Transport

Chapter 13

» The latest available data from the fourth quarter of 2008 show that **Londoners spent an average of 38 minutes travelling from home to the workplace**, almost ten minutes more than commuters in any other UK region.

» Just **35 per cent of Londoners drove to work** in either a car, van or minibus, **roughly half the proportion of any other UK region**.

» In 2007/08 there were **1.1 billion passenger journeys made on the London Underground**. The distance travelled by those undertaking these journeys totalled 8.4 billion kilometres.

» The **number of people entering central London** between the hours of 7am and 10am **has increased by ten per cent since 1997**, to a total of 1.14 million in 2007.

» Following the introduction of the congestion charge in February 2003 there was **a decrease of 18 per cent** on the previous year **in use of private cars to travel to work. By 2007, use of private cars had fallen by 28 per cent since 2003**.

» The UK rate of **motor vehicle traffic per household in 2006 was 22 thousand kilometres, more than double the London rate** of just 10 thousand kilometres per household.

» London has already met the government target of a 40 per cent reduction in the number of **fatal or serious road accidents** by 2010 compared with the 1994-1998 average. The **London reduction of 47 per cent by 2007 was the largest of any region**, although both the West Midlands and Scotland have also met the target.

» In 2007, **36 per cent of London households did not have access to a car,** five percentage points greater than the next highest UK region. Furthermore, the capital had the lowest total rate of licensed vehicles at 398 per 1,000 population.

» The total number of **passengers using London airports has increased by around a third** (34 per cent) during the period 1998-2008, to a total of 136.8 million. Just **over half of all passengers at London terminals were recorded at Heathrow Airport**.

Introduction

This chapter will begin by examining commuting patterns within the capital, including duration of journeys and the usual mode of transport used. It then looks at specific forms of transport including use of London Underground, the most extensive underground network in the world, the capital's bus network and the use of private cars. The focus then shifts to a discussion of traffic patterns on London's roads including volume, distribution and accidents occurring, before concluding with an analysis of travel flows at London's major airports.

Travel

During the period October to December 2008, London workers spent an average of 38 minutes travelling from home to the workplace, almost ten minutes more than commuters in any other UK region (Figure 13.1). The capital had the joint highest percentage of commuters taking more than an hour to get to work at nine per cent, whilst just 30 per cent had an average journey time of less than 20 minutes. This is 28 percentage points lower than the next lowest region – the South East.

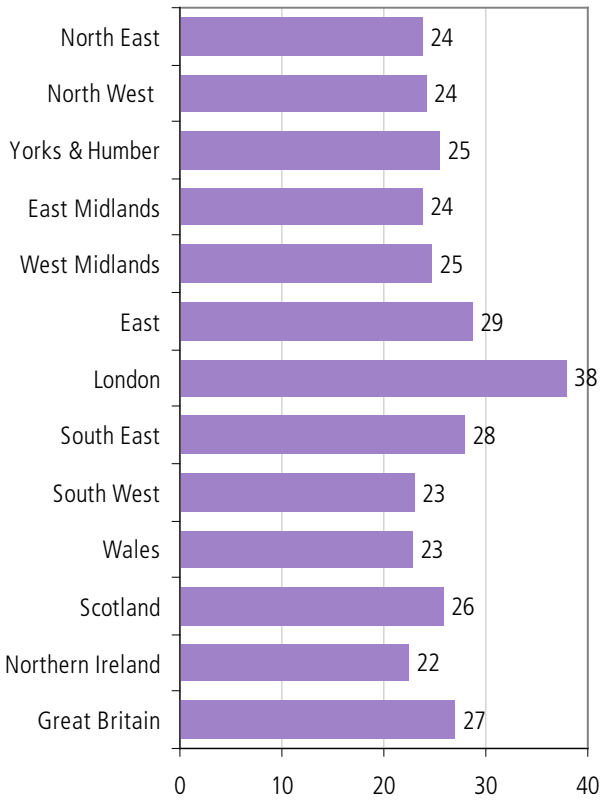
In October to December 2007, those travelling by rail had the longest journey at an average of one hour. The average car journey to work took 37 minutes - 11 minutes longer than the next closest region, whilst Londoners also spent more time walking to work than any other region, with an average journey taking 17 minutes to complete. The capital also had the longest time taken by those cycling to work at 28 minutes (Table 13.14).

The fourth quarter results of the 2008 Labour Force Survey reveal that just 35 per cent of people in London commuted to work using either a car, van, minibus or works van (Table 13.15). This is roughly half of the percentage for any other UK region. In the case of London, public transport proved a much more popular travel choice. Indeed, half of all journeys made to work surveyed during this period utilised either bus or coach, railway or underground/light railway or tram as the primary means of transport. In contrast the UK figure for the same modes of transport was just 15 per cent. Just one in ten people in London walked to work, however

Figure 13.1

Mean time taken to travel to work, fourth quarter 2008

Minutes

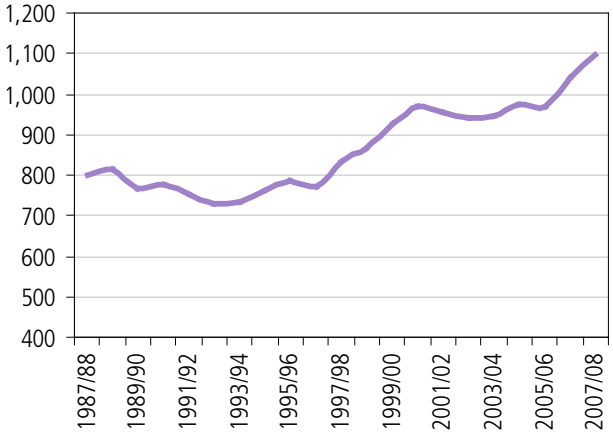


Source: Labour Force Survey, 4th Quarter 2008

Figure 13.2

Passenger journeys on London Underground 1987/88 to 2007/08

Millions

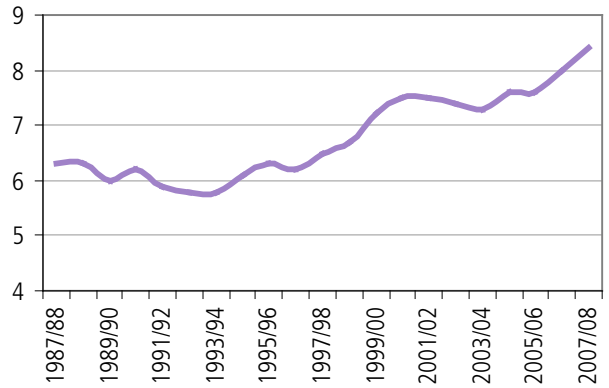


Source: London Underground, Office of the rail regulator

Figure 13.3

Passenger kilometres on London Underground 1987/88 to 2007/08

Billions



Source: London Underground, ORR

this is consistent with the national average, only the South West has a notably higher rate of 13 per cent.

There has been an overall increase in both passenger journeys and passenger kilometres on London Underground services over the last 20 years (Figures 13.2 and 13.3). In 1987/88 passenger journeys numbered 672 million, by 1997/98 this had increased to 832 million. The most recent estimate taken in 2007/08, indicates there were 1.1 billion journeys made. equal to over 145 journeys per resident. The distance travelled by underground users has increased by 35 per cent over the same period, which equates to 2.2 billion kilometres, taking the 2007/08 total to 8.4 billion kilometres.

Table 13.4 shows the total number of people entering central London between 7am and 10am has increased by 102 thousand since 1997 to 1.14 million in 2007 - an increase of ten per cent. The numbers of journeys made into central London during the morning peak have increased for all modes of transport except for coach/ minibus, private car and taxi. Notably, the use of pedal cycles during this period of the day almost doubled from 10 thousand to 19 thousand. The total use of national rail was up 15 per cent from 435 thousand in 1997 to 502 thousand in 2007. The proportion of national rail customers transferring to London Underground or DLR services remained relatively constant at 45 per cent since 1997. Bus usage in morning peak increased by two-thirds from 68 thousand to 113 thousand.

Table 13.4

People entering central London during the morning peak 7-10am, by mode of transport[1]: 1997 - 2007

Thousands

	National Rail	Transfers to LU/DLR	LU and DLR only	Bus	Coach/ minibus[2]	Private car	Taxi	Motor-cycle	Pedal cycle	All Modes
1997	435	195	341	68	20	142	9	11	10	1,035
1998	448	196	360	68	17	140	8	13	10	1,063
1999	460	201	363	68	15	135	8	15	12	1,074
2000	465	196	383	73	15	137	8	17	12	1,108
2001	468	204	377	81	10	122	7	16	12	1,093
2002	451	206	380	88	10	105	7	15	12	1,068
2003	455	191	339	104	10	86	7	16	12	1,029
2004	452	196	344	116	9	86	7	16	14	1,043
2005	473	200	344	115	9	84	8	16	17	1,065
2006[3]	491	212	379	116	8	78	7	15	18	1,113
2007	502	227	397	113	9	75	6	15	19	1,137

1 In addition to journeys terminating in Central London, all journeys passing through Central London are included, except those entirely on London Underground.
2 Includes commuter and tourist coaches.
3 Revised.

Source: Department for Transport

The largest percentage declines were recorded in the use of coach/minibus and private car at 55 per cent and 47 per cent respectively. The introduction of the congestion charge on 17th February 2003 coincided with an 18 per cent decrease in the use of private cars between 2002 and 2003. This has continued to fall more steadily to 75 thousand representing an overall decrease of 28 per cent since the introduction of the congestion charge.

The average number of passengers per bus in 2007/08 was 16.5 (see footnote to Table 13.5), an increase of 3.6 since 1997/98. The total distance travelled by bus passengers has increased by 77 per cent over the same period, to a 2007/08 total of 7.7 billion kilometres. However, the average distance travelled by each passenger has remained reasonably consistent over the ten year period at around 3.6km, peaking at 3.8km in both 2003/04 and 2004/05.

Table 13.5

Bus Traffic in London, 1997 - 2007

Millions, kilometres and numbers

	Bus passenger kilometres (millions)	Average passenger journey length (km)	Average numbers of passengers per bus
1997/98	4,350	3.4	12.9
1998/99	4,315	3.4	12.7
1999/00	4,429	3.4	12.7
2000/01	4,709	3.5	13.2
2001/02	5,128	3.6	13.7
2002/03	5,734	3.7	14.4
2003/04	6,431	3.8	14.7
2004/05	6,755	3.8	15.0
2005/06	6,653	3.7	14.7
2006/07	7,014	3.7	15.3
2007/08[1]	7,714	3.5	16.5

1 The method used by TFL to calculate bus passenger journeys and passenger kilometres was revised in 2007/08 increasing journeys by around 10 per cent.

Source: Transport for London

Traffic

According to 2007 figures from the Department for Transport, 86 per cent of traffic on London's major roads was recorded on urban 'A' roads. This is over 50 percentage points higher than any other region (Figure 13.6). In contrast, motorway traffic accounted for just 11 per cent of total major road traffic, the joint lowest proportion along with the North East. London's relative lack of rural space means it has a far smaller proportion of rural roads than any other region. This in turn accounts for the extremely low proportion of traffic recorded on rural 'A' roads – just three per cent.

Figure 13.7 illustrates a fall in London's rate of thousand motor vehicle traffic per household by just under ten per cent during the period 1993-2006, to a rate in 2006 of 10,000km per household. In contrast, the rate for the remaining English regions rose by 12 per cent to 22,000km per household, more than double the London rate.

Figure 13.6

Road Traffic on Major Roads, 2007

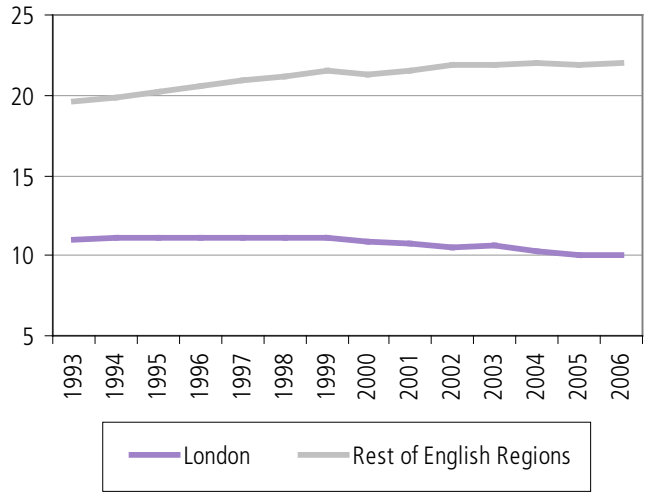
Percentages

Source: Department for Transport

Figure 13.7

Motor vehicle traffic per household[1] 1993-2006

Thousand vehicle kilometres per household



1 Based on DCLG 2006 based household projections.

Source: Department for Transport and Transport for London

Accidents and Casualties

The distribution of accidents on major roads in London was acutely concentrated on urban 'A' roads, reflecting the distribution of traffic discussed earlier. According to figures from the DfT in Table 13.8, 95 per cent of all accidents on major roads occurred on urban 'A' roads, 36 percentage points higher than the next closest region the West Midlands at 59 per cent. Just three per cent of all accidents on major roads took place on rural routes, again mirroring the traffic figures.

The government has set a target of a 40 per cent reduction in the number of people killed or seriously injured in road accidents compared with the average for 1994-98, by 2010. Figure 13.9 shows that every UK region has seen a decrease in the rate of fatal and serious road accidents from the 1994-98 average. London has recorded the largest drop with a decline of nearly a half in the rate killed or seriously injured, from 87 to 46 per 100,000 of the population. The West Midlands and Scotland have also already met the target with reductions of 44 and 45 per cent respectively. Yorkshire and The Humber has recorded the lowest decline with a reduction of 23 per cent.

In 2007, almost 45 per cent of London's road casualties involved pedestrians, pedal cyclists and motorcyclists.

Table 13.8

Distribution of accidents on major roads, 2007

Percentages

	Motorway	Urban 'A'	Rural 'A'	Total accidents on all major roads
North East	2.8	48.7	48.5	3,008
North West	13.8	58.5	27.7	10,778
Yorks & Humber	10.2	54.4	35.4	7,466
East Midlands	7.5	39.4	53.2	6,631
West Midlands	10.0	59.4	30.6	7,908
East	11.2	37.8	51.0	8,161
London	1.8	95.3	2.8	14,695
South East	14.0	42.2	43.9	13,641
South West	7.9	34.9	57.2	7,100
England	9.2	56.0	34.8	79,388
Wales	7.0	29.8	63.2	3,957
Scotland	7.3	39.2	53.5	5,947
Great Britain	8.9	53.7	37.3	89,292

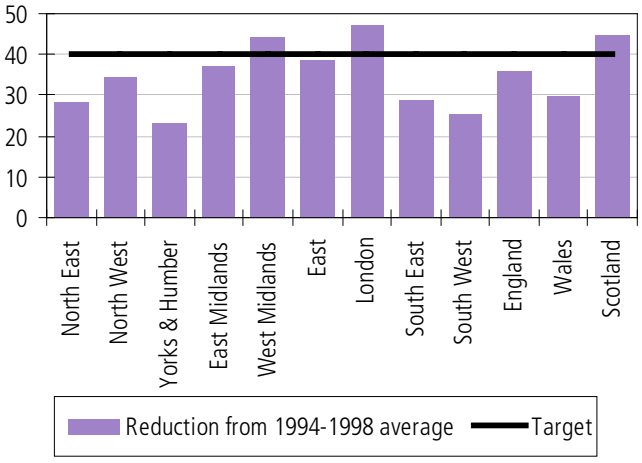
Source: Department for Transport

All other English regions ranged between 24 and 29 per cent. By contrast, just 48 per cent of road casualties in London involved occupants of cars, significantly less than

Figure 13.9

Percentage reduction in fatal or serious road accidents, 1994-1998 to 2007

Percentage reduction



Source: Department for Transport;

any other region – the next lowest being Yorkshire and the Humber at 66 per cent (Figure 13.10).

In 2007, 71 per cent of accidents attributed to vehicles involved either 'driver/rider error or reaction', or 'behaviour or inexperience'. This compares with 52 per cent for Great Britain as a whole. Indeed, for every vehicle type, London had a higher proportion of accidents apportioned to driver or rider error, with the largest gap recorded for heavy goods vehicles where London's figure of 57 per cent was 18 percentage points higher than the Great Britain figure (Table 13.16).

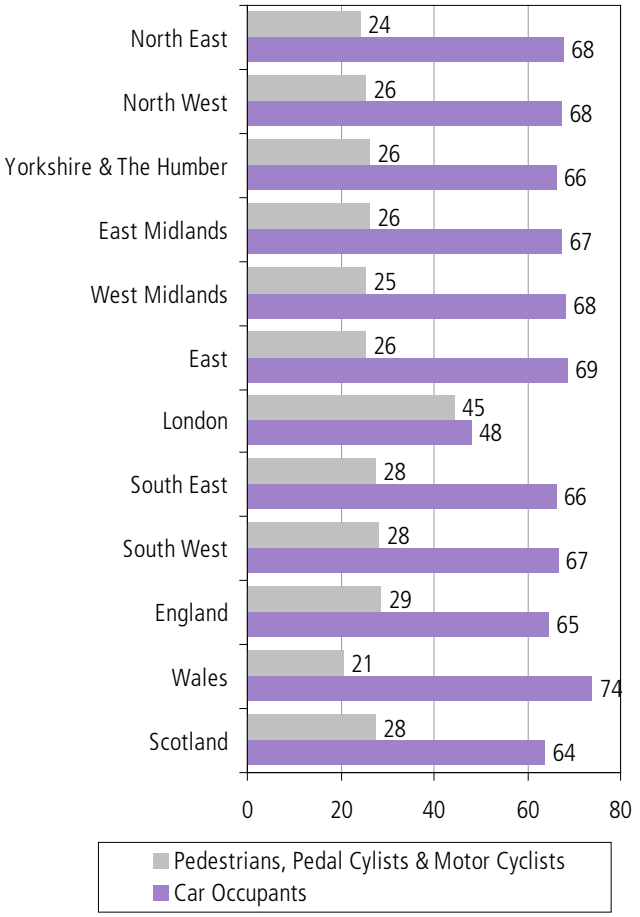
Vehicle Ownership

Combined survey data from the Family Expenditure Survey, General Household Survey and the National Travel Survey, indicate that in 2007, 36 per cent of households did not have regular access to a car, five percentage points higher than the next region, the North East. In terms of households with regular access to one car, the capital had the highest proportion at 46 per cent, however the range between highest and lowest region (West Midlands and East) was just four per cent. Accordingly, London had the lowest percentage of households with two or more cars at just 18 per cent, five per cent lower than the North East (Figure 13.11).

Figure 13.10

Casualties by type of road user, 2007

Percentages

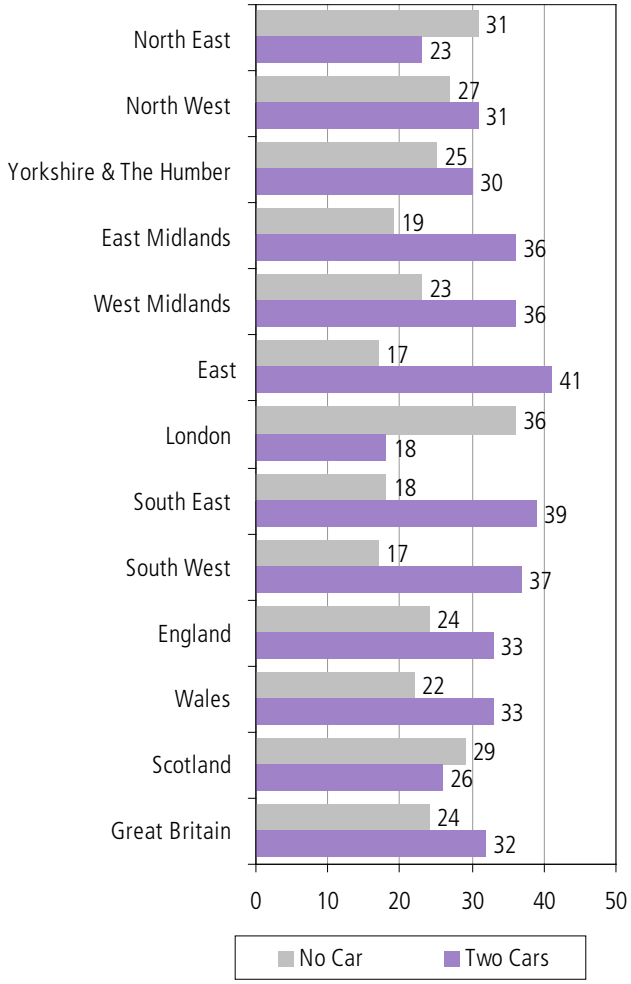


Source: Department for Transport

Figure 13.11

Households with regular access to cars, 2007

Percentages



Sources: Family Expenditure Survey, ONS; General Household Survey, ONS; National Travel Survey, DfT - Combined data

In 2007, the capital had the lowest total rate of licensed vehicles per thousand of the population at 398. The next lowest region is the North East with 475 per thousand population. London had the lowest rate of licensed cars in the country with 343 per thousand of the population, 58 fewer than the North East and 234 lower than the Great Britain figure. Only Scotland (14 per cent) had a lower rate of licensed motorcycles per thousand population than London (16 per cent). Finally, London has the fewest light (30) and heavy (3) goods vehicles per thousand population of all regions (Table 13.17).

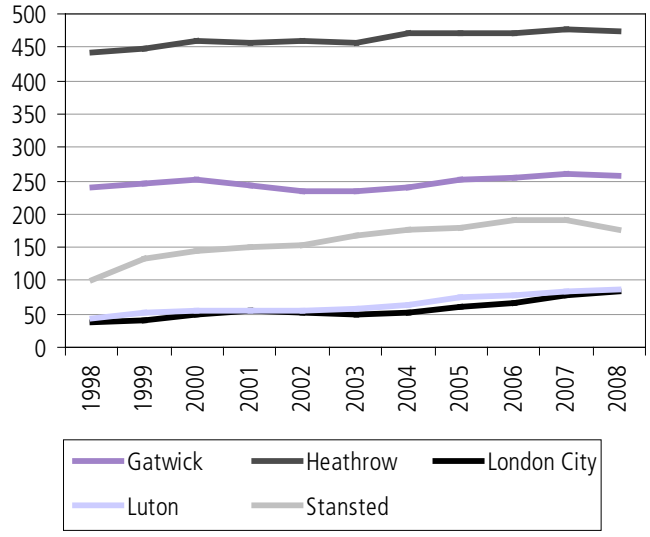
Aviation

In 2008 there were 1.08 million air transport movements in London, an increase of almost a quarter compared with the 1998 figure (Figure 13.12). Heathrow has the largest share with 43 per cent of all air transport movements in the capital. The largest rate of increase over the ten year period occurred at London City Airport, where the number of air transport movements has more than doubled. This compares with an increase of just seven per cent at Heathrow and Gatwick airports, reflecting the relative proximity to operating capacity at those terminals.

Figure 13.12

Air Transport Movements, 1998-2008

Thousands

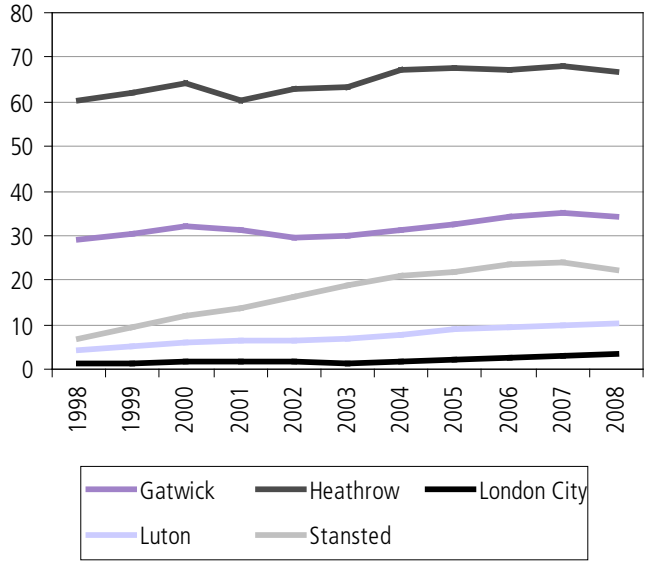


Source: Civil Aviation Authority

Figure 13.13

Terminal Passengers, 1998-2008

Millions



Source: Civil Aviation Authority

Since 1998, the total number of passengers using London airports (Gatwick, Heathrow, London City, Luton and Stansted) has increased from 101.7 million, to 136.8 million, a growth of 34 per cent by 2008. Again Heathrow has by far the largest share at almost half of all passengers. Gatwick is the second busiest airport with a share of 25 per cent representing just over 34 million passengers (Figure 13.13). Slightly earlier figures provided by the civil aviation authority for the period 1997-2007, show that four of the five largest increases in the number of international passengers at UK airports occurred at London terminals. Stansted airport saw the largest increase at 17.0 million, followed by Heathrow (11.5 million), Gatwick (6.7 million) and Luton at 5.9 million. The remaining member of the top five is Manchester airport with an increase of 5.4 million over the same period.

Heathrow is also the world's busiest airport by number of international passengers with over 61 million passengers in 2008. Gatwick ranks as the tenth busiest in the world, though is slowly dropping down the rankings each year.

Table 13.14

Time taken to travel to work by mode of travel, fourth quarter 2008

Minutes

	Car	Motor Cycle	Bicycle	Bus/ coach	National rail	Other rail	All rail	Walk	Other modes
North East	21	*	19	31	*	42	44	11	*
North West	24	21	19	35	49	41	47	14	16
Yorkshire and The Humber	25	22	20	35	51	46	50	14	*
East Midlands	23	16	17	35	*	*	50	12	23
West Midlands	25	17	17	35	56	33	55	14	12
East of England	24	19	15	37	58	*	57	13	*
London	37	33	28	41	70	49	60	17	43
South East	26	20	17	34	65	*	67	13	29
South West	23	22	16	34	60	*	58	13	*
England	25	23	19	37	65	49	59	14	29
Wales	22	*	17	32	53	*	52	13	*
Scotland	24	24	19	33	48	*	49	12	64
Great Britain	25	22	19	36	64	49	58	14	36

Source: Labour Force Survey, 4th Quarter 2008

Table 13.15

Usual method of travel to work, fourth quarter 2008

Percentages

	Car, Van, Minibus, Works Van	Motorbike, moped, scooter	Bicycle	Bus, coach, private bus	Taxi	Railway train	Underground, train, light rail, tram	Walk	Other Method
North East	76	0	1	9	0	1	2	10	1
North West	75	1	2	7	0	3	0	11	0
Yorkshire and Humber	75	1	3	8	0	2	0	10	0
East Midlands	77	1	4	5	0	1	0	12	0
West Midlands	76	1	2	8	0	3	0	10	0
East	72	1	4	4	0	8	1	10	1
London	35	2	4	16	0	14	20	9	0
South East	73	1	4	4	0	8	0	11	1
South West	75	1	4	4	0	2	0	13	0
Wales	83	1	1	4	0	2	-	8	0
Scotland	69	0	2	12	0	3	0	11	1
Northern Ireland	83	0	1	5	1	1	-	9	0
UK	70	1	3	7	0	5	3	10	0

Source: Labour Force Survey, 4th Quarter 2008

Table 13.16

Contributory factors attributed to accidents[1] by vehicle type, in London and in the rest of Great Britain[2]: 2007

Percentages

	Pedal Cycle		Motorcycle		Car		Bus or Coach	
	London	GB	London	GB	London	GB	London	GB
Road environment contributed	1.1	3.0	5.2	14.1	2.5	9.4	1.1	4.8
Vehicle defects	0.6	3.3	0.4	1.3	0.5	0.9	0.4	0.6
Injudicious action	13.5	18.8	15.9	16.7	17.5	14.0	7.9	5.9
Driver/rider error or reaction	37.8	36.9	44.4	43.6	48.8	39.0	48.2	30.8
Impairment or distraction	4.1	8.0	1.3	4.2	3.8	7.3	2.5	2.6
Behaviour or inexperience	14.0	8.3	20.5	22.0	25.1	12.7	11.3	4.0
Limited vision	3.5	3.8	4.3	5.0	4.3	6.4	1.8	4.0
Special codes[4]	1.3	1.9	1.5	2.5	2.6	2.1	4.6	2.5
Accidents with no contributory factor	53.3	44.6	42.3	33.8	40.0	43.5	43.8	58.3

	LGV		HGV		All Vehicles[3]	
	London	GB	London	GB	London	GB
Road environment contributed	1.8	8.6	2.1	7.0	2.7	9.3
Vehicle defects	0.6	1.4	0.6	2.5	0.5	1.1
Injudicious action	19.1	13.7	17.7	11.3	16.5	14.1
Driver/rider error or reaction	52.9	40.6	57.0	39.4	47.8	39.1
Impairment or distraction	3.7	6.4	1.8	3.8	3.4	6.8
Behaviour or inexperience	29.4	11.1	23.3	7.9	23.1	12.8
Limited Vision	5.4	6.2	10.4	9.6	4.3	6.3
Special codes[4]	2.1	2.3	2.2	3.5	2.5	2.2
Accidents with no contributory factor	35.2	42.3	30.0	41.5	40.9	43.0

1 Includes only vehicles in road accidents where a police officer attended the scene and in which a contributory factor was reported.
2 Great Britain figure excludes London.
3 Including other vehicle types and cases where the vehicle type was not reported.
4 Includes, stolen vehicles, vehicles in course of crime, emergency vehicles on a call, vehicle door opened or closed negligently and other.

Source: Department for Transport - Road Accident Statistics

Table 13.17

Licensed Vehicles per thousand population by type of vehicle, 2007

Rate per thousand population

	Cars	Motor cycles	Light goods	Heavy goods	Buses and coaches	Other vehicles[1]	Total
North East	401	16	41	7	3	7	475
North West	468	17	52	10	3	7	557
Yorkshire and the Humber	429	20	48	10	3	9	519
East Midland	483	25	59	12	3	12	595
West Midland	509	20	69	13	3	9	623
East Of England	508	25	57	9	3	12	614
London	343	16	30	3	3	4	398
South East	538	25	58	8	3	7	639
South West	517	30	65	9	3	14	638
England	468	22	53	9	3	9	564
Scotland	431	14	46	8	4	13	515
Wales	481	19	56	8	4	13	580
Great Britain	477	21	54	9	3	10	573

1 Includes rear diggers, lift trucks, rollers, ambulances, taxis, three wheelers and agricultural vehicles.

Source: Labour Force Survey, 4th Quarter 2008