

# Transport Statistics Bulletin

Vehicle Speeds in Great Britain:  
2003

## A National Statistics publication produced by Transport Statistics: DfT

National Statistics are produced to high professional standards set out in the National Statistics Code of Practice. They undergo regular quality assurance reviews to ensure that they meet customer needs.

Contact Points: For general enquiries call the National Statistics public enquiry service at: Room DG/18, 1 Drummond Gate, London SW1V2QQ. ☎ 020-7533 5888, fax 020-7533 6261, E-mail: [info@ons.gov.uk](mailto:info@ons.gov.uk)

You can also obtain National Statistics through the internet – go to [www.statistics.gov.uk](http://www.statistics.gov.uk). For information relating to Transport Statistics go to [www.dft.gov.uk/transtat](http://www.dft.gov.uk/transtat)

© Crown copyright 2004

Copyright in the typographical arrangement rests with the Crown.

*This publication may be reproduced free of charge in any format or medium for research, private study or for internal circulation within an organisation. This is subject to it being reproduced accurately and not used in a misleading context. The material must be acknowledged as Crown copyright and the title of the document/publication specified. This publication can also be accessed at the Department's website. For any other use of this material please apply for a Click-Use Licence at [www.hmso.gov.uk/click-use-home.htm](http://www.hmso.gov.uk/click-use-home.htm), or by writing to HMSO at The Licensing Division, St Clements House, 2-16 Colegate, Norwich NR3 1BQ Fax: 01603 723000 or e-mail to [hmsolicensing@cabinet-office.x.gsi.gov.uk](mailto:hmsolicensing@cabinet-office.x.gsi.gov.uk).*

DfT is often prepared to sell unpublished data. Further information and queries concerning this publication should be directed to: TSR1 2/14 Great Minster House, 76 Marsham Street, London SW1P 4DR

☎ +44 (0)20 7944 – 6573, Fax +44 (0)20 7944 - 2164, E-mail: [roadtraff.autocou@dft.gsi.gov.uk](mailto:roadtraff.autocou@dft.gsi.gov.uk)

Brief extracts from this publication may be reproduced provided the source is fully acknowledged. Proposals for the reproduction of larger extracts should be addressed to the Department at the following address:

Department for Transport (DfT),

Transport Statistics TSF5, Zone 2/17, Great Minster House, 76 Marsham Street, London SW1P 4DR

☎ 020 7944-3098, Fax: 020 7944-2165, E-mail: [richard.prestidge@dft.gsi.gov.uk](mailto:richard.prestidge@dft.gsi.gov.uk)

Printed in the United Kingdom on material containing 100% post-consumer waste.

**Symbols and conventions:** (i) Unless otherwise stated, all tables refer to Great Britain.  
(ii) Metric units are generally used.

**Units:** Figures are shown in italics when they represent percentages, indices or ratios.

**Rounding of figures:** In tables where figures have been rounded to the nearest final digit, there may be an apparent slight discrepancy between the sum of the constituent items and the total as shown.

<b>Conversion factors:</b>	1 kilometre = 0.6214 mile	1 tonne = 0.9842 ton
	1 tonne-km = 0.6116 ton-mile	1 gallon = 4.546 litres
	1 billion = 1,000 million	1 litre = 0.220 gallons

**Symbols:** The following symbols have been used throughout.

..	= not available	.	= not applicable
-	= Negligible (less than half the final digit shown)	0	= Nil
*	= Sample size too small for reliable estimates.	ow	= of which
{	= subsequent data is disaggregated	}	= subsequent data is aggregated
	= break in the series	P	= provisional data
F	= forecast expenditure	e	= estimated outturn
n.e.s.	= not elsewhere specified	TSO	= The Stationary Office

# VEHICLE SPEEDS IN GREAT BRITAIN

## 2003

DEPARTMENT FOR TRANSPORT  
STATISTICS BULLETIN SB(04)29

**The Department for Transport  
TSR1 Branch  
Zone 2/14  
Great Minster House  
76 Marsham Street  
LONDON SW1P 4DR**

**Telephone: 020 7944 6573  
Fax: 020 7944 2164  
Email: [roadtraff.autocou@dft.gov.uk](mailto:roadtraff.autocou@dft.gov.uk)**

Enquiries about the contents of this bulletin should be made to the Department at the above address.

May 2004

## CONTENTS

	Page
<b>Introduction</b>	2
<b>Summary of the key points from the analysis of 2003 vehicle speed survey</b>	3
Chart 1: Percentage exceeding speed limits on non-built-up roads	4
Chart 2: Percentage exceeding speed limits on built-up roads	4
<b>Section 1: Vehicle speeds on non-built-up roads</b>	5
Vehicle speeds by road type and vehicle type	5
Table 1: Vehicle speeds on non-built-up roads by road type and vehicle type: GB 2003	6
Percentage of cars exceeding the speed limit by time of day	7
Weekday and weekend comparisons	7
Table 2: Percentage of cars exceeding the speed limit by time of day: GB 2003	8
Table 3: Weekday and weekend comparisons: GB 2003	8
Comparisons with earlier speed surveys	9
Table 4: Vehicle speeds on non-built-up roads: GB 1998 - 2003	10
<b>Section 2: Vehicle speeds on built-up roads</b>	11
Vehicle speeds by speed limit and vehicle type	11
Average car speeds by time of day	11
Table 5: Vehicle speeds on built-up roads by speed limit and vehicle type: GB 2003	12
Table 6: Average car speeds by time of day: GB 2003	13
Table 7: Average speeds weekday and weekend: GB 2003	13
Weekday and weekend comparisons	14
Comparisons with earlier speed surveys	14
Table 8: Vehicle speeds on built-up roads: GB: 1998 - 2003	15
<b>Annex A: Speed data from Automatic Traffic Counters</b>	16
<b>Annex B: UK maximum speed limits on non built up roads</b>	17

## INTRODUCTION

National administrations in England, Scotland and Wales are responsible for setting speed limits on motorways and trunk roads. Local authorities have the power to impose or vary speed limits on principal roads and on all other local roads. In order to monitor the compliance of drivers with these speed limits the Department collects speed data from traffic counting sites around Great Britain.

The Department monitors traffic speeds and traffic levels at about 180 sites throughout Great Britain using automatic traffic counters. These are generally situated away from junctions, hills or sharp bends, at locations where traffic is likely to be free flowing and not near speed cameras. Thus, in principle, they provide information on the speeds at which drivers choose to travel when their behaviour is not constrained by congestion or other road conditions. These statistics do not indicate average traffic speeds across the road network. Any sites affected by long term road works are excluded. Of course incidents or congested conditions may arise at any site, and when this happens it will reduce speeds below those in free flowing conditions. This is not believed to have a significant effect on the figures published in this bulletin.

In this bulletin the term 'built-up' is used to describe roads to which a 30 mph or 40 mph limit applies; the term 'non-built-up' describes other roads.

The total number of vehicle records which were processed to produce 2003 statistics was about 677 million.

A description of the survey including estimates of the accuracy of the measurement of speed is given at Annex A.

## **SUMMARY OF THE KEY POINTS FROM THE ANALYSIS OF 2003 SPEED SURVEY**

**All the results in this bulletin relate, broadly, to the speeds at which drivers, on roads in Great Britain, travel when not constrained by congestion or other road conditions.**

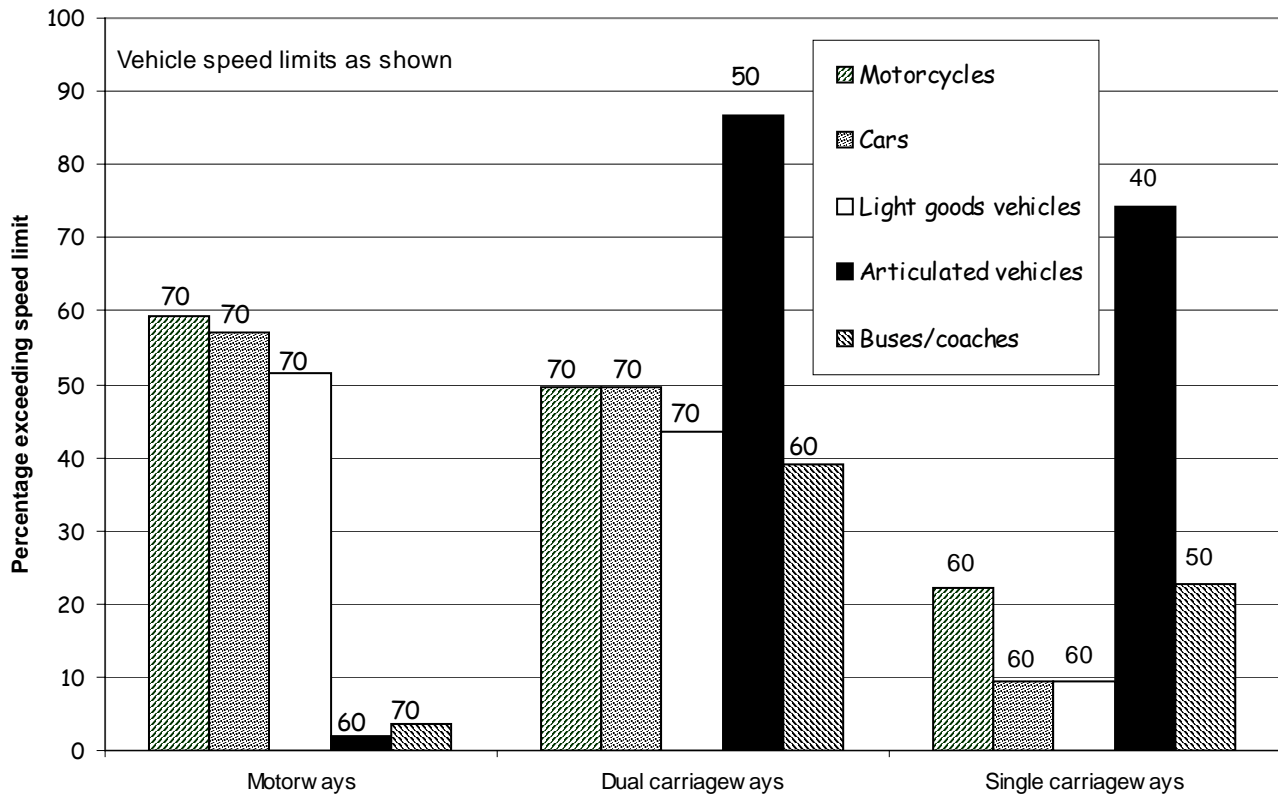
### **NON-BUILT-UP ROADS - 2003 ESTIMATES (Chart 1 and Section 1: Tables 1 - 3)**

- The average recorded vehicle speeds hardly changed from those observed in previous years. The average speed of cars on motorways (71 mph) has remained about the same since 1998. The proportion of cars exceeding the speed limit rose slightly in 2003 to 57 per cent compared with 54 per cent in 2002 and in 2001.
- More than half of all cars observed at the survey sites on motorways exceeded the speed limit and 20 per cent were travelling at more than 80 mph. 28 per cent of motorcycles travelled at more than 80 mph, compared with 27 per cent in 2002
- Nearly half of all cars on dual carriageways exceeded the speed limit; 15 per cent were travelling faster than 80 mph. 23 per cent of motorcycles travelled at more than 80 mph, compared with 26 per cent in 2002.
- On non-built-up single carriageway roads, 9 per cent of cars exceeded the 60 mph limit, 2 per cent travelling at 70 mph or over.
- There was a very high incidence of speeding by heavy goods vehicles (HGVs) on non-built-up dual and single carriageway roads. On dual carriageways, 87 per cent of articulated HGVs surveyed exceeded their 50 mph limit, almost the same proportion as in 2002 (88 per cent). On single carriageways, 74 per cent of articulated HGVs exceeded their 40 mph limit, up from 68 per cent in 2002; 23 per cent were travelling faster than 50 mph compared with 15 per cent in 2002.

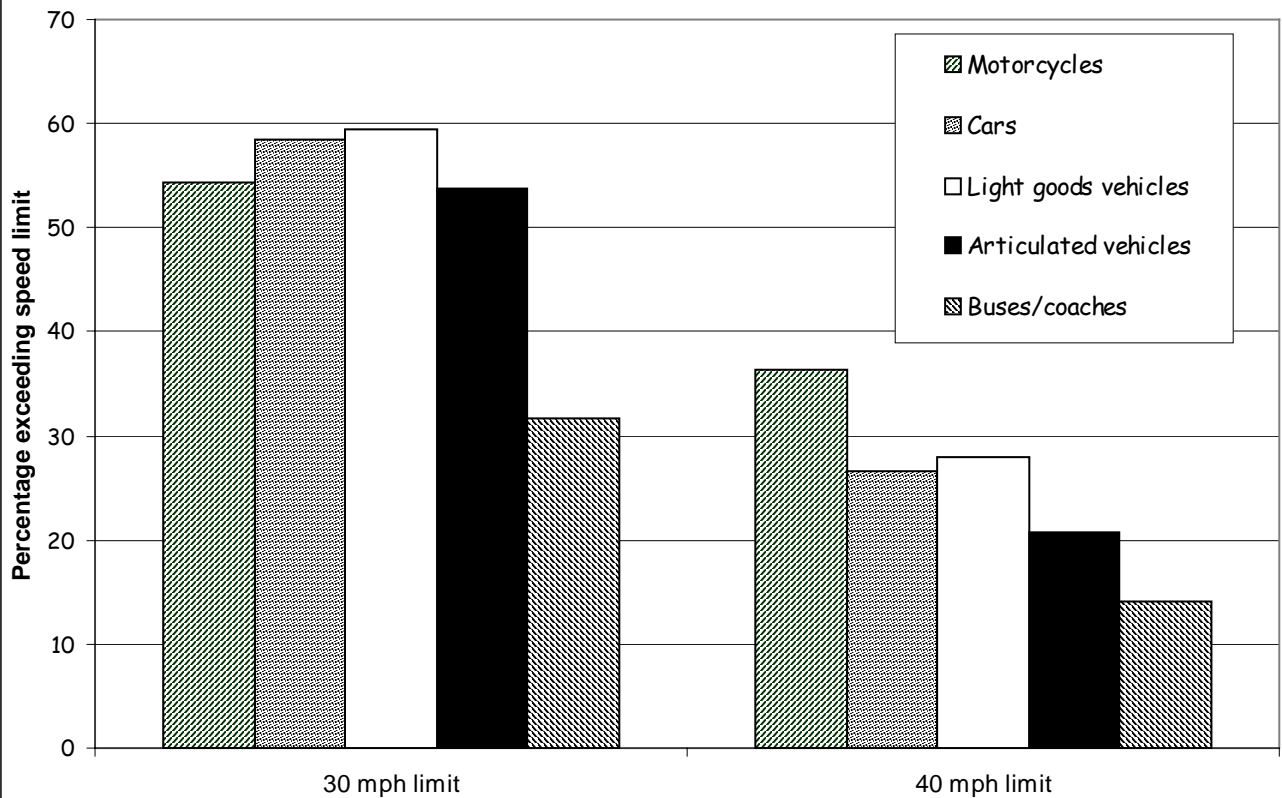
### **BUILT-UP ROADS - 2003 ESTIMATES (Chart 2 and Section 2: Tables 5 - 8)**

- On 40 mph roads, 27 per cent of cars exceeded the speed limit the same as in 2002; 10 per cent travelled faster than 45 mph, also the same percentage as in 2002. 36 per cent of motorcycles exceeded the speed limit, down from 41 per cent in 2002; 19 per cent of motorcycles travelled fast than 45mph compared with 22 per cent in 2002.
- The percentage of cars exceeding the speed limit at 30 mph sites was 58 per cent compared with 59 per cent in 2002. The proportion of motorcycles exceeding the speed limit increased from 47 per cent in 2002 to 54 per cent in 2003. These trends are also reflected in the proportion of vehicles travelling at more than 35 mph: for motorcycles the proportion increased from 24 per cent in 2002 to 29 per cent in 2003 and for cars the proportion remained unchanged at 25 per cent.
- On built-up 30 mph roads, 53 per cent of rigid HGVs exceeded the speed limit compared with 55 per cent in 2002, 21 per cent by more than 5 mph (slightly less than the 23 per cent observed in 2001)

**Chart 1. Percentage exceeding speed limits on non-built-up roads: 2003**



**Chart 2. Percentage exceeding speed limits on built-up roads: 2003**



## **SECTION 1: VEHICLE SPEEDS ON NON-BUILT-UP ROADS (i.e. roads with a speed limit higher than 40mph)**

### **Vehicle speeds by road type and vehicle type (Table 1)**

#### **Motorways**

- 1.1. At the 27 motorway sites surveyed in 2003, 57 per cent of cars exceeded the 70 mph limit and 20 per cent were travelling at over 80 mph. The sites included in the survey are typically ones where the traffic is likely to be free flowing (see the Introduction, page 2, for a fuller explanation.) The speed distribution for light goods vehicles (LGVs) indicates slightly lower speeds than for cars: 51 per cent of LGVs exceeded 70 mph and 17 per cent exceeded 80 mph. Comparisons with earlier years are given on page 10.
- 1.2. The percentage of motorcycles exceeding the motorway speed limit was higher than for cars; 59 percent were travelling faster than 70 mph, and 28 per cent exceeded the limit by more than 10 mph.

#### **Dual carriageways**

- 1.3. The speed distributions at the seven sites on dual carriageways were similar to those on motorways; for all vehicle types average speeds were about the same. Since HGVs, buses and coaches have lower speed limits on non-motorway dual carriageways, many more were exceeding the relevant speed limit. For example, 87 per cent of articulated HGVs were travelling at more than their 50 mph limit and 2 per cent were going faster than 60 mph. The speed limit for buses and coaches on dual carriageways is 60 mph; 39 per cent of those monitored in the survey were exceeding this limit.
- 1.4. The proportion of cars exceeding the 70 mph limit on dual carriageways was 50 per cent, and 15 per cent exceeded 80 mph. 43 per cent of light goods vehicles exceeded the 70 mph limit.

#### **Single carriageways**

- 1.5. Average speeds were lower at the 26 sites and the proportion of vehicles exceeding the speed limit is generally lower on these roads than on dual carriageways. About 9 per cent of the cars surveyed at these sites exceeded the 60 mph national speed limit for single carriageway roads. However 22 per cent of motorcycles exceeded 60 mph and a high proportion of HGVs, in particular the largest goods vehicles, were exceeding their speed limit of 40 mph. For example, 74 per cent of articulated HGVs were exceeding their 40 mph limit and 23 per cent travelling at more than 50 mph.



**Table 1 Vehicle speeds on non-built-up roads by road type and vehicle type: Great Britain: 2003**(a) Motorways<sup>1</sup>

						miles per hour/per cent/number of vehicles				
	Motor-cycles	Cars	Cars towing	Light goods <sup>4</sup>	Buses/coaches	Heavy goods vehicles <sup>5</sup>				
						Rigid			Articulated	
						2 axle <sup>6</sup>	3 axle	4 axle	4 axles	5+ axles
Under 50 mph	4	3	14	3	5	6	12	15	8	7
50-60 mph	16	11	54	14	48	47	83	84	90	91
60-65 mph	9	12	18	13	37	15	4	2	2	2
65-70 mph	12	17	9	17	7	14	1	0	1	0
70-75 mph	16	20	4	19	3	9	0	0	0	0
75-80 mph	16	17	1	15	1	5	0	0	0	0
80-90 mph	20	17	0	14	0	3	0	0	0	0
90 mph and over	7	3	0	3	0	1	0	0	0	0
Speed limit	70	70	60	70	70	n/a	60	60	60	60
% more than 10 mph over the limit	28	20	5	17	0	n/a	0	0	0	0
Average speed	72	71	57	70	59	61	54	53	54	54
Number observed ('000s)	2,479	355,637	2,969	41,535	3,185	19,918	1,893	1,352	6,793	30,180

(b) Dual carriageways<sup>2</sup>

Under 30 mph	0	0	1	0	0	0	0	0	1	0
30-40 mph	1	0	2	0	1	1	2	1	1	0
40-50 mph	8	3	19	4	9	10	21	20	17	12
50-60 mph	20	14	51	19	51	50	74	77	78	86
60-65 mph	9	14	16	15	31	15	2	1	2	1
65-70 mph	11	19	8	17	5	11	0	0	1	0
70-80 mph	27	35	4	30	2	10	0	0	0	0
80 mph and over	23	15	0	13	0	2	0	0	0	0
Speed limit	70	70	60	70	60	n/a	50	50	50	50
% more than 10 mph over the limit	23	15	5	13	3	n/a	3	2	3	2
Average speed	69	69	56	68	58	59	52	52	53	53
Number observed ('000s)	356	38,828	402	3,472	244	1,719	210	155	497	2,172

(c) Single carriageways<sup>3</sup>

Under 20 mph	2	0	1	0	0	1	1	1	1	0
20-30 mph	6	2	4	2	3	3	5	6	5	1
30-40 mph	16	17	19	19	23	23	27	36	27	23
40-50 mph	30	42	52	42	50	46	51	45	50	52
50-60 mph	24	29	21	27	20	23	16	12	17	23
60-65 mph	8	5	2	5	2	3	0	0	0	1
65-70 mph	5	2	0	2	0	1	0	0	0	0
70 mph and over	9	2	0	2	0	1	0	0	0	0
Speed limit	60	60	50	60	50	n/a	40	40	40	40
% more than 10 mph over the limit	9	2	2	2	3	n/a	16	12	17	24
Average speed	50	48	44	48	45	45	43	42	43	45
Number observed ('000s)	523	42,932	571	4,546	346	1,957	301	210	506	2,194

1 Average vehicle speeds from 27 motorways sites.

2 Average vehicle speeds from 7 dual carriageways sites

3 Average traffic speeds from 26 single carriageways sites

4 Goods vehicles under 3.5 tonnes gross weight

5 Goods vehicles over 3.5 tonnes gross weight

6 Speed limit depends on loading which cannot be determined

#### **Percentage of cars exceeding the speed limit, by time of day (Table 2)**

- 1.6. On motorways and single carriageway roads, the percentage exceeding the speed limit was highest at night and lowest during the peak periods. However on dual carriageways average speeds were highest between 6am and 7am and between 6pm and 7pm.

#### **Weekday and weekend comparisons (Table 3)**

- 1.7. There is evidence that speeds increase slightly at the weekend when traffic flows are lower and the proportion of heavy vehicles is much smaller. The proportion of vehicles exceeding the speed limit also generally shows an increase at weekends. For cars and LGVs this was most marked on motorways.

**Table 2 Percentage of cars exceeding the speed limit: by time of day: Great Britain 2003**

*per cent*

Time of day	Motorways	Dual carriageway	Single carriageway
0000-0400	62	40	22
0400-0600	65	48	20
0600-0700	61	54	17
0700-0800	48	51	11
0800-0900	52	51	8
0900-1000	58	48	8
1000-1100	57	44	6
1100-1600	57	46	6
1600-1700	50	49	7
1700-1800	48	50	7
1800-1900	54	53	10
1900-2200	63	51	13
2200-2400	62	41	16
0000-2400	57	50	9

**Table 3 Weekday and weekend comparisons: Great Britain: 2003**

*miles per hour/per cent*

Vehicle type	Road type	Weekday		Weekend	
		% exceeding limit	Average speed	% exceeding limit	Average speed
Cars	Motorway	55	71	63	73
	Dual carriageway	50	69	50	70
	Single carriageway	9	47	10	49
LGVs	Motorway	49	69	60	72
	Dual carriageway	42	68	49	69
	Single carriageway	9	47	13	49
Buses/coaches	Motorway	4	58	2	60
	Dual carriageway	36	57	51	59
	Single carriageway	22	44	29	46
Rigid 3/4 axle	Motorway	3	53	12	54
	Dual carriageway	78	52	81	53
	Single carriageway	63	42	67	43
Articulated	Motorway	2	54	3	54
	Dual carriageway	87	53	85	53
	Single carriageway	74	44	79	46

#### **Comparisons with earlier speed surveys (Table 4)**

- 1.8. Table 4 summarises key results for 2003 and earlier years. The average speed of cars on motorways and the percentage exceeding the limit remained about the same from 2000 through to 2002; however both increased slightly in 2003. Motorcycle speeds on motorways also increased slightly in 2003; the percentage travelling faster than 80 mph rose from 27 per cent in 2002 to 28 per cent in 2003.
- 1.9. The average speed of vehicles travelling on dual carriageways remained about the same as in 2002; car speeds remained about the same but motorcycle speeds have fallen slightly. However there were changes in the distribution of speeds. The proportion of cars exceeding the speed limit increased from 46 per cent in 2002 to 50 per cent in 2003.
- 1.10. On single carriageway roads, the average car speed increased slightly from 47 mph in 2002 to 48 mph in 2003. The average speed of motorcycles increased slightly to 50 mph in 2003 from 48 mph in 2002. The average speed of articulated goods vehicles increased slightly to 45 mph. The proportion of articls exceeding the speed limit increased from 68 per cent in 2002 to 74 per cent in 2003

**Table 4 Vehicle speeds on non-built-up roads: Great Britain: 1998 - 2003**

		number/ miles per hour/per cent					
		1998	1999	2000	2001	2002	2003
Motorways	Sites	25	26	26	26	27	27
	Observations (thousands)	72,414	80,129	54,686	104,119	534,820	465,941
	Average car speed	69	70	70	70	70	71
	% exceeding limit	55	56	55	54	54	57
	% exceeding limit by more than 10 mph	19	19	17	18	18	20
	Average motorcycle speed	71	70	70	70	71	72
	% exceeding limit	62	53	54	54	57	59
	% exceeding limit by more than 10 mph	23	18	18	18	27	28
	Average artic <sup>2</sup> speed	55	55	55	54	54	54
	Percent exceeding limit	7	6	6	5	2	2
	% exceeding limit by more than 10 mph	0	0	0	0	0	0
	Average bus/coach speed	60	61	60	60	60	59
	Percent exceeding limit	3	4	4	4	6	4
	% exceeding limit by more than 10 mph	0	1	1	1	2	0
Dual carriageways	Sites	4	4	4	4	7	7
	Observations (thousands)	8,409	8,916	6,933	9,167	38,913	48,055
	Average car speed	70	70	70	70	69	69
	Percent exceeding limit	54	53	52	51	46	50
	% exceeding limit by more than 10 mph	14	14	13	13	14	15
	Average motorcycle speed	N/A <sup>1</sup>	N/A <sup>1</sup>	67	68	70	69
	Percent exceeding limit	N/A <sup>1</sup>	N/A <sup>1</sup>	38	35	53	50
	% exceeding limit by more than 10 mph	N/A <sup>1</sup>	N/A <sup>1</sup>	15	13	26	23
	Average artic <sup>2</sup> speed	55	54	54	54	53	53
	Percent exceeding limit	91	90	90	88	88	87
	% exceeding limit by more than 10 mph	6	5	4	4	3	2
	Average bus/coach speed	59	59	59	59	57	58
	Percent exceeding limit	49	50	49	49	39	39
	% exceeding limit by more than 10 mph	3	2	2	1	2	3
Single carriageways	Sites	24	24	24	24	28	28
	Observations (thousands)	9,751	12,847	8,304	14,043	46,133	54,084
	Average car speed	46	47	45	45	47	48
	Percent exceeding limit	10	10	9	9	8	9
	% exceeding limit by more than 10 mph	2	2	2	2	1	2
	Average motorcycle speed	N/A	N/A	54	55	48	50
	Percent exceeding limit	N/A	N/A	27	28	23	22
	% exceeding limit by more than 10 mph	N/A	N/A	15	14	11	9
	Average artic <sup>2</sup> speed	45	45	45	44	43	45
	Percent exceeding limit	72	76	76	76	68	74
	% exceeding limit by more than 10 mph	26	29	27	28	15	23
	Average bus/coach speed	42	43	41	41	43	45
	Percent exceeding limit	19	23	22	23	16	23
	% exceeding limit by more than 10 mph	2	2	2	2	2	3

<sup>1</sup>Not collected

<sup>2</sup>artic = articulated heavy goods vehicles

## **SECTION 2: VEHICLE SPEEDS ON BUILT-UP ROADS**

### **Vehicle speeds by speed limit and vehicle type (Table 5)**

#### **2. 30 mph roads**

- 2.1. Travelling above the speed limit on 30 mph roads was common among drivers of all types of vehicle at the 26 sites surveyed. The sites included in the survey are typically ones where the traffic is likely to be free flowing; (see the Introduction, page 2, for a fuller explanation.). This was particularly the case for drivers of cars and LGVs, 58 per cent and 61 per cent of whom, respectively, exceeded the speed limit. 25 per cent of cars were travelling at more than 5 mph above the limit.
- 2.2. 54 per cent of the motorcycles surveyed were exceeding the speed limit and 29 per cent were travelling over 35 mph.
- 2.3. Of heavy goods vehicles, 21 per cent of 2 axle rigid goods vehicles and 17 per cent of the rigid 3 and 4 axle goods vehicles exceeded the speed limit by more than 5 mph. 17 per cent of articulated goods vehicles travelled at over 35 mph.
- 2.4. The speed distribution for buses and coaches indicates lower average speeds than for other vehicles. Nevertheless, 32 per cent of buses and coaches exceeded the speed limit, and 9 per cent did so by more than 5 mph.

#### **40 mph roads**

- 2.5. Average speeds on 40 mph limit roads were about 5 mph higher than on 30 mph roads for most vehicle types and a lower percentage of drivers exceeded the speed limit. Motorcyclists showed the greatest propensity to exceed the speed limit at the 10 sites surveyed, with 36 per cent travelling in excess of 40 mph and 19 per cent above 45 mph. More than a quarter of the cars surveyed exceeded the speed limit, with 10 per cent travelling at over 45 mph.
- 2.6. 21 per cent of 2 axle HGVs were travelling over the speed limit; 21 per cent of 3 and 4 axle rigid HGVs exceeded the speed limit, 5 per cent travelled at over 45 mph. 14 per cent of articulated HGVs exceeded the speed limit, 3 per cent by more than 5 mph.

### **Average car speeds by time of day (Table 6)**

- 2.7. Although the automatic traffic detectors are generally located at places where the traffic is likely to be free flowing, some sites may have been affected by congestion during part of the day. In general, car speeds and the percentage exceeding the speed limit were slightly lower during the morning peak period when the traffic flow was heaviest, and highest in early morning or late evening when traffic was lightest. On 30 mph roads average car speeds varied at different times of the day between 30 mph and 35 mph and on 40 mph roads between 35 mph and 39 mph. At both speed limits the lowest average speeds occurred between 0800-0900.

**Table 5: Vehicle speeds on built-up roads by speed limit and vehicle type: 2003**(a) 30 mph speed limit roads<sup>1</sup>

miles per hour/per cent / number of vehicles

	Motorcycles	Cars	Cars towing	Light goods <sup>4</sup>	Buses/ coaches	Heavy goods vehicles <sup>5</sup>				
						Rigid			Articulated	
						2 axle	3 axle	4 axle	4 axles	5+ axles
Under 20 mph	10	4	6	5	8	7	6	3	6	3
20 - 30 mph	35	38	44	35	61	40	41	36	43	39
30 - 35 mph	26	33	35	33	23	32	38	41	35	41
35 - 40 mph	16	18	13	19	7	15	12	16	13	15
40 - 45 mph	7	5	2	6	1	4	2	3	2	2
45-50 mph	3	1	0	2	0	1	0	1	0	0
50 mph and over	2	0	0	1	0	0	0	0	0	0
% over 35 mph	29	25	16	27	9	21	15	20	16	17
Average speed	31	31	30	31	28	30	30	31	30	31
Number observed (thousands)	810	52,502	149	4,439	454	1,298	103	98	78	152

(b) 40 mph speed limit roads<sup>2</sup>

miles per hour/per cent / number of vehicles

	Motorcycles	Cars	Cars towing	Light goods <sup>4</sup>	Buses/ coaches	Heavy goods vehicles <sup>5</sup>				
						Rigid			Articulated	
						2 axle	3 axle	4 axle	4 axles	5+ axles
Under 20 mph	3	1	2	2	2	2	2	2	2	2
20 - 30 mph	15	15	21	16	20	21	18	17	27	30
30 - 35 mph	20	25	28	24	29	27	25	22	25	28
35 - 40 mph	25	32	31	30	35	30	36	36	29	27
40 - 45 mph	17	17	13	17	11	14	15	17	12	10
45 - 50 mph	10	7	4	7	2	5	3	5	3	2
50 - 60 mph	7	3	1	3	1	2	1	1	1	1
60 mph and over	2	0	0	1	0	0	0	0	0	0
% over 45 mph	19	10	4	11	3	7	4	6	5	3
Average speed	38	36	35	37	34	35	35	36	34	33
Number observed (thousands)	671	41,569	236	3,367	413	1,351	201	131	193	643

<sup>1</sup> Speed measurements taken from 26 sites.<sup>2</sup> Speed measurements taken from 10 sites.<sup>3</sup> Motorcycles includes mopeds and other types of powered two wheeled vehicles.<sup>4</sup> Goods vehicles up to 3.5 tonnes gross weight.<sup>5</sup> Goods vehicles over 3.5 tonnes gross weight.

**Table 6: Average car speeds by time of day: Great Britain: 2003**

miles per hour/ <i>per cent</i>				
Time of day	30 mph limit		40 mph limit	
	% exceeding limit	Average speed	% exceeding limit	Average speed
0600-0700	80	35	39	39
0700-0800	67	32	31	37
0800-0900	53	30	23	35
0900-1000	57	31	24	36
1000-1100	55	31	22	36
1100-1200	55	31	22	36
1200-1300	56	31	23	36
1300-1400	58	31	23	36
1400-1500	57	31	23	36
1500-1600	55	31	24	36
1600-1700	57	31	24	36
1700-1800	57	31	25	36
1800-1900	61	32	29	37
1900-2000	62	32	30	38
2000-2100	65	32	32	38
2100-2200	65	32	31	38
2200-2300	66	33	31	38
2300-2400	69	33	36	39
0600-2400	59	31	26	36

**Table 7: Weekday and weekend comparisons: Great Britain: 2003**

miles per hour/ <i>per cent</i>					
Vehicle type	Speed limit	Weekday		Weekend	
		% exceeding limit	Average speed	% exceeding limit	Average speed
Cars	30mph	57	31	62	32
	40mph	26	36	29	37
LGVs	30mph	58	31	65	32
	40mph	27	36	35	38
Motorcycle	30mph	53	30	59	32
	40mph	35	37	40	39
Rigid 2 axle	30mph	53	30	57	31
	40mph	20	35	27	37



### **Weekday and weekend comparisons (Table 7)**

- 2.8. Average vehicle speeds were slightly higher at the weekend and a greater proportion of drivers exceeded the speed limit. This repeats the pattern shown by the results for non-built-up roads, reflecting the lower traffic volumes at the weekend.

### **Comparisons with earlier speed surveys (Table 8)**

- 2.9. The first built-up speed survey was carried out in 1994 and the survey has been operating continuously since then. Detailed results are shown in earlier editions of this bulletin. The survey method was changed in 2002. Starting then, all the data collected at a site during the year was analysed (in previous years, only a sample was analysed) and the number of 30 mph sites was reduced by 4, from 30 to 26; the number of 40 mph sites increased from 8 to 10.
- 2.10. Table 8 summarises the key results for 2003 and for earlier years. In 2003, the proportion of cars exceeding the speed limit was 58 per cent compared with 59 per cent in 2002 continuing the downward trend seen since 1998 when the proportion of cars exceeding the 30mph limit was 70 per cent. In contrast the proportion of motorcycles exceeding the 30 mph speed limit increased from 47 per cent in 2002 to 54 per cent in 2003 – still lower than in 2001 and previous years

**Table 8 Vehicle speeds on built-up roads: Great Britain: 1998 - 2003**

		number/ miles per hour/per cent					
		1998	1999	2000	2001	2002	2003
30 mph limit	Sites	30	30	30	30	26	26
	Observations (thousands)	2,109	2,218	1,877	2,191	61,619	60,082
	Average car speed	33	32	32	32	31	31
	Percent exceeding limit	70	69	66	65	59	58
	Percent exceeding limit by 5 mph	33	31	32	32	25	25
	Average motorcycle speed	32	32	32	33	29	31
	Percent exceeding limit	60	63	60	59	47	54
	Percent exceeding limit by 5 mph	40	38	35	35	24	29
	Rigid 2-axle HGV speed	31	31	30	31	31	30
	Percent exceeding limit	58	57	54	55	55	53
	Percent exceeding limit by 5 mph	21	20	19	20	23	21
	Average bus/coach speed	28	28	28	28	28	28
	Percent exceeding limit	39	41	38	37	31	32
	Percent exceeding limit by 5 mph	13	11	12	11	9	9
40 mph limit	Sites	8	8	8	8	10	10
	Observations (thousands)	1,121	921	811	989	44,692	48,775
	Average car speed	36	36	37	36	37	36
	Percent exceeding limit	27	26	25	25	27	27
	Percent exceeding limit by 5 mph	8	8	7	8	10	10
	Average motorcycle speed	37	36	37	37	39	38
	Percent exceeding limit	38	35	36	36	41	36
	Percent exceeding limit by 5 mph	19	22	21	21	22	19
	Rigid 2-axle HGV speed	35	34	35	34	35	35
	Percent exceeding limit	19	16	15	15	21	21
	Percent exceeding limit by 5 mph	5	4	3	4	7	7
	Average bus/coach speed	32	31	32	31	34	34
	Percent exceeding limit	7	7	6	6	14	14
	Percent exceeding limit by 5 mph	1	1	1	1	3	3

## ANNEX A: SPEED DATA FROM AUTOMATIC TRAFFIC COUNTERS

This bulletin is based on information about vehicle speeds collected during 2003 from sites on both built-up and non-built-up roads. The non-built-up results in the bulletin are from 27 motorway sites, 7 dual carriageway sites and 26 single carriageway sites. For built-up roads, data were collected from 26 sites with a 30 mph speed limit and 10 sites with a 40 mph limit. The number of vehicle speeds measured daily at the sites varies widely from a few hundred at the least busy site to many thousands at the motorway sites.

The counting equipment uses the output from inductive loops and axle sensors to measure vehicle length, the number and spacing of axles and vehicle speed. The equipment is capable of classifying 21 different vehicle types. However, it cannot distinguish between vehicles with the same electronic 'footprint' such as cars and car-based vans (which have an identical chassis to that of a car). Data for every vehicle detected during the previous day is downloaded from each site during the early morning. Data for periods where it was known that the site was malfunctioning was discarded.

Motorcycle speeds have always been collected in the survey of **built-up** sites. Information on motorcycle speeds at **non-built-up** sites has been included since 2000.

The accuracy of the measurement of speed given in the table below (kph=kilometres per hour):

Speeds between 40 and 80 kph (24.9 mph and 49.7 mph)	$\pm 1$ kph ( $\pm 0.6$ mph)
Speeds between 81 and 160 kph (50.3 mph and 99.4 mph)	$\pm 2.0$ kph ( $\pm 1.2$ mph)
Speeds above 161 kph (100.0 mph)	$\pm 7.5$ kph ( $\pm 4.7$ mph)

Therefore, where a large number of vehicles are travelling at the speed limit, some will be incorrectly recorded at speeds exceeding the speed limit. In table 1 the percentage of vehicles exceeding the speed limit by more than 10 mph is given and in table 5 the percentage exceeding the speed limit by more than 5 mph is shown.

## Annex B: UK maximum speed limits on non built-up roads

		miles per hour		
Vehicle type		Motorway	Dual carriageway	Single carriageway
Cars/motorcycles <sup>1</sup>		70	70	60
Cars towing	1 trailer	60	60	50
	2 or more trailers	40	20	20
Buses/coaches	< 12 metres	70	60	50
	> 12 metres	60	60	50
Goods vehicle	<7.5 tonnes <sup>2</sup>	70	60	50
	artic < 7.5 tonnes	60	60	50
	>7.5 tonnes <sup>3</sup>	60	50	40
Goods vehicle towing 2 or more trailers		40	20	20

<sup>1</sup> Includes car-derived vans

<sup>2</sup> Maximum laden weight; not an artic, trailer puller

<sup>3</sup> Maximum laden weight of cab and trailer

## Scottish Executive

### Transport Publications

Scottish Transport Statistics	£10
Household Transport - some SHS results	£2
Transport Across Scotland: some SHS Survey results for parts of Scotland	£2
SHS Travel Diary results	£2
Travel by Scottish Residents: some NTS results	£2
Bus and Coach Statistics	£2
Road Accidents Scotland	£10
Key Road Accidents Statistics	£2
(SHS = Scottish Household Survey; NTS = National Travel Survey)	

*General enquires on Scottish Transport Statistics:*  
Scottish Executive Development Department, ASD  
Transport Statistics Branch, Victoria Quay,  
Edinburgh EH6 6QQ

*Phone:* +44 (0) 131-244 7255  
*Fax:* +44 (0) 131-244 0888  
*E-mail:* transtat@scotland.gov.uk  
*Internet:* www.scotland.gov.uk/transtat

*These publications are available, payment with  
orders, from: The Stationery Office Bookshop*  
71 Lothian Road, Edinburgh EH3 9AZ  
*Phone:* +44 (0)131 228 4181 *Fax:* +44 (0)131 622 7017

## National Assembly for Wales – Cynulliad Cenedlaethol Cymru

### Transport Publications

2002 Road Accidents: Wales	£10
Welsh Transport Statistics 2002	£10

### Other publications with transport topics

Digest of Welsh Local Area Statistics 2003	£20
Digest of Welsh Statistics 2003	£15
Statistics for Assembly Constituency Areas 1998	£15
Digest of Welsh Historical Statistics 1974-96	£20

*These publications are available from:*

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

*Telephone:* +44 (0) 29-2082 5054  
*E-mail:* stats.pubs@wales.gov.uk  
*Internet:* www.wales.gov.uk

## Northern Ireland Transport Statistics

*Available from:*

Central Statistics and Research Branch  
Department of the Environment, Clarence Court,  
10-18 Adelaide Street, Belfast BT2 8GB

*Tel:* +44 (0) 2890540801  
*E-mail:* csrb@drdni.gov.uk  
*Internet:* http://csrb.drdni.gov.uk

## 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 of Transport (now known as The Institute of Logistics and Transport). From its inception it has had strong links with the Department 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 of transport statistics;
- to encourage the proper use of statistics through publicity and education.

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

- Transport Statistics on the internet
- Aviation Statistics
- Parking Statistics
- Transport and social exclusion
- National Travel Survey User Consultation
- Transport Information Needs of the North of England
- How did you get to the Millennium Dome?

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 contact:

Mr Fred Hitchins  
TSUG Membership Secretary  
IRN Research  
Field House, 72 Oldfield Road  
Hampton  
Middlesex TW12 2HQ

**☎** 020 8481-8832  
*Fax:* 020 8783-3691  
*Email:* tsug@irn-research.com  
*Web:* www.irn-research.com/tsug.html

or

Mr Peter Norgate  
Chairman TSUG  
Mott MacDonald, Transportation & Planning  
St Anne House, 20-26 Wellesley Road  
Croydon CR9 2RL

**☎** 020 8774-2888  
*Fax:* 020 8681-5706  
*Email:* pjn@mm-croy.mottmac.com

The TSUG has contributed to the production of the *Transport Year Book 2001*. This contains information on sources from Governmental and non-governmental organisations, including some European sources. One copy is supplied free to TSUG members. Non-members can purchase a copy from The Stationery Office (TSO) for £40.

# Transport Statistics Publications (as at May 2004)

## TSO publications

### (Transport Statistics Reports - priced)

*Obtainable from:*

#### TSO

Mail, Telephone, Fax and E-mail

PO Box 29, Norwich NR3 1GN

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

Fax orders: +44 (0)870 600 5533

E-mail: [book.orders@tso.co.uk](mailto:book.orders@tso.co.uk)

Telephone: +44(0)870 240 3701

TSO (see Yellow Pages)

London, Birmingham, Manchester, Belfast,

Edinburgh and Cardiff.

TSO's Accredited Agents (see Yellow Pages)

& through good booksellers

### Annual Reports – produced by TSO

Transport Trends: 2001 edition (ISBN: 0-11-552292-1)

Transport Statistics Great Britain: 2003 Edition (ISBN: 0-11-552429-0)

Focus on Personal Travel: 2001 Edition (ISBN: 0-11-552302-2)

Focus on Ports: 2000 Edition (ISBN: 0-11-552216-6)

Focus on Public Transport: 1999 Edition (ISBN: 0-11-552083-X)

Focus on Roads: 1998 Edition (ISBN: 0-11-552056-2)

Focus on Freight: 2003 Edition (ISBN: 0-11-552498-3)

Focus on Freight: 1998 Edition (ISBN: 0-11-552054-6)

Road Accidents Great Britain: 2002 (ISBN: 0-11-552557-2)

Maritime Statistics: 2002 (ISBN: 0-11-552558-0)

Walking in Great Britain (ISBN: 0-11-552040-6)

Cycling in Great Britain (ISBN: 0-11-551864-9)

### Available from DfT Publication Sales Centre:

☎ +44 (0)1709 891318

Cross Channel Passenger Traffic (ISBN: 1-85112-167-6)

Origin and Destination Survey of UK International Trade: 1996

(ISBN: 1-85112-145-5)

Traffic Speeds on English Trunk Roads: 1998 (ISBN: 1-85112-180-3)

**See also TSO's virtual bookshop at: -**

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

### Publications no longer produced by Transport Statistics, which have transferred to other Government Departments:

Transport Statistics for London: 2001 Edition (ISBN: 1-85112-327-X)

Journey Times Survey: Inner & Central London: 1999

Traffic Speeds in Central and Outer London: 1996/97

Traffic Speeds in Inner London: 1996/97

(From the dates given, future editions of the above publications produced by Transport for London - Contact ☎ +44 (0)20 7941 4266 for details)

Bulletin of Rail Statistics (ISSN: 1462-0383)

(From Q2 2000/01 editions of this quarterly bulletin are produced by the

Strategic Rail Authority –

Contact ☎ +44 (0)20 7944 3089 for details)

**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 TSF5, Zone 17, 2<sup>nd</sup> Floor, Great Minster House, 76 Marsham Street, London SW1P 4DR. Great Britain. ☎ +44 (020) 7944 3098.

## DfT: Transport Statistics Publications

### (Transport Statistics Bulletins - free)

*Obtainable from:*

#### Department for Transport

2<sup>nd</sup> Floor Zone 17

Great Minster House

76 Marsham Street

London

SW1P 4DR

☎ +44 (0)20 7944 3098

### Annual Bulletins – produced by Transport Statistics

Bulletin of Public Transport Statistics: 2003 Edition

Concessionary Fares Schemes in England & Wales

National Road Maintenance Condition Survey: 2003

National Travel Survey: 2000/2002

Regional Transport Statistics: 2003

Road Casualties in Great Britain: Main Results: 2002

Road Travel Speeds in English Urban Areas: 2002

Road Traffic Statistics: 2002

Traffic Speeds on English Trunk Roads: 2003

Transport of Goods by Road in Great Britain: 2003

Transport Trends: 2002 Edition

Vehicle Excise Duty Evasion: 2002 Ed.

Vehicle Licensing Statistics: 2003

Vehicle Speeds in Great Britain: 2003

Waterborne Freight in the United Kingdom: 2002

### Quarterly Bulletins – produced by Transport Statistics

Bus Quality Indicators (ISSN: 1472 0647) ☎ +44 (0)20 7944 3076

Road Goods Vehicles Travelling to Mainland Europe

(ISSN: 1367-5095) ☎ +44 (0)117 987 8484

Road Casualties in Great Britain: Quarterly Provisional Estimates (Experimental) ☎ +44 (0)20 7944 4688

Sea Passenger Bulletin ☎ +44 (0)20 7944 4131

Traffic in Great Britain (ISSN: 0269-0993) ☎ +44 (0)20 7944 6599

### Quinquennial Bulletins – produced by Transport Statistics

Review of the Collection of 'STATS19' - Personal Injury Road

Accident Data - SB(98)14

Review of the Local Bus Fares Survey - SB(97)17

Review of Annual Inquiry Survey to PSV Operators - SB(97)16

Review of the Continuing Survey of Road Goods Transport

- SB(97)13

**See also the Transport Statistics web site at: -**

<http://www.dft.gov.uk/transtat>

Printed in the United kingdom for TSO 155670 C12 10/03