

ACCIDENTS AT WORK IN THE EUROPEAN UNION IN 1993

INITIAL RESULTS

Among 120 million people employed in the 15 Member States of the European Union, an estimated five million of these sustained an accident at work leading to an absence of more than three days in 1993. That same year, a further 5 977 accidents at work led to the death of the victim.

Taking together manufacturing, construction, wholesale and retail trade, repairs, hotels and restaurants, financial intermediation and real estate, renting and business activities, an average of almost 1 person in 20 per year was the victim of an accident leading to an absence of more than three days. This figure is almost double in the construction industry.

Men and young persons under the age of 26 are most often involved in these accidents, the figure for 1993 being around 1 in 17. However, fatal accidents at work are more frequent amongst older employees, with 8.9 fatalities per 100 000 persons aged 45 to 65, as opposed to 6.1 for all ages together.

The data given here constitute the initial findings of European Statistics on Accidents at Work, which will henceforth be compiled annually.

EUROPEAN STATISTICS ON ACCIDENTS AT WORK

The Framework Directive of 12 June 1989 on health and safety at work stipulates that all employers must keep lists of accidents at work leading to an absence of more than three days. On this basis, Eurostat and DG V (Employment, Industrial Relations and Social Affairs) have compiled European Statistics on Accidents at Work. These cover **accidents at work leading to an absence of more than three days** as well as **accidents leading to the death of the victim**.

THE PROCEDURE

The 1993 statistics cover a total of 122.4 million employees, or just over 80% of those in work in the European Union as a whole. From within this population, a total of 4 319 213 accidents at work leading to an absence of more than three days were notified in 1993.

Nine Member States consider their accident notification systems to be exhaustive. For Denmark, Ireland, the Netherlands, Sweden and the United Kingdom, only a portion of non-fatal work accidents are notified to the relevant authorities. These five countries estimate the percentage of accidents notified. The notification rate is not available for Greece.

Eurostat uses all these data to calculate the actual number of accidents (cf. p. 4: "Methodological Notes"). The mean actual number of accidents leading to an absence of more than three days was thus estimated at 4 800 947 for the EU as a whole in 1993 (cf. Table 2), giving an overall European notification rate of 90% (4 319 213 / 4 800 947). Estimates of the number and incidence of accidents in Europe have been used to draw up the results shown in Tables 2, 3 and 4.

Although not all areas of economic activity are covered by the 1993 data for all countries, six main branches are common to the data (cf. "Methodological Notes" below). European accident incidences are thus measured for a common field of 74.9 million workers, and comparability is good for branch of activity, age and sex. Comparisons between Member States, by contrast, call for the greatest caution (cf. Table 1).

RESULTS

In 1993, the overall European incidence rate was 4 505 accidents at work leading to an absence of more than three days per 100 000 persons employed in the six main common branches (mean estimated rate). Furthermore, 5 977 work accidents led to the death of the victim (all branches), i.e., 6.1 fatal accidents per 100 000 persons in employment (6 branches).

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**Table 1: Accidents at work leading to an absence of more than 3 days in the EU
6 major common branches**



Member State	Persons in employment in '000 (a)	Number of accidents notified (b)	Mean notification rate estimated by the Member State (1)		Mean estimated number of accidents (1) (d) = (b) / (c %)	standardized incidence rate (1) (2) = {(d) / (a)} x 100 000 then standardized
			(c)	(%)		
EUR 15	74 885					4 505
B	1 641	73 197	100		73 197	4 516
DK	1 308	16 082	58		27 871	2 238
D	19 465	1 076 344	100		1 076 344	5 031
EL	1 027	22 608 (3)	(3)			
E	5 222	374 853	100		374 853	7 005
F	10 345	516 517	100		516 517	5 194
IRL	644	2 646	39		6 831	1 168
I	12 075	486 073	100 (4)		569 055 (4)	4 782
L	100	7 068	100		7 068	7 465
NL	3 209	43 452	30		144 840	4 849
A	2 185	100 965	100		100 965	4 621
P	1 941	200 169	100		200 169	9 532
FIN	875	34 600	100		34 600	4 172
S	2 114	14 404	(5)		21 511	1 054
UK	12 734	80 722	40		202 142	1 697

(1) Cf. definitions and methods, p.4; (2) The greatest caution should be exercised when comparing national incidence rates (p.4).

(3) Greece: number of accidents (all branches) and notification rate not forwarded.

(4) Italy: the reporting rate is estimated at 80% for the craft professions; Sweden: 30% - 100% depending on the branch.

INCIDENCE OF ACCIDENTS VARIES ACCORDING TO ACTIVITY

Construction has the highest incidence rate at 9 885, or 2.2 times the overall rate. This corresponds to 905 004 accidents (estimated rate and mean number). Next comes manufacturing, with a rate of 5 054 on the basis of 1 526 084 accidents. Incidences for the other branches are lower than the overall incidence. Accidents are of a particularly serious nature in construction,

the incidence rate for accidents leading to the death of the victim being 17.0 (1 395 fatalities), almost 3 times higher than the overall rate (cf. Table 2).

Furthermore, of the branches not yet completely covered by the 1993 data, transport and communications already account for 8.9% of the total number of accidents forwarded to Eurostat (426 103 estimated mean number of accidents) and 15.1% of fatal accidents (903). Agriculture accounts for 7.4% of fatal accidents (441).

Table 2: Accidents at work in 1993 in the EU, by branch of activity



NACE Rev.1 sections	Work accidents with more than 3 days' absence			Fatal work accidents		
	mean estimated number (1)	% of total number	incidence rate mean estimate (1)	number	% of total number	incidence rate (1)
D : manufacturing	1 526 084	31.8	5 054	1 279	21.4	5.0
F : construction	905 004	18.9	9 885	1 395	23.3	17.0
G+H : wholesale and retail trade and + hotels and restaurants	640 411	13.3	2 868	588	9.8	3.3
J+K : financial intermediation + real estate, renting and business activities	201 334	4.2	1 827	272	4.6	3.5
D+F+G+H+J+K aggregate (2)	100 965	2.1		219	3.7	
total 6 common branches D+F+G+H+J+K	3 373 798	70.3	4 505	3 753	62.8	6.1
A : agriculture	242 133	5.0		441	7.4	
I : transport and communication	426 103	8.9		903	15.1	
other and unspecified (incl. (2))	758 913	15.8		880	14.7	
total all NACE sections	4 800 947	100.0		5 977	100.0	

(1) cf. definitions and methods, p. 4

(2) Austria (aggregate data, cf. p.4)

MEN INVOLVED IN ACCIDENTS MORE FREQUENTLY

Men are more frequently involved in accidents at the place of work, either because they are in high-risk jobs, or because their actions place them at greater risk. The incidence rate in 1993 was 5 936, or 78.7% of the total

number of accidents leading to an absence of more than three days. By contrast, 17.4% of accidents involved women, an incidence rate over 3 times lower than that of men at 1 881. For 3.9% of accidents, the sex of the victim was not specified (cf. Table 3).

Although relatively more women work part time, which reduces exposure to risk, this only partly explains the disparity between men and women.

The disparity is even more marked in the case of fatal accidents: their incidence rate in 1993 was 8.7 for men (5 598 fatalities) compared with 0.9 (328 fatalities) for women.

Table 3: Work accidents in 1993 in the EU, by sex and age group



	Work accidents with more than 3 days' absence			Fatal work accidents		
	mean estimated number (1), all branches	% of total number, all branches	incidence rate mean estimate (1) 6 common branches	number, all branches	% of total number, all branches	incidence rate (1), 6 common branches
men	3 778 795	78.7	5 936	5 598	93.7	8.7
women	835 655	17.4	1 881	328	5.5	0.9
unspecified	186 497	3.9		51	0.9	
total	4 800 947	100.0	4 505	5 977	100.0	6.1
< 26 years	1 110 981	23.1	5 830	622	10.4	3.6
26 - 45 years	2 416 831	50.3	4 290	2 618	43.8	5.1
46 - 65 years	1 155 926	24.1	3 841	2 340	39.2	8.9
> 65 years	49 014	1.0	3 609	164	2.7	17.5
unspecified	68 195	1.4		233	3.9	
total	4 800 947	100.0	4 505	5 977	100.0	6.1

(1) Cf. definitions and methods, p. 4

Incidence rate drawn up only for the 6 branches of activity common to data from 15 Member States

ACCIDENT SERIOUSNESS INCREASES WITH AGE

Workers under the age of 26 are most frequently involved in accidents at the workplace, either because they are in high-risk jobs or because their actions or lack of experience place them at greater risk: the incidence rate for accidents leading to an absence of more than three days for this age group was 5 830 per 100 000 in 1993 (cf. Table 3).

The incidence rate declines steadily with age: 4 290 for 26-45 year-olds and 3 841 for 46-65 year-olds.

By contrast, the seriousness of accidents increases with age: the incidence of fatal accidents at work is 3.6 for the under-26 age-group (622 fatalities), 5.1 for 26-45 year-olds (2 618 fatalities) and 8.9 for 46-65 year-olds (2 340 fatalities).

MOST EXPOSED PARTS OF THE BODY

In 1993, injuries sustained from accidents at work leading to an absence of more than three days could be classified as follows: 40% to the upper limbs (1 917 849 accidents) - 29% of which were to the hands or fingers (1 407 112 accidents) - 27% to the lower limbs (almost half of which were to the feet) and 16% to the head

(including eyes, nose, mouth and ears), neck or spine (cf. Table 4).

For fatal accidents, 32% of injuries were to the whole body (1 912 fatalities), 29% to the head, neck and spine (1 746 fatalities) and 17% to the ribcage and abdomen (1 004 fatalities).

Table 4: number of accidents at work in 1993 in the EU, by part of body injured - all branches of activity



	Work accidents with more than 3 days' absence		Fatal work accidents	
	mean estimated number (1)	% of total number	number	% of total number
whole body	120.183	2.5	1.912	32.0
head (2), neck, spine	780.259	16.3	1.746	29.2
ribcage, abdomen and associated organs	340.237	7.1	1.004	16.8
shoulders, arms, elbows, wrists, hands, fingers	510.737	10.6		total
<i>total upper limbs</i>	<i>1.407.112</i>	<i>29.3</i>		
hips, legs, knees, ankles, feet	663.312	13.8		other parts
<i>total lower limbs</i>	<i>609.740</i>	<i>12.7</i>		of body injured
unspecified (of which (3))	369.367	7.7	1.315	but not specified:
total	4.800.947	100.0	5.977	100.0

(1) cf. Definitions and methods, p.4; (2) includes eyes, nose, mouth, ears; (3) Austria (aggregate data)

Methodological notes

DEFINITIONS

European Statistics on **Accidents at Work** include accidents caused by third parties, road traffic accidents during working time and acute poisonings, but they exclude commuting accidents between home and the place of work as well as occupational diseases.

The **incidence rate** is the number of accidents at work per 100 000 persons in employment. Even taking account of working time (length of working day, part-time work, etc.), and thus risk exposure, this would not change the findings of the analysis for the European total. It might, however, alter some of the disparities between Member States. Rates are calculated for 1993 only for six major branches of economic activity (NACE Rev. 1 sections) covered by the data in all 15 countries: manufacturing, construction, wholesale and retail trade and repairs, hotels and restaurants, financial intermediation, real estate, renting and business activities. However, the pattern of activities in a given country affects the value of its total incidence rate. To correct for this, a "**standardized rate**" is calculated for each Member State by giving each of the main branches the same weighting at national level as in the European Union total.

The **notification rate** is the number of accidents notified as a percentage of those that actually occurred. Thanks to existing administrative sources, particularly the statutory notification for direct billing to the Social Security or Insurance Scheme, nine Member States already have records of all work accidents. By contrast, there are only partial records of work accidents leading to an absence of more than three days in the Netherlands, Ireland, the United Kingdom, Denmark and Sweden (rates varied from 30% to 58% in 1993). **Methods for evaluating the notification rate are defined at national level and are not identical for these five Member States.** No notification rate is available for Greece. A variation of a few percentage points in the evaluated rate has a major impact on estimated values. In order to obtain the real estimated number, the number of cases notified is divided by the notification rate.

The **mean estimated number** of accidents leading to an absence of more than three days (for a given country, branch of activity or profession) is the number of notified accidents corrected by an evaluated notification rate where this is less than 100%. The estimated number of accidents is taken into account when calculating the **mean estimated incidence** and European totals. A clear distinction must be made between the **two co-existing systems**, viz. exhaustive declaration or partial declaration supplemented by estimation of the real values.

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** (1993 survey, except for Austria, Finland and Sweden, 1995 survey).

Accidents at work leading to an absence of more than three days - field actually covered by 1993 data, and specific comments regarding certain Member States:

In general, the public administration, education and health and social work sectors (NACE Rev. 1 L to N) are partially covered, as are employers, the self-employed and family workers (also applies to fatal accidents);

Belgium: provisional number of accidents for the 6 major common branches;

Germany: agriculture NACE Rev.1 A not included (also applies to fatal accidents);

Greece: 1994 data for all branches (also applies to fatal accidents);

France: 1993 data, except for agriculture NACE Rev.1 A, 1994 data (also applies to fatal accidents);

Luxembourg: 1/2 x total number of accidents (including accidents not leading to absence, or leading to 1-3 days' absence);

Netherlands and Austria: includes accidents resulting in 1-3 days' absence;

Austria: total number of accidents only available, but broken down by age and sex; number of accidents for the 6 major common branches is evaluated in proportion to the number of workers (also applies to fatal accidents);

Portugal: repairs not included in NACE Rev. 1 section G but in "others" (also applies to fatal accidents);

United Kingdom: excluding Northern Ireland and road traffic accidents during working hours; the resulting under-evaluation has little impact on accidents with more than three days' absence, but a much greater impact on the number of fatalities.

PUBLICATIONS

"Methodology for the harmonization of European Occupational Accident Statistics" - Eurostat and Directorate-General for Employment, Industrial Relations and Social Affairs - 1992 - ISBN 92-826-4100-7 .

European Statistics on Accidents at Work will be published annually. 1994 results will appear in 1997.

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