



# Traffic Safety Basic Facts 2006

## Motorways

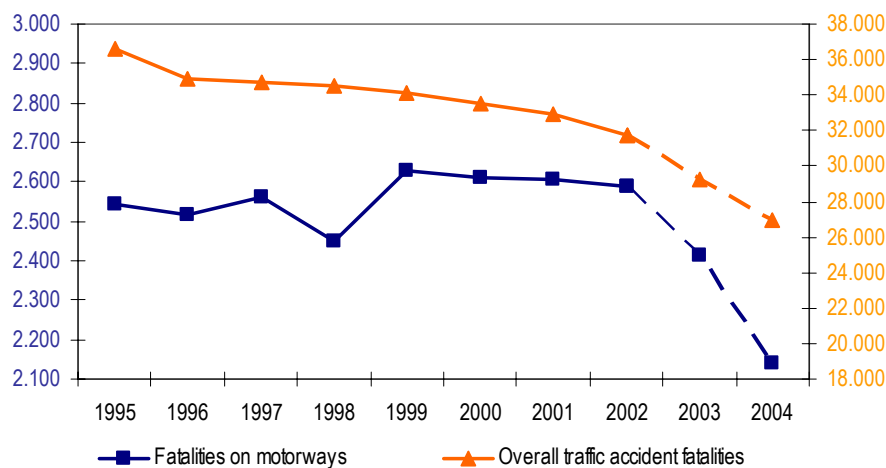
More than 25.000 people were killed in traffic accidents on motorways in 14 European Union countries between 1995 and 2004. This number represents about 7,6% of all traffic accident fatalities in those countries.

There was a decrease of 15,9% in traffic accident fatalities on motorways in 2004<sup>1</sup> compared to the 2.545 fatalities in 1995, though the total number of traffic accident fatalities also fell significantly, by almost 27%, in the 14 European Union countries within the same decade.

In 1999 there was an increase of 7,4% in motorway road accident fatalities compared to 1998 and, within the same year, a decrease of 1,2% in the overall number of road fatalities. It is also worth noting that between 2000 and 2002 the number of fatalities on motorways in the 14 countries did not really change, whereas the overall number of road accident fatalities decreased by 5,2%.

There was a decrease of 15,9% in traffic accident fatalities on motorways in the decade from 1995 to 2004<sup>1</sup>.

Figure 1: EU-14 Fatalities evolution, 1995-2004<sup>1</sup>



Source: CARE Database / EC  
Date of query: November 2006

Table 1 provides an overview of the changes in the number of fatalities on motorways split by country.

<sup>1</sup> Using latest data available, i.e. 2004 for all countries except LU (2002), IE and NL (2003).





**Table 1: Fatalities on motorways by country, 1995-2004<sup>1</sup>**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BE	209	201	192	223	213	238	196	172	137	124
DK	31	30	32	30	41	29	38	48	31	27
EL	1	148	72	61	105	61	86	69	58	116
ES	356	314	313	353	327	354	376	324	372	279
FR	465	453	470	497	492	527	487	521	439	316
IE	6	2	3	0	1	6	4	5	8	-
IT	782	752	848	711	804	764	773	801	711	648
LU	9	16	11	8	6	9	7	12	-	-
NL	190	182	156	108	132	138	124	123	151	-
AT	166	104	121	141	146	126	156	126	107	118
PT	99	116	104	105	123	128	112	115	127	116
FI	16	8	3	10	9	13	11	16	7	17
SE	31	20	40	25	25	25	30	27	34	42
UK	184	169	195	176	205	191	206	228	220	166
EU-14	2.545	2.515	2.560	2.448	2.629	2.609	2.606	2.587	2.414	2.140
% yearly change	-	-1,2%	1,8%	-4,4%	7,4%	-0,8%	-0,1%	-0,7%	-6,7%	-11,4%

Source: CARE Database / EC  
Date of query: November 2006

From Table 2 it can be seen that the fatality rates on motorways per million inhabitants in Austria and Belgium are higher than the respective rates in the other 12 European countries, and hence the average rate of the EU-14, for 2004<sup>1</sup>.

**Table 2: Fatalities on motorways per million inhabitants, 1995-2004<sup>1</sup>**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BE	20,6	19,8	18,9	21,9	20,9	23,2	19,1	16,7	13,2	11,9
DK	5,9	5,7	6,1	5,7	7,7	5,4	7,1	8,9	5,8	5,0
EL	0,1	13,9	6,7	5,6	9,7	5,6	7,9	6,3	5,3	10,5
ES	9,1	8,0	7,9	8,9	8,2	8,9	9,3	7,9	9,0	6,6
FR	8,1	7,8	8,1	8,5	8,4	9,0	8,2	8,8	7,4	5,3
IE	1,7	0,6	0,8	0,0	0,3	1,6	1,0	1,3	2,0	2,0
IT	13,8	13,2	14,9	12,5	14,1	13,4	13,6	14,1	12,4	11,2
LU	22,2	38,9	26,4	19,0	14,0	20,8	15,9	27,0	26,8	26,6
NL	12,3	11,7	10,0	6,9	8,4	8,7	7,8	7,6	9,3	9,3
AT	20,9	13,1	15,2	17,7	18,3	15,7	19,4	15,7	13,2	14,5
PT	9,9	11,6	10,3	10,4	12,1	12,6	10,9	11,1	12,2	11,1
FI	3,1	1,6	0,6	1,9	1,7	2,5	2,1	3,1	1,3	3,3
SE	3,5	2,3	4,5	2,8	2,8	2,8	3,4	3,0	3,8	4,7
UK	3,1	2,9	3,3	3,0	3,5	3,2	3,4	3,9	3,7	2,8
EU-14	8,8	8,7	8,8	8,4	9,0	8,9	8,8	8,7	8,1	7,1

Source: CARE Database / EC; EUROSTAT  
Date of query: November 2006

Belgium is the country with the biggest decrease in the motorway fatality rates within the last decade (42,2%).

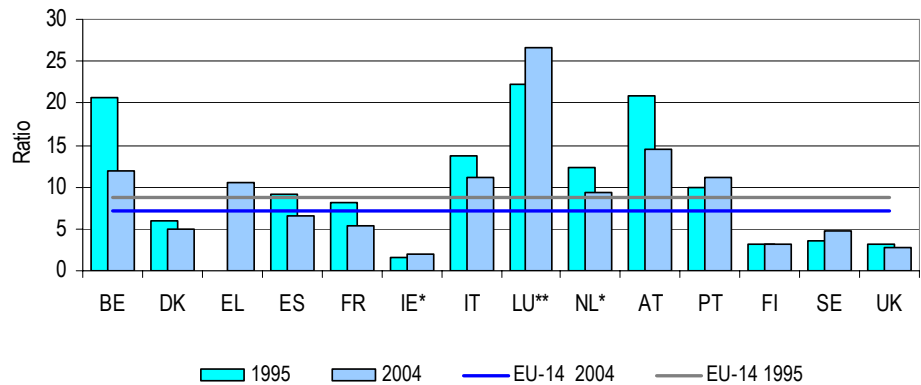


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Figure 2 indicates that between 1995 and 2004 the fatality rate on motorways decreased by 19% (from 8,8 per million people in 1995 to 7,1 in 2004), compared with an approximate 30% decrease (from 117,7 to 82,5) in the corresponding fatality rate on the remaining road network. Belgium is the country which experienced the most significant reduction during this last decade (42,2%), whereas in Sweden the fatality rate actually increased (by 33,1%). Luxembourg has the highest fatality rate (27 in 2002), whereas seven of the countries are lower than the average rate of all EU-14 countries for 2004<sup>1</sup>.

**Figure 2: Fatalities on motorways per million inhabitants, 1995 versus 2004**



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

Source: CARE Database / EC  
Date of query: November 2006  
Source of population data: EUROSTAT

Portugal experienced a considerable reduction in fatality rates on its motorway network within the examined period.

A fairer comparison of the changes on the safety level of motorways in different countries involves calculating the fatality rate per thousand kilometres of motorway. Taking this exposure indicator (motorway network length) into account, it can be seen from Table 3 and Figure 3 that, within the examined period, Portugal experienced a considerable reduction in fatality rates on its motorway network (56,1%).





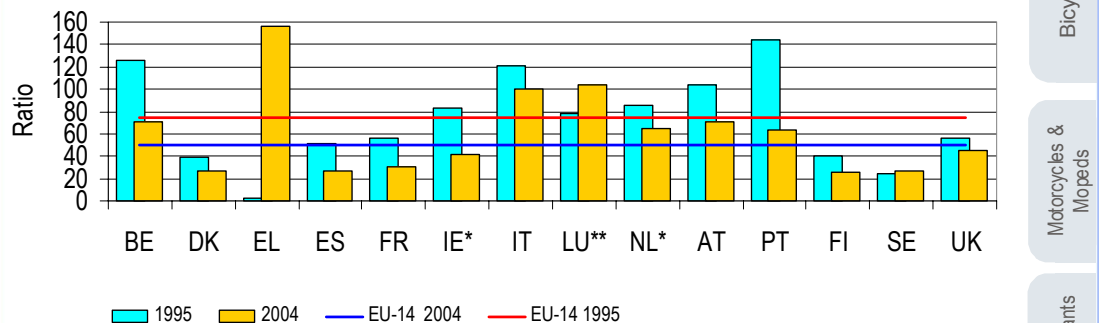
Table 3: Fatalities on motorways per thousand km of motorways<sup>2</sup>, 1995-2004<sup>1</sup>

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BE	125,5	120,1	114,4	132,6	126,0	139,8	113,5	99,5	79,2	71,0
DK	38,9	36,1	37,4	34,4	46,0	30,4	39,1	47,5	30,7	26,7
EL	2,4	314,9	206,6	171,1	236,5	95,9	115,9	93,0	78,2	156,3
ES	51,1	43,0	40,4	42,7	36,8	39,1	39,3	33,3	36,2	27,1
FR	56,2	52,7	53,0	53,4	51,1	54,0	48,4	51,0	42,3	30,4
IE	83,3	25,0	31,9	0,0	9,7	58,3	32,0	40,0	45,5	-
IT	121,5	116,3	131,1	109,8	124,1	117,9	119,3	123,6	109,8	100,0
LU	78,3	139,1	95,7	69,6	52,2	78,3	60,9	104,3	-	-
NL	86,1	82,4	66,8	48,5	57,6	60,9	54,4	53,9	65,4	-
AT	104,0	64,7	75,0	87,4	89,4	77,2	94,8	76,6	64,1	70,4
PT	144,1	163,4	130,5	83,9	85,4	86,4	67,5	62,7	69,2	63,2
FI	40,6	18,6	6,8	21,1	17,6	23,7	18,6	26,5	10,7	26,0
SE	24,6	14,8	28,1	17,4	16,8	16,7	19,9	17,5	21,4	26,4
UK	55,6	50,5	57,2	49,5	57,2	53,1	57,1	63,1	60,9	45,4
EU-14	74,4	71,5	70,7	64,9	67,1	65,5	63,4	62,1	56,7	50,1

Source: CARE Database / EC; EUROSTAT  
Date of query: November 2006

In 2004<sup>1</sup>, motorways in Finland and Sweden were safer than those in the other 12 EU countries.

Figure 3: Fatalities on motorways per thousand km of motorways, 1995 versus 2004

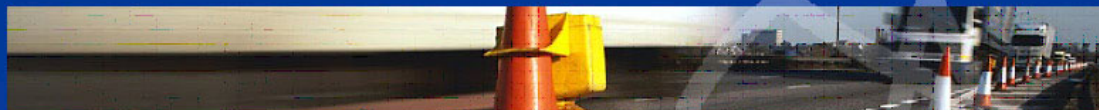


\* Data from 2003  
\*\* Data from 2002

Source: CARE Database / EC; EUROSTAT  
Date of query: November 2006

Greece and Italy are the countries with the most fatalities per thousand kilometres of motorway network in 2004. Conversely, the motorways in Finland and in Sweden were safer than the ones in the remaining 12 EU countries, and subsequently the fatality rate for these countries in 2004<sup>1</sup> is significantly lower than the average rate for the EU-14 countries (26 and 26,4 respectively, compared to the average 50,1).

<sup>2</sup> FR, SE: Data from 2003 for motorway length  
DK, IT, LU, PT: Data from 2002 for motorway length  
EL: Data from 2001 for motorway length



**Table 4: Distribution of fatalities on motorways by the total number of road accident fatalities, 1995-2004<sup>1</sup>**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
BE	14,4%	14,8%	14,1%	14,9%	15,2%	16,2%	13,2%	13,2%	11,3%	10,7%
DK	5,3%	5,8%	6,5%	6,0%	8,0%	5,8%	8,8%	10,4%	7,2%	7,3%
EL	0,0%	6,9%	3,4%	2,8%	5,0%	3,0%	4,6%	4,2%	3,6%	6,9%
ES	6,2%	5,7%	5,6%	5,9%	5,7%	6,1%	6,8%	6,1%	6,9%	5,9%
FR	5,2%	5,3%	5,6%	5,6%	5,8%	6,5%	6,0%	6,8%	7,2%	5,7%
IE	1,4%	0,4%	0,6%	0,0%	0,2%	1,4%	1,0%	1,3%	2,4%	-
IT	11,1%	11,3%	12,6%	11,3%	12,0%	11,5%	11,6%	11,9%	11,7%	11,5%
LU	12,9%	22,5%	18,3%	14,0%	10,3%	11,8%	10,0%	19,4%	-	-
NL	14,2%	15,4%	13,4%	10,1%	12,1%	12,8%	12,5%	12,5%	14,7%	-
AT	13,7%	10,1%	11,0%	14,6%	13,5%	12,9%	16,3%	13,2%	11,5%	13,4%
PT	3,7%	4,2%	4,1%	4,9%	6,2%	6,9%	6,7%	6,9%	8,2%	9,0%
FI	3,6%	2,0%	0,7%	2,5%	2,1%	3,3%	2,5%	3,9%	1,8%	4,5%
SE	5,4%	3,7%	7,4%	4,7%	4,3%	4,2%	5,1%	4,8%	6,4%	8,8%
UK	4,9%	4,5%	5,2%	4,9%	5,8%	5,3%	5,7%	6,4%	6,0%	4,9%
EU-14	6,9%	7,2%	7,4%	7,1%	7,7%	7,8%	7,9%	8,1%	8,3%	7,9%

Source: CARE Database / EC; EUROSTAT  
Date of query: November 2006

In Austria, almost 14% of the overall road accident fatalities in 2004 occurred on motorways, the largest proportion in the EU-14, whereas in Finland and the United Kingdom fatalities on motorways constitute the smallest proportion of road accident fatalities.

In general, as shown in Table 4, the ratio of fatalities on motorways to all fatalities in the European Union countries has increased since 1995.

In Austria, almost 14% of the overall road accident fatalities in 2004 occurred on motorways, the largest proportion in the EU-14.

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## Mode of transport

Almost 70% of the fatalities on motorways across the European countries concern car or taxi occupants, as demonstrated in Table 5.

Table 5: Fatalities on motorways by mode of transport, 2004

	agricultural tractor	bus or coach	car or taxi	heavy goods vehicle	lorry, under 3,5 tons	moped	motorcycle	other	pedal cycle	pedestrian	Total
BE	1	4	94	5	7	0	4	8	0	1	124
DK	0	0	19	0	2	0	1	1	0	4	27
EL	1	0	71	2	6	1	14	0	1	20	116
ES	0	0	201	4	29	1	16	7	0	20	278
FR	0	10	210	7	12	0	40	14	0	23	316
IE*	0	0	6	0	1	0	1	0	0	0	8
IT	0	4	438	0	23	0	62	39	0	31	597
LU**	0	0	12	0	0	0	0	0	0	0	12
NL*	0	0	108	1	10	1	21	1	2	7	151
AT	0	2	83	5	8	0	5	5	0	10	118
PT	0	2	74	1	15	0	17	0	0	7	116
FI	0	0	13	0	0	0	2	0	0	2	17
SE	0	0	33	0	0	0	3	0	0	6	42
UK	0	2	98	21	9	0	14	1	0	21	166
EU-14	2	24	1.460	46	122	3	200	76	3	152	2.088
% by mode of transport	0,1%	1,1%	69,9%	2,2%	5,8%	0,1%	9,6%	3,6%	0,1%	7,3%	100%

\* Data from 2003

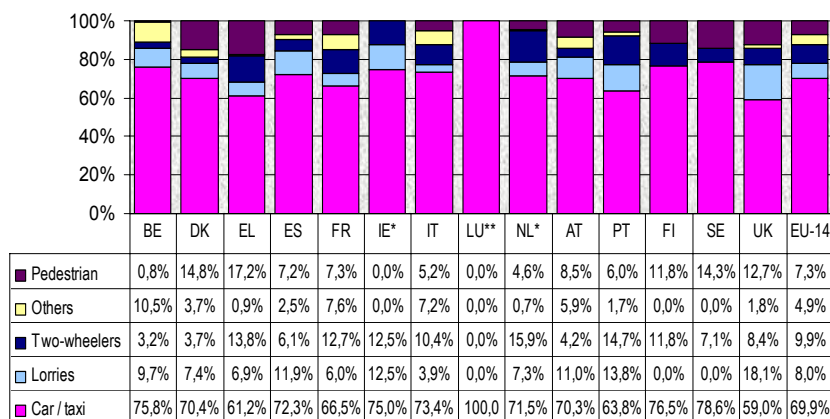
\*\* Data from 2002

Source: CARE Database / EC  
Date of query: November 2006

Almost 70% of the fatalities on motorways across the European countries concern car or taxi occupants.

As displayed in Figure 4, in Greece almost one-fifth (17,2%) of the overall fatalities on motorways were pedestrians, a higher rate than any of the other 13 countries.

Figure 4: Distribution of fatalities on motorways by mode of transport, 2004



\* Data from 2003

\*\* Data from 2002

Source: CARE Database / EC  
Date of query: November 2006

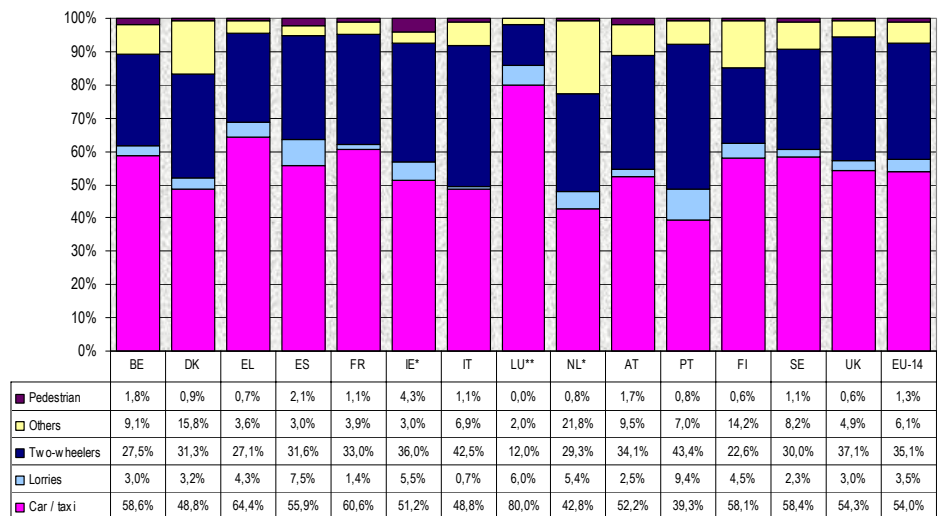
In Greece almost one-fifth (17,2%) of fatalities on motorways were pedestrians, a higher rate than any of the other 13 countries.





Another interesting outcome apparent from Figure 4 and Figure 5 is that, on average, only 9,9% of the fatalities occurring on motorways in the 14 countries concerns two-wheeler users (motorcycle, moped or pedal cycle users). The Netherlands have the largest percentage (15,9%), though the absolute number is small (24 fatalities) and hence conclusions might be misleading. On the other hand, the two-wheeler user fatalities on the non-motorway road network constitute 35,1% of the respective number of fatalities, with Portugal and Italy having the largest shares (43,4% and 42,5%).

Figure 5: Distribution of fatalities on non-motorway road network by mode of transport, 2004



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

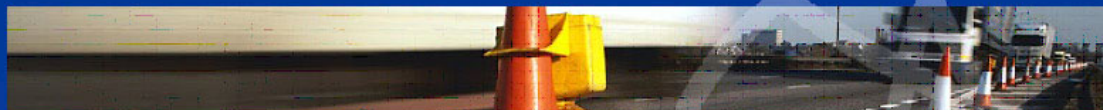
Source: CARE Database / EC  
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Only 9,9% of the fatalities occurring on motorways in the 14 countries concerns two-wheeler drivers or passengers, whereas on the non-motorway road network two-wheeler users constitute 35,1% of the respective number of fatalities.

### Manoeuvre Type

From Table 6, it can be seen that the single biggest category of fatalities occurring on motorways, in terms of manoeuvre, in all EU-14 (with the exception of The Netherlands) countries (29,5%) concern fatalities which result from accidents in which the occupant(s) killed were in a vehicle, which was moving straight ahead and where no other manoeuvre took place. However, the respective percentage for the same manoeuvre type on other roads is larger (39,2%), as shown in Table 7.





**Table 6: Fatalities on motorways by manoeuvre type, 2004**

	changing lane	over-taking	stopped stopping	straight ahead	turning	u turn	other	not defined	Total
BE	-	5	8	29	-	-	77	5	124
DK	-	-	-	23	-	-	-	4	27
EL	1	1	-	28	6	-	34	46	116
ES	-	21	5	204	1	-	27	20	278
FR	5	20	15	161	43	2	15	55	316
IE*	1	1	-	-	-	-	3	3	8
IT	-	5	-	-	-	-	16	627	648
LU**	-	-	-	-	-	-	-	12	12
NL*	-	-	60	13	69	-	-	9	151
AT	-	3	-	-	-	-	-	115	118
PT	16	8	3	73	-	-	5	12	117
FI	-	-	-	-	-	-	-	17	17
SE	-	-	-	-	-	-	-	42	42
UK	21	8	12	100	1	-	3	21	166
EU-14	44	72	103	631	120	2	180	988	2.140
% by manoeuvre type	2,1%	3,4%	4,8%	29,5%	5,6%	0,1%	8,4%	46,2%	100%

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

Source: CARE Database / EC  
Date of query: November 2006

**Table 7: Fatalities on non-motorway road network by manoeuvre type, 2004**

	changing lane	over-taking	stopped stopping	straight ahead	turning	u turn	other	not defined	Total
BE	0	59	2	243	60	5	355	310	1.034
DK	5	0	2	270	21	0	1	43	342
EL	2	4	0	48	6	5	117	121	303
ES	0	209	40	2.911	117	13	505	667	4.462
FR	14	246	19	2.718	1.219	23	162	814	5.215
IE*	5	21	0	0	14	0	150	139	329
IT	0	58	0	384	75	0	76	4.384	4.977
LU**	0	0	0		0	0	0	50	50
NL*	0	0	474	55	234	0	0	114	877
AT	0	30	0	3	21	0	2	704	760
PT	122	57	7	587	37	7	108	253	1.178
FI	0	0	0	0	0	0	0	358	358
SE	0	0	0	0	0	0	0	437	437
UK	14	172	18	1798	151	13	18	524	2.708
EU-14	162	856	562	9.017	1.955	66	1.494	8.918	23.030
% by manoeuvre type	0,7%	3,7%	2,4%	39,2%	8,5%	0,3%	6,5%	38,7%	100%

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

Source: CARE Database / EC  
Date of query: November 2006

The single biggest category of fatalities occurring on motorways in all EU-14 (with the exception of The Netherlands) countries (29,5%) was accidents in which the vehicle was moving straight ahead.



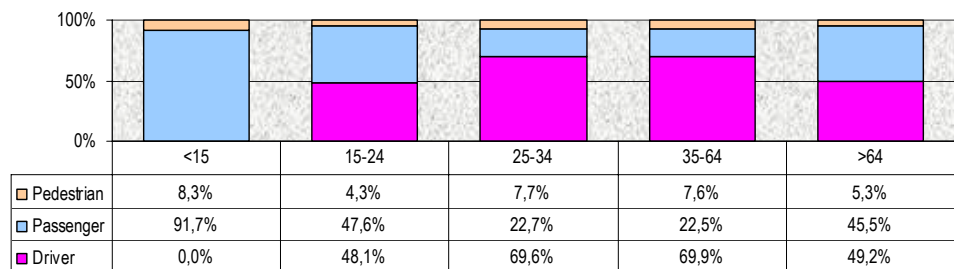


## Age and Person class

As Figure 6 indicates, pedestrians constitute only a small percentage of the overall fatalities occurring on motorways (4,3% - 8,3%).

However, as shown in Figure 7, children (younger than 15 years old) and elderly people (older than 64 years old) seem to be more vulnerable pedestrians on the remaining road network, as 31% and 33% of fatalities amongst children and elderly people respectively are pedestrians.

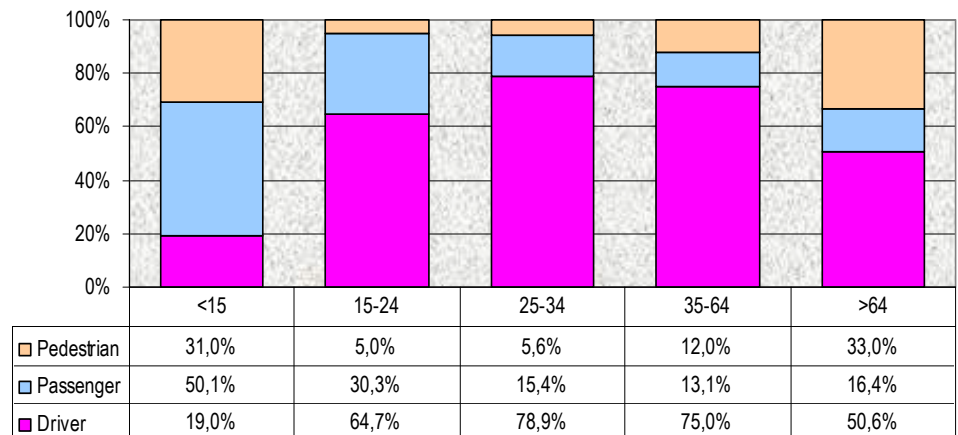
Figure 6: Fatalities on motorways by age and person class, 2004<sup>1</sup>



Source: CARE Database / EC  
Date of query: November 2006

Furthermore, a larger proportion of drivers aged between 35 - 64 years are killed on motorways (69,9%), compared with those of other age groups, whereas drivers aged between 25 and 34 constitute the largest proportion of fatalities occurring on the remaining road network. Finally, younger drivers (up to 24 years old) are mainly killed on the remaining road network and not on motorways, where the respective percentages are significantly lower: there is a relatively small number of fatalities in this age group on motorways (192 people, compared to 3.572 people on the remaining road network), possibly indicating that young people do more driving on the non-motorway network.

Figure 7: Fatalities on non-motorway road network by age and person class, 2004<sup>1</sup>



Source: CARE Database / EC  
Date of query: November 2006

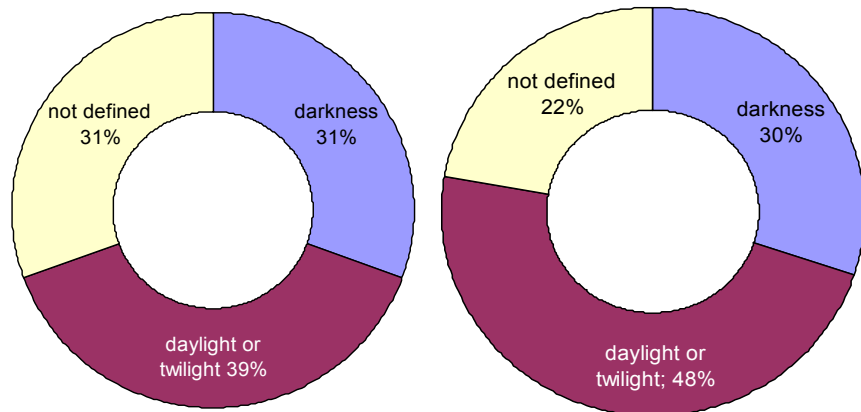
More drivers aged between 35-64 years are killed on motorways (69,9%), whereas the drivers aged between 25-34 constitute the majority of the fatalities occurring on the remaining road network.



## Lighting Conditions

As demonstrated in Figure 8, in 2004<sup>1</sup>, 31% (655 people) of the fatalities on motorways in the 14 European countries occurred in accidents when it was dark. The respective percentage for the remaining road network appears to be similar (30%, corresponding to 6.906 people), as indicated in Figure 8.

Figure 8: Fatalities on motorways and non-motorway network by lighting conditions, 2004<sup>1</sup>



Source: CARE Database / EC  
Date of query: November 2006

11.030 (48%) people, almost half of the respective fatalities, are killed on non-motorway roads in daylight or twilight, whereas on motorways the respective percentage is smaller (39%).

Almost one-third of the fatalities on motorways, but also on the non-motorway road network occurred when it was dark.



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## 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
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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).

## Authors

George Yannis and Petros Evgenikos	NTUA, Greece
Stefan Hoeglinger, Andrea Angermann and Veronika Weiss	KfV, Austria
Niels Bos and Martine Reurings	SWOV, The Netherlands
Jeremy Broughton, Brian Lawton and Louise Walter	TRL, United Kingdom

