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Differences between London motorcyclists and those from the rest of the UK

Abstract

From 1996 to 2001 motorcycle casualties in London increased yearly, in line with increased ownership and usage. In recent years motorcycle casualty numbers have decreased, however, they still represent 22% of all those killed or seriously injured on London's roads.

In this study, data from a national questionnaire, collected in 2001 as part of the 'Older motorcyclist project' for the Department for Transport (DfT), has been re-analysed. This study is based on whether motorcyclists who responded to the original questionnaire lived in or outside London. The aim was to identify any differences between these two groups.

The analysis was carried out by the Institute for Transport Studies at the University of Leeds.

Broadly, two clusters of London motorcyclists were identified: those who use their low-powered machines for commuting trips or work purposes, and those who use

their larger machines for a wider variety of purposes.

The data shows that London motorcyclists are more likely to be younger and single, with full-time jobs, earning a higher income than their non-London counterparts. They are more likely to own motorcycles under 250cc, much more likely to own scooters and to use their motorcycles to commute or for work. Londoners use motorcycles over other modes mainly to avoid congestion and for financial reasons.

Few differences were found between Londoners' and non-Londoners' participation in voluntary training courses, or in self-perception of riding skill. Collision involvement differed for London motorcyclists. Once involved in a collision, they appeared more likely to have been involved in subsequent collisions. These collisions most often occurred while riders were commuting or at work, and in winter months.



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Objectives

- To understand more about the collisions that London based motorcycle riders are involved in;
- To better understand the characteristics of the motorcycle rider population in London with a view to meeting their road safety needs more effectively;
- To establish differences between London and non-London motorcycle riders.

Background

The London Road Safety Unit (LRSU) has the primary responsibility for making sure London achieves the Mayor's road casualty reduction targets. Progress towards these targets has been made for most casualty categories, with the exception of progress towards the 40% reduction in motorcycle casualties killed or seriously injured by 2010.

In 2003, there were 6,469 motorcycle casualties on London's roads, 7% more than the 1994-8 average. Furthermore, at 1,152, the number of motorcyclists killed or seriously injured in 2003 was 23% higher than the 1994-8 average.

To address the causes of collisions in this target group, a better understanding of the factors affecting motorcyclists on London's roads is needed, along with more information about the riders themselves and how they use their motorcycles.

Method

In 2001, the DfT commissioned the Institute for Transport Studies at the University of Leeds to investigate the UK motorcycling fleet in terms of who riders were, what motorcycles they rode and where. The Driver and Vehicle Licensing Agency vehicle database provided a sample of 5,300 registered keepers of motorcycles, with a representative stratification of engine sizes. These drivers were sent a 30-page survey. Responses were received from 1,009 (or 19%) of these riders. Data from the original study has been re-analysed in this study by splitting the returned surveys, based on respondents postcodes, into two groups: 112 who lived in London and 867 who lived outside London.

The survey data was collected during 2001 when motorcycle casualties peaked in London.

Results

Rider characteristics

London riders had a lower average age of 35-40, compared to 40-45 for non-Londoners. Despite this there were also proportionally more London riders in the 55-60 age group.

London riders were more likely to be single, in full-time employment and less likely to be in full-time education or retired than non-London riders.

Londoners were also more likely to be in more senior jobs, despite the fact that they were generally younger. Twenty-six percent of riders from outside London and 50% of motorcyclists from within London earned over £30,000.

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These findings reflect socio-demographic characteristics of London's population rather than any specific differences between motorcyclists in each area.

Londoners buy motorcycles to avoid congestion and because they are relatively cheap to run and insure. Non-Londoners were more likely to use their motorcycles for freedom or leisure reasons.

Using definitions from the original DfT study, London riders were more likely to be classified as 'new riders', that is, motorcyclists who had taken up riding after 1996 - with 34% in this group compared with 21% of the non-London riders.

In London there was a lower proportion of 'long-term riders', that is, motorcyclists who began riding before 1996 without having a break of more than ten years.

There was also a lower proportion of 'returning riders' in London, that is, those who returned to riding from 1990 onwards, having taken a break of more than ten years (Table 1).

London riders expressed marginally more confidence than non-London riders in their ability to ride in the dark and marginally less confidence in wet conditions and on unfamiliar motorcycles.

London riders were no more likely to have been on voluntary training courses.

Table 1: Riders split by experience

Rider experience	London		Non-London	
	Sample size	%	Sample size	%
New rider	38	34	175	21
Long-term rider	58	52	477	56
Returning rider	16	14	195	23
Total	112	100	847	100

Vehicle characteristics

Relative to non-London riders, those from London used more small and fewer large engine capacity motorcycles. Londoners were more likely to purchase their new bike through a dealership, with 93% doing so. Relatively fewer Londoners than non-Londoners purchased second hand bikes through private sale.

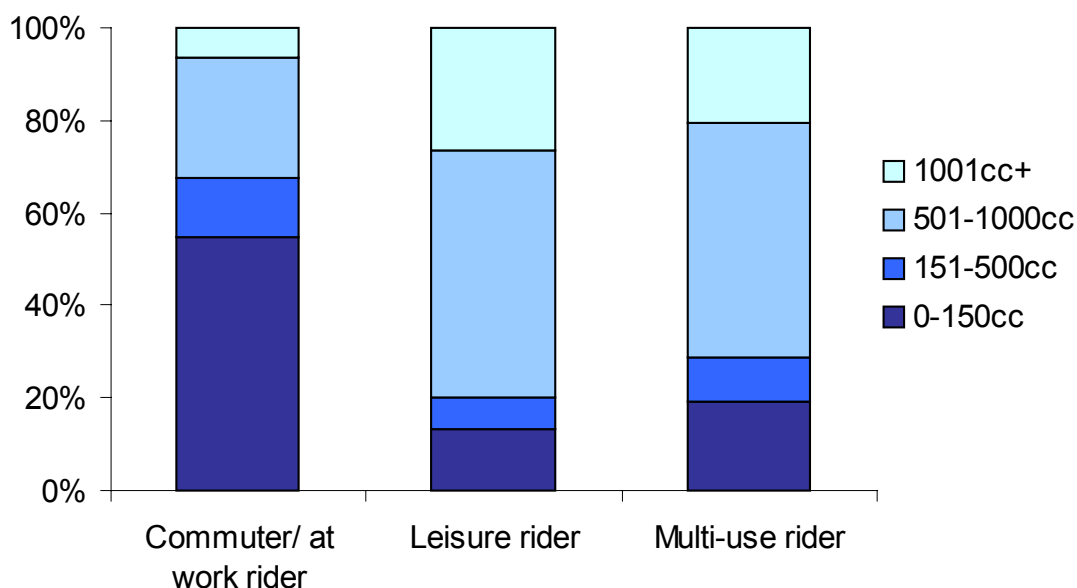
Riders were categorised into three different groups based on the type of journey they mostly used their motorcycle for:

- commuting or for work
- leisure
- mixed purposes.

The bikes used by the London riders in these three categories differ. More than half of the commuting or at work users have bikes with an engine capacity of less than 150cc compared with only 12% of those who ride mainly for leisure (Figure 1). The type of motorcycle favoured by each group is also different. More than 25% of commuter or at work riders have mopeds, whereas no leisure riders do.

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Figure 1: London riders by journey type and motorcycle engine capacity



Journey characteristics

London riders were more likely to use their motorcycles for commuting or whilst at work than non-Londoners and much less likely to be leisure riders (Table 2).

Throughout the year, more of the trips made by London riders were for commuting or work. Perhaps because of this, there is a larger

dip in the number of trips of this kind made by Londoners in August.

Londoners made fewer leisure trips per person than their non-London counterparts throughout the year (Figure 2).

For leisure riding, Londoners gave more emphasis to the importance of speed, low traffic levels, fine and dry weather and long straight roads than did non-Londoners.

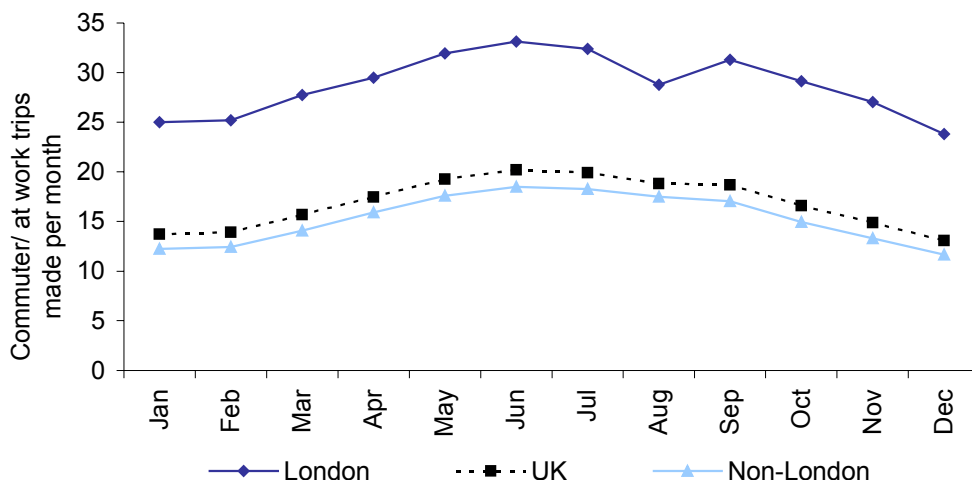
Table 2: Riders split by journey type

Rider experience	London		Non-London	
	Sample size	%	Sample size	%
Commuting or at work	31	28	89	11
Leisure	15	14	270	32
Mixed purpose	63	58	469	56
Total	109	100	828	100

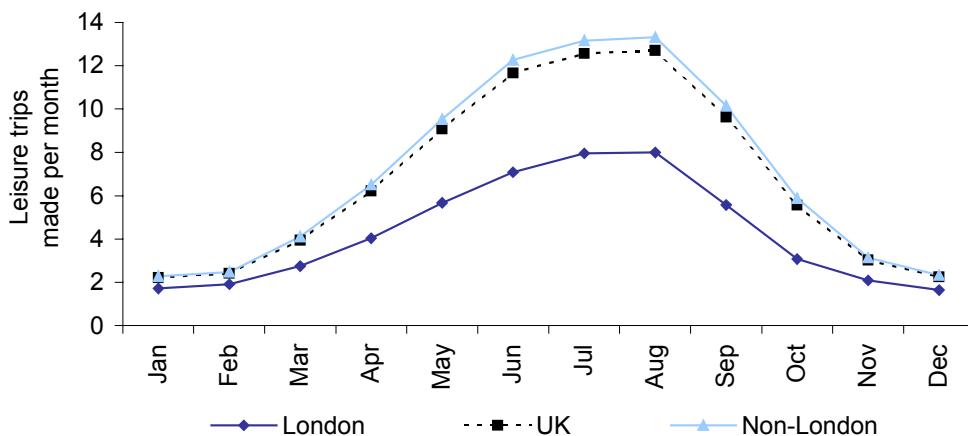
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Figure 2: Seasonality of trips by type

Commuter/ at work trips



Leisure trips



Collisions

Thirty-two percent of motorcyclists in London had been involved in at least one collision in the three years prior to the survey, compared to 23% of non-Londoners. Eighteen percent of Londoners had been involved in two or more collisions in the last three years compared with 6% of those outside London. The collision involvement data in Table

3 does not account for exposure to risk.

Londoners were more likely to have been involved in damage-only collisions, and so probably had not reported these to the police (Table 4).

The most common features that differed between London and non-London motorcycle collisions are shown in Table 5. Regardless of

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severity, Londoners' collisions were more likely to occur in late autumn or winter months than non-Londoners'. Non-Londoners' collisions were more likely to occur during summer months. This reflects the respective groups'

commuting and leisure trip purposes.

In collisions of all severities, all riders were more likely to think that another road user was to blame.

Table 3: Collision involvement in the previous three years

Number of collisions	London	Non-London
0	68%	77%
1	15%	17%
2	12%	3%
3	4%	1%
4	1%	1%
5 or more	1%	1%

Table 4: Mean number of collisions by severity

Collision severity	London	Non-London
Serious	0.07	0.06
Slight	0.25	0.27
Damage only	0.25	0.19

Table 5: Common differences between riders and the collisions in which they were involved

Collision severity	Driver or collision feature	London	Non-London
Serious	Collision month	Oct / Dec	May
	Trip purpose	Commuting	Leisure
	Average engine size	876cc	641cc
	Months of experience	26	22
Slight	Collision month	Jan	Jun
	Average engine size	721cc	502c
	Months of experience	53	22
Damage only	Collision month	Oct	Jun / Nov
	Average engine size	687cc	590cc
	Months of experience	21	21

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Conclusions

In general, London motorcyclists show the following characteristics that differentiate them from non-London motorcyclists:

- London motorcyclists are slightly younger and more likely to be single. Despite their age, they have a higher employment status and an associated higher income;
- They are three times as likely to be riders who use their machines for commuting or whilst at work and half as likely to be mainly leisure riders. This means they use their machines for twice as many commuting or at work trips, and for half as many leisure trips;
- They are less likely to be riders who are returning to motorcycling after a break and more likely to own machines with an engine capacity of less than 250cc. London motorcyclists generally choose to ride either small or large machines, with few riding mid-sized bikes;
- They report choosing to ride a motorcycle mainly to avoid congestion and for financial reasons;
- Once involved in a collision, London motorcyclists seem slightly more likely to be involved in subsequent collisions;
- Londoners' collisions most commonly occur while commuting or at work, on larger machines and in winter months.

Given London riders' use of motorcycles for commuting or while at work, differences in the types of

motorcycle they own and how they use them, the frequency and nature of the collisions in which they are involved is not surprising. However, the small sample size for London riders means that the differences identified in this study should be regarded as indicative only.

Next steps

The LRSU has commissioned a larger study of London motorcycle riders to establish, beyond the indicative level of this study, the characteristics of the bikes London riders own, when and where they are used, what types of collisions they are involved in and the riders' exposure to risk.

The findings of these studies will help TfL to better understand motorcycle collision and casualty statistics as well as help target education, training and publicity to the most appropriate groups.

Acknowledgements

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Selected references

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