#### **Transport for London**

# **Surface Transport**

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#### **Factsheet**

**Better Routes and Places Directorate Topic Factsheet 2010-3** 

December 2010

# Pedestrian casualties in Greater London

This factsheet looks into the scale and nature of road traffic collisions resulting in injury to pedestrians in the Greater London area. It gives an overview of pedestrian casualties for the period 1986 to 2009 and then looks in detail at the profile of casualties and factors relating to the collisions that occurred in 2009 (the latest year for which finalised data are available at the time of writing).

It provides background information to support the Government and Mayor for London's targets to reduce road casualties by the year 2010. Following a review in 2006, the target in London for pedestrians is now a 50% reduction in the total number of pedestrians killed or seriously injured (KSI) by 2010 from a baseline of the average number of casualties for 1994-98.

The data provided is for personal injury road traffic collisions that occurred on the public highway and were reported to the police in accordance with the *Stats 19* national reporting system.

# Key facts

- 22% of all road traffic collisions in Greater London in 2009 resulted in injury to pedestrians who, in turn, represented 19% of all casualties.
- Pedestrian KSI casualties accounted for one third (33%) of all KSI casualties in 2009.
- Pedestrian KSIs have fallen by 51% between the 1994-98 average and 2009; all pedestrian casualties have fallen by 44%.
- Children (0-15 years inclusive) accounted for 22% of pedestrian casualties of known age in 2009.
- 40% of pedestrian fatalities of known age in 2009 were aged 60 years or over.
- Two thirds (67%) of pedestrian casualties in 2009 were injured by a car.

## Annual Trends 1986 to 2009

Table 1 and Figure 1 show the number of pedestrian casualties by year and severity in Greater London from 1986 to 2009.

Table 1: Pedestrian casualties by year and severity in Greater London 1986 to 2009

	Pedestrian	Sev	erity of casu	ıalty			Severity
Year of accident	Collisions	Fatal	Serious	Slight	Total	KSI Total	ratio
1986	12,291	293	3,395	9,009	12,697	3,688	29%
1987	11,596	265	3,408	8,267	11,940	3,673	31%
1988	11,731	271	3,406	8,407	12,084	3,677	30%
1989	12,231	259	3,254	9,072	12,585	3,513	28%
1990	11,926	235	3,146	8,898	12,279	3,381	28%
1991	10,504	217	2,681	7,929	10,827	2,898	27%
1992	9,565	189	2,385	7,294	9,868	2,574	26%
1993	9,453	171	2,135	7,418	9,724	2,306	24%
1994	9,373	160	2,098	7,360	9,618	2,258	23%
1995	9,169	119	2,051	7,245	9,415	2,170	23%
1996	8,974	122	1,935	7,160	9,217	2,057	22%
1997	8,898	160	1,982	7,032	9,174	2,142	23%
1998	8,765	119	1,937	6,979	9,035	2,056	23%
1994 to 1998 average	9,036	136	2,001	7,155	9,292	2,137	23%
1999	8,736	134	1,728	7,139	9,001	1,862	21%
2000	8,341	140	1,730	6,753	8,623	1,870	22%
2001	7,886	128	1,676	6,339	8,143	1,804	22%
2002	7,225	107	1,539	5,811	7,457	1,646	22%
2003	6,898	119	1,380	5,628	7,127	1,499	21%
2004	6,200	92	1,242	5,042	6,376	1,334	21%
2005	5,840	89	1,135	4,799	6,023	1,224	20%
2006	5,383	100	1,203	4,238	5,541	1,303	24%
2007	5,089	109	1,183	3,960	5,252	1,292	25%
2008	4,991	94	1,114	3,919	5,127	1,208	24%
2009	5,069	88	967	4,154	5,209	1,055	20%
% change 1986 to 2009	-59%	-70%	-72%	-54%	-59%	-71%	-
% change 1994-98 average to 2009	-44%	-35%	-52%	-42%	-44%	-51%	-
% change 2008 to 2009	2%	-6%	-13%	6%	2%	-13%	-

Pedestrian casualties were at a high of 12,697 in 1986, fell to 11,940 in 1987 and then rose again to 12,585 in 1989. From that point onwards they have fallen steadily year on year to a low of 5,127 in 2008, rising again slightly to 5,209 in 2009 (a reduction of 59% compared with 1986). KSI casualties fell by 71% and slight by 54% during this period.

Comparing 2009 with the 1994-98 average, all pedestrian casualties fell by 44%, fatal injuries by 35%, serious by 52% and slight by 42%. Pedestrian KSIs fell by 51% overall, exceeding the 2010 reduction target.

Comparing 2009 with 2008, pedestrian casualties increased by 2% overall. There were reductions in fatal and serious injuries of 6% and 13% respectively, however slight pedestrian casualties rose by 6%. Pedestrian KSIs fell by 13% between 2008 and 2009.

The severity ratio (the percentage of fatal and serious injuries to all injuries) showed a general downward trend, falling from a high of 31% in 1987 to a low of 20% in 2005. Following this low, it rose to 25% in 2007, but fell again to 20% in 2009.

14,000 12,000 10,000 Number of casualties 8,000 □Slight ■Serious 6,000 ■Fatal 4,000 2,000 995 1996 1990 1998 1991 994 1997

Fig. 1: Pedestrian casualties by year and severity in Greater London 1986 to 2009

#### Gender

Figure 2 shows pedestrian casualties by gender in Greater London from 1986 to 2009.

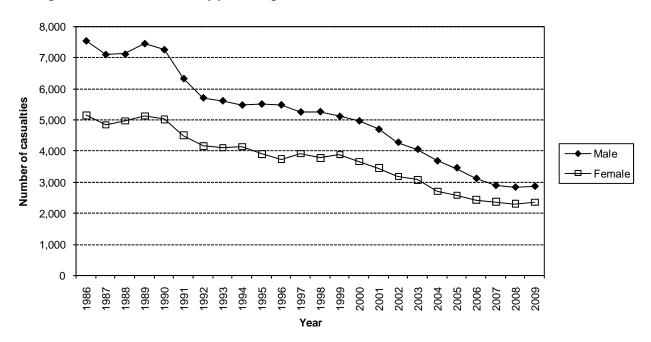


Fig. 2: Pedestrian casualties by year and gender in Greater London 1986 to 2009

Males accounted for an average of 58% of pedestrian casualties per year over this period and females 42%. The male-female split remained fairly constant during this time, although the last few years have shown a slight increase in the proportion of female pedestrian casualties, with 45% female to 55% male in 2009.

Both male and female pedestrian casualties have shown a general downward trend since 1986, reducing by 62% and 55% respectively between 1986 and 2009, and by 47% and 40% respectively between the 1994-98 average and 2009. Males increased by 1% and females by 2% between 2008 and 2009.

#### Age

Table 2 and Figure 3 show pedestrian casualties by year and age band in Greater London from 1986 to 2009.

Whilst casualty numbers have fallen in each of the age bands, it is most pronounced in the youngest (under 16 years – child casualties) and oldest (60 years and over) age bands, with reductions of 70% and 69% respectively between 1986 and 2009 and 60% and 47% respectively between the 1994-98 average and 2009. Child pedestrian casualties fell a further 3% between 2008 and 2009; however pedestrian casualties in the 60 years and over group rose by 4%.

Pedestrian casualty numbers fell in the 16 to 24 and 25 to 59 year age bands between 1986 and 2009 by 59% and 40% respectively, and between the 1994-98 average and 2009 by 35% and 32% respectively. There were however increases in both of these age bands, of 15% and 7% respectively, between 2008 and 2009.

The distribution of pedestrian casualties across these age bands has changed slightly between 1986 and 2009. The under 16 and 60 plus age bands decreased from 28% and 17% of the total in 1986 to 20% and 13% respectively in 2009, while the proportion of casualties in the 25-59 year age band increased from 30% in 1986 to 43% in 2009. The percentage of casualties in the 16 to 24 year age band has remained fairly constant throughout this period.

Table 2: Pedestrian casualties by year and age (banded) in Greater London 1986 to 2009

	_	C	asualty age	e banded			% aged	% aged	% aged	% aged
	Under 16	16-24	25-59 6	0 + over U	nknown	Total	< 16	16-24	25-59	60+
1986	3,565	2,152	3,785	2,204	991	12,697	28%	17%	30%	17%
1987	3,196	2,247	3,698	1,984	815	11,940	27%	19%	31%	17%
1988	3,282	2,077	3,828	2,067	830	12,084	27%	17%	32%	17%
1989	3,424	2,198	3,966	2,047	950	12,585	27%	17%	32%	16%
1990	3,540	2,023	3,855	1,958	903	12,279	29%	16%	31%	16%
1991	3,078	1,630	3,473	1,802	844	10,827	28%	15%	32%	17%
1992	2,935	1,404	3,268	1,556	705	9,868	30%	14%	33%	16%
1993	2,736	1,359	3,274	1,656	699	9,724	28%	14%	34%	17%
1994	2,748	1,361	3,196	1,436	877	9,618	29%	14%	33%	15%
1995	2,637	1,358	3,241	1,318	861	9,415	28%	14%	34%	14%
1996	2,601	1,358	3,343	1,250	665	9,217	28%	15%	36%	14%
1997	2,561	1,421	3,365	1,280	547	9,174	28%	15%	37%	14%
1998	2,531	1,408	3,373	1,224	499	9,035	28%	16%	37%	14%
1994 to 1998 average	2,616	1,381	3,304	1,302	690	9,292	28%	15%	36%	14%
1999	2,480	1,391	3,453	1,186	491	9,001	28%	15%	38%	13%
2000	2,330	1,335	3,312	1,138	508	8,623	27%	15%	38%	13%
2001	2,308	1,271	3,080	1,033	451	8,143	28%	16%	38%	13%
2002	1,836	1,265	2,991	924	441	7,457	25%	17%	40%	12%
2003	1,634	1,258	2,876	940	419	7,127	23%	18%	40%	13%
2004	1,507	1,091	2,590	788	400	6,376	24%	17%	41%	12%
2005	1,383	1,040	2,488	689	423	6,023	23%	17%	41%	11%
2006	1,232	942	2,256	652	459	5,541	22%	17%	41%	12%
2007	1,185	907	2,100	690	370	5,252	23%	17%	40%	13%
2008	1,092	776	2,114	667	478	5,127	21%	15%	41%	13%
2009	1,057	892	2,255	692	313	5,209	20%	17%	43%	13%
% change 1986 to 2009	-70%	-59%	-40%	-69%	-68%	-59%	-	-	-	-
% change 1994-98 average to 2009	-60%	-35%	-32%	-47%	-55%	-44%	-	-	-	-
% change 2008 to 2009	-3%	15%	7%	4%	-35%	2%	-	-	-	-

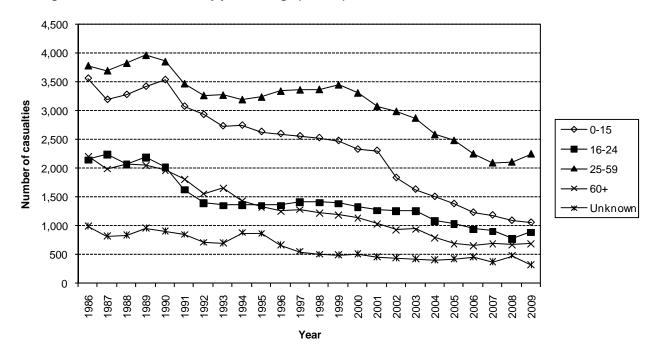


Fig. 3: Pedestrian casualties by year and age (banded) in Greater London 1986 to 2009

## Pedestrian casualties in Greater London 2009

The following section provides a more detailed analysis of pedestrian casualties in Greater London in 2009. This is the most recent year for which finalised data are available.

# How many and who?

During 2009 there were 23,239 personal injury road traffic collisions reported to the police in the Greater London area. Of these collisions, 5,069 (22%) involved injury to one or more pedestrian and resulted in 5,209 pedestrian casualties. Pedestrians represented 19% of total casualties in Greater London in 2009. By comparison, in Great Britain as a whole, pedestrians accounted for 12% of all casualties in 2009<sup>1</sup>.

#### Severity and gender

Table 3 shows pedestrian casualties by severity and gender in Greater London in 2009.

Table 3: Pedestrian casualties by gender, severity & severity ratio in Greater London 2009

	Seve	rity of casualt	У			
	Fatal	Serious	Slight	Total	KSI	Severity ratio
Male	53	568	2,242	2,863	621	22%
Female	35	399	1,912	2,346	434	18%
Total	88	967	4,154	5,209	1,055	20%

Over three quarters (80%) of pedestrian casualties were slightly injured, with 19% suffering serious injury and 2% being killed. Pedestrian KSIs during 2009 accounted for one third (33%) of all road user KSIs in Greater London.

Overall males accounted for 55% of pedestrian casualties and females 45%. For slight casualties the proportion of females rose very slightly (46%), however for KSIs the proportion of male casualties was higher (59%).

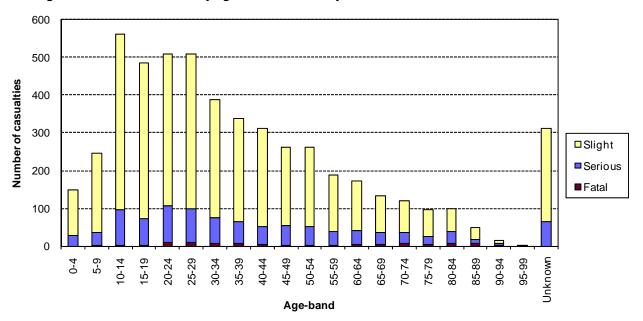
### Age and gender

Table 4 and Figure 4 show pedestrian casualties by five-year age bands, gender and severity in Greater London in 2009.

Table 4: Pedestrian casualties by age-band, gender, severity and severity ratio in Greater London 2009

	Casualty	gender	Seve	rity of casua	lty		% of	Severity
Casualty age	Male	Female	Fatal	Serious	Slight	Total	known age	ratio
0-4	92	58	0	30	120	150	3%	20%
5-9	147	100	2	35	210	247	5%	15%
10-14	309	252	2	94	465	561	11%	17%
15-19	254	230	2	71	411	484	10%	15%
20-24	242	265	11	96	400	507	10%	21%
25-29	274	234	9	90	409	508	10%	19%
30-34	225	162	7	68	312	387	8%	19%
35-39	210	129	7	58	274	339	7%	19%
40-44	181	130	5	48	258	311	6%	17%
45-49	155	106	2	53	206	261	5%	21%
50-54	142	119	3	49	209	261	5%	20%
55-59	96	92	3	35	150	188	4%	20%
60-64	90	83	4	38	131	173	4%	24%
65-69	66	67	4	32	97	133	3%	27%
70-74	65	56	6	30	85	121	2%	30%
75-79	56	41	5	22	70	97	2%	28%
80-84	44	55	6	34	59	99	2%	40%
85-89	22	28	8	11	31	50	1%	38%
90-94	5	11	2	5	9	16	0%	44%
95-99	1	2	0	2	1	3	0%	67%
Total (age known)	2,676	2,220	88	901	3,907	4,896	100%	20%
Total (age unknown)	187	126	0	66	247	313	-	21%
Total	2,863	2,346	88	967	4,154	5,209	-	20%

Fig. 4: Pedestrian casualties by age-band and severity in Greater London 2009



The highest number of pedestrian casualties occurred in the younger age bands, with just under a third (32%) of casualties of known age being aged between 10 and 24 years. The 10 to 14 year age band showed the highest number of casualties (11% of known age).

Pedestrian casualties aged 60 years and over represented 14% of all pedestrian casualties of known age, however fatalities in this group represented 40% of all fatal pedestrian casualties of known age.

There were more male pedestrian casualties in most of the five-year age bands, however in the four oldest, covering ages 80 to 99 years, there were more female casualties.

The highest severity ratios were found in the four older age bands, peaking at 67% in the 95-99 years band. This clearly illustrates the increasing vulnerability of pedestrians to more serious injury with increasing age. However, it should be noted that these groups together did represent less than 4% of pedestrian casualties of known age. 10 to 14 year olds, which represented the age band with the highest number of casualties (11% of known age), had a severity ratio of 17%.

#### Age and population

Figure 5 shows pedestrian casualties by five-year age band per 1,000 population against the estimated Greater London population, based on the 2009 mid year population estimates<sup>2</sup>. This clearly illustrates the disproportionate number of pedestrian casualties in the 10-19 and 70 years plus age bands compared with the population figures for these groups.

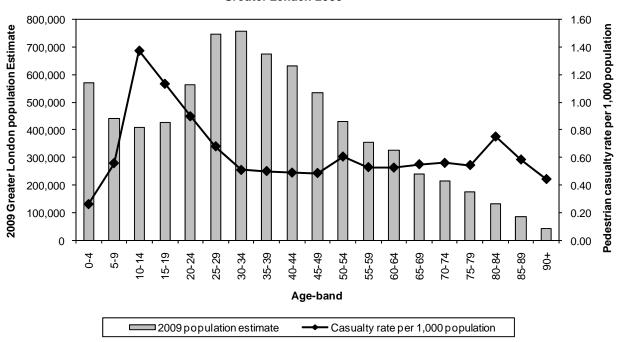


Fig. 5: Pedestrian casualties per 1,000 population against population by age-band in Greater London 2009

Figure 6 shows the percentage of pedestrian casualties of known age against the percentage of Greater London population in five-year age bands. This again emphasises the disproportionate number of young pedestrian casualties, particularly those aged between 10 and 14 years, but also for those between 15 and 24 years.

Fig. 6: Pedestrian casualties as % of known age against % of population in five-year age bands in Greater London 2009

#### Child pedestrian casualties

Table 5 looks more closely at child pedestrian casualties (aged 0-15 years), showing them by age and whether they were injured on their journey to or from school. Children represented 22% of all pedestrian casualties of known age; of these 29% were injured on the school journey.

The number of child pedestrians injured going to or from school increased noticeably from 11 years, with well over a third (40%) of 11 to 14 year old pedestrian casualties injured on the school journey. This increase coincides with the age at which most children move from primary to secondary school and may therefore be travelling greater distances independently.

Table 5: Child pedestrian casualties by age and school journey in Greater London 2009

	Casualty journ	ney purpose		% to/from
Casualty Age	Other	To/from school	Total	school
Under 1 year	1	0	1	0%
1	8	0	8	0%
2	25	0	25	0%
3	61	0	61	0%
4	46	9	55	16%
5	33	14	47	30%
6	33	10	43	23%
7	34	11	45	24%
8	44	10	54	19%
9	46	12	58	21%
10	52	18	70	26%
11	70	45	115	39%
12	82	59	141	42%
13	70	43	113	38%
14	72	50	122	41%
15	73	26	99	26%
Total	750	307	1,057	29%

#### Where?

Table 6 shows the number of pedestrian casualties by borough, severity and percentage change in KSI casualties in 2009 over the 1994-98 average.

Total pedestrian casualties were split equally between inner and outer London. Overall there were slightly more KSIs in inner London (52% compared to 48%); however there were more pedestrian fatalities in outer London (56% compared to 44%). The average severity ratio was slightly higher in inner London (21% compared to 20%).

Regarding progress towards the 2010 casualty reduction target, KSI casualties in inner London showed a reduction of 50% between 2009 and the 1994-98 average, while in outer London there was a reduction of 51%.

Table 6: Pedestrian casualties by borough, severity and KSI percentage change in 2009 over 1994-98 average in Greater London

	Seve	rity of casual	tv		Severity	1994-98 KSI	2009 KSI	% change 1994-98
Borough	Fatal	Serious	Slight	Total	ratio	average	total	average to 2009
City of London	2	14	73	89	18%	25	16	-35%
Westminster	10	89	320	419	24%	179	99	-45%
Camden	4	61	209	274	24%	104	65	-38%
Islington	1	28	141	170	17%	76	29	-62%
Hackney	3	26	147	176	16%	78	29	-63%
Tower Hamlets	3	43	152	198	23%	73	46	-37%
Greenwich	3	20	110	133	17%	60	23	-62%
Lewisham	3	35	156	194	20%	82	38	-53%
Southwark	3	44	163	210	22%	80	47	-41%
Lambeth	1	50	199	250	20%	124	51	-59%
Wandsworth	5	39	129	173	25%	78	44	-44%
Hammersmith & Fulham	1	27	117	145	19%	60	28	-53%
Kensington & Chelsea	0	29	145	174	17%	72	29	-60%
Total inner London	39	505	2,061	2,605	21%	1,089	544	-50%
% of Greater London	44%	52%	50%	50%	-	-	52%	-
Waltham Forest	1	16	104	121	14%	60	17	-72%
Redbridge	3	17	103	123	16%	48	20	-59%
Havering	1	15	72	88	18%	38	16	-58%
Barking & Dagenham	0	10	60	70	14%	35	10	-72%
Newham	4	47	146	197	26%	68	51	-25%
Bexley	2	19	62	83	25%	35	21	-40%
Bromley	0	28	76	104	27%	49	28	-43%
Croydon	4	30	169	203	17%	68	34	-50%
Sutton	0	16	60	76	21%	30	16	-47%
Merton	2	18	67	87	23%	37	20	-47%
Kingston	1	9	63	73	14%	32	10	-68%
Richmond	3	11	49	63	22%	32	14	-57%
Hounslow	3	21	99	123	20%	50	24	-52%
Hillingdon	1	17	104	122	15%	54	18	-67%
Ealing	5	35	135	175	23%	91	40	-56%
Brent	5	30	171	206	17%	85	35	-59%
Harrow	2	16	82	100	18%	34	18	-48%
Barnet	5	40	170	215	21%	70	45	-36%
Haringey	4	39	161	204	21%	65	43	-34%
Enfield	3	28	140	171	18%	64	31	-52%
Total outer London	49	462	2,093	2,604	20%	1,047	511	-51%
% of Greater London	56%	48%	50%	50%	-		48%	
Total Greater London	88	967	4,154	5,209	20%	2,137	1,055	-51%

Table 7 shows pedestrian casualties by borough, age band and school journey (for school aged casualties).

The majority of under 16s (64%) were injured in outer London. 61% of school pupils injured while walking to or from school were also in outer London.

More older pedestrians (60 years and over) were also injured in outer London (54%), while slightly more pedestrians in the 16-24 and 25-29 year groups were injured in inner London (54% and 56% respectively).

Table 7: Pedestrian casualties by borough, age band and school journey in Greater London 2009

		C	asualty ag	e (banded)			School pupil	% school
Borough	Under 16	16-24	25-59	60 + over	Unknown	Total	to/from school	pupil
City of London	4	18	50	6	11	89	0	0%
Westminster	18	71	253	53	24	419	1	0%
Camden	23	67	132	38	14	274	2	1%
Islington	21	28	78	26	17	170	10	6%
Hackney	31	34	78	23	10	176	13	7%
Tower Hamlets	33	31	99	21	14	198	8	4%
Greenwich	40	34	39	13	7	133	15	11%
Lewisham	45	35	81	29	4	194	18	9%
Southwark	50	33	95	19	13	210	17	8%
Lambeth	44	51	121	16	18	250	11	4%
Wandsworth	28	31	77	23	14	173	13	8%
Hammersmith & Fulham	24	22	66	22	11	145	11	8%
Kensington & Chelsea	24	25	91	27	7	174	6	3%
Total inner London	385	480	1,260	316	164	2,605	125	5%
% of Greater London	36%	54%	56%	46%	52%	50%	39%	-
Waltham Forest	34	14	49	16	8	121	8	7%
Redbridge	37	17	44	14	11	123	12	10%
Havering	26	16	25	11	10	88	9	10%
Barking & Dagenham	27	9	20	11	3	70	7	10%
Newham	49	34	83	14	17	197	14	7%
Bexley	27	13	25	15	3	83	12	14%
Bromley	28	17	35	20	4	104	9	9%
Croydon	55	36	71	31	10	203	21	10%
Sutton	22	9	25	15	5	76	7	9%
Merton	18	15	39	12	3	87	9	10%
Kingston	21	14	19	15	4	73	4	5%
Richmond	12	14	24	11	2	63	5	8%
Hounslow	28	21	51	16	7	123	5	4%
Hillingdon	31	24	45	16	6	122	10	8%
Ealing	39	28	74	27	7	175	10	6%
Brent	49	33	80	35	9	206	12	6%
Harrow	29	11	38	18	4	100	11	11%
Barnet	42	34	95	32	12	215	9	4%
Haringey	44	31	89	24	16	204	9	4%
Enfield	54	22	64	23	8	171	13	8%
Total outer London	672	412	995	376	149	2,604	196	8%
% Greater London	64%	46%	44%	54%	48%	50%	61%	
Total Greater London	1,057	892	2,255	692	313	5,209	321	6%

Table 8 shows pedestrian casualties by borough and highway authority in Greater London.

Table 8: Pedestrian casualties by borough and highway authority in Greater London 2009

	Higl	nway authority		
		Highways	Borough	
Borough	TLRN	Agency	road	Tota
City of London	23	0	66	89
Westminster	65	0	354	419
Camden	68	0	206	274
Islington	79	0	91	170
Hackney	81	0	95	176
Tower Hamlets	95	0	103	198
Greenwich	14	0	119	133
Lewisham	79	0	115	194
Southwark	84	0	126	210
Lambeth	131	0	119	250
Wandsworth	84	0	89	173
Hammersmith & Fulham	2	0	143	145
Kensington & Chelsea	39	0	135	174
Total inner London	844	0	1,761	2,605
% of inner London	32%	0%	68%	100%
% of Greater London	81%	0%	42%	50%
Waltham Forest	1	0	120	121
Redbridge	10	0	113	123
Havering	3	3	82	88
Barking & Dagenham	3	0	67	70
Newham	6	0	191	197
Bexley	0	0	83	83
Bromley	9	0	95	104
Croydon	23	0	180	203
Sutton	19	0	57	76
Merton	8	0	79	87
Kingston	6	0	67	73
Richmond	9	0	54	63
Hounslow	20	0	103	123
Hillingdon	5	0	117	122
Ealing	15	0	160	175
Brent	2	0	204	206
Harrow	0	0	100	100
Barnet	13	0	202	215
Haringey	39	0	165	204
Enfield	12	0	159	171
Total outer London	203	3	2,398	2,604
% of outer London	8%	0%	92%	100%
% of Greater London	19%	100%	58%	50%
Total Greater London	1,047	3	4,159	5,209
% of total	20%	0%	80%	100%

In total, 80% of pedestrians were injured on borough roads and 20% on the Transport for London Road Network (TLRN). In inner London two thirds (68%) of pedestrian casualties were injured on borough roads (32% on the TLRN), while in outer London 92% were injured on borough roads and just 8% on the TLRN. There was just one collision, resulting in three pedestrian casualties, on a Highways Agency road (motorway). The casualties were workmen on the hard shoulder and all suffered slight injuries.

Overall 72% of pedestrian fatalities, 77% of serious injuries and 81% of slight injuries occurred on borough roads, with 28% of fatalities, 23% of serious injuries and 19% of slight injuries on the TLRN.

Table 9 shows pedestrian casualties by road class and severity. 58% were injured on 'A' class roads, 9% on 'B' class roads and 32% on 'C' class or unclassified roads.

Table 9: Pedestrian casualties by road class, severity and severity ratio in Greater London 2009

	Seve	rity of casual	lty				
First road class	Fatal	Serious	Slight	Total	% of total	Severity ratio	
Motorway	0	0	3	3	0%	0%	
Α	65	637	2,339	3,041	58%	23%	
В	8	86	388	482	9%	20%	
С	5	128	593	726	14%	18%	
Unclassified	10	116	831	957	18%	13%	
Total	88	967	4,154	5,209	100%	20%	

The vast majority (98%) of pedestrian casualties were injured on roads subject to a 30mph speed limit. A 24% severity ratio was recorded against these casualties. Severity ratios of 36% and 33% respectively were recorded against casualties injured on 40mph and 50mph roads, but these represented just over 1% of the total pedestrian casualties. No pedestrian KSI casualties were recorded on 20mph roads.

Table 10 shows pedestrian casualties by junction detail and junction control. 68% were injured at or within 20metres of a junction. Of these, 69% were at a 'T' or staggered junction and 23% at a crossroads. In terms of junction control, 72% of pedestrian casualties injured at a junction were where the control was 'Give Way' and 28% were at a junction controlled by automatic traffic signals.

Table 10: Pedestrian casualties by junction control and junction detail in Greater London 2009

		,	Junction control			
		Authorised	Automatic		Give Way or	
Junction detail	Not applicable	Person	Traffic Signals	Stop Sign	Uncontrolled	Total
Roundabout	n/a	1	17	0	72	90
Mini-Roundabout	n/a	0	1	0	30	31
T & Staggered Junction	n/a	1	396	3	2,042	2,442
Slip Road	n/a	0	5	1	9	15
Crossroads	n/a	1	511	1	287	800
Multi Junction	n/a	0	50	0	15	65
Private Drive	n/a	0	1	0	80	81
Other Junction	n/a	0	8	1	14	23
Total at junctions	n/a	3	989	6	2,549	3,547
No junction within 20metres	1,662	n/a	n/a	n/a	n/a	1,662
Total	1,662	3	989	6	2,549	5,209

#### Road surface and weather

The majority of pedestrian casualties (80%) were injured in collisions that occurred on a dry road surface, with 18% on a wet surface and just over 1% in snow or ice.

86% of pedestrian casualties were injured in fine weather conditions, while 10% were injured in the rain.

#### When?

Figures 7, 8 and 9 show the number of pedestrian casualties by time of day, day of week and month in Greater London in 2009. These also indicate the proportions injured during the hours of daylight and darkness.

#### Time of day

Three quarters (75%) of pedestrian casualties were injured in the 12 hour period between 7am and 7pm, with just over one third (34%) occurring in the four hours between 3pm and 7pm. There was another smaller peak in the morning between 8am and 10am with 11% of casualties. The greatest number of casualties in a single hour (520 casualties, 10%) was recorded between 3pm and 4pm.

The 'low' period for pedestrian casualties was between 1am and 7am, during which time only 6% of the total pedestrian casualties were injured.

70% of pedestrian injuries occurred during daylight hours compared to 30% in the dark.

#### Day of week

77% of pedestrian casualties were injured on a weekday, an average of 15% per weekday, with a peak of 18% on a Friday. 13% were injured on a Saturday and 10% on a Sunday.

The highest proportion of pedestrians injured in the dark occurred at the weekend with 42% on a Saturday and 47% on a Sunday.

#### Month

Pedestrian casualties were quite evenly spread through the first three quarters of the year, with no one month having substantially more than any other. However, the fourth quarter (October to December) had more pedestrian casualties (29%) than each of the other three, and the highest number in a single month (548, 11%) was recorded in November.

At least 40% of pedestrian casualties injured in January (44%), February (44%), November (46%) and December (49%) were injured in the dark.

Fig. 7: Pedestrian casualties by time of day and light conditions in Greater London 2009

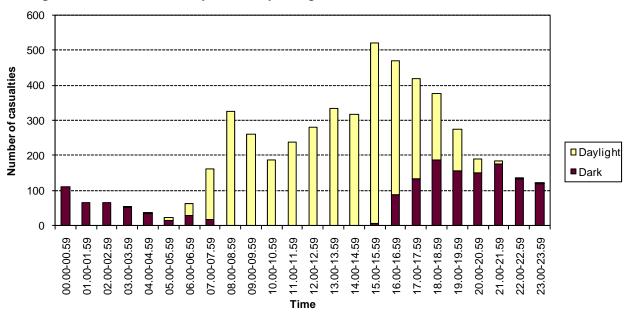


Fig. 8: Pedestrian casualties by day of week and light conditions in Greater London 2009

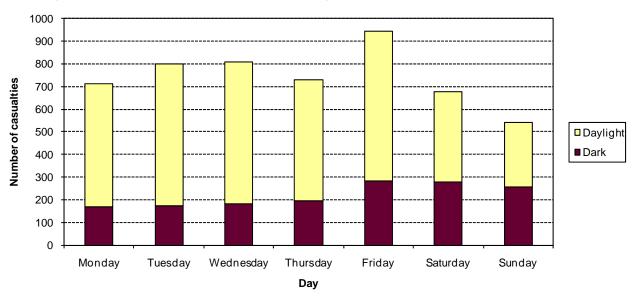
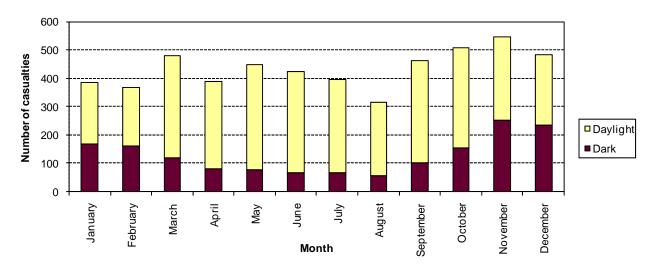


Fig. 9: Pedestrian casualties by month and light conditions in Greater London 2009



#### **Pedestrian location and movement**

Tables 11, 12 and 13 show pedestrian casualties by location, crossing facility and movement in Greater London in 2009.

37% of pedestrian casualties of known location were injured at or within 50m of a formal, controlled crossing facility. 19% were injured at an automatic traffic signal junction with a pedestrian phase, 9% at a pelican or similar light controlled crossing and 11% at a zebra crossing. 57% of pedestrian fatalities occurred more than 50m from a crossing facility.

Table 11: Pedestrian casualties by pedestrian location and severity in Greater London 2009

	Sev	verity of casu	alty		% of known	Severity	
Pedestrian location	Fatal	Serious	Slight	Total	location	ratio	
Crossing Road on Ped Crossing	18	225	836	1,079	22%	23%	
Crossing Road in Zig-Zag Approach	0	0	9	9	0%	0%	
Crossing Road In Zig-Zag Exit	0	1	4	5	0%	20%	
Crossing Road Within 50m of Crossing	15	163	557	735	15%	24%	
Crossing Road (Not On Crossing)	38	396	1,920	2,354	47%	18%	
On Footpath - Verge	5	74	309	388	8%	20%	
On Refuge	0	3	8	11	0%	27%	
In Centre Of Carriageway	0	1	13	14	0%	7%	
In Road - Not Crossing	6	63	334	403	8%	17%	
Total known location	82	926	3,990	4,998	100%	20%	
Unknown	6	41	164	211	-	22%	
Total	88	967	4,154	5,209	-	20%	

Table 12: Pedestrian casualties by pedestrian crossing facility and severity in Greater London 2009

	Seve	rity of casual	ty			Severity
Pedestrian Crossing Facility	Fatal	Serious	Slight	Total	% of total	ratio
No crossing facility within 50m	50	521	2,531	3,102	60%	18%
Zebra	7	122	434	563	11%	23%
Pelican or similar	14	116	364	494	9%	26%
Pedestrian phase at ATS	17	192	786	995	19%	21%
Footbridge or Subway	0	0	6	6	0%	0%
Central Refuge	0	16	33	49	1%	33%
Total	88	967	4,154	5,209	100%	20%

Where pedestrian movement was known, 64% of pedestrian casualties (65% of KSIs) were moving from the driver's nearside and 31% (31% of KSIs) from the driver's offside. 19% of pedestrian casualties were masked from the driver's view by parked/stationary vehicles or other objects.

Table 13: Pedestrian casualties by pedestrian movement and severity in Greater London 2009

	Severity of casualty			% of known		
Pedestrian movement	Fatal	Serious	Slight	Total	movement	Severity ratio
From Drivers Nearside	40	408	1,711	2,159	51%	21%
From Drivers Nearside Masked	6	101	421	528	12%	20%
From Drivers Offside	20	198	851	1,069	25%	20%
From Drivers Offside Masked	1	46	181	228	5%	21%
In Road Not Crossing	2	22	157	181	4%	13%
In Road Not Crossing Masked	1	2	25	28	1%	11%
In Road Facing Traffic	0	1	10	11	0%	9%
In Road Back To Traffic	0	2	20	22	1%	9%
Total known movement	70	780	3,376	4,226	100%	20%
Unknown	18	187	778	983	-	21%
Total	88	967	4,154	5,209	-	20%

#### Vehicles involved

Table 14 shows pedestrian casualties by the vehicle they were in direct conflict with. Two thirds (67%) of pedestrians were injured by a car. Cars accounted for 59% of fatalities, 64% of serious and 67% of slight injuries.

Collisions with all classes of goods vehicles resulted in 9% of pedestrian casualties (17% of fatalities and 10% of KSIs). Heavy goods vehicles - 7.5 tonnes maximum gross weight (MGW) or above, accounted for 10% of pedestrian fatalities, but just 1% of pedestrian casualties overall. A further 9% of pedestrian casualties were injured in collisions with powered two wheelers. 8% of pedestrians were injured by a bus or coach, however this category of vehicle accounted for 18% of pedestrian fatalities.

Table 14: Pedestrian casualties by vehicle involved, severity and severity ratio in Greater London 2009

Severity of casualty						
Type Of Vehicle	Fatal	Serious	Slight	Total	% of total	ratio
Pedal Cycle	0	31	95	126	2%	25%
M/C <= 50cc	0	3	35	38	1%	8%
M/C 50-125cc	0	28	172	200	4%	14%
M/C 125-500cc	0	6	51	57	1%	11%
M/C > 500cc	0	33	146	179	3%	18%
Private Hire - Licensed	0	2	1	3	0%	67%
Taxi	1	49	168	218	4%	23%
Car	52	618	2,798	3,468	67%	19%
Minibus (8-16 Pass)	1	5	5	11	0%	55%
Bus or Coach	16	95	308	419	8%	26%
Other Motor Vehicle	3	9	26	38	1%	32%
Other Non Motor Vehicle	0	0	1	1	0%	0%
Agricultural Vehicle	0	0	1	1	0%	0%
Light Goods (=< 3.5T MGW)	5	58	300	363	7%	17%
Medium Goods (3.5 to 7.5T MGW)	1	6	22	29	1%	24%
Heavy Goods (=> 7.5T MGW)	9	24	25	58	1%	57%
Total	88	967	4,154	5,209	100%	20%

#### Vehicle manoeuvre

Table 15 shows pedestrian casualties by vehicle manoeuvre. The majority of pedestrian casualties (64%) were in conflict with a vehicle that was coded as 'going ahead', i.e. not undertaking any particular manoeuvre or turn. 7% were injured by a vehicle turning right and 5% by a vehicle turning left. A further 6% were injured by a vehicle that was carrying out an overtaking manoeuvre. 66% of pedestrian fatalities involved a vehicle 'going ahead' and a further 13% were killed as a vehicle turned left.

Table 15: Pedestrian casualties by vehicle manoeuvre, severity and severity ratio in Greater London 2009

Severity of casualty							
Vehicle manoeuvre	Fatal	Serious	Slight	Total	% of total	Severity ratio	
Reversing	5	32	282	319	6%	12%	
Parked	1	13	41	55	1%	25%	
Going Ahead Held Up	0	5	17	22	0%	23%	
Slowing Or Stopping	5	36	163	204	4%	20%	
Moving Off	5	51	236	292	6%	19%	
U-Turning	0	4	14	18	0%	22%	
Turning Left	11	34	205	250	5%	18%	
Waiting To Turn Left	0	1	3	4	0%	25%	
Turning Right	3	57	320	380	7%	16%	
Waiting To Turn Right	0	2	4	6	0%	33%	
Change Lane To Left	0	2	8	10	0%	20%	
Change Lane To Right	0	0	1	1	0%	0%	
Overtake Move Veh O/S	0	5	13	18	0%	28%	
Overtake Stat Veh O/S	0	49	225	274	5%	18%	
Overtaking Nearside	0	7	18	25	0%	28%	
Going Ahead Left Bend	0	12	41	53	1%	23%	
Going Ahead Right Bend	1	17	38	56	1%	32%	
Going Ahead Other	57	640	2,525	3,222	62%	22%	
Total	88	967	4,154	5,209	100%	20%	

#### What is the cost?

Based on the average cost of pedestrian casualties as detailed in Department for Transport draft Transport Analysis Guidance document (TAG Unit 3.4.1)<sup>3</sup>, the cost to the community of pedestrian casualties is estimated at around £452 million at June 2008 prices. Pedestrian casualties averaged 14 per day in Greater London in 2009, with a subsequent cost to the community of just over £1.2 million per day.

# **Background documents/references**

- Reported Road Casualties Great Britain: 2009 Annual Report (Department for Transport)
  - http://www.dft.gov.uk/pgr/statistics/datatablespublications/accidents/casualtiesgbar/rrcgb2009
- 2. Population data Office of National Statistics (ONS) Estimated resident population mid-2009 by single year of age and sex (published 24 June 2010)
- 3. Transport Analysis Guidance (TAG) Unit 3.4.1 The Accidents Sub-Objective (In Draft) (Department for Transport Jan 2010)

  http://www.dft.gov.uk/webtag/webdocuments/3\_Expert/4\_Safety\_Objective/3.4.1-draft.htm

Copies of road safety reports and research published by TfL can be found at – <a href="http://londonroadsafety.co.uk/">http://londonroadsafety.co.uk/</a> under the Data and Research section.

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