

# Transport Statistics Bulletin

MOT Non-Compliance  
2007 and 2008

# MOT NON-COMPLIANCE 2007 AND 2008

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## **SECTION 1: SUMMARY OF KEY STATISTICS**

### Rate of MOT non-compliant vehicles in Traffic

- The overall rate of non-compliant vehicles in Great Britain traffic was estimated to be 2.9 per cent in 2008. This is a fall from the 2007 figure of 3.1 per cent.
- Of the different vehicle tax classes, non-compliance rates in Great Britain traffic were estimated to be highest amongst motorcycles (8.5 per cent in 2007 and 4.7 per cent in 2008).
- Non-compliance rates in London were found to be the highest of all regions in both 2007 and 2008, estimated at 4.1 per cent for both years.
- The region with the lowest non-compliance rate in traffic was Yorkshire and The Humber in 2007, estimated at 2.5 per cent, and East Midlands in 2008, estimated at 2.4 per cent.
- Of the different road types, non-compliance rates in traffic were highest on minor urban roads for 2007 and 2008, and lowest on motorways in 2007 and rural A roads in 2008.

### Rates of MOT non-compliant vehicles in active stock

- The overall rate of non-compliant vehicles in stock in Great Britain was estimated to be 2.8 per cent in 2008, equivalent to approximately 677 thousand vehicles. This represents a drop from the estimated 3.2 per cent in 2007, which is equivalent to approximately 857 thousand vehicles.
- As with 'in traffic' non-compliance, the rate for motorcycles was the highest across the vehicle tax classes. This was estimated to be 8.5 per cent in 2007 and 4.7 per cent in 2008.

### Rate of unlicensed / MOT non-compliant vehicles in Traffic

- The overall rate of vehicles in Great Britain traffic which were both licensed and MOT compliant was 96.1 per cent in 2007. This increased to 96.7 per cent in 2008.
- The overall rate of vehicles in traffic which were both unlicensed and MOT non-compliant was 0.4 per cent in 2007. This is equivalent to 1 in every 278 vehicles being unlicensed and MOT non-compliant in traffic. In 2008, this dropped to 0.3 per cent which is equivalent to 1 in every 375 vehicles.
- Motorcycles were found to have the highest rates of VED evasion and MOT non-compliance in traffic. In 2007, 4.8 per cent were found to be failing on both requirements (i.e. were both unlicensed and without an MOT), which is

equivalent to 1 in every 21 motorcycles. In 2008, this dropped to 1.2 per cent, which is equivalent to 1 in every 86 motorcycles.

- Across the government regions and countries, Wales had the highest rate of MOT non-compliance and VED evasion in 2007, at 0.7 per cent. This is equivalent to 1 in every 147 vehicles. Yorkshire and The Humber had the highest rate of MOT non-compliance and VED evasion in 2008, at 1.0 per cent. This is equivalent to 1 in every 103 vehicles.

#### Characteristics of MOT non-compliant vehicles in Traffic

- In 2007, 6.1 per cent of all cars in traffic which were between 3 – 4 years in age (i.e. years since first registered) were non-compliant. In 2008, this figure dropped to 5.1 per cent of all vehicles. Overall vehicles which were between 3 – 4 years in age were found to have the highest rates of MOT non-compliance.
- Vehicles which were 12 years or over in age were found to have the second highest rate of MOT non-compliance in traffic. In 2007, 5.8 per cent of all vehicles 12 years or older were found to be non-compliant. This figure dropped to 4.3 per cent in 2008.

## SECTION 2: INTRODUCTION

### **Introduction of a new statistical series**

These statistics are the first estimates of MOT non-compliance from the roadside survey. Although estimates have been produced before from the Roads Policing Operation V79 carried out in 2006 and 2008<sup>1</sup>, these were based on a much smaller sample of vehicles. The V79 operation involved police officers stopping vehicles and carrying out checks on a number of requirements, including MOTs, Vehicle Excise Duty (VED) licensing and insurance. Any differences between figures published there and in this bulletin are caused by the differences in methodology.

As this is a new series the statistics are not designated National Statistics and the Department is seeking feedback and views from end users. In particular, the Department welcomes views on what additional tables or analyses could be useful and how frequently the series should be updated.

Any feedback on the publication can be sent to:  
Vehicle Licensing Statistics Branch,  
3/9 Great Minster House,  
76 Marsham Street,  
London SW1P 4DR

Email: [vehicles.stats@dft.gsi.gov.uk](mailto:vehicles.stats@dft.gsi.gov.uk)  
Telephone: 020 7944 3077

More detailed information on MOT non-compliance and Vehicle Excise Duty evasion by type of vehicle and class of road and other characteristics are available from the same contacts.

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<sup>1</sup> The reports for the V79 survey are available at: [www.dft.gov.uk/pgr/roads/vehicles/roadspolicingoperationv79/](http://www.dft.gov.uk/pgr/roads/vehicles/roadspolicingoperationv79/)

## **Overview of survey**

The Department's estimates of Ministry of Transport test (MOT) non-compliance are derived by directly observing registration marks from traffic at various sites around the country and comparing these with records held by the Vehicle and Operator Services Agency (VOSA), which holds records of all MOT tests undertaken. Roadside surveys of this type are considered to be the most reliable way of estimating MOT non-compliance. Personal interviewing or other surveys can face problems of under-estimation as people rarely admit to illegal activities or avoid known survey locations. Direct observation at the roadside confirms that the vehicles are in use and through comparison against information held by the vehicle and driver service agencies, it is relatively straightforward to determine whether the observed vehicles were compliant on the day.

In order to produce the estimates for 2007 and 2008, over 1.6 million and 1.4 million vehicle registration marks were collected for each year respectively. The surveys took place at 236 sites in Great Britain by a private contractor during June each year. A full description of the survey design and methodology is provided in Appendix A.

## **Main measures presented in publication**

There are three main estimates of MOT non-compliance presented in this publication. These are as follows:

### MOT non-compliant vehicles in traffic

These estimates concern the rate of non-compliant vehicles within Great Britain traffic. In other words, this is the proportion of vehicles without a valid MOT that you would expect to see over a period of time on an average road. In addition to an aggregated picture, estimates are presented for each tax class, road type and region.

### MOT non-compliant vehicles in active stock

These estimates are of the rate and number of non-compliant vehicles within the active vehicle stock. These estimates may be higher or lower than the rate of non-compliant vehicles in traffic as non-compliant vehicles may travel a different mileage to compliant vehicles making them more or less likely to be seen on the road. Estimates for Great Britain are presented at both aggregate and tax class level.

A summary of how these measures are derived from the raw survey data is provided in Appendix B.

In addition to these two estimates of non-compliance, a series of additional tables are presented to show the levels of non-compliance for Vehicle Excise Duty (VED) and MOT aggregated across tax classes and government regions. Other analyses include rates of MOT non-compliance in Great Britain traffic for body type cars by age group.

## **Statistical and methodological uncertainty**

All estimates presented within this publication are derived from a sample survey and, as such, have a level of uncertainty. Within the publication each estimate is accompanied with upper and lower 95 percent confidence limits. These limits indicate the range of values within which we can be statistically confident, after factors such as the sample size and variation are taken into account, that the true rate or value lies. These limits are important and should be considered carefully when any estimate given in the publication is assessed.

The methodology used to compile these estimates has been improved considerably in recent years. However, the Department recognises that there are still areas of uncertainty, with scope for possible improvement

## SECTION 3: MAIN SURVEY RESULTS

**Table 1: Rate of non-compliant vehicles (without MOT Certification) in Great Britain traffic, by tax class, 2007 to 2008**

Tax Class	<i>Percent</i>					
	2007			2008		
	Estimate	Lower confidence limit	upper confidence limit	Estimate	Lower confidence limit	upper confidence limit
Private and Light Goods	3.2	3.1	3.2	3.0	2.9	3.0
Goods	1.9	1.8	2.0	1.9	1.8	2.0
Motorcycles	8.5	8.0	9.1	4.7	4.2	5.2
Bus	3.1	2.8	3.3	2.3	2.1	2.6
Exempt	2.1	2.0	2.2	1.6	1.5	1.7
Other	2.6	2.0	3.3	3.3	2.6	4.1
All tax classes	3.1	3.1	3.1	2.9	2.8	2.9

**Table 2: Rate of non-compliant vehicles (without MOT Certification) in Great Britain traffic, by region, 2007 to 2008**

Region	<i>Percent</i>					
	2007			2008		
	Estimate	Lower confidence limit	upper confidence limit	Estimate	Lower confidence limit	upper confidence limit
North East	2.6	2.5	2.7	2.5	2.4	2.6
North West	3.7	3.6	3.8	3.3	3.2	3.4
Yorkshire & Humber	2.5	2.5	2.6	2.9	2.8	3.0
East Midlands	2.6	2.5	2.7	2.4	2.3	2.5
West Midlands	3.2	3.1	3.3	2.9	2.8	3.0
East of England	2.8	2.7	2.9	2.6	2.5	2.6
London	4.1	4.0	4.2	4.1	4.0	4.2
South East	3.3	3.3	3.4	2.7	2.6	2.8
South West	2.7	2.7	2.8	2.9	2.8	2.9
England	3.2	3.1	3.2	2.9	2.9	3.0
Wales	3.7	3.6	3.8	2.9	2.8	3.1
Scotland	2.7	2.6	2.7	2.7	2.6	2.7
All regions	3.1	3.1	3.2	2.9	2.9	2.9



**Table 3: Rate of non-compliant vehicles (without MOT Certification) in Great Britain traffic, by road class, 2007 to 2008**

Road Class	Percent					
	2007			2008		
	Estimate	Lower confidence limit	upper confidence limit	Estimate	Lower confidence limit	upper confidence limit
Motorways	2.8	2.7	2.8	2.6	2.5	2.6
A road, urban	3.2	3.1	3.2	3.0	2.9	3.0
A road, rural	2.8	2.8	2.9	2.4	2.4	2.5
Minor road <sup>1</sup> , urban	3.6	3.5	3.7	3.5	3.4	3.6
Minor road <sup>1</sup> , rural	3.4	3.3	3.6	2.9	2.8	3.1
All road classes	3.1	3.1	3.1	2.9	2.8	2.9

1. Minor roads include 'B' roads, 'C' roads and unclassified roads. A fuller definition of 'minor roads' is provided on Traffic, Speeds and Congestion 2008: <http://www.dft.gov.uk/adobepdf/162469/221412/221546/226956/261695/roadstats08tsc.pdf>

**Table 4: Rate of non-compliant vehicles (without MOT Certification) in active Great Britain stock, by tax class, 2007 to 2008**

Tax Class	Percent					
	2007			2008		
	Estimate	Lower confidence limit	Upper confidence limit	Estimate	Lower confidence limit	Upper confidence limit
Private and Light Goods	3.1	3.1	3.2	2.8	2.7	2.9
Goods	2.2	1.9	2.5	2.3	2.0	2.7
Motorcycles	8.5	5.7	11.4	4.7	3.0	6.4
Bus	4.3	3.1	5.4	2.8	1.9	3.7
Exempt	2.2	1.8	2.6	1.9	1.5	2.4
Other	2.1	0.5	3.7	3.6	1.2	5.9
All tax classes	3.2	3.1	3.3	2.8	2.7	2.9

**Table 5: Number of non-compliant vehicles (without MOT Certification) in active Great Britain stock, by tax class, 2007 to 2008**

*Thousands*

Tax Class	2007			2008		
	Estimate	Lower confidence limit	upper confidence limit	Estimate	Lower confidence limit	upper confidence limit
Private and Light Goods	744	721	766	609	587	630
Goods	9	8	10	8	7	9
Motorcycles	74	48	101	36	23	49
Bus	4	3	6	3	2	3
Exempt	25	20	30	20	15	25
Other	1	0	2	2	1	3
All tax classes	857	800	915	677	634	720

## SECTION 4: CHARACTERISTICS OF MOT NON-COMPLIANT VEHICLES

**Table 6: Rate of licensed & unlicensed vehicles (with & without MOT Certification) in Great Britain traffic, by tax class, 2007 to 2008**

Tax Class	<i>Percent</i>							
	2007				2008			
	Licensed & with MOT Estimate	Licensed & without MOT Estimate	Unlicensed & with MOT Estimate	Unlicensed & without MOT Estimate	Licensed & with MOT Estimate	Licensed & without MOT Estimate	Unlicensed & with MOT Estimate	Unlicensed & without MOT Estimate
Private and Light Goods	96.0	2.8	0.8	0.4	96.6	2.7	0.4	0.3
Goods	97.5	1.8	0.6	0.1	97.7	1.8	0.4	0.1
Motorcycles	89.9	3.8	1.6	4.8	94.6	3.5	0.7	1.2
Bus	96.8	2.9	0.2	0.2	97.3	2.3	0.3	0.0
Exempt	97.3	1.9	0.6	0.2	98.0	1.5	0.3	0.1
Other	95.1	2.4	2.3	0.2	95.8	3.3	0.9	0.0
All tax classes	96.1	2.7	0.8	0.4	96.7	2.6	0.4	0.3

**Table 7: Rate of licensed & unlicensed vehicles (with & without MOT Certification) in Great Britain traffic, by region, 2007 to 2008**

Region	<i>Percent</i>							
	2007				2008			
	Licensed & with MOT Estimate	Licensed & without MOT Estimate	Unlicensed & with MOT Estimate	Unlicensed & without MOT Estimate	Licensed & with MOT Estimate	Licensed & without MOT Estimate	Unlicensed & with MOT Estimate	Unlicensed & without MOT Estimate
North East	96.7	2.4	0.7	0.2	97.2	2.4	0.3	0.2
North West	95.3	3.4	1.0	0.2	96.4	3.1	0.3	0.2
Yorkshire & Humber	96.8	2.3	0.6	0.2	96.6	1.9	0.5	1.0
East Midlands	96.9	2.3	0.5	0.2	97.3	2.2	0.3	0.2
West Midlands	96.3	2.6	0.5	0.6	96.7	2.7	0.5	0.2
East of England	95.4	2.6	1.8	0.2	97.0	2.4	0.4	0.2
London	95.2	3.7	0.7	0.4	95.6	3.7	0.4	0.3
South East	95.9	2.8	0.7	0.5	97.0	2.5	0.4	0.2
South West	96.8	2.5	0.4	0.2	96.5	2.6	0.7	0.3
England	96.0	2.8	0.8	0.3	96.7	2.6	0.4	0.3
Wales	95.7	3.0	0.6	0.7	96.3	2.7	0.7	0.2
Scotland	96.9	2.4	0.5	0.3	97.0	2.5	0.4	0.1
All regions	96.1	2.7	0.8	0.4	96.7	2.6	0.4	0.3

**Table 8: Rate of non-compliant Cars (body type) in Great Britain traffic, by age of vehicle, 2007-2008**

Body Type	Year	<i>Percent</i>							
		Age of Vehicle							
		0-3 years	3-4 years	4-5 years	5-6 years	6-8 years	8-10 years	10-12 years	12+ years
Cars	2007	N/A <sup>1</sup>	6.1	4.9	4.0	3.7	3.9	4.0	5.8
Cars	2008	N/A <sup>1</sup>	5.1	4.3	3.8	3.7	3.3	3.3	4.3

1. Cars under 3 years of age do not require MOT testing, therefore are considered compliant

## **APPENDIX A: SURVEY DESIGN AND METHODOLOGY**

During June 2007 and 2008, around 1.5 million valid sightings of vehicle registration marks were collected each year at sites around Great Britain by contractors working on behalf of the Department for Transport. Collection was conducted at 236 sites, distributed across the regions of Great Britain according to methods established in previous surveys.

In Great Britain, four sites (one of each of four different road types) were selected in each of the 49 police force areas outside London. In London, sixteen sites (four of each road type) were selected. The road types covered in each area were: urban and rural A roads, and urban and rural minor roads (B roads, C roads and Unclassified roads). In addition, two motorway sites were chosen in each Government Office Region, with the exception of London, where four motorway sites were selected.

At each site, the contractors were required to collect data for one twelve hour period on a weekday and for one six hour period at the weekend. This process was followed for all but six sites during 2008 which, due to technical issues, were only surveyed on a single day during June. On weekdays, surveying was between 08:00 and 14:00 and between 15:00 and 21:00, while on weekends surveying was for one of these periods only. Weekend surveying was predetermined to give equal numbers of morning and afternoon counts and equal numbers of Saturday and Sunday counts; otherwise surveying was down to the discretion of the contractors. The precise location of each site was agreed between the survey contractors and the Department for Transport.

At all sites collection was carried out by positioning a video camera at the roadside and then using Automatic Number Plate Recognition (ANPR) software at the contractor's office to collect details of the observed vehicles' registration marks from the video footage. The ANPR software automatically records each vehicle's registration mark from the video footage. Each automatically produced registration mark was then manually checked against the video footage of that vehicle. The registration marks of all motorcycles were collected manually by enumerators at the roadside.

The collected data was then returned to the Department where those registration marks in an invalid or foreign format or where the vehicle was noted as displaying trade plates were removed. Furthermore vehicles which were found to be exempt from MOT testing or misread registrations were removed. The remaining records were passed to the Vehicle Operator Service Agency (VOSA) in order to identify which registration marks were MOT compliant when they were seen and which were MOT non-compliant. Once these matched data were returned, a further quality assurance check was made to remove any additional vehicles which were exempt from MOT Testing. Furthermore a random sample of over 4,000 video images of vehicles reported to be non-compliant (from both of the survey years 2007 and 2008) were checked against the ANPR produced registration marks. The mis-read rate on this sample was significantly below 1 per cent so the impact of mis-reads on the MOT compliance rate is very low.

The number of records included in the both the 2007 and 2008 survey datasets is given in Table 9.

**Table 9: 2007 and 2008 survey size by tax class**

Tax Class	<i>Total sightings</i>	
	2007	2008
<b>Great Britain</b>		
Private and light goods	1,480,906	1,290,394
Goods	92,967	81,061
Motorcycles	9,166	7,122
Bus	16,601	14,457
Exempt	50,260	45,525
Other	2,456	2,241
<b>All Vehicles</b>	<b>1,652,356</b>	<b>1,440,800</b>

## APPENDIX B: DERIVATION OF NON-COMPLIANCE ESTIMATES

For the purposes of this analysis observed foreign vehicles are excluded. Therefore 'in traffic' estimates imply 'in Great Britain registered traffic' through out the publication.

A number of vehicles with specific attributes were identified as being exempt from MOT testing hence were assumed to be fully compliant in the analysis.

The exact methodology used to derive the estimates within this report is complex and is outlined in detail within a recent methodological review carried out by Southampton University. This review is available at:

<http://www.dft.gov.uk/pgr/statistics/datatablespublications/vehicles/excisedutyevasion/estimatevedreview.pdf>.

However, the key stages within each calculation have been summarised below.

### Rate of MOT non-compliant vehicles in traffic

The rate of MOT non-compliant vehicles in traffic is derived as follows:

1. The rate of non-compliant vehicles in traffic for each tax class as observed at each survey site is calculated.
2. The rates in (1) are weighted by traffic flow information specific to that site, drawn from national traffic census sources.
3. These weights are used to calculate an average non-compliant rate for each tax class within each road type and region.
4. The rates in (3) are further weighted by traffic flow information specific to each road type and region.
5. These secondary weights are used to calculate an estimated non-compliant rate in traffic for each tax class.

### Private hire vehicles adjustment for MOT non-compliant vehicles in traffic

In most of the country, local authorities are responsible for issuing a 'Certificate of Compliance' for Hackney Carriage Taxis and Private Hire Vehicles. The checks carried out for the certificates include a vehicle roadworthiness test. Therefore these vehicles do not need to undertake VOSA-approved MOT tests. For our analysis, all private hire vehicles and hackney carriage taxis are assumed to be compliant.

Private hire vehicles (PHV) are part of the 'Private and Light Goods' (PLG) tax class, although there is no flag to identify which PLG tax class vehicle is a PHV. Therefore the following methodology has been used to adjust for this:

1. Using local authority taxi mileage information, taken directly from their odometer readings, an average annual mileage for private hire vehicles has been estimated.

2. The total vehicle kilometres travelled by all taxis for each Government Office Region has been estimated from data provided by the *Bus, Taxi & Concessionary Branch* in DfT and the Scottish Government along with the average annual mileage calculated in (1).
3. By combining the outputs of (1) and (2), an estimate of what proportion of total car vehicle kilometres were driven by PHV for each region has been produced.
4. These proportions are applied to in-traffic non-compliant estimates to factor in the proportion of PLG traffic which are private hire vehicles (all assumed to be compliant).

### Rate and number of non-compliant vehicles in active stock

The rate and number of non-compliant vehicles in active stock is derived as follows:

1. The number of times each individual vehicle was seen within the survey is calculated.
2. These data are used within a statistical model based on the negative binomial distribution, using the frequency of repeat sightings, to estimate the relative mileage of compliant and non-compliant vehicles within each tax class. Please see above for a detailed explanation of the methodology. A table showing the results produced by this model is given overleaf:

**Table 10: Relative mileage of non-compliant vehicles in Great Britain, 2007 to 2008**

Tax Class	<i>Proportion</i>					
	2007			2008		
	Relative mileage <sup>1</sup>	Lower confidence limit	upper confidence limit	Relative mileage <sup>1</sup>	Lower confidence limit	upper confidence limit
Private and Light Goods	1.01	0.98	1.04	1.05	1.01	1.09
Goods	0.87	0.75	0.99	0.82	0.70	0.94
Motorcycles <sup>2</sup>	1.00	0.63	1.37	1.00	0.63	1.37
Bus	0.71	0.52	0.91	0.83	0.57	1.09
Exempt	0.96	0.77	1.14	0.85	0.65	1.05
Other	1.26	0.32	2.20	0.94	0.31	1.57
All tax classes	0.98	0.95	1.01	1.02	0.98	1.05

1. Average mileage per non-compliant vehicle for every mile travelled by a licensed vehicle

2. Relative mileage for motorcycles in 2008 derived from Relative mileage of motorcycles in 2007 - see section overleaf

3. These relative mileage estimates are combined with the rates of non-compliant vehicles in traffic to produce an estimated rate of non-compliant vehicles in active stock for each tax class.
4. The rates calculated in (3) are used together with the known number of compliant vehicles to produce the estimated number of non-compliant vehicles in active stock within each tax class.
5. The numbers calculated in (4) are summed to give the overall estimated number of non-compliant vehicles in active stock.



### Private hire vehicles adjustment for non-compliant private and light goods vehicles in active stock

The rate of non-complaint vehicles for private and light goods (PLG) tax class in active stock are adjusted to factor in the proportion of private hire vehicles in PLG traffic. This is done as follows:

1. The number of times each individual PLG vehicle was seen within the survey (by government region) is calculated.
2. Then, using the proportion of private hire vehicles in PLG traffic and the distribution of the repeated observations for Hackney Carriage Taxis (all of which are assumed compliant), the number of repeated observations for non-compliant are adjusted to factor out compliant private hire vehicles.
3. These data are used within a statistical model based on the negative binomial distribution, using the frequency of repeat sightings, to estimate the relative mileage of compliant and non-compliant vehicles for the PLG tax class. Please see above for a detailed explanation of the methodology.
4. These relative mileage estimates are combined with the rates of non-compliant PLG vehicles in traffic to produce an estimated rate of non-compliant PLG vehicles in active stock for each tax class.
5. The rates calculated in (3) are used together with the known number of compliant PLG vehicles to produce the estimated number of non-compliant PLG vehicles in active stock within each tax class.
6. The numbers calculated in (4) are summed to give the overall estimated number of non-compliant PLG vehicles in active stock.

### Adjustment of motorcycle non-compliance estimates

Due to difficulties with the data collection, motorcycle data were only collected from 158 of the 236 survey sites in Great Britain in 2008. This compares to just 10 sites where motorcycles were not observed in the 2007 survey.

It was necessary to adjust the 2008 motorcycle non-compliance estimates to take account of any possible bias that the missing sites may have caused. This adjustment was carried out as follows:

#### Rate of non-compliant vehicles in traffic

1. The 2007 rate of non-compliant motorcycles in traffic was re-calculated to exclude any motorcycles observed at the 78 sites where motorcycles were not observed in 2008. This provided figures for the two years based on the same survey sites.
2. The ratio between the original 2008 rate of non-compliant motorcycles in traffic and the re-based 2007 rate was calculated.

3. This ratio was applied to the 2007 rate of non-compliant motorcycles in traffic (where motorcycles were observed at nearly every site) and an adjusted, equivalent, rate for 2008 was produced.

#### Rate of MOT non-compliant vehicles in active stock

1. It was not possible to produce an adjusted relative mileage estimate in the same way as described above as the method relies on repeat sightings of the same vehicle. The best available estimate is the relative mileage estimate for motorcycles in 2007 and this was carried forward to 2008.
2. This estimate was then used in conjunction with the adjusted rate of non-compliant motorcycles in traffic to produce a 2008 estimate of the rate and number of non-compliant motorcycles in stock.

## APPENDIX C: EFFECT AND TREATMENT OF MISREAD REGISTRATION MARKS

### Effect of misreads on non-compliance estimates

This methodology was originally used to establish the effect of misread rate on vehicle excise duty evasion rates, although the effect would be similar for MOT non-compliance rates.

In 2007 and 2008, the use of ANPR (Automatic Number Plate Recognition) technology for the vast majority of the survey has provided a good understanding into the effect of misread registration marks on the survey results.

To establish the nature of this effect, a random sample of 1,000 vehicle registration marks collected through the survey was taken and, for each instance, the registration mark recorded was manually compared to a still video image of the vehicle as provided through the ANPR system. Where a misread was found to have occurred, the corrected registration mark was compared to a copy of the DVLA database to establish whether the actual vehicle sighted was licensed or unlicensed when it was seen.

The results of these checks concluded that:

- a) The overall rate of misreads for ANPR-based sightings within the survey can be estimated at between 1.1 per cent and 2.9 per cent.
- b) The presence of misread registration marks, if left untreated within the survey data, would serve to artificially inflate the survey's evasion estimates. Within the random sample, evasion would have doubled if misreads were not accounted for and, at higher error rates, the effect of misread registration marks can be even more stark.

This is clearly demonstrated by the table below which shows the evasion rates that would be expected under different scenarios if misreads were left untreated within the survey data.

**Table 11: Expected evasion rate without treatment of misreads**

Actual evasion rate	Misread rate				
	1%	2%	5%	10%	20%
0.5%	0.7%	0.9%	1.5%	2.6%	5.0%
1.0%	1.2%	1.4%	2.0%	3.1%	5.5%
1.5%	1.7%	1.9%	2.5%	3.6%	5.9%
2.0%	2.2%	2.4%	3.0%	4.0%	6.4%

## Treatment of misread registration marks in 2007 and 2008 surveys

As every registration mark collected through ANPR software was manually checked by the contractor within their data validation processes, it is likely that the majority of misreads were corrected before the survey data were submitted to the Department.

However, the analysis shown above demonstrates that even relatively small levels of misreads can significantly inflate evasion estimates and, therefore, an additional check was made by comparing the registration marks and video images of all vehicles reported to be unlicensed after matching to the DVLA and DVLNI databases. As with the 2007 survey, any registration marks found to have been misread through this process were removed from the survey dataset.

While this additional process removed those remaining misreads incorrectly matching the registration mark of a separate 'unlicensed' vehicle, it will not have removed those erroneously matching 'licensed' vehicles - creating the potential for under-estimation of evasion. However, the extent of this under-estimation is likely to be negligible, as shown by the table showing expected evasion rates after the treatment of misreads below:

**Table 12: Expected evasion rate after treatment of misreads**

Actual evasion rate	Misread rate				
	1%	2%	5%	10%	20%
0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
1.5%	1.5%	1.5%	1.5%	1.5%	1.4%
2.0%	2.0%	2.0%	2.0%	2.0%	1.9%

In the case of all motorcycles, data were collected manually by roadside enumerators. For these vehicles, it was therefore not possible to check the registration marks that had been recorded in the survey and, as such, these data may contain a number of misreads which would be likely to have an inflationary effect on evasion. However, due to the relatively small number of registration marks that were collected in this way, these associated misreads are unlikely to have had a significant effect on the estimates presented in the publication.

## Scottish Government

### Transport Publications

Scottish Transport Statistics  
Main Transport Trends  
Household Transport - some SHS results  
Transport Across Scotland:  
some SHS results for parts of Scotland  
SHS Travel Diary results  
Travel by Scottish Residents: some NTS results  
Bus and Coach Statistics  
Road Accidents Scotland  
Key Road Accidents Statistics  
(SHS = Scottish Household Survey; NTS = National Travel Survey)

#### General enquires on Scottish Transport Statistics:

Transport Statistics Branch, Scottish Executive,  
Victoria Quay, Edinburgh, EH6 6QQ  
Phone: +44 (0)131-244 7256  
Fax: +44 (0)131-244 7281  
E-mail: [transtat@scotland.gsi.gov.uk](mailto:transtat@scotland.gsi.gov.uk)  
Internet: [www.scotland.gov.uk/Topics/Statistics](http://www.scotland.gov.uk/Topics/Statistics)

These publications are available, payment with orders  
From: Scottish Executive Publication Sales, Blackwell's  
Bookshop, 53 South Bridge, Edinburgh EH1 1YS  
Phone: +44 (0)131-622 8283 Fax: +44 (0)131-557 8149

## Welsh Assembly Government - Llywodraeth Cynulliad Cymru

### Transport Publications

Road Casualties: Wales  
Welsh Transport Statistics

#### Other publications with transport topics

Digest of Welsh Local Area Statistics  
Digest of Welsh Statistics  
Statistics for Assembly Constituency Areas  
Digest of Welsh Historical Statistics

#### These publications are available from:

Central Support Unit, Statistical Directorate, Welsh  
Assembly Government, Cathays Park, Cathays, Cardiff  
CF10 3NQ

Phone: +44 (0)29-2082 5054  
E-mail: [stats.pubs@wales.gov.uk](mailto:stats.pubs@wales.gov.uk)  
Internet: <http://new.wales.gov.uk>

### Northern Ireland Transport Statistics

#### Available from:

Central Statistics and Research Branch  
Clarence Court, 10-18 Adelaide Street, Belfast BT2 8GB  
Phone: +44 (0)28 9054 0801  
E-mail: [csrb@drdni.gov.uk](mailto:csrb@drdni.gov.uk)  
Internet: <http://www.drdni.gov.uk/index/statistics.htm>

## Transport Statistics Users Group

The Transport Statistics Users Group (TSUG) was set up in 1985 as a result of an initiative by the Statistics Users Council and the Chartered Institute for Transport (now known as The Institute of Logistics and Transport). From its inception it has had strong links with the government Departments responsible for transport. The aims of the group are:

- To identify problems in the collection, provision, use and understanding of transport statistics, and to discuss solutions with the responsible authorities.
- To provide a forum for the exchange of views and information between users and providers.
- To encourage the proper use of transport statistics through greater publicity.
- To facilitate a network for sharing ideas, information and expertise.

The group holds regular seminars on topical subjects connected with the provision and/or use of transport statistics. Recent seminars have included:

- Road Congestion Statistics
- GIS in Transport Planning
- Road Safety Statistics
- UK Investment in Transport Infrastructure
- Active Traffic Management
- The Role of Motorcycling in the 21<sup>st</sup> Century
- Better Publicly Available Statistics On Vehicle Characteristics
- Concessionary Fares and the new Statistics and Registration Services Act
- Measuring the Importance of Shipping to the UK Economy
- National Passenger Survey

A Scottish seminar was also held.

A newsletter is sent to all members about four times a year. Corporate membership of the Group is £50, personal membership £22.50, and student membership £10. For further details please visit [www.tsug.org.uk](http://www.tsug.org.uk) or contact:

Nina Webster  
Walking and Accessibility Programme Manager  
Surface Transport Strategy  
Transport for London  
9th floor (area green 7)  
Palestra, 197 Blackfriars Road  
London  
SE1 8NJ

Tel: 020 3054 0874  
Fax: 020 3054 2004  
Email: [nina.webster@tfl.gov.uk](mailto:nina.webster@tfl.gov.uk)

The TSUG also produces a *Transport Yearbook* which contains information on sources from governmental and non-governmental organisations, including some European sources. The yearbook is supplied free to TSUG members. Non-members can purchase a copy from The Stationery Office (TSO).

## Transport Statistics Publications (as at December 2009)

### TSO publications (Transport Statistics Reports - priced)

Obtainable from:

#### TSO

Mail, Telephone, Fax and E-mail

PO Box 29, Norwich NR3 1GN

Telephone orders & general enquiries: +44 (0)870 600 5522

Fax orders: +44 (0)870 600 5533

E-mail: [customer.services@tso.co.uk](mailto:customer.services@tso.co.uk)

Textphone: +44 (0)870 240 3701

TSO Shops – London, Belfast and Edinburgh

#### TSO@Blackwell and other Accredited Agents

### Annual Reports

Transport Statistics Great Britain: 2009 Edition (ISBN: 978-0-11-553095-1)

Maritime Statistics: 2008 (ISBN: 978-0-11-553096-8)

Reported Road Casualties Great Britain: 2008 (ISBN: 978-0-11-553089-0)

See also TSO's virtual bookshop at: -

<http://www.tsoshop.co.uk>

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**NOTE:** Prior to 1997, many of the Transport Statistics Bulletins were published as HMSO publications. Enquiries about back issues, or transport publications in general, should be made to Transport Statistics, 2/29, Great Minster House, 76 Marsham Street, London SW1P 4DR. ☎ +44 (0)20 7944 3098

### DfT: Transport Statistics Publications (Transport Statistics Bulletins - free)

Obtainable from:

#### Department for Transport

2/29

Great Minster House

76 Marsham Street

London

SW1P 4DR

+44 (0)20 7944 4846

#### Annual Bulletins – produced by Transport Statistics

Compendium of Motorcycling Statistics

National Rail Travel Survey

National Travel Survey

Public Transport Statistics Great Britain

Reported Road Casualties Great Britain: Main Results

Road Conditions in England (formerly NRMCS)

Road Statistics: Traffic Speeds and Congestion

Road Freight Statistics

Sea Passenger Statistics

Transport Trends

UK Seafarer Statistics

Vehicle Excise Duty Evasion

Vehicle Licensing Statistics

Waterborne Freight in the United Kingdom

#### Quarterly Bulletins – produced by Transport Statistics

Bus and Light Rail Statistics

☎ +44 (0)20 7944 4139

Provisional Port Statistics: Quarterly results

☎ +44 (0)20 7944 3087

Road Traffic and Congestion in Great Britain

☎ +44 (0)20 7944 3095

Road Goods Vehicles Travelling to Mainland Europe

☎ +44 (0)20 7944 4131

Reported Road Casualties Great Britain:

Quarterly Provisional Estimates

☎ +44 (0)20 7944 3078

See also the Transport Statistics web site at: -

<http://www.dft.gov.uk/pgr/statistics>

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