

## RESTRAINT USE BY CAR OCCUPANTS, 2004-2006

In October 1988, a regular series of surveys was begun by TRL on behalf of the Department for Transport. At six monthly intervals, the use by car occupants of seat belts and other restraint systems is observed at 32 sites chosen to represent all types of road. In addition to weekday observations at all sites, observations are made at the weekend at eight sites. The sites have been selected to monitor reliably the changes in the level of restraint use through time, and are located in two extensive study areas centred on Crowthorne and Nottingham. To facilitate accurate observation, most sites are situated at junctions controlled by traffic signals. Although the results may not be strictly nationally representative, they should give useful insights into national patterns of restraint use. A report has been published (Broughton, 1990) which describes the survey methodology and present results from the first three surveys, while a more recent report has presented results from 1998-2002 (Broughton, 2003). This leaflet contains results from the October 2004 - April 2006 surveys, and updates earlier TRL leaflets, most recently LF 2092 and 2096.

The result of particular interest is the wearing rate, the percentage of car occupants wearing a seatbelt or using another type of restraint. Table 1 compares wearing rates by age and seat position, using observations (including those made at weekends) weighted according to traffic flow. Each of the recent surveys has observed about 29 thousand cars.

**Table 1 Wearing rate (%), by age and seating position**

	<i>Age</i>	<i>October 2004</i>	<i>April 2005</i>	<i>October 2005</i>	<i>April 2006</i>
Driver	17-29	93	93	93	94
	30-59	93	92	92	93
	60-	95	95	94	95
	All	93	93	93	93
Front seat passenger	0-13	95	97	97	98
	14-	94	94	93	94
	All	94	94	94	95
Average number per car		0.27	0.31	0.30	0.32
Rear seat passenger	0	96	99	99	97
	1-4	95	95	97	97
	5-9	91	91	91	91
	10-13	89	87	83	92
	14-	65	65	68	69
	All	83	83	85	85
Average number per car		0.15	0.18	0.16	0.17

Small differences in Table 1 may well have occurred by chance, especially where the numbers observed have been relatively small: this particularly applies to children. In previous leaflets in this series, Tables 2 and 3 have included wearing rates for cars with registration prefix E or later, since these are required by law to be fitted with rear seatbelts and from July 1991 all car occupants have been required to use a seatbelt or other restraint whenever one is available. Relatively few older cars have been observed in recent surveys, however, and in the latest survey 99.3 per cent of the cars had prefix E or later. The small number of observations means that results for older cars are relatively imprecise, so cars of all ages have been combined in Tables 2 and 3.

Table 3 compares wearing rates by sex and age; rates generally increase with age among adults, and are higher for women than men. The wearing rates continue to be lower for adult men less than 60 years old.

**Table 2 Rear seat wearing rates, by sex and age**

	<i>April 2005</i>			<i>October 2005</i>			<i>April 2006</i>		
	<i>0-4</i>	<i>5-13</i>	<i>14-</i>	<i>0-4</i>	<i>5-13</i>	<i>14-</i>	<i>0-4</i>	<i>5-13</i>	<i>14-</i>
Male	96	90	54	98	88	63	97	90	60
Female	96	89	71	97	89	72	97	93	73
Either	96	90	65	98	89	68	97	91	69

**Table 3 Wearing rates, by sex and age, April 2006**

	<i>Driver</i>			<i>Front seat passenger</i>				<i>Rear seat passenger</i>			
	<i>17-29</i>	<i>30-59</i>	<i>60-</i>	<i>0-13</i>	<i>14-29</i>	<i>30-59</i>	<i>60-</i>	<i>0-13</i>	<i>14-29</i>	<i>30-59</i>	<i>60-</i>
Male	92	90	94	97	89	91	94	94	62	48	75
Female	95	97	96	98	94	96	97	95	72	71	78
Either	94	93	95	98	92	95	97	94	68	64	77

The survey has consistently shown wearing rates to be greater on high-speed roads than on slower roads. Table 4 presents wearing rates from the latest survey, and shows that the difference continues to be greatest among adults travelling in the rear.

**Table 4 Wearing rate, by speed limit, April 2006**

<i>Speed limit</i>	<i>Males</i>		<i>Females</i>	
	<i>≤40 mph</i>	<i>&gt;40 mph</i>	<i>≤40 mph</i>	<i>&gt;40 mph</i>
Driver	88	94	95	97
Front seat passenger	90	93	95	97
Rear seat passenger aged 0-13	92	95	93	96
Rear seat passenger aged 14-	50	69	64	80

The survey records car occupants who were improperly restrained, including those who sat on a fastened belt or held it so as to give the appearance of being properly restrained (presumably hoping to avoid prosecution). These cases have always been recorded as unrestrained, and the rate of improper use continues to be low: 0.3% of car occupants were improperly restrained in the latest survey.

The survey has recently been developed to include the use of booster seats and cushions, in order to monitor the effects of forthcoming changes to the regulations governing the use of restraints by child passengers. Table 5 presents the results for children aged 1-4 and 5-9 from the latest survey.

**Table 5 Wearing rates of younger children, April 2006**

	<i>Front seat passengers</i>		<i>Rear seat passengers</i>	
	<i>1-4 years old</i>	<i>5-9 years old</i>	<i>1-4 years old</i>	<i>5-9 years old</i>
Seat belt worn	29%	91%	9%	71%
Child seat used	37%	1%	76%	4%
Rear facing child seat used	3%	0%	1%	0%
Booster seats and cushions used:	properly	27%	7%	11%
	wrongly	0%	0%	0%
Unrestrained:	on seats	2%	2%	2%
	on passenger's lap	4%	0%	1%

Percentages may not sum to 100% because of rounding.

## References

**Broughton J (1990).** *Restraint use by car occupants, 1982-89.* Research Report RR289. Wokingham: TRL.

**Broughton J (2003).** *Seatbelt wearing rates in cars in England, 1998-2002.* TRL Report TRL580. Wokingham: TRL.