

Traffic Volume

General details	Traffic volume as measured by traffic flows
Area output	National, regional and local authority
Time period	
Source	Transport statistics from the Department of Transport Local traffic flows from KMC Highways Other data from the National Travel Survey
Provider	Department of Transport and KMC Highways
Comments	Traffic volume estimates are based on relatively small samples and at a local level must be treated with caution.

1 Introduction

1.1 National traffic estimates are derived from traffic counts, some manual and some automatic (which are calibrated for traffic composition by manual counts) taken at a large number of sites on a representative sample of road types during “neutral” months (unaffected by seasonal variations in traffic such as summer holidays).

1.2 Traffic counts are translated into Annual Average Daily Flows using conversion factors and because the lengths of roads are known, traffic volume in vehicle kilometres can be calculated by multiplication (and expressed as million (or billion) vehicle kilometres).

1.3 Traffic volumes are influenced by the number of vehicles and the number people who hold a driver’s licence as well as the propensity to travel.

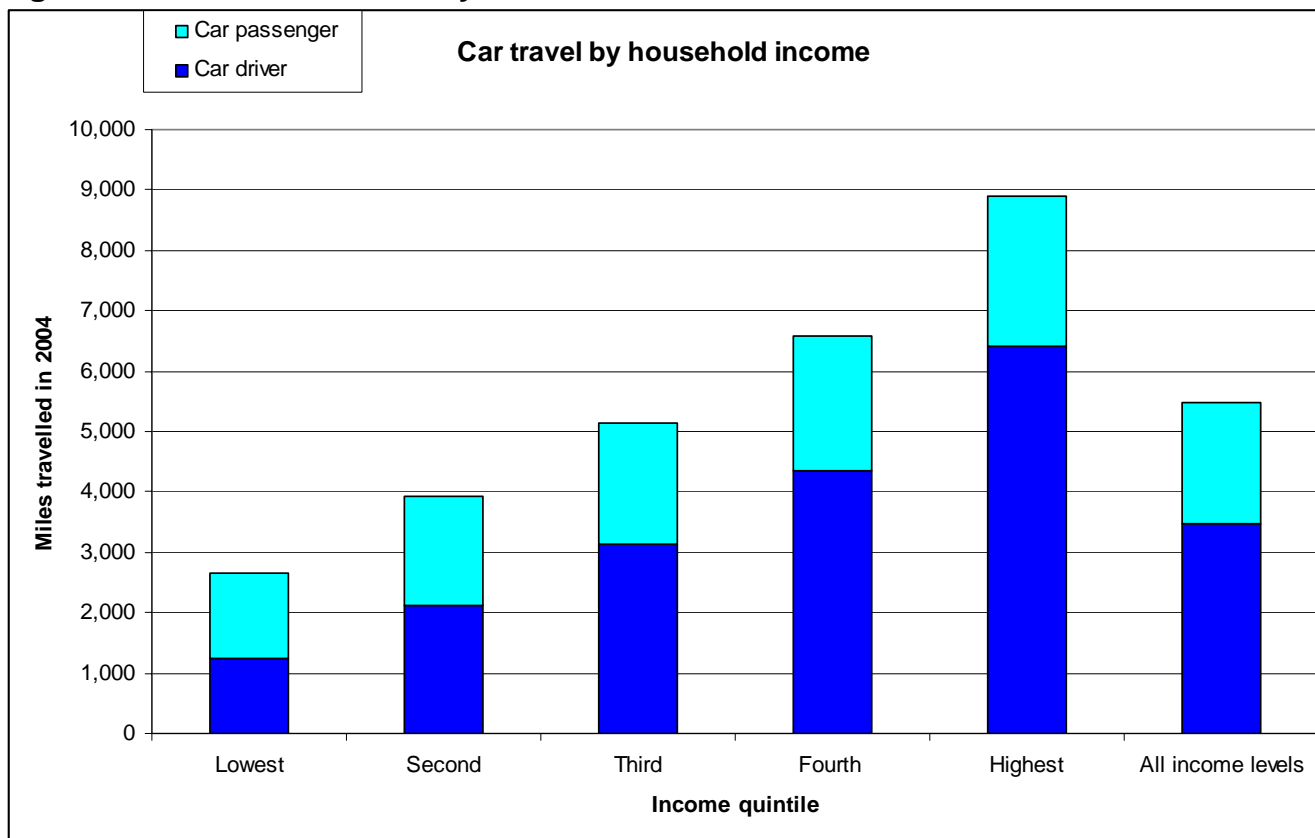
1.3.1 According to the National Travel Survey, the proportion of households in Great Britain which did not have access to a car fell from 33 per cent in 1992/94 to 26 per cent in 2004, whereas the proportion with two or more cars rose from 23 per cent to 29 per cent over the same period. There are now more households with at least two cars than households with no car.

1.3.2 According to the last Census in 2001, 73.2% of households in England and Wales had a car or van and 29.4% had two or more cars. The 24 million cars and vans in England and Wales identified in the census meant that there was one car for every 1.7 adults over 16 years.

1.3.3 The proportion of women holding full car driving licences increased from 54% to 61% between 1992 and 2004, while the proportion of men holding licences has remained at 81%. Over the same period, the proportion of women aged 70 or over holding licences increased from one in six, to more than one in four.

1.3.4 The proportion of young driving licence holders has decreased sharply. Twenty-six per cent of those aged 17-20 now hold a licence, compared with 48 per cent in 1992. Possible reasons for this may include the increasing difficulty of passing the driving test (including the theory test introduced in 1996); increased costs of lessons and insurance; and more young people are students and unable to afford cars.

Figure 1: Car travel distance by household income 2004



Source: National Travel Survey 2004

1.4 Wealthier people travel further than poorer people for all modes of travel except walking and using a bus. Figure 1 shows that people from the wealthiest quintile (a quintile is simply a fifth) of households travel more than three times further by car than those in the poorest quintile of households

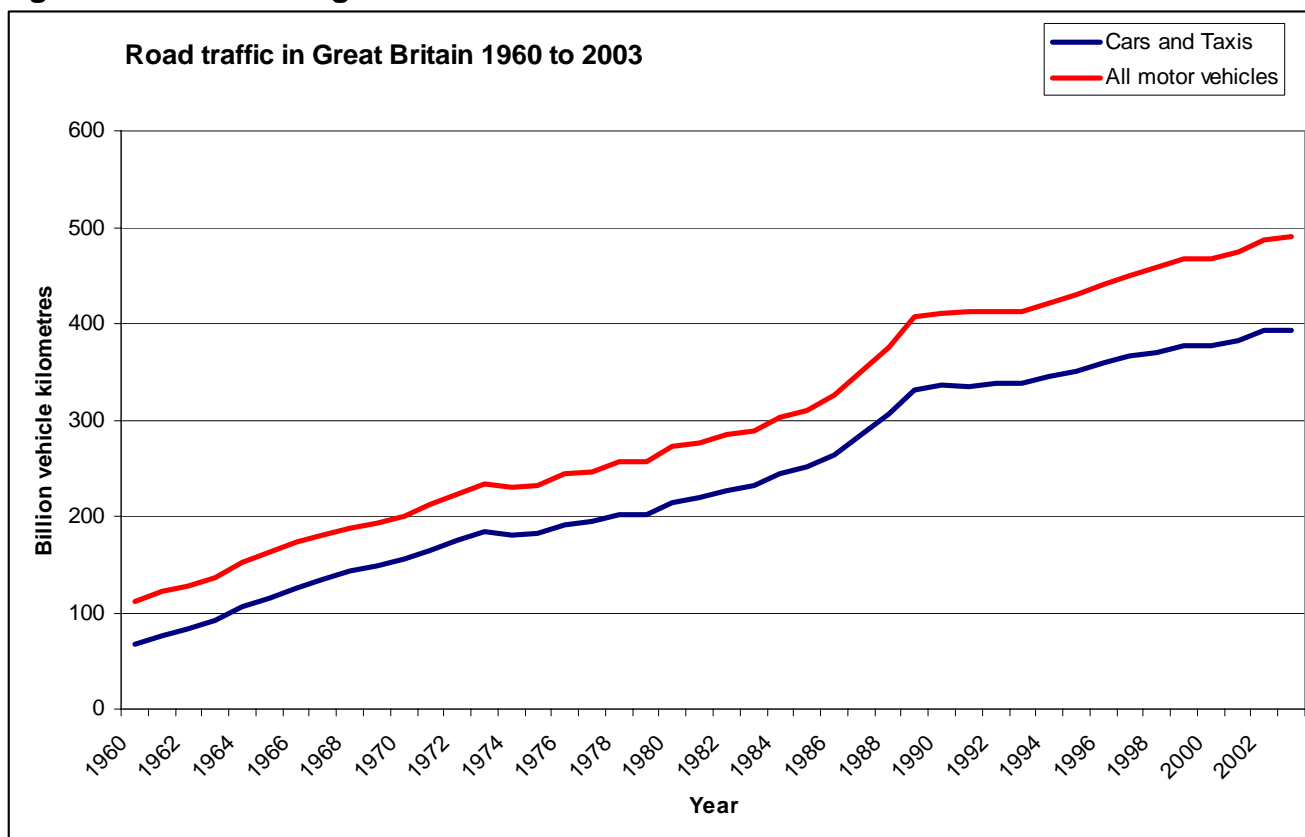
1.5 Traffic is not spread evenly across the road network. In 2003, motorways accounted for less than 1% of road length but carried 19% of all traffic. Trunk roads (excluding motorways) made up 2% of the network but carried 14% of all traffic. Other major roads accounted for 10% of road length and carried 32% of traffic. Minor roads (B, C and unclassified roads) made up 87% of road length and carried 36% of traffic.

2 National and Regional Figures

2.1 Traffic volume in Great Britain (as measured in billion vehicle kilometres (see 1.2 above) has risen almost every year since records have been kept. Figure 2 graphs the rise since 1960. Traffic declined slightly in the early 1970s due to the sudden increase in the price of oil and maintained a plateau in the early 1990s following a period of very rapid growth in the late 1980s.

2.2 In 1960, cars and taxis accounted for just over 60% of total traffic, in 2004 the figure was 80%.

Figure 2: Road traffic growth in Great Britain 1960 to 2003



Source: Transport Statistics for Great Britain 2004

2.3 Table 1 contains bi-annual estimates of road traffic for the region, England, Great Britain and the individual districts of West Yorkshire. All areas show significant increases over the last 10 years.

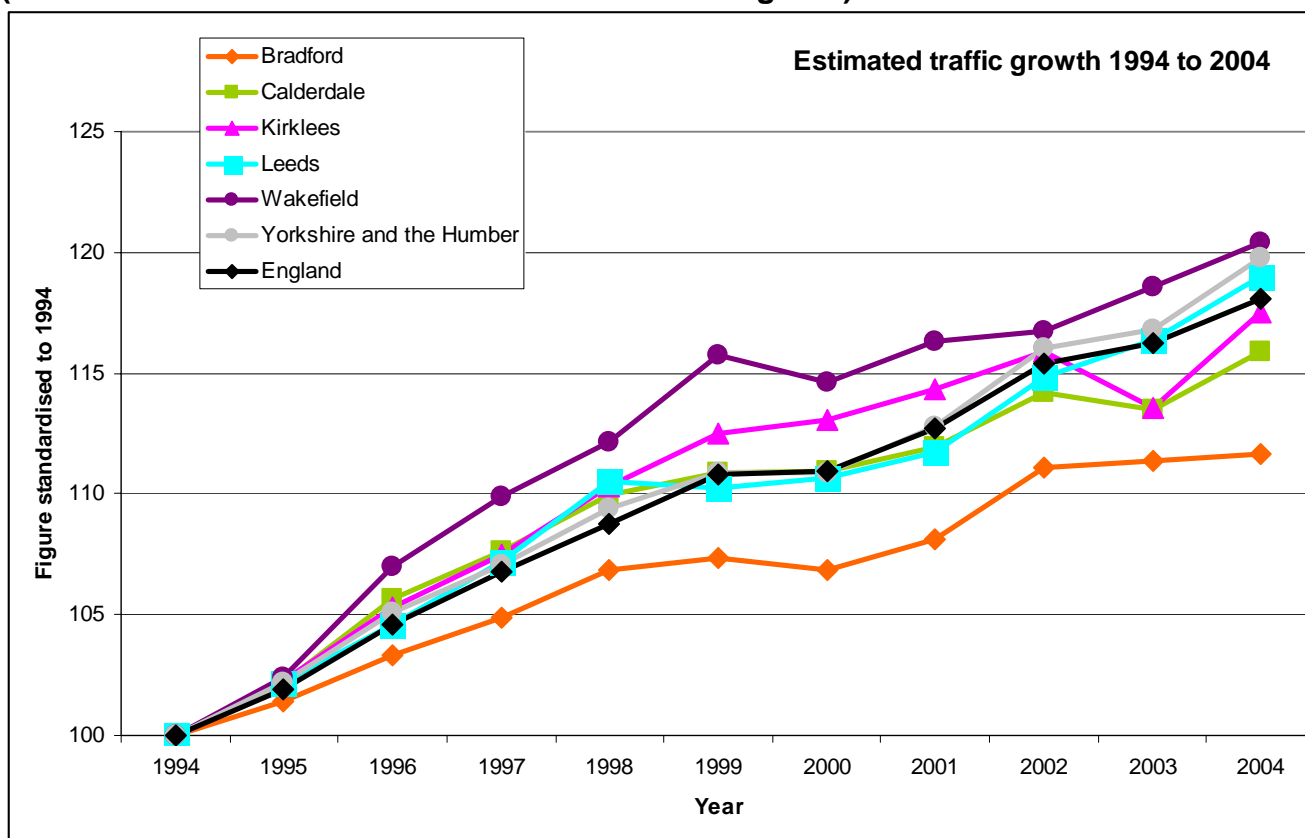
Table 1: Estimated traffic volume for all motor vehicles by area: 1994 - 2004 (million vehicle kilometres)

Area	1994	1996	1998	2000	2002	2004
Bradford	2169	2241	2318	2318	2410	2421
Calderdale	1308	1382	1438	1451	1494	1516
Kirklees	2223	2341	2452	2514	2576	2613
Leeds	5329	5573	5890	5898	6119	6342
Wakefield	2179	2331	2443	2498	2543	2624
Yorkshire and the Humber	34724	36501	37995	38502	40294	41579
England	363157	379944	395057	402890	419026	428818
Great Britain	421540	441123	458491	467086	486514	498606

Source: Transport Statistics for Great Britain 2004, Department of Transport

2.4 Figure 3 shows the annual increase in estimated traffic using 1994 as a base year (value 100) for the region, England and each of the districts in West Yorkshire. With the exception of Bradford, all areas saw an increase in traffic of between 15 and 20% within the ten year period.

Figure 3: Estimated traffic flows for all motor vehicles by area: 1994 - 2004 (million vehicle kilometres standardised to 1994 figures)



Source: Transport Statistics for Great Britain 2004, Department of Transport

2.5 Kirklees had the highest rate of car ownership in West Yorkshire according to the last Census with more cars owned than households. However, car ownership is lower in Kirklees than in the rest of England and Wales.

2.6 In Kirklees, 70% of households had a car or van, which is a 7.5% increase on the 1991 Census figure. Twenty-six point nine percent of Kirklees households have two or more cars and the total number of cars owned by Kirklees residents has risen from 128,200 in 1991 to 165,000 in 2001.

Table 2: National and regional car ownership from the 2001 Census

	None	Number of cars	Cars per household
England and Wales	26.8	23936250	1.11
West Yorkshire	32.2	836148	0.98
Bradford	32.5	174288	0.97
Calderdale	31.0	81061	1.00
Kirklees	29.6	164970	1.04
Leeds	34.5	284243	0.94
Wakefield	30.6	131586	1.00

3 Kirklees Figures

Table 3: Index of traffic growth 1994-2004 (16 hour 2-way flows) 1970 base, West Yorkshire

Year	A roads	B roads	Unclass roads	Urban	Rural	All roads
1979	100	100	100	100	100	100
1994	144.3	159.2	162.1	146.3	156.7	149
1995	143.3	152.4	167.6	145.6	157	148.6
1996	145.1	156.5	164.4	145.8	161	149.7
1997	146.1	159.1	169.3	146.9	165	151.6
1998	141.8	149.9	159.7	141.6	158	145.8
1999	144.8	159.2	166.7	145.5	163.6	150.2
2000	143.6	161	170.7	145.5	163.8	150.2
2001	143.5	159.4	172.5	146.1	162.4	150.3
2002	144.4	151.4	170.9	143.8	167.3	149.8
2003	145.8	160.6	175.9	145.6	173	152.6
2004	144.6	158.8	175.8	144.6	171.9	151.6

Source: KMC Highways. Data rebased to take account of the effects of the A1/M1 link road 90 sites in West Yorkshire, 46 A roads, 15 B roads and 29 other (C) roads

3.1 Figures from Kirklees and the other West Yorkshire districts suggest a smaller increase in traffic growth than the national figures. Using data from traffic counts (average 16 hour (6 a.m. to 10 p.m.) two-way traffic flows on a sample of 90 road sites in West Yorkshire) that was not converted in vehicle kilometres, West Yorkshire has seen a 50% increase in traffic since 1970, of which very little occurred within the last 10 years.

Table 4: Index of traffic growth 1994-2004 (16 hour 2-way flows) 1970 base, Kirklees

Year	A roads	B roads	Unclass roads	Urban	Rural	All roads
1979	100	100	100	100	100	100
1994	142	151.9	184.2	148	168.6	151.5
1995	143.5	148.8	190.7	150.7	167.1	153.5
1996	143.5	151.3	190.9	149.8	173.5	153.8
1997	145.2	155.3	199.2	153.1	176.8	157.1
1998	142.4	144.9	182.9	147.6	165.9	150.7
1999	143.2	158.2	184.9	149.8	169.5	153.2
2000	145.5	166.6	195.8	154.1	176.3	157.9
2001	142.8	156.9	194.3	150.9	172.6	154.6
2002	144.6	154.8	188.5	152.1	165.9	154.5
2003	146.1	170	200.1	155.6	178.8	159.5
2004	141.4	170.5	206.2	153	180	157.6

Source: KMC Highways. 17 sites in Kirklees, 8 A roads, 3 B roads and 6 other (C) roads.

3.2 Table 3 shows the traffic increase at those West Yorkshire sites that lie inside Kirklees. These suggest an approximate 6% increase in traffic over the last decade for traffic on all roads. As with the West Yorkshire figures, the growth has mostly occurred on rural and unclassified roads.

3.3 Car ownership is not spread evenly within Kirklees. The larger, more affluent rural wards have high rates of car ownership while the urban and less affluent wards have lower rates.

Table 5: Car Ownership by 2004 Wards from the 2001 Census

	No cars	Number of cars	Cars per household
Newsome	44.6	5528	0.74
Dewsbury West	40.4	5280	0.80
Ashbrow	38.9	6806	0.90
Greenhead	37.7	6367	0.85
Dalton	36.5	6468	0.87
Batley East	36.3	5633	0.86
Crosland Moor & Netherton	36.3	6126	0.88
Dewsbury East	34.4	6507	0.92
Thornhill	32.3	6095	0.97
Batley West	32.0	6231	0.95
Golcar	29.8	7244	0.98
Almondbury	29.2	7288	1.01
Liversedge & Gomersal	28.6	7566	1.07
Birstall & Birkenshaw	25.5	7597	1.12
Cleckheaton	25.4	7662	1.13
Heckmondwike	25.2	7069	1.09
Colne Valley	24.9	7715	1.12
Lindley	24.8	7942	1.11
Holme Valley North	21.4	8069	1.22
Mirfield	21.4	9588	1.23
Holme Valley South	18.0	9692	1.36
Denby Dale	16.9	8423	1.37
Kirkburton	14.9	8075	1.42
North Kirklees	30.0	69229	1.02
South Kirklees	29.3	95741	1.05
Kirklees	29.6	164970	1.04
Kirklees (1991 Census#)	37.1	128166	0.87

3.4 Both national and local estimates of traffic are based on small samples of both sites and numbers of counts at those sites. The estimated figures must therefore be viewed with caution. Differences between the national and local estimates can partly be reconciled as the local figures do not include the types of roads that nationally have seen the greatest increases in traffic over the last ten years. These are motorways (a 36% increase in traffic from 1993 to 2003) and major rural trunk roads (a 23% increase)

3.5 Whilst it appears that most of the roads of Kirklees have not experienced as great an increase in traffic as other parts of the country or the massive traffic increase on the motorways, the trends of increasing car ownership, increasing numbers of licence holders and increasing wealth, suggest that traffic growth will continue and possibly accelerate in the future.

4 Links and further information

Information Note 13: Traffic Growth in West Yorkshire
Transport Policy Monitoring: Kirklees MC Highways, February 2005

The National Travel Survey 2004: Department of Transport
http://www.dft.gov.uk/stellent/groups/dft_transstats/documents/page/dft_transstats_039294.hcsp

Transport Trends 2004: Department of Transport
http://www.dft.gov.uk/stellent/groups/dft_transstats/documents/divisionhomepage/035611.hcsp

Office for National Statistics
<http://www.statistics.gov.uk/default.asp>

5 Indicator archive

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