PIN Flash 15 - Background tables

Definition of serious injury in road collisions in police records

Country	Definition of a seriously injured person in a road crash
Austria	Whether an injury is severe or slight is determined by §84 of the Austrian criminal code. A severe injury is one that causes a health problem or occupational disability for at least 24 hours, or one that "causes personal difficulty". An injury or health problem that "causes personal difficulty" is one that affects an "important organ", if it results in a "health handicap", if the "healing process is uncertain", or if it leads to the fear of "additional effects". Police records
Belgium*	Hospitalised for at least 24 hours. But in practice no standardised communication between police and hospitals and the categorisation as “serious” is made by the police. Police records
Bulgaria	n/a. Police records
Cyprus*	Hospitalised for at least 24 hours. Police records
Czech Republic*	No official definition, but common approach is hospitalised for at least 24 hours. Police records
Denmark*	All injuries except "slight". Police records
Estonia	*Separate statistics of serious and slight injuries are N/A*
Finland	*Separate statistics of serious and slight injuries are N/A*
France	Until 2004: hospitalised for at least 6 days. From 2005: hospitalised for at least 24 hours. Police records. People injured are asked to go to the police to fill in information about the collision, in particular if they spent at least 24 hours as in-patient.
Germany*	Hospitalised for at least 24 hours
Greece*	Injury and injury severity are estimated by police officers. It is presumed that all persons who spent at least one night at the hospital are recorded as seriously injured persons. Police records
Hungary	Injuries which necessitated hospital care or causing health problems for at least 8 days. Police records
Ireland*	Hospitalised for at least 24 hours as an in-patient, or any of the following injuries whether or not detained in hospital: fractures, concussion, internal injuries, crushing, severe cuts and lacerations, several general shock requiring medical treatment. Police records
Israel*	Hospitalised more than 24 hours as in-patient. Police records

Italy	** Separate statistics on seriously and slightly injuries are N/A. It was estimated from sample studies made at the regional level that serious injuries represent around 35% of the total recorded injuries.*
Latvia	From 2004: hospitalised more than 24 hours as in-patient. Police records
Lithuania	Hospitalised for at least 24 hours as in-patient. Police records
Luxembourg*	Hospitalised for at least 24 hours
Malta	Categorisation as "serious" is made by the police. Police records
Netherlands*	Hospitalised for at least 24 hours. Police records.
Norway	Very serious injury: Any injury that is life-threatening or results in permanent impairment. Serious injury: Any injury from a list of specific injuries; these would normally require admission to hospital as an in-patient. Police records
Poland	Serious injury: Serious disability, serious disease, a life threatening incurable or chronic disease, permanent mental disease, complete or substantial incapacity to work or a permanent or substantial scarring or disfiguration of the body and injuries such as fractures, damage to internal organs, serious cuts or lacerations. Police records
Portugal*	Hospitalised for at least 24 hours. Police records.
Romania	Injuries requiring hospitalisation or any of the following injuries whether or not they are detained in hospital: Organ injuries, permanent physical or psychological disability, body disfiguration, abortion, fractures, concussions, internal wounds, serious cuts or broken parts, or severe general shock which requires medical care and injuries causing death 30 or more days after the accident. Police records.
Slovakia*	Hospitalised for at least 24 hours. Police records.
Slovenia	Allocation made by the police. Police records
Spain*	Hospitalised for at least 24 hours. Police records
Sweden*	Hospitalised for at least 24 hours. Hospital records
Switzerland*	Hospitalised for at least 24 hours or if the injury prevented the person from doing its daily activity for 24 hours. Police records
UK*	Hospitalised for at least 24 hours or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushing, burns (excluding friction burns), severe cuts and lacerations, severe general shock requiring medical treatment and injuries causing death 30 or more days after the accident. An injured casualty is recorded as seriously or slightly injured by the police on the basis of the information available within a short time of the accident. This generally will not reflect the results of medical examination.

* Group of countries considered as using similar definitions of serious injuries, spending *at least one night in hospital as an in-patient* or a close variant of this. The definition may include also a quite wide list of injuries and the allocation of "serious" is made by the police officer at the scene. Errors in the categorisation cannot be excluded.

	2001	2002	2003	2004	2005	2006	2007	2008
Deaths EU14*	25,719	25,015	246,58	22,34	21,112	19,881	19,468	17,279
SI EU14*	214,13	203,38	196,592	180,626	173,255	166,357	165,678	153,258
Slight injuries EU14	1,052,648	1,023,374	1,003,467	959,947	941,23	923,972	923,849	863,151
Total injuries EU14	1,266,778	1,226,754	1,200,059	1,140,573	1,114,485	1,090,329	1,089,527	1,016,409

Deaths	1	0.97	0.96	0.87	0.82	0.77	0.76	0.67
Serious injuries	1	0.95	0.92	0.84	0.81	0.78	0.77	0.72
Slight Injuries	1	0.97	0.95	0.91	0.89	0.88	0.88	0.82

* Deaths - 14 EU countries considered
* Serious injuries - 14 EU countries considered

Fig. 1: Relative development in deaths, serious and slight injuries in 14 EU countries taken together over the period 2001 to 2008. (2001 = 100%)

Countries considered (Belgium, Cyprus, Czech Republic, Denmark, Germany, Greece, Ireland, Luxembourg, the Netherlands, Portugal, Slovakia, Spain, Sweden and the UK) use a similar definition of serious injuries. Police data except Sweden (hospital data).

Latvia and France are excluded because although they now also use 24 hours as in-patient for serious injuries, they have done so only since 2004.

Country	Code	Change in serious injuries (%)	Change in road deaths (%)	Notes
Latvia	LV	-16.5	-10.2	2004-2008
Slovenia	SI	-12.6	-1.7	
Portugal	PT	-10.3	-8.5	
Ireland	IE	-9.7	-3.8	
Greece	EL	-8.8	-2.8	
Cyprus	CY	-5.9	-1.3	
UK	UK	-5.5	-2.7	
Spain	ES	-5.4	-6.3	
Czech Republic	CZ	-5.3	-2.1	
Denmark	DK	-4.6	-2.8	
Germany	DE	-4.4	-5.9	
Belgium	BE	-4.4	-6.6	
Poland	PL	-3.6	-0.2	
Switzerland	CH	-3.6	-5.8	
Slovakia	SK	-3.4	-0.8	
Israel	IL	-3.3	-5.0	
The Netherlands	NL	-2.9	-5.3	
Austria	AT	-2.9	-4.8	
Luxembourg	LU	-2.6	-9.6	
Norway	NO	-2.3	-2.1	
France	FR	-3.0	-7.3	2005-2008
Sweden	SE	-0.8	-4.0	
Malta	MT	-0.3	-2.5	
Hungary	HU	0.3	-0.6	
Romania	RO	2.4	1.9	
Bulgaria	BG	4.0	-0.1	

EU27**	-4.1	-3.3	
EU16***	-4.7	-4.9	

* Latvia (2004-2008), France (2005-2008).
** EU-22 (EU 27 excluding Estonia, Finland, France, Italy, Latvia and Lithuania).
*** Countries using a similar definition of serious injuries

Fig.2 Average annual percentage change in serious injuries and in deaths over the period 2001 to 2008.

Country	Code	Annual average percentage reduction in road deaths in %	Annual average percentage reduction in serious injuries in %	Difference	Notes
Slovenia	SI	1.7	12.6	10.9	
Latvia	LV	10.2	16.5	6.4	2004-2008
Ireland	IE	3.8	9.7	6.0	
Greece	EL	2.8	8.8	6.0	
Cyprus	CY	1.3	5.9	4.6	
Poland	PL	0.2	3.6	3.5	
Czech Republic	CZ	2.1	5.3	3.2	
UK	UK	2.7	5.5	2.8	
Slovakia	SK	0.8	3.4	2.5	
Denmark	DK	2.8	4.6	1.8	
Portugal	PT	8.5	10.3	1.8	
Norway	NO	2.1	2.3	0.2	
Romania	RO	-1.9	-2.4	-0.5	
Hungary	HU	0.6	-0.3	-0.8	
Spain	ES	6.3	5.4	-0.9	
Germany	DE	5.9	4.4	-1.5	
Israel	IL	5.0	3.3	-1.7	
Austria	AT	4.8	2.9	-1.9	
Malta	MT	2.5	0.3	-2.1	
Belgium	BE	6.6	4.4	-2.2	
Switzerland	CH	5.8	3.6	-2.2	
The Netherlands	NL	5.3	2.9	-2.4	
Sweden	SE	4.0	1.0	-3.0	
Bulgaria	BG	0.1	-4.0	-4.1	
France	FR	7.3	3.0	-4.3	2005-2008
Luxembourg	LU	9.6	2.6	-7.0	

EU27*	3.7	4.2	-0.4	

* EU27 excluding Estonia, Finland, France, Italy, Latvia and Lithuania.

Fig.3 Amount by which the annual average percentage reduction in serious injuries since 2001 exceeds the average annual percentage reduction in road deaths since 2001.

Country	Code	Serious injuries (SI)			Road deaths (K)			SI per K			SI per K
		2006	2007	2008	2006	2007	2008	2006	2007	2008	2006-2008
Sweden*	SE	9,496	9,509	9,276	445	471	397	21	21	21	22
Germany	DE	74,502	75,443	70,644	5,091	4,949	4,477	15	15	16	15
Switzerland	CH	5,066	5,235	4,780	370	384	357	14	14	13	14
The Netherlands	NL	9,051	9,683	9,310	811	791	750	11	12	12	12
UK	UK	28,673	28,871	26,034	3,300	3,056	2,718	9	9	10	9
Sweden	SE	3,959	3,824	3,657	445	471	397	9	8	9	9
France	FR	40,662	38,615	34,965	4,703	4,620	4,275	9	8	8	8
Cyprus	CY	730	717	661	86	89	82	9	8	8	8
Denmark	DK	2,911	3,138	2,831	306	406	406	10	8	7	8
Luxembourg	LU	259	259	350	36	43	35	7	6	10	8
Belgium	BE	7,027	7,051	7,051	1,069	1,067	922	7	7	7	7
Israel	IL	2,305	2,095	2,063	405	382	412	6	5.5	5	5
Spain	ES	21,382	19,295	16,488	4,104	3,823	3,100	5	5	5	5
Czech Republic	CZ	3,883	3,861	3,725	1,063	1,222	1,076	4	3	4	3
Slovakia	SK	2,032	2,036	1,806	579	627	558	3.5	3	3	3
Portugal	PT	3,483	3,116	2,606	969	974	885	4	3	3	3
Ireland	IE	907	860	640	365	338	280	2.5	2.5	2	2
Latvia	LV	630	638	791	407	419	316	1.5	1.5	2.5	2
Greece	EL	2,021	1,839	1,836	1,657	1,612	1,593	1	1	1	1
24h definition countries	EU	215,020	212,261	195,857	25,766	25,273	22,639	8	8	9	9

Fig. 4: Number of seriously injured recorded in national statistics per road deaths. (average of the years 2006-2008), for countries using similar definitions of serious injuries only.

*Hospital data

Country	Code	Serious Injuries (SI)			Road deaths (D)			Population in millions (P)			D per P	SI per P
		2006	2007	2008	2006	2007	2008	2006	2007	2008	2006-2008	2006-2008
Lithuania	LT**	N/A	N/A	N/A	760	739	498	3,403	3,385	3,366	197	N/A
Latvia	LV*	630	638	791	407	419	316	2,295	2,281	2,271	167	300
Greece	EL*	2,021	1,839	1,836	1,657	1,612	1593	11,125	11,172	11,214	145	170
Poland	PL	14,659	16,053	16,042	5,243	5,583	5.437	38,157	38,125	38,116	142	408
Bulgaria	BG	10,215	9,827	9,827	1,043	1,006	1.061	7,719	7,679	7,640	135	1,296
Estonia	EE**	N/A	N/A	N/A	204	196	132	1,345	1,342	1,341	132	N/A
Romania	RO	5,766	7,071	9,380	2,573	2,794	3.063	21,610	21,565	21,529	130	343
Slovenia	SI	1,259	1,295	1,100	262	293	214	2,003	2,010	2,026	127	605
Hungary	HU	8,431	8,155	7,227	1,303	1,232	996	10,077	10,066	10,045	117	789
Cyprus	CY*	730	717	661	86	89	82	766	779	789	110	903
Slovakia	SK*	2,032	2,036	1,806	579	627	558	5,389	5,394	5,401	109	363
Czech Rep.	CZ*	3,883	3,861	3,725	1,063	1,222	1.076	10,251	10,287	10,381	109	371
Belgium	BE*	7,027	7,051	7,051	1,069	1,067	922	10,511	10,585	10,667	96	655
Portugal	PT*	3,483	3,116	2,606	969	974	885	10,570	10,599	10,618	89	290
Italy	IT	119,864	117,306	111,250	5,669	5,131	4.703	58,752	59,131	5,9619	87	1,963
Austria	AT	6,774	7,147	6,783	730	691	679	8,266	8,299	8,332	84	831
Spain	ES*	21,382	19,295	16,488	4,104	3,823	3.100	43,758	44,475	45,283	83	428
Luxembourg	LU	259	259	350	36	43	35	469	476	484	80	607
Ireland	IE*	907	860	640	365	338	280	4,209	4,313	4,401	76	186
France	FR*	40,662	38,615	36,179	4,703	4,620	4.275	61,167	61,538	61,876	74	618
Denmark	DK*	2,911	3,138	2,831	306	406	406	5,427	5,447	5,476	68	543
Finland	FI**	N/A	N/A	N/A	336	380	344	5,256	5,277	5,300	67	N/A
Germany	DE*	74,502	75,443	70,644	5,091	4,949	4.477	82,438	82,315	82,218	59	893
Israel	IL*	2,305	2,095	2,063	405	382	412	7,280	7,282	7,290	55	295
Norway	NO	940	879	867	243	233	255	4,640	4,681	4,737	52	191
UK	UK*	28,673	28,871	26,034	3,300	3,056	2,718	60,426	60,817	61,186	50	458
Switzerland	CH*	5,066	5,235	4,780	370	384	357	7,459	7,509	7,593	49	668
Sweden	SE*	9,496	9,509	9,276	445	471	397	9,048	9,113	9,183	48	1,034
Netherlands	NL*	9,051	9,683	9,310	811	791	750	16,334	16,358	16,405	48	571
Malta	MT	277	246	248	11	14	15	405	408	410	33	630

* Countries using definition of one day in hospital for serious injuries.

** Estonia, Finland, Lithuania or Italy do not collect number of serious injuries, only total injuries. Panellist for Italy estimated that the number of serious injuries represented about 35% of total injuries.

Fig. 5 Killed and seriously injured per million population (average for the years 2006-2008).

Country	Code	2001	2002	2003	2004	2005	2006	2007	2008	Average annual % change
Austria	AT	8,207	8,043	7,984	7,591	6,922	6,774	7,147	6,783	-2.9
Belgium	BE	8,949	8,230	7,978	6,850	7,270	7,027	7,051	7,051*	-4.4
Bulgaria	BG	7,990	8,099	8,488	9,308	10,112	10,215	9,827	9,827*	4.0
Cyprus	CY	1,015	945	900	960	741	730	708	661	-5.9
Czech Republic	CZ	5,378	5,375	5,125	4,711	4,237	3,883	3,861	3,725	-5.3
Denmark	DK	3,946	4,088	3,868	3,561	3,072	2,911	3,138	2,831	-4.6
Estonia	EE		n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A
Finland	FI		n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A
France	FR	*26,192*	*24,091*	*19,207*	*17,435*	39,811	40,662	38,615	34,965	-3.0***
Germany	DE	95,040	88,382	85,577	80,801	76,952	74,502	75,443	70,644	-4.4
Greece	EL	3,238	2,608	2,348	2,395	2,270	2,021	1,839	1,839*	-8.8
Hungary	HU	7,920	8,360	8,299	8,523	8,320	8,431	8,155	7,227	0.3
Ireland	IE	1,417	1,150	1,009	900	1,021	907	860	640****	-9.7
Israel	IL	2,644	2,419	2,416	2,455	2,363	2,305	2,095	2,063	-3.3
Italy	IT	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-2.5
Latvia	LV	n/a	n/a	n/a	1,222	810	630	638	791	-16.5
Lithuania	LT	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	N/A
Luxembourg	LU	328	349	315	238	284	259	259	350	-2.6
Malta	MT	262	314	247	264	257	277	246	248	-0.3
The Netherlands	NL	11,028	11,018	10,596	9,487	9,401	9,051	9,683	9,310	-2.9
Norway	NO	1,043	1,151	994	980	977	940	879	867	-2,3
Poland	PL	19,311	18,831	17,251	17,403	15,790	14,659	16,053	16,042	-3.6
Portugal	PT	5,797	4,770	4,659	4,190	3,762	3,483	3,116	2,606	-10.3
Romania	RO	6,053	5,955	5,581	5,750	5,868	5,766	7,071	9,380	2.4
Slovakia	SK	2,367	2,213	2,163	2,157	1,974	2,032	2,036	1,806	-3.4
Slovenia	SI	2,481	1,561	1,399	1,398	1,292	1,259	1,295	1,100	-12.6
Spain	ES	26,566	26,156	26,305	21,805	21,859	21,382	19,295	16,488	-5.4
Sweden	SE	10,269	10,594	10,754	10,258	10,385	9,496	9,509	9,276	-1.0
Switzerland	CH	6,194	5,931	5,862	5,528	5,059	5,066	5,235	4,780	-3.6
UK	UK	38,792	37,502	34,995	32,313	30,027	28,673	28,871	26,034**	-5.5
EU27 (1)	EU27	260,301	248,588	240,260	225,113	215,948	207,972	208,392	194,488	-4.1
EU14 24h. DEF	EU14	214,835	203,380	196,592	180,626	173,255	166,357	165,669	153,261	-4.7

* 2007 figure used for 2007 and 2008, ** 2008 figure refers to GB only, *** from 2005: hospitalised for at least 24 hours, period 2005-2008 considered, **** provisional data, (1) Excluding FI, FR, IT, EE, LV, LT

Tab.1: Serious injuries - Annual average change in serious injuries since 2001

Country	Code	2001	2002	2003	2004	2005	2006	2007	2008	Average annual % change
Austria	AT	958	956	931	878	768	730	691	679	-4.8
Belgium	BE	1,486	1,306	1,214	1,162	1,089	1,069	1,067	922	-6.6
Bulgaria	BG	1,011	959	960	943	957	1,043	1,006	1,061	-0.1
Cyprus	CY	98	94	97	117	102	86	89	82	-1.3
Czech Rep.	CZ	1,334	1,431	1,447	1,382	1,286	1,063	1,222	1,076	-2.1
Denmark	DK	431	463	432	369	331	306	406	406	-2.8
Estonia	EE	199	223	164	170	169	204	196	132	-3.0
Finland	FI	433	415	379	375	379	336	380	344	-3.5
France	FR	8,162	7,655	6,058	5,530	5,318	4,703	4,620	4,275	-7.3
Germany	DE	6,977	6,842	6,613	5,842	5,361	5,091	4,949	4,477	-5.9
Greece	EL	1,880	1,634	1,605	1,670	1,658	1,657	1,612	1,593	-2.8
Hungary	HU	1,239	1,429	1,326	1,296	1,278	1,303	1,232	996	-0.6
Ireland	IE	411	376	335	374	396	365	338	280	-3.8
Israel	IL	542	525	445	467	437	405	382	412	-5.0
Italy	IT	7,096	6,980	6,563	6,122	5,818	5,669	5,131	4,703	-5.1
Latvia	LV	558	559	532	516	442	407	419	316	-10.2
Lithuania	LT	706	697	709	752	773	760	739	498	-0.9
Luxembourg	LU	69	62	53	49	46	36	43	35	-9.6
Malta	MT	16	16	16	13	17	11	14	15	-2.5
Netherlands	NL	1,083	1,069	1,088	881	817	811	791	750	-5.3
Norway	NO	275	310	280	257	224	243	233	255	-2.1
Poland	PL	5,534	5,827	5,640	5,712	5,444	5,243	5,583	5,437	-0.2
Portugal	PT	1,670	1,668	1,542	1,294	1,247	969	974	885	-8.5
Romania	RO	2,454	2,414	2,232	2,446	2,623	2,573	2,794	3,063	1.9
Slovakia	SK	614	610	645	603	560	579	627	558	-0.8
Slovenia	SI	278	269	242	274	258	262	293	214	-1.7
Spain	ES	5,517	5,347	5,400	4,749	4,442	4,104	3,823	3,100	-6.3
Sweden	SE	551	532	529	480	440	445	471	397	-4.0
Switzerland	CH	544	513	546	510	409	370	384	357	-5.8
UK	UK	3,598	3,581	3,658	3,368	3,337	3,300	3,056	2,718	-2.7
	EU27	37,209	36,885	36,005	33,902	32,457	31,046	31,081	28,744	-3.3
24h. DEF	EU14	25,719	25,015	24,658	22,340	21,112	19,881	19,468	17,279	-4.9

Tab.2: Road deaths - Annual average change in road deaths since 2001