

Transport Statistics Bulletin

Vehicle Speeds in Great Britain: 2001 data



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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

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☎ +44 (0)20 7944 – 3095 Fax +44 (0)20 7944 - 3093, E-mail: roadfreight.stats@dft.gsi.gov.uk

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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

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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.

Conversion factors:	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

2001

DEPARTMENT FOR TRANSPORT
STATISTICS BULLETIN (02)21

**The Department for Transport
TSR5 Branch
Zone 2/18
Great Minster House
76 Marsham Street
LONDON SW1P 4DR**

**Telephone: 020 7944 6642
Fax: 020 7944 2164
Email: roadacc.stats@dft.gov.uk**

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

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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 130 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. 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. Any sites affected by long term road works are excluded. These speeds will not be the same as average speeds over whole journeys or sections of the road network. 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.

The sample of locations is small and the results are subject to sampling error. A description of the survey including measurement errors is given at Annex A. The sampling errors of average speeds are given at Annex C.

SUMMARY OF KEY POINTS FROM ANALYSIS OF 2001 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-URBAN ROADS - 2001 ESTIMATES (Chart 1 and Section 1: Table 1)

- More than half of all cars observed at the survey sites on motorways and dual carriageways were travelling faster than the speed limit. 54 per cent of those surveyed on motorways exceeded 70 mph and 18 per cent were travelling in excess of 80 mph, while on non-urban dual carriageways, 51 per cent of cars exceeded 70 mph and 13 per cent were travelling faster than 80 mph.
- On non-urban 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-urban dual and single carriageway roads. On dual carriageways 88 per cent of articulated HGVs surveyed exceeded their 50 mph limit. On single carriageways 76 per cent of articulated HGVs exceeded their 40 mph limit, and 28 per cent were travelling faster than 50 mph.

URBAN ROADS - 2001 ESTIMATES (Chart 2 and Section 2: Table 5)

- At survey sites on urban roads with a 30 mph speed limit 65 per cent of cars exceeded that limit, 32 per cent travelling faster than 35 mph. On 40 mph roads 25 per cent of cars exceeded the limit, with 8 per cent exceeding 45 mph.
- On 40 mph roads 36 per cent of motorcycles exceeded the speed limit, with 21 per cent travelling in excess of 45 mph. And 35 per cent of motorcycles travelled at over 35mph in 30mph zones.
- On urban 30 mph roads, 55 per cent of 2-axle HGVs exceeded the speed limit, 20 per cent by more than 5 mph.

Chart 1: Speeding on non-urban roads

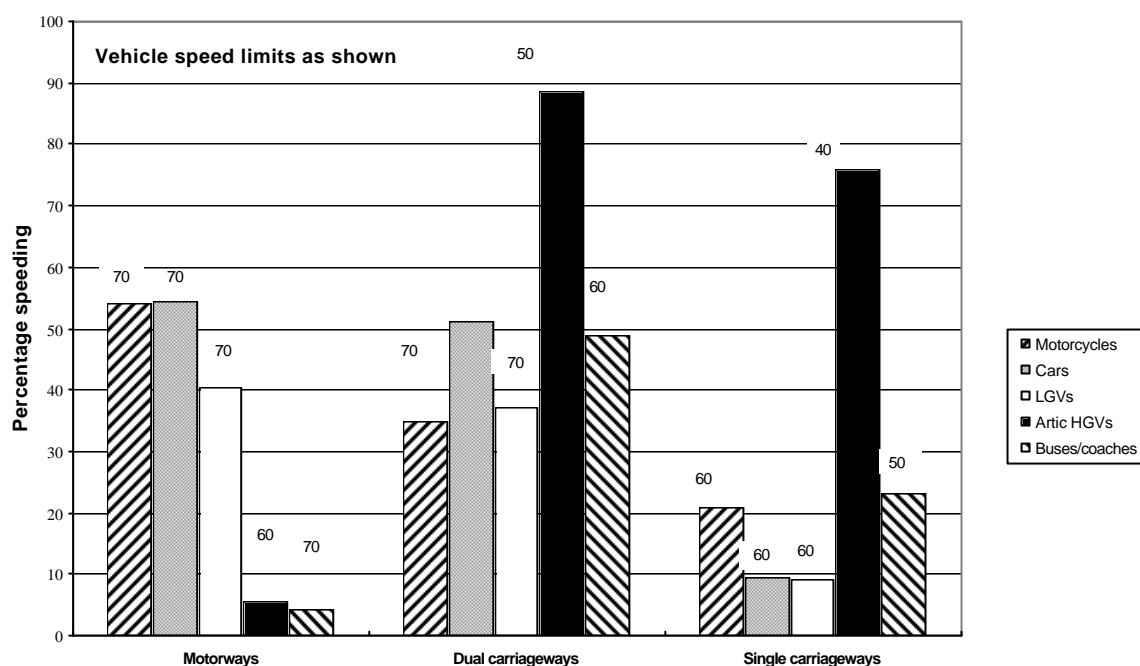
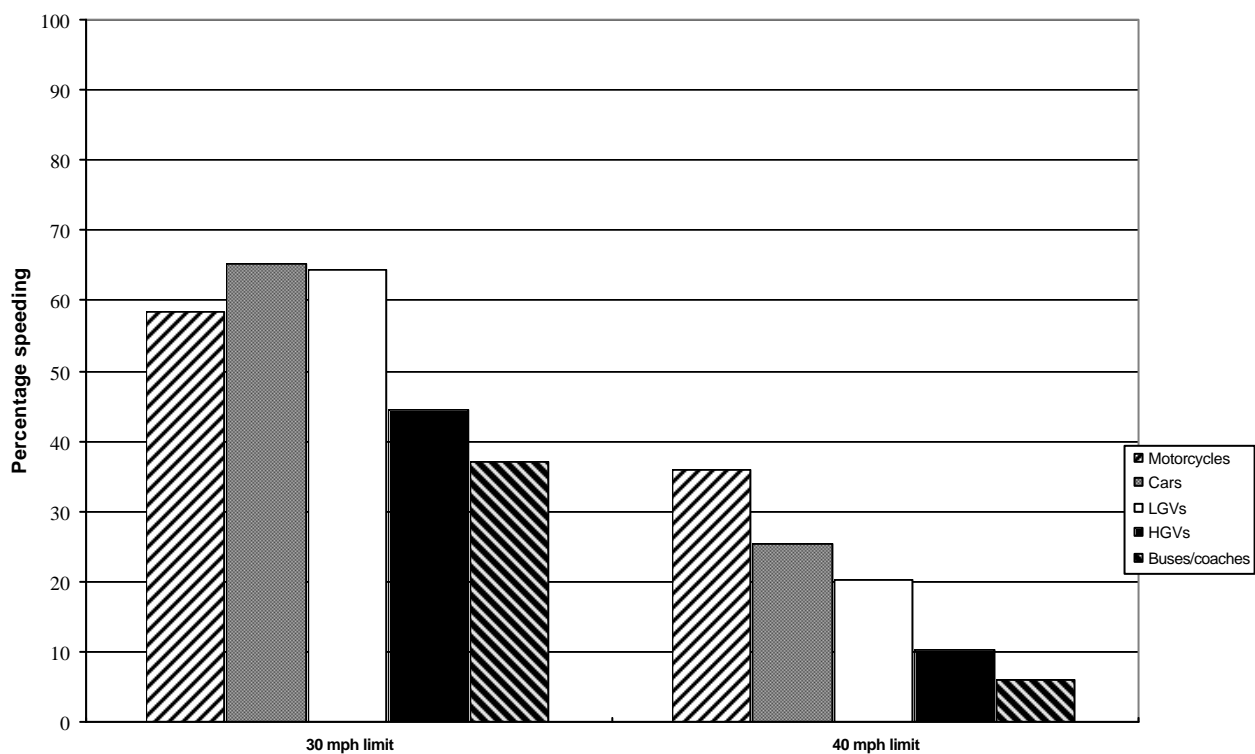


Chart 2: Speeding on urban roads



SECTION 1: DRIVER SPEEDS ON NON-URBAN ROADS

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

Motorways

1. Speeding at the 26 motorway sites surveyed was widespread; 54 per cent of cars exceeded the 70 mph limit and 18 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 3, for a fuller explanation.) The speed distribution for light goods vehicles (LGVs) generally indicates lower speeds than for cars. 40 per cent of LGVs exceeded 70 mph and 9 per cent exceeded 80 mph.
2. The percentage of heavy goods vehicles (HGVs) exceeding their speed limit dropped after the introduction of speed limiters. Since August 1992 speed limiters have been fitted to all new goods vehicles of over 7.5 tonnes gross weight and since 1994 these have been set to 56 mph. Since 1992 most coaches have been fitted with speed limiters set to 70 mph and the lower limit of 65 mph was imposed for new vehicles from 1994.
3. The percentage of motorcycles exceeding the motorway speed limit was the same as for cars; 54 percent were travelling faster than 70 mph, and 18 per cent exceeded the limit by more than 10 mph. These figures should be treated with caution however, as they are subject to greater error (see Annex C).

Dual carriageways

1. In general the speed distributions at the four 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, this means that many more were exceeding the relevant speed limit. For example, 88 per cent of articulated HGVs were travelling at more than their 50 mph limit, and 3 per cent were going faster than 60 mph. The speed limit for buses and coaches on dual carriageways is 60mph; 49 per cent of those monitored in the survey were exceeding this limit.
2. The proportion of cars exceeding the 70 mph limit on dual carriageways was 51 per cent, and 13 per cent exceeded 80 mph. 37 per cent of LGVs exceeded their 70 mph limit.
3. Figures for motorcycles are included but must be treated with caution as there is a much higher standard error for the estimates for motorcycles on dual carriageways than for other vehicles (see Annex C).

Single carriageways

1. Average speeds were lower and the proportion of drivers exceeding the speed limit was generally lower, at the 24 sites on single carriageway roads than on dual carriageways. However, a high proportion of HGVs, in particular the largest goods vehicles, were exceeding their speed limit of 40 mph by more than 10 mph. For example, 76 per cent of articulated HGVs in the survey were exceeding their 40 mph limit, 28 per cent travelling at more than 50mph.
2. About 9 per cent of the cars surveyed at these sites exceeded the 60 mph national speed limit for single carriageway roads.

Table 1 Vehicle speeds on non-urban roads by road type and vehicle type: Great Britain 2001

(a) Motorways ¹						miles per hour/percent/number of vehicles				
	Motorcycles	Cars	Cars towing	Light goods ⁴	Buses/coaches	Heavy goods vehicles ⁵				
						Rigid		Articulated ⁷	Rigid/articulated	
						2 axle ⁶	3/4 axle		4 axles	5+ axles
Under 50 mph	6	4	16	5	5	7	12	6	10	6
50-60 mph	11	12	52	17	30	50	77	89	85	88
60-65 mph	13	11	17	16	47	14	7	4	4	4
65-70 mph	16	19	8	22	14	15	3	1	2	1
70-75 mph	23	23	5	24	2	9	1	0	0	0
75-80 mph	13	13	1	8	1	2	0	0	0	0
80-90 mph	17	17	1	8	1	2	0	0	0	0
90 mph and over	1	1	0	1	0	0	0	0	0	0
Speed limit	70	70	60	70	70	n/a	60	60	60	60
Percentage more than 10 mph over limit	18	18	7	8	1	n/a	1	0	0	0
Average speed	70	70	56	66	60	60	55	54	54	54
Number observed (thousands)	71	80,690	451	5,104	421	4,103	593	5,993	2,013	4,751
(b) Dual carriageways ²										
Under 30 mph	0	0	0	0	0	0	0	0	0	0
30-40 mph	9	0	2	0	0	0	2	1	0	1
40-50 mph	13	2	15	4	7	9	18	10	12	8
50-60 mph	13	14	49	21	44	49	74	85	83	86
60-65 mph	18	16	17	20	38	15	6	3	3	3
65-70 mph	12	17	11	18	10	13	0	0	1	1
70-80 mph	22	38	6	31	1	12	0	0	0	1
80 mph and over	13	13	0	6	0	1	0	0	0	0
Speed limit	70	70	60	70	60	n/a	50	50	50	50
Percentage more than 10 mph over limit	13	13	6	6	1	n/a	6	4	5	5
Average speed	68	70	57	66	59	60	54	54	54	55
Number observed (thousands)	16	6,923	60	523	35	392	87	543	193	411
(c) Single carriageways ³										
Under 20 mph	2	1	1	1	1	1	1	1	1	0
20-30 mph	8	3	4	3	6	4	5	4	5	3
30-40 mph	24	31	24	31	34	33	31	19	29	18
40-50 mph	21	33	43	32	36	36	46	48	45	49
50-60 mph	17	23	25	24	21	23	18	27	19	28
60-65 mph	7	5	2	6	2	2	0	1	1	2
65-70 mph	7	2	1	2	0	1	0	0	0	0
70 mph and over	14	2	0	1	0	0	0	0	0	0
Speed limit	60	60	50	60	50	n/a	40	40	40	40
Percent more than 10 mph over limit	14	2	3	1	2	n/a	18	28	20	30
Average speed	55	45	46	46	41	44	43	44	43	45
Number observed (thousands)	39	11,213	61	879	71	593	127	501	201	397

¹ Average vehicle speeds from 26 motorway sites.

² Average vehicle speeds from 4 dual carriageway sites

³ Average vehicle speeds from 24 single carriageway 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

⁷ Includes 4 and 5+ axle types

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

1. On all road types the percentage of cars exceeding the speed limit was highest during the night and lowest during the peak periods

Weekday and weekend comparisons (Table 3)

1. The number of observations at weekends is small for some vehicle classes on dual carriageways because there is less traffic, so only the broadest conclusions should be made from these results.
2. 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 2001

Time of day	<i>percent</i>		
	Motorways	Dual carriageway	Single carriageway
0000-0400	62	63	24
0400-0600	58	60	18
0600-0700	54	55	11
0700-0800	52	51	7
0800-0900	51	52	7
0900-1000	51	54	9
1000-1100	53	55	12
1100-1600	55	57	15
1600-1700	57	51	8
1700-1800	50	50	7
1800-1900	51	53	8
1900-2200	56	57	15
2200-2400	61	62	26
0000-2400	54	51	9

Table 3 Weekday and weekend comparisons: Great Britain 2001

Vehicle type	Road type	<i>miles per hour/percent</i>			
		Weekday		Weekend	
		% exceeding limit	Average speed	% exceeding limit	Average speed
Cars	Motorway	52	69	62	71
	Dual carriageway	53	70	47	70
	Single carriageway	9	45	9	48
LGVs	Motorway	38	66	50	67
	Dual carriageway	34	65	36	67
	Single carriageway	8	45	8	47
Buses/coaches	Motorway	4	60	7	61
	Dual carriageway	46	58	50	60
	Single carriageway	16	42	20	44
Rigid 3/4 axle	Motorway	10	53	23	56
	Dual carriageway	82	53	85	54
	Single carriageway	58	43	63	43
Articulated	Motorway	6	54	8	55
	Dual carriageway	90	54	88	55
	Single carriageway	69	45	75	47

Comparisons with earlier speed surveys (Table 4)

1. Table 4 summarises key results for 2001 compared with earlier years. The figures show some slight changes from year to year but in general these are not statistically significant. (Annex C gives standard errors of the estimated average speeds for each vehicle type and road class in 2001.)

Table 4 Vehicle speeds on non-urban roads: Great Britain 1997 - 2001

		number/ miles per hour/ percent				
		1997	1998	1999	2000	2001
Motorways	Sites	26	26	26	26	26
	Observations (thousands)	65,444	72,414	80,129	54,686	104,119
	Average car speed	70	69	70	70	70
	Percent exceeding limit	54	55	56	55	54
	Average artic ¹ speed	55	55	55	55	54
	Percent exceeding limit	8	7	6	6	5
	Average bus/coach speed	61	60	61	60	60
	Percent exceeding limit	3	3	4	4	4
Dual carriageways	Sites	5	4	4	4	4
	Observations (thousands)	7,840	8,409	8,916	6,933	9,167
	Average car speed	70	70	70	70	70
	Percent exceeding limit	53	54	53	52	51
	Average artic ¹ speed	55	55	54	54	54
	Percent exceeding limit	91	91	90	90	88
	Average bus/coach speed	59	59	59	59	59
	Percent exceeding limit	53	49	50	49	49
Single carriageways	Sites	24	24	24	24	24
	Observations (thousands)	9,756	9,751	12,847	8,304	14,043
	Average car speed	46	46	47	45	45
	Percent exceeding limit	9	10	10	9	9
	Average artic ¹ speed	44	45	45	45	44
	Percent exceeding limit	70	72	76	76	76
	Average bus/coach speed	42	42	43	41	41
	Percent exceeding limit	16	19	23	22	23

¹ artic = articulated heavy goods vehicles

SECTION 2: DRIVER SPEEDS ON URBAN ROADS

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

30 mph roads

1. Travelling above the speed limit on 30 mph roads was common among drivers of all types of vehicle at the 30 sites surveyed. (The sites included in the survey are typically ones where the traffic is likely to be free flowing; see the Introduction, page 3, for a fuller explanation.) This was particularly the case for drivers of cars and LGVs, 65 per cent and 64 per cent of whom respectively exceeded the speed limit. 32 per cent of cars were travelling at more than 5 mph above the limit.
2. 59 per cent of the motorcycles surveyed were also exceeding the speed limit. Furthermore 35 per cent of motorcycles were travelling at over 35 mph, a higher proportion than any other vehicle type on these roads.
3. Among heavy goods vehicles, 20 per cent of 2 axle rigid goods vehicles and 10 per cent of the heaviest goods vehicles exceeded the speed limit by more than 5 mph.
4. The speed distribution for buses and coaches indicates lower speeds than for other vehicles; nevertheless, 37 per cent of buses and coaches exceeded the speed limit, and 11 per cent did so by more than 5 mph.

40 mph roads

1. Average speeds on 40 mph limit roads were about 5mph higher than on 30mph roads for all vehicle types and a lower percentage of drivers exceeded the speed limit. Motorcyclists showed the greatest propensity to exceed the speed limit at the 8 sites surveyed, with 36 per cent travelling in excess of 40 mph and 21 per cent above 45 mph. A quarter of the cars surveyed exceeded the speed limit, with 8 per cent travelling at over 45 mph.
2. 15 per cent of 2 axle HGVs were travelling over the speed limit; for larger HGVs, the proportion ranged from 9 per cent to 11 per cent. Just over 3 per cent of goods vehicles were found to be exceeding the speed limit by more than 5 mph.

Average car speeds by time of day (Table 6)

1. Vehicle speeds on urban roads were collected between 6 am and midnight. 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 and evening peak periods 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 29 mph and 36 mph and on 40 mph roads between 34 mph and 40 mph. At both speed limits the lowest average speeds occurred between 0800-0900.
2. Percentages speeding on urban roads showed more variation by time of day than the results for non-urban roads shown in Table 2. The pattern of this variation on 30 mph and 40 mph roads was similar.

Table 5: Vehicle speeds on urban roads by speed limit and vehicle type: Great Britain 2016

(a) 30 mph speed limit roads¹ miles per hour/ percent / number of vehicles

	Motorcycles ³	Cars	Cars towing	Light goods ⁴	uses/coaches	Heavy goods vehicles ⁵				
						Rigid	Articulated	Rigid/articulated		
						2 axle	3 axle	3 axle	4 axles	5+ axles
Under 20 mph	17	7	9	7	9	10	12	14	13	14
20 - 30 mph	23	28	39	29	54	35	37	41	37	44
30 - 35 mph	24	33	37	36	26	34	36	33	34	32
35 - 40 mph	17	22	12	21	9	15	13	10	13	7
40 - 45 mph	9	8	3	6	2	4	2	1	2	3
45 - 50 mph	5	2	0	1	0	1	0	0	0	0
50 mph and over	4	0	0	0	0	1	0	0	0	0
Percent over 35 mph	35	32	15	28	11	20	15	12	16	10
Average speed	33	31	30	30	28	31	30	28	29	28
Number observed (thousands)	8	1,952	6	128	18	58	5	2	8	6

(b) 40 mph speed limit roads² miles per hour/ percent/ number of vehicles

	Motorcycles ³	Cars	Cars towing	Light goods ⁴	uses/coaches	Heavy goods vehicles ⁵				
						Rigid	Articulated	Rigid/articulated		
						2 axle	3 axle	3 axle	4 axles	5+ axles
Under 20 mph	11	3	4	2	5	4	4	6	5	7
20 - 30 mph	16	10	13	13	33	18	19	25	24	19
30 - 35 mph	17	26	36	32	34	31	32	30	32	37
35 - 40 mph	20	36	32	33	22	32	33	29	29	29
40 - 45 mph	15	17	13	15	5	11	10	8	8	8
45 - 50 mph	9	6	2	4	1	2	1	1	2	1
50 - 60 mph	9	2	0	1	0	1	0	1	0	0
60 mph and over	3	0	0	0	0	1	0	0	0	0
Percent over 45 mph	21	8	2	5	1	4	2	2	2	1
Average speed	37	36	34	36	31	34	34	33	33	32
Number observed (thousands)	6	856	4	66	7	31	4	2	6	7

1 Speed measurements taken from 30 sites.

2 Speed measurements taken from 8 sites.

3 Motorcycles includes mopeds and other types of powered two wheeled vehicles.

4 Goods vehicles up to 3.5 tonnes gross weight.

5 Goods vehicles over 3.5 tonnes gross weight.

Table 6: Car speeds by time of day: Great Britain 2001

miles per hour/ percent				
Time of day	30 mph limit		40 mph limit	
	% exceeding limit	Average speed	% exceeding limit	Average speed
0600-0700	86	36	43	40
0700-0800	73	33	30	37
0800-0900	57	29	20	34
0900-1000	65	32	22	36
1000-1100	66	32	23	36
1100-1200	65	31	23	37
1200-1300	67	32	23	37
1300-1400	67	32	22	36
1400-1500	66	31	23	37
1500-1600	64	32	23	37
1600-1700	62	31	22	36
1700-1800	60	31	23	36
1800-1900	67	31	25	37
1900-2000	71	32	30	38
2000-2100	73	33	32	39
2100-2200	74	33	32	38
2200-2300	76	34	33	39
2300-2400	78	34	33	39
0600-2400	65	31	25	36

Table 7: Vehicle speeds, weekday and weekend: Great Britain 2001

miles per hour/ percent					
Vehicle type	Speed limit	Weekday		Weekend	
		% exceeding limit	Average speed	% exceeding limit	Average speed
Cars	30mph	62	31	71	32
	40mph	23	36	32	38
LGVs	30mph	64	31	69	32
	40mph	20	36	26	37
Motorcycle	30mph	58	31	67	35
	40mph	35	35	44	39
Rigid 2 axle	30mph	56	30	61	31
	40mph	15	34	23	36

Weekday and weekend comparisons (Table 7)

1. 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-urban roads, reflecting the lower traffic volumes at the weekend.

Average speeds on urban roads by time of year (Charts 3 and 4)

1. Due to the small number of sites surveyed and the small changes seen throughout the year none of the differences in quarterly average speeds observed in 2001 were significant. Looking over a number of years, Charts 3 and 4 show that motorcycle speeds on both 30 mph and 40 mph roads are, generally, higher in the summer and lower in winter, probably because motorcycles are the vehicles most affected by adverse weather conditions and possibly because of seasonal differences in motorcycle usage.

2. Average speeds for most other vehicle types showed little variation throughout the year. For example, average car speeds remained between 32 and 33 mph on 30 mph roads throughout 2001 and between 35 and 37 mph on 40 mph roads.

3. None of the quarterly average speeds in 2001 differed significantly from the average speeds in the corresponding quarter of 2000.

Comparisons with earlier speed surveys (Table 8)

1. The first urban 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 has not changed and the selection of sites has remained largely constant.

2. Table 8 summarises key results for 2001 compared with earlier years. The figures show only slight changes from year to year. In general, these year on year changes are not statistically significant. (Annex C gives standard errors of the estimated average speeds for each vehicle type and road class in 2001.)

3. Some broad patterns are discernible from Table 8. The proportion of drivers exceeding the speed limit on urban roads has fallen slightly over the past five years. However these changes are small and standard errors (see annex c) must be taken into account.

Chart 3: Average speeds for selected vehicle types on 30 mph roads

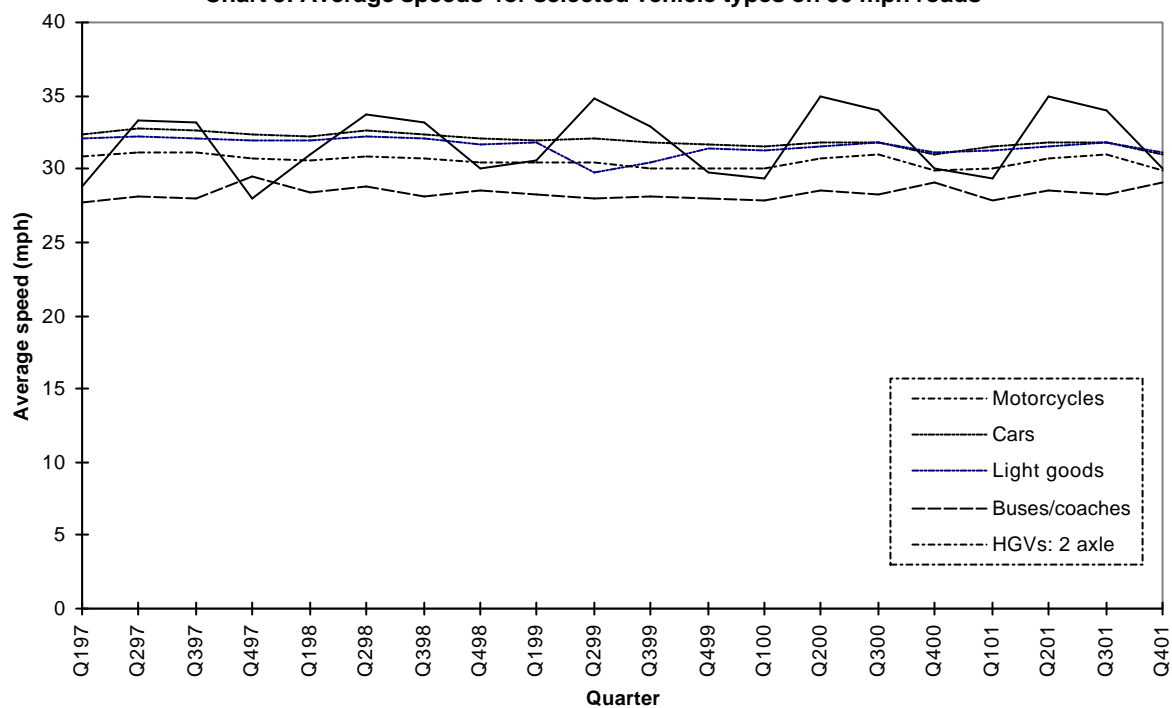


Chart 4: Average speeds for selected vehicle types on 40 mph roads

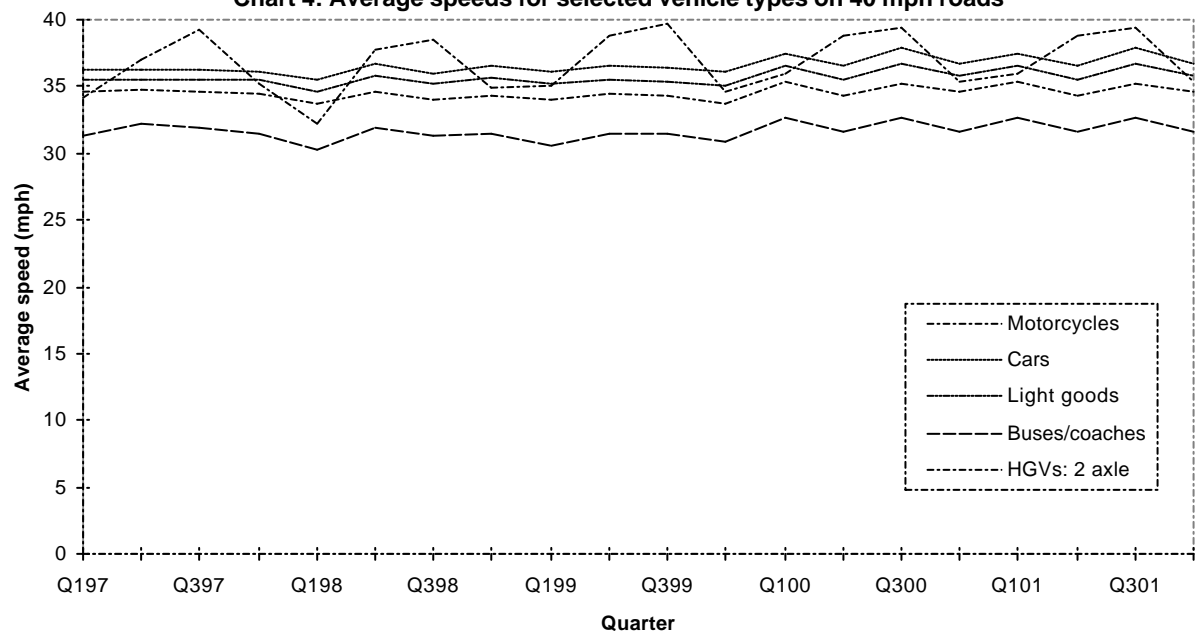


Table 8 Vehicle speeds on urban roads: Great Britain 1997 - 2001 ¹

		number/ miles per hour/ <i>percent</i>				
		1997	1998	1999	2000	2001
30 mph limit	Sites	30	30	30	30	30
	Observations (thousands)	2,109	2,218	2,060	1,877	2,191
	Average motorcycle speed	32	32	33	32	33
	Percent exceeding limit	60	63	62	60	59
	Average car speed	33	32	32	32	32
	Percent exceeding limit	70	69	67	66	65
	Rigid 2-axle HGV speed	31	31	31	30	31
	Percent exceeding limit	58	57	55	54	55
	Average bus/coach speed	28	28	28	28	28
	Percent exceeding limit	39	41	38	38	37
40 mph limit	Sites	8	8	8	8	8
	Observations (thousands)	1,121	921	925	811	989
	Average motorcycle speed	37	36	37	37	37
	Percent exceeding limit	38	35	38	36	36
	Average car speed	36	36	36	37	36
	Percent exceeding limit	27	26	26	25	25
	Rigid 2-axle HGV speed	35	34	34	35	34
	Percent exceeding limit	19	16	15	15	15
	Average bus/coach speed	32	31	31	32	31
	Percent exceeding limit	7	7	7	6	6

¹ Comparisons are indicative only, see commentary.

ANNEX A: SPEED DATA FROM AUTOMATIC TRAFFIC COUNTERS

This bulletin is based on information on vehicle speeds collected during 2001 from sites on both urban and non-urban roads. The non-urban results in the bulletin are from 26 motorway sites, 4 dual carriageway non built-up sites and 24 single carriageway non built-up sites. For urban roads, data were collected from 30 sites with a 30 mph speed limit and 8 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 relies on inductive loop and axle sensors to detect vehicle length, chassis height and the number and position of axles. 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). In previous years, the information on non-urban speeds is collected continuously and stored in 8 pre-set speed bands for 14 groups of vehicles. This year, the counting equipment has been replaced at many sites by equipment, which measures speeds for individual vehicles. Both types have been used for the non-urban speed study in Section 1. The urban speeds in Section 2 are derived from a special survey in which the urban sites were monitored for pre-selected 15-minute periods during which the speeds of individual vehicles were collected.

The types of vehicle identified in the non-urban survey are motorcycles, cars, cars towing, LGVs, buses/coaches, rigid 2 axle HGVs, rigid 3 or 4 axle HGVs, articulated HGVs, all 4 axle HGVs and all 5 or more axle HGVs. There are two important points concerning these categories. Firstly, the categories of goods vehicle are not mutually exclusive and therefore in the non-urban survey some vehicles are counted twice. For example, a 4 axle articulated lorry would appear in both the results for all articulated lorries and the results for all 4-axle heavy goods vehicles. In the urban speed survey such vehicles *have* been uniquely allocated to a single category and the 4 or more axle HGVs are not recorded a second time in the articulated HGV category. Secondly, the automatic counters identify rigid 2 axle lorries but cannot distinguish between vehicles weighing less than 7.5 tonnes gross and those weighing more. The weight of this type of vehicle determines its speed limit on non built-up roads. Consequently, it is impossible to tell how many rigid 2 axle HGVs are speeding on non-built up roads. The speed limits for different types of vehicle on different classes of non-built up road are shown in Annex B.

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

Speeds between 40 and 80 kph	± 1 kph
Speeds between 81 and 160 kph	± 2.0 kph
Speeds above 161 kph	± 7.5 kph

Therefore, where a large number of vehicles are travelling at the speed limit, it is possible that some may be incorrectly recorded at speeds exceeding the speed limit. In table 1, the percentage of vehicles exceeding the speed limit by 10mph is given. In table 4, the percentage exceeding the speed limit by 5mph is given.

Motorcycle speeds have always been collected in the survey of **urban** sites. Information on motorcycle speeds at **non-urban** sites has been included since 2000. However, motorcycles only account for about 1 per cent of traffic, therefore the sample sizes are low and standard errors are high (see Annex C).

The accuracy of the average speeds presented in this bulletin depend on the number of sites surveyed and the number of vehicles observed at each site. The higher these numbers are, the more accurate estimates of average speed will be. Annex C shows the estimates of average speed for each vehicle type together with their estimated standard errors. Sections 1 & 2 contain discussion of the differences between average vehicle speeds over time.

Annex B: UK Maximum speed limits on non built up roads

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

1 Not more than 3.5 tonnes. Includes car-derived vans.

2 Maximum laden weight. Not an artic, trailer puller or car-derived van.

3 Maximum laden weight of cab and trailer

Annex C: Average vehicle speeds and their standard errors: 2001

miles per hour											
							Heavy goods vehicles ³				
							Rigid			Rigid/articulate	
							2 axle	3/4 axle ⁴	articulated ⁵	4 axles	5+ axles
		Motorcycles ¹	Cars	Cars towing	Light goods ²	Buses/coaches					
Non-urban sites											
Motorways ⁶	Average speed	70.0	70.0	56.2	66.3	60.4	59.7	54.6	54.4	54.3	54.2
	Standard error	2.1	0.8	0.8	0.9	0.5	0.7	0.4	0.4	0.4	0.4
Dual carriageway	Average speed	69.8	70.1	56.7	66.4	59.1	59.6	53.5	53.8	53.7	54.6
	Standard error	5.1	2.1	1.8	2.2	1.5	1.8	0.9	1.4	1.0	1.5
Single carriageway	Average speed	54.6	45.4	45.9	45.5	40.9	44.2	42.6	44.4	43.0	45.4
	Standard error	2.7	1.7	1.2	1.7	1.7	1.4	1.3	1.7	1.2	1.4
Urban sites											
30mph ⁶	Average speed	33.4	31.4	29.6	30.4	28.3	30.6	29.5	28.0	29.4	27.6
	Standard error	2.1	0.8	0.8	0.9	1.1	0.8	0.8	0.7	0.8	2.2
40mph ⁶	Average speed	37.4	36.3	34.4	36.1	31.4	34.4	33.7	32.8	33.4	31.9
	Standard error	2.7	1.3	1.0	1.2	1.2	1.0	1.1	0.9	1.0	1.5

1 Motorcycles includes mopeds and other types of powered two wheeled vehicles

2 Goods vehicles up to 3.5 tonnes gross weight

3 Goods vehicles over 3.5 tonnes gross weight

4 Does not include 4 axle types on urban roads

5 Includes 4 and 5+ axle types

6 Number of sites given in table 4 or table 8

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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 of 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
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- Parking Statistics
- Transport and social exclusion
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- Transport Information Needs of the North of England
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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 or
TSUG Membership Secretary
Information Research Network,
Greenhill House, 90-93 Cowcross Street
London EC1M 6BF
☎ 020 7251-4040
Fax: 020 7251-8542
Email: tsug@irn-research.com
Web: www.irn-research.com/tsug.html

Mr Peter Norgate
Chairman TSUG
Mott MacDonald, Transportation & Planning
St Anne Hse, 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.

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