

London Road Safety Unit

Research Summary No 14

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Mobile Phone and Seat Belt Usage Rates in London 2008

Overview

This report summarises the findings outlined in the full report '*Mobile Phone and Seat Belt Usage Rates in London 2008*' (Knowles, Walter, & Buckle, 2008). The third London mobile phone and seat belt survey was carried out in March 2008. The survey monitors the wearing of seat belts by drivers and passengers and the mobile phone use by drivers in London. The method was the same as that for the previous two London surveys and to an established England-wide survey carried out for Department for Transport (DfT). This enabled comparisons to be made between London with other urban areas in England.

The results showed that a higher proportion of car drivers and front seat passengers were observed wearing seatbelts in 2008 compared with the 2006 (Broughton & Buckle, 2006) and 2007 surveys (Walter, Broughton & Buckle, 2007). The overall proportion of vehicle occupants observed wearing seat belts was lower than that observed in the urban sites of the DfT survey (Broughton, 2003; TRL, 2008).

The results for mobile phone use showed that the proportion of drivers using mobile phones (either hand-held or hands-free) increased in 2008. However, a greater proportion of drivers were using hands-free phones while driving, compared to a higher proportion using hand-held mobile phones in the previous surveys.

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 casualties in a collision, the use of seat belts by car and van drivers and front seat passengers was made compulsory in the UK in January 1983 and for rear seat passengers in 1991 where belts were available. The use of hand-held mobile phones while driving was banned in the UK in 2003.

Two important legislative changes occurred in 2006 and 2007. 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. In February 2007 the penalties for using a hand-held phone increased to three penalty points and the fine was doubled to £60.

To measure seat belt wearing and mobile phone use and to monitor changes, the DfT has undertaken surveys for a number of years and Transport for London (TfL) has carried out a survey in London for the past three consecutive years. As previously, the London survey was commissioned from Transport Research Laboratory and the data was collected by observers from Count on Us.



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Objectives

The objectives of the survey were to:

- To provide a measure of seat belt use by vehicle occupants in London, and to compare seat belt use the previous two 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 two 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.

Methods

The 2008 survey replicated the methods from the 2006 and 2007 surveys.

The survey of the use of seat belts and mobile phones by car and van occupants was carried out applying the same observational methods used in the previous two surveys and in the long running annual survey carried out for the DfT. The survey was carried out 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, 11 were on Borough Principal Roads and 10 on Minor roads. The sites were not designed to be representative of individual boroughs, but to give a balanced view of seat belt and drivers' mobile phone use in London.

Each site was surveyed on a weekday during March. Ten sites were also surveyed at the weekend. The survey was carried out during hours of daylight to ensure reliable observations could be made.

Data was collected by trained observers using the same procedure at all sites. Stationary vehicles were observed at signalised junctions. The observers recorded vehicle data (e.g., vehicle type, vehicle prefix), driver data (e.g., sex, age, restraint use, mobile phone use) and passenger data (e.g., seating position, sex, age, restraint use).

Since 2007, 'private hire vehicles' have been included in the taxi category. Taxi drivers (hackney carriage or private hire vehicle) are not required by law to wear a seat belt while carrying a passenger. In total, detailed observations were made of 30,850 cars and taxis and 5,314 vans; a decrease in the number of observations by 5% and 12%, respectively, compared with 2007.

To ensure surveys are comparable across time and place, survey methods ideally remain unchanged. Every effort was made to keep the survey sites and data collection methods consistent with the previous two years.

Results

Detailed observations were made of the occupants in 30,850 cars and taxis, and 5,314 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) and 2007 (Walter, Broughton, & Buckle, 2007) to establish a good baseline and to monitor changes in seat belt wearing and mobile phone use across time. Furthermore, the results were compared to a similar survey of urban areas in England, undertaken for the DfT (Broughton, 2003; TRL, 2008). The results of the latest DfT survey for Built-Up roads only (October 2007) are included for comparison purposes and are referred to as the national average.

1. Seat Belt Wearing in London

Seat belt wearing rates in London, although increasing, remain lower than the national average.

A higher proportion of car drivers in London were observed wearing seat belts in 2008, compared with the previous two years. As shown in Table 1, 89% of car drivers were observed wearing seat belts in 2008, an increase from 82% in 2006 and 87% in 2007. This increase in seat belt use brings the wearing rate in London closer to the national average of 92%. Seat belt wearing for van drivers and passengers was lower than the wearing rates for car occupants.

The results showed a less positive picture for passenger seat belt compliance. In 2008, there was a further increase in seat belt wearing for front seat passengers in cars (see Table 1). However, the wearing rate for rear seat passengers in cars decreased slightly in 2008 after a substantial improvement in 2007 (see Table 1). Wearing rates for car passengers in London are still lower than the national average.

The proportion of taxi drivers wearing seat belts has fluctuated between 12% and 14% over the last three years and 21% of passengers in taxis were observed wearing a seat belt in 2008. Drivers of hackney carriages are not legally required to wear a seat belt whilst on duty and private taxi drivers do not have to wear a seat belt when they are carrying a fare paying passenger, but taxi drivers face the same risks as car drivers when involved in a collision.

Table 1. Proportion of vehicle occupants observed wearing seat belts in London, 2006-2008.

	Cars				Taxis			Vans			
	2006	2007	2008	DfT ¹	2006	2007	2008	2006	2007	2008	DfT
Drivers	82%	87%	89%	92%	14%	12%	14%	51%	56%	61%	69%
Passengers²	Front	80%	84%	86%	17%	19%	21%	40%	49%	48%	55%
	Rear	49%	65%	63%				82%			
Number of vehicles	27,638	30,126	29,052	15,644	1,497	2,027	1,798	4,709	6,006	5,314	2,419

¹ The DfT survey was undertaken in October 2007 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.

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2. Mobile Phone Use in London

Although the use of mobile phones while driving has increased over the last three years, the majority of drivers now use them hands-free.

Table 2 shows the proportion of drivers observed using mobile phones in the three London surveys. Overall, the use of mobile phones increased in 2008 for car, van and taxi drivers, particularly the use of hands-free mobile phones. In 2006 the majority of the mobile phones being used were hand-held, while in 2008 the reverse is true with a greater proportion of drivers using hands-free phones.

The penalties for using a hand-held mobile phone while driving were increased in February 2007. The proportion of car and van drivers using a hand-held mobile phone dipped substantially in 2007 after the change in the penalties but has risen in 2008, although not to the levels of 2006 (see Table 2).

In 2008, the use of a mobile phone while driving in London (5.0%) was more than double the DfT national rate of 2.1% (TRL 2007). In line with DfT results, the use of hand-held mobile phones was higher amongst van drivers in London than car drivers.

Table 2. Proportion of drivers observed using mobile phones while driving in London, 2006-2008.

	Hand-held				Hands-free				All mobile phones			
	2006	2007	2008	DfT ¹	2006	2007	2008	DfT ¹	2006	2007	2008	DfT ¹
Car	2.6%	1.4%	1.9%	1.5%	1.2%	2.3%	3.1%	0.6%	3.8%	3.7%	5.0%	2.1%
Taxi	1.1%	0.7%	0.6%	--	0.8%	3.1%	7.5%	--	1.9%	3.8%	8.1%	--
Van	3.8%	1.8%	2.7%	2.4%	1.0%	4.9%	4.9%	0.5%	4.8%	6.7%	7.7%	2.9%

¹ The DfT survey was undertaken in August 2007 and provides a comparison to other urban areas in England.

While more drivers are complying with the law its focus on hand-held mobiles may have led them to believe that hands-free mobile phones are safer to use while driving than hand-held. However, there is research to suggest that there may be no difference (e.g., Kircher et al., 2004).

Conclusion

The London seat belt and mobile phone survey was carried out in March 2008 at 33 sites in London, replicating the methods and analysis of the 2006 and 2007 survey. Results from this survey have been compared with the previous two London surveys and results on Built-Up roads from the DfT survey carried out in October 2007.

The results of the survey show that overall seat belt wearing and mobile phone use in London were higher in 2008 than in 2006 and 2007. The survey found that the driver and front seat passenger wearing rates have risen, albeit not by as much as in 2007 and that the rear seat passenger rates fell slightly. In 2008, 89% of car drivers in London were wearing a seat belt, an increase from 87% in 2007 which brought the wearing rate in London closer to the national average of 92%. The proportion of front seat car passengers who were wearing seat belts increased from 84% to 86% between 2007 and

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2008 while the proportion of restrained rear seat car passengers fell slightly to 63% - less than the national average of 82%.

If the level of restraint use in London was to increase and the level of mobile phone was to fall, the number of casualties would be expected to fall. If the seat belt wearing rate in London in 2007 had been 100%, the resulting casualty saving has been estimated at around 160 KSI casualties and 590 casualties in total. Similarly, if no drivers had used a mobile phone in 2007, it is estimated that there would have been approximately 560 fewer KSI casualties.

References

- Broughton, J. (2003). *Seat belt wearing rates in cars in England 1998-2002*. TRL report 580. Wokingham: TRL Ltd.
- Broughton, J and Buckle, G (2006). *Mobile phone and seat belt usage rates in London, (March 2006)*. TRL Project Report PPR232. Wokingham: TRL Ltd.
- Kircher, A., Vogel, K., Tornos, J., Bolling, A., Nilsson, L., Patten, C., Malmstrom, T and Ceci, C (2004). *Mobile telephone simulator study*. Sweden: Swedish National Road and Transport Research Institute.
- Knowles, J., Walter, L., & Buckle, G. (2008). *Mobile phone and seat belt usage rates in London 2008*. TRL Project Report PPR 364. Wokingham: TRL Ltd.
- TRL (2007). *Mobile phone use by drivers, 2005-2007*. TRL leaflet LF2103. Wokingham: TRL Ltd.
- TRL (2008). *Restraint use by car occupants, 2006-2007*. TRL leaflet LF2102 (revised). Wokingham: TRL Ltd.
- Walter, L, Broughton, J, and Buckle, G. (2007). *Mobile phone and seat belt usage rates in London 2007*. TRL Project Report PPR 245. Wokingham: TRL Ltd.

Summary prepared by:

Kirsty Novis (Road Safety Researcher)

Reviewed by:

John Devenport (Head of LAAU)

Cleared by:

Chris Lines (Head of LRSU)