



# STATISTICS IN FOCUS

## Population and social conditions

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### ACCIDENTS AT WORK IN THE EUROPEAN UNION IN 1994

*It is estimated that in 1994 in the EU as a whole there were almost 5 million accidents at work resulting in more than three days' absence, which is much the same as in 1993. This total relates to almost 90% of persons in employment in the Union. Thus, taking together the main branches agriculture, manufacturing, construction, transport, wholesale and retail trade and business activities, an average of 1 worker in 22 was the victim of this type of accident during the year. This figure is about double in the construction, wood and metal industries; it is 35 to 60% higher than the average in transport and communication, agriculture, food and beverages, and the glass, ceramics and construction materials industries.*

*There were 6 423 fatal accidents at work in 1994, or 4 084 if we exclude road traffic accidents during working hours and deaths at work from strictly natural causes. The frequency is 1 fatal accident per 16 000 persons (1 per 26 000 excluding road traffic accidents and natural causes). It is 1 per 7 000 in construction, agriculture and transport and communication, and 1 per 11 000 in the food and beverages industry and the glass, ceramics and construction materials industry.*

In 1994 the number of accidents at work resulting in more than three days' absence in the EU as a whole is estimated at 4 918 066 on the basis of 4 452 789 accident reports. In the same year there were 6 423 fatal accidents at work in the Union. These 1994 European statistics on accidents at work cover 131.9 million persons in employment (Table 1 and text box).

The European average frequency ("Methodological notes") is thus 4 539 accidents at work resulting in more than three days' absence per 100 000 persons in employment. It is 6.1 fatal accidents at work per 100 000 workers (total deaths) and 3.9 excluding road traffic accidents and deaths from strictly natural causes which occurred during working hours (Tables 1 and 2).

#### Accidents at work: improved coverage of European statistics



	1993	1994
<b>Total persons in employment covered by these statistics - in '000 000</b>	<b>124.2</b>	<b>131.9</b>
<b>Branches of activity covered by the data of all the Member States and used to measure the frequency of accidents:</b>	<b>6 common branches</b>	<b>8 common branches</b>
Agriculture, hunting and forestry	<b>NO</b>	<b>YES</b>
Manufacturing	YES	YES
Construction	YES	YES
Wholesale and retail trade and repairs	YES	YES
Hotels and restaurants	YES	YES
Transport, storage and communication	<b>NO</b>	<b>YES</b>
Financial intermediation	YES	YES
Real estate, renting and business activities	YES	YES
<b>Number of persons in employment - in '000 000</b>	<b>77.5</b>	<b>91.5</b>

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**Table 1: Accidents at work in the EU in 1994 by type of activity**

NACE Rev. 1 section/subsection	Persons in employment in '000	Accidents with more than 3 days' absence			Fatal accidents <sup>2</sup>		
		Estimated number	Number per 100 000 persons in employment		Number	Number per 100 000 persons in employment	
			1994	1993 (revised data <sup>1</sup> )		1994	1993 (revised data <sup>1</sup> )
D Manufacturing of which <sup>3</sup> :	30 147	1 515 556	5 071	5 001	1 330	4.6	5.0
Manufacture of food products; beverages and tobacco	2 947	215 798	7 360	:	257	9.2	:
Manufacture of wood and wood products	1 203	105 051	8 852	:	56	4.8	:
Manufacture of other non-metallic mineral products (glass, ceramics, construction materials)	1 117	72 155	6 518	:	99	9.1	:
Manufacture of basic metals and fabricated metal products	4 263	365 537	8 650	:	259	6.2	:
F: Construction	10 249	858 129	9 014	9 463	1 457	14.7	15.9
G: Wholesale and retail trade and repairs	19 549	487 656	2 552	2 494	519	2.8	3.3
H: Hotels and restaurants	4 650	179 489	4 121	3 969	82	1.9	2.3
J: Financial intermediation + K: Real estate, renting and business activities	14 270	225 828	1 638	1 496	298	2.2	2.2
<b>Total 6 common branches (1993 and 1994)</b>	<b>78 865</b>	<b>3 266 658</b>	<b>4 259</b>	<b>4 254</b>	<b>3 686</b>	<b>4.9</b>	<b>5.3</b>
A Agriculture, hunting and forestry	5 613	348 309	6 496	:	770	14.0	:
I: Transport, storage and communication	7 003	421 133	6 139	:	917	13.7	:
<b>Total 8 common branches (1994)</b>	<b>91 480</b>	<b>4 036 100</b>	<b>4 539</b>	:	<b>5 373</b>	<b>6.1</b>	:
<i>of which fatal accidents excluding road traffic accidents and natural causes</i>					<b>3 413</b>	<b>3.9</b>	:
Others and unspecified	40 376	881 966			1 050		
<b>Total all branches of activity</b>	<b>131 856</b>	<b>4 918 066</b>			<b>6 423</b>		
<i>of which fatal accidents excluding road traffic accidents and natural causes</i>					<b>4 084</b>		

<sup>1</sup> Frequency of accidents in 1993 adjusted since the previous publication in the light of additional information supplied by the Member States.

<sup>2</sup> Including road traffic accidents and deaths from natural causes - see page 4.

<sup>3</sup> Numbers and frequencies excluding Austria and Portugal.

### High-risk branches: construction, agriculture, transport and part of the manufacturing industry

The construction industry has the highest frequency of accidents resulting in more than three days' absence: 9 014 per 100 000, almost double the average. It is also higher than the average in the following industries: wood (8 852), basic metals and fabricated metal products (8 650), food and beverages (7 360), glass, ceramics and construction materials (6 518), agriculture (6 496) and transport (6 139) (Table 1).

Fatal accidents at work (including road traffic accidents and natural causes) are over twice as frequent as the overall average in construction (14.7), agriculture (14.0) and transport (13.7). Their frequency is relatively high in the food and beverages industry (9.2) and glass, ceramics and construction materials (9.1) industry (Table 1).

The frequency of fatal accidents at work (excluding road traffic accidents and natural causes) ranges from 2 to 10 per 100 000 from the north to the south of Europe (Table 2).

Caution is called for when comparing the 1993 and 1994 results (6 common branches) and considering the frequencies by Member State, since the methodology is being introduced gradually in the various countries.

### Men are more likely to be injured ...

Men are three times more likely to have an accident than women, and ten times more likely to have a fatal accident: 5 960 accidents resulting in more than three days' absence and 8.2 deaths per 100 000 (including road traffic accidents and natural causes) compared with 1 936 and 0.8 respectively for women (Table 3). This result is a function of men's jobs and sectors of activity, which are more high-risk than those of women. There are also relatively more women who work part-time, thus reducing their exposure to risk.

### ... as are young people

The frequency of accidents resulting in more than three days' absence decreases with age: 5 802 accidents per 100 000 for the under-26 age group, 4 374 for the 26-45 group and 3 952 for the 46-65 group (Table 3). This result cannot be explained by the economic activity, which means that there is definitely a higher risk of accidents at work for young people, since the under-26 age group represents 12 to 18% of workers in high-risk branches (agriculture, manufacturing, construction and transport). In contrast, the proportion of young people under 26 is highest in wholesale and retail trade and repairs, and hotels and restaurants (22% and 29%), which are fairly low-risk activities in terms of accidents at work.

**Table 2: Accidents at work in the EU in 1994 - 8 common branches of activity**


	Persons in employment in '000 a	Accidents at work with more than three days' absence				Fatal accidents at work excl. road traffic accidents and deaths from natural causes	
		Number of accidents reported b	Average reporting level (%) c	Estimated number of accidents d = b / c%	Standardised number per 100 000 persons in employment = (d / a) x 100 000 then standardisation (see page 4)	Number e	Standardised number per 100 000 persons in employment = (e / a) x 100 000 then standardisation (see page 4)
EU-15	91 480	3 675 056	91.1	4 036 100	4 539	3 413	3.9
B	1 884	80 062	100	80 062	4 415	94	6.0
DK	1 610	23 174	56.4	41 114	2 653	44	2.8
D	24 438	1 409 070	100	1 409 070	5 583	910	3.7
EL	1 140	18 920	<sup>2</sup>	45 048	3 702	52	4.3
E	7 400	425 903	100	425 903	6 166	489	7.0
F	11 086	578 465	100	578 465	5 515	427	4.3
IRL	850	3 079	46.3	6 643	852	44	3.9
I	13 949	629 962	<sup>2</sup>	650 782	4 641	709	5.3
L	116	8 034	100	8 034	7 269	8	.
NL <sup>1</sup>	3 698	25 468	<sup>2</sup>	153 380	4 287	14	.
A	2 695	137 294	100	137 294	5 259	103	3.4
P	2 138	170 114	100	170 114	7 361	194	9.7
FIN	1 157	42 349	100	42 349	3 914	42	3.6
S	2 518	17 266	<sup>2</sup>	28 906	1 123	59	2.1
UK	16 800	105 896	40.9	258 936	1 915	224	1.7

<sup>1</sup> Netherlands, deaths: partial coverage and only deaths at the scene of the accident.

<sup>2</sup> Greece, Netherlands and Sweden: 0 to 30%, 30 to 70% or 70 to 100% depending on branch; Italy: 100% except self-employed in the craft sector (80%).

However, the frequency of fatal accidents increases considerably with age: 3.8 for the under-26 group, 4.7 for the 26-45 group and 8.3 for the 46-65 group (Table 3). The inclusion by some countries of deaths at work from natural causes, the frequency of which increases with age, partly explains why there were 373 such deaths in 1994. Unlike accidents resulting in absence, the economic activity is also a factor in this age-related pattern of fatal accidents at work: 47% of workers in agriculture are over 45 and 28-31% in the other branches with a high risk of fatal accidents (construction, transport and, to a lesser extent, manufacturing). They represent only 22-26% in the other common sectors of activity (29% on average in the eight branches).

Other factors such as the workstations occupied, experience and age-related patterns of behaviour and vigilance may also have an effect on the risk of accidents at work. Another reason might be that older workers have a higher mortality rate than younger ones suffering the same degree of injury.

#### Injuries: mainly hands

Lastly, it can be seen that in 1994 as in 1993 two-thirds of injuries were to limbs, of which a third were to the hands, but that three-quarters of fatal accidents were due to injuries to the whole body or to the head or torso (Table 3).

**Table 3: Accidents at work in the EU in 1994 by sex, age and part of body injured**  
**All branches of activity**


	Accidents with more than 3 days' absence			Fatal accidents at work <sup>2</sup>		
	Estimated number	% of the total number	Number per 100 000 persons in employment <sup>1</sup>	Number	% of the total number	Number per 100 000 persons in employment <sup>1</sup>
Men	3 845 114	78.2	5 960	5 549	86.4	8.2
Women	903 196	18.4	1 936	400	6.2	0.8
Unspecified (including the Netherlands)	169 756	3.5		474	7.4 <sup>3</sup>	
Under 26 years	1 109 327	22.6	5 802	678	10.6	3.8
26 - 45 years	2 537 326	51.6	4 374	2 639	41.1	4.7
46 - 65 years	1 202 320	24.4	3 952	2 416	37.6	8.3
Over 65 years	27 797	0.6	3 307	195	3.0	17.6
Age unspecified	41 296	0.8		495	7.7 <sup>3</sup>	
Whole body	138 104	2.8		1 923	29.9	
Head, neck <sup>4</sup>	848 836	17.3		1 809	28.2	
Torso <sup>5</sup>	345 133	7.0		954	14.9	
Upper limbs of which hands, fingers	2 077 833 1 567 474	42.2 31.9		Total of all other parts of body injured and part not specified:		
Lower limbs	1 366 178	27.8				
Unspecified	141 982	2.9		1 737	27.0	
Total	4 918 066	100.0	4 539	6 423	100.0	6.1

<sup>1</sup> 8 common branches.

<sup>2</sup> Including road traffic accidents and deaths from strictly natural causes - see page 4.

<sup>3</sup> Includes certain road traffic accidents.

<sup>4</sup> Includes eyes, nose, mouth, ears and spine.

<sup>5</sup> Ribcage, abdomen and associated organs.

## METHODOLOGICAL NOTES

### Definitions

European Statistics on **Accidents at Work** cover **accidents at work resulting in more than three days' absence** and **accidents resulting in the death of the victim**. Although they are compiled mainly from national administrative sources, the concepts and definitions are **harmonised**, in accordance with Council Directive N° 89/391/EEC of 12 June 1989 (improvements in the safety and health of workers at work). These statistics include accidents caused by third parties, road traffic accidents during working hours and acute poisonings, but not accidents on the way from home to work or occupational diseases. They are compiled in cooperation with Directorate-General V (Employment, Industrial Relations and Social Affairs).

**The reporting level** is the number of accidents reported as a percentage of those that actually occurred. The 9 Member States in which it is compulsory to report accidents at work in order to qualify for treatment under social security or insurance schemes record all accidents at work with more than three days' absence. In contrast, they are only partly recorded in Denmark, Greece, Ireland, the Netherlands, Sweden and the United Kingdom. For these 6 countries, Eurostat calculates the **actual** number of accidents: the **estimated number** of accidents with more than three days' absence is the number of accidents reported adjusted by the reporting level below 100%.

**Frequency** is the (actual) **number of accidents at work per 100 000 persons in employment**. For 1994 the frequencies are calculated only for the 8 branches of activity (NACE Rev. 1 sections) covered by all 15 countries: agriculture, hunting and forestry - manufacturing - construction - wholesale and retail trade and repairs - hotels and restaurants - transport and communication - financial intermediation - real estate, renting and business activities. However, the coverage is not yet complete for agriculture and transport: non-wage earners (the self-employed, family workers etc.) in agriculture and rail, sea and air transport are not covered everywhere. The frequency for Europe as a whole is calculated excluding the self-employed, employers and family workers in the United Kingdom (accidents with more than three days' absence) and excluding the Netherlands (deaths). Moreover, the structure of a country's activities influences its total frequency. To correct this effect, a **"standardised" number of accidents at work per 100 000 persons in employment** is calculated per Member State by giving each branch the same weight at national level as in the European Union total.

For **fatal accidents**, the results by Member State (numbers and frequencies) do not include road traffic accidents during working hours (e.g. lorry drivers, business journeys), which are recorded as accidents at work by only 13 countries. Similarly, they do not include deaths **from strictly natural causes** during working hours (e.g. heart attacks), which are included only by Spain and France. In contrast, all deaths are taken into account in the European-level study.

### Field covered

Ultimately, all persons in employment are covered: wage and salary earners, employers, the self-employed and family workers in all branches of activity. Source for the reference population: **Eurostat Labour Force Survey** 1994, except Austria, Finland and Sweden: 1995; Spain: members of the social security scheme.

#### **Accidents at work - field actually covered in 1994 - special features of the national data:**

Belgium, Greece, France, the Netherlands and Portugal: employers, the self-employed and family workers are not covered (including agriculture); Spain and Finland: covered only in agriculture (and fishing, NACE Section B, in Spain).

France, Italy and United Kingdom: rail transport not covered; Denmark, Greece, France and the United Kingdom: sea transport not covered; Denmark, Italy, the Netherlands and the United Kingdom: air transport not covered; Portugal: repairs are included in NACE Rev. 1 "Others", and hotels and restaurants in Section G; Ireland and the United Kingdom: excluding road traffic accidents and Northern Ireland.

#### **Numbers of accidents with more than three days' absence - national specificity in 1994:**

Germany: excluding road traffic accidents; Luxembourg: 50% x number of accidents (including accidents without absence or with 1 to 3 days' absence); the Netherlands and Austria: including accidents with 1 to 3 days' absence; Portugal: 70% x number of accidents with one or more days' absence.

**Publications:** - "Methodology for the harmonisation of European Statistics on Accidents at Work" - Eurostat and Directorate-General for Employment, Industrial Relations and Social Affairs - 1992 - ISBN 92-826-4100-7 .  
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