

# Traffic Safety Basic Facts 2011

## Car Occupants

### Introduction

This fact sheet explores some of the characteristics of car occupant fatalities. Cars comprise a considerable share of the vehicle fleet in the EU. Therefore, better understanding the characteristics specific to this user group provides an opportunity to address a large proportion of fatalities.

'Cars' refer to both private vehicles as well as vehicles used for commercial purposes (like taxis). 'Car occupant' in this context refers to both the driver and any passengers. The most recent year or period for which data are available has been analysed. A note is made of anomalies to the main year.

### How Big is the Problem?

In 2009, 15.158 car occupants were killed in road traffic accidents in the EU-19<sup>1</sup>. This represents 47% of all road traffic fatalities in the EU-19 in 2009. Of these 15.158 killed car occupants, 10.273 were drivers and 4.881 were passengers (and 4 unknown). Table 1 presents the absolute number of fatalities of car occupants since 2000 by country that are available from CARE. From the table it can be derived that for the EU-19 countries in 2009, 11% less car occupant fatalities are reported than in 2008. From 2000 to 2009, there was a reduction of 45% in car occupant fatalities for the EU-19 countries. There is a large difference in number of fatalities between countries, and also over the years. For example, the highest numbers of car occupant fatalities in 2009 were in Poland (2.179), France (2.162) and Germany (2.110), while the lowest number was in Luxembourg (26). These numbers are mainly related to exposure, and population factors.

In 2009, 15.158 car occupants were killed in road traffic accidents in the EU-19.

<sup>1</sup> A list of the countries which are within the EU-total can be found at the end of this fact sheet.

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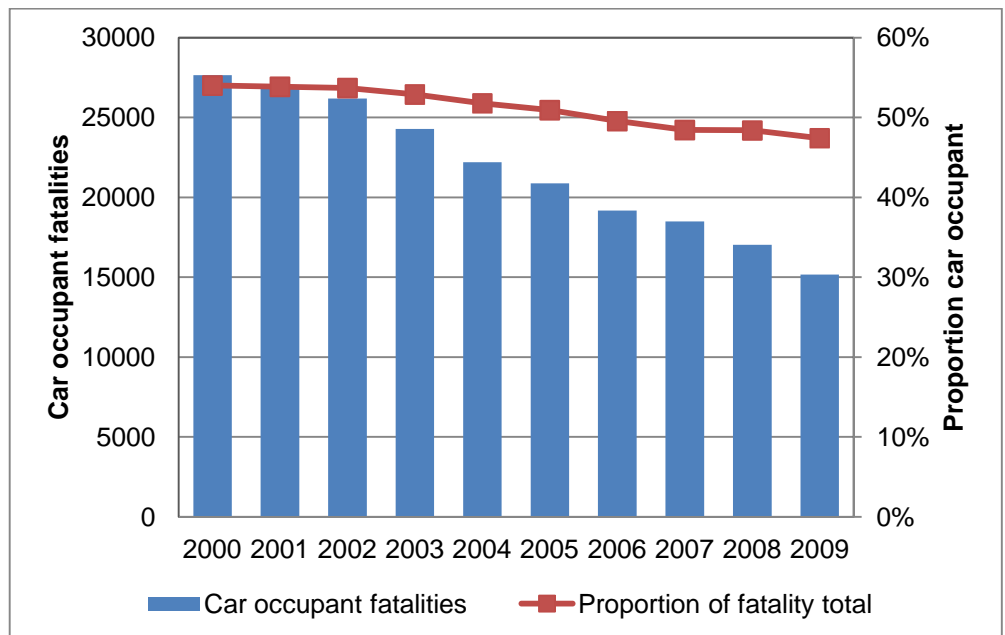
Table 1: Car occupant fatalities by country, 2000-2009<sup>2</sup>

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
BE	922	899	779	688	623	624	589	550	479	464
CZ	784	715	759	798	779	679	567	661	573	497
DK	235	242	246	236	186	169	138	168	196	164
DE	4.396	4.023	4.005	3.774	3.238	2.833	2.683	2.625	2.368	2.110
IE	262	231	202	174	205	222	226	171	160	-
EL	922	803	793	761	775	816	722	771	708	680
ES	3.288	3.144	3.104	3.211	2.691	2.389	2.096	1.824	1.495	1.260
FR	5.290	5.283	4.864	3.689	3.369	3.065	2.627	2.466	2.205	2.162
IT	3.850	3.847	3.653	3.377	3.032	2.830	2.781	2.320	2.115	1.793
LU	54	51	52	33	27	38	23	27	20	26
NL	513	477	479	483	398	337	323	299	299	288
AT	549	570	524	524	480	432	384	378	367	325
PL	-	2.438	2.548	2.541	2.459	2.526	2.392	2.582	2.540	2.179
PT	732	636	710	630	537	495	375	417	358	301
RO	903	933	874	856	1.012	1.069	992	1.096	1.323	1.168
SI	126	107	124	102	124	107	96	126	82	59
FI	224	262	267	217	221	231	203	241	202	165
SE	393	373	379	349	288	273	261	279	234	-
UK	1.770	1.816	1.832	1.841	1.757	1.744	1.687	1.489	1.312	1.123
EU-19	27.651	26.850	26.194	24.284	22.201	20.879	19.165	18.490	17.036	15.158
Yearly reduction		2,9%	2,4%	7,3%	8,6%	6,0%	8,2%	3,5%	7,9%	11%
EE	-	-	-	-	-	88	106	122	69	54
CY	-	-	-	-	37	-	-	-	-	-
LV	-	-	-	-	228	201	182	203	167	116
HU	-	-	-	640	606	620	630	555	448	386
MT	-	-	-	-	-	3	5	4	4	9
SK	-	-	-	-	-	294	282	293	292	182

\* Data from 2001 (PL) and 2008 (IE and SE)

Source: CARE Database / EC  
Date of query: December 2011

Figure 1: Number and proportion of car occupant fatalities in EU-19 countries between 2000 and 2009<sup>2</sup>



\* Data from 2001 (PL) and 2008 (IE and SE)

Source: CARE Database / EC  
Date of query: December 2011

<sup>2</sup> There is no data available in 2000 for Poland and in 2009 for Ireland and Sweden; therefore data of the next/previous year of that country has been used in the EU-total and the yearly reduction.

The highest number of car occupant fatalities in 2009 was in Poland (2.179), France (2.162), and Germany (2.110)

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**Error! Reference source not found.** presents the number and proportion of car occupant fatalities for the EU-19 countries for the period 2000-2009. In general, the proportion of car occupant fatalities has decreased over this ten year period by 7%.

Table 2 shows the reduction (in percent) in fatalities of car drivers, car passengers and car occupants for the year 2009 compared to the year 2000 for the EU-19 countries. Over the 10 year period, Spain (63%), France (60%) and Portugal (60%) had the largest reduction of car occupant fatalities, while Romania showed an increase in car occupant fatalities of 29%.

Table 2: Reduction (in percent) in fatalities of car drivers, car passengers and car occupants for the year 2009 compared to the year 2000 for the EU-19

	Driver	Passenger	Car occupants
BE	49%	51%	50%
CZ	27%	51%	39%
DK	22%	44%	33%
DE	49%	58%	54%
IE*	37%	43%	40%
EL	20%	36%	28%
ES	58%	67%	63%
FR	58%	62%	60%
IT	50%	60%	55%
LU	55%	43%	49%
NL	42%	48%	45%
AT	42%	37%	40%
PL*	1%	23%	12%
PT	49%	72%	60%
RO	-25%	-34%	-29%
SI	58%	0%	29%
FI	33%	9%	21%
SE*	41%	44%	42%
UK	37%	36%	36%
EU-19	44%	48%	46%

\* Data from 2001 (PL) and 2008 (IE and SE)

Source: CARE Database / EC  
Date of query: December 2011

Because these numbers are related to exposure and population factors, absolute fatality numbers do not provide a good basis for cross country comparison. Table 3 compares fatality rates across the EU-24 countries in 2009, based on relative populations. The United Kingdom has the lowest driver fatality rate (12) per million population but also had one of the lowest occupant rates (18) along with The Netherlands (17). Considering passengers of cars, Slovenia and The Netherlands have the lowest fatality rates per million population (5).

Greece had the highest rate of fatalities for drivers (40) and all occupants (60).

From 2000 to 2009, there was a reduction of 46% in car occupant fatalities for the EU-19 countries.

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Table 3: Fatality rate of car drivers, passengers and occupants per million population for the EU-24, 2009

	Driver	Passenger	Car occupant
BE	33	10	43
CZ	33	15	47
DK	21	9	30
DE	19	7	26
EE	25	15	40
IE*	25	12	36
EL	40	20	60
ES	18	9	27
FR	24	9	34
IT	21	9	30
LV	30	22	51
LU	36	16	53
HU	26	13	38
MT	15	7	22
NL	13	5	17
AT	28	11	39
PL	35	22	57
PT	20	9	28
RO	27	28	54
SI	24	5	29
SK	20	13	34
FI	20	11	31
SE*	18	7	25
UK	12	6	18
EU-24	22	11	33

\* Data from 2008

Source: CARE Database / EC  
 Date of query: December 2011  
 Source of population data: Eurostat  
 Date of query: December 2011

The Netherlands has the lowest car occupant fatality rate per million population (17) in 2009

Although an important comparison basis, fatality rates per million population do not always provide the best indication of safety. The vehicle kilometres travelled indicate the risk to which a road user is exposed while he travels on the road, and so this better indicates relative levels of safety.

However, these data are currently not available in adequate quantities to enable analysis.

### Who is involved?

Table 4 and Figure 2 indicates for 2009 that among larger countries the majority of driver fatalities were male (81%), and generally aged between 25-49 years. Denmark<sup>3</sup> has the highest proportion of female driver fatalities (27%), while Slovakia and Greece have the least proportions (8% and 9%, respectively). When considering the age groups, the largest percentage of driver fatalities in the EU-24 countries were found in the age of 25 to 49 years. Much of these findings are likely to be related to percentage of drivers within each gender group and age group, as well as kilometres travelled.

<sup>3</sup> The proportion of Ireland in 2008 was higher (31%), but no data available for 2009.

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Table 4: Characteristics of age and gender of car driver fatalities by country for EU-24, 2009

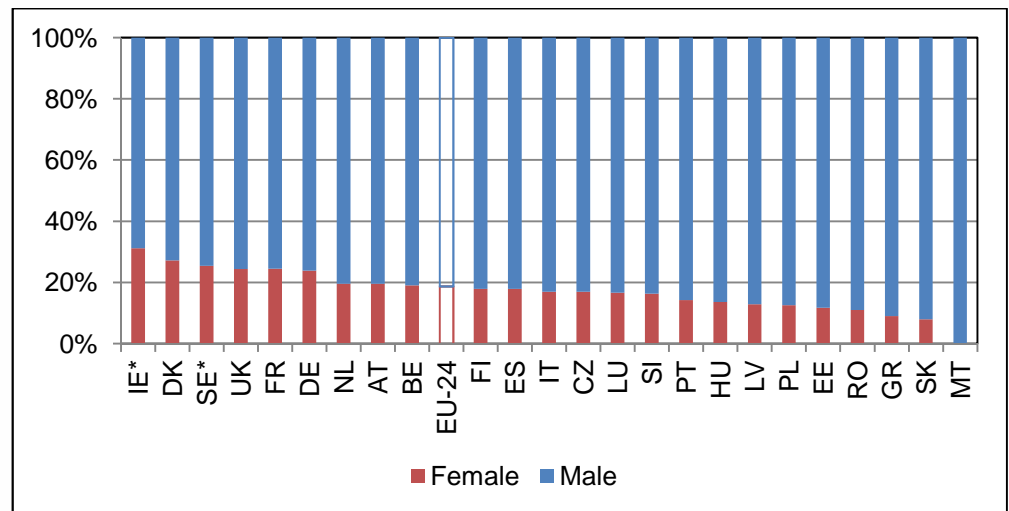
	<18		18-24		25-49		50-64		65+		Number known	Total
	F	M	F	M	F	M	F	M	F	M		
BE	0%	0%	4%	21%	7%	35%	3%	13%	5%	13%	352	353
CZ	0%	0%	3%	16%	11%	43%	2%	13%	1%	11%	341	341
DK	0%	3%	8%	17%	12%	35%	0%	9%	7%	10%	114	114
DE	0%	0%	7%	22%	9%	27%	4%	12%	5%	15%	1,573	1,573
EE	0%	0%	0%	24%	12%	44%	0%	9%	0%	12%	34	34
IE*	0%	5%	9%	27%	12%	24%	4%	3%	6%	11%	109	109
EL	0%	0%	1%	14%	6%	49%	1%	17%	1%	11%	453	456
ES	0%	0%	4%	14%	10%	41%	2%	12%	2%	14%	836	844
FR	0%	0%	5%	20%	9%	31%	5%	11%	5%	14%	1,566	1,566
IT	0%	0%	3%	14%	9%	30%	3%	15%	3%	23%	1,265	1,276
LV	0%	0%	2%	13%	10%	44%	2%	24%	0%	6%	62	67
LU	0%	0%	0%	33%	6%	22%	6%	17%	6%	11%	18	18
HU	0%	1%	2%	12%	8%	46%	3%	17%	1%	11%	257	258
MT	0%	0%	0%	17%	0%	33%	0%	17%	0%	33%	6	6
NL	0%	0%	3%	21%	8%	33%	4%	11%	5%	15%	209	209
AT	0%	1%	3%	17%	9%	34%	5%	11%	2%	17%	235	235
PL	0%	0%	3%	24%	8%	41%	2%	15%	0%	7%	1,333	1,334
PT	0%	0%	2%	12%	9%	38%	2%	19%	1%	18%	207	208
RO	0%	0%	3%	19%	6%	47%	1%	17%	0%	5%	573	573
SI	0%	2%	4%	24%	6%	27%	0%	20%	6%	10%	49	49
SK	0%	0%	0%	20%	5%	43%	3%	17%	0%	11%	88	109
FI	0%	0%	0%	25%	11%	25%	4%	10%	3%	22%	106	106
SE*	0%	1%	3%	18%	10%	21%	4%	14%	8%	21%	169	169
UK	0%	3%	5%	20%	10%	31%	4%	9%	4%	12%	738	738
EU-24	0,1%	0,6%	3,9%	18,8%	8,7%	35,1%	3,1%	13,3%	3,0%	13,4%	10,694	10,746

\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

Across the EU countries the majority of driver fatalities were male

Figure 2: Distribution of car driver fatalities by gender, EU-24, 2009



\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

Among larger countries, Germany and Italy have the highest proportion of female car passenger fatalities (53% and 51% respectively, see Table 5). The smallest proportion of female car passenger fatalities was in Portugal (37%). As with driver proportions, passenger fatalities were highest in the 25-49 age category (28,5%).

Table 5: Characteristics of age and gender of car passenger fatalities by country, EU-24, 2009

	<18		18-24		25-49		50-64		65+		Number known	Total
	F	M	F	M	F	M	F	M	F	M		
BE	8%	10%	13%	21%	8%	21%	8%	0%	10%	3%	39	111
CZ	2%	3%	6%	18%	14%	22%	7%	9%	14%	4%	147	156
DK	12%	10%	10%	22%	4%	18%	4%	0%	10%	10%	50	50
DE	8%	10%	7%	18%	11%	11%	6%	3%	22%	4%	537	537
EE	10%	5%	10%	20%	15%	20%	5%	5%	10%	0%	20	20
IE*	15%	20%	9%	20%	7%	13%	0%	2%	13%	2%	46	51
EL	8%	6%	7%	15%	13%	16%	9%	6%	12%	9%	220	224
ES	5%	7%	7%	15%	13%	18%	10%	5%	15%	5%	409	415
FR	11%	10%	7%	22%	7%	13%	7%	3%	16%	5%	596	596
IT	5%	7%	11%	14%	11%	17%	8%	5%	16%	6%	487	517
LV	0%	3%	3%	21%	12%	38%	12%	6%	3%	3%	34	49
LU	0%	25%	13%	13%	13%	0%	13%	13%	13%	0%	8	8
HU	8%	7%	7%	7%	11%	27%	15%	6%	9%	4%	128	128
MT	33%	0%	33%	0%	0%	0%	0%	0%	33%	0%	3	3
NL	4%	4%	11%	24%	9%	14%	4%	1%	19%	10%	79	79
AT	4%	10%	7%	12%	8%	21%	9%	3%	18%	8%	90	90
PL	6%	7%	9%	19%	11%	22%	11%	7%	5%	3%	843	845
PT	2%	10%	6%	20%	5%	19%	9%	5%	15%	10%	92	92
RO	4%	6%	12%	17%	13%	23%	6%	9%	6%	5%	595	595
SI	10%	0%	40%	20%	0%	10%	0%	0%	20%	0%	10	10
SK	2%	3%	3%	30%	13%	23%	10%	3%	10%	3%	61	73
FI	7%	17%	8%	22%	14%	7%	5%	3%	12%	5%	59	59
SE*	7%	10%	7%	15%	15%	21%	5%	3%	16%	2%	61	61
UK	8%	13%	9%	23%	8%	15%	5%	2%	15%	3%	385	385
EU-24	6,5%	8,3%	8,5%	18,1%	10,7%	17,8%	7,8%	4,9%	12,8%	4,5%	4.999	5.154

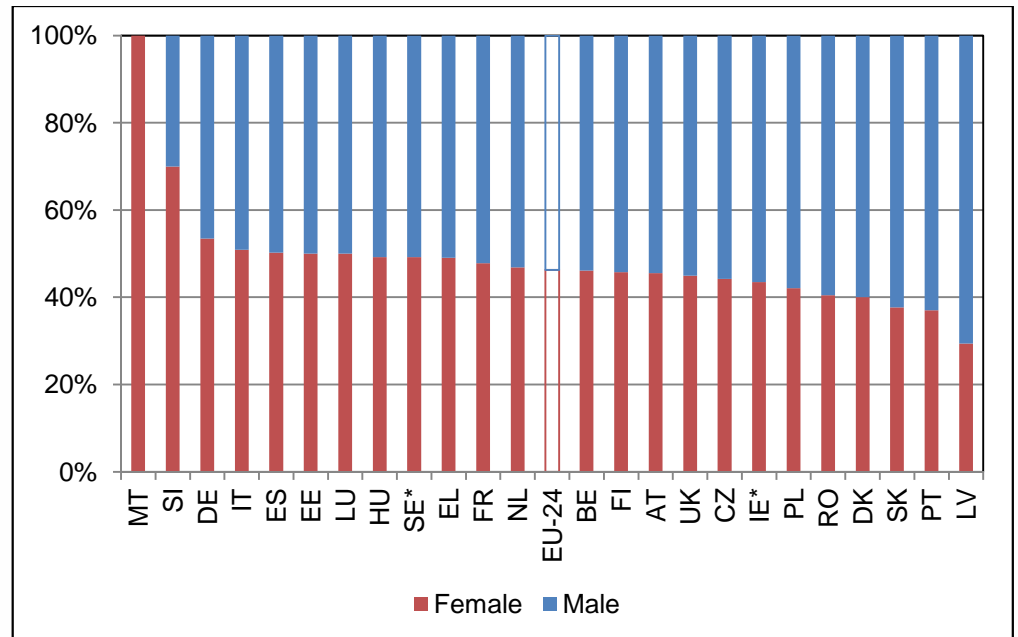
\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

The smallest proportion of female car passenger fatalities was in Portugal (37%).

Figure 3 shows that almost 50% of the car passenger fatalities in the EU-countries were female. For car drivers this was scarcely 20%.

Figure 3: Distribution of car passenger fatalities by gender, EU-24, 2009



\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

### When do these Crashes Occur?

Table 6 presents the proportion of car occupant fatalities per month for the EU-24 countries in 2009. January, July, August and October have marginally higher incidence of fatalities (respectively 8,7%, 9,2%, 9,3% and 9,5%) compared to around 8% of fatalities in other months).

Table 6: Proportion of car occupant fatalities per month, EU-24, 2009

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
BE	9%	7%	9%	9%	8%	10%	8%	8%	8%	7%	9%	9%	464
CZ	11%	7%	6%	7%	7%	11%	9%	8%	9%	11%	7%	6%	497
DK	7%	9%	13%	16%	7%	7%	8%	4%	8%	5%	8%	9%	164
DE	9%	7%	9%	7%	9%	8%	7%	7%	8%	10%	10%	8%	2.110
EE	13%	7%	6%	7%	7%	4%	4%	22%	15%	2%	4%	9%	54
IE*	8%	15%	8%	6%	6%	10%	7%	9%	7%	9%	8%	8%	160
EL	7%	8%	8%	8%	8%	8%	10%	8%	11%	11%	7%	6%	680
ES	9%	8%	10%	8%	8%	8%	9%	11%	7%	7%	7%	10%	1.260
FR	8%	7%	7%	8%	8%	8%	8%	9%	9%	10%	9%	8%	2.162
IT	8%	8%	9%	7%	8%	7%	9%	9%	8%	9%	9%	10%	1.793
LV	18%	5%	11%	6%	13%	3%	5%	14%	3%	6%	5%	10%	116
LU	4%	0%	15%	12%	12%	15%	4%	8%	4%	12%	12%	4%	26
HU	9%	8%	9%	8%	8%	10%	11%	10%	4%	10%	6%	9%	386
MT	0%	0%	0%	11%	0%	0%	0%	33%	0%	33%	0%	22%	9
NL	7%	10%	8%	6%	8%	8%	5%	7%	9%	11%	11%	10%	288
AT	12%	6%	6%	7%	10%	9%	8%	9%	8%	9%	9%	7%	325
PL	8%	6%	6%	7%	8%	9%	12%	11%	8%	10%	7%	7%	2.179
PT	8%	5%	7%	7%	7%	7%	11%	11%	8%	11%	9%	10%	301
RO	8%	6%	8%	7%	8%	6%	10%	11%	9%	11%	7%	8%	1.168
SI	8%	8%	8%	14%	10%	7%	7%	3%	8%	10%	7%	8%	59
SK	7%	8%	5%	11%	5%	13%	14%	12%	5%	9%	5%	5%	182
FI	9%	4%	9%	5%	13%	10%	11%	7%	10%	8%	4%	8%	165
SE*	10%	8%	10%	6%	7%	10%	11%	11%	7%	7%	8%	5%	234
UK	11%	9%	7%	9%	8%	7%	9%	10%	7%	7%	9%	8%	1.123
EU-24	8,7%	7,2%	7,7%	7,7%	8,1%	8,1%	9,2%	9,3%	8,1%	9,5%	8,1%	8,2%	15.905

\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

In July and August the proportion of car passenger fatalities is relatively high

Figure 4 presents the proportion of car driver and passenger fatalities for the EU-24 per month for the year 2009. In general, the distribution is relatively equal over the year and around one-third of the car occupant fatalities are passengers. In July and August however, the proportion of car passenger fatalities is relatively high (38% and 36% respectively).

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Heavy Goods Vehicles

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Roads in urban areas

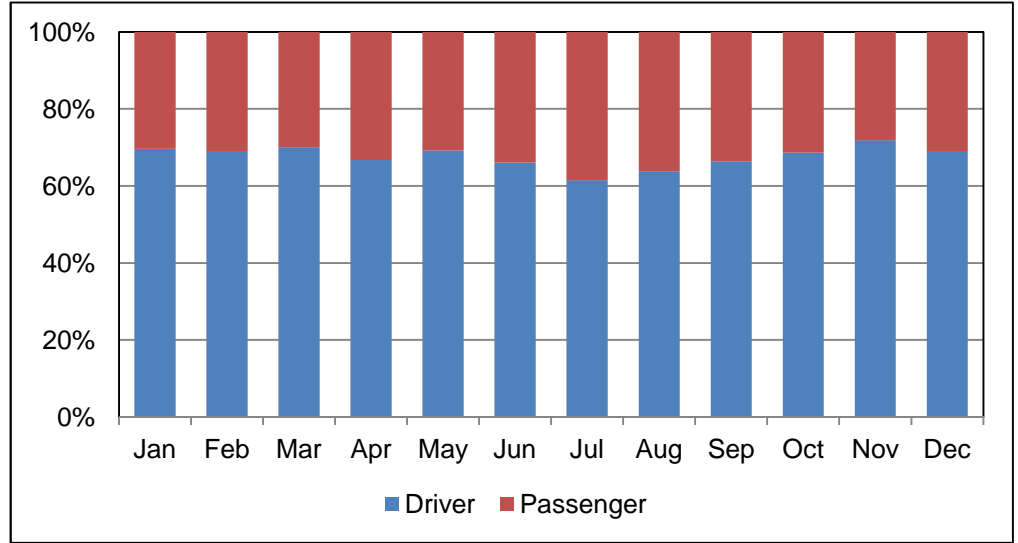
Roads outside urban areas

Seasonality

Single vehicle accidents

Gender

Figure 4: Proportion of fatalities of car driver and car passenger per month for the EU-24\*, 2009



\* 2008 data for IE and SE

Source: CARE Database / EC  
Date of query: December 2011

Table 7: Proportion of car occupant fatalities per day of the week, EU-24, 2009

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Total
BE	9%	11%	9%	11%	13%	24%	22%	464
CZ	13%	12%	11%	13%	17%	21%	13%	497
DK	16%	7%	15%	9%	17%	16%	20%	164
DE	15%	13%	12%	15%	14%	15%	16%	2.110
EE	9%	9%	13%	19%	11%	17%	22%	54
IE*	18%	14%	10%	11%	12%	17%	19%	160
EL	12%	11%	12%	12%	15%	15%	23%	680
ES	12%	10%	11%	13%	14%	19%	21%	1.260
FR	13%	12%	12%	12%	14%	19%	19%	2.162
IT	13%	11%	11%	13%	14%	19%	19%	1.793
LV	12%	12%	11%	18%	13%	17%	16%	116
LU	0%	12%	0%	12%	15%	23%	38%	26
HU	14%	12%	10%	17%	17%	16%	14%	386
MT	0%	33%	22%	11%	0%	33%	0%	9
NL	13%	10%	15%	12%	15%	16%	18%	288
AT	14%	15%	13%	15%	13%	15%	17%	325
PL	13%	11%	11%	13%	15%	18%	19%	2.179
PT	13%	14%	11%	12%	13%	18%	19%	301
RO	13%	13%	9%	12%	15%	16%	22%	1.168
SI	15%	17%	14%	12%	17%	10%	15%	59
SK	11%	10%	13%	10%	17%	24%	14%	182
FI	12%	15%	13%	11%	15%	19%	15%	165
SE*	14%	10%	14%	15%	18%	16%	14%	234
UK	11%	12%	12%	11%	15%	21%	18%	1.123
EU-24	12,9%	11,7%	11,4%	12,8%	14,5%	18,0%	18,6%	15.905

\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

Table 7 presents the percentages of car occupant fatalities across the days of the week. These data indicate that for the EU-24, 37% of car occupant fatalities occur either on a Saturday or a Sunday, while the lowest percentage occurs on Tuesdays (12%).

30% of car occupant fatalities occur either on a Saturday or a Sunday, while Wednesday has the lowest percentage of fatalities.

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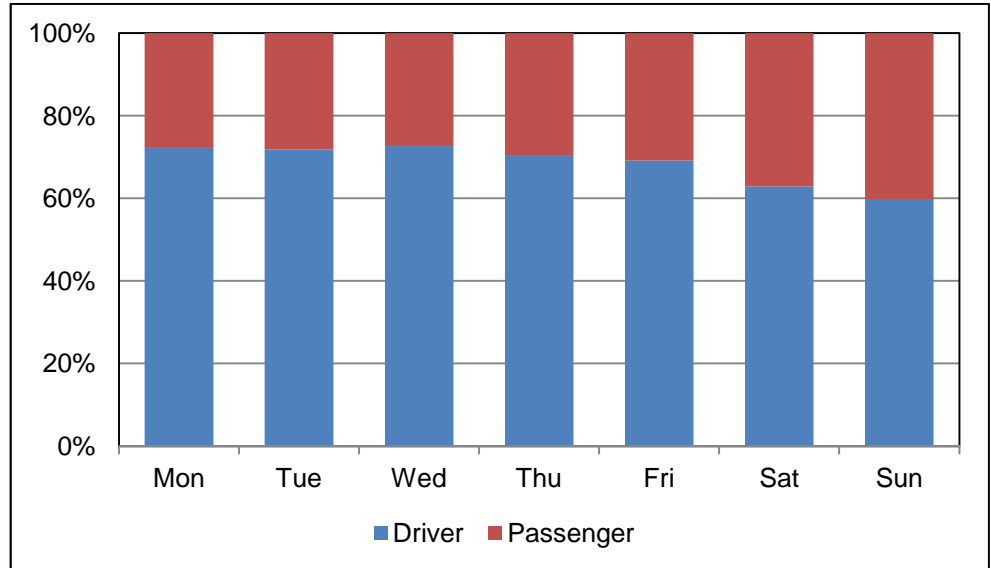
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Figure 5 presents the proportion of fatalities of car drivers and passengers for the EU-24 by day of the week for the year 2009. The proportion of passenger fatalities is higher in weekend days compared to the proportion of passenger fatalities for the rest of the week.

Figure 5: Proportion of car driver and passenger fatalities per day of week, EU-24\*, 2009



\* 2008 data for IE and SE

Source: CARE Database / EC  
Date of query: December 2011

During the weekend, the proportion of car passenger fatalities is higher than during the week.

Table 8 presents the percentage of car occupant fatalities over a 24 hour period. A notable difference for the EU-23 is evident between the smallest percentage of fatalities (from midnight to 4 AM: 14%) and the largest percentage of fatalities (16:00-20:00: 21%). In most countries - with the exception of Belgium, The Czech Republic, Estonia, Ireland, Luxembourg, Malta, Finland and Sweden - the largest percentage of fatalities occurred between 16:00 and 20:00 hours, suggesting the afternoon peak hour traffic is a significant contributing factor to the total fatality numbers.

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Table 8: Proportions of car occupant fatalities during the day for EU-23, 2009

	0:00 - 3:59	4:00- 7:59	8:00- 11:59	12:00- 15:59	16:00- 19:59	20:00- 23:59	Number known	Total
BE	20%	15%	13%	11%	17%	25%	464	464
CZ	13%	13%	15%	25%	19%	16%	495	497
DK	7%	15%	12%	23%	23%	21%	164	164
EE	20%	9%	33%	13%	11%	13%	54	54
IE*	19%	8%	18%	15%	19%	22%	160	160
EL	16%	18%	12%	19%	21%	13%	680	680
ES	10%	14%	17%	21%	21%	16%	1.260	1.260
FR	13%	14%	15%	18%	25%	15%	2.162	2.162
IT	15%	15%	16%	18%	21%	16%	1.777	1.793
LV	9%	14%	15%	16%	24%	23%	116	116
LU	8%	19%	4%	27%	19%	23%	26	26
HU	11%	18%	18%	16%	19%	17%	386	386
MT	0%	67%	0%	0%	0%	33%	6	9
NL	11%	14%	15%	16%	24%	20%	288	288
AT	18%	14%	17%	17%	22%	13%	325	325
PL	12%	16%	15%	20%	22%	15%	2.179	2.179
PT	15%	18%	17%	14%	18%	17%	301	301
RO	13%	17%	14%	17%	20%	18%	1.168	1.168
SI	10%	19%	8%	19%	25%	19%	59	59
SK	10%	9%	21%	20%	28%	13%	179	182
FI	14%	8%	21%	22%	16%	19%	165	165
SE*	13%	12%	15%	27%	21%	12%	234	234
UK	18%	12%	14%	16%	20%	20%	1.123	1.123
EU-23	13,7%	14,7%	15,3%	18,3%	21,4%	16,6%	13.771	13.795

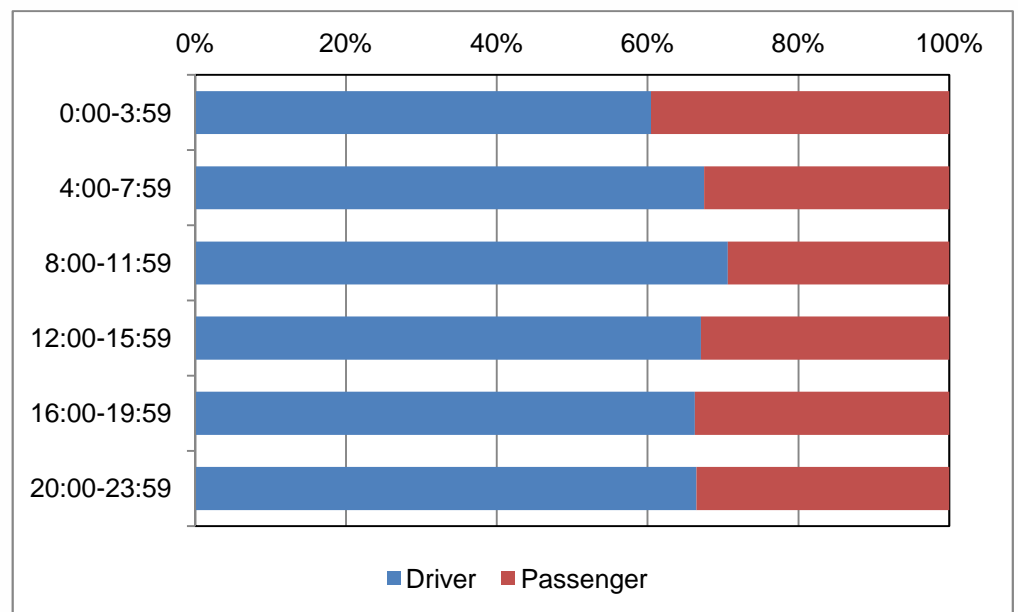
No data for DE available  
\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

The largest percentage of fatalities occurred between 16:00 and 20.00

Figure 6 presents the proportion of fatalities of car drivers and passengers for the EU-23 countries by time of day in 2009. The proportion of car passenger fatalities (in the EU-23) is highest (40%) between midnight and 04:00 AM, but there is little variation during the day.

Figure 6: Proportion of car driver and passenger fatalities by time of the day for the EU-23\*, 2009



No data for DE available  
\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

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In 2009 only 15% of the car occupant fatalities in the EU-23 countries occurred at junctions

### Where Do these Fatalities Occur?

The majority of car occupant fatalities occur away from a junction, with only around 15% of the fatalities occurring at junctions in the EU-23 countries (Table 9). The data indicate that among the larger countries, Germany and Italy have the greatest share of fatalities at junctions (25%). Latvia and Slovakia have only 4% of fatalities at junctions.

Table 9: Proportions of car occupant fatalities at junctions for EU-23, 2009

	Junction	Not at junction	Number known	Total
BE	13%	87%	464	464
CZ	15%	85%	497	497
DK	24%	76%	164	164
DE	25%	75%	1.243	2.110
EE	19%	81%	52	54
IE*	100%	0%	23	160
EL	0%	100%	624	680
ES	11%	89%	1.260	1.260
FR	9%	91%	2.162	2.162
IT	25%	75%	1.793	1.793
LV	4%	96%	116	116
LU	4%	96%	26	26
HU	15%	85%	386	386
NL	17%	83%	288	288
AT	12%	88%	325	325
PL	12%	88%	2.179	2.179
PT	12%	88%	298	301
RO	6%	94%	1.168	1.168
SI	5%	95%	59	59
SK	4%	96%	179	182
FI	14%	86%	165	165
SE*	100%	0%	41	234
UK	24%	76%	1.123	1.123
EU-23	15%	85%	14.571	15.511

No data for MT available  
\* Data from 2008

Source: CARE Database / EC  
Date of query: December 2011

Table 10 shows the number of car occupant fatalities by road and area type. Most of the car occupant fatalities in the EU-24 countries occur outside urban areas, on non-motorways (70%). In Estonia even 89% of the car occupant fatalities occurred outside urban areas, in Slovenia only 47%. Around one-fifth of the car occupant fatalities in the EU-24 countries occurred inside urban areas. In Spain only 8% occurred inside urban areas, in Romania even 42%.

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Table 10: Car occupant fatalities by road type and area type for EU-24, 2009

	Outside urban area		Inside urban area	Total
	Non motorway	Motorway		
BE	59%	20%	21%	464
CZ	75%	2%	23%	497
DK	71%	10%	19%	164
DE	72%	15%	14%	2.110
EE	89%	-	11%	54
IE*	84%	1%	16%	160
EL	64%	10%	26%	680
ES	73%	19%	8%	1.260
FR	79%	7%	15%	2.162
IT	62%	12%	26%	1.793
LV	82%	-	18%	116
LU	-	96%	4%	26
HU	73%	7%	21%	386
MT	-	-	100%	9
NL	63%	23%	15%	288
AT	74%	16%	11%	325
PL	66%	1%	33%	2.179
PT	55%	13%	32%	301
RO	57%	1%	42%	1.168
SI	47%	25%	27%	59
SK	73%	4%	23%	182
FI	76%	6%	18%	165
SE*	85%	3%	12%	234
UK	65%	7%	28%	1.123
EU-24	69%	9%	22%	15.905

\* Data from 2008

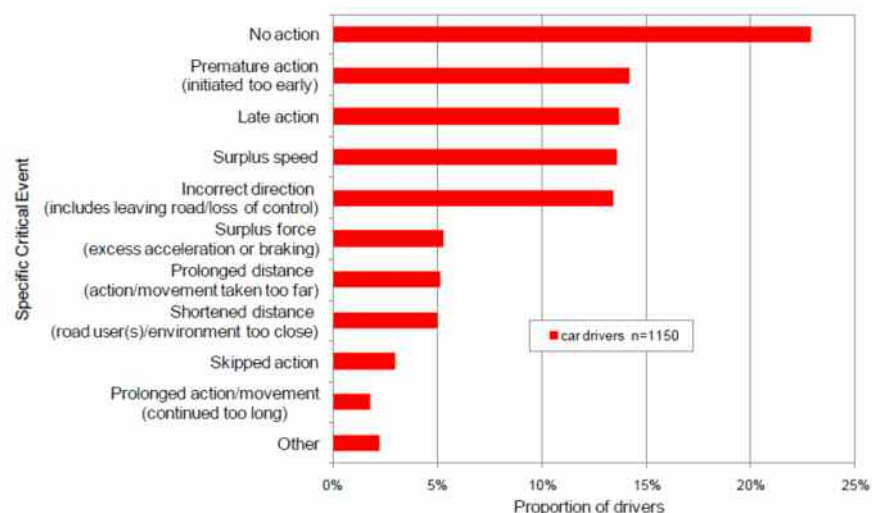
Source: CARE Database / EC  
Date of query: December 2011

In 2009, at least 70% of the car occupant fatalities in the EU-24 countries occurred outside urban areas on non-motorways

### Accident Causation

Between 2005 and 2008 in Germany, Italy, The Netherlands, Finland, Sweden and the UK data of 1.006 accidents (covering all injury severities) was collected. Most accidents (82%; 826) in the accident causation database involve a car. Of the car drivers, 65% were male and the mean age of drivers involved was 41 years. Figure 7 gives the distribution of specific critical events for car drivers.

Figure 7: Distribution of specific critical events – car drivers



N=1150

Source: SafetyNet Accident Causation Database 2005 to 2008 / EC  
Date of query: 2010

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Specific critical events under the general category of ‘timing’, ‘no action’, ‘premature action’ and ‘late action’, are recorded most often for car drivers. ‘No action’ describes those drivers who have not reacted at all (or at least in an effective time frame) to avoid a collision, for example, to avoid an oncoming vehicle. A ‘premature action’ is one undertaken before a signal has been given or the required conditions are established, for example entering a junction before it is clear of other traffic.

Following these ‘timing’ events, surplus speed and incorrect direction are recorded in equal measure. Surplus speed describes speed that is too high for the conditions or manoeuvre being carried out, travelling above the speed limit and also if the driver is travelling at speed unexpected by other road users. Incorrect direction refers to a manoeuvre being carried out in the wrong direction (for example, turning left instead of right) or leaving the road (not following the intended direction of the road). ‘Loss of control’ type accidents can fall into either critical event depending on the specific situation.

Table 11 gives the most frequent links between causes for injury crashes with car drivers involved, as recorded in the SafetyNet dataset. For this group there are 1.303 links in total.

Table 11. Ten most frequent links between causes – car drivers

Links between causes	Frequency
Faulty diagnosis - Information failure (driver/environment or driver/vehicle)	209
Observation missed - Distraction	86
Observation missed - Temporary obstruction to view	83
Observation missed - Faulty diagnosis	77
Faulty diagnosis - Communication failure	66
Inadequate plan - Insufficient knowledge	62
Observation missed - Permanent obstruction to view	60
Observation missed - Inadequate plan	52
Observation missed - Inattention	47
Inadequate plan - Under the influence of substances	45
Others	516
Total	1.303

Source: SafetyNet Accident Causation Database 2005 to 2008 / EC  
Date of query: 2010

Table 11 gives an indication of the most frequently recorded causes and the most frequently recorded links between these causes. ‘Faulty diagnosis’ and ‘observation missed’ are two dominant causes for car drivers. ‘Faulty diagnosis’ is an incorrect or incomplete understanding of road conditions or another road user’s actions. It is linked to both ‘information failure’ (for example, a driver thinking another vehicle was moving when it was in fact stopped and colliding with it) and ‘communication failure’ (for example, pulling out in the continuing path of a driver who has indicated for a turn too early).

The causes leading to ‘observation missed’ can be seen to fall into two groups: ‘physical obstruction to view’ type causes (for example, parked cars at a junction) and ‘human factors’ (for example, not observing a red light due to distraction or inattention).

16% of the links between causes are observed to be between ‘faulty diagnosis’ and ‘information failure’.

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‘Inadequate plan’ can also be seen to be frequently recorded and describes a lack of all the required details or that the driver’s ideas do not correspond to reality. It is most often linked to ‘insufficient knowledge’ (for example, not understanding a complex junction layout) but it is also linked with ‘under the influence of substances’ (alcohol, drugs or medication).

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## 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.

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

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### Country abbreviations used and definition of EU-level

EU - 19		EU-24= EU-19 +		EU-23 = EU-24 -	
BE	Belgium	EE	Estonia	DE	Germany (table 8)
CZ	Czech Republic	LV	Latvia		
DK	Denmark	HU	Hungary	MT	Malta (table 9)
DE	Germany	MT	Malta		
IE	Ireland	SK	Slovakia		
EL	Greece				
ES	Spain				
FR	France				
IT	Italy				
LU	Luxembourg				
NL	Netherlands				
AT	Austria				
PL	Poland				
PT	Portugal				
RO	Romania				
SI	Slovenia				
FI	Finland				
SE	Sweden				
UK	United Kingdom (GB+NI)				

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.

More information on the DaCoTA Project, co-financed by the European Commission, Directorate-General for Mobility and Transport is available at the DaCoTA Website: <http://www.dacota-project.eu/index.html>.

#### Authors

Nimmi Candappa, Michiel Christoph, Kirsten van Duijvenvoorde, Martijn Vis	SWOV, The Netherlands
George Yannis, Petros Evgenikos and Panagiotis Papantoniou	NTUA, Greece
Jeremy Broughton, Jackie Knowles	TRL, UK
Alan Kirk	Loughborough University, UK
Christian Brandstaetter	KfV, Austria
Jean François Pace, Carlos Martínez-Pérez and Jaime Sanmartín	INTRAS-UVEG, Spain
Mouloud Haddak, Liacine Bouaoun, Emmanuelle	IFSTAR, France

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