

# Traffic Safety Basic Facts 2007

# Main Figures

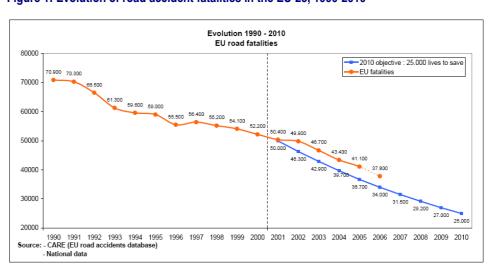
#### **EU** road safety targets

The European Commission set the ambitious aim of halving the number of road traffic fatalities by 2010 in its White Paper "European transport policy for 2010: time to decide" of 2001. The European Road Safety Action Programme of 2003 underlines the fact that this target is a "shared responsibility" and can thus only be achieved with the joint effort of all stakeholders.

Since these papers were published, much progress has been achieved; according to the EC's Mid-Term Review of the Road Safety Action Programme (published in February 2006) fatalities in the EU-25<sup>1</sup> were reduced by 18,1% between 2001 and 2005.

Despite this reduction, there is still a difference between the actual result and the target of halving the number of deaths on the roads by 2010. If the trend continues at the same rate, according to the EC's Mid-Term Review 32.500 people will die from road accidents in 2010. The goal of 25.000 deaths in 2010 will thus not be achieved if the present trend continues (see Figure 1). Recent figures, however, show a slightly more positive outlook though.

Figure 1: Evolution of road accident fatalities in the EU-25, 1990-2010



Source: http://ec.europa.eu/transport/roadsafety/road\_safety\_observatory/doc/historical\_evol.pdf



If the trend continues at the same rate, the EC's goal of reducing fatalities by 50% by 2010 will not be achieved.

<sup>&</sup>lt;sup>1</sup> See table "Definition of EU-level and used Country abbreviations" on page 13





## Road accident fatalities in Europe

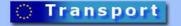
In 2005, 41.247 were killed in road traffic accidents throughout the EU-25 (see Table 1), a reduction of around one quarter in the last decade (-25,6%). Only in one country (Lithuania) was the number of fatalities higher in 2005 than in 1996. The relative changes in fatality numbers from 1996 to 2005 are shown in Figure 2.

Table 1: Fatalities in Europe by country, 1996-2005

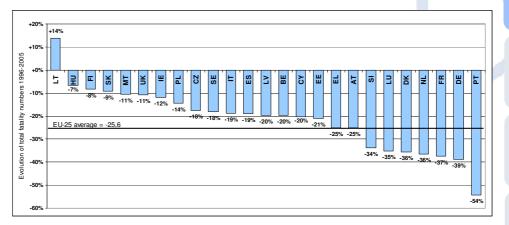
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
BE	1.356	1.364	1.500	1.397	1.470	1.486	1.306	1.214	1.162	1.089
CZ	1.562	1.597	1.360	1.455	1.486	1.334	1.431	1.447	1.382	1.286
DK	514	489	499	514	498	431	463	432	369	331
DE	8.758	8.549	7.792	7.772	7.503	6.977	6.842	6.613	5.842	5.361
EE	213	280	284	232	204	199	223	164	170	168
EL	2.157	2.105	2.182	2.116	2.037	1.880	1.634	1.605	1.670	1.614
ES	5.482	5.604	5.957	5.738	5.777	5.516	5.347	5.400	4.749	4.442
FR	8.541	8.444	8.918	8.487	8.079	8.160	7.655	6.058	5.530	5.339
IE	453	473	458	414	418	412	378	337	374	399
IT	6.676	6.713	6.314	6.688	6.649	6.691	6.739	6.065	5.692	5.426
CY	128	115	111	113	111	98	94	97	117	102
LV	550	525	627	604	588	517	518	532	516	442
LT	667	725	829	748	641	706	697	709	752	760
LU	71	60	57	58	76	70	62	53	50	46
HU	1.370	1.391	1.371	1.306	1.200	1.239	1.429	1.326	1.296	1.278
MT	19	18	17	4	15	16	16	16	13	17
NL	1.180	1.163	1.066	1.090	1.082	993	987	1.028	804	750
AT	1.027	1.105	963	1.079	976	958	956	931	878	768
PL	6.359	7.310	7.080	6.730	6.294	5.534	5.827	5.640	5.712	5.444
PT	2.730	2.521	2.126	1.995	1.857	1.671	1.675	1.546	1.294	1.247
SI	389	357	309	334	313	278	269	242	274	258
SK	616	788	819	647	628	614	610	645	603	560
FI	404	438	400	431	396	433	415	379	375	371
SE	537	541	531	580	591	583	560	529	480	440
UK	3.740	3.743	3.581	3.564	3.580	3.598	3.581	3.658	3.368	3.336
EU-25	55.499	56.418	55.151	54.096	52.469	50.394	49.714	46.665	43.472	41.274
Yearly change	-	1,7%	-2,2%	-1,9%	-3,0%	-4,0%	-1,4%	-6,1%	-6,8%	-5,1%

Source: CARE Database / EC and national publications Date of query: October 2007





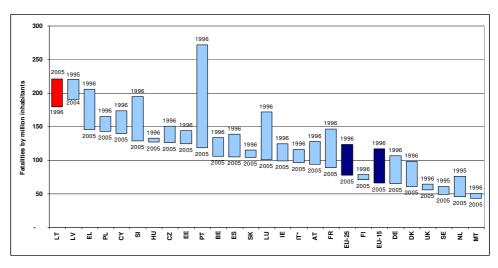




Source: CARE Database / EC and national publications Date of query: October 2007

Figure 3 shows the change in the rate of fatalities per million habitants in each of the EU-25 from 1996 to 2005. The largest reduction was achieved in Portugal. Only in Lithuania there was an increase in the last decade.

Figure 3: Fatalities per million inhabitants by country, 1996 versus 2005



\*BE comparison 1995-2002

Source: CARE Database / EC and national publications Date of query: October 2007

Table 2 shows the change in fatality rates per country from 1996 to 2005.





<sup>&</sup>lt;sup>2</sup> 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.

Jun



The EU-25 average in the year 2005 counts 78 fatalities per million inhabitants. The fatality rate of Portugal has halved over the last decade.



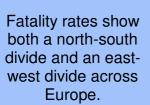






Table 2: Fatalities per million inhabitants by country, 1996-2005

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
BE	134	134	147	137	144	145	122	117	112	106
CZ	151	155	132	141	145	130	139	141	135	126
DK	98	93	94	97	93	81	86	80	69	61
DE	107	104	95	95	91	85	83	80	71	65
EE	144	192	195	160	149	146	163	120	124	125
EL	206	201	208	201	193	178	149	146	153	146
ES	139	142	150	144	143	135	129	128	113	105
FR	147	145	153	145	138	138	129	102	93	89
IE	125	130	124	111	111	108	97	87	98	99
IT*	116	117	110	115	115	116	117	105	97	-
CY	174	155	149	150	147	129	124	128	154	140
LV	220	212	255	248	247	219	221	227	220	191
LT	180	196	224	202	173	203	201	204	216	221
LU	172	143	135	135	174	159	140	119	110	101
HU	133	135	133	127	117	121	140	130	127	127
MT	51	48	45	11	39	41	41	41	33	43
NL	76	75	68	69	68	62	61	64	50	46
AT	128	137	119	133	120	118	117	114	108	94
PL	165	189	183	174	163	143	151	147	148	143
PT	272	250	210	200	184	163	160	149	125	119
SI	195	180	156	169	157	140	135	121	137	129
SK	115	146	152	120	116	114	116	120	113	104
FI	79	85	78	84	77	84	80	73	72	71
SE	61	61	60	66	67	66	63	59	54	49
UK	64	64	61	60	60	60	60	62	56	56
EU-25	124	126	123	120	116	111	110	103	95	78

Source: National publications Source of population data: EUROSTAT

The geographical representation of fatality rates in Figure 4 shows a tendency for rates to be lower in the north than in the south and lower in the west than in the east, which is probably the result of different historical backgrounds.

Figure 4: Fatality rates: Fatalities in Europe per million inhabitants, 2005



Source: National publications Source of population data: EUROSTAT

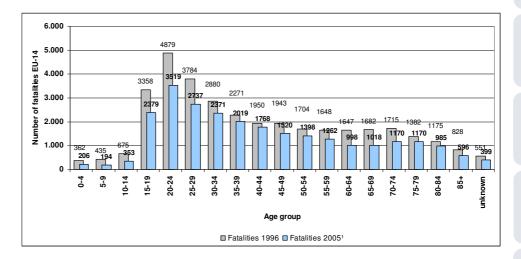




The data presented below are restricted to the EU-14 countries (= EU-15 without Germany) since disaggregated data for the others are not available.

The distribution curve for age groups (see Figure 5) remained broadly of the same structure over the last 10 years, with the highest fatality numbers for those between 18 and 35 years of age. The relative decrease in fatality numbers was highest for children (aged 0-14) with a reduction of 48,9% and for elderly people (age 65-74) with a reduction of 35,6%; however the strongest reduction in absolute fatality numbers was for the 15 to 24 year olds (-2.339 fatalities).

Figure 5: Fatalities by age group for EU-14, 1996 versus 2005<sup>2</sup>



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

Figure 6 shows the clear difference between the male and female fatality rates: less than one quarter of all fatalities is female.

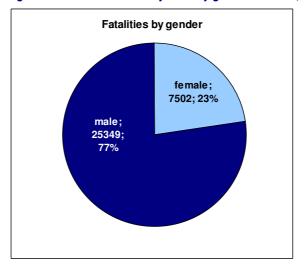
Fatalities in the EU-14 decreased between 1996 and 2005 by 25%. Child fatalities almost halved over the last decade.

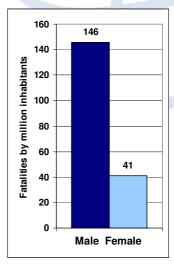






Figure 6: Fatalities and fatality rates by gender of EU-18, 2005<sup>3</sup>





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

The

Pedestrians

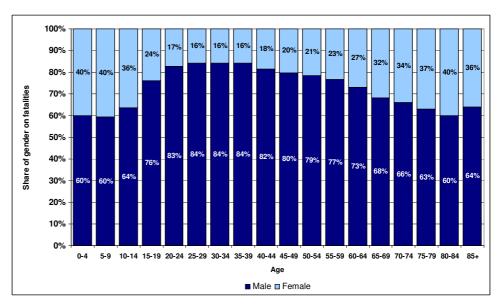
Car Occupants

Junctions

Urban Areas

Far more males than females are killed in road accidents. Figure 7 shows that about four fifths of 15-54 year olds fatalities are men. 77% of fatalities of all ages are male and 23% are female.

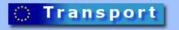
Figure 7: Distribution of fatalities by gender and age group in EU-18, 2005<sup>3</sup>



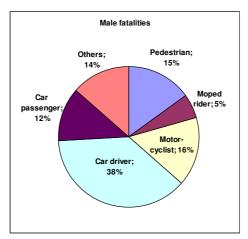
Source: CARE Database / EC Date of query: October 2007

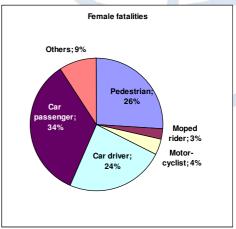
The male and female distribution of fatalities by road user type also differs (see Figure 8). While almost three quarters of male fatalities were drivers or passengers of motorised vehicles (71%), about one quarter of female fatalities were pedestrians or pedal cyclists (26%). Furthermore, the proportion of fatalities who were car passengers is higher for females than for males.





<sup>&</sup>lt;sup>3</sup> Using last data available, i.e. 2005 for all countries except LU (2002), IE and NL (2003) and IT (2004).





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

Elderly

The

Pedestrians

Car Occupants

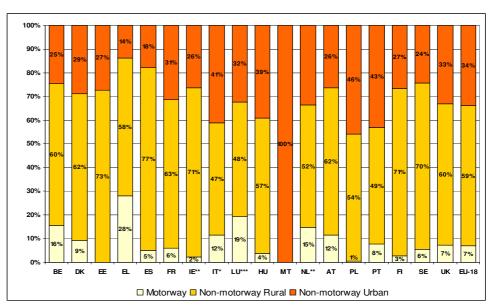
Junctions

Urban Areas

#### Type of road

In EU-18, only 7% of road accident fatalities in 2005 died in accidents on motorways (see Figure 9). Two thirds of the remainder died in accidents on rural roads.

Figure 9: Distribution of fatalities by type of road<sup>4</sup>, 2005



- Data from 2004
- \*\* Data from 2003
- \*\*\* Data from 2002

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

The fatality rate per 1.000 km of motorways varies across the EU-18 from 15 in Finland (0 in Estonia, but motorway network length is only about 94 km) and Sweden up to 150 fatalities per 1.000 km motorway network length in Greece (see Figure 10). The EU-18 average lies at 49. In Malta and Estonia there are no fatalities on motorways (mainly caused by a short (EE) or not existing (MT) motorway network).



<sup>&</sup>lt;sup>4</sup> Road type unknown for 1.263 fatalities in EL, 515 in the UK, 56 in BE and 10 in SE.

Figure 10: Fatalities on motorways by road network length and country, 2005



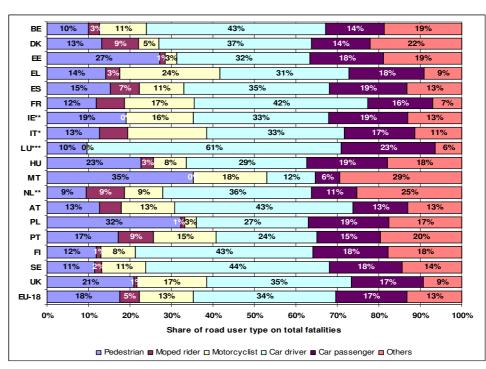
- Data from 2004
- Data from 2003
- Data from 2002

Source of road network data: EC Pocket Book "Energy and Transport in Figures 2006"

#### Mode of transport and road user type

Car drivers are the largest road user group among road accident fatalities in all EU-18 countries; together with car passengers they account for 51% of all fatalities (see Figure 11).

Figure 11: Fatalities by road user type and country, 2005



- Data from 2004
- Data from 2003
- Data from 2002

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

The proportion of fatalities by road user type varies with type of road, and is influenced by the modes of transport used typically on each type of road (see Figure 12).



Main Figures

Elderly

The

Pedestrians

Bicycles

Car Occupants

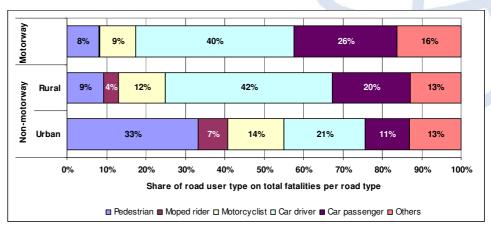
Urban Areas

Date of query: October 2007

The







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

On motorways and rural roads, where cars are the prevailing mode of transport, two thirds of all fatalities were car occupants. There is more non-motorised traffic on urban roads, however, about one third of fatalities were pedestrians and another third were car occupants.

Table 3 shows the trends in fatalities by vehicle type in the period 1996-2005. On average, in the last decade fatalities decreased by 25,5% in EU-14. Over 60% of this reduction (5.405 fatalities) is accounted for by car occupants; the largest proportional reductions were in moped, pedestrian and pedal cycle fatalities.

Only for one vehicle type the number of fatalities consistently increased from 1996 to 2005 (see Figure 13): Motorcycle fatality numbers rose by 21,5% (+711 fatalities), which suggests that motorcycle safety measures are a very important topic for the future, as stated in the EC's 2006 Mid-Term Review of the European Road Safety Action Programme.

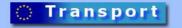
Table 3: Evolution of fatalities by vehicle type in EU-14, 1996-2005<sup>2</sup>

	Car	Moped	Motor cycle	Pedal cycle	Pede- strian	Others	Total
1996	19.145	2.455	3.314	1.776	5.830	2.155	34.674
1997	19.002	2.481	3.500	1.809	5.592	2.208	34.592
1998	19.385	2.331	3.515	1.648	5.411	2.104	34.394
1999	19.099	2.267	3.627	1.648	5.163	2.209	34.013
2000	18.825	2.093	3.739	1.506	5.000	2.179	33.342
2001	18.485	1.931	3.956	1.457	4.813	2.077	32.719
2002	17.797	1.680	3.973	1.358	4.868	1.907	31.582
2003	15.986	1.730	3.921	1.291	4.108	1.938	28.973
2004	14.460	1.594	3.923	1.263	3.690	1.707	26.637
2005	13.771	1.504	4.025	1.268	3.620	1.649	25.838
Total Change	-28,1%	-38,7%	+21,5%	-28,6%	-37,9%	-23,5%	-25,5%

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

More than half of all road fatalities (51%) are car occupants.
On motorways and rural roads, this proportion increases to two thirds.







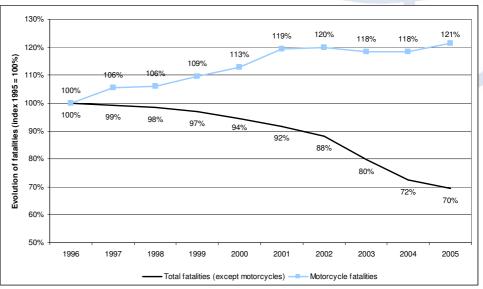
The number of motorcycle fatalities increased by 21,5% in the last 10 years, contrary to all other vehicle groups, which all decreased.









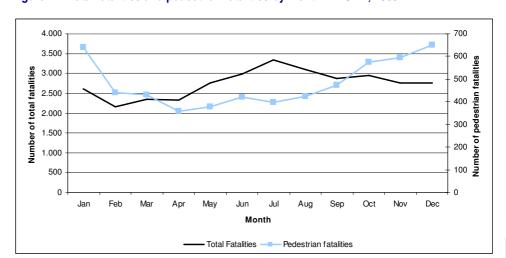


Source: CARE Database / EC Date of query: October 2007

#### Seasonality

The overall distribution of fatalities did not change appreciably between 1996 and 2005. The monthly peak is in the summer, between June and August. Pedestrian fatalities, on the contrary, have a different distribution over the year, as can be seen from Figure 14, with the peak in winter. This is likely to be because pedestrians are at a greater risk of being killed in darkness and thus have higher fatality numbers during winter.

Figure 14: Total fatalities and pedestrian fatalities by month in EU-14, 2005<sup>2</sup>



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

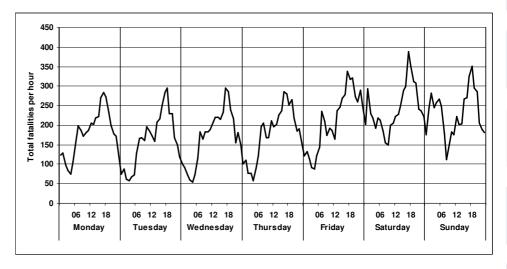


There are more night-time fatalities on Fridays and Saturdays than on other days of the week, perhaps because of the activities undertaken then.



The fatality distribution by time of day is similar from Monday to Thursday, with a daily afternoon peak and fewer during the night (see Figure 15). Also significant is the high number of fatalities during the early Sunday morning hours.

Figure 15: Fatalities in EU-18 by day of week and time of day, 2005<sup>3</sup>



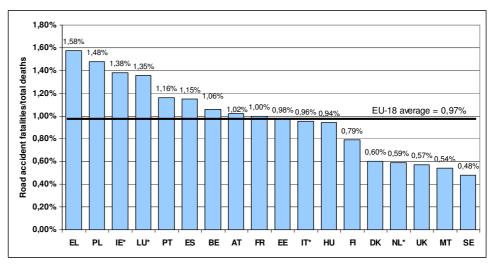
Source: CARE Database / EC Date of query: October 2007

Both the absolute numbers of fatalities and their distribution by time of day at the weekend differ from weekdays, where fatality numbers are higher in the afternoon and there are significantly more fatalities at night. On average, 64% of all fatalities occur between 8am and 8pm.

#### Road accident fatalities' share in mortality

In the EU-18, road accidents account for 0,97% of all deaths, ranging from the largest proportion of 1,58% of all deaths in Greece to only 0,48% in Sweden (see Figure 16).

Figure 16: Road accident fatalities as a share of all deaths by country, 2005<sup>2</sup>



Fatalities 2004

Source: CARE Database / EC and national publications, EUROSTAT Date of query: October 2007

Road accidents account for 0,97% of all deaths in EU-18 countries.



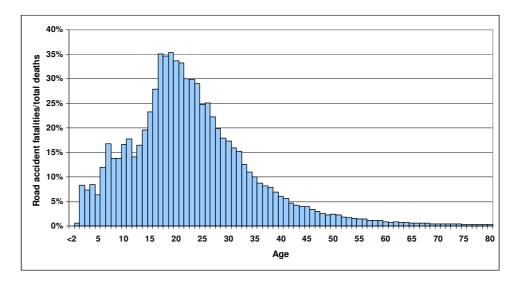




Road accidents account for up to one third of all deaths among young people.

The proportion of fatalities attributable to traffic accidents strongly varies with age (see Figure 17). Road accidents account for a large proportion of fatalities for teenagers and people in their twenties and early thirties. There is a peak for 18 to 20-year olds: over 35% of the deaths result from road accidents.

Figure 17: Road accident fatalities as a proportion of deaths by age group<sup>5</sup> in EU 18, 2005<sup>3</sup>



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







#### **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

<u>ec.europa.eu/transport/roadsafety/road\_safety\_observatory/care\_re\_ports\_en.htm</u>).

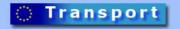
Traffic Safety Basic Fact Sheets available from the European Commission concern:

- Main Figures
- Children (Aged <16)</li>
- 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 EU-level and 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 25 = EU 18 +				
IT	Italy	CZ	Czech Republic			
LU	Luxembourg	DE	Germany			
NL	Netherlands	CY	Cyprus			
AT	Austria	LV	Latvia			
PT	Portugal	LT	Lithuania			
FI	Finland	SI	Slovenia			
SE	Sweden	SK	Slovakia			
UK	United Kingdom					
		EU 27 = EU 25 +				
		BG	Bulgaria			
		RO	Romania			





Elderly



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: <a href="https://www.erso.eu/">www.erso.eu/</a>.

Authors	
Stefan Hoeglinger, Thomas Leitner	
George Vannis and Petros Evgenikos	

Niels Bos and Martine Reurings

Authore

Jeremy Broughton, Brian Lawton and Louise Walter

Manuel Andreu, Jean-François Pace and Jaime Sanmartín

KfV, Austria

NTUA, Greece

SWOV, The Netherlands

TRL, United Kingdom

INTRAS-UVEG, Spain



