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## Motorcycle Rider Protective Apparel Wearing: Observational Study Results from the Brisbane and Canberra Regions

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### Abstract

The continued growth in popularity of motorcycling is an area of concern within the road safety domain due to the vulnerability of motorcyclists sustaining injury in the event of a crash. Currently in Australia only motorcycle helmets are mandatory for motorcyclists or pillion riders to wear and there is no legislative standard for other protective apparel. This paper reports the results obtained from a series of motorcyclists' apparel observational studies undertaken in the Brisbane and Canberra regions. The sites selected for the research were designed to enable the observation of both recreational and commuter riders. The results highlight both similarities and differences in the type of protective apparel worn by motorcyclists and pillion riders observed across the two regions. Encouragingly, across all the sites the majority of riders were wearing protective apparel on their upper body. However, a lower proportion of riders were observed wearing protective

apparel on their lower body, particularly at the commuter sites in Brisbane. Similarly, the wearing of full face helmets was very high, except at the commuter sites in Brisbane. The generally lower use of protective apparel among commuter riders in Brisbane would appear to reflect both situational factors, such as climate, and the higher proportion of scooters observed at the sites. The implications of these results are discussed and recommendations are made for future research to identify factors that influence the wearing of protective motorcycle apparel.

### Introduction

Motorcycle sales and associated motorcycle use is rapidly increasing within Australia. The growing popularity and use of motorcycles is a concern for those in the road safety and injury domains due to the vulnerability of motorcyclists sustaining injury in the event of a crash. Motorcyclists are over-represented in the road injury and fatality statistics. Whilst motorcycles

represent only 3% of the vehicle registrations in Australia, motorcycle riders have five times the risk of being in a fatal crash per registered vehicle [1], and 29 times the risk per kilometre travelled [2].

Due to the exposed design of the motorcycle, in the event of a crash riders are much more likely to come into direct contact with the many hard and abrasive surfaces in the road environment than most other road users. The most effective protection for the rider in the event of a crash is through the use of protective riding apparel, including helmet, jacket, pants, boots and gloves. Previous research has demonstrated that motorcycle riders wearing protective apparel spend less time in hospital and on average return to work earlier than motorcycle riders who do not wear protective apparel [3]. The authors concluded that protective apparel was significantly effective in preventing or reducing approximately 43% of skin injuries and 63% of deep tissue injuries.

Given the safety benefits of protective apparel, it is important to both quantify the extent to which such apparel is worn and to identify the factors that influence its use. In this regard, a number of self-report studies have been undertaken in Australia examining the use of protective apparel [4, 5, 6]. These studies have tended to find that while most riders report wearing protective apparel on their upper body, they are less likely to wear protective pants or boots. In addition, the wearing of protective apparel appears to be less common among non-club riders, pillion riders, and scooter and moped riders [4, 5, 6, 7]. The reported lower wearing of protective apparel by scooter and moped riders is of particular concern, given the recent strong growth in the sales of these types of motorcycles in Australia [7, 8]. It has been suggested that the lower apparel wearing among scooter and moped riders is linked to the greater use of these vehicle types among commuter riders. In this regard, focus group research has suggested that the type of apparel worn by motorcycle riders is influenced by the nature of the ride they are intending to undertake [9, 10]. For example, riders reported a greater preparedness to wear protective apparel on longer rides, particularly those undertaken for recreational reasons. The results also suggested that climatic factors can have a strong influence on the wearing of protective apparel, with some riders reluctant to wear extensive apparel in hot weather.

While self-report studies provide valuable insights into the wearing of protective apparel, the representativeness of the samples and related results remain unclear. For example, the studies cited above included relatively large numbers of club-riders and recreational riders. Consequently, the authors of this paper have embarked on program of observational research to obtain more objective data on the extent of protective apparel wearing in Australia to inform relevant policy-making. A particular focus of this research has been to establish whether there are any systematic differences in the wearing of protective apparel across regions and times of the year, and between recreational and commuter motorcyclists. To date, the authors of have conducted observational studies in the Brisbane [11,12]

and Canberra regions [9]; two areas with differing climatic conditions and socio-demographic characteristics. Accordingly, the aim of this paper is to compare and contrast the findings of these studies, in order to obtain a better understanding of the extent of protective apparel wearing in general, and to identify potential differences in wearing across regions and between commuter and recreational riders and pillions. In addition, while the vast majority of motorcyclists wear helmets in Australia, this research specifically examined the extent to which riders and pillions wear full face helmets given the greater safety benefits of these compared to open-face helmets [13, 14].

Before proceeding, it is important to note that it was beyond the scope of this observational research to assess the quality of the protective apparel worn by riders. Using observational methods, it is only possible to identify whether riders are wearing motorcycle specific 'protective' apparel, leather clothing or some other type of clothing. Moreover, while motorcycle specific apparel may be marketed and sold as protective in nature, the actual level of protection provided in the event of a crash remains unclear. This is because there is currently no legislated standard or rating system in place in Australia to ensure that motorcycle apparel affords the rider the stated, or even appropriate, level of protection [15]. While there is a voluntary set of industry guidelines (developed by Standards Australia), these do not necessarily ensure the quality of motorcycle apparel. Therefore, while this paper uses the term 'protective' to describe motorcycle specific apparel that is worn for this or other purposes by riders, no assumptions should be made about the actual level of protection provided by such clothing.

## Method

The methodology used for the observations involved researchers observing motorcyclists travelling or stopping along predetermined popular commuter and recreational routes in both the Canberra and Brisbane regions. Commuter and recreational observation sites were chosen after consultation with government agencies and with local motorcyclists recruited to assist in the research. This was undertaken to determine the routes commonly frequented by motorcyclists. In order for a location to be considered suitable the location was also required to meet the following criteria:

- be positioned along a route that was frequented by motorcyclists;
- be in a place where motorcyclists either slowed down sufficiently or stopped to enable observations to be undertaken; and
- be considered suitable in relation to the safety of the researchers/observers following a risk assessment

The observations were usually undertaken in teams comprising two or three researchers who were all active motorcyclists and therefore familiar with motorcycle apparel. The researchers were trained in observation methodology by one of the authors and each researcher was responsible for observing a particular aspect

of the apparel observations. For instance, one researcher from each team was responsible for observing either the upper body apparel, lower body apparel, or type of motorcycle being ridden. A standardised data recording template was utilised to both simplify and enhance the reliability of the observations.

Observations were recorded as motorcyclists slowed down or became stationary at predetermined observation points along the routes. For example, along recreational routes particularly slow corners or coffee stop locations were used, while the commuter observations were primarily undertaken at the entrance to parking facilities. Among the data that was collected for each motorcycle (and pillion if present) were:

- type of motorcycle - including brand, model and capacity;
- upper body apparel - including gloves, type of jacket or clothing worn on the upper trunk section of the body, and open or closed face helmet; and
- lower body apparel - including the type of clothing worn on the leg section of the body, and the type of footwear worn.

In terms of the apparel worn, the researchers specifically recorded whether the upper and lower body clothing observed was made of leather, was of a motorcycle-specific 'protective' nature, or was casual or work wear type clothing (and therefore not designed or marketed as motorcyclist protective apparel). Consistent with the aims of the study, wet weather clothing was not recorded as motorcycle specific 'protective' apparel but as 'other' clothing.

The times and locations of the observations were designed to facilitate the observation of both commuter and recreational riders and included both weekend and weekday times.

Commuter site observations were undertaken between the hours of 7.00am to 9.30am and 3.00pm to 6.00pm. At recreational sites observations were undertaken between the hours of 8.30am to 2.00pm.

The Brisbane recreational site observations were conducted at two different times of the year: i) 29 - 30 October 2005 (which featured maximum daily temperatures of 28.2o and 28.6o C, respectively); and 26 February 2006 (which featured a maximum daily temperature of 29.1o). While there was little difference between the October and February observation days in terms of the maximum daily temperature, it was decided to keep these two sets of observations separate due to potential seasonal or other influences, including the possible effects of organised group rides.

In contrast, the Brisbane commuter observations and all of the Canberra observations were drawn from only one period of time. The Brisbane commuter site observations were conducted on 20 - 21 February 2008 (which featured maximum daily temperatures of 29.5o and 31.9o C, respectively). The Canberra recreational site observations were conducted on 28 - 29 April 2007 (which featured maximum daily temperatures of 17.8o and 18.3o C, respectively), while the commuter observations were conducted on 30 April and 1 May 2007 (and featured maximum daily temperatures of 18.3 o and 18.8o C, respectively).

## Results

Table 1 reports the results of the observations for motorcycle riders at both the commuter and recreational sites in the Canberra and Brisbane regions. As noted above, the observations at the Brisbane recreational sites were not pooled, because they were conducted at two different times of the year. For all other sites, the observations are pooled across the relevant days.

At both the Canberra and Brisbane sites, the most frequent type of motorcycle observed was the sports type. However, a relatively high proportion of the motorcycles observed at the Brisbane commuter sites were scooters (44%), confirming the popularity of these vehicles in city precincts. Consistent with these findings, the majority of the motorcycles observed were larger in engine size (eg. 750 cc or above), except in Brisbane where 53% of those observed were 250 cc or less.

In regard to helmet use, the large majority of the riders were observed wearing full face helmets. Once again, the exception to this finding was at the Brisbane commuter sites where only 59% of the riders were observed wearing full face helmets. To examine this issue more closely, Table 2 provides a breakdown of the Brisbane commuter site results by type of motorcycle. As can be seen, the lower use of full face helmets was mainly due to the higher proportion of scooter riders at these sites. Indeed, over three-quarters (77%) of the scooter riders observed at the Brisbane commuter sites were wearing open face helmets.

As shown in Table 1, the vast majority of both the recreational (99%) and commuter riders (96%) in Canberra were observed wearing full gloves. In contrast, the proportion wearing full gloves in Brisbane was lower in general, and particularly so at the commuter sites where 50% of the riders were observed wearing no gloves at all. As shown in Table 2, this result again reflects the relatively large proportion (70%) of scooter riders at the Brisbane recreational sites who were not wearing gloves.

Overall, a relatively large proportion of riders were observed wearing protective apparel on their upper body. In Canberra, 92% of those observed at the recreational sites and 86% of those observed at commuter sites were wearing a leather jacket or a motorcycle specific protective jacket (see Table 1). Similarly, 83% and 89% of the riders observed at the Brisbane recreational sites were wearing a leather or motorcycle specific protective jacket. Once again, the poorest performing area was the Brisbane commuter sites where only 53% of the riders were observed wearing protective apparel on their upper body. As shown in Table 2, the wearing of upper body protective apparel was again lowest among the scooter riders at the Brisbane recreational sites, with only 24% wearing a leather or motorcycle specific jacket.

In addition, some interesting differences emerged between the Canberra and Brisbane sites in terms of the upper body apparel worn by riders. For example, the wearing of motorcycle specific protective jackets was much more common at the Canberra

Table 1: Results of motorcycle rider observations in Canberra and Brisbane

	Canberra		Brisbane		
	April/May 2007 Recreational N = 116	April/May 2007 Commuter N = 272	October 2005 Recreational N = 118	February 2006 Recreational N = 144	February 2008 Commuter N = 262
<b>Motorcycle type</b>					
Sports	52 (45%)	120 (44%)	63 (53%)	77 (54%)	118 (45%)
Sports tourers	36 (31%)	26 (10%)	6 (5%)	16 (11%)	5 (2%)
Cruisers	8 (7%)	35 (13%)	23 (20%)	10 (7%)	18 (7%)
Tourers	7 (6%)	36 (13%)	18 (15%)	27 (19%)	0 (0%)
Off road	5 (4%)	17 (6%)	7 (6%)	6 (4%)	6 (2%)
Scooters	8 (7%)	38 (14%)	1 (1%)	8 (5%)	115 (44%)
<b>Motorcycle size</b>					
1000 cc or more	50 (43%)	79 (29%)	56 (48%)	57 (40%)	29 (11%)
750 - 999 cc	29 (25%)	47 (17%)	38 (32%)	42 (29%)	37 (14%)
251 - 749 cc	29 (25%)	76 (28%)	17 (14%)	26 (18%)	57 (22%)
250 cc or less	8 (7%)	70 (26%)	7 (6%)	19 (13%)	139 (53%)
<b>Helmet</b>					
Full face	111 (96%)	247 (91%)	97 (82%)	134 (93%)	155 (59%)
Open face	5 (4%)	25 (9%)	21 (18%)	10 (7%)	107 (41%)
<b>Gloves</b>					
Full gloves	115 (99%)	261 (96%)	84 (71%)	121 (84%)	126 (48%)
Fingerless gloves	0	8 (3%)	8 (7%)	1 (1%)	5 (2%)
No glove	1 (1%)	3 (1%)	26 (22%)	22 (15%)	131 (50%)
<b>Upper Body</b>					
Leather	23 (20%)	42 (15%)	57 (48%)	69 (48%)	47 (18%)
M/cycle specific	84 (72%)	193 (71%)	41 (35%)	59 (41%)	92 (35%)
Other clothing	9 (8%)	37 (14%)	20 (17%)	16 (11%)	123 (47%)
<b>Lower Body</b>					
Leather	15 (13%)	6 (2%)	16 (14%)	23 (16%)	2 (1%)
M/cycle specific	50 (43%)	87 (32%)	18 (15%)	13 (9%)	6 (2%)
Jeans	45 (39%)	117 (43%)	78 (66%)	103 (71%)	75 (29%)
Other	6 (5%)	62 (23%)	6 (5%)	5 (4%)	179 (68%)
<b>Footwear</b>					
Boots	94 (81%)	136 (50%)	78 (66%)	85 (59%)	39 (15%)
Joggers	13 (11%)	35 (13%)	23 (20%)	22 (15%)	52 (20%)
Other	9 (8%)	101 (37%)	17 (14%)	37 (26%)	171 (65%)

sites than any of the Brisbane sites, while the wearing of leather jackets was more common among the riders observed at the Brisbane recreational sites (see Table 1).

In contrast, the wearing of protective apparel on the lower body was less widespread, particularly among those observed at commuter sites. As shown in Table 1, the highest proportion of riders wearing protective apparel on the lower body was at the Canberra recreational sites, where 56% were wearing either

leather or motorcycle specific pants. However, this proportion fell to 34% for those observed at commuter sites in Canberra and to 25 – 29% for those observed at recreational sites in Brisbane. The lowest wearing rates were at the Brisbane commuter sites where only 3% of riders were wearing lower body protective apparel. More particularly, 68% of the riders at the Brisbane commuter sites were wearing lower body apparel with effectively no protective quality such as trousers, skirts and

**Table 2: Results of motorcycle rider observations at Brisbane commuter sites**

	Brisbane Commuter Site February 2008				
	Sports N=118	Sports Tourer N= 5	Cruiser N=18	Off Road N=6	Scooter N= 115
<b>Helmet</b>					
Full Face	113 (96%)	4 (80%)	6 (33%)	6 (100%)	27 (23%)
Open face	5 (4%)	1 (20%)	12 (67%)	0	88 (77%)
<b>Gloves</b>					
Full gloves	78 (66%)	3 (60%)	8 (45%)	4 (67%)	34 (29%)
Fingerless gloves	3 (3%)	0	1 (5%)	0	1 (1%)
No glove	37 (32%)	2 (40%)	9 (50%)	2 (33%)	80 (70%)
<b>Upper Body</b>					
Leather	33 (28%)	1 (20%)	7 (39%)	0	5 (4%)
M/cycle specific	54 (46%)	2 (40%)	7 (39%)	5 (83%)	23 (20%)
Other clothing	31 (26%)	2 (40%)	4 (22%)	1 (17%)	87 (76%)
<b>Lower Body</b>					
Leather	2 (2%)	0	0	0	0
M/cycle specific	2 (2%)	2 (40%)	1 (6%)	0	1 (1%)
Jeans	42 (35%)	0	11 (61%)	1 (17%)	21 (18%)
Other	72 (61%)	3 (60%)	6 (33%)	5 (83%)	93 (81%)
<b>Footwear</b>					
Boots	28 (24%)	3 (60%)	5 (28%)	2 (33%)	1 (1%)
Joggers	14 (12%)	1 (20%)	3 (17%)	1 (17%)	33 (29%)
Other	76 (64%)	1 (20%)	10 (55%)	3 (50%)	81 (70%)

other office wear. As shown in Table 2, this finding was common across the majority of the motorcycle types observed at the Brisbane commuter sites, not just the scooter riders.

As shown in Table 1, the majority of riders across all recreational sites in Canberra and Brisbane were wearing boots. The highest proportion was found at the Canberra recreational sites, where 81% of the riders were observed to be wearing boots. Once again, the lowest proportion of motorcyclists wearing boots (15%) was at the Brisbane commuter sites. Notably, only one of the scooter riders observed at these sites was wearing boots (see Table 2).

Table 3 reports the results obtained from the observations of the motorcycle pillion passengers in the Canberra and Brisbane regions. As can be seen, the number of pillions observed was relatively small, so care needs to be taken when interpreting the results. Notwithstanding this, all the pillion passengers observed at the Canberra sites were wearing full face helmets, while the majority were also doing so at the Brisbane recreational sites. However, only around half of the pillions observed at the Brisbane commuter sites were wearing full face helmets.

In Canberra, the majority of pillions were observed wearing full gloves at both recreational and commuter sites. While the corresponding proportion was lower at the Brisbane sites, only a small proportion of pillions were not wearing any gloves at all.

At the Canberra sites, all the pillions were observed wearing either leather or motorcycle specific jackets. Similarly, the majority of the pillions at the Brisbane recreational sites were wearing leather or motorcycle specific jackets. However, over 80% of the pillions observed at the Brisbane commuter sites were not wearing a protective jacket.

The lower body apparel results demonstrate that many pillions wear jeans, both when riding recreationally and commuting. Only at the Canberra recreational sites was the majority of pillions (57%) observed to be wearing motorcycle specific lower body apparel. In contrast, at the Brisbane commuter sites, 91% of the pillions were observed wearing non-protective lower body clothing, such as office wear. Furthermore, very few Brisbane pillions were wearing boots, while some were observed wearing open footwear such as thongs or sandals.

## Discussion

This paper has provided an opportunity to compare motorcycle protective apparel wearing across two regions with inherent climatic differences, as well as between recreational and commuter riders and pillion passengers. The findings are largely consistent with those of previous self-report surveys, which have indicated that many riders are prepared to wear protective apparel on their upper body, but less so on their lower body.

Table 3: Results of motorcycle pillion observations in Canberra and Brisbane

	Canberra		Brisbane		
	April/May 2007 Recreational N = 7	April /May 2007 Commuter N = 5	October 2005 Recreational N = 14	February 2006 Recreational N = 21	February 2008 Commuter N = 11
<b>Helmet</b>					
Full Face	7 (100%)	5 (100%)	12 (86%)	17 (80%)	6 (55%)
Open face	0	0	2 (14%)	4 (20%)	5 (45%)
<b>Gloves</b>					
Full gloves	7 (100%)	4 (80%)	6 (43%)	10 (48%)	8 (73%)
Fingerless gloves	0	1 (20%)	7 (50%)	11 (52%)	2 (18%)
No glove	0	0	1 (7%)	0	1 (9%)
<b>Upper Body</b>					
Leather	1 (15%)	1 (20%)	4 (28%)	8 (38%)	0
M/cycle specific	6 (85%)	4 (80%)	5 (36%)	10 (48%)	2 (18%)
Other clothing			5 (36%)	3 (14%)	9 (82%)
<b>Lower Body</b>					
Leather	0	0	0	0	0
M/cycle specific	4 (57%)	1 (20%)	0	3 (14%)	0
Jeans	3 (43%)	2 (40%)	12 (86%)	14 (66%)	1 (9%)
Other	0	2 (40%)	2 (14%)	4 (20%)	10 (91%)
<b>Footwear</b>					
Boots	6 (85%)	3 (60%)	2 (14%)	7 (33%)	0
Joggers	0	1 (20%)	6 (43%)	8 (38%)	2 (18%)
Other	1 (15%)	1 (20%)	5 (36%)	6 (29%)	7 (64%)
Thongs/sandals	0	0	1 (7%)	0	2 (18%)

Similarly, the observational results confirm existing concerns about lower apparel wearing among commuter riders, particularly scooter riders, and pillion passengers [4, 5, 6, 7].

In terms of helmet wearing, it is encouraging that the large majority of the riders observed in this research were wearing full face helmets. The exception to this finding was at the Brisbane commuter sites, where only 59% of the riders were observed wearing full face helmets. This was mainly due to the relatively large proportion of scooters observed at these sites, 77% of whom were wearing open face helmets. Similarly, the proportion of riders wearing gloves was considerably lower at the Brisbane commuter sites. These results highlight that commuter riders, particularly those riding scooters, need to be encouraged to wear full face helmets and gloves.

Overall, the results relating to other upper body apparel wearing were very encouraging. The majority of riders observed at all sites were wearing either a leather or motorcycle specific protective jacket. Once again, however, the riders observed at the Brisbane commuter sites were the least likely to be wearing such apparel on their upper body. In contrast, the results relating to lower body apparel wearing are less encouraging. With the exception of the riders observed at the Canberra

recreational sites, the majority of riders were wearing either jeans or other clothes on the lower body. Moreover, among those observed at the Brisbane commuter sites a majority were wearing office wear such as skirts or trousers, which offer little or no protection in the event of a crash (even at low speeds).

It is interesting to note that the results obtained for the recreational riders in Brisbane were largely consistent across the two time periods in question (October 2005 and February 2006). It was purposefully decided to not pool the results from these two time periods due to the possible influence of seasonal or other factors on apparel wearing. However, the results suggest that the wearing of protective apparel among this group may be relatively stable across seasons, at least in the Brisbane region.

Some interesting differences were also apparent in the apparel wearing of the Canberra and Brisbane riders. Overall, both the Canberra recreational and commuter riders were more likely to be wearing protective apparel than their Brisbane counterparts. In addition, the wearing of motorcycle specific apparel on the upper and lower body was much more common at the Canberra sites than any of the Brisbane sites, while the wearing of leather jackets was more common among the riders observed at the Brisbane recreational sites. It is unclear whether these

differences between the Canberra and Brisbane observations are primarily due to climatic factors, social demographic factors, or other socio-cultural influences operating at a local level. For example, the Brisbane observations were conducted at warmer times of the year than those in Canberra, with the daily maximum temperatures in Brisbane approaching 30°C compared to around 18°C in Canberra. However, other factors are also likely to influence protective apparel wearing including purpose of journey, as reflected in the lower apparel wearing among commuters (particularly in Brisbane). In this regard, it is possible that commuting is perceived as safer by some riders due to the generally lower travel speeds encountered compared to recreational riding, while some commuters may not have access to facilities to change clothes at work. These are issues that require further research to identify potential factors that work to either encourage or discourage the wearing of protective apparel in different regions. Furthermore it is suggested that future research could investigate potential cultural factors of influence within various sectors of the motorcycle community which may impact on the wearing of appropriate apparel.

The findings highlight a number of important issues for future education and publicity campaigns addressing the safety benefits of protective apparel. In particular, the data confirm the need for further initiatives to encourage:

- greater levels of protective apparel wearing among commuter and, particularly, scooter riders, many of whom were observed wearing clothes more appropriate for the office;
- greater use of protective apparel on the lower body; and
- greater use of protective apparel by pillion, particularly among commuters.

As noted earlier, it was beyond the scope of this observational research to assess the quality of the apparel being worn by riders and pillion. Nonetheless, this is an important issue that requires ongoing attention. As explained earlier, in Australia there are currently no legislated minimal standards that motorcycle apparel must meet in order to be manufactured or sold as protective apparel [15]. Therefore, although motorcycle riders may purchase and wear motorcycle specific apparel believing that it will offer a certain degree of protection, the apparel being worn may not actually offer much protection at all in the event of a crash. Future research and improvement in motorcycle specific and other related apparel should strongly consider investigating and developing a system of classification to indicate to potential purchasers the level of protection such apparel offers [15]. Similarly, educational and publicity campaigns in this area should encourage riders to wear the apparel that offers a high level of protection in the event of a crash.

The research summarised in this paper features a number of limitations that should be borne in mind when interpreting the findings. Firstly, to the knowledge of the researchers these are among the first apparel observation studies to be undertaken in Australia. As such, it remains unclear whether the methodology

utilised in the study produces a representative sample of riders, both in general terms as well as across commuter and recreational sites. Secondly, the studies were undertaken at particular times of the year and, thus, subject to the influence of various seasonal factors, particularly climatic conditions. Accordingly, it remains unclear whether the results obtained are indicative of wearing rates at other times of the year. Thirdly, while the overall number of motorcycles observed in the studies was satisfactory, some of the subgroups of riders observed were relatively small, particularly the pillion. Finally, it was not possible to assess the quality of the protective apparel being worn by riders. Accordingly, the results should be treated as indicative of the apparel generally worn by motorcycle riders in the Canberra and Brisbane regions, rather than being representative.

## Conclusion

The research reported in this paper has attempted to provide more objective data regarding the extent of motorcycle protective apparel wearing in Australia in general, as well as differences across regions and motorcycle rider types. Notwithstanding the limitations of the research, it has both confirmed and extended upon the results of previous self-report studies. While the wearing of protective apparel on the upper body of motorcycle riders appears relatively common, further efforts are required to encourage the wearing of appropriate apparel on the lower body. In addition, further efforts are required to encourage apparel wearing in general among commuter riders, particularly those riding scooters. Finally, the research has highlighted the need for further research into the factors that serve to either facilitate or inhibit the wearing of motorcycle rider protective apparel, in order to develop effective educational strategies.

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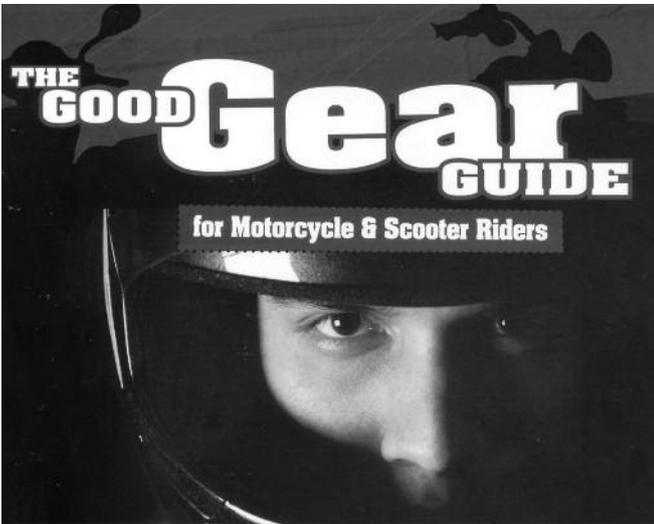
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# Road Safety Literature

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## Book Review



**The Good Gear Guide** published by the Federal Department of Infrastructure, Transport, Regional Development and Local Government, October 2009.

This book resulted from an initiative by the Australian Motorcycle Council, which is the national peak body for riders. They approached the Federal Government for a grant to fund the book's development, a great example of motorcyclists working together with government to achieve safety improvements. Representatives of road authorities and rider groups from each State and Territory were consulted throughout the development of the book.

### "A Review of the Good Gear Guide" by Jeremy Bowdler, Editor, Two Wheels

With the publication of the Good Gear Guide, at last Australian motorcyclists have no-nonsense, practical advice on how to select appropriate riding gear. For far too long, we, as riders, have been somewhat confused by choice in the market, with few guidelines other than recommendations from salespeople or other riders. Now we have some sensible advice.

One of the most appealing aspects of the Good Gear Guide is that it is written from the perspective of the rider's needs (and wants). It's not prescriptive, but it does explain the benefits of protective gear and why a rider should wear it. There is no point in having fantastic motorcycle clothing in the shops if it's not on riders' backs.

Another important point is the stress placed on the benefits of protective clothing away from a worst-case crash scenario. Riders are much more likely to wear proper clothing if it keeps them warm, or cool, or dry or free from insect stings, etc. They will see the value in that, rather than in paying a lot of money for crash protection they "know" they'll never use. And, once the riders have learned what proper gear can do, the Good Gear Guide helps them with the selection process, explaining how to judge quality and protection for themselves. All in all, it's a terrific new resource for riders, both experienced and new. I only wish it had been around 30 years ago, when I started riding.