

Traffic Safety Basic Facts 2008

Heavy Goods Vehicles and Buses

Heavy Goods Vehicles (HGVs) are defined as goods vehicles of over 3,5 tons maximum permissible gross vehicle weight. Road traffic accidents involving Heavy Goods Vehicles (HGVs) tend to be more severe than other accidents because of the great size and mass of these vehicles. Buses and Coaches are included in this Basic Fact Sheet because they too are normally relatively large, although minibuses are categorized as Buses in some countries. Note that coaches are grouped with buses in the CARE database.

Table 1 presents the number of people killed in accidents involving HGVs in each of the EU-19 countries for each year for which the data are available over the last ten years. The total number killed in these accidents in EU-14 fell from 4.544 in 1997 to 3.114 in 2006¹, a fall of 31,5%.

Table 1: Fatalities in accidents involving Heavy Goods Vehicles, 1997-2006¹²

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	195	228	193	204	193	178	136	143	161	133
CZ	-	-	-	-	-	-	-	-	-	215
DK	93	88	86	97	78	80	69	65	79	49
EE	-	-	-	-	-	-	-	-	50	37
EL	242	277	268	205	220	219	217	181	158	167
ES	888	959	905	920	803	860	834	766	714	664
FR	1.113	1.164	1.090	1.051	1.057	988	758	727	726	683
IE	85	63	61	67	70	42	54	-	-	-
IT	476	421	562	582	411	359	358	336	-	-
LU	6	7	3	5	6	12	-	-	-	-
HU	-	-	-	-	-	-	115	264	251	239
MT	-	-	-	-	-	-	-	-	0	1
NL	177	140	175	168	169	129	158	-	-	-
AT	150	145	177	143	122	143	140	144	126	120
PL	-	-	-	-	-	-	-	-	1.425	-
PT	356	219	296	284	197	214	213	187	163	130
FI	112	88	121	77	118	105	97	107	92	82
SE	97	117	93	119	118	135	92	59	61	83
UK	554	605	641	581	607	561	548	478	510	443
EU-14 ¹	4.544	4.521	4.671	4.503	4.169	4.026	3.686	3.417	3.350	3.114
Yearly ¹ Change		-0,5%	3,3%	-3,6%	-7,4%	-3,4%	-8,4%	-7,3%	-2,0%	-7,0%

EU-14 totals can differ due to rounding because of the use of coefficients in order to arrive to fatalities at 30 days

Source: CARE Database / EC Date of query: July 2008

More than 5.000 people died in road traffic accidents involving HGVs in 2006¹ (EU-14 plus the Czech Republic, Estonia, Hungary Malta and Poland)

² See Table "Definition of EU-level and used Country abbreviations" on Page 13



Safety

¹ Using latest available data i.e. 2006 for all countries except LU (2002), IE and NL (2003), IT (2004), PL (2005) and UK (2006 for GB, 2005 for NI). The data from EE, HU, MT, PL and CZ are not considered.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
BE	37	47	23	28	29	31	29	31	19	31
CZ	-	-	-	-	-	-	-	-	-	34
DK	15	11	25	14	14	22	26	15	11	14
EE	-	-	-	-	-	-	-	-	7	13
EL	79	93	79	71	59	60	94	48	53	36
ES	180	184	163	144	135	109	126	80	108	100
FR	188	127	127	144	117	109	97	99	91	76
IE	11	16	14	12	9	8	2	-	-	-
IT	137	105	131	119	113	105	122	125	-	-
LU	3	0	0	4	6	4	-	-	-	-
HU	-	-	-	-	-	-	71	58	62	64
MT	-	1	-	-	-	-	-	-	1	0
NL	29	29	21	23	27	21	21	-	-	-
AT	25	14	41	36	33	17	20	24	10	19
PL	-	1	-	-	-	-	-	-	252	-
PT	104	145	58	57	66	51	26	41	23	13
FI	20	22	18	18	28	17	13	29	13	19
SE	15	16	23	16	32	29	33	16	13	36
UK	174	198	182	176	215	165	160	154	140	164
EU-14 ¹	1.018	1.006	905	862	883	749	774	689	633	660
Yearly ¹ Change		-1,1%	-10,0%	-4,8%	2,5%	-15,2%	3,4%	-11,0%	-8,1%	4,3%

Table 2 presents the number of people killed in each of the EU-19 countries over the last ten years in accidents involving Buses and

Coaches. The number of people killed in these accidents in EU-14 fell from 1018 in 1997 to 660 in 2006¹, a fall of 35,2%. The totals from this and the previous table are presented in Figure 1 (the line is dashed for the years where the data are not available for all the countries). They have fallen in parallel, with approximately five times as many people killed per year in accidents involving HGVs

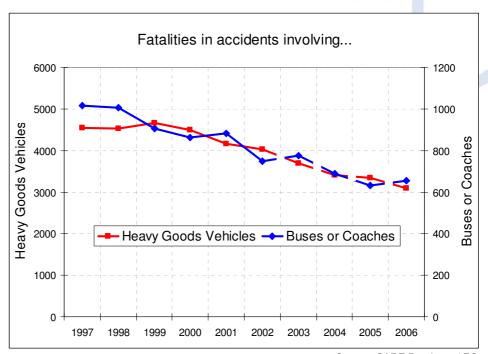
> Source: CARE Database / EC Date of query: July 2008

More than 1.000 people died in road traffic accidents involving Buses or Coaches in 2006¹. (EU-14 plus the Czech Republic, Estonia, Hungary Malta and Poland)





Figure 1: The number of fatalities in accidents involving Heavy Goods Vehicles and Buses or Coaches, EU-14, 1997-2006¹



Source: CARE Database / EC Date of query: July 2008 Main Figures

Pedestrians

Bicycles

Motorcycles & Mopeds

Car Occupants

The risk of being killed in such an accident can be compared for each Member State using the rate of deaths per million population. These rates are shown in Table 3 and Figure 2.

Table 3: The fatality rates per million population in accidents involving HGVs and Buses or Coaches, 2006

	HGVs accidents	Bus or Coach accidents
BE	12,6	2,9
CZ	20,9	3,3 2,6 9,7
DK	9,0	2,6
EE	27,5	9,7
EL	15,0	3,2
ES	15,1	3,2 2,3 1,2 0,5
FR	10,8	1,2
IE***	12,7	0,5
IT**	5,7	2,1
LU****	25,4	8,5
HU	23,7	6,4
NL***	9,7	1,3
AT	14,5	2,3
PL*	37,4	6,4 1,3 2,3 6,6
PT	12,3	1,2
FI	15,6	3,6
SE	9,1	3,6 4,0
UK*	7,3	2,7
EU-18	13,7	2,8

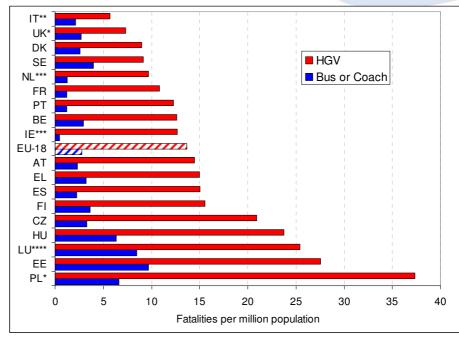
* Data from 2005 (UK = GB 2006 + NI 2005)

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

** Data from 2004

Source: CARE Database / EC Date of query: July 2008 Source of population data: EUROSTAT Jrban Areas

Figure 2: The fatality rates in accidents involving HGVs and Buses or Coaches, 2006



Data from 2005 (UK = GB 2006 + NI 2005) Data from 2004

Data from 2003 Data from 2002 Source: CARE Database / EC Date of query: July 2008 Source of population data: EUROSTAT Main Figures

Pedestrians

Motorcycles & Mopeds

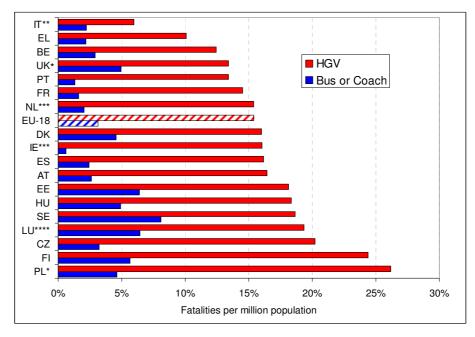
Car Occupants

Junctions

Jrban Areas

The EU-18 average fatality rate in accidents involving HGVs is 13,7 per million population, and ranges from 5,7 in Italy to 37,4 in Poland. For accidents involving Buses or Coaches, the EU-18 average fatality rate is 2,8 per million, and ranges from 0,5 in Ireland to 9,7 in Estonia.

Figure 3: The proportion of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches, 2006



Data from 2005 (UK = GB 2006 + NI 2005)
Data from 2004

Data from 2003Data from 2002

Source: CARE Database / EC Date of query: July 2008 Source of population data: EUROSTAT

One seventh of people who died in road traffic accidents in 2006¹ died in accidents that involved HGVs.





Young People

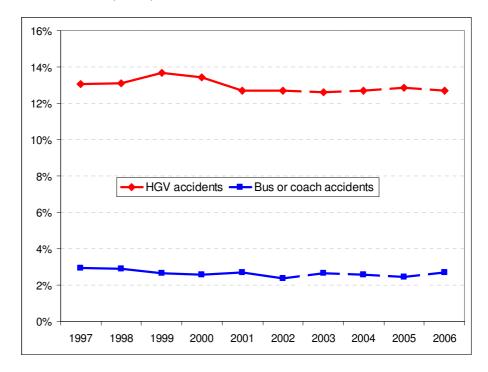
Pedestrians

European Road Safety Observatory www.erso.eu

Averaged over the EU-18 countries, 15,4% of deaths occurred in 2006 in accidents involving Heavy Goods Vehicles, and 3,1% in involving Buses or Coaches. Figure 3 shows considerable variation around these averages in individual countries.

Figure 1 showed that the number of deaths in accidents involving Heavy Goods Vehicles and in accidents involving Buses or Coaches fell between 1997 and 2006, but the EU-14 total number of deaths also fell over this period. Figure 4 shows the proportion of fatalities in accidents involving Heavy Goods Vehicles and Buses or Coaches.

Figure 4: The proportion of fatalities in accidents involving Heavy Goods Vehicles and Buses or Coaches, EU-14, 1997-20061



Source: CARE Database / EC Date of query: July 2008



The number of







Half of those who died in 2006¹ in road traffic accidents that involved HGVs were travelling by car.

Over 25% of those who died in 2006 in road traffic accidents that involved Buses or

Coaches were

pedestrians.



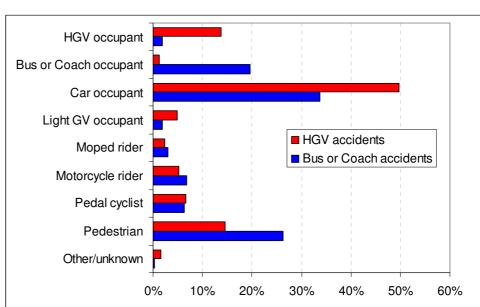
These accidents made casualties both outside and inside the vehicles. Across the EU-18, 13,8% of those killed in HGV accidents in 2006 were occupants of HGVs, and 19,6% of those killed in Bus or Coach accidents were occupants of Buses or Coaches. Table 4 lists those killed in these accidents (for the latest available year) by road user type. The distributions are illustrated in Figure 5.

Table 4: Fatalities in accidents involving HGVs and in accidents involving Buses or Coaches, by road user type, EU-18, 2006³

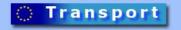
	HGVs		Buses or Coaches	
accidents involving	fatalities		fatalities	
HGV occupant	696	14%	19	2%
Bus or Coach occupant	62	1%	200	20%
Car occupant	2.498	50%	344	34%
Light GV occupant	243	5%	20	2%
Moped rider	121	2%	31	3%
Motorcycle rider	263	5%	69	7%
Pedal cyclist	335	7%	65	6%
Pedestrian	735	15%	269	26%
Other/unknown	78	2%	4	0%
All	5.031	100%	1.021	100%

Source: CARE Database / EC Date of query: July 2008

Figure 5: Distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches, by road user type, EU-18, 2006³







³ Using last data available, i.e. 2006 for all countries except LU (2002), IE and NL (2003), IT (2004), PL (2005) and UK (2006 for GB, 2005 for NI).



About one quarter of fatalities in HGV accidents in 2006¹ occurred in urban areas, compared to almost 43% of fatalities in Bus or

Coach accidents.

Type of road

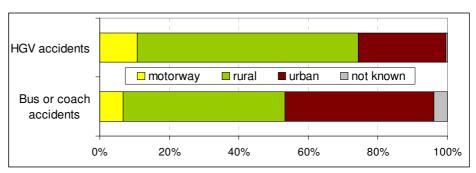
The CARE data show whether accidents occurred on motorways and, for non-motorway accidents, whether on urban or rural roads. Motorway accidents are not fully recorded in Greece. For the remaining EU-18 countries, Table 5 shows the distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches. The results for these 17 EU countries (for the latest available year) are illustrated in Figure 6.

Table 5: Distribution of fatalities in accidents involving HGVs by road type, 2006

	motorway	non-motorway		not known
	illotorway	rural	urban	HOU KHOWH
BE	35%	47%	18%	1%
CZ	7%	60%	33%	0%
DK	8%	69%	22%	0%
EE	0%	78%	22%	0%
ES	6%	89%	5%	0%
FR	12%	66%	22%	0%
IE***	4%	65%	31%	0%
IT**	39%	39%	22%	0%
LU****	58%	42%	0%	0%
HU	6%	68%	26%	0%
MT	0%	0%	100%	0%
NL***	25%	48%	27%	0%
AT	23%	56%	22%	0%
PL*	1%	61%	38%	0%
PT	13%	46%	41%	0%
FI	4%	82%	15%	0%
SE	6%	80%	13%	1%
UK*	17%	57%	21%	5%
EU-18	11%	63%	25%	1%

Data from 2005 (UK = GB

Figure 6: Distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches by road type, EU-17, 2006³







Data from 2003 Data from 2002

Source: CARE Database / EC Date of query: July 2008

^{2006 +} NI 2005) Data from 2004

Pedestrians

Motorcycles & Mopeds

Car Occupants

Time of day

In order to examine the distribution of fatalities by time of day, the day has been divided into six 4-hour periods beginning at midnight. Table 6 shows the distribution of fatalities in HGV accidents. The hourly rates are relatively high between 0800 and 2000 in all countries. Figure 7 illustrates the EU-18 distribution for HGV accidents and for Bus or Coach accidents by hour of day.

Table 6: Distribution of fatalities by in accidents involving HGVs, by time of day, 2006

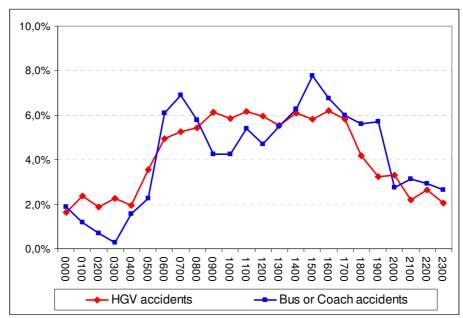
	0000-0400	0400-0800	0800-1200	1200-1600	1600-2000	2000-0000
BE	8%	23%	18%	21%	18%	13%
CZ	5%	16%	27%	27%	14%	9%
DK	4%	10%	18%	43%	10%	14%
EE	3%	14%	25%	25%	25%	8%
EL	4%	11%	26%	31%	19%	10%
ES	7%	14%	27%	21%	23%	9%
FR	6%	16%	26%	25%	20%	7%
IE***	15%	6%	22%	30%	20%	7%
IT**	11%	16%	20%	22%	20%	11%
LU****	8%	25%	17%	25%	17%	8%
HU	6%	15%	23%	28%	15%	13%
MT	0%	0%	100%	0%	0%	0%
NL***	4%	15%	29%	28%	20%	4%
AT	8%	12%	30%	31%	17%	3%
PL*	12%	18%	19%	19%	19%	13%
PT	4%	13%	28%	27%	20%	7%
FI	9%	7%	16%	43%	17%	9%
SE	2%	10%	30%	24%	22%	12%
UK*	7%	16%	26%	22%	19%	10%
EU-18	8%	16%	23%	23%	19%	10%

Data from 2005 (UK = GB 2006 + NI 2005)

Data from 2003 Data from 2002 Source: CARE Database / EC Date of query: July 2008

Data from 2004

Figure 7: Distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches by time of day, EU-18, 20063



Source: CARE Database / EC Date of query: July 2008

The hourly fatality rate in road traffic accidents involving HGVs in 2006³ was uniform between 7am and 6pm. The rate of accidents involving Buses or Coaches peaked in the morning hours and also between 3 and 4pm.





Urban Areas



The fatality rate in road traffic accidents involving HGVs in 2006¹ was much lower at the weekend than on weekdays.

Day of week

Table 7 shows the distribution of HGV accidents by day of week. The rates are generally much higher on weekdays than at the weekend. Figure 8 illustrates the EU-18 distribution for HGV accidents and Bus or Coach accidents, and shows the high proportion of fatalities in the accidents that occurred on Fridays.

Table 7: Distribution of fatalities in accidents involving HGVs, by day of week, 2006

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
BE	23%	20%	16%	17%	14%	8%	3%
CZ	17%	17%	16%	14%	20%	13%	3%
DK	29%	10%	10%	14%	29%	4%	4%
EE	24%	14%	22%	19%	16%	3%	3%
EL	17%	15%	17%	17%	14%	12%	8%
ES	17%	18%	18%	14%	19%	8%	6%
FR	17%	19%	17%	20%	19%	7%	2%
IE***	17%	9%	13%	24%	22%	15%	0%
IT**	15%	15%	15%	21%	21%	9%	4%
LU****	8%	8%	42%	0%	17%	25%	0%
HU	15%	15%	18%	17%	17%	13%	5%
MT	0%	0%	100%	0%	0%	0%	0%
NL***	15%	19%	18%	16%	20%	7%	4%
AT	21%	23%	18%	8%	22%	8%	0%
PL*	15%	15%	14%	17%	17%	14%	8%
PT	23%	12%	22%	12%	22%	8%	1%
FI	15%	21%	23%	18%	11%	5%	7%
SE	19%	29%	17%	12%	12%	7%	4%
UK*	18%	20%	16%	19%	16%	7%	5%
EU-18	17%	17%	16%	17%	18%	10%	5%

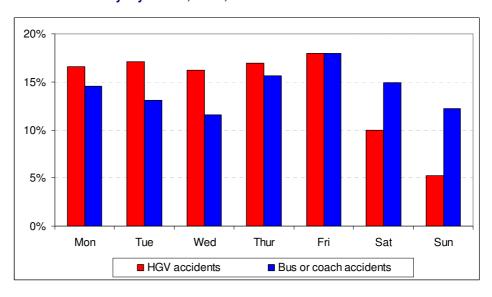
Data from 2005 (UK = GB 2006 + NI 2005)

Data from 2004

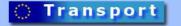
Data from 2003
Data from 2002

Source: CARE Database / EC Date of query: July 2008

Figure 8: Distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches by day of week, EU-18, 2006³









There was little variation through the vear in the fatality rate in road traffic accidents involving HGVs in 2006¹.

Part of year

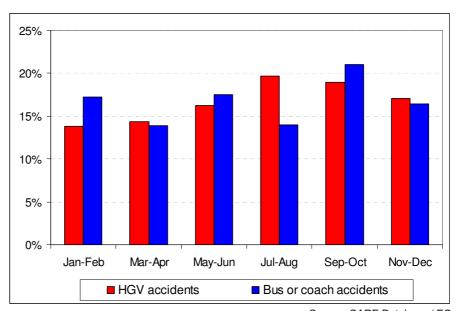
Table 8 shows the distribution of fatalities in accidents involving HGVs through the year, using pairs of months. The peak period varies between countries, and for the EU-18 is July-August. Figure 9 illustrates the EU-18 distribution. It includes the distribution for accidents involving Buses or Coaches, which peaks in September-October.

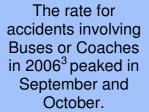
Table 8: Distribution of fatalities in accidents involving HGVs by month, 2006

	Jan-Feb	Mar-Apr	May-Jun	Jul-Aug	Sep-Oct	Nov-Dec
BE	16%	17%	20%	16%	19%	13%
CZ	13%	16%	15%	19%	20%	16%
DK	14%	14%	27%	14%	8%	22%
EE	16%	19%	8%	22%	24%	11%
EL	8%	19%	18%	17%	23%	14%
ES	16%	16%	17%	17%	19%	15%
FR	12%	16%	17%	19%	18%	17%
IE***	4%	17%	37%	17%	9%	17%
IT**	13%	18%	15%	21%	18%	15%
LU****	17%	8%	0%	33%	8%	33%
HU	14%	15%	16%	19%	23%	13%
NL***	20%	11%	16%	25%	15%	13%
AT	12%	10%	17%	23%	25%	14%
PL*	15%	11%	16%	20%	19%	19%
PT	9%	18%	11%	18%	14%	29%
FI	16%	12%	13%	23%	21%	15%
SE	11%	22%	13%	25%	12%	17%
UK*	15%	11%	16%	20%	19%	19%
EU-18	14%	14%	16%	20%	19%	17%

Data from 2005 (UK = GB 2006 + NI 2005)

Figure 9: Distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches by part of year, EU-18, 20063









Data from 2003 Data from 2002

Source: CARE Database / EC Date of query: July 2008

Data from 2004



Relatively few children died in road traffic accidents involving HGVs in 2006¹, and almost three-fifths of fatalities were aged 25-59.

Age

Table 9 provides details of the age of fatalities in accidents involving HGVs. Figure 10 illustrates the EU-18 age distribution, and also includes the distribution for accidents involving Buses or Coaches.

Table 9: Distribution of fatalities in accidents involving HGVs by age, 2006

	0-14	15-24	25-39	40-59	60+	unknown
BE	2%	16%	18%	41%	23%	2%
CZ	3%	11%	31%	36%	18%	1%
DK	0%	33%	12%	27%	29%	0%
EE	3%	5%	27%	32%	32%	0%
EL	4%	16%	26%	22%	32%	0%
ES	2%	14%	34%	32%	18%	0%
FR	3%	18%	24%	29%	24%	1%
IE***	9%	24%	17%	17%	30%	4%
IT**	1%	12%	32%	34%	17%	3%
LU****	8%	17%	50%	25%	0%	0%
HU	3%	13%	26%	41%	15%	2%
MT	0%	100%	0%	0%	0%	0%
NL***	6%	21%	27%	25%	22%	0%
AT	2%	18%	15%	40%	26%	0%
PL*	3%	19%	25%	33%	18%	2%
PT	2%	10%	28%	30%	31%	0%
FI	2%	22%	23%	33%	20%	0%
SE	2%	16%	28%	27%	28%	0%
UK*	3%	17%	28%	31%	20%	0%
EU-18	3%	17%	27%	32%	21%	1%

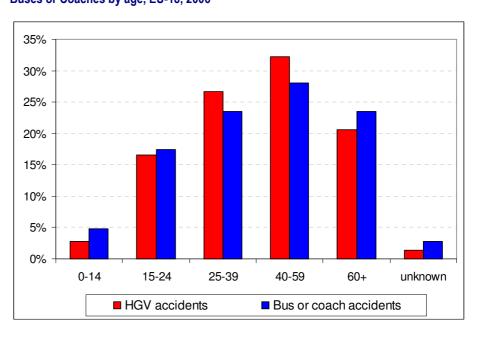
Data from 2005 (UK = GB

Data from 2003 Data from 2002

2006 + NI 2005) Data from 2004

Source: CARE Database / EC Date of query: July 2008

Figure 10: Distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches by age, EU-18, 2006³







Sex

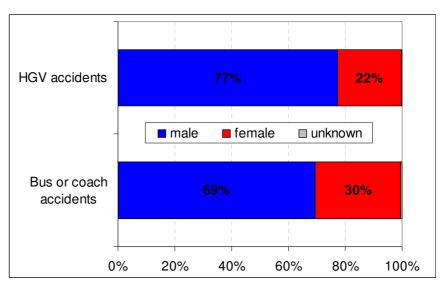
Table 9 provides details of the sex of fatalities in accidents involving HGVs. Figure 10 illustrates the EU-18 sex distribution, and also includes the distribution for accidents involving Buses or Coaches. The percentage of female fatalities in the latter accidents is higher than in the HGVs ones.

Table 10: Distribution of fatalities in accidents involving HGVs by sex, 2006

	male	female	unknown
BE	77%	23%	1%
CZ	80%	20%	0%
DK	78%	22%	0%
EE	73%	24%	3%
EL	81%	19%	0%
ES	81%	19%	0%
FR	70%	30%	0%
IE***	70%	26%	4%
IT**	83%	17%	0%
LU****	83%	17%	0%
HU	80%	20%	0%
MT	100%	0%	0%
NL***	79%	19%	2%
AT	70%	30%	0%
PL*	77%	23%	1%
PT	80%	19%	1%
FI	74%	26%	0%
SE	81%	19%	0%
UK*	78%	22%	0%
EU-18	77%	22%	0%

^{*} Data from 2005 (UK = GB 2006 + NI 2005)

Figure 11: Distribution of fatalities in accidents involving HGVs and in accidents involving Buses or Coaches by sex, EU-18, 2006³



Source: CARE Database / EC Date of query: July 2008



Urban Areas

Main Figures

Pedestrians

Car Occupants

^{***} Data from 2003
**** Data from 2002

Source: CARE Database / EC Date of query: July 2008

^{**} Data from 2004



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>).

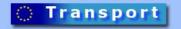
Traffic Safety Basic Fact Sheets available from the European Commission concern:

- Main Figures
- Children (Aged <16)
- 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 = E	U-14 +
BE	Belgium	CZ	Czech Republic
DK	Denmark	EE	Estonia
EL	Greece	HU	Hungary
ES	Spain	PL	Poland
FR	France		
ΙE	Ireland	EU-25 = E	U-18 +
ΙΤ	Italy	DE	Germany
LU	Luxembourg	CY	Cyprus
NL	Netherlands	LV	Latvia
ΑT	Austria	LT	Lithuania
PT	Portugal	MT	Malta
FI	Finland	SI	Slovenia
SE	Sweden	SK	Slovakia
UK	United Kingdom		





Pedestrians



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



