



### Mobile phone and seat belt usage rates in London (2006)

London Road Safety Unit  
Research Summary No 9

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#### Overview

This report summarises the findings from an initial survey carried out in London in 2006 to establish the levels of use of seat belts and mobile phones, as both have implications for road safety.

The method used matched that for an established survey carried out for Department for Transport (DfT) to enable comparisons of findings for London with other urban areas.

The key findings were that in London, compared with other urban areas from the DfT survey:

- the seat belt wearing rates for driver, front seat passenger and rear seat passenger were well below that found elsewhere;
- the use of hand-held mobile phones by drivers was appreciably higher than elsewhere.

#### Background

The protection offered to car occupants by seat belts and other restraint systems generally became recognised in the 1970s, and front seat belt wearing made compulsory in cars and vans in 1983. A national survey of seat belt wearing was begun in 1982, and has been carried out annually since then, evolving to

accommodate changes in seat belt wearing requirements. The survey has been carried out for DfT by TRL since 1988.

In 2000, as concern arose about drivers' use of mobile phones, the survey was expanded to record mobile phone use, to help provide evidence of drivers' response to legislation from December 2003 prohibiting the use of handheld mobile phones when driving.

TRL was commissioned by Transport for London to apply the same techniques to survey the use of seat belts and mobile phones at a range of sites throughout London, as both of these issues are likely to have implications for road safety in London. The surveys were carried out in March 2006.

#### Objectives

The objectives for the survey were to:

- Provide a measure of seat belt use by drivers in London
- Provide a measure of mobile phone use by drivers in London
- Compare the London findings with other urban areas in England
- Establish methods capable of being used for periodic monitoring.



# Research summary

## Methods

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 by TRL for a long running annual survey that is carried out for DfT.

In London the survey was carried out at 33 sites, with one in each borough and the City of London. 12 sites were on the Transport for London Road Network (TLRN), 11 were on Borough Principal Roads and 10 on Minor roads.

The TRL survey records detailed information about all of the vehicle occupants in order to monitor the use of belts and other restraints. This was done through observations of stationary vehicles whilst queuing during the red phases at signal controlled junctions.

Each site was surveyed on a weekday during March 2006 and in addition, 10 were surveyed at the weekend. The survey was carried out during hours of daylight only to ensure reliable observations could be made.

The same procedure was followed at each site. A single approach to the junction had been selected, and only vehicles using that approach were observed. Once traffic had stopped for a red signal, the occupants of the vehicle nearest the junction would be observed and the observations recorded. The observer would then proceed along the queue, observing the occupants of each vehicle in turn until the traffic began to move. The observer would then return to the junction and wait for the next red signal.

Data recorded for each vehicle occupant included:

- Seating position (driver / front passenger / rear passenger)
- Sex (male / female / unknown)
- Age group (estimated)
- Restraint used (seat belt / unrestrained / child seat belt / rear facing child seat / booster with seat belt / booster without seat belt / restraint not used properly.)
- Mobile phone use - Drivers only (hands held / hands free / none)

Data recorded for each vehicle included:

- Vehicle type (car / van / taxi)
- Vehicle prefix

While the age range for children is generally taken as 0-15, the seatbelt regulations introduced in 1989 referred to children as being up to 13 years, and this definition has been retained when collecting and analysing observations on seat belt use.

Similarly, cars with registration prefix E and later are required to be fitted with rear seat belts, so vehicle prefix was recorded to enable wearing rates to be calculated for vehicles which were known to be fitted with rear seat belts.

In total, for the 43 site observations in March 2006, 27,638 cars and 1,497 taxis were observed in total, and details recorded for all 29,135 drivers, their 8,603 front seat passengers and 5,294 rear seat passengers. In addition, 4,709 vans were observed and details recorded for all drivers and their 1,252 passengers.

## Results

### 1. Seat belt wearing rates

Seat belt wearing rates in London are appreciably lower than for other urban areas in the DfT survey.

The main seat belt wearing rates for London are appreciably lower than for other urban areas in the DfT, for all of the different vehicle types and seating positions (Table 1). This is especially true for rear seat passengers of all ages and either sex (Table 2). Among children (0-4 years), the wearing rate in London

was only 75% whereas the DfT survey has recorded about 95% for some years.

Under half of van occupants wore seat belts in London.

Although taxi drivers are exempt from wearing a seat belt while on duty, (but not their passengers), they still face the same risks as car occupants when involved in collisions, but less than one in six taxi occupants wore a seat belt.

**Table 1: Overall proportion of vehicle occupants using restraints, 2006.**

	Cars		Taxis	Vans	
	London	DfT	London	London	DfT
Drivers	82%	92%	14%	51%	64%
Front seat passengers	80%	94%	n/a	40%	47%
Rear seat passengers	49%	84%	17%		
Number of vehicle passengers	27,638	15,405	1,497	4,709	2,060

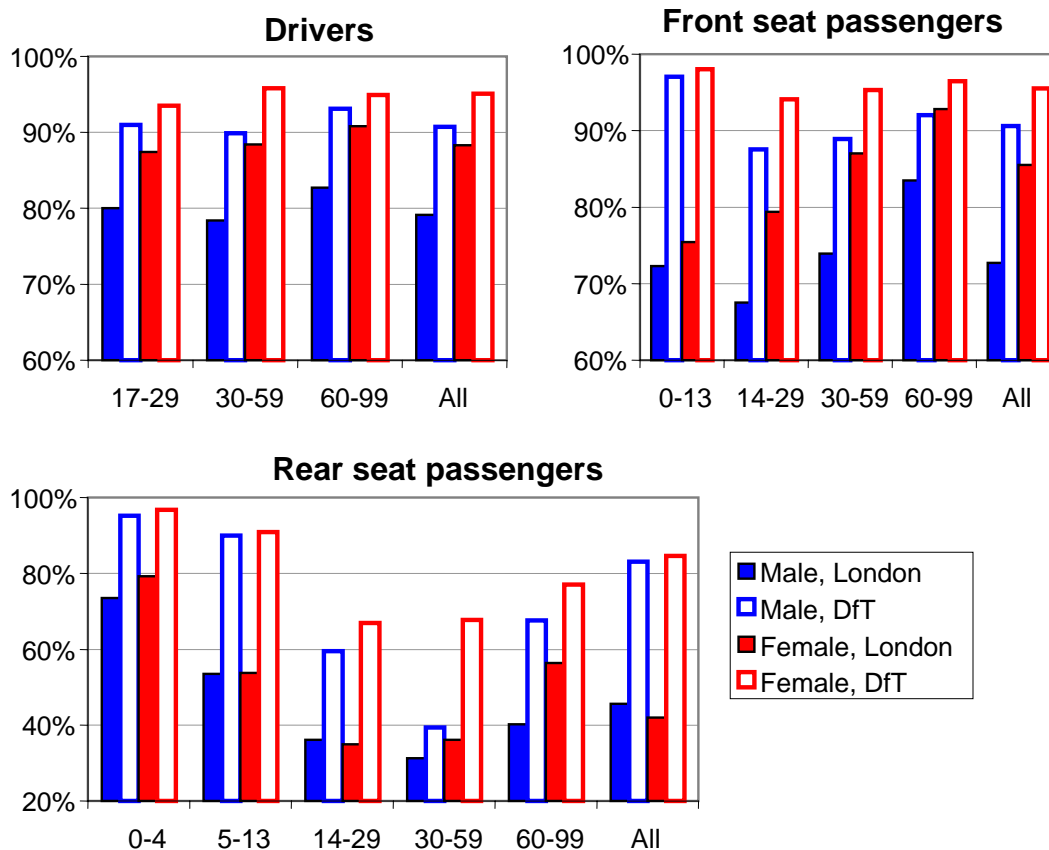
[Note: Very few rear seat passengers were observed in vans, so they have been combined with front seat passengers. No front seat passengers were observed in taxis]

**Table 2: Proportion of car occupants using restraints, by age, sex and seating position, 2006.**

Seating position	Age group	London		DfT	
		Male	Female	Male	Female
Drivers	17-29	80%	87%	91%	94%
	30-59	78%	88%	90%	96%
	60-99	83%	91%	93%	95%
	All	79%	88%	91%	95%
	Number observed	18,438	9,200	9,686	6,733
Front seat passengers	0-13	72%	75%	97%	98%
	14-29	68%	79%	88%	94%
	30-59	74%	87%	89%	95%
	60-99	84%	93%	92%	96%
	All	73%	86%	91%	96%
	Number observed	3,544	5,059	1,907	3,420
Rear seat passengers	0-4	74%	79%	95%	97%
	5-13	54%	54%	90%	91%
	14-29	36%	35%	60%	67%
	30-59	31%	36%	39%	68%
	60-99	40%	56%	68%	77%
	All	46%	42%	83%	85%
	Number observed	1,863	2,635	1,202	1,491

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Figure 1: Proportions of car occupants using restraints by age, sex and seating position, 2006



For most ages and seating positions, wearing rates were higher for women than men in both the London and DfT surveys. (Figure 1)

Wearing rates varied widely across London, with the lowest rates being found in central London, followed by locations in Inner London. The highest wearing rates were found at sites in South-west and West London. Figures

for each of the 33 sites are presented in the full report.

The DfT survey found no consistent difference between wearing rates on A and minor roads. Table 3 shows that this is broadly true in London as well (Borough principal and TLRN roads are all A roads), but the rear seat wearing rate on Borough Principal Roads is particularly low.

Table 3: Proportion of car occupants using restraints by road type, 2006.

	London			DfT	
	TLRN	Borough Principal	Minor	A	Minor
Drivers	82%	83%	82%	94%	92%
Front seat passengers	82%	77%	79%	94%	93%
Rear seat passengers	50%	39%	55%	83%	84%
Number of vehicles	10,894	7,726	9,018	11,405	4,350

## 2. Mobile phone usage rates

Use of hand-held and hands-free mobile phones whilst driving is higher in London than for the urban sites in the DfT survey

Since December 2003, it has been illegal to use a hand-held mobile phone while driving.

Table 4 shows that the proportion of drivers observed while using hand-held or hands-free mobile phones in the London survey is higher than that found at urban sites in the DfT survey. The proportion of drivers using a mobile phone is lower in taxis than in cars.

Generally the usage rates of mobile phones while driving have been higher for van drivers than for car drivers, and hands-held mobile phones are used more often than hands-free phones for both the London and DfT survey.

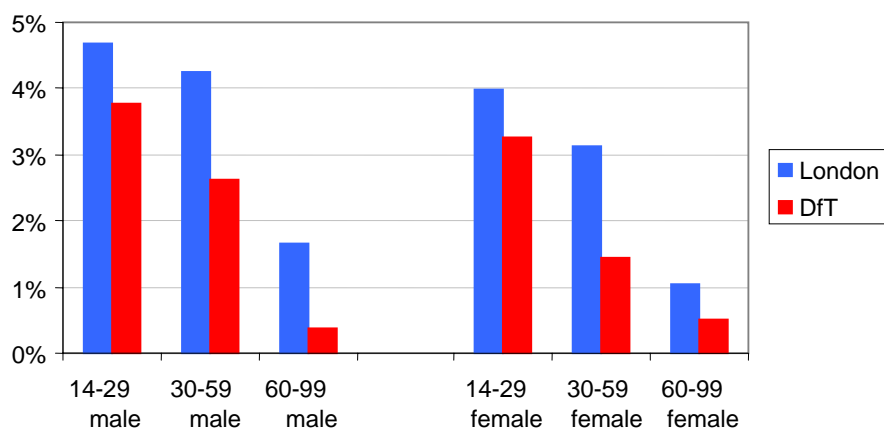
Figure 2 shows the level of mobile phone use by car and taxi drivers is higher in London than in the DfT survey for drivers of all ages and both sexes. Nevertheless, both sets of results have the same pattern, being lower among women than men and falling with increasing age.

**Table 4: Overall proportion of drivers using mobile phones, 2006.**

Phone usage	Cars and taxi drivers		Van drivers	
	London	DfT	London	DfT
Hand-held	2.6%	1.6%	3.8%	2.9%
Hands-free	1.1%	0.7%	1.0%	0.6%
Either	3.7%	2.2%	4.8%	3.5%
Number of vehicles	29,135	15,852	4,709	2,060

[Percentages may not add up because of rounding]

**Figure 2: Mobile phone use by car and taxi driver by gender and age group, 2006.**



### 3. Hand-held mobile phone use *and* seat belt wearing rates by drivers

The use of a hand-held mobile phone and the *non-use* of a seat belt are linked.

There is a correlation between drivers' use of mobile phones and non-use of seat belts. Belted drivers are less likely to use a mobile phone than unbelted drivers to use hand-held mobile phones. In London 3.6% of car drivers who weren't wearing seat belts were using a hand-held mobile phone, compared to 2.2% of those who were wearing a seat belt.

Table 5 shows that belted drivers are less likely than unbelted drivers to use a hand-held mobile phone whilst driving. It is interesting to note that this does not

apply to drivers using hands-free mobile phones.

An alternate way of looking at this is to calculate the wearing rate according to whether or not drivers were using mobile phones. Table 6 confirms that belt wearing rates in London were lower for car and van drivers who were using hand-held mobile phones than for drivers who were using hands-free phones or were not using phones.

These results suggest that driving whilst using a hand-held mobile phone whilst unbelted are manifestations of a driver's general willingness to disobey traffic laws and take risks, or be indifferent to these risks.

**Table 5: Proportion of drivers using mobile phone by restraint status 2006.**

Restraint status	Use of mobile phone	Cars and taxi drivers		Van drivers	
		London	DfT	London	DfT
Drivers wearing seat belts	Hand-held	2.2%	1.3%	2.3%	2.7%
	Hands free	1.1%	0.7%	1.2%	0.8%
	Either	3.3%	2.0%	3.5%	3.5%
Drivers <i>not</i> wearing seat belts	Hand-held	3.6%	4.0%	5.3%	3.0%
	Hands free	1.2%	0.5%	0.9%	0.3%
	Either	4.8%	4.5%	6.2%	3.3%

**Table 6: Proportion of drivers wearing seat belts by mobile phone use, 2006.**

Mobile phone use	Cars and taxi drivers		Van drivers	
	London	DfT	London	DfT
Drivers using hand-held mobile phones	69%	78%	32%	65%
Drivers using hands free mobile phones	78%	94%	59%	86%
Drivers using mobile phones	72%	83%	38%	69%
Drivers <i>not</i> using mobile phones	79%	92%	52%	67%



## Conclusions

**Seat belt wearing rates** in London were found to be well below rates found in DfT surveys in other urban areas, with only 82% of car drivers in London observed to be wearing them, compared with 92% in the DfT survey. For front seat passengers the rates were 80% in London compared with 94% in the DfT survey. For rear seat passengers the difference was even greater, with only 49% wearing seat belts in London compared with 84% from the DfT survey.

It is illegal to use **hand-held mobile phone** whilst driving, but 2.6% of car and taxi drivers and 3.8% of van drivers were observed using hand-held mobile phones whilst driving. These figures are higher than those found in the DfT survey (1.6% and 2.9% respectively).

There is a correlation between drivers' use of hand-held mobile phones and non-use of seat belts. Belted drivers are appreciably less likely than unbelted drivers to use mobile phones. 3.6% of car and taxi drivers who weren't wearing seat belts were using a hand-held mobile phone, compared with 2.2% of those who were wearing a belt, and a similar disparity was found for van drivers. This suggests that driving whilst using a hand-held mobile phone and whilst unbelted are manifestations of a driver's general willingness to disobey traffic laws and take risks, or of indifference to these risks.

## Next steps

The survey has revealed that levels of seat belt use in London are considerably lower than elsewhere in England, and that levels of mobile phone use by drivers whilst driving are appreciably higher.

In order to improve road safety in London and contribute towards achieving the

casualty reduction targets set for 2010, it will be important to raise seat belt use and reduce illegal use of hand-held mobile phones in London, in particular through increased publicity and enforcement initiatives.

It is recommended that the survey is repeated annually to monitor the results of any enforcement or awareness initiatives to raise seat belt use and reduce illegal use of hand-held mobile phones in London. The survey methods established should be followed as closely as possible to ensure consistency with the baseline results that have now been established in this initial survey for London.

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