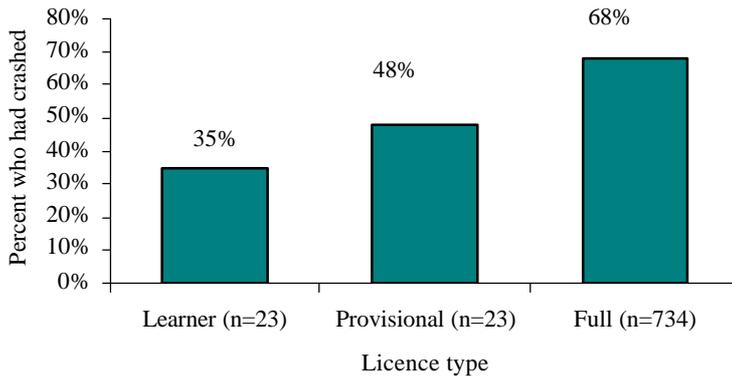


Unfortunately the survey did not set a time frame nor ask about multiple crashes so it is not possible to make conclusions about overall experience of crashes, nor about the recency or relative severity of the particular crash reported. Nevertheless, the data reported shows that most riders had crashed (67%) and that a high proportion of these crashes (47%), particularly those involving younger riders, involved only a single vehicle.

Although novice riders were less likely to report having crashed, the proportion is still of concern considering the relatively short time they had been riding. Over one third of those with learner licences and almost half (48%) of those riders with provisional licences (n=23) reported having had a crash (see figure 14).

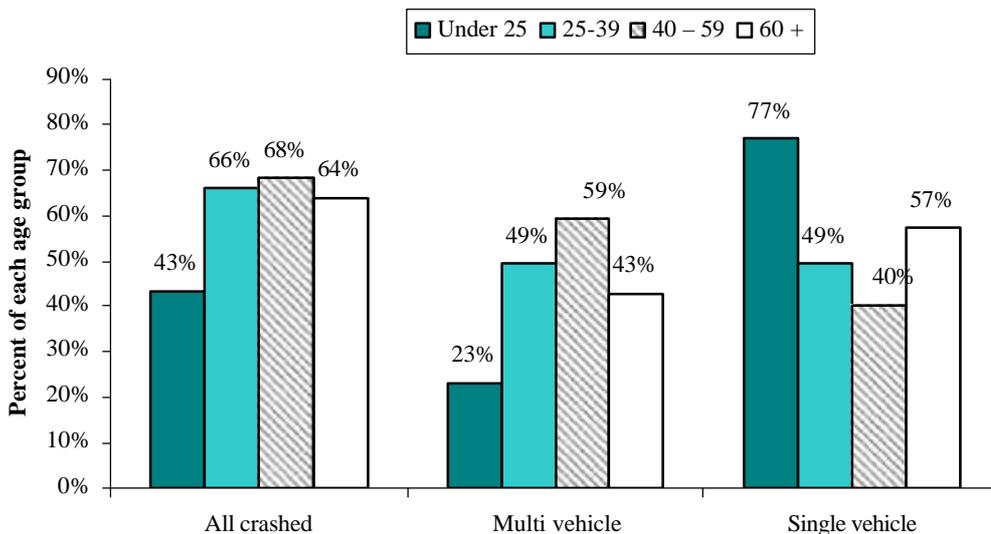
¹⁹ Note the average respondent had held their motorcycle licence for over 18 years.

Figure 14. Proportion of riders who have crashed by their license status



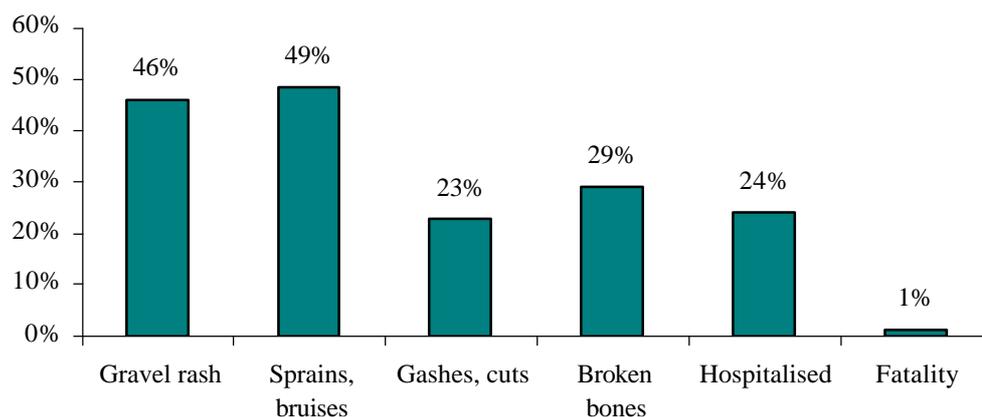
While young riders (n=13/ 31) reported proportionately fewer crashes, those who had were most likely to have been involved in single vehicle crashes (77%). The oldest group of riders (60+) also reported more single vehicle than multi-vehicle crashes. Whereas the older riders (40-59) reported more multi-vehicle crashes and middle aged riders (26-39) were equally likely to report multi-vehicle as single vehicle crashes. See figure 15.

Figure 15. Age group by involvement in crashes.



Injuries in crashes

Forty three percent of all respondents had been involved in a crash that resulted in injury to themselves or to a pillion passenger. They accounted for 65% (n=338) of all those who had been involved in a crash (n=522). Four respondents had been involved in crashes that resulted in a fatality. Twenty four percent of those injured had been hospitalized and 29% had sustained broken bones. Sprains, bruises and gravel rash were the most common forms of injury reported.

Figure 16. Type of injury sustained in crashes (n=338)

Protective clothing

Riders were asked to nominate from a list, the types of clothing they and their pillion would usually wear when riding (see Appendix E).

The head and upper body were generally well protected. All riders and pillions wore helmets and most had some form of eye protection. The majority wore full face helmets (87% vs. 86%) and motorcycle gloves (89% vs. 80%). Most riders also wore motorcycle jackets including full leathers (26%), leather jacket (51%) or a non-leather motorcycle jacket (36%). Pillions were less likely to have full leathers (12%) but equally likely to have leather (51%) or non leather motorcycle jackets (37%). Twenty percent of riders and 9% of pillions also wore body armour.

The legs were less well protected particularly for pillions. Over half the riders 55% usually wore jeans and 2% reported wearing shorts. The remainder wore either leather pants (20%) or motorcycling pants with armour (21%). Pillions were more likely to wear jeans (64%) and less likely to wear leather pants (13%) or motorcycling pants with armour (13%). Riders were also more likely than pillions to wear motorcycle boots (85% vs. 60%).

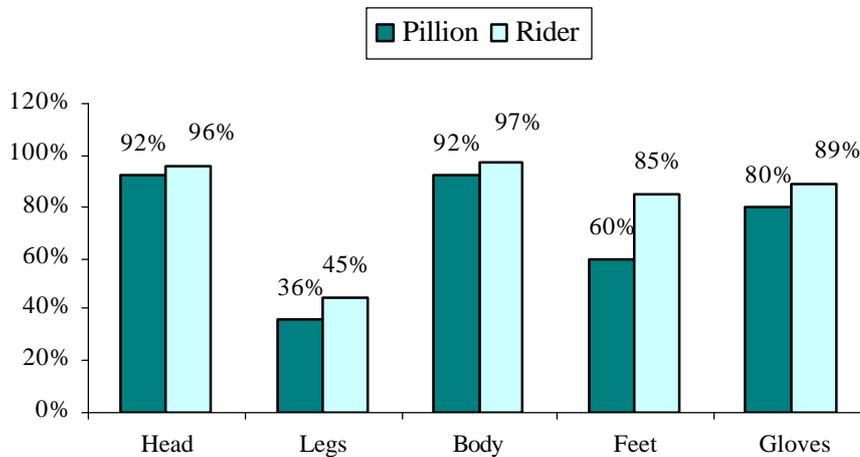
In order to develop a means of assessing general levels of protection, all listed clothing items were classified according to the level of protection they afford and the area of the body protected. The following table illustrates the coding system applied.

Figure 17 Classification of clothing and area for levels of protection

Area	High protection	Low protection	No protection
Head	Helmet/ helmet with eye protection	No eye protection	No helmet
Body	Full leathers Leather jacket Non-leather motorcycle jacket Body armour Back protector	Short sleeved top Non-motorcycle jacket	
Legs	Leather pants Pants plus armour/ padding	Jeans	Shorts
Feet	Motorcycle boot	Sandshoes/ jogger (ankle) Sandshoes/ joggers (normal)	thongs
Hands	Motorcycle gloves		

Figure 18 shows the proportion of riders and pillions who were assessed as having high protection for each area of the body. On this assessment it is clear that legs and feet, particularly for pillions were least likely to be adequately protected.

Figure 18. Levels of protection of clothing usually worn by riders and pillions



Causes of crashes

Respondents were asked about the circumstances in which they crashed. They were asked to choose from a list of commonly reported circumstances. The circumstance most frequently cited was loss of traction with the road surface due to gravel, slippery paint or tar, potholes etc (56%).

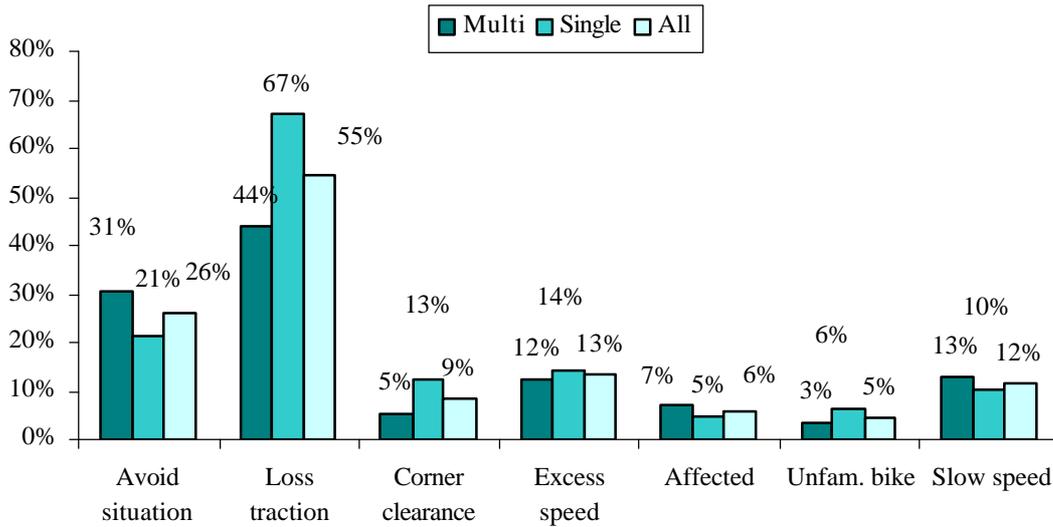
Loss of traction was noted in relation to 44% of multi-vehicle crashes and 67% of single vehicle crashes. Male riders were more likely than females (40% vs. 23%) to report loss of traction as the reason from crashing in single vehicle crashes.

Avoiding a situation created by another vehicle was associated with 27% of all crashes, including 31% of multi-vehicle crashes and 21% of single vehicle crashes.

Excess speed for conditions was associated with 14% of crashes with little difference between multi and single vehicle crashes (12% vs. 14%). Males were more likely than females to report excess speed for conditions as the reason for the crash (10% vs. 3%).

Other circumstances associated with crashes were running out of cornering clearance (9%), being impaired (7 %) and unfamiliarity with the motorcycle (5%). There was little difference between age groups on the circumstances they associated with crashes.

Figure 19. Circumstances associated with crashes by type of crash

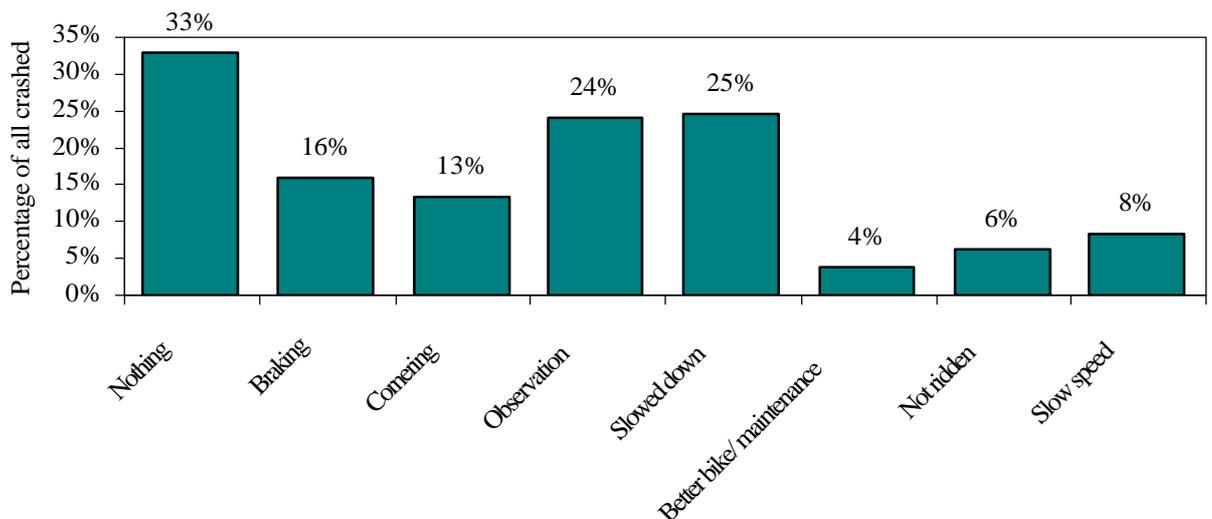


Crash avoidance

Respondents were also asked what they could have done to have avoided that crash (see Figure 20). The question format allowed respondents to tick more than one option for this question. However, asked what they could have done to avoid the crash, almost one third (33%) chose “Nothing, I have good skills and I used them well.” As might be expected this response was associated with more multi-vehicle than single vehicle crashes.

On the whole, responses indicated a degree of awareness of their own contribution to the incident. A quarter said it could have been avoided if they had slowed down earlier and 6%, if they had not ridden when impaired (by fatigue, alcohol or illness etc). However the major focus of responses was on a perceived need for better skills and abilities. Almost a quarter (24%) felt the crash could have been avoided if they had had better observation skills and abilities, others focused on better braking (16%), cornering (13%) and slow speed maneuvering (8%).

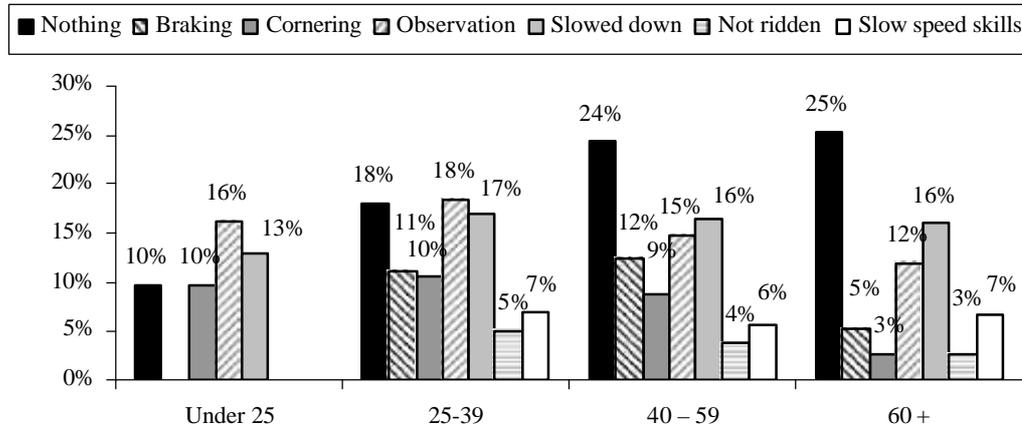
Figure 20. What could have been done to avoid the crash



There were some age differences in responses to these questions. Respondents who said there was nothing they could have done to avoid the crash were predominantly riders over 40 years. Whereas younger riders were most likely to nominate better observation skills and

slowing down earlier and least likely to believe that better braking skills might have avoided the crash.

Figure 21. How could have avoided the to crash by age group

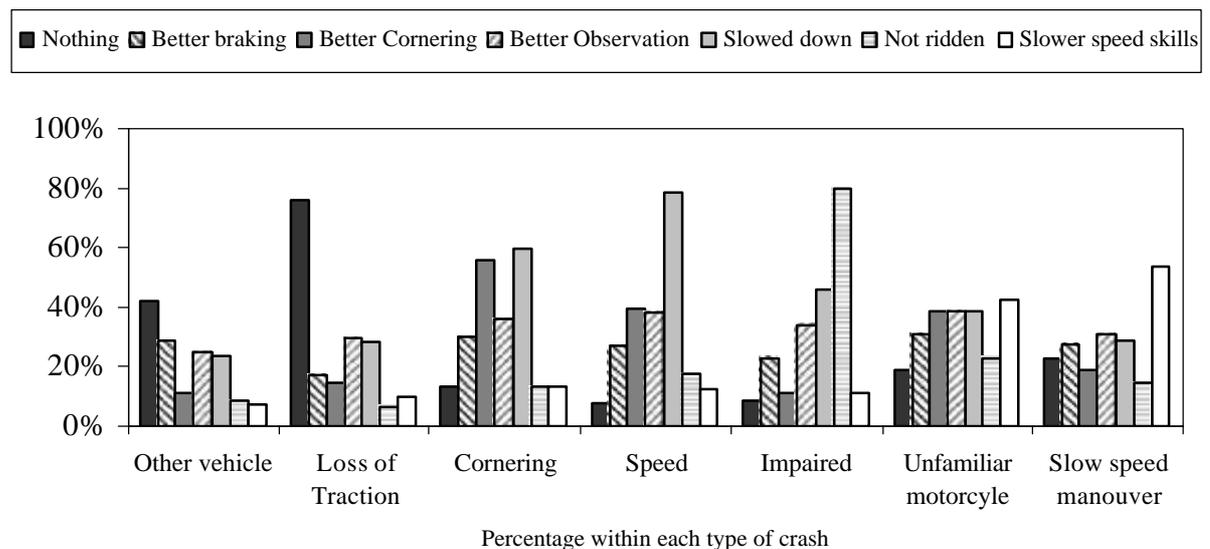


On the assumption that younger riders are more likely to have completed rider training courses, we looked at the distribution of responses by training experience. The data seems to confirm the notion that those with no training were the most likely to believe that there was nothing they could have done.

Those with basic (compulsory learner and provisional) and advanced training were more likely to report potential actions in terms of better skills (braking, cornering, or observations), and were more likely to say “slow down sooner” compared to riders who had no training.

Figure 22 cross references the circumstances of the crash with the riders’ perception of how it could have been avoided. A significant percentage of riders reported that there was nothing they could have done to avoid crashes involving another vehicle (42%) or involving loss of traction (76%). However the response “Nothing I could have done” is less understandably linked to crashes involving slow speed maneuvers (23%) and riding an unfamiliar motorcycle (19%).

Figure 22. Crash circumstances by how it could have been avoided



As might be expected “Not ridden while impaired” was noted by 80% of those who had crashed while affected by alcohol, fatigue sickness etc. A majority (78%) of those in crashes caused by ‘Excess speed” said that they could have avoided the crash if they had “Slowed down sooner” although there was still a significant proportion of respondents who thought better cornering (39%) or better observation (38%) skills might have helped.

Crashes when the rider “ran out of cornering clearance” are perhaps the best illustration of differing degrees of insight because they are bi-modal. Fifty five percent thought improved cornering skills would have helped, whereas 60% said they should have slowed down sooner.

The potential benefits of better observation skills were consistently reported by a significant group for all crashes. Where as few report that better braking would have helped in crashes involving loss of traction (17%), such skills were considered to have been of potential benefit in relation to crashes involving another vehicle (28%), cornering (30%), excess speed (27%), Impaired (23%), unfamiliar motorcycle (31%) and slow speed maneuvers (28%).

Discussion

The sample

The survey was reasonably representative of registered owners in NSW in terms of age, although there were relatively fewer riders under 26 and the distribution of motorcycles by size was biased towards larger machines. The average reported distance travelled each week was 254 kilometres, which is substantially more than the ABS estimated average of 90 kilometres per week (4,700 k/m pa).²⁰ However it is consistent with other Australian motorcycle exposure studies such as Haworth et al, 1997 and Wigan, 2000. In separate surveys of motorcyclists in Victoria, Haworth et al reported a median of 201 – 300 kms per week (n=1121)²¹ and Wigan reported an average of 222 kms per week (n=140).²² Haworth also found that riders with larger motorcycles tended to ride further than other full licence holders. This latter finding is relevant to the current survey in which respondents who rode motorcycles of 750 cc and over were over represented (see figure 4).

Almost two thirds (64%) of respondents belonged to a motorcycle club. This raises the question as to how representative the survey was of motorcyclists in general. The distances travelled and the high level of club membership may be taken to indicate that the sample is skewed towards the more active or committed motorcyclists for whom riding is a recreational choice. However are such enthusiasts necessarily un-representative of the majority of motorcyclists? We do not know what proportion of registered owners would count themselves as motorcycling enthusiasts compared to those for whom it is a transport option selected for other reasons such as cost or convenience.

Motorcycle club membership services generally include social and/or sporting benefits and can include things such as magazines, organised day rides and track days, so membership may indicate a higher than average level of interest and activity. However this is not necessarily the case as some manufacturers (e.g. Honda and Harley Davidson) provide initial membership with the purchase of their motorcycles. Information on the number of motorcyclists who belong to a club is not readily available. The five largest motorcycle clubs list some 26,200 members in NSW accounting for 31% of the 85,000 registered owners in the state.²³ However there are also numerous small local motorcycle clubs and social groups, many of whom are not incorporated or affiliated. This was evident from the 108 different motorcycle clubs covering a wide range of interest groups that were represented in the survey.

Communicating with motorcyclists

In terms of identifying the optimal methods of communicating with motorcyclists, the response rate to the survey demonstrated the effectiveness of working through the Motorcycle Council of NSW and the club network. These networks yielded some 59% of respondents although the distribution and collection methodology was labour intensive for

²⁰ ABS (2001), *Survey of Motor Vehicle Use: Australia*, 12 months ended 31 October 2000, Australia Bureau of Statistics, 9208.0

²¹ Haworth et al (1997) Case-control study of motorcycle crashes (Report CR 174). Canberra: Monash Accident Research Centre for the Federal Office of Road Safety.

²² Wigan, Dr Marcus (2000) *Motorcycle Transport: Powered Two Wheelers in Victoria*. A report for VicRoads on behalf of the Victorian Motorcycle Advisory Council by Oxford Symatics, Report 2000-1-1

²³ Personal communication with Ulysses, Honda Riders Club, Harley Owners Group, Ducati Owners Club and the United Motorcycle Council.

Council and club members. Distribution through a commercial motorcycle magazine yielded a further 30% of respondents.

A high proportion of respondents read motorcycle magazines (80%), although women riders were less likely than men to read such magazines (59% vs 84%). Commercial motorcycle magazines were also the most commonly cited source of motorcycle safety messages.

A similarly high proportion of respondents (79%) had access to the internet, which they used to access motorcycle related information. The preferred means of access was through web sites rather than newsgroups or e-mail subscriptions.

Motorcyclists are highly diverse in their allegiances to brand of motorcycle and style of machine. These differences are also reflected in the wide range of motorcycle magazines that were read by the respondents. Any communication strategies need to take these divisions into account to ensure that the targeted groups are, in fact, being reached. For example, consultation with motorcyclists who ride tourers is unlikely to identify issues of concern to those who ride commuters. However it should be noted that there are also divisions within brand or style groupings. There will be differences between the weekend-only riders and the more regular riders, between those who choose to ride a motorcycle for economic reasons and those who have taken it up as recreational pursuit.

Crash experience and causal responsibility

Two thirds of the respondents had been involved in at least one motorcycle crash. There were differences in the crash experience according to age and type of motorcycle currently ridden. However overall, 55% had been involved in a crash with another vehicle and 47% in a single vehicle crash.

NSW crash data confirms that motorcycles are far more likely to be involved in single vehicle crashes than are cars. Approximately 36% of motorcycle crashes are single vehicle crashes, compared to 23% of car crashes.²⁴ Crash statistics record excess speed for conditions being associated with 24% of motorcycle riders involved in crashes compared to 9% of all vehicle controllers.²⁵ However this was one of the points of dispute in the stakeholder interviews.

The motorcyclists interviewed challenged the assumption that speed is necessarily a factor in any single vehicle motorcycle crash, merely because the rider lost control of the vehicle. Their concern was that such assumptions fail to take account of the fact that the road surface can cause a motorcycle to lose traction resulting in a skid, even at low speed, particularly if it occurs while braking or at a critical point of a corner. The motorcyclists interviewed, from all stakeholder groups, related numerous examples of incidents where changes in road conditions were so sudden or severe that a crash was difficult to avoid even at low speeds.

There has been little research to document the contribution of road condition in motorcycle crashes in Australia. Narelle Haworth (et al 1997) found road factors present that could have contributed to the occurrence or severity of the crash in 53% of motorcycle crash sites. In 15% of the inspected sites (part of the 53%), road factors actively contributed to the occurrence of the crash.²⁶ Crash data for 2000 in NSW, does record that road surface hazards

²⁴ Seventy five percent of all crashes compared to 64% of motorcycle crashes involve more than one vehicle. RTA, Road Traffic Accidents in NSW – 2000, Statistical Statement: Year ended 31 December 2000, Roads and Traffic Authority, November 2001.

²⁵ The 9% of vehicle controllers speeding appears relatively low because it includes a higher proportion of multi-vehicle crashes and therefore a higher number of controllers per crash incident.

²⁶ Haworth N. (1999) *Road Factors in Motorcycle Crashes*, Monash University Accident Research Centre, Presentation to the Victorian Motorcycle Advisory Council Workshop on Motorcycling and the Road Environment held at VicRoads, Kew, 8 June 1999.

were noted at the site of 23% of single vehicle motorcycle crashes compared to 6% of single vehicle car crashes. However from discussion with NSW Police Crash Investigators, such details are not systematically provided in crash reports unless the police attending an accident are aware of the potential contribution of such factors. It would appear that the contribution of road condition needs to be examined more systematically in police accident reports.

The contribution of road condition to crashes is amply illustrated in the survey results where 67% of the single vehicle crashes were associated with loss of traction due to road surface conditions. Over all, 55% of all those motorcyclists who had been involved in any crash cited loss of traction with the road surface due to gravel, potholes, slippery paint or tar. Eighty percent of all respondents who had been involved in a crash where they lost traction, reported that in the circumstances there was nothing they could have done to avoid the crash.

The essential argument comes down to the question of contributing responsibility. What is the responsibility of road authorities to provide a road environment that does not present such hazards without appropriate warning, and to what extent are motorcyclists responsible for anticipating the possibility of such situations.

These questions also raise the issue of externalizing responsibility. Forty five percent of all motorcycle crashes in NSW were caused by the actions of another motorists. Avoiding situations created by other drivers (27%) was the second most commonly cited circumstance of crashes in the survey. When asked what they could have done to have avoided the crash, almost one third of all respondents said that there was nothing they could have done. It is a basic tenet of road safety training that there was always something one could have done to avoid a crash. As a simple personal development mechanism such an approach allows and encourages one to learn from an adverse experience. It is worth noting that respondents who had undertaken some form of rider training were less likely to have believed there was nothing that they could have done than were those who had no formal training.

Rider training

Compulsory rider training was introduced into NSW in 1985 as a part of the licensing process, and a reduction in crash involvement for new riders followed almost immediately. Since 1990 the number of young riders involved in crashes has dropped by 57% or 945 riders. Currently, “L” and “P” plate riders account for approximately 2% and 5% of crashes respectively, or about one third of the previous rate. However while the crash incidence of novice riders had decreased, the risk rate for young riders has actually increased marginally from 870 per 10,000 registered owners in 1995 to 905 in 2000.²⁷ The decrease in numbers appears to be related to the lower participation of young riders, rather than a lower risk rate.

Over two thirds (69%) of respondents to the survey had undertaken some form of training in the last 4 years and 33% had completed some form of advanced rider training. Respondents overwhelmingly rated training to have been of value.

As noted above, responses to questions about how they might have avoided a crash revealed a distinct difference in the pattern of answers given by those with, and those without, formal rider training (see figure 22). The untrained group was most likely to report that there “was nothing they could have done” to avoid the crash or that it could have only been avoided if they had “not ridden”. It would appear that rider training opens up options for the rider that are not recognized by those without training.

The question of post license rider training is of particular interest due to evidence that advanced driver training may contribute to increased crash risk, particularly for young

²⁷ RTA (2001) Information provided by the Roads Safety and Road User Management Directorate, Roads and Traffic Authority, Sydney.

males.²⁸ Research with car drivers suggests that training in advanced vehicle handling skills may create a false sense of confidence leading to increased risk taking behaviour. The essential principle behind opposing skills based advanced driver training courses is that safe driving is more dependent on attitudinal and cognitive factors than on operational skills.

While there is a research basis for such concern relating to advanced driver training programs, it may not necessarily apply in the motorcycle environment. This is because there is a substantial difference in the operational skill demands for safe riding compared to safe driving. Advanced rider training courses focus on refining essential skills, such as cornering and braking, once the rider has achieved sufficient experience to understand and apply the new learning. Attitude development is an important aspect of advanced rider training, where the decision making process is refined through a better understanding of the dynamics of a motorcycle, and recognition of one's own limitations and those of other road users.

There is some evidence to suggest that advanced rider training may be of significant value in reducing crash risk. In this survey, riders who reported no training were less likely to have an understanding of what went wrong in a crash and were more likely to say that there was nothing that they could have done to avoid it. Haworth et al (1997) found that ineffective braking occurred in 20% and a failure to respond to a threat occurred in 17% of the motorcycle crashes that they examined. They also found that a significant decrease in the odds of crashing was associated with having completed an advanced course.²⁹

Personal protection

There were differences between the protective clothing worn by pillion and riders. Legs and feet were least likely to be adequately protected, particularly for pillion. An explanation for the lack of protection may well relate to the extent to which riders regularly carry pillion. Only 19% of respondents regularly carried a pillion, 56% only occasionally carried a pillion. It may be that riders/ pillion use what is regarded as essential gear (e.g. helmets) but are less likely to purchase other expensive gear for occasional usage.

It is apparent that riders need to be better informed as to the relative merits of different forms of protective clothing. Protective clothing is unlikely to prevent serious injury, but can reduce gravel rash, torn or severed ligaments and some broken bones. It cannot, beyond quite low limits, protect from impacts in a collision with another vehicle, trees, rocks, or roadside furniture such as crash barriers or signposts. Clothing designed specifically for motorcyclists also contributes to personal comfort and thereby may reduce fatigue and dehydration.

However comfort is a particular issue in the Australian climate, and while riders may consider protective clothing essential on a long trip, they are less likely to be worn on a shorter trip in hot weather, particularly if there are no facilities for riders to store their gear and change into lighter clothing on arrival.

No information is readily available as to the relative merits of any particular piece of protective clothing in terms of its suitability in a fall. Research into crash and casualty outcomes associated with particular protective clothing is necessary to provide appropriate information to riders.

²⁸ Christie, R. (2001), *The effectiveness of driver training as a road safety measure: An international review of the literature*, **Road Safety Research, Policing and Education Conference**, Melbourne, 19-20 November.

²⁹ Haworth et al (1997) Op Cit. page 75

Conclusion

For a risk averse professional, the simple choice of motorcycles as a form of transport may indicate an irresponsible attitude to risk that needs to be controlled and discouraged. They may blame motorcyclists for their choice of transport and place little priority on action to address the contribution of external factors – other drivers and road conditions.

By comparison, experienced motorcyclists may be well aware of the risks, which with some justice, they attribute to other drivers and road condition, but believe they can manage those risks by developing their own physical and mental skills.

It is apparent that a substantial proportion of respondents were actively involved in ensuring their own safety through post license training, accessing safety information and by their use of protective clothing.

Findings also confirmed that well established and effective channels of communication exist within the motorcycling community through the club network, magazines and the internet. It is also apparent from the level of involvement in clubs and use of motorcycle magazines and internet sites, that motorcycling is more than simply a transport choice for this group. It is this level of commitment to motorcycling that tends to confound road safety experts, who assess the motorcycle as a high risk without taking account of the intrinsic benefits which motivate motorcyclists in their choice.

However it is the level of commitment to motorcycling that provides an opportunity for other road safety stakeholders to involve motorcyclists in initiatives to address motorcycling safety. The success of such collaborations depend on a reconciliation of views between road safety professionals and motorcyclists, to accept their different cultures of risk in order to find ways of reducing the actual incidence of road crashes.

The survey also provides a useful resource of information to guide researchers and road safety authorities in the most effective means by which they can communicate with motorcyclists. In particular the survey results indicate opportunities for:

- ❖ Road safety stakeholders to work in cooperation with motorcyclists to improve motorcycle safety by using their established communication channels.
- ❖ The development of appropriate motorcycle safety information for delivery using the identified existing communications channels (internet, motorcycle magazines and the Motorcycle Council and club network).
- ❖ A review of the process for investigating and reporting motorcycle crashes to determine the relative contribution of factors such as excess speed, inappropriate speed and road conditions.
- ❖ Research into the benefits and most effective format for post licence rider training.
- ❖ Further research and the development of consumer information to guide motorcyclists in the purchase of appropriate protective clothing and to encourage them to ensure that pillions are equally appropriately protected.
- ❖ The reduction of multi-vehicle crashes involving motorcycles through road safety programs to raise the motorcycle awareness of other drivers.
- ❖ The reduction of single vehicle motorcycle crashes by encouraging all road authorities to incorporate motorcycle safety standards into the design and maintenance of all roads.

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Appendix A *Motorcycle crashes in NSW, 2000*³⁰

Types of crashes

The pattern of crashes involving motorcyclists differs from those involving car drivers. Motorcyclists are more likely than car drivers to be involved in a single vehicle crash (36% vs 23%), but when they are involved in a collision with another vehicle, the other vehicle is most likely to be at fault. In more than two out of every three crashes (68%) between a motorcycle and another vehicle the other driver was responsible. The other driver was responsible in 74% of intersection crashes.

Riders involved in crashes

Young people are less likely to own a motorcycle, but those who do are relatively more likely to be involved in crashes. Only 10% of motorcycles are registered to owners under 26 years of age, but this age group account for 33% of the riders involved in reported crashes and represent 37% of riders in fatal crashes.

Older riders own 42% of registered motorcycles but are far less likely to be involved in crashes (22% of all motorcycle crashes). Older motorcyclists (40+) are more likely than younger riders to be involved in single vehicle crashes (47% vs 38%) and crashes on curves (38% vs 29%), whereas they are less likely to crash at intersections (40% vs 50%). The patterns are reversed for older car drivers who are far less likely to be involved in single vehicle crashes (21%) or on curves (16%) but are relatively more likely to be involved in multi-vehicle intersection crashes (53%).

Rider behaviour

Licensed riders involved in crashes are no more likely to be alcohol or fatigue affected (3% and 4% respectively) than are other motorists, however unlicensed riders are substantially more likely to be alcohol or fatigue affected (25% and 8%) than all licenced riders/ drivers.

Sixteen percent of all crashes involve speed as a factor, however speed is associated with 24% of all motorcycle riders involved in crashes compared to 9% of all vehicle controllers³¹. Licensed riders are more likely than other vehicle controllers to be involved in speed associated crashes (22% vs 9%) but still significantly lower than unlicensed riders (36%).

Older riders are less likely than younger riders to drink ride or not wear a helmet. Riders (under 26) were the age group most likely to not wear a helmet (5%), whereas middle-aged riders (26-39) were the group most likely to drink ride (7%).

Unlicensed riders

Riders with Standard licences are involved in 71% of all motorcycle crashes compared to 5% holding Learners and 2% Provisional licences, however 8% of riders involved in crashes are unlicensed or disqualified.

Unlicensed riders are over-represented in all forms of unlawful rider behaviour and associated crashes. The significant contribution of unlicensed riders to crashes can be seen in:

³⁰ All statistics reported in this document, unless other wise noted, are based on NSW crash and casualty data for 2000 provided by the RTA for the purposes of this project.

³¹ The 9% of vehicle controllers speeding appears relatively low because it includes a higher proportion of multi-vehicle crashes and therefore a higher number of controllers per crash incident. Seventy five percent of all crashes compared to 64% of motorcycle crashes involve more than one vehicle.

- ❖ Unlicensed riders comprise 8% of riders involved in crashes but 18% of motorcycle rider fatalities. The majority (61%) are under 26 years of age.
- ❖ Unlicensed riders were 37% of all riders with an illegal alcohol level who were involved in a crash. Twenty-five percent of unlicensed rider crashes were alcohol related compared to 3% of crashes involving licensed riders.
- ❖ Over one third (36%) of crashes involving unlicensed riders involved speed compared with 22% of crashes involving licensed riders.
- ❖ Almost half (46%) of riders who crashed while not wearing a helmet, were also unlicensed at the time. Note: a rider is recorded as not wearing a helmet in a crash if their helmet was not fastened or the helmet does not comply with the Australian Standard for helmets.
- ❖ Unlicensed riders were twice as likely as licensed riders to have a pillion passenger when they crashed (14% compared to 7% of licensed riders).

The very clear problems of the behaviour of unlicensed riders may be largely responsible for the perception of motorcyclists as reckless lawbreakers.

Appendix B Issues identified in interview program

1. High incidence of non-reported crashes because motorcyclists believe it will be to their disadvantage.
2. Crash reporting system has little capacity/inclination to take account of road condition or other factors in single vehicle crashes.
3. Motorcyclist attitudes to personal safety, protective clothing etc.
4. Motorcyclists externalise responsibility
5. Small but visible number of reckless often unlicensed motorcyclists
6. Speed that is inappropriate to conditions
7. Drink riding
8. Riding while fatigued
9. Driver attitudes, lack of understanding or awareness of motorcyclists
10. Motorcyclist licensing split between 250 cc and more powerful bikes does not encourage the selection of appropriate vehicles. The recent introduction of the Learner Approved Motorcycle Scheme trial may alleviate some issues here.
11. The motorcycle rider training scheme need to be evaluated on learning outcomes for motorcyclists.
12. Road authorities do not design roads to meet the standards required for motorcyclists safety.
13. Lack of a central state-wide point for the notification and referral of hazards.
14. Road authorities do not maintain roads to meet the standards required for motorcyclists' safety.
15. Road furniture that presents a hazard to motorcyclists' safety.
16. Helmet standards need to be reviewed.
17. Lack of information available in the market about protective clothing.
18. No agency or system in place to research or monitor the safety of motorcycle engineering developments.
19. Insufficient research into causation of motorcycle crashes
20. Insurance for motorcycles is prohibitive and inequitable.

21. Lack of capacity for data matching between sources such as Health, Police and the RTA on road crashes.
22. Access to road crash data is unduly restricted by the RTA.
23. Lack of independent advisory role for representatives of motorcyclists.
24. Motorcycle Council is not perceived by authorities to be a genuine peak body yet represents almost one quarter of NSW motorcyclists.
25. Lack of established communication channels between motorcycle community and the Police.
26. Lack of mechanism for the long term involvement of the industry in motorcycle safety initiatives.
27. Lack of system for the dissemination of safety information to motorcyclists.

Appendix C

Personal distribution and collection at motorcycling events	Distributed (n)	Returned (n)	Return rate%	Proportion of sample
Pink Ribbon Ride	58	35	60%	4%
Distributed at Mt White	67	67	100%	8%
Awareness Week Display	70	53	76%	7%
Other	105	57	54%	7%
Sub-total				26%
Personal distribution and collection through clubs				
Distributed at club meetings	70	70	100%	9%
Distributed through MCC club reps	270	158	59%	20%
Sub-total				29%
Mailed out for return by mail or fax				
Sent through WIMA newsletter	50	17	34%	2%
Posted to Ulysses club	30	13	43%	2%
Sub-total				4%
Motorcycle magazine for return by mail or fax				
Two Wheels Subscriptions	1000	196	20%	25%
Two Wheels magazine from newsagents	1000	46	5%	6%
Sub-total				31%
Parking areas for return by mail or fax				
Uni, TAFE car parks attached to handle bars	100	17	17%	2%
CBD attached to handle bars	150	50	33%	6%
Sub total	250	67	27%	8%
Other for return by mail or fax				
Left on the counter at rider training school	100	4	4%	0%
Left on the counter at MCA Bike Shops	100	13	13%	2%
Sub total	200	17	8.5%	2%
Total	3170	796	25%	100%

Appendix D The survey

The Motorcycle Council of NSW is working on a project to identify and address motorcycle road safety issues. In order to do this we need to know more about your experience on the road and how we can best communicate with you in future. Please complete this questionnaire and post it or fax it to the MCC of NSW at the above address.

Q1 Do you read any motorcycle magazines regularly?

- Yes
- No (go to Question 3)

Q2 If yes, what motorcycle magazine/s?

.....
...
.....
.....

Q3 Do you listen to the radio regularly?

- Yes
- No (go to Question 7)

Q4 Which radio stations do you listen to most often?

.....
...

Q5 What time of day do you listen to the radio?

- Breakfast shows
- Daytime talkback
- Afternoon drive time
- Evening

Q6 How many hours per week do you listen to the radio?

.....hours

Q7 Do you read newspapers regularly?

- Yes
- No (go to Question 11)

Q8 If yes, which newspapers?

.....
.
.....
.

Q9 How often do you read newspapers each week?

- 6 times per week...
- 3 to 5 times per week
- 0 to 3 times per week

Q10 Do you regularly read the motoring sections of these newspapers?

- Yes
- No

Q11 Do you have access to the internet?

- Yes
- No (go to Question 14)

Q12 Do you use it to access motorcycle related information?

- Yes
- No (go to Question 14)

Q13 How do you access motorcycle information on the internet?

- Websites What sites?.....
.....
...
- Email Subscription Which list?.....
.....
...
- Newsgroups Which ones?.....
.....
...

Q14 Do you currently belong to any motorcycle club or association?

- Yes
- No (go to Question 16)

Q15 If yes, which clubs or associations?
.....
.....

Q16 Do you sometimes ride in a group with other motorcyclists?

- Yes
- No (go to Question 18)

Q17 Which of the following describes the time you spend with fellow riders? (tick more than one if applicable)

- Meet at the track / track days
- Meet at a bike club
- Day trips together on our bikes
- Holidays, rallies or weekends away
- Pubs, clubs, restaurants or parties together
- Off-road riding
- Other

Q18 What was the LAST motorcycle related roadcraft/safety/riding skill message you heard/saw/read that made you pay attention?
.....
.....
.....

Q19 Where did you see it/hear it/ read it? (for example in a magazine, on the radio, training session, bike club presentation etc) or who did you hear it from? (trainer/other motorcyclist/police etc)
.....
.....
.....

Q20 Was it of value to you?

- Yes
- No

Q21 Which of the following licences do you currently hold? Tick more than one if applicable.

- Learner Motorcycle
- Provisional Motorcycle
- Full Motorcycle
- Learner Driver
- Provisional Driver (red)
- Provisional Driver (green)
- Full Driver
- Truck or bus licence
- Other, please specify.....
- None

Q22 If you have a motorcycle licence, approximately how long have you had this licence?

..... months oryears

Q23 If you don't have a current motorcycle licence, is this because:

- Never had one
- It has lapsed
- It has expired
- It has been cancelled

Q24 Do you have a car licence?

- Yes
- No (go to Question 26)

Q25 If yes, how long have you held this licence?

.....months oryears

Q26 Which of the following is your MAIN form of transport?

- Motorcycle
- Car
- Truck
- Public Transport
- Bicycle
- Walking
- Other

Q27 What is your age?

.....years

Q28 Gender

- Male
- Female

Q29 What is the postcode where you currently live?

.....

Q30 Approximately how long is it since you first rode a motorcycle?

.....months or years

Q31 Have you basically been riding continuously over that period?

- Yes
- No (go to Question 34)

Q32 If you have had a break from riding, thinking about the last time you had a break, how long was this break

..... months or years
 or riding continuously

Q33 How long has it been since you had this break from riding?

- months or years
 currently on a break
 or riding continuously

Q34 Would you say you MAINLY ride

- To and from work (commuting)
 In the course of your work
 For recreation only
 For both recreation and commuting

Q35 How many motorcycles do you currently own?

.....

Q36 Thinking about the motorcycle you ride most frequently, how long have you ridden this motorcycle?

..... months or years

Q37 Which best describes the motorcycle you ride most often?

- I own it
 Provided by employer
 Borrowed from a friend or relative
 Other, please state

Q38 What is the capacity of the engine (of the bike you most frequently ride)?

.....cc
 Don't know

Q39 What type of motorcycle do you ride most frequently on the road?

- Sports
 Trail or Dirt Bike
 Cruiser
 Lightweight commuter /Scooter
 Touring
 Other

Q40 How old is the bike you ride most often?

.....months oryears
 Don't know

Q41 Over the past month, how many days would you have ridden a motorcycle?

.....days
 None
 Don't know

Q42 In an average week, how many kilometres do you ride?

..... km
 Don't know

Q43 Generally, what time of the week do you ride? Would it mainly be

- Weekdays (commuting)
 Weekdays
 Weeknights
 Weekends
 No time in particular

Q44 In the last 12 months, have you made any, what you consider to be, long trips on a motorcycle?

- Yes
 No (go to Question 46)
 Don't know

Q45 What was the total distance you rode?

.....kilometres

Q46 Do you carry a pillion?

- Never
 Occasionally
 Regularly

Q47 Do you ever put-off or cancel riding your motorbike in wet weather?

- Yes
 No

Q48 What rider training have you had, (tick more than one if applicable)?

- None (go to Question 53)
 Compulsory Learner
 Compulsory Provisional
 Advanced road craft (e.g. Stayupright Advanced course)
 High level road based course (e.g Superbike school)
 Other, please specify

Q49 In what year did you last do any training?

.....

Q50 Did these courses improve your road craft or safety skills

- Yes
 No
 Not sure

Q51 Did these courses improve your machine handling skills?

- Yes
- No
- Not sure

Q52 Did these courses improve your confidence on the road?

- Yes
- No
- Not sure

Q53 Have you ever been in a crash on your motorcycle on the road?

- Yes
- No (go to Question 59)

Q54 Was another vehicle or a pedestrian involved in the crash?

- Another vehicle
- Pedestrian
- No

Q55 Have you ever crashed your bike where there was no initial collision with another vehicle, in any of the following circumstances?

- to avoid a situation created by another vehicle
- due to loss of traction with the road surface (gravel, slippery paint or tar, potholes, etc)
- due to running out of cornering clearance
- excess speed for the conditions
- affected by fatigue, cold, drugs, alcohol or illness
- unfamiliarity with that motorcycle
- slow speed manouvering

Q56 What could you have done to avoid that crash?

- nothing, I have good skills and I used them well
- had better braking skills and abilities
- had better cornering skills abilities
- had better observation skills and abilities
- had slowed down earlier
- had a better maintained motorcycle (tyre type & wear, lights, brakes, etc)
- had a motorcycle with better lights, handling or brakes
- had not ridden when tired, drunk, stoned or sick
- had better slow speed manouvering skills

Q57 Did you hurt yourself or your pillion?

- Yes
- No (go to Question 59)

Q58 How badly did you hurt yourself or pillion?

- Broken bone
- Gravel rash
- Sprains, bruises
- Gashes, cuts
- Hospitalised
- Fatality
- Just damaged my riding gear / pride

Q59 Which of the following best describe the type of clothing you and your pillion (if applicable) would usually wear when riding?

- | Rider | Pillion | |
|--------------------------|--------------------------|-------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Full leathers |
| <input type="checkbox"/> | <input type="checkbox"/> | Leather jacket |
| <input type="checkbox"/> | <input type="checkbox"/> | Non-leather motorcycle jacket |
| <input type="checkbox"/> | <input type="checkbox"/> | Non motorcycle jacket |
| <input type="checkbox"/> | <input type="checkbox"/> | Body armour |
| <input type="checkbox"/> | <input type="checkbox"/> | Back protector |
| <input type="checkbox"/> | <input type="checkbox"/> | Short sleeved top |
| <input type="checkbox"/> | <input type="checkbox"/> | Leather pants |
| <input type="checkbox"/> | <input type="checkbox"/> | Pants with armour or padding |
| <input type="checkbox"/> | <input type="checkbox"/> | Jeans |
| <input type="checkbox"/> | <input type="checkbox"/> | Shorts |
| <input type="checkbox"/> | <input type="checkbox"/> | Motorcycle boots |
| <input type="checkbox"/> | <input type="checkbox"/> | Ankle-high sandshoes/joggers |
| <input type="checkbox"/> | <input type="checkbox"/> | Normal sandshoes/joggers |
| <input type="checkbox"/> | <input type="checkbox"/> | Thongs or open-sandals |
| <input type="checkbox"/> | <input type="checkbox"/> | Motorcycle Gloves |
| <input type="checkbox"/> | <input type="checkbox"/> | A full-face helmet |
| <input type="checkbox"/> | <input type="checkbox"/> | A half-face helmet |
| <input type="checkbox"/> | <input type="checkbox"/> | No helmet |
| <input type="checkbox"/> | <input type="checkbox"/> | Eye Protection |

Thanks for your help and safe motorcycling

MCC Survey results - Protective Clothing

Question 59. Which of the following best describe the type of clothing you and your pillion (if applicable) would usually wear when riding? (Riders n=796, Pillion n=417).

