

Traffic Safety Basic Facts 2005

Car occupants

Car occupant fatalities make 55% of the total number of road accident fatalities in 2003¹, despite of reductions achieved.

In 2003¹, 11.333² car drivers and 5.317² car passengers were killed in traffic accidents in 14 European Union countries.

This is 6,2% less than the 12.083 car driver fatalities reported in 2002¹ in the same countries. There was a reduction of 12,0% during the last decade for the same countries.

For passengers the reduction is 8,3% with respect to 2002¹ (5.799 car passenger reported) and 23,6% during the last decade.

Tables 1 and 2 present the annual data by country since 1994, available from the CARE database.

Table 1: Car driver fatalities per country, 1994-2003¹

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
BE	781	688	637	642	670	644	697	662	-	-
DK	198	190	174	194	193	186	146	169	170	167
EL	513	549	520	537	567	536	571	508	505	527
ES	1.787	1.873	1.803	1.829	2.048	1.983	2.033	1.972	1.921	2.044
FR	3.913	3.827	3.757	3.677	4.011	3.788	3.711	3.751	3.484	2.637
IE	115	115	146	131	157	157	173	139	133	110
IT	2.493	2.646	2.402	2.483	2.401	-	-	-	-	-
LU	42	40	37	34	36	38	40	36	38	-
NL	437	465	414	399	401	378	362	351	341	345
AT	549	515	437	486	395	421	406	417	373	371
PT	456	504	560	580	511	500	417	393	402	412
FI	169	155	158	163	157	179	159	181	183	150
SE	279	263	228	254	258	262	285	261	271	-
UK	1.150	1.124	1.198	1.217	1.176	1.138	1.169	1.217	1.199	-
Total	12.883	12.955	12.470	12.626	12.981	12.612³	12.570³	12.458³	12.083³	11.333³
Yearly change	-	0,6%	-3,7%	1,2%	2,8%	-2,8%	-0,3%	-0,9%	-3,0%	-6,2%

Source: CARE Database / EC
Date of query: August 2005

¹ Using latest available data, i.e. 2003 for all countries except IT (1998), BE (2001), LU, SE and UK (2002).

² This is likely to be an over-estimate due to the use of less recent figures for IT, BE, LU, SE and UK.

³ Where the data for a particular country was not available for a particular year, the data for the most recent year for which it was available was used instead when calculating totals: IT (1998), BE (2001), LU, SE and UK (2002).

55% of all road fatalities in the EU-14 countries is a car occupant

A reduction of 12% in the number of car driver fatalities is observed during the last decade in the EU-14 countries



A reduction of 24% in the number of car passenger fatalities is observed during the last decade in the EU-14 countries

The rates of car drivers and passengers killed per million inhabitants are lowest in the United Kingdom and the Netherlands



Table 2: Car passenger fatalities per country, 1994-2003¹

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
BE	277	240	216	202	266	207	225	237	-	-
DK	69	100	92	65	70	85	89	73	76	69
EL	349	365	381	359	344	350	351	295	288	234
ES	1.268	1.333	1.205	1.169	1.253	1.213	1.260	1.175	1.196	1.172
FR	1.819	1.870	1.782	1.685	1.793	1.669	1.576	1.532	1.377	1.072
IE	63	78	72	89	96	79	89	92	69	65
IT	1.368	1.378	1.255	1.242	1.115	-	-	-	-	-
LU	9	12	14	12	7	11	14	15	14	-
NL	177	192	161	148	149	161	151	126	138	137
AT	258	193	187	180	170	194	143	153	151	153
PT	408	447	468	420	414	333	326	257	314	242
FI	93	76	69	84	75	72	65	81	84	67
SE	106	108	101	94	69	110	108	112	108	-
UK	694	685	679	642	603	625	601	599	633	-
Total	6.959	7.077	6.682	6.391	6.423	6.224³	6.113³	5.860³	5.799³	5.317³
Yearly change	-	1,7%	-5,9%	-4,6%	0,5%	-3,2%	-1,8%	-4,3%	-1,0%	-9,1%

Source: CARE Database / EC
Date of query: August 2005

In order to allow for the differing size of these countries, Table 3 presents the number of car occupant fatalities per million inhabitants for the last available year. The rate varies between 30 per million in the United Kingdom and the Netherlands to 117 in Luxembourg (although the latter rate may give a misleading impression of the level of safety in Luxembourg because of the relatively large volume of foreign traffic in this small country).

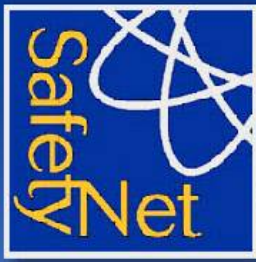
Table 3: Car occupant fatality rates per million inhabitants per country, 2003¹

	Drivers	Passengers	Occupants
BE**	64,5	23,1	87,6
DK	31,0	12,8	43,8
EL	47,9	21,3	69,1
ES	49,1	28,1	77,2
FR	44,2	18,0	62,2
IE	27,8	16,4	44,2
IT***	42,2	19,6	61,8
LU*	85,6	31,5	117,1
NL	21,3	8,5	29,8
AT	45,8	18,9	64,7
PT	39,5	23,2	62,8
FI	28,8	12,9	41,7
SE*	30,4	12,1	42,5
UK*	20,1	10,6	30,7
EU-14	38,1	17,9	55,9

* Data 2002
** Data 2001
*** Data 1998

Source: CARE Database / EC
Source of population data: Eurostat
Date of query: August 2005

Table 4 presents the number of car occupant fatalities as a proportion of the national total of deaths in traffic accidents. One quarter of Portuguese killed in road accidents were car drivers. In Luxemburg, Belgium, France and Sweden this percentage is much higher.



Twice as many car drivers are killed in traffic accidents than car passengers



Table 4: Car occupant fatalities in proportion to national fatality total, 2003¹

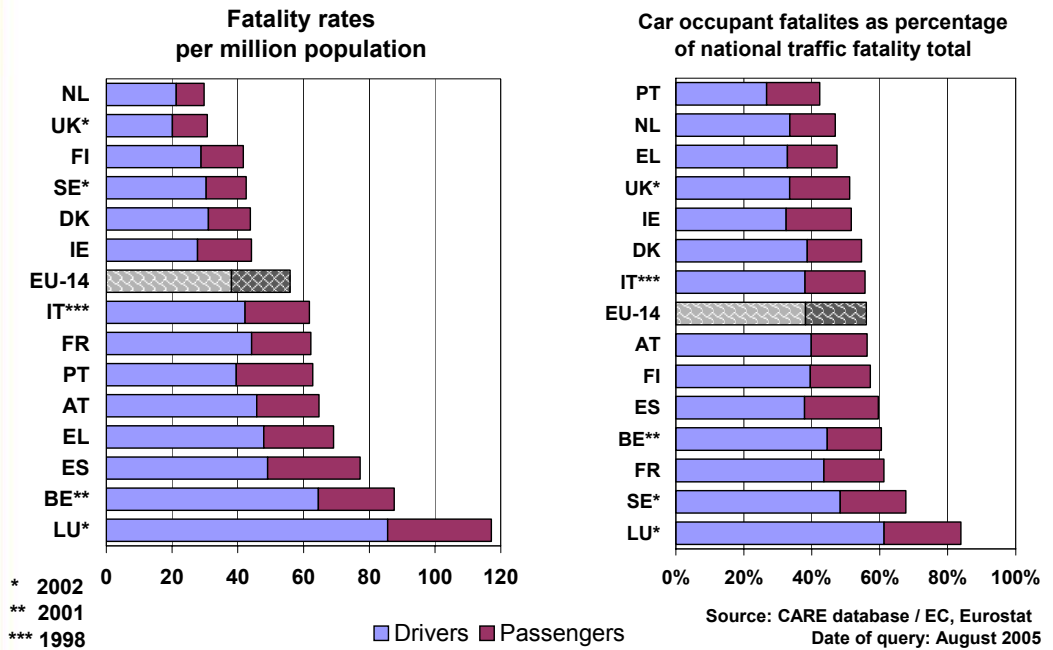
	Drivers	Passengers	Occupants
BE**	44,5%	15,9%	60,5%
DK	38,7%	16,0%	54,6%
EL	32,8%	14,6%	47,4%
ES	37,9%	21,7%	59,6%
FR	43,5%	17,7%	61,2%
IE	32,4%	19,2%	51,6%
IT***	38,0%	17,7%	55,7%
LU*	61,3%	22,6%	83,9%
NL	33,6%	13,3%	47,0%
AT	39,8%	16,4%	56,3%
PT	26,7%	15,7%	42,4%
FI	39,6%	17,7%	57,3%
SE*	48,4%	19,3%	67,7%
UK*	33,5%	17,7%	51,2%
EU-14	38,1%	17,9%	56,0%

* Data 2002
 ** Data 2001
 *** Data 1998

Source: CARE Database / EC
 Date of query: August 2005

The data from Tables 3 and 4 are illustrated in figure 1.

Figure 1: Car occupant fatalities per 1.000.000 inhabitants and as share of the national fatality total in 2003¹



The proportion of female fatalities is much lower for drivers than for passengers



Age and Gender of fatalities

Tables 5 and 6 present the number of car driver and passenger fatalities by age and gender. The proportion of female drivers who were killed in traffic accidents, as can be derived from table 5, varies between 8% in Greece to 24% in Denmark and Austria.

The proportion for car passengers varies between 28% in Luxemburg to 57% in Denmark and Finland.

Table 5: Distribution of car driver fatalities by age and gender, 2003¹

	15-24	25-39	40-59	60+	Female	Male
BE**	145	234	166	115	141	521
DK	30	55	43	39	41	126
EL	107	170	177	70	40	486
ES	403	739	568	308	-	-
FR	627	789	657	527	544	2.092
IE	31	35	24	17	22	84
IT***	467	788	603	486	351	2.049
LU*	5	20	11	2	6	32
NL	92	111	84	58	58	287
AT	115	98	84	74	91	280
PT	81	153	101	74	47	365
FI	33	29	53	35	30	120
SE*	55	60	82	74	41	230
UK*	348	345	260	241	252	946
EU-14	2.539	3.625	2.914	2.121	1.665	7.618
%	22,7%	32,4%	26,0%	18,9%	17,9%	82,1%

* Data 2002

** Data 2001

*** Data 1998

Source: CARE Database / EC

Date of query: August 2005

The age distributions also vary between countries. Austria has a high portion of 15-24 year old car driver fatalities, Finland has a relatively large share of 40-59 year old car drivers and Denmark and Sweden have many 60+ car driver fatalities.

Low proportions are found in Finland for 24-39 year old car drivers, in Ireland for 40-59 and in Greece and Spain for 60+ car drivers.



The number fatalities among car drivers as well as passengers is largest in the age group 15-24 years old



Table 6: Distribution of car passenger fatalities by age and sex, 2003¹

	0-14	15-24	25-39	40-59	60+	Female	Male
BE**	31	75	62	28	40	108	129
DK	14	17	15	11	12	39	30
EL*	25	78	41	34	55	111	123
ES	96	366	279	178	218	-	-
FR	110	360	165	138	279	477	596
IE	6	28	13	6	8	28	32
IT***	71	324	251	171	211	565	550
LU*	2	8	3	1	0	4	10
NL	18	57	21	14	27	60	72
AT	20	46	29	27	30	69	84
PT	25	66	51	50	42	115	127
FI	9	18	7	15	18	39	28
SE*	9	32	28	10	29	50	58
UK*	60	273	101	61	132	306	326
EU-14	496	1.749	1.066	745	1.102	1.971	2.164
%	9,6%	33,9%	20,7%	14,4%	21,4%	47,7%	52,3%

* Data 2002
 ** Data 2001
 *** Data 1998

Source: CARE Database / EC
 Date of query: September 2005

Relatively high shares are found for older car passengers (60+) in Finland, Sweden and the United Kingdom.

Low proportions are found in Italy for 0-14 year old passengers (in 1998), in Finland for 25-39, in the United Kingdom for 40-59 and in Ireland for 60+ aged passengers.

Type of road

The CARE data show whether accidents occurred on motorways and, for non-motorway accidents, whether on urban or rural roads. Table 7 shows the number and distribution of fatalities.

Table 7: Distribution of car occupant fatalities by road type and area type, 2003¹

	Inside urban area	Outside urban area		Total
		Motorway	Non motorway	
BE**	200	144	555	899
DK	34	20	182	236
EL	226	35	500	761
ES	239	257	2.720	3.216
FR	607	299	2.803	3.709
IE	28	6	140	174
IT***	1.109	556	1.850	3.515
LU*	15	12	25	52
NL	78	108	297	483
AT	56	81	387	524
PT	186	73	394	653
FI	31	0	186	217
SE*	68	21	290	379
UK*	480	134	1.218	1.832
EU-14	3.357	1.746	11.548	16.651
%	20,2%	10,5%	69,4%	

* Data 2002
 ** Data 2001
 *** Data 1998

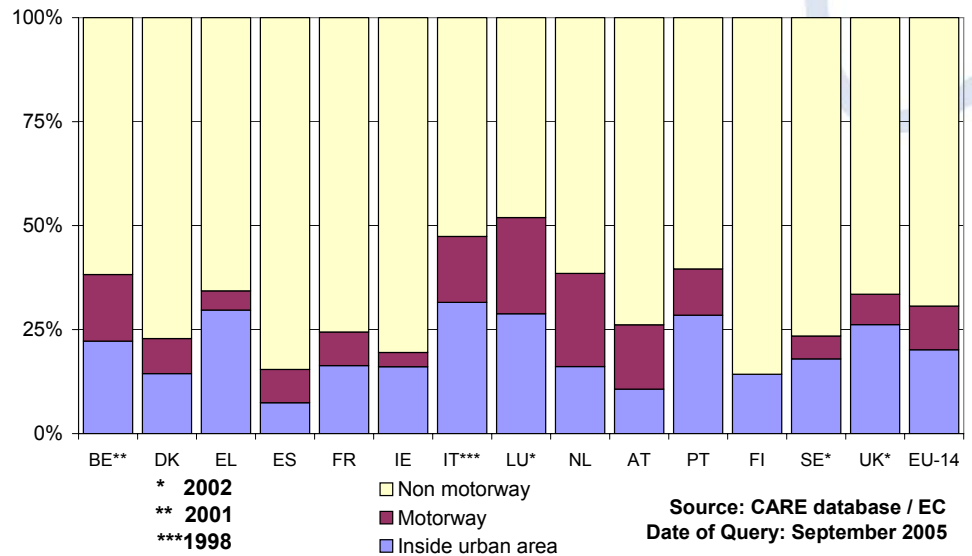
Source: CARE Database / EC
 Date of query: September 2005

The majority of car occupant fatalities is outside urban area on non-motorways



The data from Table 7 are illustrated below.

Figure 2: Car occupant fatalities by road and area type in 2003¹.



Time and day

The CARE database contains the time and day of accidents. Table 8 divides the day into 6 equal segments of 4 hours to show how car occupant fatalities are distributed through the day. The number between midnight and 4am is relatively high in Luxemburg and Belgium, but fatalities are distributed rather uniformly in Italy.

Table 8: Distribution of car occupant fatalities by time of day, 2003¹

	0 - 4	4 - 8	8 - 12	12 - 16	16 - 20	20 - 24
BE**	194	145	99	123	161	173
DK	23	29	33	53	60	38
EL	132	157	89	113	161	109
ES	387	479	515	586	675	574
FR	450	676	530	704	789	560
IE	35	23	13	23	40	35
IT***	607	502	539	633	650	517
LU	12	8	3	11	10	8
NL	64	73	71	95	100	80
AT	56	102	64	108	110	84
PT	89	113	83	128	163	78
FI	25	21	32	60	45	34
SE*	42	53	61	84	86	44
UK*	251	195	234	360	390	402
EU-14	2.368	2.576	2.365	3.080	3.440	2.737
%	14,2%	15,5%	14,2%	18,5%	20,7%	16,4%

* Data 2002
** Data 2001
*** Data 1998

Source: CARE Database / EC
Date of query: September 2005

Table 9 shows the number of car occupant fatalities by day of the week.

The number of car occupant fatalities varies most by time of the day in Ireland and Luxemburg, but least in Italy



The proportion of car occupant fatalities occurring at the weekend is highest in Ireland and Portugal



Table 9: Distribution of car occupant fatalities by day of week, 2003¹

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
BE**	108	96	113	100	117	180	185
DK	30	22	27	32	41	44	40
EL	97	89	101	107	99	106	162
ES	358	359	383	383	430	615	687
FR	490	432	421	414	563	639	748
IE	27	16	15	19	22	31	44
IT***	497	404	381	447	483	634	668
LU*	7	3	8	6	9	15	4
NL	68	50	50	64	71	97	83
AT	54	67	62	73	102	78	88
PT	66	62	66	74	90	128	168
FI	18	29	31	22	38	45	34
SE*	51	53	48	61	53	66	47
UK*	252	235	237	218	308	287	295
EU-14	2.124	1.917	1.943	2.021	2.426	2.966	3.253
%	12,8%	11,5%	11,7%	12,1%	14,6%	17,8%	19,5%

* Data 2002
 ** Data 2001
 *** Data 1998

Source: CARE Database / EC
 Date of query: September 2005

All countries have more fatalities per day at the weekend than on weekdays, and the weekend peak is more pronounced in countries such as Ireland and Portugal.

In table 10 the fatality proportion is calculated for the combination of time and day of the week for all 14 countries together in 2003¹. If the amount of traffic is not taken into account, you may expect $2/168 = 1,19\%$ in each cell. Cells with 30% higher or lower values have been coloured.

Weekend nights appear to have more fatalities than expected, as is also the case for the evening peak in traffic.

Table 10: Proportion of car occupant fatalities by day and hour, EU-14 2003¹

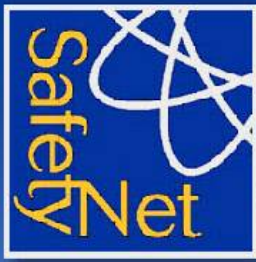
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
0 - 2	1,0%	0,6%	0,7%	0,7%	0,9%	1,7%	1,9%	7,5%
2 - 4	0,8%	0,5%	0,4%	0,7%	0,8%	1,7%	1,9%	6,8%
4 - 6	0,6%	0,5%	0,6%	0,6%	0,8%	1,8%	2,4%	7,4%
6 - 8	1,1%	0,8%	0,9%	1,0%	1,0%	1,4%	1,9%	8,1%
8 - 10	1,1%	1,1%	0,9%	1,0%	0,9%	1,1%	1,1%	7,2%
10 - 12	1,1%	0,9%	0,9%	0,9%	1,0%	1,1%	1,0%	7,0%
12 - 14	1,1%	1,1%	1,1%	1,0%	1,3%	1,4%	1,2%	8,4%
14 - 16	1,5%	1,2%	1,5%	1,4%	1,5%	1,5%	1,5%	10,1%
16 - 18	1,4%	1,4%	1,4%	1,4%	1,7%	1,7%	2,0%	11,0%
18 - 20	1,2%	1,1%	1,2%	1,2%	1,5%	1,6%	1,8%	9,7%
20 - 22	0,9%	1,0%	1,1%	1,1%	1,7%	1,3%	1,5%	8,6%
22 - 24	0,8%	1,0%	0,9%	1,1%	1,4%	1,4%	1,2%	7,8%
Total	12,8%	11,5%	11,7%	12,1%	14,6%	17,8%	19,5%	100%

>1,55 %
 <0,92 %

Source: CARE Database / EC
 Date of query: September 2005

During the weekend and during the evening peak in traffic, the number of fatalities is highest

Car-Occupants



The number of car occupant fatalities is lowest in February and highest in August

Especially the portion of passengers is high during the summer holidays



Part of year

Table 11 shows the number of car occupant fatalities in each month.

Table 11: Distribution of car occupant fatalities by month, 2003¹

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
BE**	71	58	75	66	64	81	97	77	77	69	88	76	899
DK	18	22	17	10	23	21	26	17	17	20	26	19	236
EL	53	57	51	53	52	60	99	87	70	52	59	68	761
ES	231	235	224	271	221	297	292	368	257	264	261	296	3.216
FR	270	256	273	272	329	318	368	358	356	346	249	315	3.709
IE	9	11	17	10	19	18	21	12	11	18	16	13	175
IT***	320	262	309	308	353	299	319	341	333	235	182	254	3.515
LU*	1	5	1	3	3	5	6	6	6	6	5	5	52
NL	56	39	37	39	31	33	47	45	25	45	50	36	483
AT	39	33	32	51	50	56	49	40	53	38	36	47	524
PT	51	36	49	52	46	49	57	82	50	68	55	57	653
FI	16	11	15	16	16	14	18	21	28	17	14	31	217
SE*	33	35	29	26	33	48	39	32	22	27	32	23	379
UK*	134	112	180	126	138	150	141	145	150	178	179	199	1.832
Drivers	892	833	913	882	951	989	1.034	979	979	1.002	888	993	11.333
Passengers	411	339	396	421	426	460	545	652	477	381	363	446	5.317
EU-14	1.302	1.172	1.309	1.303	1.377	1.449	1.579	1.631	1.456	1.383	1.252	1.439	16.652
%	7,8	7,0	7,9	7,8	8,3	8,7	9,5	9,8	8,7	8,3	7,5	8,6	

* Data 2002

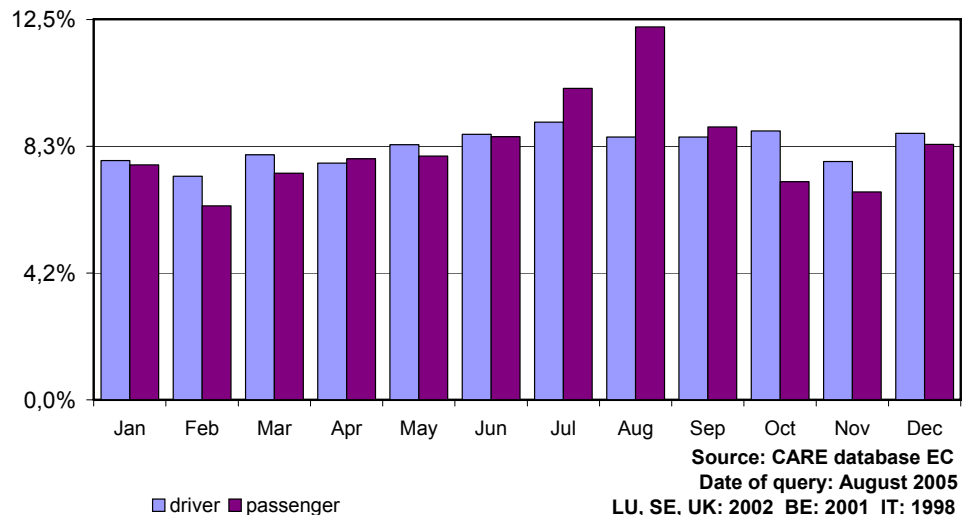
** Data 2001

*** Data 1998

Source: CARE Database / EC
Date of query: September 2005

For car occupants there is no obvious seasonal pattern, except that during the summer months -July and August- the number of passenger fatalities is relatively large.

Figure 3: Car occupant fatalities by month, EU-14 2003¹.





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For more information:

Further statistical information on car occupant 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.

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

- Children (Aged <16)
- Young People (Aged 16-24)
- The Elderly
- Pedestrians
- Motorcycle and Mopeds
- Car-Occupants
- Motorways

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.

For more information about the project "SafetyNet" which is co-financed by the European Commission, Directorate-General Energy and Transport please contact safetynet.swov.nl.

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