Traffic Safety Basic Facts 2007

Pedestrians

In 2005[1], 3.683 pedestrians were killed in road traffic accidents in the EU-14[2] (EU-15 without Germany). This is 14,1% of all fatalities in 2005. In the last decade, pedestrian fatalities have reduced by 36,8%, while the total number of fatalities has reduced by one quarter (25,3%). Road safety measures implemented in the last 10 years may thus have considerably improved pedestrian fatality numbers.

Pedestrian fatalities in traffic accidents reduced by 37% between 1996 and 2005.

The annual data by country from 1996 to 2005 is presented in Table 1. Figure 1 shows the total[1] number of fatalities for the same time period, the line is dashed for years where data up to 2005 are not available for all countries. The slight rise of pedestrian fatalities in 2002 results from the 2002 increase in Italy.

In 2005[1], nearly 3.700 pedestrians died from road traffic accidents in 14 European countries. This corresponds to 14% of road traffic fatalities in these countries.

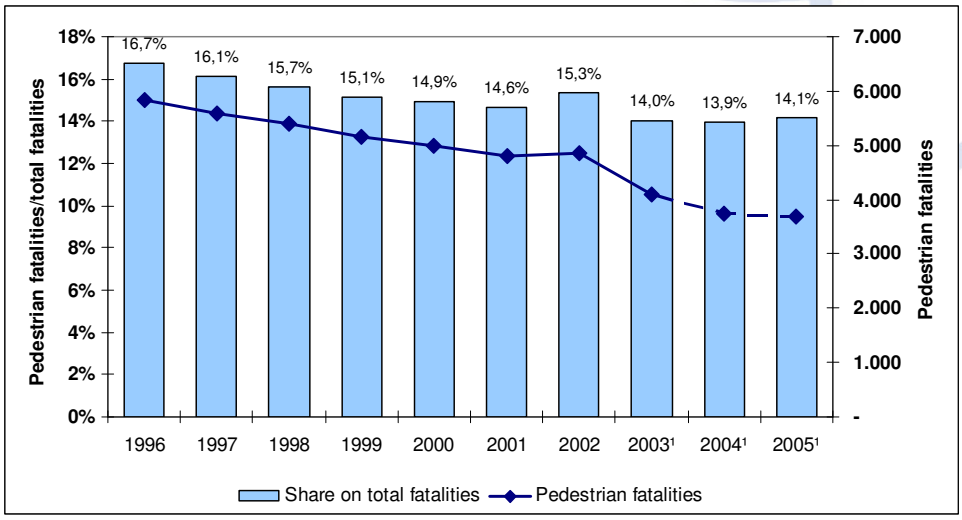
Table 1: Pedestrian fatalities by country by year, 1996-2005[1]

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
BE	154	142	162	154	142	158	127	113	101	108
DK	68	87	73	82	99	49	63	49	43	44
EE	-	-	-	-	-	-	-	-	-	46
EL	422	409	417	399	375	338	279	257	293	234
ES	960	967	996	906	899	846	776	786	683	680
FR	1.043	982	1.044	932	838	822	866	626	581	635
IE**	115	130	114	92	85	89	86	64	-	-
IT*	985	893	844	847	897	932	1.163	781	710	-
LU***	9	8	3	2	11	11	6	-	-	-
HU	-	-	-	-	-	-	-	-	-	289
MT	-	-	-	-	-	-	-	-	-	6
NL**	109	119	110	111	106	106	97	97	-	-
AT	157	156	165	182	140	117	160	132	132	97
PL	-	-	-	-	-	-	-	-	-	1.756
PT	624	549	406	393	384	337	339	280	233	214
FI	70	69	62	67	62	62	40	59	49	45
SE	74	72	69	86	73	87	58	55	67	50
UK	1.039	1.010	946	909	889	858	808	802	694	699
EU-14 [1]	5.829	5.593	5.411	5.162	5.000	4.812	4.868	4.108	3.753	3.683
Yearly [1] Change	-	-4,0%	-3,3%	-4,6%	-3,1%	-3,8%	1,2%	-15,6%	-8,6%	-1,9%

Source: CARE Database / EC
Date of query: October 2007

[1] Using latest data available, i.e. 2005 for all countries except LU (2002), IE and NL (2003) and IT (2004). The data from EE, HU, MT and PL are not considered.
[2] See table "Definition of EU-level and used Country abbreviations" on page 11

Figure 1: Number of pedestrian fatalities and proportion on total fatalities in EU-14, 1996-2005[1]



Source: CARE Database / EC
Date of query: October 2007

The proportion of fatalities who were pedestrians fell slightly between 1996 and 2005.

To compare the pedestrian fatality numbers of different countries the respective population size has been taken into account (see Table 2). The rate varies from 5,5 pedestrian fatalities per million inhabitants in Sweden to 46,0 pedestrian fatalities by million inhabitants in Poland, a rate which is more than 8 times higher.

The rate of pedestrian fatalities per million population is highest in Poland and Estonia.

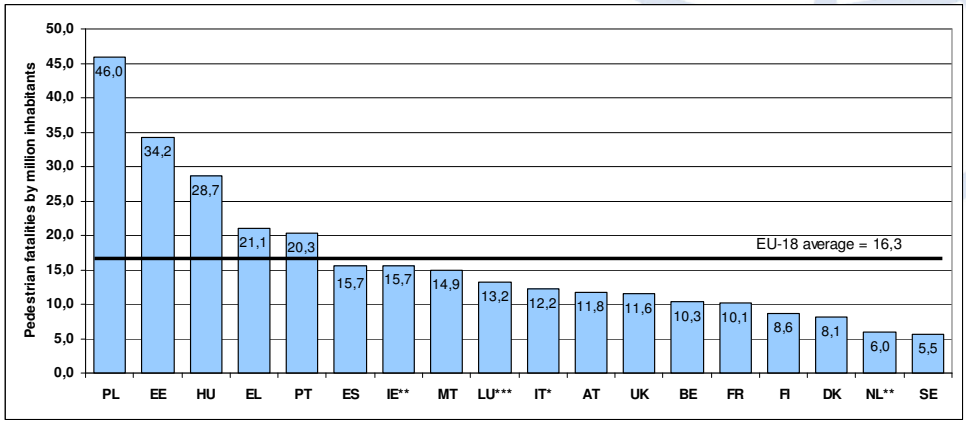
Table 2: Pedestrian fatalities per million inhabitants by country, 2005

	Pedestrian fatalities	Population [million]	Pedestrian fatalities per million inhabitants
BE	108	10,4	10,4
DK	44	5,4	8,1
EE	46	1,3	34,2
EL	234	11,1	21,1
ES	680	43,4	15,7
FR	635	62,7	10,1
IE**	64	4,1	15,7
IT*	710	58,2	12,2
LU***	6,00	0,5	13,2
HU	289	10,1	28,7
MT	6	0,4	14,9
NL**	97	16,3	6,0
AT	97	8,2	11,8
PL	1.756	38,2	46,0
PT	214	10,5	20,3
FI	45	5,2	8,6
SE	50	9,0	5,5
UK	699	60,2	11,6
EU-18	5.780	355,3	16,3

* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007
Source of population data: EUROSTAT

Figure 2: Pedestrian fatalities per million inhabitants by country, 2005



* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007
Source of population data: EUROSTAT

The proportion of fatalities who were pedestrians is lowest in Belgium and The Netherlands.

The proportion of pedestrian fatalities in the total number of road traffic fatalities in each country is shown in Table 3. The proportion is lowest in The Netherlands, Belgium and Sweden, compared to 35,3% in Malta, 32,3% in Poland, and 27,2% in Estonia (see Figure 3). The EU-18 average is 17,5%.

Table 3: Pedestrian fatalities as a percentage of total fatalities, 2005

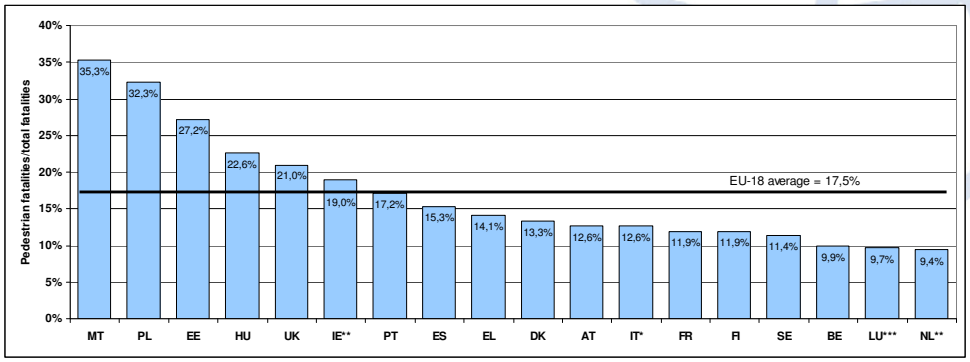
	Pedestrian fatalities	Total fatalities	Ratio
BE	108	1.089	9,9%
DK	44	331	13,3%
EE	46	169	27,2%
EL	234	1.658	14,1%
ES	680	4.442	15,3%
FR	635	5.318	11,9%
IE**	64	337	19,0%
IT*	710	5.625	12,6%
LU***	6	62	9,7%
HU	289	1.278	22,6%
MT	6	17	35,3%
NL**	97	1.028	9,4%
AT	97	768	12,6%
PL	1.756	5.444	32,3%
PT	214	1.247	17,2%
FI	45	379	11,9%
SE	50	440	11,4%
UK	699	3.336	21,0%
EU-18	5.780	32.968	17,5%

* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007

In Malta and Poland about one in three road accident fatalities is a pedestrian.

Figure 3: Pedestrian fatalities as a percentage of total fatalities, 2005



* Data from 2004
** Data from 2003
*** Data from 2002

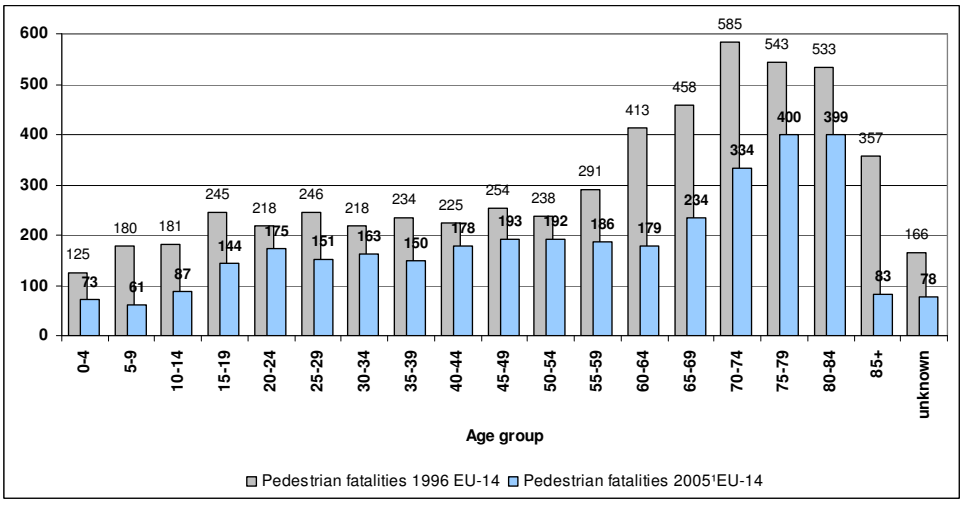
Source: CARE Database / EC
Date of query: October 2007

Age and gender

The elderly are still the largest group in pedestrian fatalities. The very high number of the elderly (aged >64) pedestrian fatalities decreased in the last 10 years from 2.476 to 1.450 people (-41,4%), while all pedestrian fatalities were reduced by 36,8% in the same time period. The elderly are still the largest group in pedestrian fatalities. The change in pedestrian fatalities from 1996 to 2005[1] by age groups is presented in Figure 4.

The pedestrian fatality rate peaks about the age of 75.

Figure 4: EU-14 evolution of pedestrian fatalities by age group, 1996-2005[1]

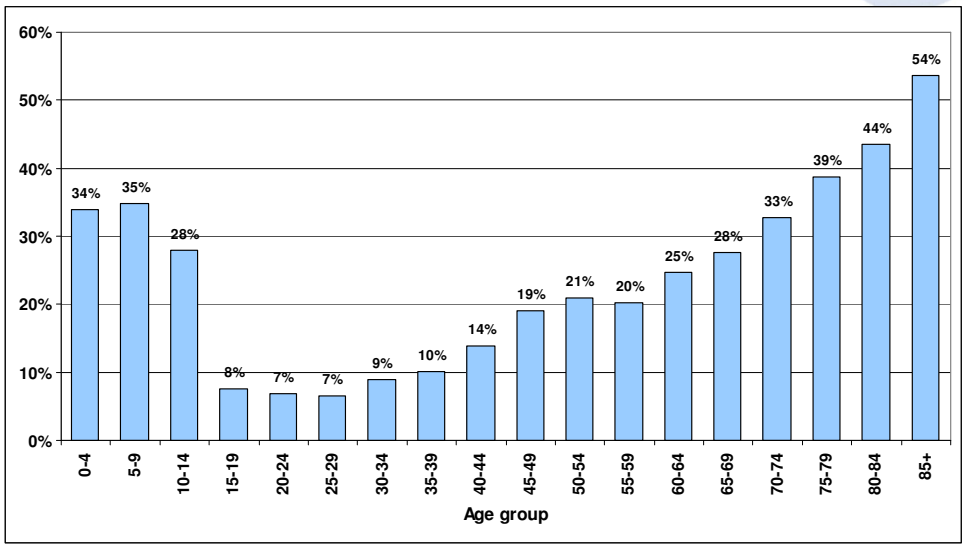


Source: CARE Database / EC
Date of query: October 2007

The proportion of fatalities who are pedestrians is high for children as well as the elderly (see Figure 5). A reason for this could be the lower level of motorization in these age groups. Table 4, Figure 5, and Figure 6 show that the elderly are a very important group when dealing with pedestrian road safety.

The proportion of fatalities who are pedestrians is higher for children and the elderly than for other age groups

Figure 5: Pedestrian fatalities as a percentage of total fatalities by age group in EU-18, 2005[3]



Source: CARE Database / EC
Date of query: October 2007

Although children have a high proportion on pedestrian fatalities, they have a lower fatality rate as the average population (16,3 pedestrian fatalities by million inhabitants). The pedestrian fatality rate of the elderly is much higher than the average, increasing up from the age of 70 (see Figure 6). For total numbers of child and senior pedestrian fatalities see Table 4.

[3] Using last data available, i.e. 2005 for all countries except LU (2002), IE and NL (2003) and IT (2004).

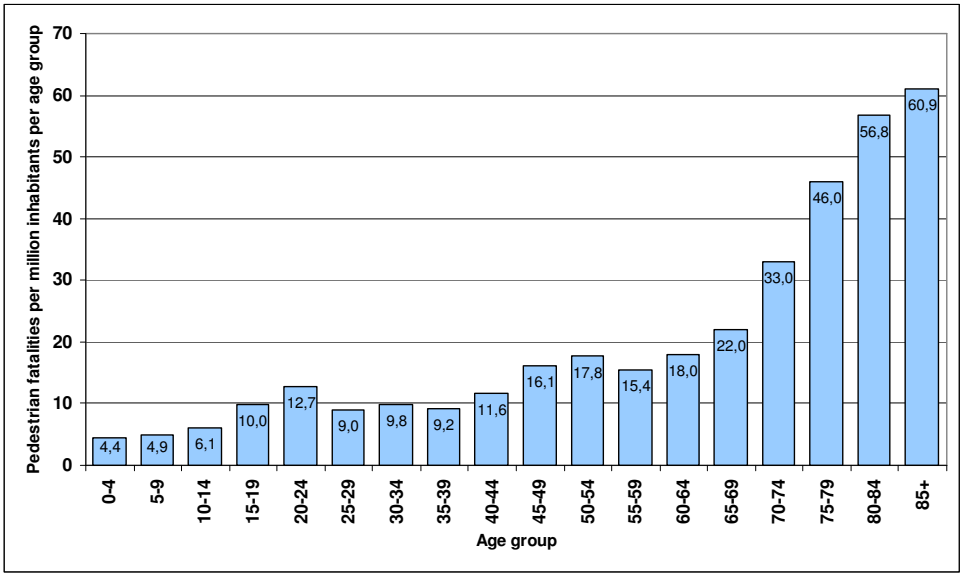
Table 4: Child (age 0-15) and elderly (age >64) pedestrian fatalities, 2005

	Child pedestrian fatalities (age 0-15)	Elderly pedestrian fatalities (age >64)	Total pedestrian fatalities
BE	9	54	108
DK	3	18	44
EE	4	10	46
EL	11	126	234
ES	29	285	680
FR	40	325	635
IE**	8	22	64
IT*	23	381	710
LU***	1	3	6
HU	9	90	289
MT	2	2	6
NL**	17	39	97
AT	11	43	97
PL	78	512	1.756
PT	10	87	214
FI	7	20	45
SE	3	22	50
UK	69	250	699
EU-18	334	2.288	5.780

* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007

Figure 6: Pedestrian fatalities per million inhabitants by age group, 2005[3] EU-18



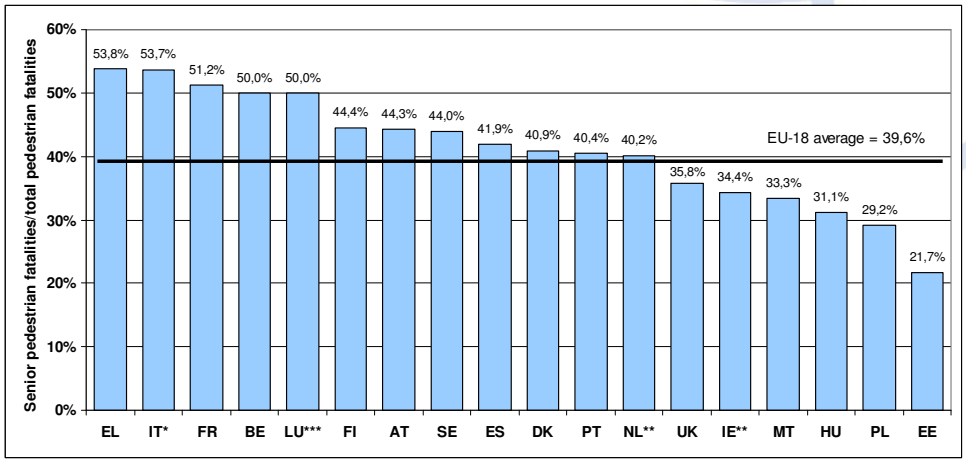
Source: CARE Database / EC
Date of query: October 2007
Source of population data: EUROSTAT

The fatality rate of pedestrians at least 80 years old is ten times the rate for children

Pedestrian fatalities of elderly people as a percentage of total pedestrian fatalities vary between countries (see Figure 7). In Greece, Italy, and France more than half of all pedestrian fatalities are the elderly, while elderly people account only for about one third of fatalities in the United Kingdom, Ireland and the new member states Malta, Poland and Hungary. Estonia has the lowest rate with only 21,7% senior pedestrian fatalities to total pedestrian fatalities. The European average lies at 39,6%.

In Greece, Italy and France more than half of all pedestrian fatalities are the elderly.

Figure 7: Senior pedestrian fatalities (age >64) as a percentage of total pedestrian fatalities, 2005

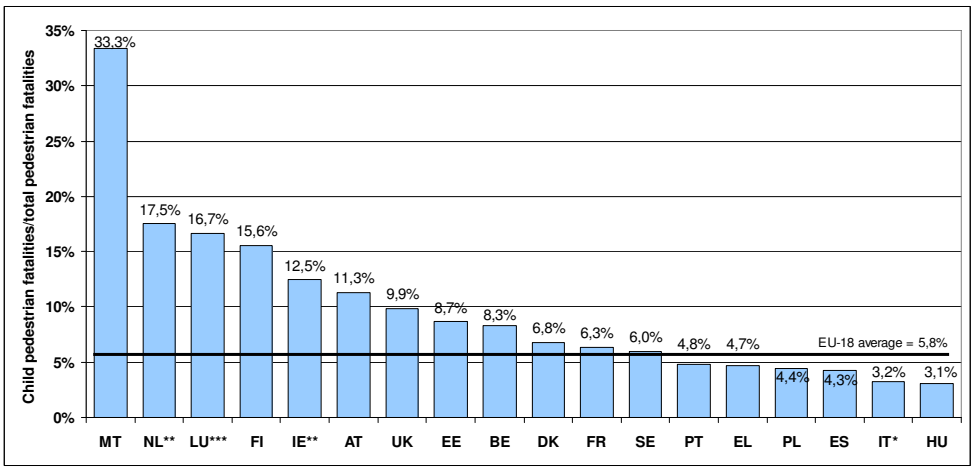


* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007

The proportion of pedestrian fatalities who are children varies widely among the EU-18 countries. 18% of pedestrian fatalities in the Netherlands are children, compared with 3% of Italy and Hungary (see Figure 8)

Figure 8: Child pedestrian fatalities (age 0-15) as a percentage of total pedestrian fatalities, 2005



* Data from 2003
** Data from 2002
*** Data from 2002

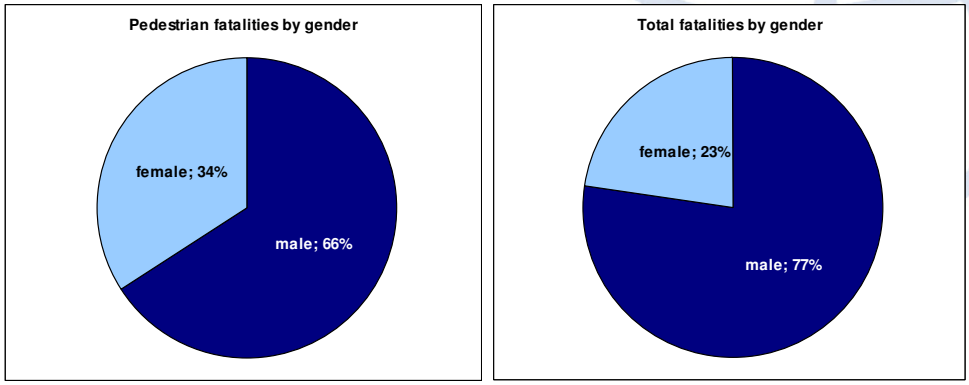
Source: CARE Database / EC
Date of query: October 2007

The proportion of pedestrian fatalities who are children varies widely among the EU-18 countries.

The different gender patterns of the mode of transport are reflected in the high proportion of female pedestrian fatalities, which is more than one third for pedestrian fatalities, while only being less than one quarter of all fatalities (see Figure 9). Figure 10 shows the details of gender distribution of pedestrian fatalities in the different Member States.

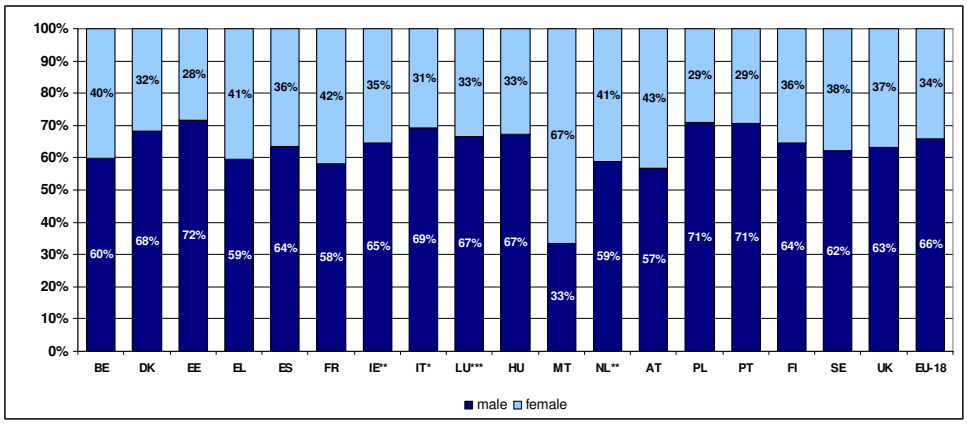
The proportion of pedestrian fatalities who are female is higher than the overall proportion.

Figure 9: Share of gender for pedestrians and for total fatalities in EU-18, 2005[3]



Source: CARE Database / EC
Date of query: October 2007

Figure 10: Pedestrian fatalities by gender by country, 2005



* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007

In every country, except Malta, are more male than female fatalities.

Light conditions

The distribution of fatalities by light conditions (see Table 5) shows that pedestrians are in most danger during darkness with an average of 45,5%. This varies between the respective countries, from 85% in Estonia to 35% in The Netherlands, as presented in Figure 11. Luxemburg and Italy are excluded due to a high proportion of fatalities with unknown light conditions.

Nearly half of all pedestrian fatalities (45%) die in darkness.

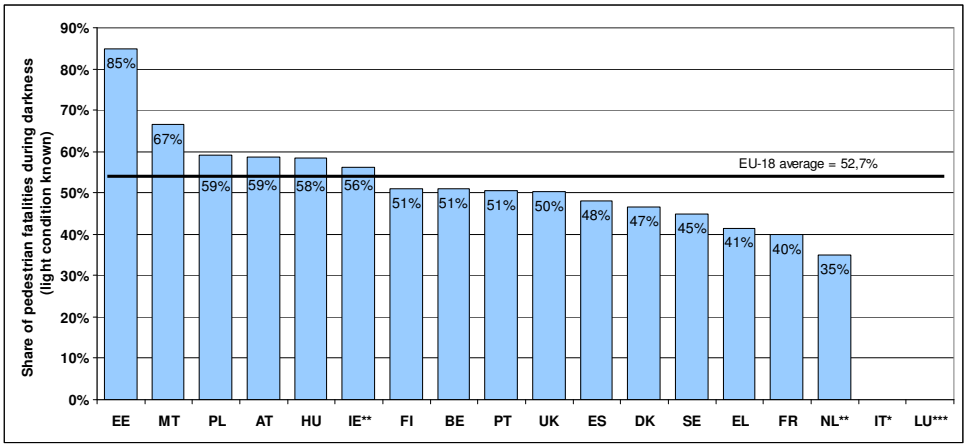
Table 5: Pedestrian fatalities by light conditions by country, 2005

	Darkness	Daylight	Daylight or twilight	Twilight	Unknown	Total
BE	55	47	-	6	-	108
DK	20	17	-	6	1	44
EE	39	7	-	-	-	46
EL	97	115	-	22	-	234
ES	327	321	-	31	-	680
FR	253	344	-	38	-	635
IE**	36	-	28	-	-	64
IT*	-	-	-	-	710	710
LU***	1	-	-	-	5	6
HU	169	108	-	12	-	289
MT	4	2	-	-	-	6
NL**	34	57	-	6	-	97
AT	57	36	-	4	-	97
PL	1.038	541	-	177	-	1.756
PT	108	93	-	13	-	214
FI	23	22	-	-	-	45
SE	22	26	-	1	1	50
UK	348	10	334	-	7	699
EU-18	2.631	1.747	362	316	724	5.780
Share	45,5%	30,2%	6,3%	5,5%	12,5%	100,0%

* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007

Figure 11: Pedestrian fatalities during darkness as a proportion of all pedestrian fatalities by country 2005 (excluding Italy and Luxembourg)



* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007

Seasonality

Table 6 shows the proportion of pedestrian fatalities in each quarter of 2005[1]. Generally pedestrian fatalities are most frequent from October to December and least frequent from April to June. The proportion of the months October to December is especially high in northern countries like Finland Sweden. Only The Netherlands have less than a fifth of their pedestrian fatalities occurring between October and December.

April to June is the period of the year with the lowest number of pedestrian fatalities.

Table 6: Pedestrian fatalities by quarter of year by country, 2005

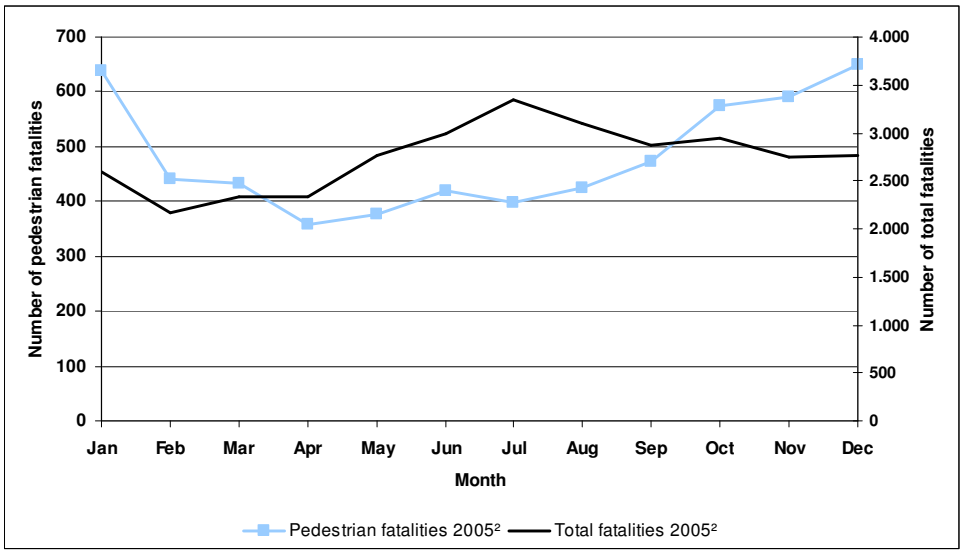
	January - March	April - June	July - September	October - December	Total
BE	38	20	22	28	108
DK	14	10	8	12	44
EE	12	6	7	21	46
EL	60	53	49	72	234
ES	192	154	157	177	680
FR	162	125	149	199	635
IE**	20	15	9	20	64
IT*	178	145	152	235	710
LU***	-	1	1	4	6
HU	77	53	65	94	289
MT	2	1	3	-	6
NL**	32	22	26	17	97
AT	23	22	23	29	97
PL	430	296	430	600	1.756
PT	55	51	44	64	214
FI	16	5	7	17	45
SE	17	8	6	19	50
UK	184	166	138	211	699
EU-18	1.512	1.154	1.296	1.819	5.780
Share	26,2%	20,0%	22,4%	31,5%	100,0%

* Data from 2004
** Data from 2003
*** Data from 2002

Source: CARE Database / EC
Date of query: October 2007

Pedestrian fatalities show large differences in their seasonality compared to total fatalities (see Figure 12). They increase in autumn and decrease in spring with highest fatality numbers from November to January, while the peak season for total fatalities is in summer. The increased pedestrian fatalities during the winter compared to other seasons, are probably caused by the higher danger for pedestrians in darkness. The time of darkness/twilight is longer than in other seasons and compared to vehicles that use lights, pedestrians are much less visible. The months with the lowest numbers of killed pedestrians are April and May.

Figure 12: Pedestrian fatalities and total fatalities by month in EU-18, 2005[3]



Source: CARE Database / EC
Date of query: October 2007

The number of pedestrian fatalities per month peaks in the winter, whereas the overall number of fatalities peaks in the summer

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, the reader uses 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).

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
- Motorcycle and Mopeds
- Car-Occupants
- Heavy Goods Vehicles
- Motorways
- Junctions
- Urban Areas

Definition of used Country abbreviations

EU 14		**EU 18 = EU 14 +**	
BE	Belgium	EE	Estonia
DK	Denmark	HU	Hungary
EL	Greece	MT	Malta
ES	Spain	PL	Poland
FR	France		
IE	Ireland	**EU 27 = EU 18 +**	
IT	Italy	BG	Bulgaria
LU	Luxembourg	CZ	Czech Republic
NL	Netherlands	DE	Germany
AT	Austria	CY	Cyprus
PT	Portugal	LV	Latvia
FI	Finland	LT	Lithuania
SE	Sweden	RO	Romania
UK	United Kingdom	SI	Slovenia
		SK	Slovakia

Detailed data on traffic accidents are published annually by the European Commission in the **Annual Statistical Report**. This includes 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/.

Authors	
Stefan Hoeglinger, Thomas Leitner	KfV, Austria
George Yannis and Petros Evgenikos	NTUA, Greece
Niels Bos and Martine Reurings	SWOV, The Netherlands
Jeremy Broughton, Brian Lawton and Louise Walter	TRL, United Kingdom
Manuel Andreu, Jean-François Pace and Jaime Sanmartín	INTRAS-UVEG, Spain