



# Traffic Safety Basic Facts 2008

## Junctions

More than 62.000 persons were killed in traffic accidents at junctions, in 12<sup>1,2</sup> European Union countries between 1997 and 2006<sup>3</sup> about 21% of all traffic accident fatalities in those countries.

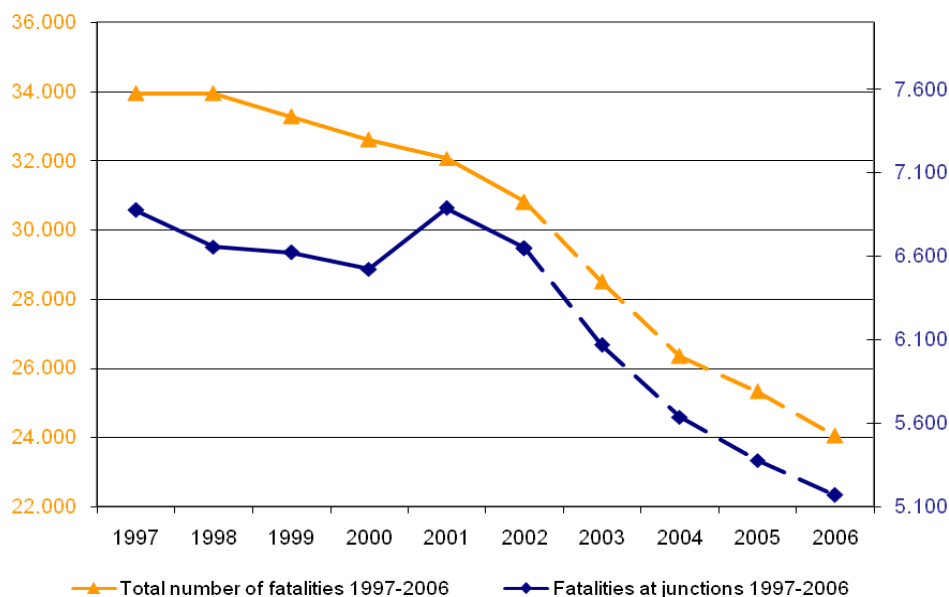
In these 12 countries there were 24,8% fewer traffic accident fatalities at junctions in 2006<sup>3</sup> than in 1997, whereas the total number of fatalities fell by 29,2% over the same period.

The number of traffic accident fatalities at junctions increased by 5,4% in 2001 compared to 2000, whereas the overall number of fatalities fell by 1,8%. This increase is mainly attributed to Italy where accidents at junctions increased by 34%, although the total number of fatalities rose only by 0,6%. The two fatality trends are similar after 2001, as indicated in Figure 1.

A decrease of 24,8% in traffic accident fatalities at junctions was observed during the period 1997-2006<sup>3</sup>.

The fatality trend at junctions did not follow the overall trend in 2001

Figure 1: Evolution of fatalities in the EU-12<sup>2</sup>, 1997-2006<sup>3</sup>



Source: CARE Database / EC  
Date of query: July 2008

<sup>1</sup> Statistics related to junction road accidents should be read carefully due to the presence of a high proportion of "unknown" entries in specific countries (AT, EE, IE, MT, PT, SE), which might affect the percentages presented. The highest proportions of "unknown" entries though are observed for IE, MT and SE (from 2003 onwards) (79,4%, 100% and 75,3% respectively) therefore these countries are excluded from the following Tables and Figures.

<sup>2</sup> See Table "Definition of EU-level and used country abbreviations" on page 10.

<sup>3</sup> Using latest available data, i.e. 2006 for all countries except LU (2002), NL (2003), IT (2004). For UK, 2006 data stands for GB and 2005 data for NI.





Table 1 provides an overall view of the evolution of fatalities at junctions split by country. The totals refer to the 12 countries with data since 1997.

**Table 1: Fatalities at junctions per country in the EU-12/16<sup>2</sup>, 1997-2006<sup>5</sup>**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	309	321	302	334	357	315	272	221	210	207
CZ	-	-	-	-	-	-	-	-	-	222
DK	149	163	155	150	122	130	128	122	94	101
EE	-	-	-	-	-	-	-	-	33	38
EL	118	133	162	141	148	168	139	122	118	159
ES	974	959	930	914	856	805	806	764	750	728
FR	1.496	1.519	1.444	1.375	1.364	1.238	971	822	664	593
IT**	1.413	1.329	1.354	1.416	1.896	1.921	1.699	1.641	1.641	1.641
LU****	5	5	2	11	8	8	8	8	8	8
HU	-	-	-	-	-	-	316	280	260	266
NL***	435	386	404	401	327	321	324	324	324	324
AT	189	149	189	153	146	167	161	145	148	128
PL*	-	-	-	-	-	-	-	-	898	898
PT	281	253	251	225	236	196	187	213	196	131
FI	111	106	91	85	104	93	83	65	73	65
UK*	1.396	1.333	1.340	1.318	1.325	1.287	1.289	1.189	1.152	1.083
EU-12	6.875	6.656	6.624	6.523	6.888	6.649	6.068	5.636	5.378	5.168
EU-12 % yearly change	-	-3,2%	-0,5%	-1,5%	5,6%	-3,5%	-8,7%	-7,1%	-4,6%	-3,9%

\* Data from 2005 (UK = GB 2006 + NI 2005)

\*\* Data from 2004

\*\*\* Data from 2003

\*\*\*\* Data from 2002

Source: CARE Database / EC

Date of query: September 2008

EU-14 totals can differ due to rounding because of the use of coefficients in order to arrive to fatalities at 30 days

France shows the most significant decrease (60%) in road fatality rates at junctions within the examined period.

The fatality rate at junctions per million inhabitants, presented in Table 2, is higher in Estonia than in the other 15<sup>1,4</sup> European countries (excluding countries where 2006 data are not available) and higher than the average rate of the European Union for 2006<sup>3</sup> as a whole. Moreover, the respective rates for Belgium, Czech Republic, Hungary and Poland are higher than the EU-16 average. The EU total fatality rate includes 12 EU countries up to 2005, while Czech Republic, Estonia, Hungary and Poland are included for 2006<sup>3</sup>.

<sup>4</sup> Due to small numbers, LU was not taken into account in comparisons.

<sup>5</sup> In certain countries correction coefficients are applied to absolute values for killed persons in order for values to be in adequacy with the common definition of "killed at 30 days". The totals in Table 1 are the sum of these non-integer values. Therefore, the sum of the integers presented may differ by +/- 1 from the totals presented.





**Table 2: Fatalities at junctions per million inhabitants in the EU-12/16<sup>2</sup>, 1997-2006<sup>4</sup>**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	30,3	31,5	29,5	32,6	34,7	30,5	26,2	21,2	20,0	19,6
CZ	-	-	-	-	-	-	-	-	-	21,6
DK	28,2	30,7	29,1	28,1	22,8	24,2	23,7	22,6	17,3	18,6
EE	-	-	-	-	-	-	-	-	24,5	28,3
EL	10,9	12,3	14,9	12,9	13,5	15,3	12,6	11,0	10,6	14,3
ES	24,6	24,1	23,3	22,7	21,0	19,5	19,2	17,9	17,3	16,5
FR	25,0	25,3	23,9	22,6	22,3	20,1	15,7	13,2	10,6	9,4
IT**	24,8	23,4	23,8	24,9	33,3	33,6	29,5	28,2	28,0	27,8
LU****	11,9	11,8	4,6	25,2	18,1	17,9	17,8	17,6	17,5	16,9
HU	-	-	-	-	-	-	31,2	27,7	25,8	26,4
NL***	27,9	24,6	25,6	25,2	20,4	19,9	20,0	19,9	19,9	19,8
AT	23,7	18,7	23,6	19,1	18,2	20,7	19,8	17,7	18,0	15,5
PL*	-	-	-	-	-	-	-	-	23,5	23,5
PT	27,8	25,0	24,7	22,0	22,9	18,9	17,9	20,3	18,6	12,4
FI	21,6	20,6	17,6	16,4	20,0	17,9	15,9	12,4	13,9	12,3
UK*	23,9	22,8	22,8	22,4	22,4	21,7	21,6	19,9	19,1	17,9
EU-12 <sup>1,2,3</sup>	24,5	23,7	23,5	23,0	24,2	23,2	21,0	19,4	18,4	17,5
EU-16 <sup>1,2,3</sup>	-	-	-	-	-	-	-	-	-	18,6

\* Data from 2005 (UK = GB 2006 + NI 2005)

\*\* Data from 2004

\*\*\* Data from 2003

\*\*\*\* Data from 2002

Source: CARE Database / EC

Date of query: July 2008

Source of population data: EUROSTAT

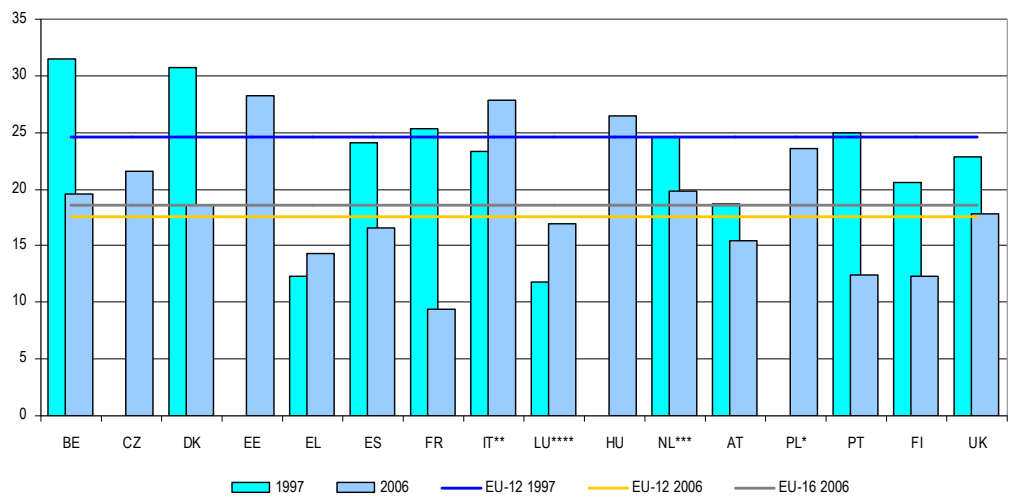
Figure 2 shows that the fatality rate at junctions decreased by 28,6% between 1997 and 2006<sup>3</sup> in the 12 EU countries (from 24,5 in 1997 to 17,5 in 2006). France shows the most significant decrease by 62,5% in road fatality rates at junctions within the examined period.

The fatality rate significantly increased by 30,3% in Greece within the examined period. In 1997 the highest fatality rate was in 30,3 (in Belgium), whereas in 2006 the highest rate was 28,3 (in Estonia). Eight of the countries are lower than the average rate of all EU-16 countries for 2006<sup>3</sup>, with France having a fatality rate almost half the average EU-16 rate. The inclusion of data from three new Member States (Czech Republic, Hungary, Estonia and Poland) increased the EU average for 2006 slightly (18,6 with the new countries, 17,5 without).





Figure 2: Fatalities at junctions per million inhabitants in the EU-12/16<sup>2</sup>, 1997 versus 2006<sup>4</sup>



\* Data from 2005 (UK = GB 2006 + NI 2005)  
 \*\* Data from 2004  
 \*\*\* Data from 2003  
 \*\*\*\* Data from 2002

Source: CARE Database / EC  
 Date of query: July 2008

Table 3: Proportion of fatalities who were killed at junctions in the EU-12/16<sup>2</sup>, 1997 - 2006<sup>4</sup>

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	22,7%	21,4%	21,6%	22,7%	24,0%	24,1%	22,4%	19,0%	19,3%	19,4%
CZ	-	-	-	-	-	-	-	-	-	20,9%
DK	30,5%	32,7%	30,2%	30,1%	28,3%	28,1%	29,6%	33,1%	28,4%	33,0%
EE	-	-	-	-	-	-	-	-	19,4%	18,6%
EL	5,6%	6,1%	7,7%	6,9%	7,9%	10,3%	8,7%	7,3%	7,1%	9,6%
ES	17,4%	16,1%	16,2%	15,8%	15,5%	15,0%	14,9%	16,1%	16,9%	17,7%
FR	17,7%	17,0%	17,0%	17,0%	16,7%	16,2%	16,0%	14,9%	12,5%	12,6%
IT**	21,1%	21,1%	20,2%	21,3%	28,3%	28,5%	28,0%	29,2%	29,2%	29,2%
LU****	8,3%	8,8%	3,4%	14,5%	11,4%	12,9%	12,9%	12,9%	12,9%	12,9%
HU	-	-	-	-	-	-	23,8%	21,6%	20,3%	20,4%
NL***	37,4%	36,2%	37,1%	37,1%	32,9%	32,5%	31,5%	31,5%	31,5%	31,5%
AT	17,1%	15,5%	17,5%	15,7%	15,2%	17,5%	17,3%	16,5%	19,3%	17,5%
PL*	-	-	-	-	-	-	-	-	16,5%	16,5%
PT	10,3%	10,0%	11,8%	11,3%	12,7%	11,7%	11,2%	13,8%	15,2%	10,5%
FI	25,3%	26,5%	21,1%	21,5%	24,0%	22,4%	21,9%	17,3%	19,3%	19,3%
UK*	37,3%	37,2%	37,6%	36,8%	36,8%	35,9%	35,2%	35,3%	34,5%	34,1%
EU-12 <sup>1,2</sup>	20,2%	19,6%	19,9%	20,0%	21,5%	21,6%	21,3%	21,4%	21,2%	21,5%
EU-16 <sup>1,2</sup>	-	-	-	-	-	-	-	-	-	20,6%

\* Data from 2005 (UK = GB 2006 + NI 2005)  
 \*\* Data from 2004  
 \*\*\* Data from 2003  
 \*\*\*\* Data from 2002

Source: CARE Database / EC  
 Date of query: July 2008

In the United Kingdom, more than one third of the overall road accident fatalities in 2006<sup>3</sup> occurred at junctions (34,1%), whereas in Greece fatalities at junctions constitute a minority of the overall road accident fatalities (9,6%).





Table 3 shows that the overall percentage of fatalities at junctions increased between 1997 and 2006 in the most EU countries, although it tended to decrease in Belgium, France, The Netherlands, Finland and United Kingdom.

## Area Type

Table 4: Fatalities at junctions inside urban area in the EU-12/16<sup>2</sup>, 1997-2006<sup>4</sup>

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	121	105	108	139	133	122	113	79	76	72
CZ	-	-	-	-	-	-	-	-	-	126
DK	67	62	65	67	60	48	55	49	49	48
EE	-	-	-	-	-	-	-	-	12	17
EL	113	124	137	131	140	134	103	107	95	120
ES	423	409	357	361	313	287	300	278	279	257
FR	669	660	665	552	519	466	402	318	349	299
IT**	900	857	876	936	1.135	1.077	888	828	828	828
LU****	0	1	1	4	4	6	6	6	6	6
HU	-	-	-	-	-	-	189	176	171	178
NL***	213	204	184	200	171	172	168	168	168	168
AT	88	67	66	66	61	82	61	75	61	72
PL*	-	-	-	-	-	-	-	-	592	592
PT	168	145	166	153	149	124	116	132	123	82
FI	56	48	38	41	48	42	43	27	34	36
UK*	838	780	813	815	774	772	793	724	670	694
EU-12	3.656	3.462	3.476	3.464	3.508	3.332	3.048	2.791	2.738	2.682
% EU-12 yearly change	-	-5,3%	0,4%	-0,3%	1,3%	-5,0%	-8,5%	-8,4%	-1,9%	-2,0%

- \* Data from 2005 (UK = GB 2006 + NI 2005)
- \*\* Data from 2004
- \*\*\* Data from 2003
- \*\*\*\* Data from 2002

Source: CARE Database / EC  
Date of query: July 2008

Road accident fatalities at junctions occur mostly within urban areas in the 12 EU countries. However, the number of fatalities at junctions has fallen more quickly in recent years in urban than in rural areas. There was an exception in the last two years 2005<sup>3</sup> and 2006<sup>3</sup>, when the reduction was approximately 2,0% in urban areas each year and between 5,9% and 7,2% in rural areas.

Over the 12 EU countries, the number of fatalities at junctions fell more in 2006<sup>3</sup> in rural than in urban areas.





Table 5: Fatalities at junctions outside urban area in the EU-12/16<sup>2</sup>, 1997-2006<sup>4</sup>

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	188	216	194	195	224	193	159	142	134	134
CZ	-	-	-	-	-	-	-	-	-	96
DK	82	101	90	83	62	82	73	73	45	53
EE	-	-	-	-	-	-	-	-	21	21
EL	5	9	25	10	8	34	36	15	23	39
ES	550	549	573	554	542	518	507	486	471	471
FR	827	859	779	823	845	772	570	504	315	294
IT**	513	472	478	480	761	844	811	813	813	813
LU****	3	3	0	6	3	2	2	2	2	2
HU	-	-	-	-	-	-	127	104	89	88
NL***	222	182	220	201	156	149	156	156	156	156
AT	101	82	123	87	85	85	100	70	87	56
PL*	-	-	-	-	-	-	-	-	306	306
PT	113	108	84	72	87	72	71	81	73	49
FI	55	58	53	44	56	51	40	38	39	29
UK*	558	553	527	503	551	515	496	465	482	389
EU-12	3.217	3.193	3.147	3.058	3.380	3.316	3.020	2.845	2.640	2.485
% EU-12 yearly change	-	-0,7%	-1,5%	-2,8%	10,5%	-1,9%	-8,9%	-5,8%	-7,2%	-5,9%

\* Data from 2005 (UK = GB 2006 + NI 2005)  
 \*\* Data from 2004  
 \*\*\* Data from 2003  
 \*\*\*\* Data from 2002

Source: CARE Database / EC  
 Date of query: July 2008

Main Figures

Children

Young People

The Elderly

Pedestrians

Bicycles

Motorcycles & Mopeds

Car Occupants

Heavy Goods Vehicles

Motorways

Junctions

Urban Areas





## Mode of transport

About 40% of the fatalities at junctions across the European countries are car or taxi occupants, as demonstrated in Table 6.

Table 6: Fatalities at junctions by mode of transport in the EU-16<sup>2</sup>, 2006<sup>4</sup>

	agricultural tractor	bus or coach	car or taxi	heavy goods vehicle	lorry, under 3.5 tonnes	moped	motorcycle	other	pedal cycle	pedestrian	Total
BE	0	0	84	2	3	14	43	1	39	20	206
CZ	0	1	108	4	3	1	29	1	29	46	222
DK	2	0	35	0	5	7	8	0	18	26	101
EE	0	0	13	2	0	1	2	0	3	15	36
EL	1	0	49	1	1	6	61	1	0	39	159
ES	1	1	275	18	37	116	125	9	25	117	724
FR	0	1	238	5	12	57	144	6	42	88	593
IT**	3	9	745	1	12	161	392	11	141	143	1.618
LU****	0	0	5	1	0	0	0	0	0	2	8
HU	0	1	96	2	6	9	23	1	58	70	266
NL***	3	0	90	2	14	44	33	2	110	26	324
AT	1	0	49	2	2	7	20	3	16	28	128
PL*	13	7	326	32	0	15	32	2	152	319	898
PT	3	0	35	5	17	29	27	0	7	8	131
FI	0	0	25	1	0	8	5	0	12	14	65
UK*	0	11	432	8	9	14	228	13	91	329	1.135
EU-16 <sup>2</sup>	27	31	2.605	86	121	489	1.172	50	743	1.290	6.614
% by mode of transport	0,4%	0,5%	39,4%	1,3%	1,8%	7,4%	17,7%	0,8%	11,2%	19,5%	100,0%

\* Data from 2005 (UK = GB 2006 + NI 2005)

\*\* Data from 2004

\*\*\* Data from 2003

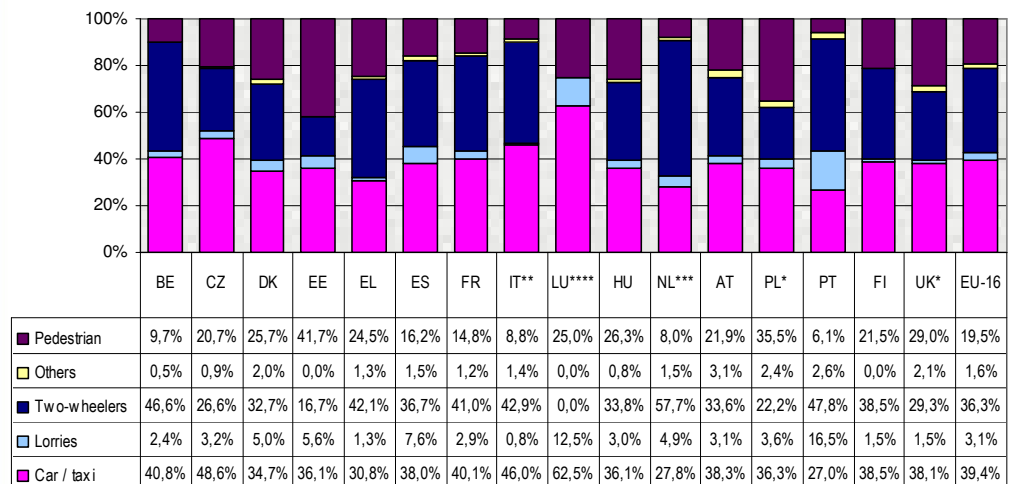
\*\*\*\* Data from 2002

Source: CARE Database / EC

Date of query: July 2008

As displayed in Figure 3, in the Netherlands more than half (57,7%) of the overall fatalities at junctions are two-wheeler users (motorcycle, moped and bicycle users), a higher proportion compared to the other 15 EU countries.

Figure 3: Distribution of fatalities at junctions by mode of transport in the EU-16<sup>2</sup>, 2006<sup>4</sup>



\* Data from 2005 (UK = GB 2006 + NI 2005)

\*\* Data from 2004

\*\*\* Data from 2003

\*\*\*\* Data from 2002

Source: CARE Database / EC

Date of query: July 2008

More than half (57,7%) of fatalities at junctions in the Netherlands are two-wheeler users, a higher proportion than in any of the other 15 countries.



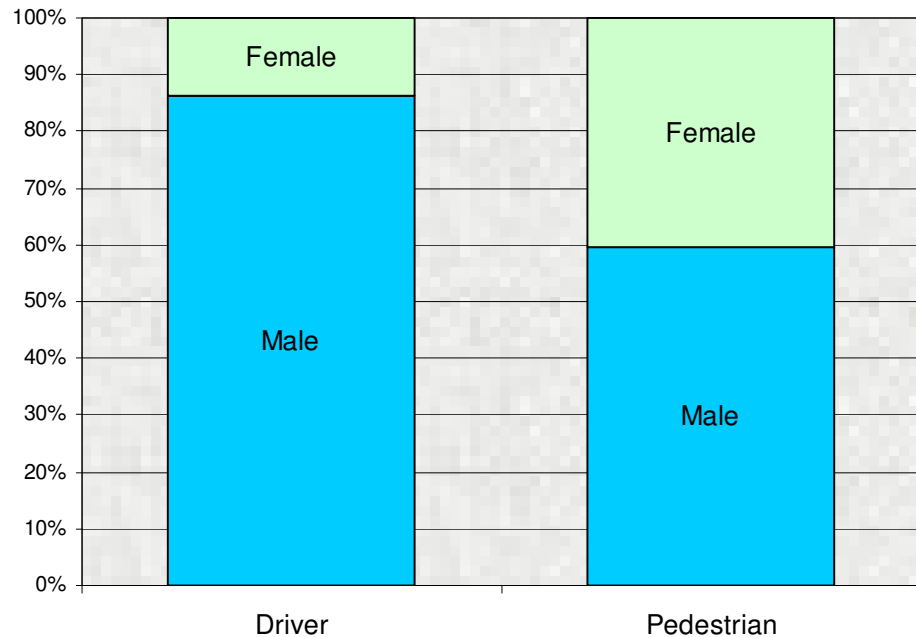


In Estonia and Poland, the number of pedestrian fatalities at junctions is considerably higher than the EU-16 average (41,7% and 35,5% respectively - average: 19,5%). Additionally, in Portugal the number of lorries occupants fatalities at junctions is more than five times the EU-16 average (16,5% comparing to 3,1%), considerably higher than the respective rate in all other considered countries.

### Person class and gender

Figure 4 indicates that in 16 EU countries, accident involvement of female drivers at junctions is considerably lower than the involvement of male drivers (13,7% female fatalities at junctions and 86,3% of male respectively). This may be caused by the lower driving exposure of female drivers. Additionally, 60% of pedestrian fatalities at junctions are male and approximately 40% are female.

**Figure 4: Fatalities at junctions by gender and person class in the EU-16<sup>2</sup>, 2006<sup>3</sup>**



Source: CARE Database / EC  
Date of query: July 2008

Accident involvement of female drivers at junctions is considerably lower than the involvement of male drivers, possibly due to a higher exposure of male drivers.

### Weather conditions

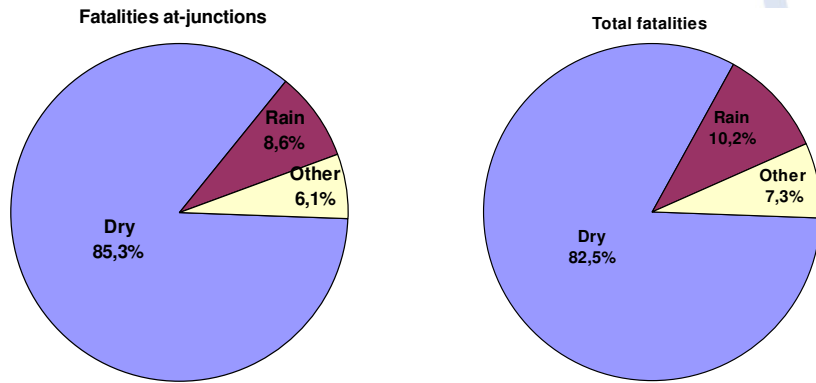
As Figure 5 shows, weather conditions affect accident fatalities at junctions in a similar way to fatalities in accidents that occur away from junctions







**Figure 5: Fatalities at junctions and total fatalities by weather conditions in the EU-16, 2006<sup>3</sup>**

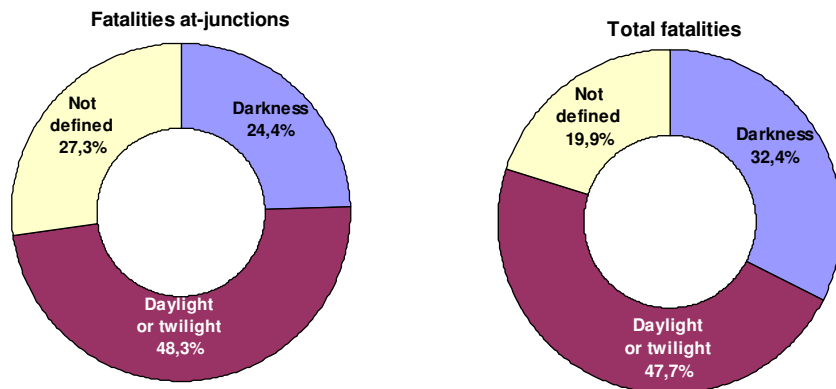


Source: CARE Database / EC  
Date of query: July 2008

### Lighting Conditions

As demonstrated in Figure 6, in 2006<sup>3</sup>, 24,4% (1.620 people) of the fatalities at junctions in 16 European countries occurred when it was dark. The distribution of all fatalities according to lighting conditions is different, as there is a somewhat larger share of fatalities occurring when it is dark (32,4%, corresponding to 10.351 people).

**Figure 6: Fatalities at junctions and total fatalities by lighting conditions in the EU-16, 2006<sup>3</sup>**



Source: CARE Database / EC  
Date of query: July 2008

Almost half of road accident fatalities (at junction or not) occurred during daylight or twilight.

Almost a quarter of the fatalities at junctions occurred during night time





## Disclaimer

The information in this document is provided as it is and no guarantee or warranty is given that the information is fit for any particular purpose. Therefore, readers use the information at their own risk and liability.

## For more information

Further statistical information about fatalities is available from the CARE database at the Directorate-General for Energy and Transport of the European Commission, 28 Rue de Mot, B-1040 Brussels (see

[ec.europa.eu/transport/roadsafety/road\\_safety\\_observatory/care\\_reports\\_en.htm](http://ec.europa.eu/transport/roadsafety/road_safety_observatory/care_reports_en.htm)).

Traffic Safety Basic Fact Sheets available from the European Commission concern:

- Main Figures
- Children (Aged <16)
- Young People (Aged 16-24)
- The Elderly (Aged >64)
- Pedestrians
- Bicycles
- Motorcycles and Mopeds
- Car Occupants
- Heavy Goods Vehicles & Buses
- Motorways
- Junctions
- Urban Areas

## Definition of used Country abbreviations

### EU-12

BE	Belgium
DK	Denmark
EL	Greece
ES	Spain
FR	France
IT	Italy
LU	Luxemburg
NL	Netherlands
AT	Austria
PT	Portugal
FI	Finland
UK	United Kingdom

### EU-16 = EU-12 +

EE	Estonia
HU	Hungary
PL	Poland
CZ	Czech Republic

### EU-25 = EU-16 +

DE	Germany
IE	Ireland
CY	Cyprus
LV	Latvia
LT	Lithuania
MT	Malta
SE	Sweden
SI	Slovenia
SK	Slovakia





Detailed data on traffic accidents are published annually by the European Commission in the **Annual Statistical Report**. This includes country abbreviations and a glossary of definitions on all variables used.

All these reports and more information on the Integrated Project SafetyNet, co-financed by the European Commission, Directorate-General Energy and Transport are also available at the SafetyNet website: [www.erso.eu](http://www.erso.eu).

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