

London Road Safety Unit

Research Summary No 17

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Mobile Phone and Seat Belt Usage Rates in London 2009

Overview

This report summarises the findings of the fourth annual London mobile phone and seat belt survey, outlined in the full report '*Mobile Phone and Seat Belt Usage Rates in London 2009*' (Narine, Walter & Charman, 2009). The survey monitors the wearing of seat belts by vehicle drivers and passengers and the mobile phone use by drivers in London. The survey was carried out using observational methods at 33 sites across Greater London and compared with the results of the previous London surveys and to other urban areas in the annual Department for Transport (DfT) survey.

The key findings were that, since 2008:

- Seat belt wearing remained unchanged for car drivers (89%), decreased for front seat car passengers (86% in 2008, 81% in 2009) and increased for rear seat car passengers (63% in 2008, 67% in 2009). Seat belt wearing by car occupants in London remains lower than the rest of urban England.
- Hand-held mobile phone use by London drivers increased, while the use of hands-free mobile phones increased by a larger amount, especially among taxi drivers. The use of mobile phones while driving is higher than the rest of urban England.

Estimates indicate that considerable casualty savings could be achieved if more vehicle occupants wore seat belts and fewer drivers used mobile phones while driving.

Background

To reduce the number and severity of injuries in a collision, the use of seat belts by drivers and front seat passengers was made compulsory in cars and vans in the UK in January 1983 and for rear seat passengers in 1991, where seat belts are available. In September 2006 a new regulation was introduced requiring drivers to ensure that any child travelling in their vehicle uses an appropriate type of restraint.

The use of hand-held mobile phones while driving was banned in the UK in 2003. In February 2007 the penalty for using a hand-held phone while driving was increased to three penalty points and the fine was doubled to £60.

A national survey of seat belt wearing was undertaken in 1982 for the DfT. The survey has been carried out annually since then and has evolved to accommodate changes in seat belt wearing requirements and drivers' use of mobile phones. In 2006, TRL was commissioned by Transport for London (TfL) to apply the same methods as the DfT survey to investigate the use of seat belts and mobile phones at a range of sites throughout London. Both seat belt wearing and mobile phone use while driving are likely to have implications for road safety in London.



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Objectives

The objectives of the survey were:

- To provide a measure of seat belt use by vehicle occupants in London, and to compare seat belt use the previous three surveys in London and to urban areas in England.
- To provide a measure of mobile phone use by drivers in London, and to compare mobile phone use with the previous three annual surveys in London and to urban areas in England.
- To estimate potential casualty savings from increased seat belt wearing and reduced mobile phone use in London.

Method

The London survey of drivers' mobile phone use and seat belt use by occupants of cars, taxis and vans was carried out in March 2009. The survey was designed to provide a consistent measure of seat belt and mobile phone use by drivers over time by surveying the same sites in London each year. Thus, the survey method is the same as that for the previous London surveys and to an established England-wide survey carried out for DfT. This consistency enabled comparisons to be made between London and other urban areas in England.

The survey was carried out using observational methods at 33 sites across Greater London, one in each borough and one in the City of London. Twelve sites were on the TfL Road Network (TLRN), 11 were on Borough Principal Roads (BPRN) and 10 on Minor roads. The sites were chosen to give a balanced view of seat belt and drivers' mobile phone use in London and to monitor changes over time. They were not designed to be representative of, or to provide comparisons between, individual boroughs.

In the previous three surveys each site was visited for eight sessions (a whole day). In 2009, each site was surveyed for half a day (four sessions in either the morning or the afternoon). For more details on the survey methods, see Walter and Charman (2009).

Results

Detailed observations were made of occupants in 11,851 cars and taxis, and 2,410 vans. The data were weighted to ensure that results were representative of London. The results were compared to the previous surveys carried out in London in 2006 (Broughton & Buckle, 2006), 2007 (Walter et al., 2007) and 2008 (Knowles et al., 2008.) to establish a good baseline and to monitor changes in seat belt wearing and mobile phone use in London across time. Furthermore, the results were compared to a similar survey of built-up roads in urban areas in England undertaken for the DfT (October 2008; TRL, 2009). The results of the DfT survey in urban areas are included for comparison purposes and are referred to as the national average.

1. Seat Belt Wearing in London

Seat belt wearing by vehicle occupants in London remains below the national average for urban areas in England.

Seat belt wearing by car drivers in London in 2009 was 89%. This wearing rate remains unchanged from 2008 and is below the national average for car drivers in urban areas in

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England of 96% (TRL, 2009; see Table 1). The wearing rate for front seat passengers in cars decreased by 5% in 2009, widening the gap between London and the urban national average for front seat passengers. Seat belt wearing for rear seat passengers in cars increased by 4% in 2009, moving closer to the 88% national average for rear seat passengers (see Table 1).

Seat belt wearing by taxi drivers increased from 14% to 31% in 2009 and passenger wearing rates increased slightly from 22% in 2008 to 23% in 2009. Both drivers and passengers of vans had higher wearing rate in 2009 than in 2008, increasing from 61% to 68% and 48% to 53%, respectively (see Table 1).

2. Mobile Phone Use in London

The use of mobile phones while driving has increased over the last four years and the majority of drivers now use them hands-free.

The use of mobile phones (either hand-held or hands-free) by car and van drivers in London increased in 2009, in particular the use of hands-free mobile phones. The most substantial change occurred for taxi drivers, where mobile phone use increased from 8.1% in 2008 to 15.8% in 2009. This increase was mainly due to a rise in the use of hands-free mobile phone while driving (see Table 2).

The lowest level of hand-held mobile phone use since the London survey began was in 2007, immediately after an increase in the penalties for using a hand-held mobile phone while driving. Since then, the proportion of drivers using hand-held mobile phones has increased steadily.

3. Estimated Casualty Savings

Considerable casualty savings could be achieved if more vehicle occupants wore seat belts and fewer drivers used mobile phones while driving in London.

Wearing a seat belt decreases a vehicle occupant's risk of a severe injury when a collision occurs (e.g., Broughton & Walter, 2007) and using a mobile phone while driving increases the risk of being involved in a collision (e.g., Redelmeier & Tibshirani, 1997).

It is possible to estimate the number of killed and seriously injured casualties (KSI) and slight casualties who would have likely avoided injury or where their injury could have been less severe had they been wearing a seat belt, and the number of KSI and slight casualties that could have been avoided if the driver had not been using a mobile phone.

The overall restraint wearing rate for car occupants in London in 2009 was 85.4% (combining drivers, front and rear seat passengers proportionally). The national average for urban areas in England was 95.2% (in October 2008). It was estimated that, if the proportion of London car occupants wearing restraints was equal to the national average, there could have been a reduction of 98 KSI casualties and 286 slightly injured casualties in London.

The overall use of hand-held mobile phones by drivers in London was 2.7% in 2009 (taking into account car, van and taxi driver use proportionally). The national average for urban areas in England was 1.6%. It was estimated that, if the proportion of London drivers using hand-held mobile phones was equal to the national average, there could have been a reduction of 112 KSI casualties and 782 slight casualties in London in 2008.

Table 1. Proportion of occupants observed wearing seat belts in London, by vehicle type and seat position (2006-2009).

		Car					Taxi				Van				
		2006	2007	2008	2009	DfT ¹	2006	2007	2008	2009	2006	2007	2008	2009	DfT ¹
Passenger ²	Driver	82%	87%	89%	89%	96%	14%	12%	14%	31%	51%	56%	61%	68%	76%
	Front	80%	84%	86%	81%	96%	17%	19%	21%	22%	40%	49%	48%	53%	61%
	Rear	49%	65%	63%	67%	88%									
Number of vehicles		27,638	30,126	29,052	10,367	12,325	1,497	2,027	1,798	1,484	4,709	6,006	5,314	2,410	2,184

¹ The DfT survey was undertaken in October 2008 (TRL, 2009) and provides a comparison to other urban areas in England.

² Too few rear seat passengers were observed in vans and too few front seat passengers were observed in taxis. Therefore, they have been combined to give a proportion for all passengers.

Table 2. Proportion of drivers observed using mobile phones while driving in London, by vehicle type and mobile phone type (2006-2009).

	Hand-held mobile phone					Hands-free mobile phone					All mobile phones				
	2006	2007	2008	2009	DfT ¹	2006	2007	2008	2009	DfT ¹	2006	2007	2008	2009	DfT ¹
Car	2.6%	1.4%	1.9%	2.8%	1.4%	1.2%	2.3%	3.1%	4.8%	0.8%	3.8%	3.7%	5.0%	7.7%	2.2%
Taxi	1.1%	0.7%	0.6%	1.6%	--	0.8%	3.1%	7.5%	14.3%	--	1.9%	3.8%	8.1%	15.8%	--
Van	3.8%	1.8%	2.7%	4.5%	2.2%	1.0%	4.9%	4.9%	9.9%	0.7%	4.8%	6.7%	7.7%	14.4%	2.9%

¹ The DfT survey did not include observations of mobile phone use in taxis. The DfT survey was undertaken in October 2008.

Conclusion

Seat belt wearing rates in London were found to be below the national average for urban areas in England, with 89% of car drivers in London observed to be wearing them compared with the national average of 96%. The 2009 survey found that a higher proportion of drivers wore seat belts in taxis and vans but the wearing rate for car drivers remained unchanged from 2008. The proportion of car front seat passengers wearing seat belts fell by 5% from 2008 and the proportion of rear seat passengers wearing increased by 4%, slowly approaching the national average for urban areas in England.

It is unlawful to use a hand-held mobile phone while driving but 2.8% of car drivers, 1.6% of taxi drivers and 4.5% of van drivers were observed using them in London in 2009. These proportions are higher than the national average for urban areas in England.

Since 2006, the use of hands-free mobile phones has been increasing and a greater proportion of drivers the use of hands-free rather than hand-held phones. This finding could suggest that drivers perceived it safer to use a hands-free kit while driving, rather than a hand-held phone. However, there is evidence to suggest that hands-free mobile phones carry the same collision risk as hand-held mobile phones (Kircher et al., 2004).

Estimates indicate that considerable casualty savings could be achieved if more vehicle occupants wore seat belts and fewer drivers used mobile phones while driving.

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