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Work and health in the EU

A statistical portrait

Data 1994–2002

3

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1 Additional detailed data tables are available in: http://forum.europa.eu.int/Public/irc/dsis/hasaw/library

Work and health in the EU: A statistical portrait

This publication has been managed by Unit D6 of Eurostat, responsible for health and food safety statistics, Head of Unit, Ms. Marleen De Smedt. The opinions expressed are those of the individual authors alone and do not necessarily reflect the position of the European Commission.

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A great deal of additional information on statistics relating to the European Union is available on the Internet. It can be accessed through the Europa server at:

http://europa.eu.int/comm/eurostat.

More information concerning health and safety at work is available on the Directorate-General for Employment and Social Affairs web-site at:

http://www.europa.eu.int/comm/employment_social.

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Introduction

This report is a statistical portrait of health and safety at work in the European Union. It presents a general picture of the working life including characteristics of the European labour force and overall importance of ill-health due to work-related factors. Specific chapters address risk factors and outcomes of safety at work, work-related diseases and some psycho-social problems.

Health and safety at work constitutes one of the European Union's most detailed and most important social policy sectors. A new Community strategy on health and safety at work 2002-2006 was defined by the Commission Communication COM(2002) 118 final and the consequent Council Resolution 2002/C 161/01. It was supported by the European Parliament resolution (EP Texts adopted 23/10/2002).

As a European statistical portrait on the topic this publication does not intend to be comprehensive, in the sense of attempting to cover all aspects of health and safety at work. Instead, topics have been selected which are both important and for which reliable enough statistical data exist at the level of the European Union. Both the above mentioned Commission Communication and the Council Resolution urge the Commission and the Member States to step up ongoing work on the harmonisation of occupational accident and illness statistics. It is also stated that these should not only cover recognised occupational accidents and illnesses, but also introduce some quantifiable elements relating to working environment factors which are likely to cause the problems. Harmonised statistics could be used as indicators in monitoring the effectiveness of the strategy.

Despite current efforts to harmonise statistical data collection on health and safety at work topics, only a few sources of data could provide European Union level statistics for this publication. Notably:

1. The Labour Force Survey (Eurostat)

2. The Third European Survey on Working Conditions (European Foundation for Improvement of Living and Working Conditions)

3. European Statistics on Accidents at Work (Eurostat)

4. The 1999 Labour Force Survey Ad hoc module on Accidents at work and work-related health problems (Eurostat).

For each of the above sources, detailed statistical analyses have already been published. Such detailed results are not covered by this report as the focus is on the general statistical portrait of health and safety at work. In addition to the above sources, some

complementary statistical information is presented, especially concerning recognised occupational diseases and survey data on chronic disability due to work-related causes. For each of the above sources, the most recent data available were used, i.e. 2002 for the Labour Force Survey, 2000 for the Survey on Working Conditions, 2001 and 2000 for accidents at work, 1999 for work-related health problems, 2001 for occupational diseases and 2002 for chronic disability. For analysis of time trends, the earliest data available concerned the time around the previous enlargement of the EU, i.e. either 1994 or 1995.

Statistics from these sources were sometimes complemented by other statistical information or results of scientific studies or surveys, but the above data sources are the core sources of information used in this publication. The focus is on the European Union level figures, and national data are only occasionally presented. Data of acceding and candidate countries of the EU are not included except for the structural indicators on accidents at work (see Annex tables A.13 and A.15). For these countries data are, however, available elsewhere, for example in the Labour Force Survey and more recently in the Working Condition survey of the year 2001[2].

The aim of this report is to describe the situation in statistical terms. It is beyond the scope and possibilities of this report to make causal inferences on the topic or to propose preventive actions. Nevertheless it constitutes the first joint analysis of the various European statistical data sources on Health and Safety at work and is expected to provide useful added value for policy monitoring and identification of preventive needs.

Acknowledgements

Directorate General Employment and Social Affairs, unit D4 Health, safety and hygiene at work has provided remarkable technical support in the development of this publication.

The authors thank the European Foundation for Improvement of Living and Working Conditions for the permission to use and analyse the original data of the Third European Survey on Working Conditions.

2 http://www.eurofound.ie/publications/publications.htm

Abbreviations

EODS	European Occupational Disease Statistics
ESAW	European Statistics on Accidents at Work
ESWC	Third European Survey of Working Conditions
ISCO	The International Standard Classification of Occupations
LFS	Labour Force Survey
NACE	Nomenclature statistique des activités économiques dans la Communauté européenne (Statistical Classification of Economic Activities in the European Community)

Symbols

.	Not applicable or not statistically significant
:	Not available
*	Provisional or estimated data
%	Percent
0	Real zero or close to zero (i.e. zero to the first significant figure or decimal place)

Country codes

Country aggregates

EU	European Union
EU-15	Fifteen Member States of the European Union
EU-25[3]	EU-15 plus Acceding countries (see next page)
EUR-12	Euro-zone (Belgium, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland); for ESAW, Greece has been included in the Euro-zone data from 1997 reference year
EU-12	An abbreviation used in connection with EODS data for the 12 Member States which provided data (Belgium, Denmark, Spain, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden and the United Kingdom)
EU-10	An abbreviation used in connection with Commuting accidents for the 10 Member States which provided data (Belgium, Germany, Greece, Spain, France, Italy, Luxembourg, Austria, Finland and Sweden)
EU-11+HU	An abbreviation used in connection with the 1999 LFS ad hoc module for the countries which provided data (Denmark, Germany, Greece, Spain, Ireland, Italy, Luxembourg, Portugal, Finland, Sweden, the United Kingdom and Hungary)
EU-15+NO	An abbreviation used in some ESAW data (EU-15 and Norway)

EU Member States

BE	Belgium
DK	Denmark
DE	Germany
EL	Greece
ES	Spain
FR	France
IE	Ireland
IT	Italy
LU	Luxembourg
NL	Netherlands

3 The acceding country codes and the EU-25 code are used in the Annex tables A.13 and A.15, except for Hungary, which code is also used for the 1999 LFS ad hoc module.

AT	Austria
PT	Portugal
FI	Finland
SE	Sweden
UK	United Kingdom

Acceding countries[3]

CZ	Czech Republic
EE	Estonia
CY	Cyprus
LV	Latvia
LT	Lithuania
HU	Hungary
MT	Malta
PL	Poland
SI	Slovenia
SK	Slovak Republic

Candidate countries[4]

BG	Bulgaria
RO	Romania
TR	Turkey

Other countries

NO	Norway

4 The candidate country codes are used in the Annex tables A.13 and A.15.

Classifications

Statistical Classification of Economic Activities (NACE Rev. 1)

Code	Economic activity
Section A	**Agriculture, hunting and forestry**
01	Agriculture, hunting and related service activities
02	Forestry, logging and related service activities
Section B	**Fishing**
05	Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing
Section C	**Mining and quarrying**
10	Mining of coal and lignite; extraction of peat
11	Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying
12	Mining of uranium and thorium ores
13	Mining of metal ores
14	Other mining and quarrying
Section D	**Manufacturing**
15	Manufacture of food products and beverages
16	Manufacture of tobacco products
17	Manufacture of textiles
18	Manufacture of wearing apparel; dressing and dyeing of fur
19	Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
20	Manufacture of wood and products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
21	Manufacture of pulp, paper and paper products
22	Publishing, printing and reproduction of recorded media
23	Manufacture of coke, refined petroleum products and nuclear fuel
24	Manufacture of chemicals and chemical products
25	Manufacture of rubber and plastic products
26	Manufacture of other non-metallic mineral products
27	Manufacture of basic metals

28	Manufacture of fabricated metal products, except machinery and equipment
29	Manufacture of machinery and equipment n.e.c.[5]
30	Manufacture of electrical and optical equipment
31	Manufacture of electrical machinery and apparatus n.e.c.[5]
32	Manufacture of radio, television and communication equipment and apparatus
33	Manufacture of medical, precision and optical instruments, watches and clocks
34	Manufacture of motor vehicles, trailers and semi-trailers
35	Manufacture of other transport equipment
36	Manufacture of furniture; manufacturing n.e.c.[5]
37	Recycling
Section E	**Electricity, gas and water supply**
40	Electricity, gas, steam and hot water supply
41	Collection, purification and distribution of water
Section F	**Construction**
45	Construction
Section G	**Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods**
50	Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
51	Wholesale trade and commission trade, except of motor vehicles and motorcycles
52	Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
Section H	**Hotels and restaurants**
55	Hotels and restaurants
Section I	**Transport, storage and communication**
60	Land transport; transport via pipelines
61	Water transport
62	Air transport
63	Supporting and auxiliary transport activities; activities of travel agencies
64	Post and telecommunications
Section J	**Financial intermediation**

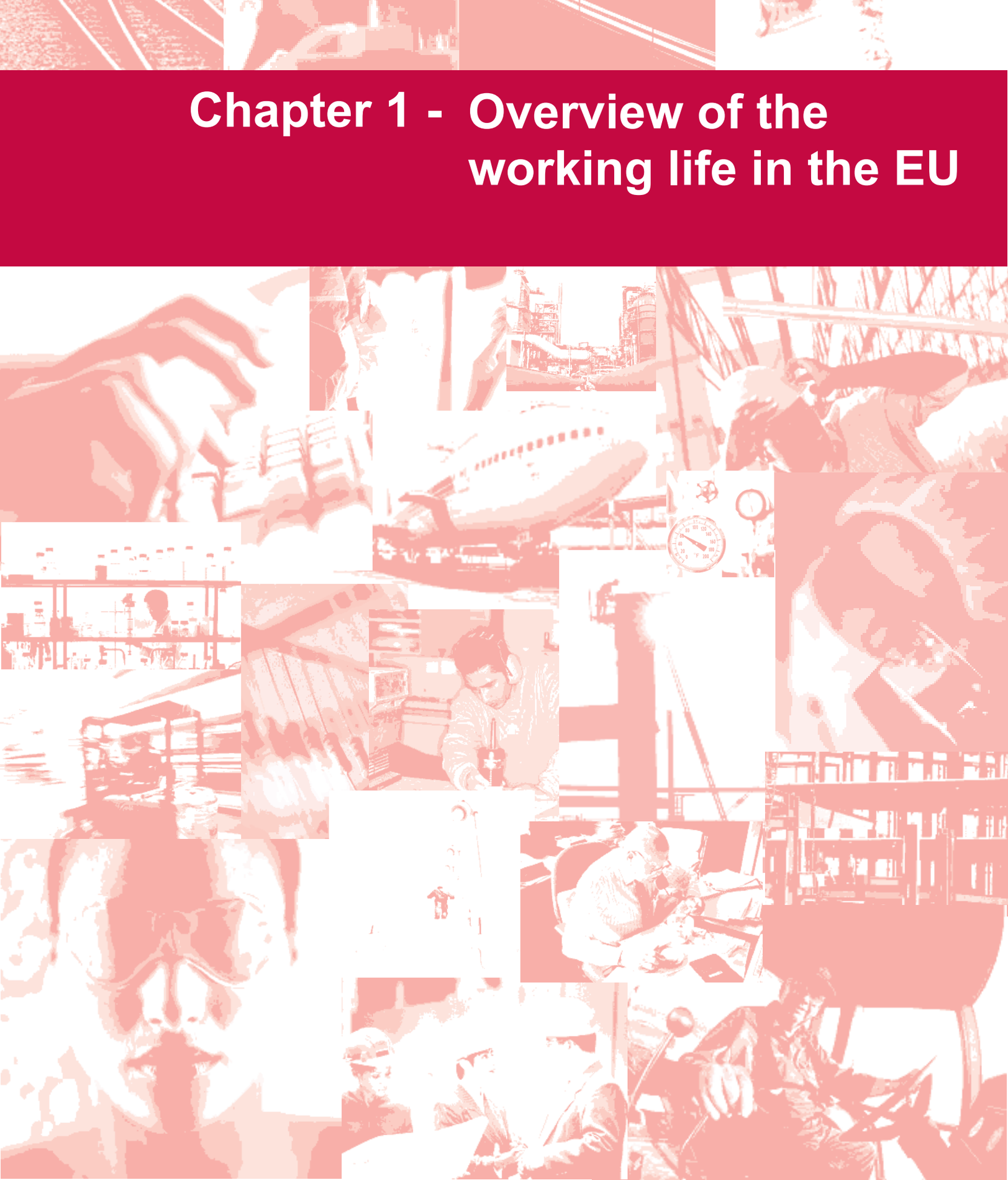
5 Not elsewhere classified

65	Financial intermediation, except insurance and pension funding
66	Insurance and pension funding, except compulsory social security
67	Activities auxiliary to financial intermediation
Section K	**Real estate, renting and business activities**
70	Real estate activities
71	Renting of machinery and equipment without operator and of personal and house
72	Computer and related activities
73	Research and development
74	Other business activities
Section L	**Public administration and defence; compulsory social security**
75	Public administration and defence; compulsory social security
Section M	**Education**
80	Education
Section N	**Health and social work**
85	Health and social work
Section O	**Other community, social and personal service activities**
90	Sewage and refuse disposal, sanitation and similar activities
91	Activities of membership organisations n.e.c.[5]
92	Recreational, cultural and sporting activities
93	Other service activities
Section P	**Private households with employed persons**
95	Private households with employed persons
Section Q	**Extra-territorial organisations and bodies**
99	Extra-territorial organisations and bodies

International Standard Classification of Occupations (ISCO-88 (COM))

Code	Occupation
10	Legislators, senior officials and managers without specification
20	Professionals without specification
30	Technicians and associate professionals without specification
40	Clerks without specification
50	Service workers and shop and market sales workers without specification
60	Skilled agricultural and fishery workers without specification
70	Craft and related trades workers without specification
80	Plant and machine operators and assemblers without specification
90	Elementary occupations without specification
00	Armed forces without specification

Chapter 1 - Overview of the working life in the EU



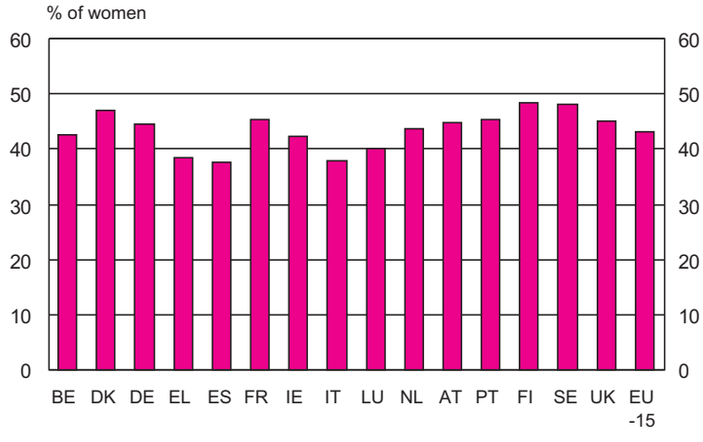
1.1. Labour force in the EU

Gender

Women account for 43% of the workforce.

In 2002 there were 160 million employed people in the EU. The workforce is still predominantly male. In 2002 women accounted for 43% of the total European workforce. Female participation in the labour market is more common in Northern Europe. The proportion of females in the workforce ranged from about 38% in Greece, Italy, and Spain to about 48% in Denmark, Finland and Sweden. The female workforce is, however, increasing. From 1995 to 2002 the total number of employed people increased by 14 million (10%). During this time the size of the workforce increased more rapidly among women (an increase of 14%) than among men (an increase of 6%).

Figure 1: Proportion of women in the employed population. 2002



Source: Eurostat - European Union Labour Force Survey (LFS)

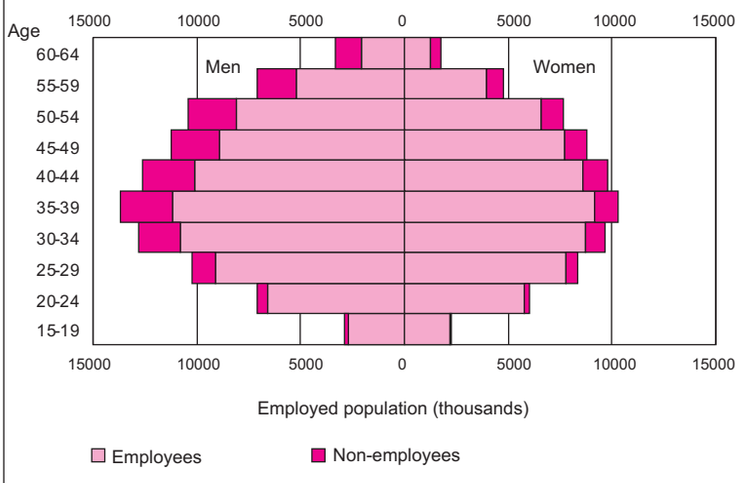
Age

Workers older than 55 years account for an increasing proportion of the workforce.

The population of the EU is ageing. Of course the ageing effect is most pronounced in age categories not belonging to the workforce, but the effect can also be seen in the workforce. From 1995 to 2002 the number of persons in work increased only by 0.36 million (2%) among those aged 15 to 24 years, while it increased by 2.38 million (16%) among those aged 55 to 64 years. In addition to the ageing of the population, this increase is also due to the various national efforts to increase the duration of the working career and to decrease early retirement. The relatively small increase of the workforce in the youngest age categories may also reflect that educational activities become more common and take longer. Nevertheless these changes in the age structure of the workforce will pose a challenge to activities in the field of health and safety at work.

Workers aged 15-24 years accounted for 11% of the workforce in the EU in 2002. Their proportion was the highest, around 17%, in Ireland and in the Netherlands, while in Italy and Luxembourg such workers constituted only 8% of the workforce. Similarly workers aged 55-64 years accounted for 11% of the EU workforce, and their proportion was the highest in Sweden (18%) followed by Denmark and Greece (13%) and the lowest in Luxembourg (6%), Austria and Belgium (7%).

Figure 2: Age distribution of the employed population. EU-15, 2002



Source: Eurostat - European Union Labour Force Survey (LFS)

Sector of economic activity

The workforce is increasing most rapidly in real estate and business activities and in health .

A comparison of the relative sizes of the various EU economic sectors shows that manufacturing (31 million), trade (23 million) and health and social work (16 million) employed the largest number of people in the EU in 2002. Significant changes have occurred during the past years in the distribution of workforce by sector of economic activity. Between 1995-2002 the number of employed people decreased by 22% in mining, 18% in agriculture and fishing and 11% in electricity, gas and water supply. The largest increase of workforce was seen in real estate, renting and business activities (47%) and in health and social work (18%). In agriculture and in real estate, renting and business activities the changes were similar in the female and male workforce. The others represent sectors in which the workforce is almost exclusively either female or male.

There are important differences between the Member States in the distribution of workforce by sector (see Table A.8 in the Annex). The proportion of the workforce in agriculture ranges from 1.3% in the United Kingdom to 15% in Greece, the proportion of the workforce in health and social work from about 5% in Greece and

Table 1: Distribution and evolution of the employed population by sector of economic activity. EU-15, 1995-2002

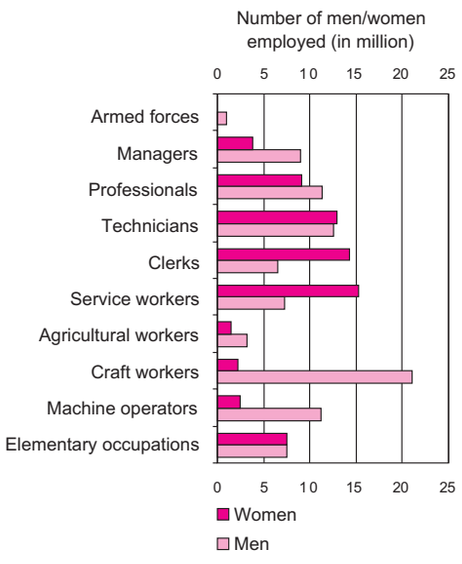
Sector (NACE)	Men		Women		Total	
	Number in 2002 (thousands)	Change (%) in 1995-2002	Number in 2002 (thousands)	Change (%) in 1995-2002	Number in 2002 (thousands)	Change (%) in 1995-2002
Total worforce	91 389	6	69 417	14	160 806	10
Agriculture and fishing (A+B)	4 019	-15	1 964	-23	5 983	-18
Mining and quarrying (C)	451	-21	:	:	507	-22
Manufacturing (D)	22 209	1	8 783	-2	30 992	0
Electricity, gas and water supply (E)	970	-12	244	-3	1 213	-11
Construction (F)	11 579	9	1 087	11	12 667	9
Wholesale and retail trade (G)	12 284	2	11 004	10	23 288	5
Hotels and restaurants (H)	3 116	13	3 573	18	6 688	16
Transport, storage and communication (I)	7 440	8	2 546	24	9 986	12
Financial intermediation (J)	2 797	2	2 658	9	5 454	5
Real estate, renting and business activities (K)	8 241	47	6 627	45	14 868	47
Public administration and defence (L)	6 939	3	5 339	14	12 278	8
Education (M)	3 540	6	7 495	16	11 035	13
Health and social work (N)	3 597	14	12 079	20	15 675	18
Other community services (O)	3 530	14	4 050	19	7 580	16
Private households (P)	157	6	1 482	19	1 639	18
Extra-territorial organisations (Q)	:	:	:	:	107	-18

NB: The total figures contain some workers with unknown sector.

Source: Eurostat - European Union Labour Force Survey (LFS)

Portugal to about 18% in Denmark and Sweden and the proportion of the workforce in the financial sector ranges from 1.7% in Portugal to 11% in Luxembourg.

Figure 3: Distribution of employment by occupation. EU-15, 2002



Source: Eurostat - European Union Labour Force Survey (LFS)

Occupation

The most common European occupations are technicians and associate professionals, craft and related workers and service workers. All these occupational groups employed 23-25 million workers in 2002. From 1995 the number of workers increased by 32% among technicians and associate professionals and by 24% among service workers, but only by 1% among craft and related workers. The only occupational group showing a decrease in workforce was skilled agricultural workers (a decrease of 11%). The workforce is predominantly male in all industrial job categories as well as in managerial work, while female workers are more frequent among clerks and service workers.

There are important differences between the Member States in the distribution of the workforce by occupation (see Table A.9 in the Annex). The proportion of technicians and associate professionals in the workforce ranges from 6-7% in Ireland and Greece to 20-21% in Sweden, Denmark and Germany, the proportion of crafts workers from 9% in the Netherlands, Sweden and United Kingdom to 22% in Portugal and the proportion of clerks from 8% in Finland to 18% in Luxembourg.

Professional status, full-time work, type of contract

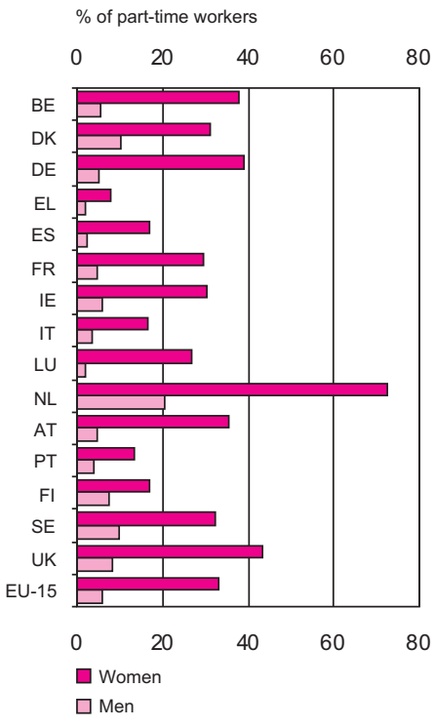
From the point of view of organisation of health and safety at work activities salaried workers are in a different position than self-employed or family workers. About 85% of the European workforce are salaried workers, the rest working as self-employed (with or without employees) or family workers. It is slightly more common among women (89%) than among men (82%) to be employed as a salaried worker. The differences are much greater between the Member States. In Luxembourg 92% and in Greece 61% of the workforce consist of salaried workers. In agriculture and fishing 64% of the workforce consists of non-salaried workers in comparison to 8% in the industrial sectors (manufacturing, mining and electricity, water and gas supply combined).

The proportion of workers in part-time employment was 18% in 2002. Part-time work is 5 times more common among women (33%) than among men (6%). This gender difference is seen in all the Member States but the actual proportion of part-time workers varies because of cultural, organisational and legislative differences. Female part-time work is particularly prevalent in the Netherlands (73%) and the United Kingdom (43%).

Part-time work offers the worker (and employer) flexibility as regards the balance between the needs of their private and working life. From the point of view of health and safety at work such workers may, however, be in a different position than full-time workers. For example concerning opportunities for training and effectiveness of dissemination of information at the work place. On the other hand exposure to risk factors is in close correlation with the number of hours worked, and would therefore tend to be lower for part-time workers.

Among salaried workers, the number of workers with a limited or fixed duration of contract increased by 29% in 1994-2001 while the number of workers with an unlimited duration of contract increased only by 9%. Yet, an unlimited duration of contract is still the most

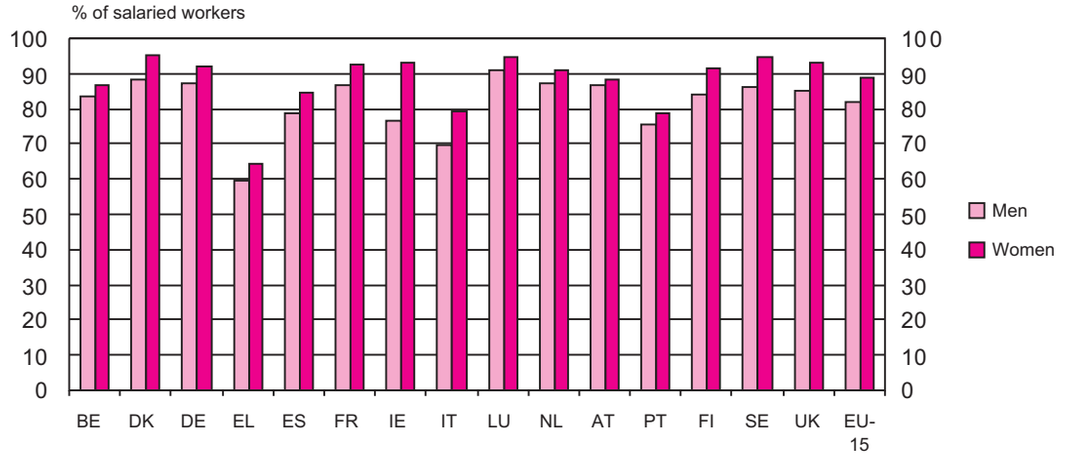
Figure 5: Proportion of part-time workers in the employed population. 2002



Source: Eurostat - European Union Labour Force Survey (LFS)

Part-time work 5 times more common in women than in men.

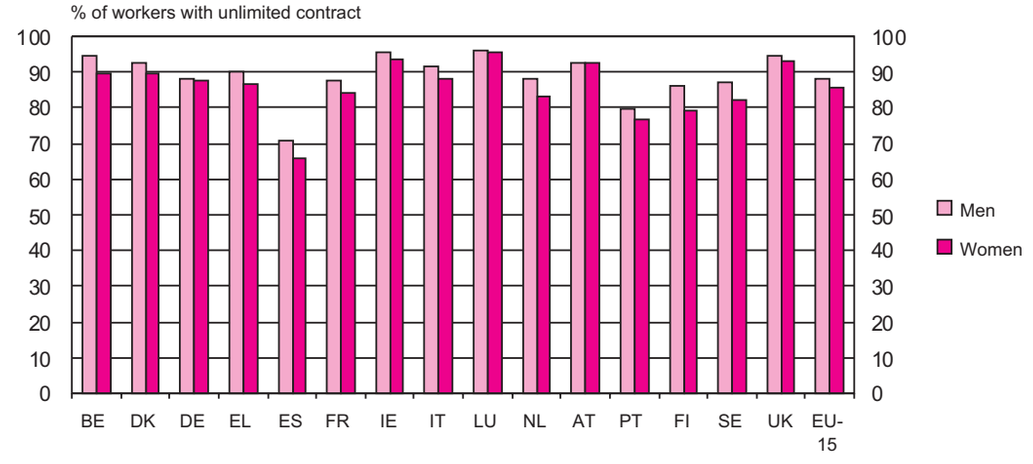
Figure 4: Proportion of the salaried workers in the employed population. 2002



Source: Eurostat - European Union Labour Force Survey (LFS)

common type of contract (87% of salaried workers in 2002). It is slightly more common for men than for women to have an unlimited duration of contract.

Figure 6: Percentage of salaried workers having a contract with unlimited duration. 2002



Source: Eurostat - European Union Labour Force Survey (LFS)

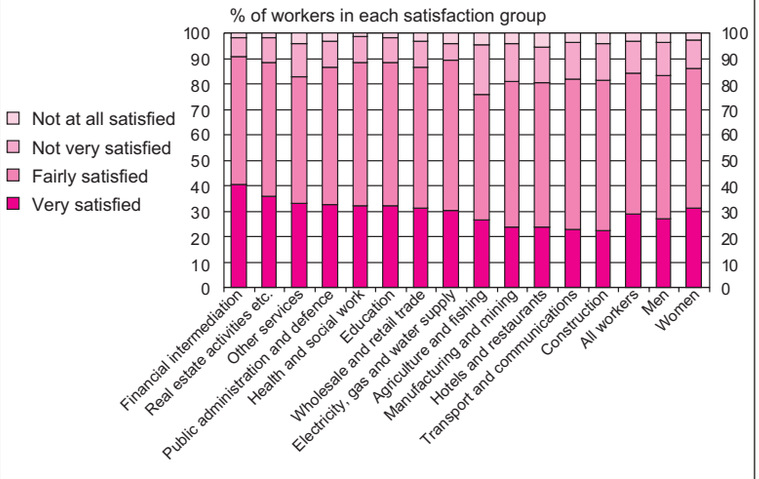
1.2. Self-assessed work satisfaction and health risks of work

Satisfaction with the working conditions

According to the 2000 ESWC about 29% of the Europeans in employment were very satisfied with their working conditions and another 55% were fairly satisfied. Only 3% of workers were not at all satisfied with their working conditions. The proportion of very satisfied workers is about two fold in financial intermediation and in renting and related business activities as compared to the manufacturing, construction and transport sectors. Women are slightly more often (31%) than men (27%) very satisfied with their working conditions, partly because they work in sectors in which the satisfaction is overall higher. Only small differences occur in the level of satisfaction by age or by size of the company.

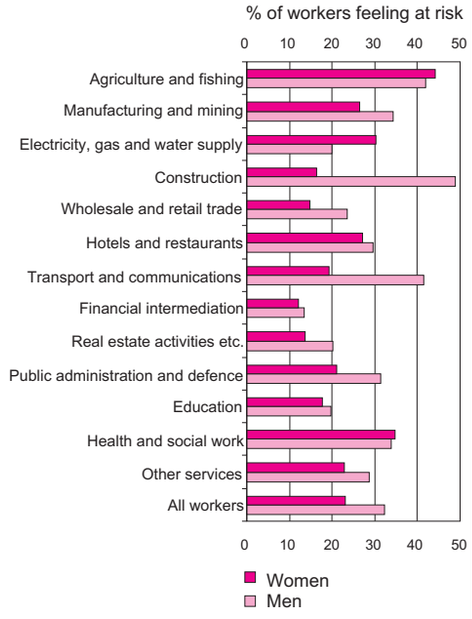
29% of the Employed Europeans are very satisfied with their working conditions.

Figure 7: Degree of satisfaction with working conditions. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Figure 8: Percentage of workers feeling that their health is at risk because of work. Sector and gender. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Perception of health being at risk because of work

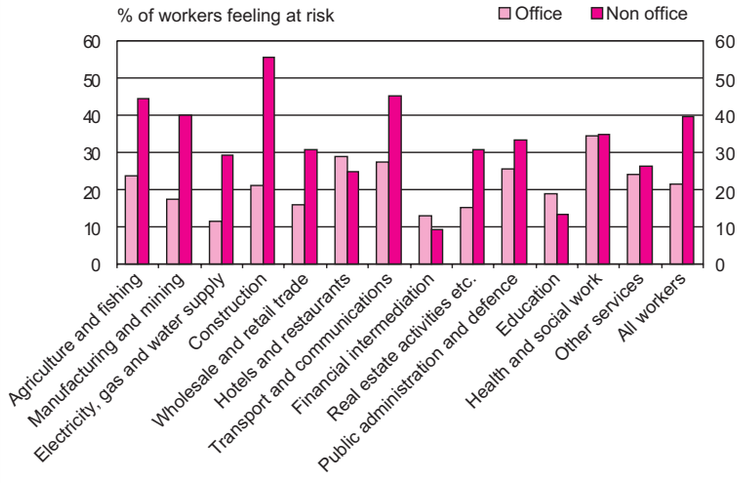
About 28% of European workers feel their health is at risk because of work. Men feel such a risk more often than women in nearly all sectors of economic activity. This is partly because work performed by men and women differs even within economic activity sectors, but there may also be a gender difference in the recognition of risks caused by work. A health risk caused by work is felt more often in the industrial sectors and the highest proportion of such a risk is observed among men working in the construction sector (49%) and the lowest among women working in the financial sector (12%). A health risk caused by work is felt by more than 40% among male

One half of male construction workers feel their health at risk because of work.

and female workers in agriculture and fishing and male workers of the transport sector.

The sector of economic activity is defined by the main activity of the employer. Therefore within each sector there are workers performing quite different jobs. In construction companies there are both construction workers and office workers and even in companies of the financial sector some workers may do jobs related to building maintenance, cleaning etc. Workers in non-office-type occupations feel a health risk caused by work twice as often as workers in office-type occupations and this difference is seen in most sectors of economic activity, although in some sectors the number of office- or non-office-type workers in the survey sample is quite low and the results should be interpreted with caution. About 20% of workers younger than 25 years and about 30% of workers older than 35 years feel their health at risk because of work. The differences in the self-assessed health risk between the categories of size of local unit are small ranging from 27% among those working in local units with 1-9 workers to 33% among those working in local units with more than 500 workers.

Figure 9: Percentage of workers feeling that their health is at risk because of work. Sector and occupation. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

1.3. Days lost because of accidents at work, occupational diseases and other illnesses

According to the 2000 ESWC about 60% of European workers do not have any absence due to illness during one year while 7% of them have more than 25 days of such absence. Women are absent an average of 9 days and men an average of 7 days during the year. In agriculture the workers are absent due to illness for only 4 days while in transport and in health and social work the average duration of absence is 11 days.

According to the worker's own evaluation about 56% of the days of illness absence are not related to work, while 17% are due to accidents at work and 27% to other health problems caused by work. In men accidents at work account for 21% and in women for 12% of illness absence days. Accidents at work account for a higher share of all absence in the industrial and agricultural sectors than in the service sectors. In agriculture and construction 30% of illness absence is due to accidents at work in comparison to only 6% in financial intermediation. For absence due to other health problems caused by work the differences between the sectors are smaller, ranging from 22% in agriculture to 34% in transport and health and social work. In women 28% and in men 27% of illness absence is due to such problems.

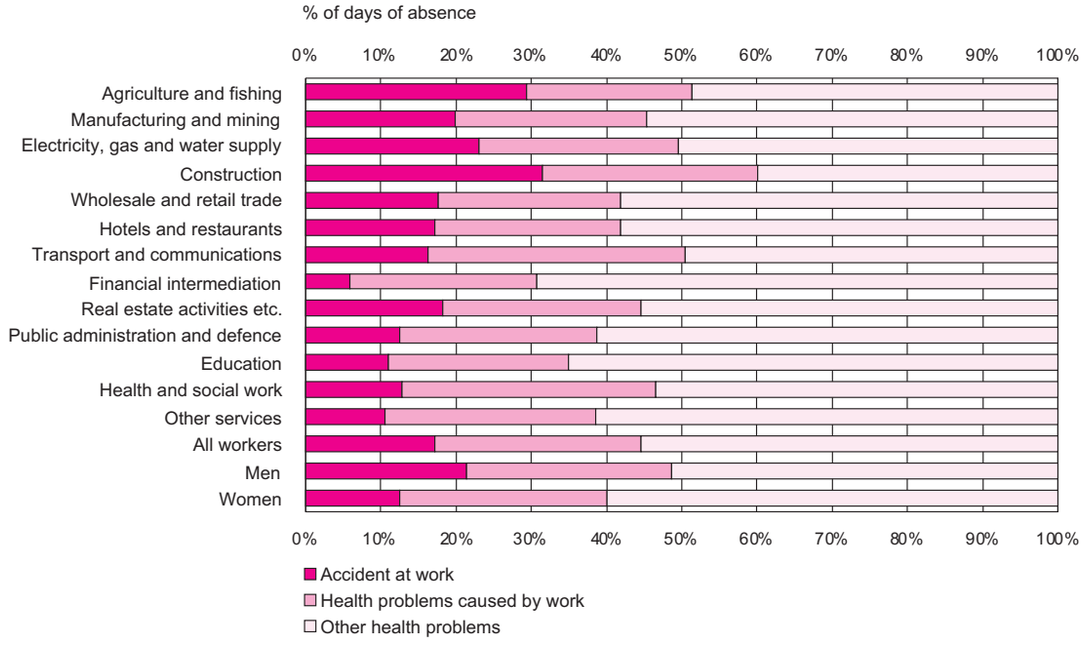
Table 2: Distribution and average duration of illness absence by sector of economic activity and gender. EU-15, 2000

	Distribution (%)					Average
Sector (NACE)	No days	Less than 5 days	5 to 14 days	15 to 24 days	25 days and more	N of days
Agriculture and fishing (A+B)	71	5	14	4	6	4.4
Manufacturing and mining (C+D)	55	12	20	5	8	7.5
Electricity, gas and water supply (E)	50	9	23	9	9	7.3
Construction (F)	59	12	17	6	7	7.3
Wholesale and retail trade (G)	63	11	16	4	5	7.7
Hotels and restaurants (H)	66	15	11	3	5	5.8
Transport, storage and communication (I)	58	13	14	5	10	11.3
Financial intermediation (J)	63	12	18	4	2	5.2
Real estate, renting and business activities (K)	63	14	16	3	5	6.5
Public administration and defence (L)	54	12	20	5	9	8.7
Education (M)	58	14	17	5	5	6.5
Health and social work (N)	56	14	17	4	9	11.0
Other services (O+P+Q)	62	11	17	5	5	9.0
Total workforce	59	12	17	5	7	7.8
Male workforce	61	12	16	5	7	6.9
Female workforce	58	13	18	5	7	9.0

Source: Third European Survey on Working Conditions 2000 (ESWC)

The above figures would mean that in the EU each year about 1 250 million working days are lost due to health problems in general. About 210 million days are lost due to accidents at work and 340 million due to other health problems caused by work[6]. Put another way for each worker in EU-15 an average of 1.3 working days are lost each year because of an accident at work and 2.1 days are lost because of other work-related health problems.

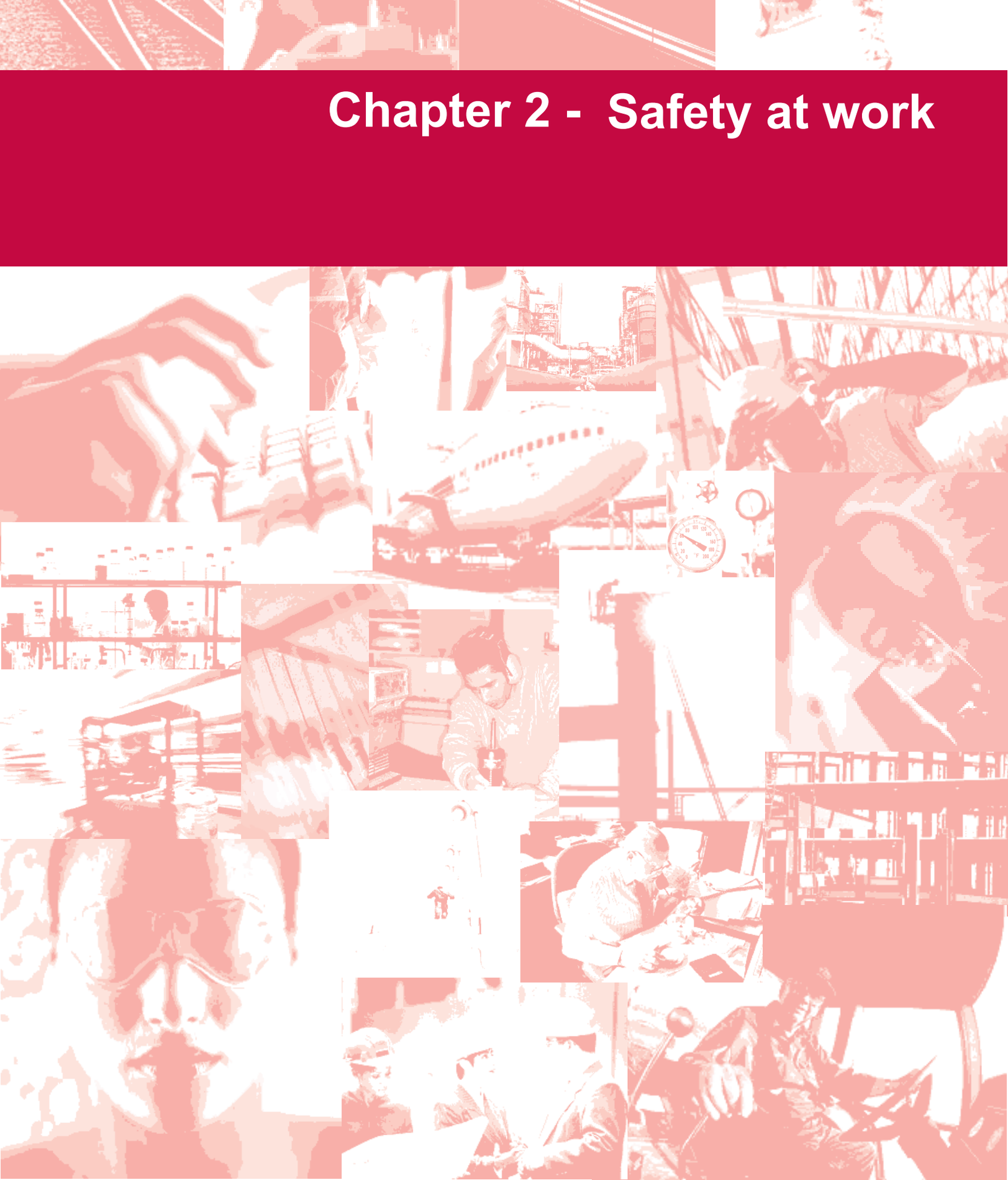
Figure 10: Distribution of causes of days lost due to illness. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

6 See chapters 2.11. and 3.1. for more detailed data on illness absence due to work-related causes according to various data sources.

Chapter 2 - Safety at work



2.1. Overview of the burden of accidents at work

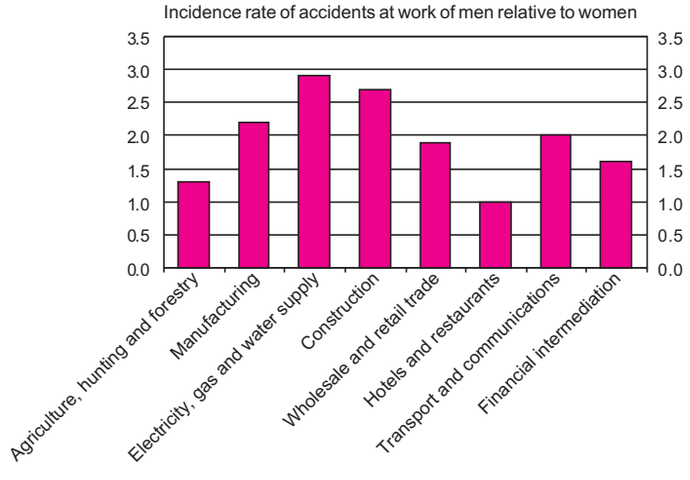
One accident at work every 5 seconds in Europe.

According to European Statistics on Accidents at Work (ESAW) about 4.7 million accidents at work resulting in more than 3 days of absence from work occurred in the EU-15 in 2001. Put another way, about 4% of the workers were victims of an accident at work during the year. When accidents with no absence from work or where the absence is up to 3 days are taken into account, the estimated total number of accidents at work in the EU is about 7.6 million (see Table A.12 in the Annex). In 2001 there were about 4 900 fatal accidents at work. The above figures mean that one European Union worker becomes a victim of an accident at work every 5 seconds and one worker dies every two hours because of an accident at work.

Male workers have more accidents at work than female workers.

For both fatal and non-fatal accidents at work the incidence rate has decreased steadily since 1994. In 2001 the incidence rate per 100 000 workers remained for the first time below 4 000 (i.e. 4%) for non-fatal accidents and below 7 for fatalities among men. For fatal accidents at work this decrease is quite consistent for all sectors of economic activity and for both genders. For non-fatal accidents at work the incidence rate has increased for some sectors and is stable for women. Yet, men are still around three times more likely as women to have an accident – resulting in more than three days' absence – and eleven times more likely to have a fatal accident. The difference is partly due to men working more in the sectors with a high risk of accidents and men doing more full-time work, i.e. being exposed to the risk of accidents for a longer time each day. Yet, even if adjusted for the effect of sectors of economic activity and for full-time equivalent employment, men are about twice as

Figure 11: Incidence rate of accidents at work of men relative to women. EU-15, 2000



NB: Incidence rate (men relative to women) on a full time equivalent basis.

Source: Eurostat - European Statistics on accidents at work (ESAW)

Figure 12: Incidence rates of non-fatal accidents at work. EU-15, 1994-2001

(1) Estimated values. The 2001 values for EU-15 are provisional as for PT only 2000 data were available.

(2) Financial intermediation combined with real estate, renting and business activities.

(3) 9 NACE branches: Agriculture, Manufacturing, Electricity gas and water supply, Construction, Wholesale and retail trade, Hotels and restaurants, Transport and communications, Financial intermediation, Real estate, renting and business activities.

NB: Accidents at work with more than 3 days lost (4 days' absence or more).

Incidence rate per 100 000 workers.

Source: Eurostat - European Statistics on Accidents at Work (ESAW)

Figure 13: Incidence rates of fatal accidents at work. EU-15, 1994-2001

(1) Estimated values. The 2001 values for EU-15 are provisional as for PT only 2000 data were available.

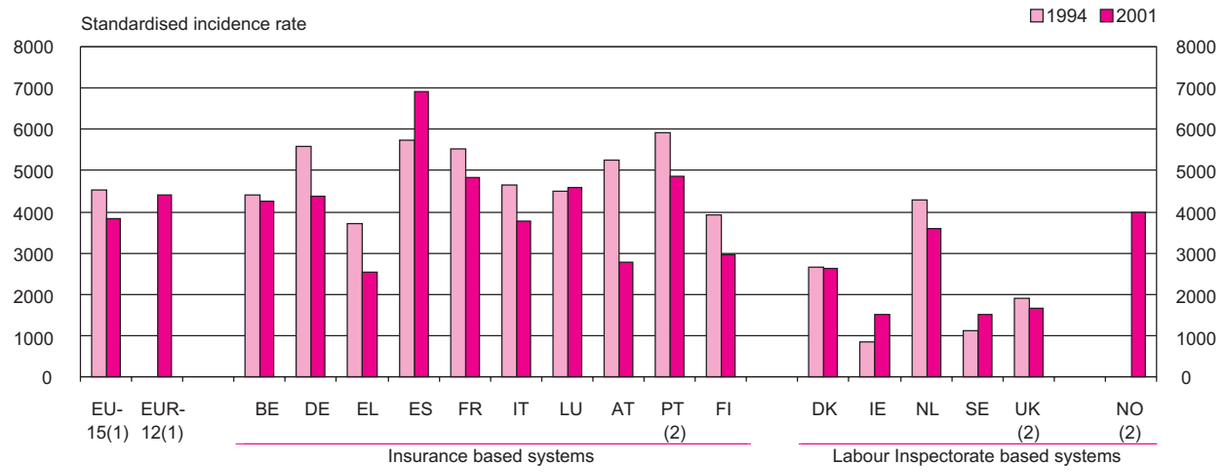
(2) Financial intermediation combined with real estate, renting and business activities.

(3) 9 NACE branches: Agriculture, Manufacturing, Electricity gas and water supply, Construction, Wholesale and retail trade, Hotels and restaurants, Transport and communications, Financial intermediation, Real estate, renting and business activities.

NB: Incidence rate per 100 000 workers.

Source: Eurostat - European Statistics on Accidents at Work (ESAW)

Figure 14: Standardised incidence rate of non-fatal accidents at work. 1994 and 2001



(1) Estimated values. The 2001 values for EU aggregates are provisional as for PT only 2000 data were available.

(2) PT: 2001 rate = 2000; UK: Great Britain only; NO: including accidents with 1-3 days' absence.

NB: Accidents at work with more than 3 days lost (4 days' absence or more).

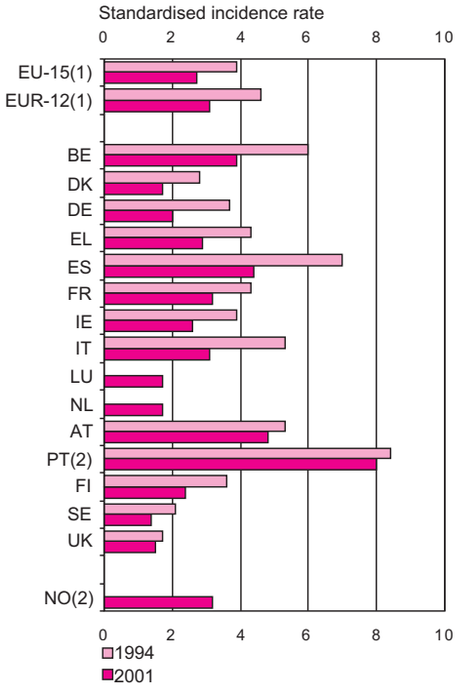
Standardised incidence rate per 100 000 workers.

Source: Eurostat - European Statistics on accidents at work (ESAW) - BE, DE, EL, ES, FR, IT, LU, AT, PT, FI: national data from the insurance system covering accidents at work; DK, IE, NL, SE, UK, NO: national data from the declarations made to another competent authority.

likely as women to suffer accidents at work. This may be explained at least partly by differences in the tasks performed by men and women even within one sector of economic activity. For example in construction companies men tend to work more on the building sites and women more in the offices. Yet, the difference in the incidence rate can be seen even in the sectors of financial intermediation and real estate and other business services. In these sectors the difference in the tasks of men and women is probably not very important. In hotels and restaurants there is no difference in the incidence rate between men and women.

During the period 1994-2001 the ESAW data shows that the incidence rate of fatal accidents at work decreased in all Member States. The incidence rate of non-fatal accidents at work has also decreased in most, but not all Member States during the same years. When interpreting the absolute levels of the national incidence rate of non-fatal accidents at work, it is important to note that for 10 Member States the data came from insurance systems and for 5 Member States from Labour Inspectorate reports (see methodological notes for details).

Figure 15: Standardised incidence rate of fatal accidents at work. 1994 and 2001



(1) Estimated values. The 2001 values for EU aggregates are provisional as for PT only 2000 data were available.

(2) PT: 2001 rate = 2000; NO: including road traffic and transport accidents in the course of work.

NB: Fatal accidents at work exluding road traffic accidents and accidents on board of any means of transport in the course of work.

Standardised incidence rate per 100 000 workers.

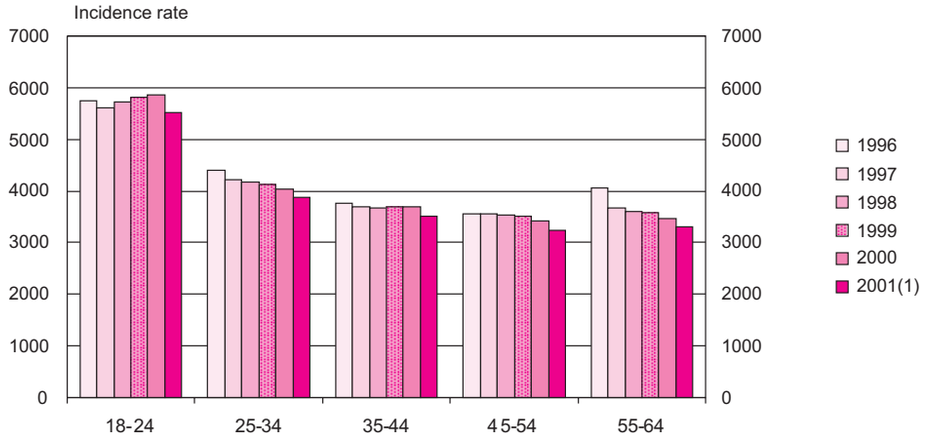
Source: Eurostat - European Statistics on accidents at work (ESAW)

2.2. Age

Young workers have more accidents at work.

Working experience increases with age and risk behaviour in general is influenced by age. This is reflected in the rate of accidents at work. For non-fatal accidents at work the incidence rate is at least about 50% higher among those aged 18-24 years than in any other age category. For fatal accidents at work the pattern is the opposite, they occur most frequently among those aged 55-64 years. The incidence rate of fatal accidents has slightly decreased in 1996-2001 in all age categories, while for non-fatal accidents it has somewhat increased among the youngest workers.

Figure 16: Incidence rate of non-fatal accidents at work by age. EU-15, 1996-2001



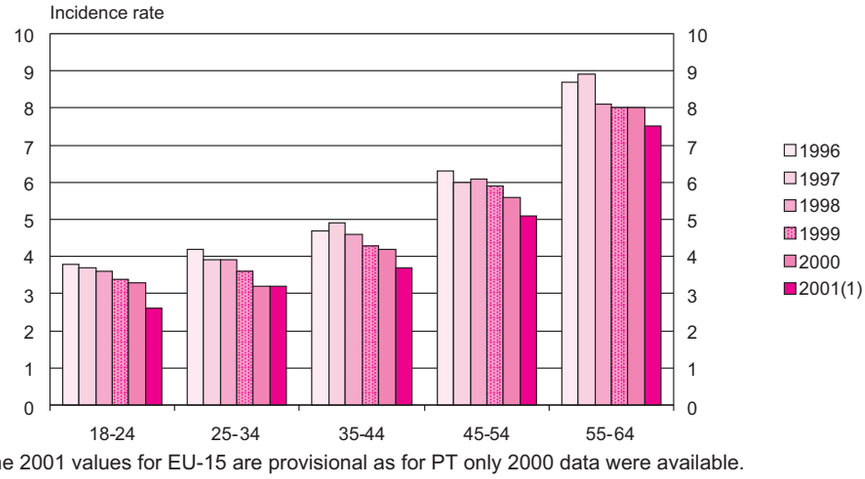
(1) Estimated values. The 2001 values for EU-15 are provisional as for PT only 2000 data were available.

NB: Accidents at work with more than 3 days lost (4 days' absence or more).

Incidence rate per 100 000 workers.

Source: Eurostat - European Statistics on accidents at work (ESAW)

Figure 17: Incidence rate of fatal accidents at work by age. EU-15, 1996-2001



(1) Estimated values. The 2001 values for EU-15 are provisional as for PT only 2000 data were available.

NB: Incidence rate per 100 000 workers. Including road traffic accidents during work.

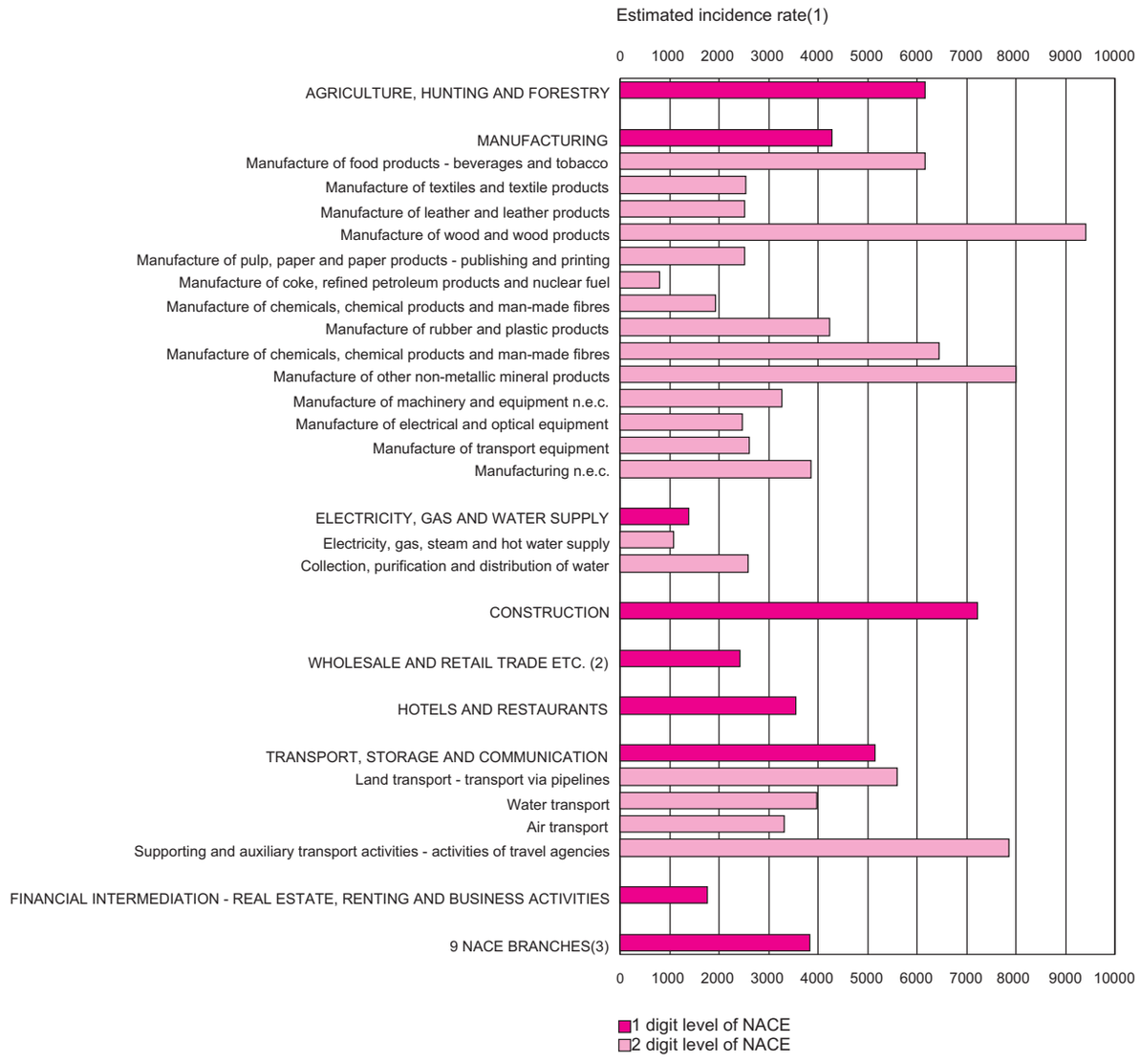
Source: Eurostat - European Statistics on accidents at work (ESAW)

2.3. Sector of economic activity

At the detailed level of classification of economic activities the incidence rate of accidents at work varies more than 10-fold. The rate is the highest in the manufacturing of wood and wood products where about 10% of workers have an accident at work each year. The incidence is also very high in the metal industry, in the supporting and auxiliary transport activities (including for example cargo handling, storage and warehousing), in construction and in agriculture.

In the wood industry, every year, 10% of workers have an accident.

Figure 18: Incidence rate of non-fatal accidents at work. EU-15, 2001



(1) Estimated incidence rate per 100 000 workers. The 2001 values for EU-15 are provisional as for PT only 2000 data were available.

1 and 2 digit level of the NACE Rev.1. Classification.

(2) Wholesale and retail trade - repair of motor vehicles, motorcycles and personal and household goods.

(3) 9 NACE branches: Agriculture, Manufacturing, Electricity gas and water supply, Construction, Wholesale and retail trade, Hotels and restaurants, Transport and communications, Financial intermediation, Real estate, renting and business activities.

NB: Accidents at work with more than 3 days lost (4 days' absence or more).

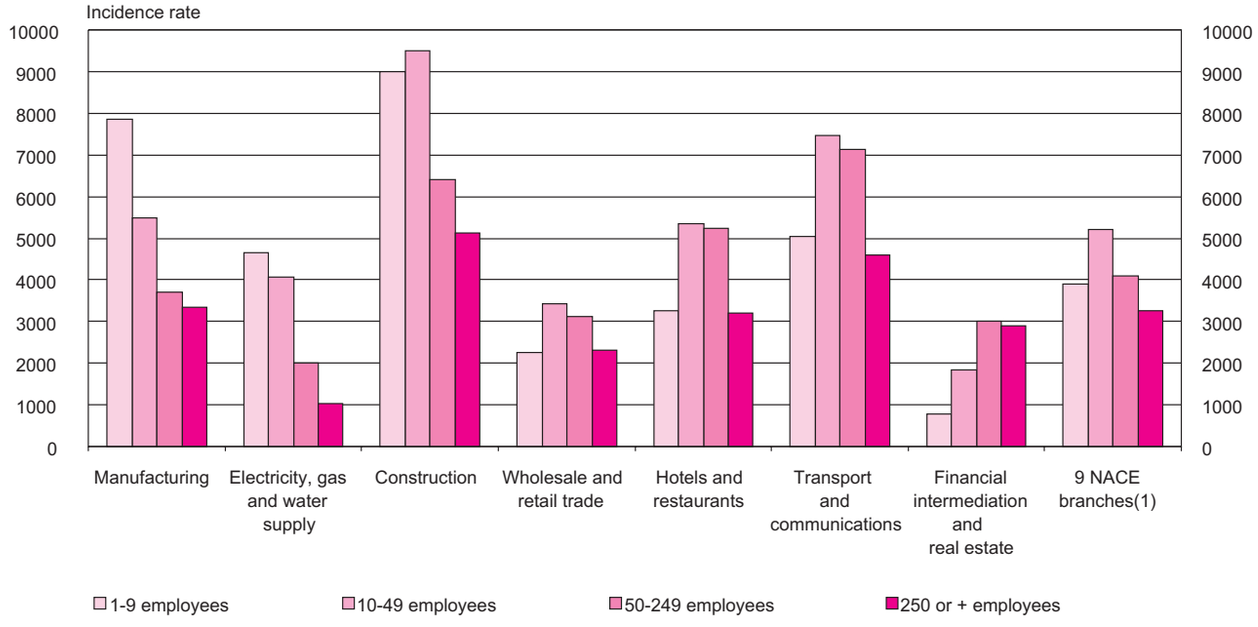
Source: Eurostat - European Statistics on accidents at work (ESAW)

2.4. Size of the enterprise

The rate of accidents is higher in small companies.

The organisation and the resources available to maintain and develop safe working practices can be dependant upon the size of the enterprise. In general the larger the company, the more resources are available. The effects of such differences may, however, be masked by differences in the activities performed by companies of different sizes. In general the incidence rate of accidents at work is higher in small and medium size local units as compared to local units employing more than 250 employees. This trend is particularly clear in the sectors of manufacturing, electricity, gas and water supply, and construction.

Figure 19: Incidence rate of non-fatal accidents at work by size of the local unit of the enterprise. EU-15+NO, 1999



NB: Accidents at work with more than 3 days lost (4 days' absence or more).

Standardised incidence rate per 100 000 workers.

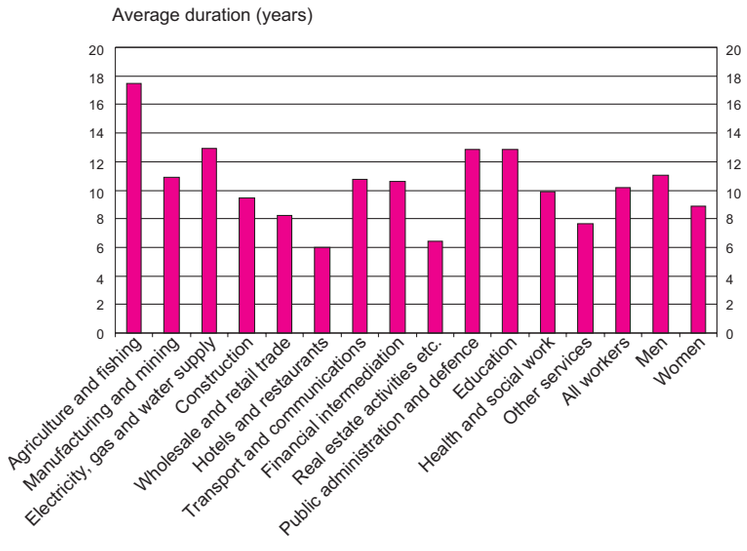
9 NACE branches: Agriculture, Manufacturing, Electricity gas and water supply, Construction, Wholesale and retail trade, Hotels and restaurants, Transport and communications, Financial intermediation, Real estate, renting and business activities.

Source: Eurostat - European Statistics on accidents at work (ESAW)

2.5. Experience

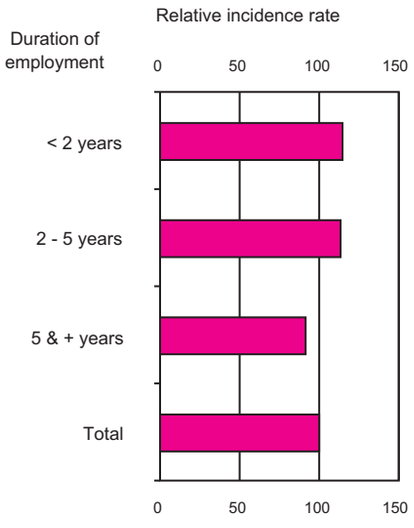
Experience in the job increases familiarity with the tasks and safety regulations, which are important determinants of the risk of accidents at work. On average European women have worked for 9 years and men for 11 years in the same company. The mean duration of employment with the current employer differs significantly between sectors of economic activity, it is the shortest (6 years) in hotels and restaurants and the longest in agriculture (17 years). The proportion of workers with less than 2 years in the company ranges from about 12% in agriculture and in public administration to 38% in hotels and restaurants.

Figure 20: Average duration of employment in the company. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Figure 21: Relative incidence rate of accidental injuries at work by duration of employment in the company. EU-11+HU, 1999



NB: All accidents, with or without days of absence from work.

EU mean rate = 100.

EU-11+HU: see methodological notes for LFS 1999 ad hoc module.

Source: Eurostat - Labour Force Survey - 1999 ad hoc module

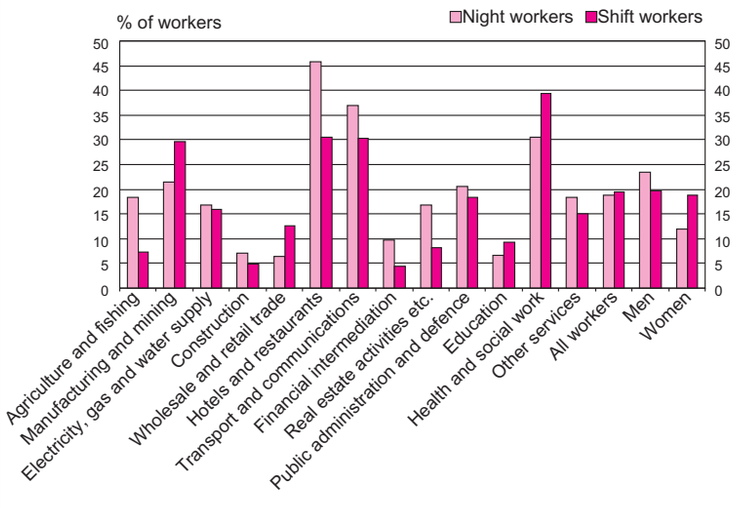
Workers with less than two years of employment or with 2-5 years of employment in the company have an about 25% higher risk of accidents at work than those who have worked more than 5 years in the company.

The rate of accidents is higher in newly hired workers.

2.6. Unusual working hours

Unusual working hours or shift work can influence the risk of accidents at work by affecting the concentration of the worker, by affecting the working environment (e.g. illumination) and by affecting the working arrangements (e.g. lower number of personnel, less supervision, more heterogeneous tasks). About 20% of European workers work in shifts and about the same number do at least some night work. Shift work and night work are especially common in the sectors of transport, hotels and restaurants and health and social work. In hotels and restaurants nearly 50% of workers do at least some night work.

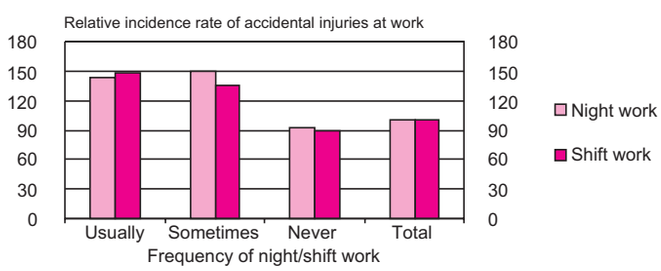
Figure 22: Proportion of shift and night workers in the employed population. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Workers who usually or sometimes do shift work and workers who usually or sometimes do night work have a 50-70% higher incidence of accidents at work than those who never do such work.

Figure 23: Relative incidence rate of accidental injuries at work by shift and night work. EU-11+HU,1999



NB: All accidents, with or without days of absence from work.

EU mean rate = 100.

EU-11+HU: see methodological notes for LFS 1999 ad hoc module.

Data not available for DE, ES, IE, LU, FI and UK.

Source: Eurostat - Labour Force Survey - 1999 ad hoc module

Table 3: Distribution (%) of accidents at work by severity and time of day. EU-15+NO, 2000

Time of day	Distribution (%) of severity of non-fatal accidents (Number of days lost)								Fatal/Non-fatal accidents ×1 000
	4 - 6 days	7 - 13 days	14 - 20 days	21 days to less than 1 month	1 to less than 3 months	3 to less than 6 months	6 months or more	Total non-fatal	
00.00 - 05.59	18.2	28.0	16.2	10.0	21.8	3.2	2.7	100.0	2.6
06.00 - 11.59	17.0	30.3	15.6	10.6	20.5	3.2	2.9	100.0	1.1
12.00 - 17.59	16.3	30.2	15.6	10.6	21.0	3.2	3.0	100.0	1.4
18.00 - 23.59	15.8	30.4	15.7	10.6	21.7	3.3	2.5	100.0	1.5
Total	16.6	30.2	15.7	10.5	20.9	3.2	2.9	100.0	1.3

Source: Eurostat - European Statistics on accidents at work (ESAW)

Accidents at work occurring at night are also more often fatal than those occurring during the daytime. Between 0 o'clock (midnight) and 6 o'clock about 2.6 accidents out of 1 000 are fatal while it is only the case for 1.1 to 1.5 accidents out of 1 000 during other periods of day. On the other hand there are no apparent differences in the severity of non-fatal accidents according to the time of the day. The higher fatality rate of accidents at work during the night may be at least partly related to a difference in the fraction of road-traffic accidents at work between night and day time.

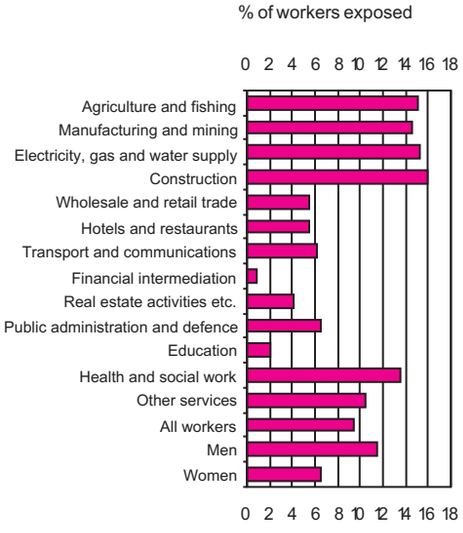
Accidents at work during the night are more often fatal.

2.7. Dangerous substances

9% of workers handle dangerous substances more than half of the working time.

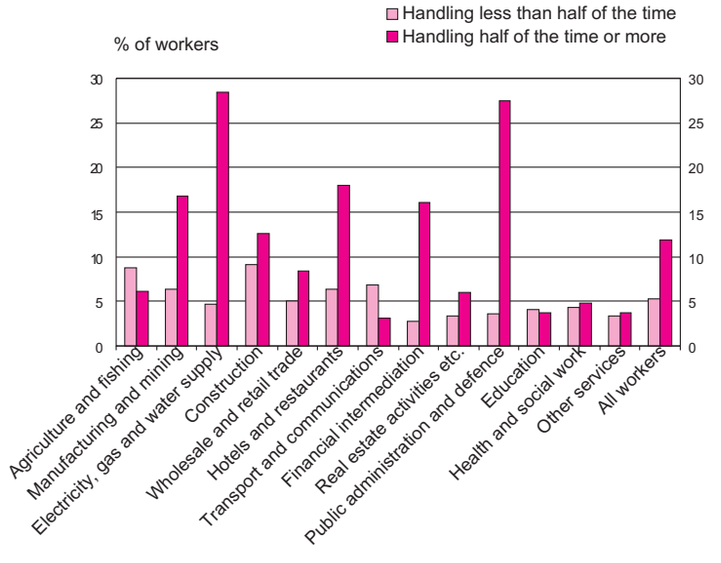
Handling or touching dangerous substances poses a direct risk of having accidents at work. About 71% of European workers report that they never handle or touch such substances in their work and another 14% say they almost never handle such substances. Yet, about 9% of workers handle such substances around for at least half of their time at work. In agriculture, manufacturing, electricity, gas and water supply and in construction about 15% of workers handle such substances for half of the time or more. Also in health and social work and in the service sector such problems are quite common. As the handling of dangerous substances is more common in occupations with a male workforce, men report handling them about twice as often as women do (11% vs. 6%).

Figure 24: Percentage of workers handling dangerous substances half of the time or more.



Source: Third European Survey on Working Conditions 2000 (ESWC)

Figure 25: Percentage of workers having had an absence due to an accident at work by frequency of handling of dangerous substances. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

In general those handling dangerous substances for at least half of their time at work have also been absent due to accidents at work during the past 12 months twice as often (12%) as those handling such substances less often (5%). This difference is certainly partly due to the fact that people handling dangerous substances tend to work in sectors where the risk of accidents at work is higher overall. And in any case most accidents at work are related to factors other than dangerous substances. Yet with the exception of agriculture and transport, a higher frequency of accidents at work is seen even within sectors between those handling dangerous substance more than half of time as compared to those handling them less than half of time.

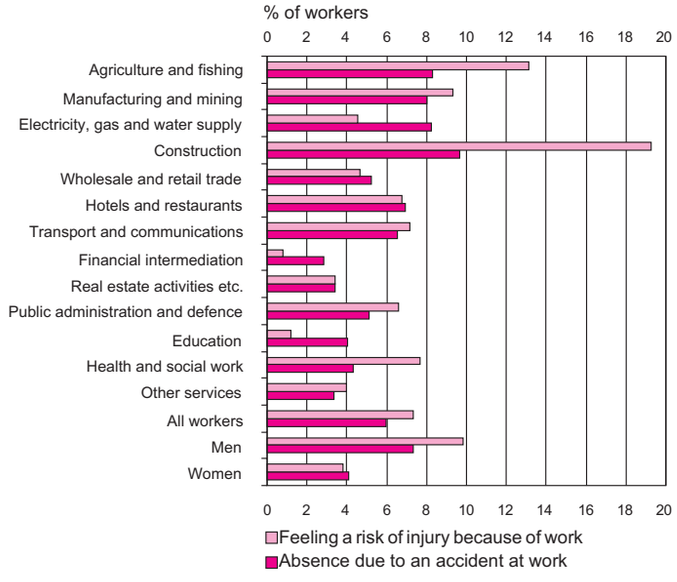
2.8. Other direct risk factors

In some sectors a risk of injuries is not felt despite of accidents occuring.

Chemical agents and other dangerous substances form only a rather narrow group of risk factors for accidents at work. For the remaining risk factors, e.g. working at height, use of hand tools or machines, use of sharp objects, etc., very little statistical information exists on their occurrence in the work sites on a European level and their relation to the occurrence of accidents at work. Such a data collection has just started within the ESAW Phase 3 methodology. In the ESWC the respondents where asked about whether they consider their work affects their health by posing a risk of injury. About 7% of European workers feel so, ranging from 19% in the construction sector to less than 1% in financial intermediation.

When the prevalence of feeling a risk of injury and the prevalence of actual absence from work due to an accident at work are compared, in agriculture, construction, manufacturing and other well-known risk sectors for accidents at work, more people feel the risk than are actually victims of accidents at work during the past 12 months. Indeed, it would be somewhat logical that it is more common to feel the risk than to be victim of an accident. Quite interestingly in some sectors, like financial intermediation, trade or electricity, gas and water supply, there are more people having an absence due to accidents at work than people feeling the risk of injury. There is also a clear gender difference in this respect, among women there are slightly less who feel the risk than of those who have an absence due to accidents.

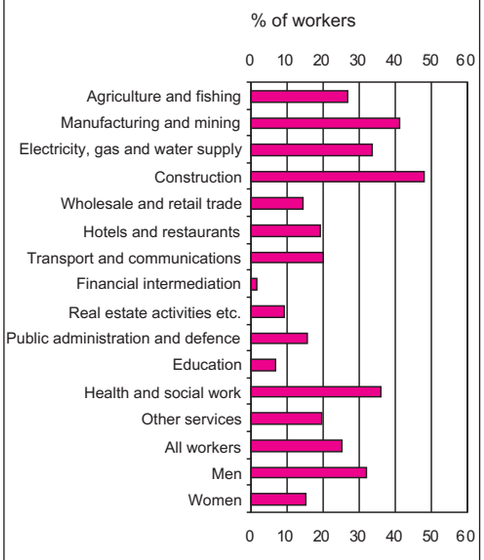
Figure 26: Percentage of workers feeling risk of injury because of work and of those having days lost due to an accident at work during the last 12 months. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

2.9. Personal protective equipment

Figure 27: Percentage of workers wearing personal protective equipment half of the time or more by sector of economic activity and gender. EU-15, 2000



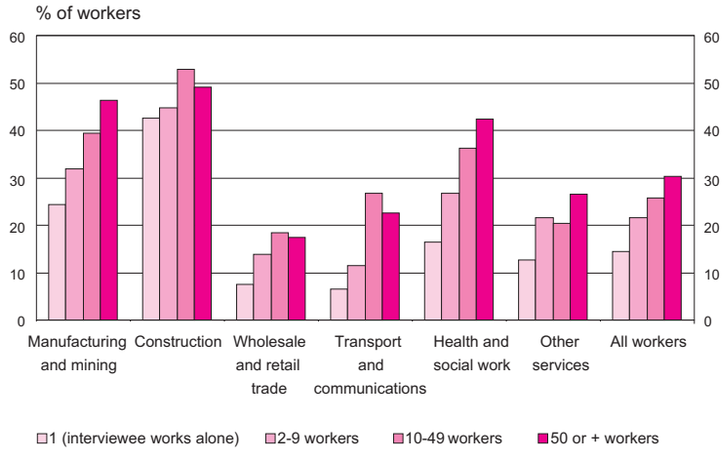
Source: Third European Survey on Working Conditions 2000 (ESWC)

For protection against a number of specific health and safety risks personal protective equipment is often used by workers. Some, but not all, types of personal protective equipment are designed and used to prevent accidents at work or to protect against consequences of accidents at work. In most jobs such equipment is never or seldom needed. Of all European workers 62% never wear personal protective equipment, while 25% wear them half or more of the time at work. In construction about 50% of the workers and in manufacturing and health and social work 40% of workers wear some such equipment for half or more of the time.

Workers in the smallest companies are less likely to wear personal protective equipment. In local units with at least 50 workers, about 30% wear personal protective equipment half or more of the time as compared to 14% of those working alone or 22% of those working in local units with 2 to 9 workers. This phenomenon is seen in all those sectors of economic activity, for which there were enough respondents for statistical reliability in each of the local unit sizes concerned. These differences according to the size of the local unit are rather large and it is unlikely that they would be due to differences in the work performed. It is probable that availability of the equipment and differences in the safety culture have an important influence.

Wearing protective equipment is less common in small companies.

Figure 28: Percentage of workers wearing personal protective equipment half of the time or more by sector and size of the local unit. EU-15, 2000

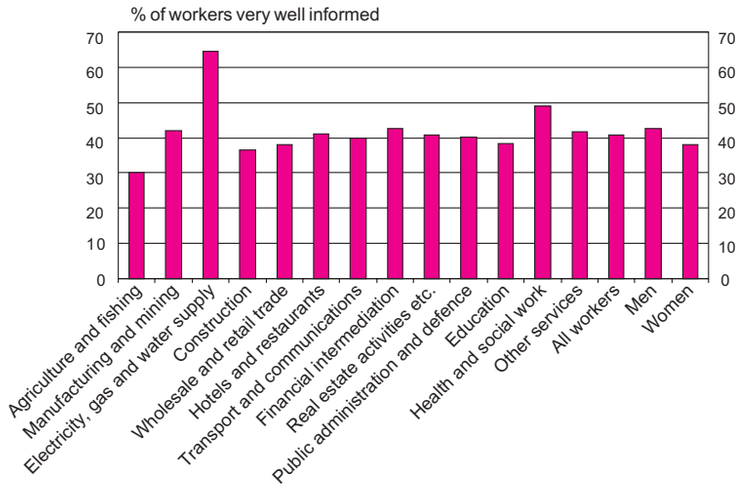


Source: Third European Survey on Working Conditions 2000 (ESWC)

2.10. Information about risks at work

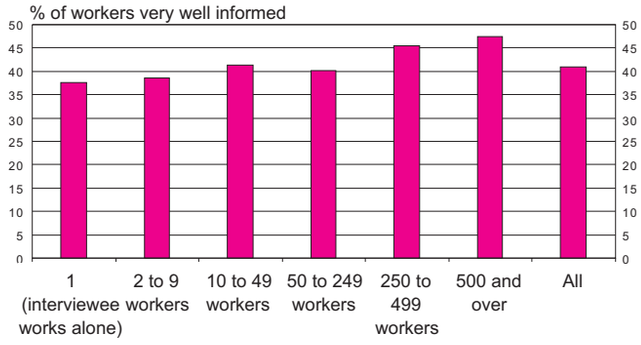
The right to be informed about the risks occurring at work is a fundamental right of the workers and a prerequisite for efficient prevention of work-related hazards. About 41% of Europeans consider themselves to be very well informed about risks at work and another 36% consider they are well informed. The proportion of workers who are very well informed varies somewhat across the sectors of economic activity and it is more common in large local units than in small local units that workers feel they are very well informed about the risks at work, the percentage ranges from 48% in local units with more than 500 workers to about 38% in those with 2-9 workers or those working alone.

Figure 29: Percentage of workers feeling that they are very well informed about risks at work by sector of economic activity and gender. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Figure 30: Percentage of workers feeling that they are very well informed about risks at work by size of the local unit. EU-15, 2000

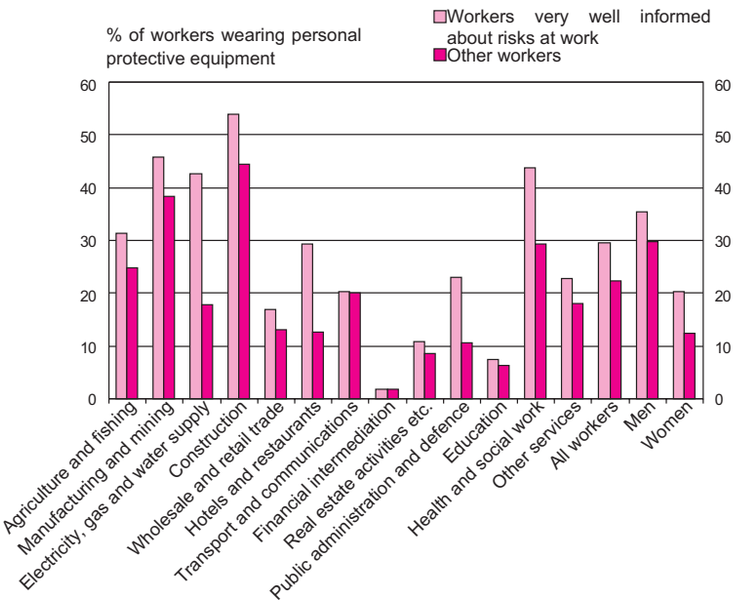


Source: Third European Survey on Working Conditions 2000 (ESWC)

Workers informed of risks are more likely to wear protective equipement.

In nearly all the sectors, those who are very well informed about the risks at work are more likely to wear personal protective equipment than those who are not very well informed about the risks.

Figure 31: Percentage of workers wearing personal protective equipment half of the time or more by degree of information about risks at work, sector of economic activity and gender. EU-15, 2000



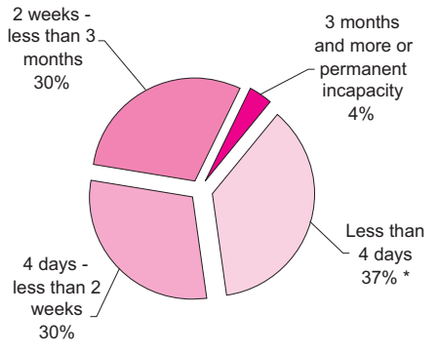
Source: Third European Survey on Working Conditions 2000 (ESWC)

2.11. Consequences of accidents at work

In addition to the major impact of accidents at work in human terms, they also have a high socio-economic cost. Accidents at work recorded by the national administrative sources result in about 150 million days lost each year (Annex table A.16). The real number is somewhat higher as some sectors of economic activity and self-employed workers are not fully covered by these sources. Based on the ESWC, it was estimated that 210 million days were lost annually because of accidents at work. This means that on average, slightly more than one working day per worker is lost because of accidents at work each year. The average number of days lost for one accident at work is 20 days. Of all accidents at work, 37% result in an absence from work of less than four days or no absence at all, while 4% result in more than three months of absence or permanent total or partial disability. The largest share of all days lost because of accidents at work, results from the most severe cases, while the accidents with less than four days of

About 210 million days lost each year because of accidents at work.

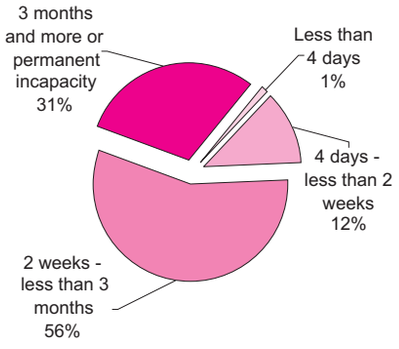
Figure 32: Distribution (%) of accidents at work by number of days of absence from work. EU-15, 2000



* Less than 4 days estimated from the 1999 LFS ad hoc module

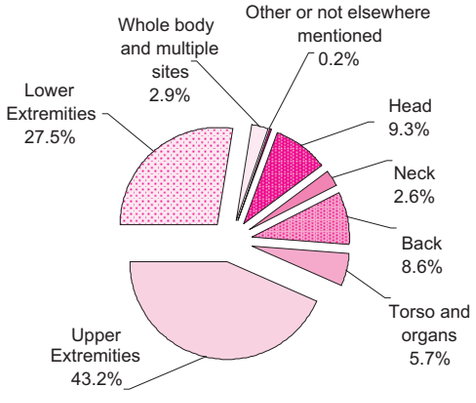
Source: Eurostat - European Statistics on accidents at work (ESAW)

Figure 33: Distribution (%) of total days lost due to accidents at work by number of days of absence from work. EU-15, 2000



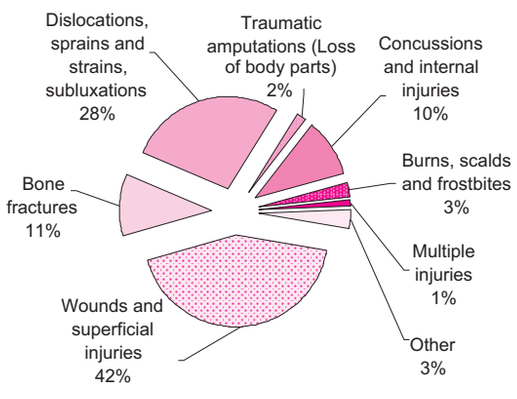
Source: Eurostat - European Statistics on accidents at work (ESAW) & Labour Force Survey - 1999 ad hoc module

Figure 34: Distribution (%) of non-fatal accidents at work by part of body injured. EU-15+NO, 2000



Sources: Eurostat - European Statistics on accidents at work (ESAW)

Figure 35: Distribution (%) of non-fatal accidents at work by type of injury. EU-15+NO, 2000



Source: Eurostat - European Statistics on accidents at work (ESAW)

absence cause only 1% of all days lost because of accidents at work.

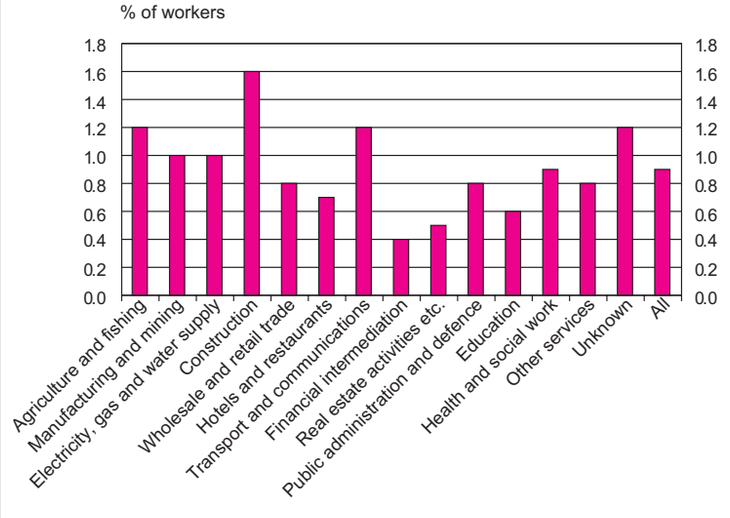
The parts of the body most often injured due an accident at work are upper and lower extremities. Wounds and superficial injuries are the most common type of injury.

Based on the ad hoc module of the 1999 LFS about 5% of those who have recovered from an accident at work, can't return to the same work (2,9% have to change job or employer, 1,8% have to reduce their working hours, and 0,2 % never expect to return to work anymore). Of all victims of accidents at work, about 14% have more than one accident at work per year.

2.3 million Europeans consider themselves having a longstanding disability due to an accident at work.

Based on the 2002 Labour Force Survey ad hoc module about 0.9% of all 16-64 years old people in the EU Member States had a long standing health problem or disability which according to their judgement was due to an accident at work. The survey included both those who were still working and those who were unemployed or already retired. This means that there are about 2.3 million people in the EU Member States with such a health problem caused by an accident at work. The prevalence of such long standing health problems caused by accidents at work was the highest in construction (1.6%), agriculture (1.2%), transport (1.2%) and mining and manufacturing (1.0%). The prevalence of such problems was also quite high (1.2%) among those who due to unemployment, early retirement or other reasons of inactivity could not be classified by the sector of economic activity of their employer.

Figure 36: Percentage of workers with a long standing health problem or disability caused by an accident at work. EU-15, 2002



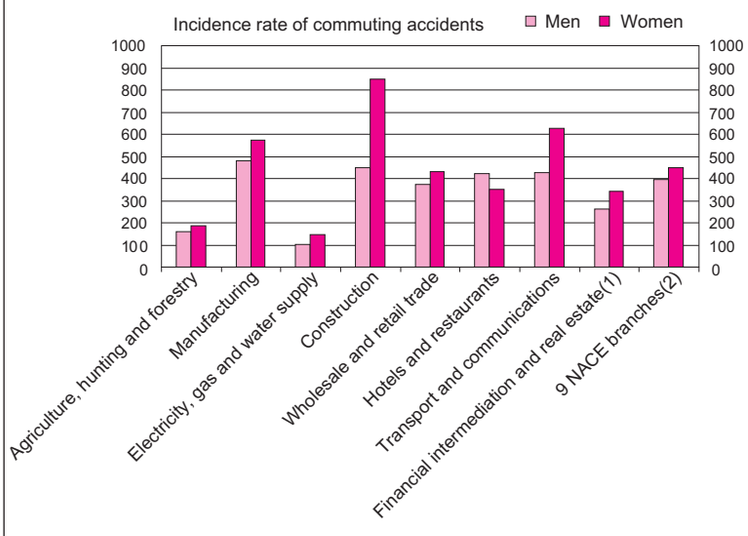
Source: Eurostat - Labour Force Survey - 2002 ad hoc module

2.12. Commuting accidents

3 400 fatal and 650 000 non-fatal commuting accidents each year.

According to ESAW the annual number of commuting accidents (accidents on the way to or from work) in the European Union is estimated at 3 400 fatal and 650 000 non-fatal accidents with more than three days' absence. Such accidents are not included in the accidents at work presented in the previous sections. The incidence rate of commuting accidents varies somewhat between sectors of economic activity. In most sectors the incidence rate is slightly higher for women than for men.

Figure 37: Incidence rate of non-fatal commuting accidents by sector of economic activity. EU-10, 2001



(1) Financial intermediation combined with real estate, renting and business activities.

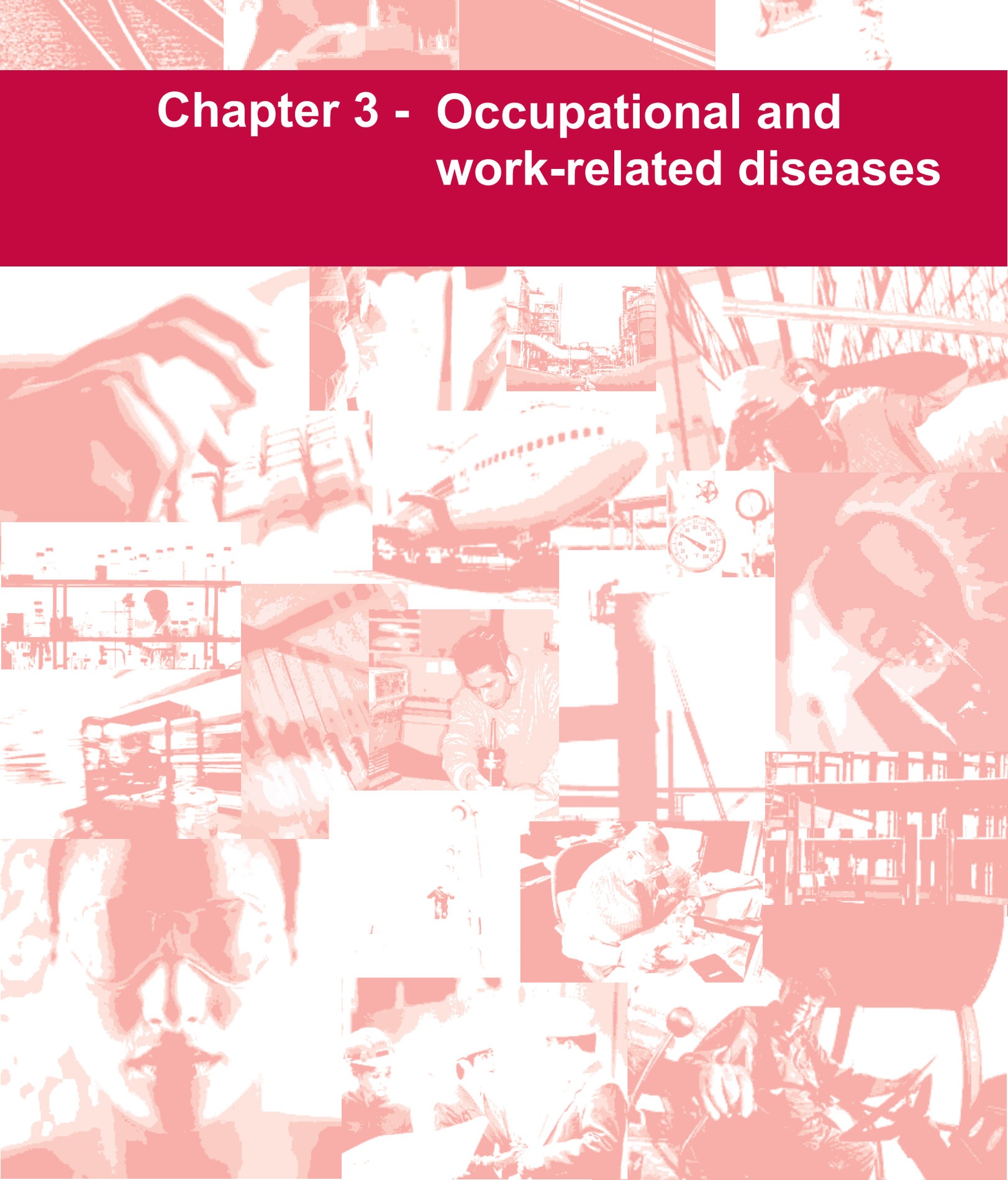
(2) 9 NACE branches: Agriculture, Manufacturing, Electricity gas water supply, Construction, Wholesale and retail repairs, Hotels and restaurants, Transports communications, Financial intermediation, Real estate business activities.

NB: Commuting accidents with more than 3 days lost (4 days' absence or more).

EU-10: BE, DE, EL, ES, FR, IT, LU, AT, FI and SE.

Source: Eurostat - European Statistics on accidents at work (ESAW) - Commuting accidents

Chapter 3 - Occupational and work-related diseases



3.1. Introduction

Work-related causality of diseases is a complex topic. In some cases a work-related factor may be the only cause of the disease, but it is much more common that work-related factors increase the risk of disease together with other factors. Furthermore it is also frequent that work-related factors aggravate an already existing disease.

In a strict sense the concept of an occupational disease refers to cases for which the occupational origin has been approved by the national compensation authorities. This concept is obviously dependent on the national legislation and compensation practice, which typically restrict the compensation to cases for which the occupational factor is the only or the most important cause. By definition this is a rather restrictive concept which also varies between countries.

The concept of a work-related disease includes all cases of disease in the causation of which an occupational factor played some role. The concept of a work-aggravated disease includes all cases of disease which are made worse by work, whatever the original cause of the disease.

350 million days lost each year because of work-related diseases.

According to the results of the EU LFS ad hoc module 1999, it is estimated that during a one year period in 1998-1999 nearly eight million people in work or having been in work in the EU were suffering from non-accidental health problems caused or made worse by their current or past employment. The prevalence rate for employees was 5 372 cases per 100 000 persons per year. 53% of the cases were musculoskeletal disorders, 18% stress, depression or anxiety and 8% pulmonary disorders. An estimated 350 million working days were lost during the year in the EU due to such problems. Based on the results of the ESWC a very similar estimate, 340 million days lost, was calculated for self-reported sickness absence due to non-accidental health problems caused by work in 2000.

In the following sections of this chapter the distribution of the risk factors and of disease occurrence are described for the most important work-related diseases. This chapter is not comprehensive and does not cover all risk factors or all the disease outcomes. For many relevant topics no EU level statistical data were available. In addition, even for topics with data available the sample size of the surveys or the variables available did not allow analysis of the distributions at the desired level of detail. For example when a given exposure or outcome was observed to be several times more common in certain sectors of economic activity as compared to the average, it would have been interesting to examine the distribution by occupation, company size, causative factor etc.

3.2. Musculo-skeletal problems

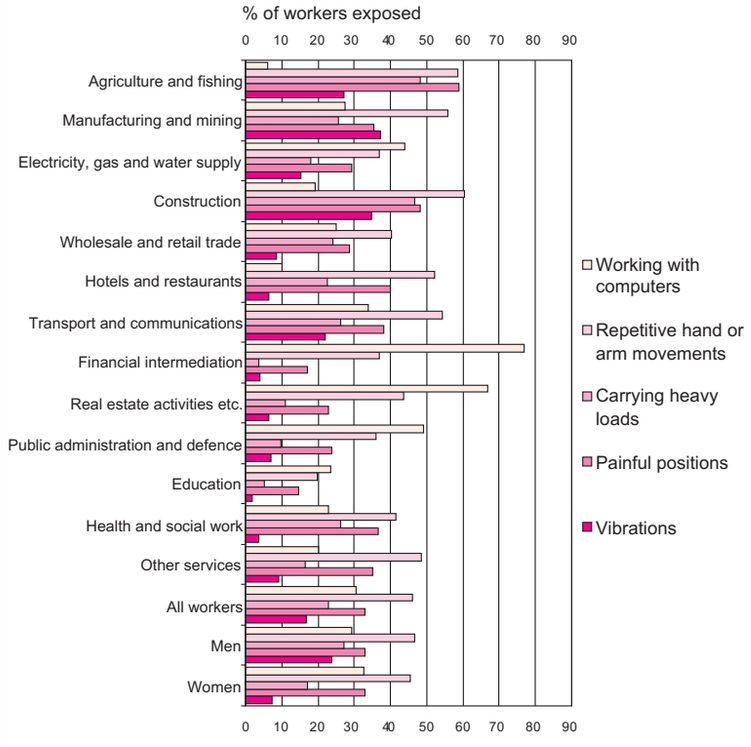
3.2.1. Distribution of some risk factors

17% to 46% of workers report exposure to risk factors of musculoskeletal diseases.

There are numerous established work-related risk factors for the various types of musculoskeletal disorders. These include physical, ergonomic and psychosocial factors. Unfortunately there are only limited European wide data on their occurrence and distribution in the population. According to the ESWC, 17% of European workers report being exposed to vibrations from hand tools or machinery for at least half of their working time. Similarly 33% are exposed to painful or tiring positions for at least half of their working time, 23% to carrying or moving heavy loads, 46% to repeated hand or arm movements and 31% are working with a computer at least half of their working time.

Exposure to painful positions and repeated hand or arm movements seem to be quite common in all sectors of economic activity, with at least 15-20% of the workers being exposed half of the time or more. There is more variation between the sectors of economic activity for exposure to vibrations (from 2% to 37%), carrying heavy loads (from 4% to 49%) and working with computers

Figure 38: Percentage of workers exposed half of the time or more to certain risk factors of musculoskeletal disorders. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

(from 2% to 77%). Exposure to carrying or moving heavy loads is more common among men (27%) than among women (17%) and so is exposure to vibrations (men 24%, women 7%). For the other exposures the rate of reported exposure is similar between men and women.

3.2.2. Perceived health risk

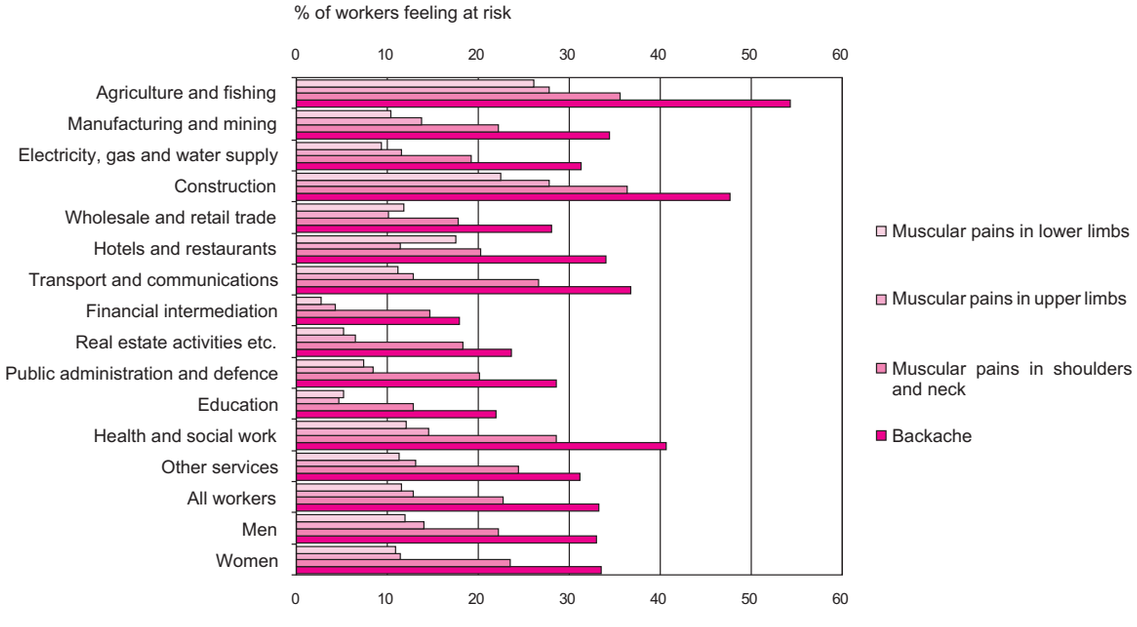
A risk of musculoskleletal diseases is most often felt in agriculture, construction and health care.

About 33% of European workers consider that their work affects their health in the form of backache. Agriculture, construction and health and social work have the highest proportion of such workers (40-50%), but the proportion is at least about 20% in all sectors of economic activity. The situation is quite similar for muscular pains in the shoulders and neck. About 23% of the workers consider that their work causes them a risk of such problems, and the rate is the highest in agriculture, construction and health and social work, but rates of at least about 15% are reported in all the sectors.

About 13% of workers consider that their work affects their health in the form of muscular pain in the upper limbs and 12% in the lower limbs. For both these locations of muscular pain the rates are highest, about 30%, in agriculture and construction, for upper limbs such a risk is also reported by 15% of those working in the sector of health and social work, and for lower limbs by 17% of those working in hotels and restaurants.

It is more or less equally common for both men and women to consider their work as causing them muscular pain in back, shoulder or neck, upper extremities or lower extremities.

Figure 39: Percentage of workers considering their health as being at risk of backache or of muscular pains in shoulders and neck, in upper limbs, or in lower limbs. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

3.2.3. Occurrence of work-related musculoskeletal diseases

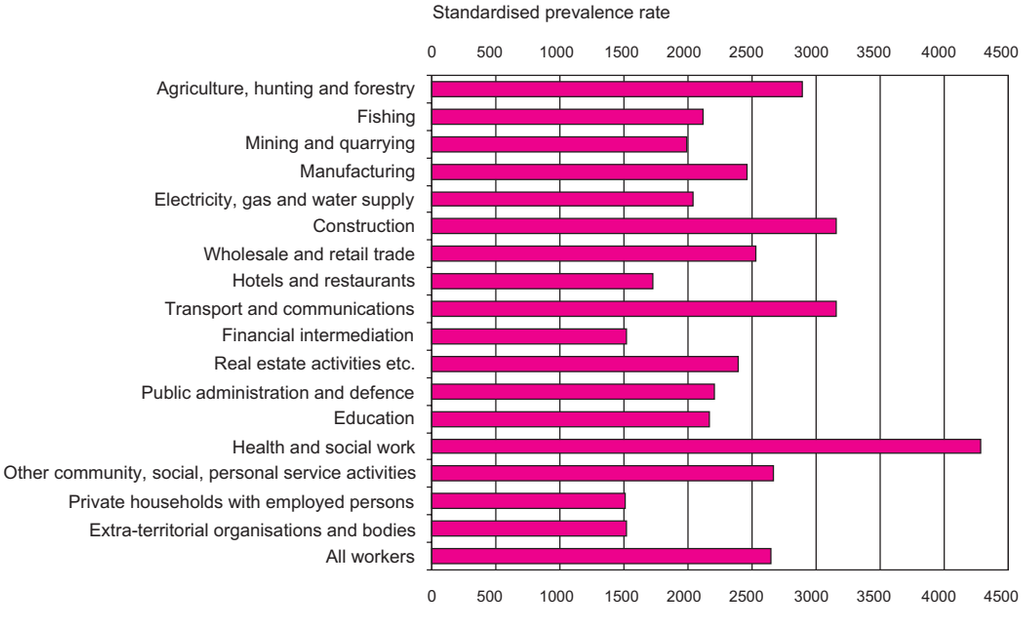
3.2.3.1. Self-reported work-related musculoskeletal diseases

According to the LFS 1999 ad hoc module, about 2.6% of European workers suffer from a musculoskeletal health problem, which according to their own judgement was caused or made worse by work. This means that about 4 million European workers (current or retired) have such musculoskeletal problems. About 0.8% of the respondents had suffered from conditions which had caused 14 days or more of absence from work during the past 12 months.

4 million Europeans consider themselves having a work-related or work-aggravated musculoskeletal disease.

The prevalence of such health problems is the highest in the sectors of health and social work, construction, transport and agriculture. In these sectors it is two to three times more common to have such problems than it is in the sectors of hotels and restaurants or financial intermediation.

Figure 40: Standardised prevalence rate of musculoskeletal health problems caused or made worse by work. EU-11+HU, 1999



NB: All health problems, with or without days of absence from work.

Standardised prevalence rate per 100 000 workers.

EU-11+HU: see methodological notes for LFS 1999 ad hoc module.

Source: Eurostat - Labour Force Survey - 1999 ad hoc module

3.2.3.2. Recognised occupational musculoskeletal diseases

Only a few musculoskeletal diseases are recognised as occupational diseases.

Musculoskeletal disorders have a multifactorial aetiology and a mixture of genetic, environmental and behavioural factors are involved. It is difficult in most cases to point out the exact cause of an individual case of disease. Therefore musculoskeletal diseases are not very commonly accepted as occupational diseases in the national compensation or reporting systems.

As regards musculoskeletal diseases, the European Schedule of Occupational Diseases[7] includes specific conditions linked to vibration, local pressure and overuse of tendons, peritendonous tissues and of tendon insertions. Whereas for example disorders of the lower back and neck and shoulder region are accepted as occupational diseases by only a few Member States and only for specific forms of disease[8]. It is therefore difficult to collect comprehensive European level data on recognised occupational musculoskeletal disorders. According to the 2001 EODS data collection with 12 Member States providing data on recognised cases of occupational diseases, the most common musculoskeletal occupational diseases were tenosynovitis of the hand or wrist (5 379 cases) and epicondylitis of the elbow (4 585 cases). In addition there were 2 483 cases of carpal tunnel syndrome, a neurological disease of the wrist. If extrapolated to EU-15 in the ratio of the workforce of EU-15 and the participating countries there would be around 8 900 cases of tenosynovitis, 7 600 cases of epicondylitis and 4 100 cases of carpal tunnel syndrome recognised in EU-15. All in all, the number of accepted cases of occupational disease is orders of magnitude smaller than the number of self-assessed work-related cases described in the previous section.

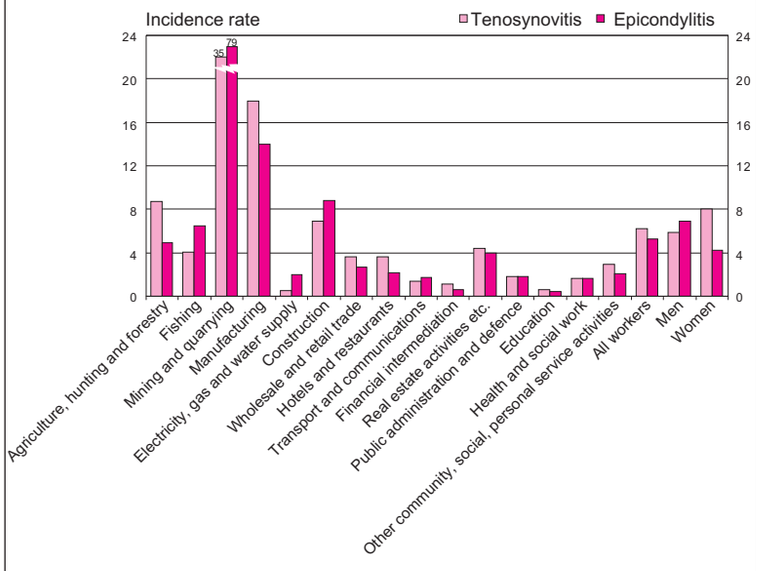
The incidence rate of recognised hand/wrist tenosynovitis and of elbow epicondylitis varies greatly between the sectors of economic activity. It is by far the highest in mining and quarrying, but also manufacturing, construction and agriculture have an incidence rate clearly higher than the sectors mostly involved with office type work. Nevertheless, it must be underlined that this is partly due to the fact that the national recognition practices are better established for recognition of such diseases occurring under non-office type working conditions. The causative factors reported for tenosynovitis and epicondylitis were repetitive work (91%), work

7 Commission Recommendation (EC) 3297/2003 of 19 September 2003 concerning the European Schedule of Occupational Diseases.

8 European Occupational Diseases Statistics (EODS) – Phase 1 methodology. Eurostat working papers. Population and social conditions 3/2000/E/no.19.

postures (1%), mechanical vibrations (1%) and biomechanical factors in general (6%).

Figure 41: Incidence rate of recognised occupational hand or wrist tenosynovitis and epicondylitis of the elbow. EU-12, 2001



Incidence rate per 100 000 workers covered by the recognition systems.

EU-12: see methodological notes for EODS.

Source: Eurostat - European Occupational Disease Statistics (EODS), 2001 data for 12 Member States

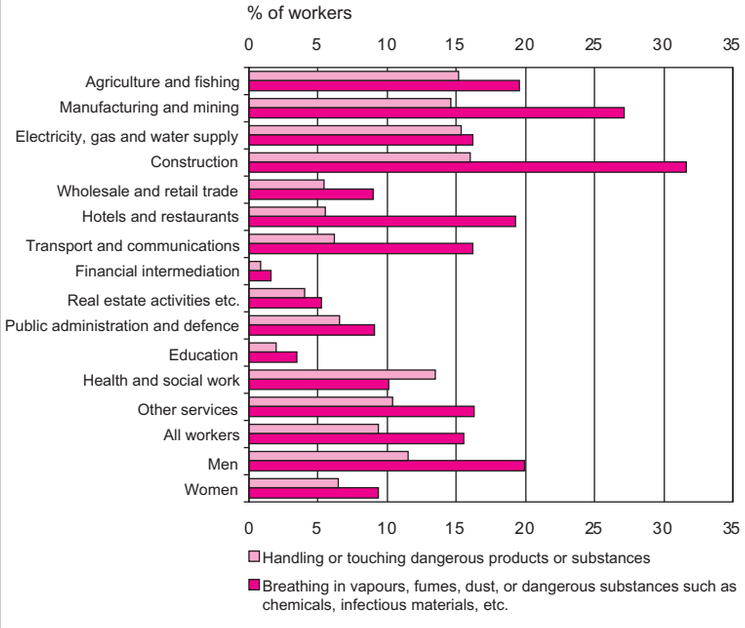
3.3. Respiratory and skin problems

3.3.1. Distribution of some risk factors

15% of workers report breathing harmful substances more than half of their working time.

Various irritative and allergy provoking substances can affect both the respiratory airways and the skin. More than two hundred causative agents have been identified for occupational asthma and various other substances can cause other types of respiratory disease or skin disease. Obviously it is quite impossible to collect specific statistical information on the occurrence and distribution of all these exposures. According to the ESWC, about 15% of Europeans report being exposed to breathing in vapours, fumes, dust or dangerous substances in their workplace for at least half of their working time and 9% handle or touch dangerous substances for at least half of their working time. The fraction of the workforce exposed to breathing in vapours at least half of their working time ranges from less than 2% in financial intermediation to 32% in construction and the proportion of those handling dangerous substances for at least half of the time from less than 1% in financial intermediation to 16% in construction. In all the sectors the proportion of workers actually directly handling or touching harmful substances is lower than the fraction of workers reporting exposure through breathing in harmful substances. Therefore indirect exposures from activities done by other workers are also important. Exposure to both breathing in and handling of such substances is twice more frequent among men than among women.

Figure 42: Percentage of workers breathing in vapours and of those handling dangerous substances half of the time or more. EU-15, 2000

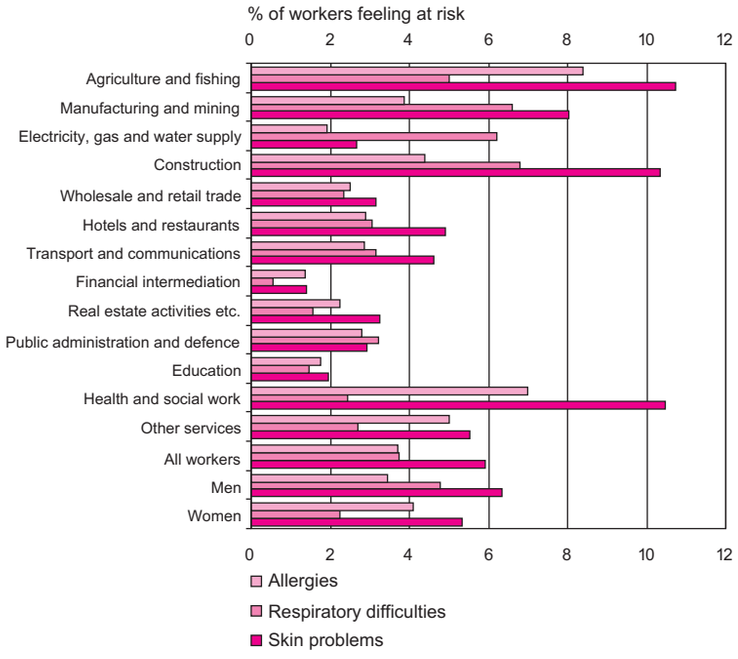


Source: Third European Survey on Working Conditions 2000 (ESWC)

3.3.2. Perceived health risk

About 6% of workers consider their work affects their health in the form of skin problems, about 4% in the form of respiratory difficulties and about 4% in the form of allergy. For all these health risks the prevalence is the highest in agriculture, construction, manufacturing and health and social work and the lowest in financial intermediation and education. The difference between the highest and the lowest prevalence by sector is typically nearly 10-fold.

Figure 43: Percentage of workers feeling their health as being at risk of skin problems, respiratory difficulties or allergies because of work. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

3.3.3. Occurrence of work-related respiratory and skin diseases

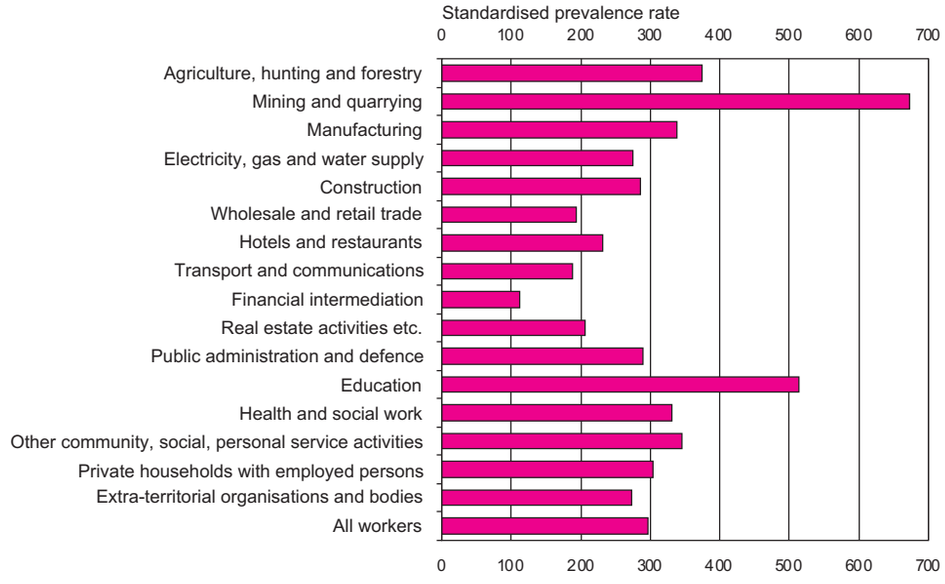
3.3.3.1. Self-reported work-related respiratory and skin diseases

According to the ad hoc module of the 1999 LFS, about 0.3% of the respondents suffered from a respiratory health problem, which according to their own judgement was caused or made worse by work. This means that about 600 000 European workers (current or retired) have such respiratory health problems.

About 600 000 Europeans consider themselves having a work-related respiratory disease.

The prevalence of such respiratory health problems is the highest in the sectors of mining, education and agriculture. In these sectors it is three to six times more common to have such problems than it is in the sector of financial intermediation.

Figure 44: Standardised prevalence rate of pulmonary health problems caused or made worse by work. EU-11+HU, 1999



NB: All health problems, with or without days of absence from work.

Standardised prevalence rate per 100 000 workers.

EU-11+HU: see methodological notes for LFS 1999 ad hoc module.

Source: Eurostat - Labour Force Survey - 1999 ad hoc module

According to the survey, about 0.1% of the respondents suffered from a skin disease, which according to their own judgement was caused or made worse by work. This means that about 200 000 European workers (current or retired) have such skin problems.

3.3.3.2. Recognised occupational respiratory and skin diseases

Respiratory diseases (pneumoconiosis, respiratory allergies, respiratory cancer) and skin diseases account for an important part of all recognised occupational diseases in the EU countries. According to the EODS 2001 data collection about 5 900 respiratory and 4 600 skin diseases were recognised in the 12 Member States providing data, meaning an estimate of about 10 000 respiratory and 8 000 skin diseases extrapolated to EU-15. Yet lack of comparability between the systems and under-reporting of cases are major problems in interpreting data from national occupational disease compensation and reporting schemes. Some of the occupational respiratory diseases take several decades to develop (e.g. respiratory cancer, asbestosis and silicosis). Therefore the diseases quite often become apparent only after retirement and it is likely that the occupational origin remains unrecognised for an important number of cases. For example, in 1995 about 1 400 mesotheliomas were recognised as

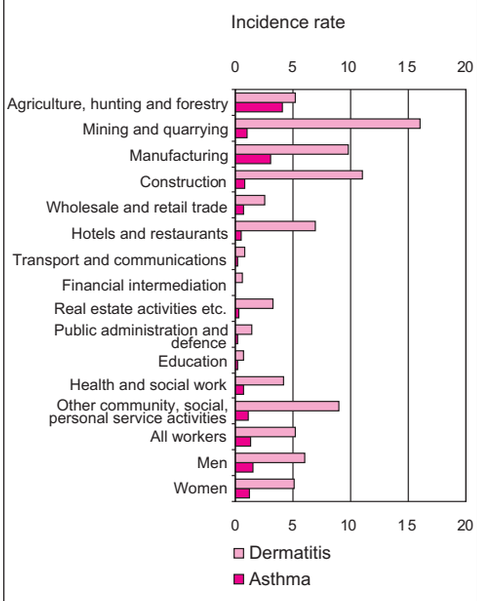
Table 4: Incidence of main recognised occupational respiratory and skin disease. EU-15, 2001

Disease	Number of cases in 12 Member States	Number of cases extrapolated to EU-15
Lung diseases	5 883	9 700
Mesothelioma	1 168	1 900
Asthma	1 075	1 800
Asbestosis	738	1 200
Coal worker's pneumoconiosis	547	910
Chronic bronchitis	497	820
Silicosis	485	800
Pleural asbestos disease	481	800
Allergic rhinitis	248	410
Lung cancer	208	340
Allergic alveolitis	189	310
Other lung disease	247	410
Skin diseases	4 569	7 600
Allergic, irritant or unspecified dermatitis	4 457	7 400
Other skin disease	112	200

NB: Extrapolation in the ratio of workforce in EU-15 and the participating 12 Member States.

Source: Eurostat - European Occupational Disease Statistics (EODS)

Figure 45: Incidence rate of recognised occupational asthma and dermatitis by sector of economic activity. EU-12, 2001



Incidence rate per 100 000 workers covered by the recognition systems.

EU-12: see methodological notes for EODS.

Source: Eurostat - European Occupational Disease Statistics (EODS), 2001 data for 12 Member States

asbestos-related occupational diseases in men in the EU, while at least 3 600 male deaths due to mesothelioma were recorded in the mortality statistics[9]. As nearly all mesotheliomas are related to asbestos and most asbestos exposures occurred at work, mesothelioma was certainly underreported as an occupational disease in 1995.

The incidence rates of recognised occupational respiratory and skin diseases vary greatly between the sectors of economic activity. The incidence rate of recognised occupational asthma per number of current workers was the highest in the sectors of agriculture and manufacturing, while the incidence rate of recognised occupational dermatitis was the highest in mining, construction, manufacturing, services and hotels and restaurants. The differences between the highest and lowest sector-specific incidence rates are more than 20-fold. The differences reflect, however, not only differences in exposure to risk factors between the sectors, but also national practices of recognition of occupational diseases.

Occupational skin diseases are 26 times more common in mining than is the financial sector.

There were 230 different causative agents reported for the recognised occupational skin diseases, but most of the factors

9 European Statistics on Occupational Diseases - Evaluation of the 1995 pilot data. Eurostat Working papers. Population and Social Conditions 3/1999/E/no 2.

(59%) were defined by their industrial use purpose and not by their chemical structure. For occupational asthma there were 130 different causative agents reported. The most common specific agents were flour dust (10%), isocyanates (4%), dust from mammals (4%) and wood dusts (3%).

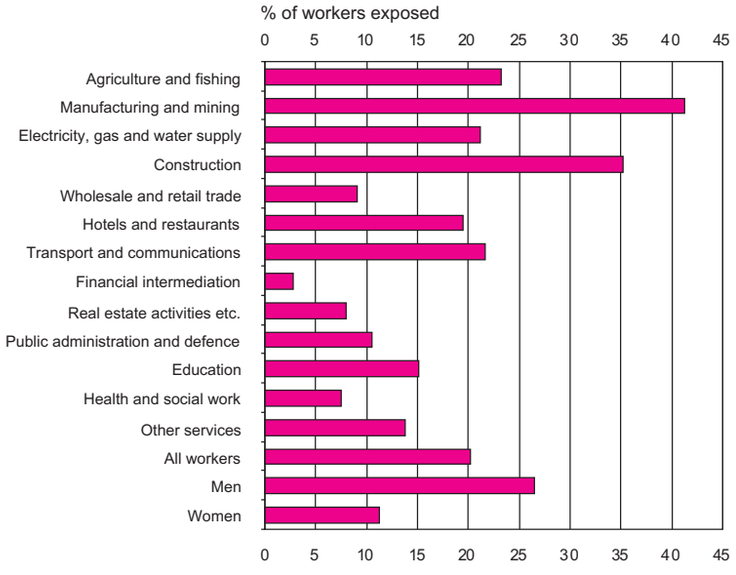
3.4. Hearing problems

3.4.1. Distribution of some risk factors

20% of workers report working under noisy conditions.

According to the ESWC about 20% of European workers are exposed, half or more of their working time, to noise so loud that they would have raise their voice to talk to other people. Exposure to noise is especially common in the manufacturing and construction sectors, where about 40% of the workers are exposed. Men are exposed to noise more than twice as often as women.

Figure 46: Percentage of workers exposed to noise at work half of the time or more. EU-15, 2000

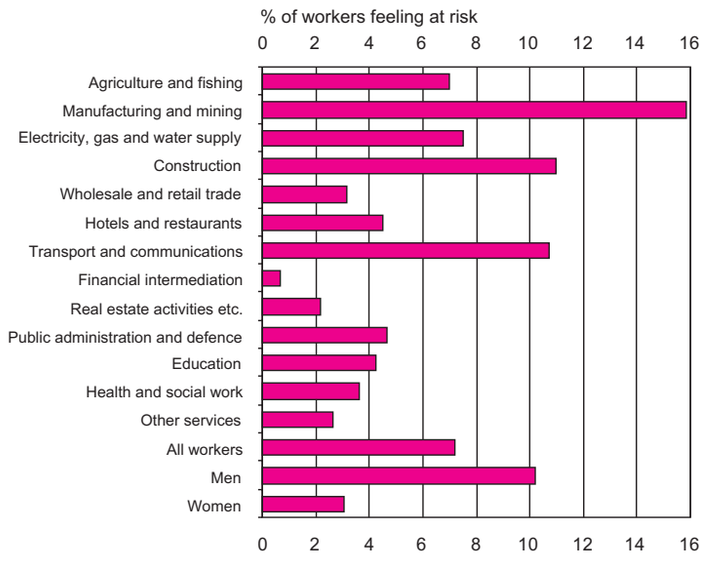


Source: Third European Survey on Working Conditions 2000 (ESWC)

3.4.2. Perceived health risk

About 7% of European workers consider that their work affects their health in the form of hearing disorders. Such a risk is reported especially in manufacturing, construction and transport sectors, while it is virtually non-existent in the sector of financial intermediation. Men report such a risk more than three times as often as women.

Figure 47: Percentage of workers considering their health as being at risk of hearing problems. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

3.4.3. Occurrence of work-related hearing disorders

3.4.3.1. Self-reported work-related hearing disorders

200 000 Europeans consider themselves having a work-related hearing problem.

According to the ad hoc module of the 1999 LFS, about 0.1% of the respondents suffered from a hearing problem, which according to their own judgement was caused or made worse by work. This means that about 200 000 European workers (current or retired) have such hearing problems.

3.4.3.2. Recognised cases of occupational noise-induced hearing loss

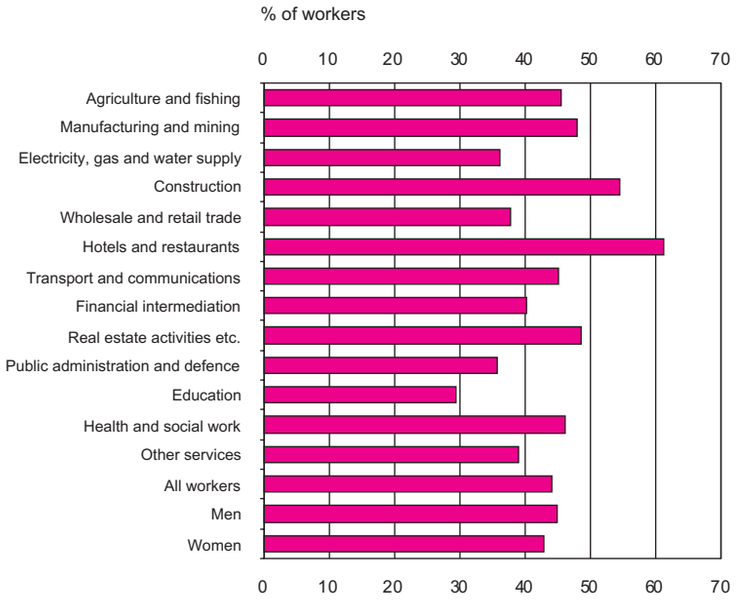
Noise-induced hearing loss is among the most numerously reported occupational diseases in nearly all of the national occupational disease compensation or reporting schemes. In the EODS 2001 data collection the authorities of the 12 EU member states provided data on 4 068 recognised cases. If extrapolated to EU-15 in the ratio of the workforce of EU-15 and the participating countries there would be around 6 700 cases. There is variation between the national schemes in how severe the hearing impairment must be before the case is recognised. Therefore it is difficult to compare the absolute rates between the member states. Instead one can conclude that the same sectors have the highest incidence rate in nearly all of the national systems. These include several manufacturing sectors (especially manufacturing of metal products, of wood products and of transport equipment) and construction. It usually takes a long time to develop noise-induced hearing loss, and about half of the incident cases were seen among those aged 55 years or more. In sectors with the highest exposures to noise, the workforce is predominantly male. About 97% of the cases were reported in men.

3.5. Psychosocial health problems

3.5.1. Distribution of some risk factors

Risk factors of psychosocial health problems are complex and their mechanisms remain poorly understood. The borderlines between problems of work satisfaction, aggravation of an existing health problem, and onset of a new health problem are not clear-cut for researchers, or to workers participating in surveys. In addition to non-work-related factors, various factors of work organisation, job control, job demand, work pace, hierarchical relations etc. are involved. The problems are linked less to exposure to a specific risk than to a whole set of factors. It is beyond the scope of this publication to provide data on the occurrence and distribution of all work-related risk factors for psychosocial health problems. Quite a lot of information has been published based on the ESWC[10]. Based on the information available from that survey we describe some key figures for four indicators: work with a very high speed, occurrence of unforeseen interruptions at work, lack of ability to choose the working methods and match between skills and work demands.

Figure 48: Percentage of workers working at very high speed half of the time or more. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

10 www.eurofound.ie/publications/publications.htm

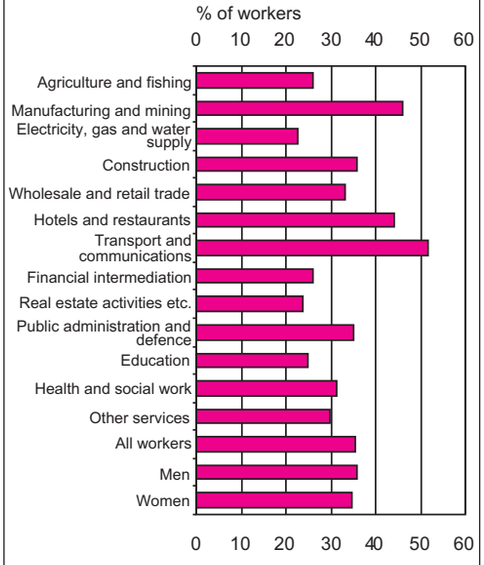
61% of hotel and restaurant workers consider they have to work at very high speed.

43% of women and 45% of men report that they work at a very high speed at least half of their working time. The proportion of such workers is the highest in the sectors of hotels and restaurants (61%) and construction (55%), while in education 29% and in public administration 36% of workers report such a pace of work. It is more common for younger workers to have to work at a very high speed. Of those less than 24 years old, 53% work at a very high speed at least half of the time, while the proportion of such workers goes down with increasing age and is 35% among those aged 55-64 years. 34% of self-employed workers without employees have to work at a very high speed as compared to 42-49% in all other categories of size of local unit.

Unforeseen interruptions of work activities are most common in health care.

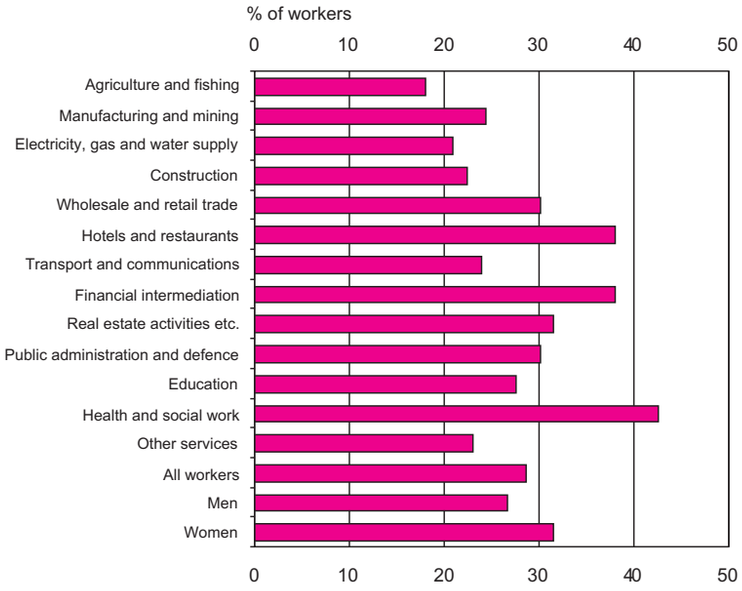
31% of women and 27% of men have to interrupt their activity several times a day because of an unforeseen task. Such interruptions are especially common in the sectors of health and social work (43%), hotels and restaurants (38%) and financial intermediation (38%). There are virtually no differences by age in the frequency of workers who have such interruptions several times a day. The differences by size of local unit are also small, with the exception that the self-employed who have no employees report such interruptions slightly less often (20%) than workers in local units with other sizes (around 30% in all).

Figure 50: Percentage of workers having no ability to choose or change the order of their tasks. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Figure 49: Percentage of workers having to interrupt their work several times a day due to an unforeseen task. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Inability to choose the order of tasks is most common in transport.

35% of women and 36% of men say they have no ability to choose or change the order of their tasks. Such conditions are about two times more common in transport (52%), manufacturing (46%) and hotels and restaurants (44%) than in electricity, gas an water supply, real estate, renting and business activities, financial intermediation, education and agriculture (23-26% in all). In all the sectors, such a lack of ability to choose the order of their tasks is more common among those working in non-office occupations than

in office occupations; for example in the manufacturing sector 58% of non-office workers and 22% of office workers and in construction 43% of non-office and 17% of office workers. These problems are clearly more common among young workers, the frequency going down from 49% in those aged less than 24 years to 31% in those aged 55-64 years. The self-employed without employees quite naturally experience less of this type of problem (14%) than those working in local units with 1-9 workers (33%) or in larger local units (37-39%).

84% of women and 85% of men feel that their skills match the demands imposed to them by their job. The proportion of such workers is 81-92% in all the sectors of activity and 80-88% in all categories of company size. Also the differences by age are rather small, 81% of those aged less than 24 years and 86% of those aged 55-64 years feel that their skills match the demands of their job.

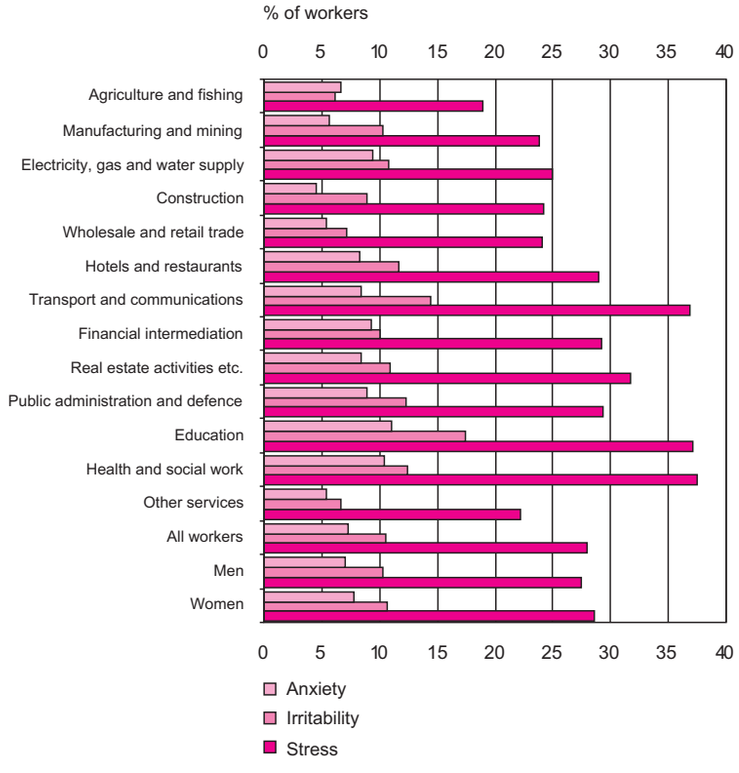
85% of European workers consider that their skills match their job's demands.

3.5.2. Perceived health risks

About 28% of workers consider their work affects their health in the form of stress, about 10% in the form of irritability and about 7% in the form of anxiety. For all these health risks the prevalence is the highest in education, but the problem is spread over all sectors of economic activity and the differences between the sectors are

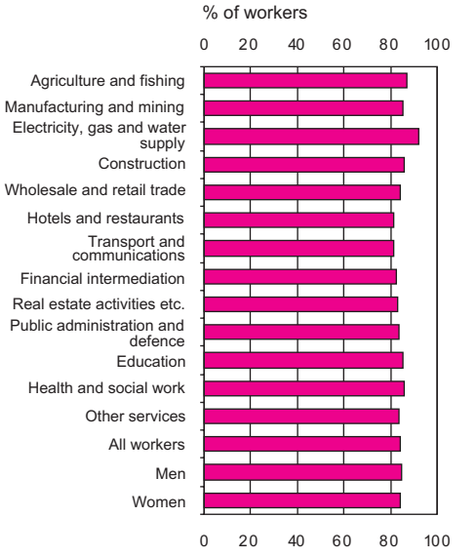
A risk of psychosocial health problems is felt most often in education.

Figure 52: Percentage of workers considering their health as being at risk of stress, irritability or anxiety because of work. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

Figure 51: Percentage of workers feeling that their skills match with their job's demands. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

smaller than for the health risks described in the previous chapters. There are no important differences in the prevalence of these health risks between men and women.

3.5.3. Occurrence of work-related psychosocial health problems

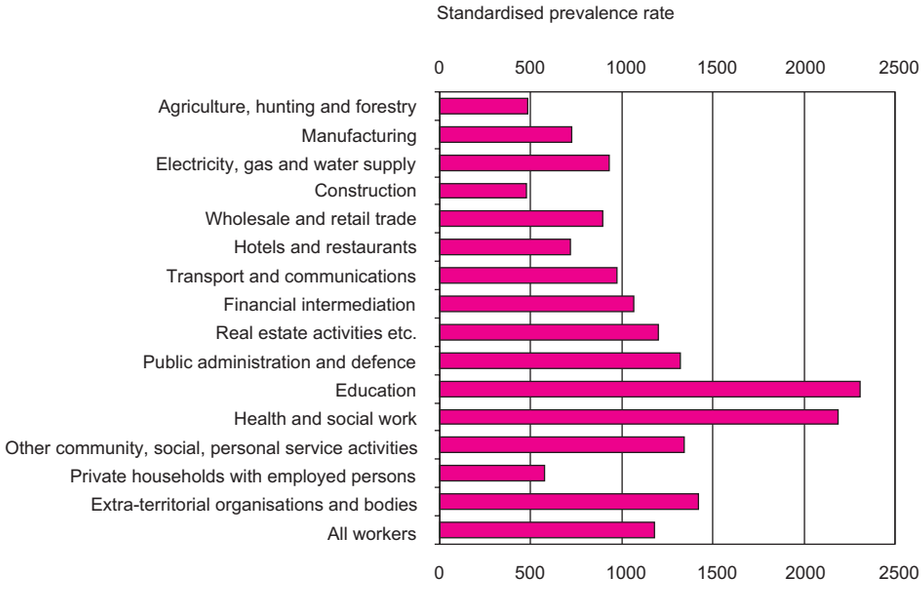
3.5.3.1. Self-reported work-related psychosocial health problems

1.4 million Europeans consider themselves having a work-related psychosocial health problem.

According to the ad hoc module of the 1999 LFS, about 1.2% of the respondents suffered from stress, depression or anxiety, which according to their own judgement was caused or made worse by work. This means that about 1.4 million European workers (current or past) have such psychosocial health problems. Such problems were the second most important type of work-related health problems after musculoskeletal problems.

The prevalence of such psychosocial health problems is the highest in the sectors of education and health and social work. In these sectors it is four to five times more common to have such problems than it is in the agricultural or construction sectors. Although one must bear in mind that in agriculture and construction other types of health problems are more common and more severe, which may have influenced the reporting of psychosocial problems in these sectors.

Figure 53: Standardised prevalence rate of stress, depression or anxiety caused or made worse by work. EU-11+HU, 1999



NB: All health problems, with or without days of absence from work.

Standardised prevalence rate per 100 000 workers.

EU-11+HU: see methodological notes for LFS 1999 ad hoc module.

Source: Eurostat - Labour Force Survey - 1999 ad hoc module

3.5.3.2. Recognised occupational psychosocial health problems

Because of a lack of knowledge on the mechanisms of work-related psychosocial disorders, very few if any such disorders are included in the national systems of reporting or compensating occupational diseases. In 2000 a methodological survey was made in the 15 EU Member States to collect metadata and to plan a statistical data collection on occupational diseases[11]. At that time all Member States reported they had not included any such disorders in their national list of occupational diseases. In some countries posttraumatic stress disorder and burnout are included in the reporting system and post traumatic stress disorder may in some instances be accepted under the system of compensating accidents at work (e.g. victims of assaults during work).

The European Schedule of Occupational Diseases[12] does not include any disorders of a psychosocial nature, but urges the Member States to enhance studies exploring their occupational origin.

11 European Occupational Diseases Statistics (EODS) – Phase 1 methodology. Eurostat working papers. Population and social conditions 3/2000/E/no.19.

12 Commission Recommendation (EC) 3297/2003 of 19 September 2003 concerning the European Schedule of Occupational Diseases.

3.6. Other health problems

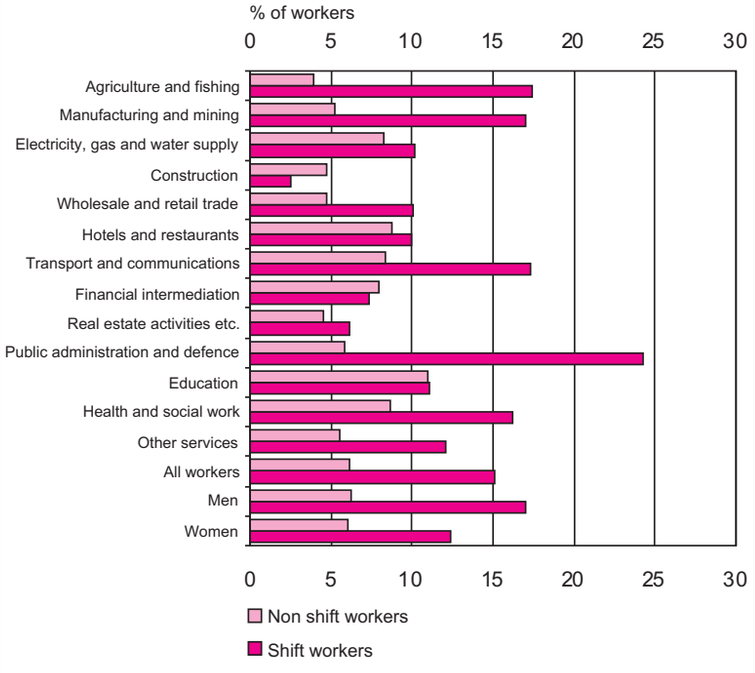
3.6.1. Sleeping problems and unusual working hours

As pointed out in chapter 2.6. about 20% of European workers work in shifts and about the same number do at least some night work. Shift work and night work are especially common in the sectors of transport and hotels and restaurants. In hotels and restaurants nearly 50% of workers do at least some night work.

Shift workers have sleeping problems twice as often as non-shift workers.

About 8% of European workers consider that their work causes them a health risk in the form of sleeping problems. Such problems are most common in education and health and social work where 11% of workers report them. A health risk of sleeping problems is reported more than twice as often among those who do shift work as compared to those who never do shift work. This difference is seen in nearly all sectors of economic activity.

Figure 54: Percentage of shift and non shift workers having sleeping problems. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

3.6.2. Cardiovascular disorders

The most important risk factors associated with cardiovascular disorders are non-occupational. However, for example shift work and stress-related factors have been found to increase the risk of ischaemic heart disease. Long-term exposure to vibration is a well-established risk factor of peripheral circulation impairment in the hands (so-called vibration white-finger).

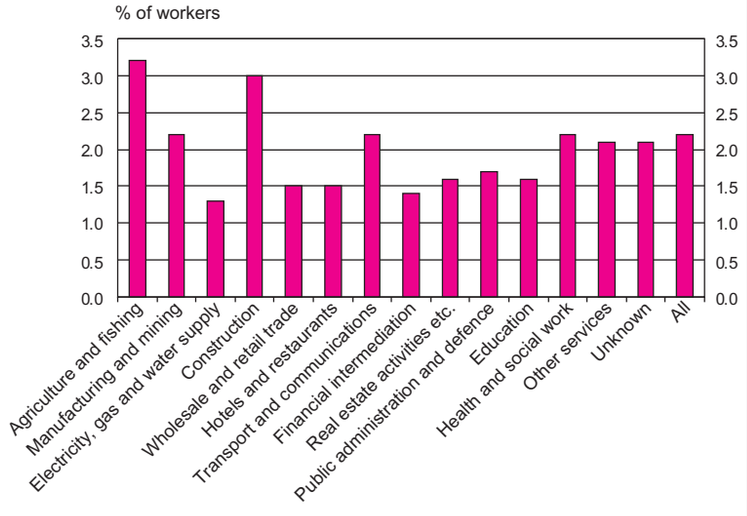
Only 1% of European workers consider their work affects their health in the form of heart disease. The prevalence of such risk is low, between 0.5 and 1.7 %, in all sectors of economic activity. According to the ad hoc module of the 1999 LFS, less than 0.2% of the respondents suffered from a cardiovascular health problem, which according to their own judgement was caused or made worse by work. This means that about 320 000 European workers (current or past) have such cardiovascular health problems. Based on scientific evidence, the above-mentioned work-related risk factors could contribute much more to cardiovascular morbidity and mortality (see chapter 3.8.). It is probably more difficult for workers to recognise the link between work-related exposure and cardiovascular diseases than to recognise the work-related risks of musculoskeletal, respiratory or skin disease.

3.7. Long standing health problems or disability caused by work-related diseases

5.5 million Europeans consider themselves having a longstanding disability due to a work-related disease.

Based on the 2002 Labour Force Survey ad hoc module 2.2% of all 16-64 year old people in the EU Member States had a long standing health problem or disability that according to their own judgement was due to a work-related disease. The survey included both those who were still working and those who were unemployed or already retired. This means that there are about 5.5 million people in the EU Member States with such a health problem caused by a work-related disease. The prevalence of such long standing health problems caused by a work-related disease was the highest in agriculture (3.2%) and construction (3.0%). The prevalence of such problems was close to the average (2.1%) among those who due to unemployment, early retirement or other reasons of inactivity could not be classified by the sector of economic activity of their employer.

Figure 55: Percentage of workers with a long standing health problem or disability caused by a work-related disease. EU-15, 2002



Source: Eurostat - Labour Force Survey - 2002 ad hoc module

3.8. Work-related mortality

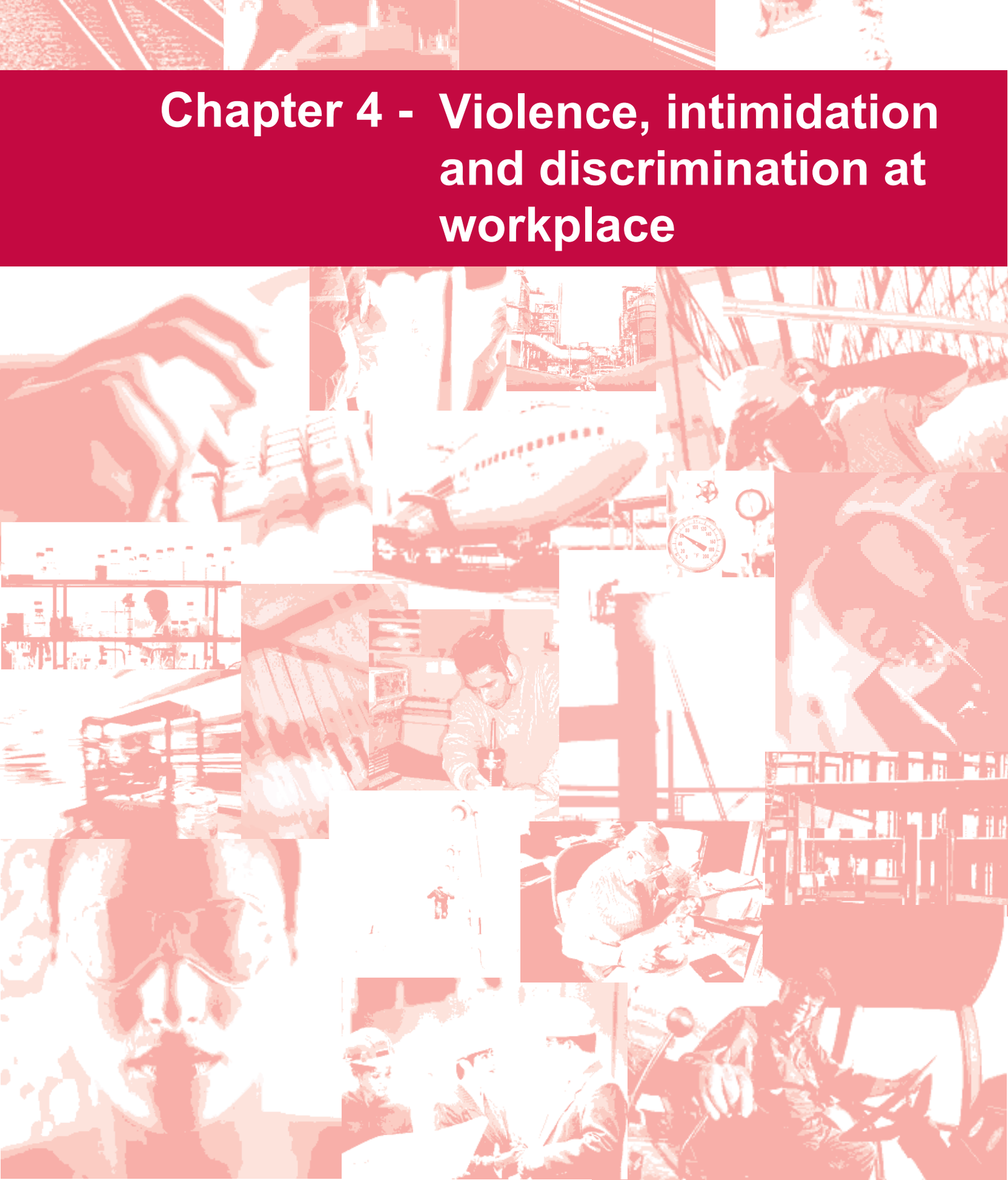
As pointed out in chapter 3.1., work-related causality of diseases is a complicated topic. This applies also to estimates of work-related mortality from non-accidental causes. Data from national recognition systems of occupational diseases include only cases where the work-related factor was considered as the main cause of the disease, while epidemiological estimates usually calculate the total work-related excess of mortality. In a hypothetical example one could have 10 fatal cases of diseases for which a work-related factor is estimated to have contributed with a 30% increase in risk in each, the remaining 70% being due to factors not related to work. Typically none of these cases would probably be recognised as an occupational disease by the compensation systems because they were not “mainly” caused by exposures at work. While epidemiologically calculating 10 cases with a 30% contribution from work in each of them would already make 3 cases which could have been prevented by avoiding the harmful exposure. Further practical difficulties are caused by under-reporting of cases that could have been accepted by the systems if reported and the fact that although national compensation systems can provide data on recognised cases of occupational disease, they can’t always provide data on which of them became fatal later on. Consequently a quite different picture of the work-related mortality can be drawn by using direct data from recognition systems and by using an indirect estimate based on scientific data.

The ILO has recently calculated work-related mortality based on statistics of causes of deaths and published scientific estimates on the attributable fraction of work-related factors in each of the diseases[13]. ILO ended up with an estimate of 298 000 annual deaths for the Established Market Economies. In ratio of the current labour force, the share of EU-15 is about 120 000 annual deaths. The main contributing disease groups were malignancies (about 66 000 deaths in EU-15), diseases of the circulatory system (about 31 000), respiratory diseases (about 6 700) and accidents and violence (about 6 500).

In the EODS 2001 data collection only 6 Member States (Austria, Belgium, Denmark, Finland, Italy and Luxembourg) provided data on fatalities due to recognised occupational diseases. There were 1 397 fatalities in the 6 Member States, resulting in an estimate of about 5 900 fatalities when extrapolated to EU-15 in the ratio of current workforce. This estimate contains almost exclusively only deaths from pneumoconiosis (about 3 300) and malignancies (about 2 400).

13 http://www.ilo.org/public/english/protection/safework/accidis

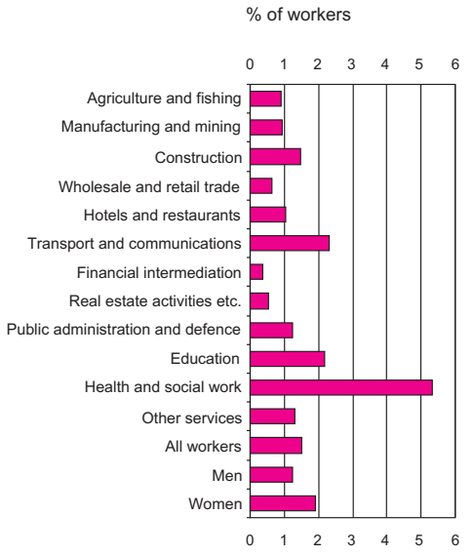
Chapter 4 - Violence, intimidation and discrimination at workplace



4.1. Physical violence at work

According to ESWC 1.9% of women and 1.2% of men report having been subjected at work to physical violence from people of their workplace over the past 12 months. As the rate is so low it is difficult to reliably assess the differences between sectors of economic activity. Nevertheless health and social work seems have a clearly higher rate (5.3%) and education and transport a somewhat higher rate than the other sectors (about 2%).

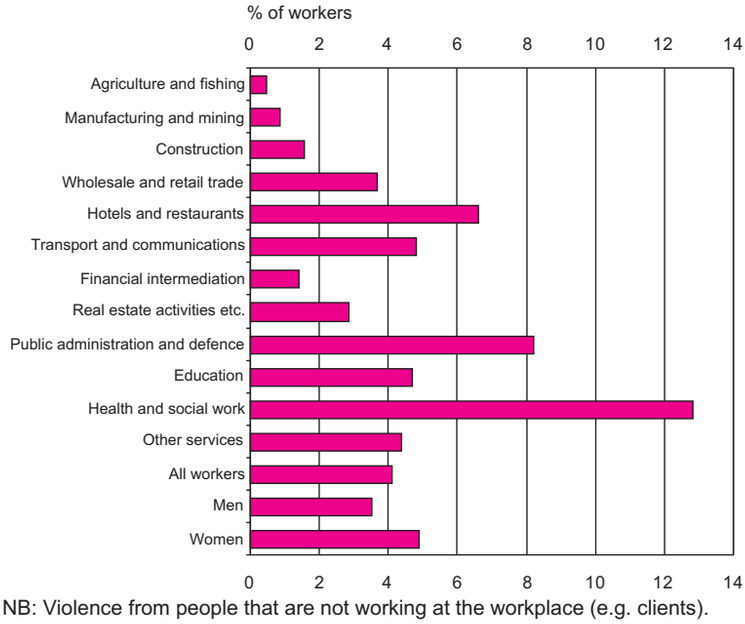
Figure 56: Percentage of workers having been subjected at work to physical violence from people from the workplace. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

13% of health care workers report having been subject to violence at work during the year .

Figure 57: Percentage of workers having been subjected at work to physical violence from other people. EU-15, 2000



NB: Violence from people that are not working at the workplace (e.g. clients).

Source: Third European Survey on Working Conditions 2000 (ESWC)

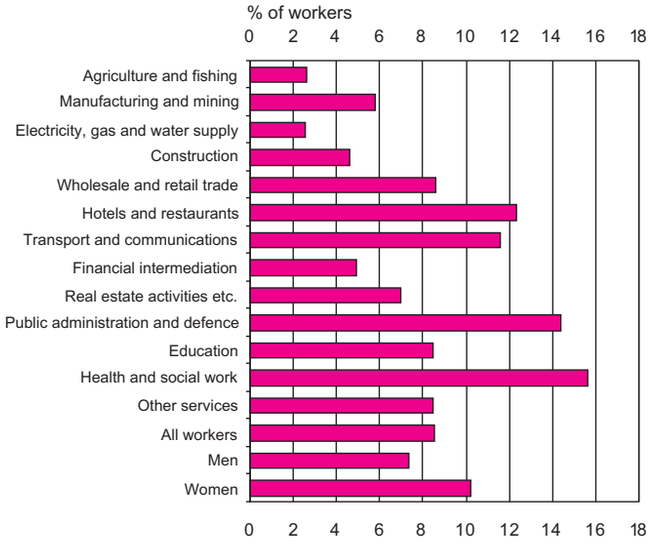
In addition to physical violence from people working at the same workplace, it is more common at work to be subject to violence from other people (clients, pupils, etc.). 4.5% of women and 3.5% of men report having been subject to such violence over the past 12 months. The rate is obviously higher in sectors where contacts with people not working at the workplace are common: about 13% in health and social work, 8% in the public administration, 7% in hotels and restaurants, and 5% in transportation and education. Due to the sample size of the survey it was not possible to analyse how the risk is distributed across the occupational groups, gender etc. in the risk sectors.

Even though the above rates may not be very high, it should be noted that the threat of violence is felt by an even larger fraction of the workforce. 4% of people are aware of the existence of violence from people at their workplace and 8% are aware of the existence of violence from other people at their workplace.

4.2. Intimidation

Over the past 12 months, 10.2% of women and 7.3% of men have been subject to intimidation at work. The rate of intimidation is the highest in health and social work (15.7%), followed by public administration, hotels and restaurants and transportation. There are no important differences in the occurrence of intimidation by age category or by size of the company, with the exception of a lower rate among those working alone.

Figure 58: Percentage of workers having been subjected to intimidation at work. EU-15, 2000

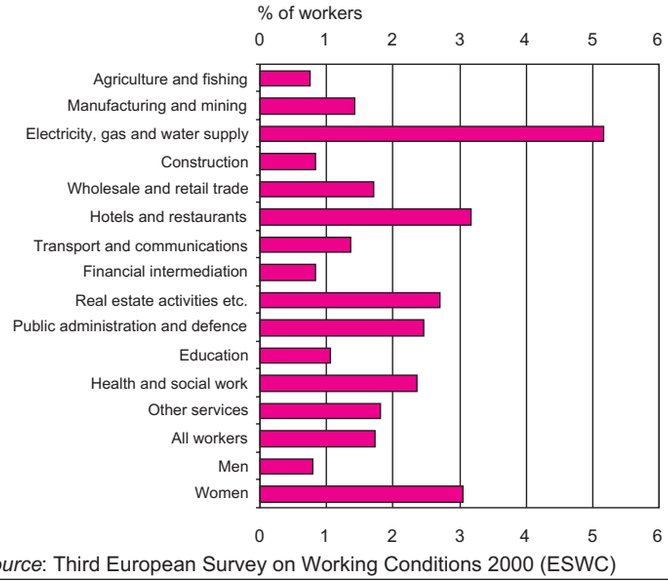


Source: Third European Survey on Working Conditions 2000 (ESWC)

4.3. Sexual discrimination

3.1% of women and 0.8% of men have experienced sexual discrimination over the past 12 months. As the rate is so low it is difficult to reliably assess the differences between sectors of economic activity. The differences seem to be rather unimportant, all sectors having a rate from 1% to 3% (the percentage of electricity, gas and water supply is based on a very low number of answers and is therefore statistically uncertain). In all sectors, except health and social work, women have more often than men felt sexual discrimination. There are no important differences between the age categories.

Figure 59: Percentage of workers having been subjected to sexual discrimination at work. EU-15, 2000

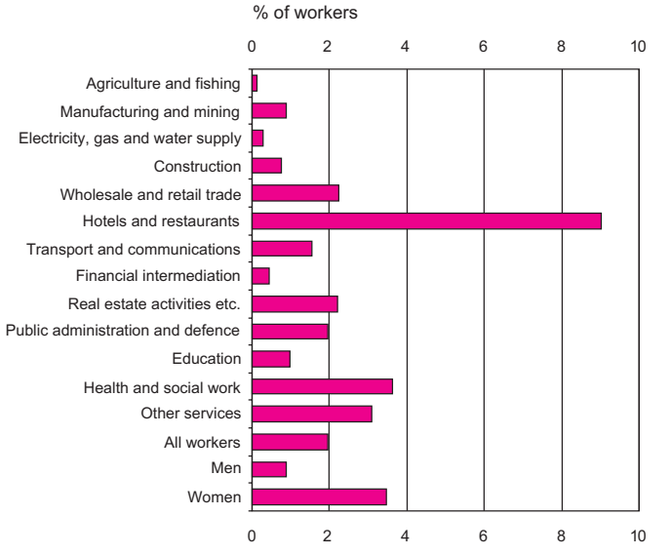


Source: Third European Survey on Working Conditions 2000 (ESWC)

4.4. Unwanted sexual attention

3.5% of women and 0.9% of men have experienced unwanted sexual attention over the past 12 months. As the rate is so low it is difficult to reliably assess the differences between sectors of economic activity. Hotels and restaurants (9.0%), and health and social work (3.6%), however, seem to have a higher occurrence of such problems. There are differences between the age categories; the rate decreases from 3.2% in those aged 18-24 years to less than 0.6% in those aged 55-64 years.

Figure 60: Percentage of workers having been subjected at work to unwanted sexual attention. EU-15, 2000



Source: Third European Survey on Working Conditions 2000 (ESWC)

4.5. Age discrimination

3.0% of women and 2.8% of men report they have been subject to age discrimination over the past 12 months. Again the rate is so low it is difficult to assess exactly the differences between groups. There seems to be no important differences by sector or by size of the company, while obvious differences exist between different age categories. The occurrence is the highest in the youngest and oldest age categories.

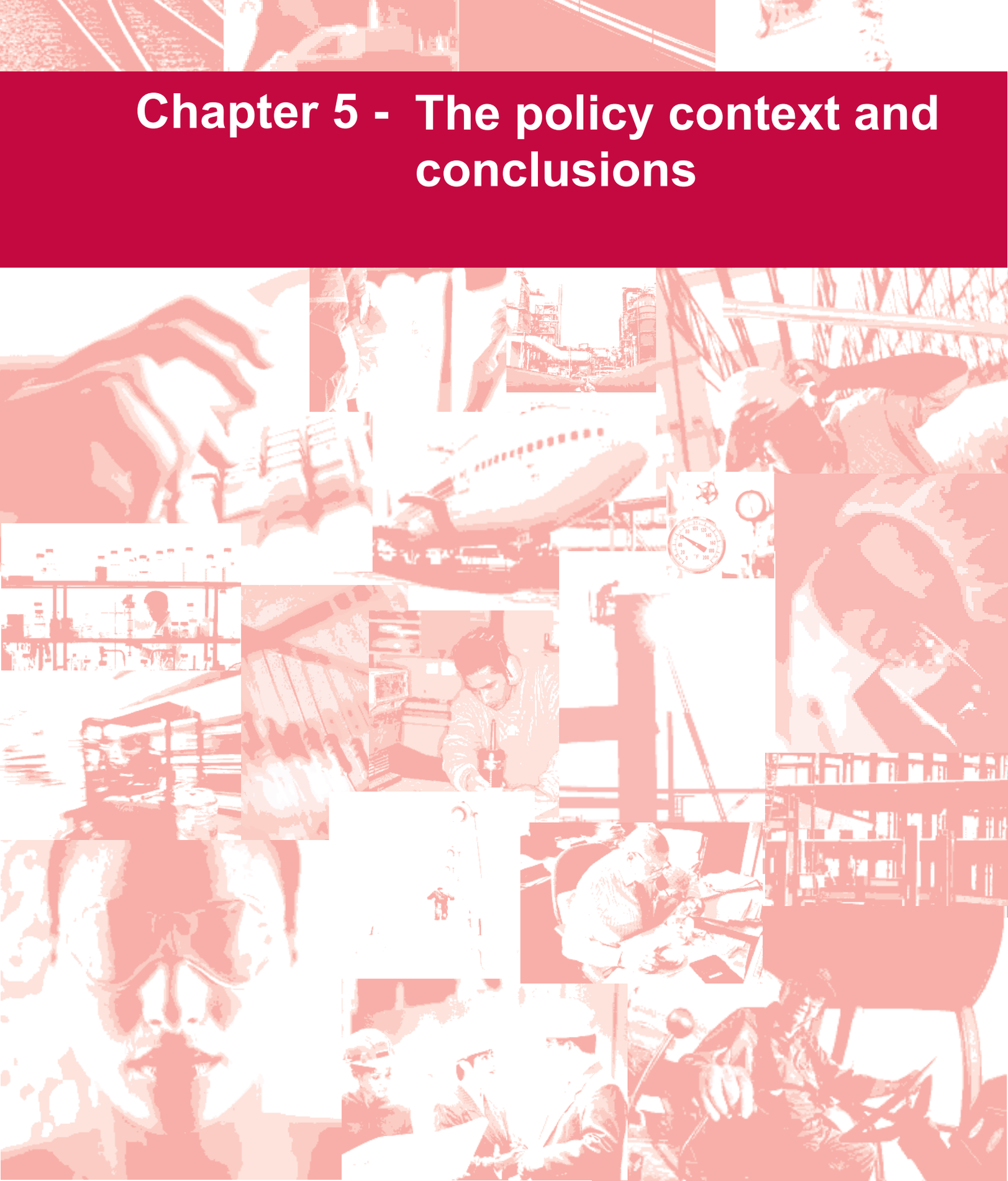
Figure 61: Percentage of workers having been subjected at work to age discrimination. EU-15, 2000

Source: Third European Survey on Working Conditions 2000 (ESWC)

4.6. Other forms of discrimination at work

1.1% of workers report they have been subject to discrimination linked to nationality, 1.0% to discrimination linked to ethnic background, 0.5% to discrimination linked to disability and 0.3% to discrimination linked to sexual orientation. All these rates are so low, that it is difficult to assess any differences between groups.

Chapter 5 - The policy context and conclusions



5.1. The policy context of health and safety at work

Health and safety at work constitutes one of the European Union's most detailed and most important social policy sectors. As early as 1951, the European Coal and Steel Community set about improving the safety of workers. The Treaty of Rome extended this duty of care to all employed persons. The EC Treaty (Article 137) states that "the Community shall support and complement the activities of the Member States in […] (the) improvement in particular of the working environment to protect workers' health and safety." Art.140 adds that "the Commission shall encourage cooperation between the Member States and facilitate the coordination of their action in all social policy fields under this chapter, particularly in matters relating to […] (the) prevention of occupational accidents and diseases.

Prevention is the guiding principle for occupational health and safety legislation in the European Union. To prevent accidents from happening and occupational diseases from occurring, EU wide minimum requirements for health and safety protection at the workplace have been adopted. The Framework Directive 89/391[14] lays down the principles for the measures to improve safety and health of workers and provides a framework for further individual directives covering specific aspects of the workplace environment to be developed.

The first evaluation of the effects of the Framework directive and five of its individual directives indicates that this EU legislation has had a positive influence on the national standards for occupational health and safety[15]. The health and safety measures at the workplace are reported to have widely contributed towards improved working conditions, and at the same time contributed to increasing productivity, competitiveness and employment. Nevertheless the evaluation also draws some conclusions concerning the impact on health and safety at work of the lack of proper application of the legislation, in some domains and its impact on the economy and society.

14 Council Directive 89/391/EEC, OJ L 183 of 29.06.1989

15 Communication from the Commission COM(2004) 62 final of 05.02.2004

5.2. The new Community strategy on health and safety at work 2002-2006

At the Lisbon European Council in March 2000 the European Union set itself the objective of creating more and better jobs. It was stressed that Europe was going through a transition to a "knowledge-based economy", marked by profound changes affecting society, employment and health and safety at work. As a result, there was a need to take a fresh look at what policy should be pursued in this strategic area including, where necessary, the identification of new priorities. Nonetheless, these changes should not mask the reality of the current situation: for example the rates of accidents at work are still very high in certain sectors, accounting for a significant percentage of all accidents at work recorded in the EU.

In a changing society a high level of protection of the health and safety of workers, which is the overriding objective of the above EU legislation, can only be achieved if all players concerned, employers, workers, workers' representatives, national enforcement authorities, make the efforts necessary for its effective and correct application and engage in a co-operative interaction. Only such a commitment and urgent action will bring about the changes that will improve the implementation levels and ensure the correct application of the health and safety directives thereby making the health and safety protection a tangible reality for all workers, contributing in this way to the improvement of productivity and quality of work.

The Communication from the Commission[16]- Adapting to change in work and society: a new Community strategy on health and safety at work 2002-2006 contains clear indications in this regard and has three novel features:

- It adopts a global approach to well-being at work, taking account of changes in the world of work and the emergence of new risks, especially of a psycho-social nature. As such, it is geared to enhancing the quality of work, and regards a safe and healthy working environment as one of the essential components.

- It is based on consolidating a culture of risk prevention, on combining a variety of political instruments - legislation, the social dialogue, progressive measures and best practices,

16 Communication from the Commission COM(2002) 118 final of 11.03.2002

corporate social responsibility and economic incentives - and on building partnerships between all the players on the health and safety scene.

- It highlights the fact that an ambitious social policy is a factor in the competitiveness equation and that, on the other side of the coin, having a “non-policy” engenders costs which weigh heavily on economies and societies.

The new strategy was endorsed by the Council[17] and supported by the European Parliament[18].

17 Council Resolution 2002/C161/01 of 03.06.2002, OJ C 161 of 05.05.2002

18 European Parliament, Texts Adopted 23.10.2002

5.3. The policy context and statistics of health and safety at work

The new Community strategy on health and safety at work makes several references to statistical data collection. The most important of them are the following:

1. The Community policy on health and safety at work must keep pace the above mentioned changes and new needs, with a view to promoting "well-being at work", this being taken to mean physical, moral and social well-being, and not just something that can be measured by an absence of accidents or occupational illnesses. This means that Community policy on health and safety must itself strive for improved quality. This will have a fundamental implication on the selection of indicators based on harmonised statistics as one of the instrument available.

2. The new health and safety Community strategy suggests taking a global approach to the promotion of a quality working environment by taking into account the various instruments that comprise the substantial *acquis* of many decades of Community policies, with the Framework Directive 89/391 being the keystone in that it gives priority to prevention. Also strategic decision making will be founded on the knowledge acquired by collecting statistics on accidents and occupational diseases, notably when information on causes and circumstances data will be available. However, in a constantly changing world of work, it is just as important to promote progressive approaches, whether they be performance rating, based on transparent and reliable data and indicators, action on the part of the social partners (at sectoral or multisectoral level), or voluntary company schemes. It is, furthermore, essential to improve the knowledge and awareness of all players, and to ensure that concerns for health and safety at work are mainstreamed into all other relevant Community policies.

3. The collection of accurate health and safety statistics will make a crucial contribution to the achievement of the objectives of health and safety in the new Community strategy both at the EU and Member States levels. One of these objectives, which must be targeted jointly by all the players, is the need for a continuing reduction in occupational accidents and illhealth. Thought should be given to setting quantified objectives, at both Community and Member State level, particularly in sectors of activity with above-average incidence rates, and having special regard to arrangements for implementing the European employment strategy.

4. Success in achieving these objectives can be measured by reference to indicators using existing methodological statistics tools (ESAW and EODS). These quantified objectives should take account of the size of firms and the sector of activity, laying down the objectives to be achieved in sectors where the incidence of

accidents and illhealth is above average. To be effective the collected data will need to be more precise, more comparable, with a fuller coverage of all sectors and to be available earlier. To achieve this, and to eliminate the problem of under-reporting in certain Member States, the Commission and the Member States will have to step up ongoing work on the harmonisation of occupational accident and illhealth statistics. These should cover not just recognised occupational accidents and illnesses, their causes and consequences, but also introduce some quantifiable elements relating to working environment factors which are likely to cause the problems.

5. Stress-related complaints and illnesses, musculo-skeletal problems and dependence on alcohol, medicines and drugs are given as examples of the last recommendation of point 4 above. The Commission proposed that this problem be integrated into the employment guidelines for 2003 and will, in conjunction with the Dublin Foundation, instigate work on collecting data and other information for measuring the phenomena and for creating monitoring indicators.

6. Anticipating new and emerging risks is vital for risk prevention and control. This requires, first and foremost, ongoing observation, based on systematic collection of information and scientific opinions. The European Agency for Health and Safety at Work[19] should act as a driving force in matters concerning awareness-building and risk anticipation. To achieve this the Agency will set up a “risk observatory”.

7. The collection and analysis of data on accidents at work and occupational diseases should be promoted by integrating the candidate countries into the Community work on statistical harmonisation.

19 Council Regulation EC 2062/94 of 11.7.1994

5.4. Practical conclusions concerning the statistical information available

Administrative data sources for accidents at work and occupational diseases

The Framework Directive 89/391 introduced, in Article 9, the obligation for employers to keep a list of occupational accidents resulting in a worker being unfit for work for more than three days, and, in accordance with national laws and/or practices to draw up reports on occupational accidents suffered by their workers[20]. The project to harmonise European Statistics on Accidents at Work (ESAW) began in 1990 and the statistics are available from year 1994 onwards (see chapter 6.3.).

The Commission Recommendation concerning the European schedule of occupational diseases from 1990 was recently updated[21]. The new recommendation states that the Member States should ensure that all cases of occupational diseases are reported. Also the Member States should progressively make their statistics on occupational diseases compatible with the European schedule in Annex I of the recommendation, in accordance with the work being done on the system of harmonising European statistics on occupational diseases, so that information on the causative agent or factor, the medical diagnosis and the sex of the patient is available for each case of occupational disease. The project on European Statistics on Occupational Diseases (EODS) started with a pilot data collection for the reference year 1995 and the first data according to the Phase 1 methodology was collected for the year 2001 (see chapter 6.4.).

From the point of view of monitoring occupational safety and health the ESAW and EODS statistics have several strengths, the two most important being that they are not based on samples but cover nationwide data and that a harmonised methodology for the data collection has been created. These statistics will also progressively provide data not only on the health outcomes but also on the causative factors leading to these health outcomes. The Phase 3 methodology of the ESAW data collection is being gradually implemented from the reference year 2001 onwards to collect data on the circumstances and material agents leading to the accidents.

20 Council Directive 89/391/EEC, OJ L 183 of 29.06.1989

21 Commission Recommendation (EC) 3297/2003 of 19 September 2003 concerning the European Schedule of Occupational Diseases.

The Phase 1 methodology of EODS includes detailed information on the causative agent of the occupational diseases and collection of information on the use purpose of these causative agents is planned as well. The main drawback of both of these data collection systems is that not all workers are covered by the national data collection systems in all the Member States. For occupational disease problems arise also from under-reporting and differences between the national social security systems.

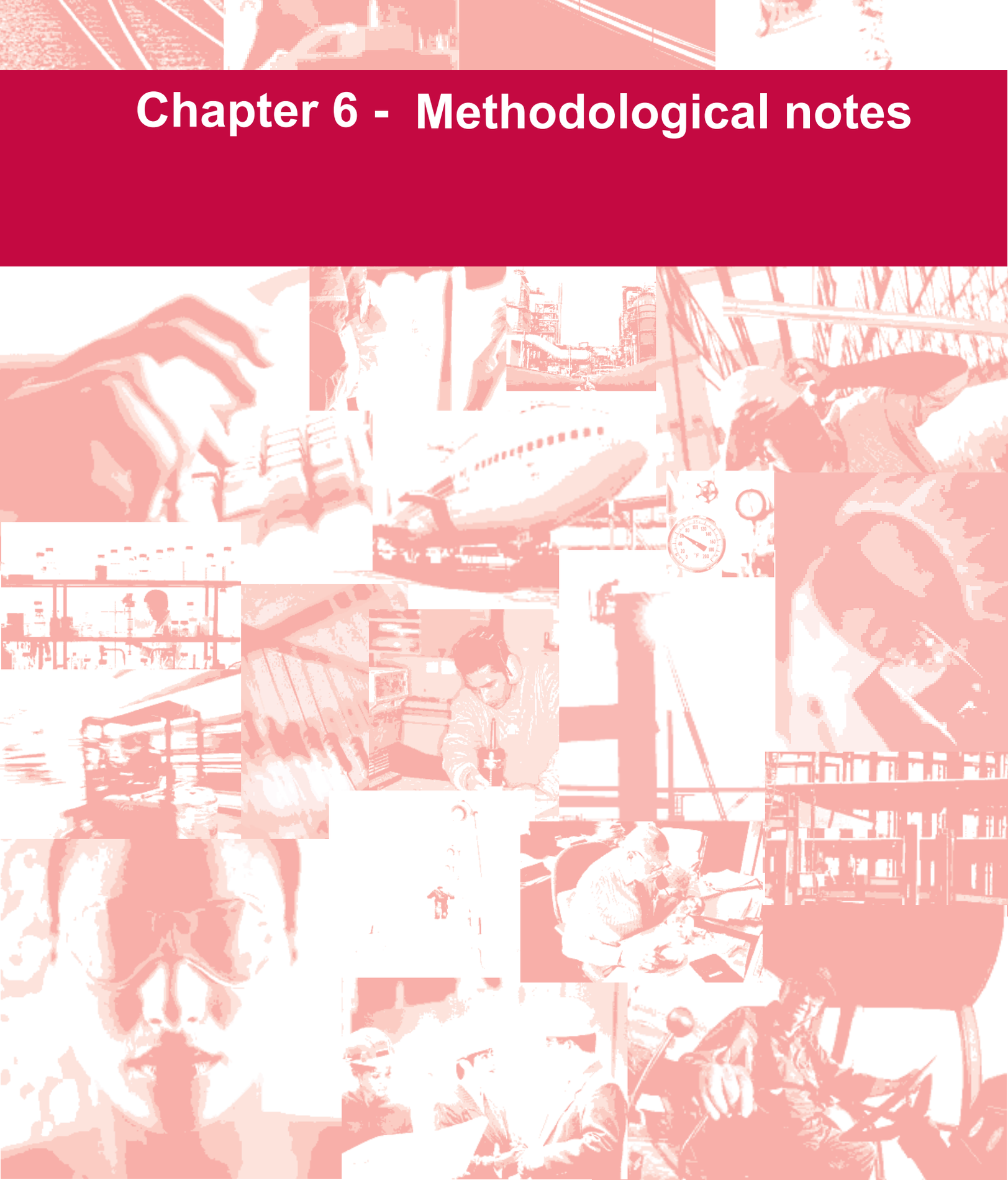
Surveys on work-related diseases and working conditions

Two valuable EU level surveys provided data for this statistical portrait. Firstly the European Foundation for the Improvement of Living and Working Conditions carried out its Third European survey on working conditions in 2000 (see chapter 6.1.). The two previous surveys were carried out in 1990/91 and 1995/96 and the fourth survey is foreseen for 2005. Among other things the survey provides information on the occurrence of exposure to risk factors and on perceived work-related health risks. The regularity of the survey makes it an important monitoring tool. However, it has a significant drawback due to the relatively small sample size of about 21 000 respondents for the whole EU that does not allow the distribution of the various phenomena to be studied by detailed cross-tabulations of several variables at the same time.

Secondly the ad hoc module of the 1999 Labour Force Survey provided estimates of the work-related morbidity based on a sample of more than 0.5 million respondents (see chapter 6.2.). The most important drawback of this survey is that since 1999 it has not been possible to repeat it and a new survey is not yet foreseen, at least in the near future. Also the ad hoc module of the 2002 LFS provided some useful estimates on the work-related burden of longstanding health problems, but this survey will not be repeated in the near future. Nevertheless it would be useful to include some questions on work-related health in the future European health interview surveys. To be implemented by 2007 for the first time and performed thereafter every five years.

In conclusion, this statistical portrait indicates that work-related risk factors pose an important burden to the health and safety of the European workers. Significant differences in the level of risk are observed, for example between different sectors of economic activity, occupational groups, companies of different size, between genders and between workers with different ages. Despite the availability of several data sources used to develop this portrait, the picture remains incomplete, obscure or uncertain for many relevant topics, mainly because of the lack of European Union level data. Even for topics with rather complete data, the information available is still not ideal for accurate targeting of preventive actions. Nevertheless it constitutes the first joint analysis of the various European statistical data sources on Health and Safety at work and consequently provides an important added value for the evaluation of policy needs in the areas presented in the previous chapters.

Chapter 6 - Methodological notes



6.1. Third European Survey on Working Conditions - ESWC

The European Foundation for the Improvement of Living and Working Conditions carried out its Third European survey on working conditions in 2000. The two previous surveys were carried out in 1990 and 1995. For the 2000 survey, a total of 21,703 workers were interviewed in face-to-face interviews, which were conducted in their own homes. Around 1,500 workers were interviewed in each Member State, with the exception of Luxembourg where the number of persons interviewed totalled 527. More information on the methodology are available in the publication "Third European survey on working conditions 2000" - European Foundation for the Improvement of Living and Working Conditions - Catalogue No ISBN 92-897-0130-7[22].

Sampling

A representative sample of the total active population, i.e. persons who were at the time of interview either employees or self-employed workers, was sought. The sampling units (i.e. elements or individuals in the target population) were selected from the target population (the total active population in this case) by a basic procedure, or sample design. The sample design which was used was a multi-stage random sampling, called 'random walk'.

Individuals from the age of 15 years upward were interviewed (taking into account the fact that after the age of 65 the number of active persons would level off rapidly). Retired and unemployed persons, as well as housewives and students, etc., were excluded. Non-Europeans were included, on condition that they could be interviewed in the national language(s) of the country where they work.

Weighting

As with all empirical methods, the random walk procedure implies a weighting of the selected sample so that the sample is identical to the target population according to the selected variables.

In the random walk method, the interviewers are obliged to follow a compulsory itinerary and do not have the freedom to interview anyone they wish. In this case, the structure of the sample will be different from the desired sample, due to the fact that some respondents are not as easy to contact or refuse to respond. Therefore the sample will have to be 'weighted' in order to arrive at a distribution which is identical to the desired one as regards the selected variables. To achieve the weighting, a 'weight' is given to each individual, which varies according to the rarity of the variable it represents (e.g. a higher weight if his/her group is under-represented). A special computer programme is used to achieve the weighting as described above. On completion, the weighted sample will be identical to the desired sample.

For the ESWC, the variables selected for the sampling in each country were: region, city size, gender, age, economic activity (NACE) and occupation (ISCO). The ESWC weighting was carried out on the basis of the LFS 1997 which means that its distribution by region, locality, size, gender, age, economic activity and occupation is identical to that of the LFS distribution. In this publication the results of the ESWC are presented at EU-15 level only and consequently the weight of each respondent was calculated in respect to the distribution of the EU-15 active population.

22 http://www.eurofound.ie/publications/EF0121.htm

Response rates

The table below shows the response rates for the 2000 ESWC.

%	BE	DK	DE	EL	ES	FR	IE	IT	LU	NL	AT	PT	FI	SE	UK
2000	56	42	76	47	73	74	58	39	68	41	67	68	56	58	56

In all the countries (except Luxembourg) 1 500 interviews were finally carried out. However, the response rate for contacting the person varies from one country to another. It is always difficult to assess the impact of non-responses on the results of a survey. It is probable that workers with the worst working conditions, particularly those with 'unsocial' working hours are more difficult to contact and therefore less likely to be interviewed. If this hypothesis is correct, a low answer rate would create an optimistic bias.

The response rate indicates the percentage of people having responded among those initially selected. It does not affect the number of interviews finally carried out.

Analysis of the results

In this report the results are presented as percentage distribution of the answers (weighted to EU-15 level). In case of answers with multiple categories they are usually combined to form only two categories. E.g. for questions on the frequency of certain exposures the categories of *all the time, almost all of the time, around ¾ of the time and around half of the time* were grouped as *half of the time or more* and categories of *around ¼ of the time, almost never and never* were grouped as *less than half of the time*.

The analyses were performed mainly stratified by the following variables and categories:

- Gender;

- Age (*less than 18 years, 18 to 24 years, 25 to 34 years, 35 to 44 years, 45 to 54 years, 55 to 64 years, 65 years and more*);

- Sector of economic activity or the employer (*NACE 1 digit leve*l);

- Size of the local unit (*interviewee works alone, 2 to 9 workers, 10 to 49 workers, 50 to 249 workers, 250 to 499 workers, 500 workers and over*).

The main approach was to present the results by the above variables, but sometimes results by economic activity were divided also by occupation. To avoid results based on too small numbers, a regrouping of ISCO 1 digit level occupational categories was used: *office work* (ISCO categories: *Legislators and managers, Professionals, Technicians, Clerks, Service and sales workers*), *non-office work* (ISCO categories: *Agricultural and fishery workers, Craft and related trades workers, Plant machine operators, Elementary occupations, Armed forces*).

In all the analyses were excluded those respondents who had answered don't know to the question. The percentage of such answers ranged from 0.1% to 4.7%.

The ESWC contains questions on a variety of topics related to the working conditions. Several publications already exist on the results of the third ESWC (http://www.eurofound.ie). In this publication we present only the data that were necessary to give a general statistical portrait of the health and safety at work in Europe.

Limitations of the survey

It is fair to say that the methodology used in the third survey does create a number of problems which users of the data should bear in mind when analysing and interpreting the results.

The industrial structure, as well as the sectoral distribution of the workforce, differs widely between countries, therefore country comparisons should be made with caution. Furthermore, the sample size in each country is limited to 1 500 workers. This means that breakdowns at country level may result in subgroups with an insufficient number of cases to draw conclusions. Consequently, in the current publication results are presented only at EU-15 level.

It should be noted that the survey describes working conditions as perceived and reported by the respondents. Legal and cultural differences between countries may influence the way the questions are understood and hence determine the answers given. The level of knowledge or awareness about working environment problems and the attitudes and concern about such problems vary greatly from one country to another. In some countries the concept of working environment is well known and accepted; in other countries the working environment is perceived to be part of daily life and therefore problems experienced in connection with working situations are considered to be a 'normal' part of the conditions of life and as such not given special consideration.

6.2. European labour force survey - LFS

The European labour force survey is an annual survey of households containing detailed data on employment and related variables in EU Member States. The LFS is defined by the Council Regulation (EEC) No. 557/98 of 9 March 1998 and the Commission Regulation 1575/2000 of 19 July, 2000. It is run during the second quarter of each year (data for Austria and France has the first quarter as reference period). Since it uses a common set of variables and a common methodology, abstracting from national differences in definitions, methods of classification and administrative procedures and regulations, it provides a unique set of data that is comparable across the Union. The LFS has been carried out annually in the EU since 1983, but data for Spain and Portugal are only available from 1986 (1987 for some variables) and for Austria, Finland and Sweden, from 1995. Labour force surveys, based on the same methodology and classification system, have also been established in central and east European countries since their transition to market economies began, and data from these on a comparable basis to those for EU Member States are, in many cases, now available from Eurostat. For more details on the data included in the LFS, see *Labour Force Survey - Methods and definitions, 2001.*

LFS data were used in the first chapter of the current publication (i.e. "Overview of the working life in the EU") in order to characterise the labour force in the EU. They were also used as denominator data (reference population) in chapters 2 and 3.

Ad hoc module on accidents at work and work-related health problems in the 1999 LFS

To have a broader view on certain topics related to the Labour market, an ad hoc module of 11 questions is included in the LFS each year. The 1999 LFS included an ad hoc module on accidents at work and work-related health problems. It was defined by the Commission Regulation (EC) No. 1571/98 of 20 July 1998. The module was not conducted in Austria, Belgium and France and in Germany it was only partly conducted. In the Netherlands the module was conducted later and the results are not included in the current publication. The survey was also conducted in Hungary. The survey included those aged more than 15 years and the respondents were interviewed about the occurrence of occupational accidents or the suffering of work-related health problems during the last 12 months and if so about their characteristics. For accidents at work the target group was those having worked during the last 12 months, about 544 000 persons were interviewed. For work-related health problems the target group was those who had ever worked, about 650 000 persons were interviewed. The LFS core questionnaire data also enabled to link the information on the accident or disease with information on the situation of the persons on the labour market, the characteristics of their job, their working conditions or training. The detailed methodology of the 1999 LFS ad hoc module is described in *European Social Statistics - Accidents at work and work-related health problems* ISBN 92-894-3601-8, European Commission.

Information collected for accidents at work

For accidents at work the module included questions on occurrence (and number) of accidents at work during the last 12 months, time of the accident, type of the injury, work status after the accident, days lost because of the accident and job done when the accident occurred.

In this publication the self-reported information on accidents at work was used to provide complementary information not available from the ESAW statistics, i.e. number (and days lost) of accidents at work with less than 4 days of absence from work, number of workers having more than one accident at work during the year, information on the work status after the accident and risk of accidents at work according to duration of employment and according to night and shift work.

Information collected for non-accidental work-related health problems

The following information was collected for non-accidental illness(es), disability(ies) or other physical or psychic health problem(s) suffered by the person during the past 12 months and that was (were) caused or made worse by the work: occurrence (and number) of such health problems, type of the most serious such health problem, number of days off work due to the most serious such health problem, job that caused the most serious such health problem, economic activity of the local unit of the job that caused the most serious such health problem.

In this publication the self-reported information was used to calculate the prevalence of health problems caused or made worse by work. It must be borne in mind that this is a broad concept that covers much more than the occupational diseases recognised by the national insurance systems. It is based on self-assessment of the work-related causality, it includes all complaints regardless of their severity, it includes also cases that were not necessarily caused by work but were made worse by the work. Finally it includes health problems regardless of the time of onset provided that the respondent had suffered from this health problem during the past 12 months.

In this publication data are presented only at the level of EU-15. These estimates have been drawn up on the basis of the data available for the Member States covered by the module.

Reference population

For the accidental injuries, the reference population for the indicators includes all persons in employment, there is no exclusion of any groups of professional status or economic activities. For the work-related health problems the prevalence rates were calculated only taking into account the employees who replied directly to the survey (no proxy respondents). In addition only disease cases linked to the current main employment of the respondent (in the LFS reference week) were considered, in order to improve the reliability. However when calculating the numbers (not prevalence rates) of work-related health problems, the data refer to a broad reference population including main parts of both active and inactive population. The active population is made up of people in employment and the unemployed during the reference week of the survey. However, for work-related health problems, only those unemployed who have already been in work are covered. The same limitation is used for inactive persons.

Indicators

Accidental injuries

The indicator showing the risk of accidental injuries is the incidence rate, i.e. the number of accidents at work occurred during the year per 100 000 persons in employment. On this basis, the relative incidence rate is calculated and is the only indicator used for the analysis of the results of the 1999 LFS ad hoc module:

$$\text{Relative incidence rate} = \frac{\text{incidence rate in the group studied}}{\text{total incidence rate in EU}} \times 100$$

Work-related health problems

The indicator for the frequency of work-related health problems is the prevalence rate, i.e. the number of work-related health complaints suffered over the past 12 months per 100 000 persons in employment.

Ad hoc module on employment of disabled people in the 2002 LFS

The 2002 LFS included an ad hoc module on employment of disabled people. It was defined by Commission Regulation (EC) No. 1566/2001 of 12 July 2001. The module consisted of 11 questions dealing with the existence, type, cause and duration of longstanding health problem or disability, work limitations (regarding the kind of work or the amount of work, and mobility problems), and assistance needed or provided to work. The preliminary data have been published for the 15 Member States and 9 Acceding and Candidate Countries of EU (excluding Bulgaria, Latvia, Poland and Turkey) and Norway[23]. The survey included all persons aged 16-64 years, living in private households. Disabled persons were those who stated that they had a longstanding health problem or disability (LSHPD) for 6 months or more or expected to last 6 months or more. In this publication data are presented on the prevalence (% of the total population) of disability caused by accidents at work and disability caused by work-related diseases as calculated at the level of EU15. Like in the 1999 LFS ad hoc module, the work-related causality is based on the respondent's own judgement and no restrictions regarding the severity of the chronic disability were used.

23 Eurostat, Statistics in Focus, Population and Social Conditions, 26/2003, “Employment of disabled people in Europe in 2002"

6.3. European Statistics on Accidents at Work - ESAW

Basic concepts and definitions

An accident at work is defined as "a discrete occurrence in the course of work which leads to physical or mental harm". This includes cases of acute poisoning and wilful acts of other persons, as well as accidents occurring during work but off the company's premises, even those caused by third parties. It excludes deliberate self-inflicted injuries, accidents on the way to and from work (commuting accidents) and accidents having only a medical origin (such as heart attack at work) and occupational diseases. The phrase "in the course of work" means whilst engaged in an occupational activity or during the time spent at work. This includes cases of road traffic accidents in the course of work.

In accordance with the Framework Directive, all cases of accidents at work leading to an absence of more than three calendar days[24] are included in the ESAW data. In practice it means that an accident at work is included in ESAW if the person is unfit for work for more than 3 days even if these days include Saturdays, Sundays or other days where the person is not usually working. It is considered that accidents with more than 3 days' absence from work have a higher reporting level than accidents with less than 4 days' absence, allowing to achieve better data quality.

A fatal accident is defined in ESAW as an accident which leads to the death of a victim within one year of the accident.

A commuting accident is defined as an accident which occurs during the normal journey between the home, the place of work and the usual place where meals are taken. As for accidents at work, all cases of commuting accidents leading to an absence of more than three calendar days from work or the death of the victim are covered. Nevertheless, data on commuting accidents is not included in data on accidents at work. They are always presented separately.

The details of the ESAW methodology are described in ("European statistics on accidents at work (ESAW) - Methodology - 2001 edition" - European Communities- Directorate General Employment and social affairs series - Catalogue No KE-36-019-60EN-C).

Data collected and calculation of the indicators

Information is collected on the following variables: *economic activity of the employer, occupation of the victim, age and sex of the victim, type of injury, part of body injured, time of the accident, size of the enterprise, employment status of the victim and days lost*. Phase 3 of the ESAW methodology is gradually implemented from reference year 2001 onwards, in addition to the variables above it includes information concerning the circumstances and events leading to the accidents.

The indicator showing the risk of accidents at work is the incidence rate, i.e. the number of accidents at work occurred during the year per 100 000 persons in employment. When calculating the incidence rates, only the groups of economic activity or professional status covered by the national accident data collection system are included in the denominator.

24 The Framework Directive (Article 9) speaks about *working days*. However, it has been decided for ESAW methodology to follow the most common practice in the Member States, which is to *use calendar days* in calculating the number of days with an absence from work

It is a fact that the frequency of work accidents is much higher in some branches compared to others. For this reason the industrial structure of a country will influence its total frequency of work accidents depending on the share of high-risk sectors. For example, a country where high risk branches like agriculture, construction or transport represent a higher share of the total workforce compared to another Member State, but with the same frequency of accidents for each branch, would have a higher total national incidence rate.

To correct for 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 ("standardised" incidence rate).

Furthermore, an additional standardised incidence rate is calculated for fatalities, which excludes road traffic accidents and accidents on board of any means of transport, in order to provide comparable incidence rates for all Member States. This is due to the fact that road traffic accidents in the course of work are not recorded as accidents at work in a few Member States (see part "Groups covered by the national reporting systems" below), while fatalities caused by road traffic accidents represent an important share of the total number of fatal accidents. For this reason, comparisons of national incidence rates for fatalities would introduce a serious bias without this adjustment of the rates.

It should be noted that only this adjusted incidence rate on fatalities is used for the breakdown by Member States.

However, as explained below, despite these standardisations, the differences observed in incidence rates between countries arise in some degree from the variation in reporting arrangements. However, the incidence rates are fully comparable inside each of the two groups of Member States (insurance based system and universal Social Security system), though they are not strictly comparable between the two groups. Moreover, trends are considered as highly comparable between all Member States.

Commuting accidents

A Sub-project on commuting accidents (see definition above in part basic concepts) is included in the ESAW, from 1996 reference year onwards. The objective is to cover more fully the field of accidents relating to work and to meet the demand for the development of harmonised data expressed in the Communication from the Commission, COM(97) 178 final of 14 May 1997, and the European Parliament and Council Decision concerning a Programme on Injury Prevention[25].

In order to promote the development of this Sub-project and given the similarity of the subject and the reporting systems, a similar Methodology is used for commuting accidents as that for accidents at work in the ESAW project.

Only 10 Member States (Belgium, Germany, Greece, Spain, France, Italy, Luxembourg, Austria, Finland and Sweden), in which this information is available, have sent data to Eurostat on commuting accidents for the period 1996-2001 (no data on fatalities from Greece and Sweden). The variables considered are the same as for accidents at work.

Reporting procedures in the Member States: Insurance and non-insurance based systems

Eurostat receives the ESAW data from the Member States' national registers or other national bodies responsible for the collection of data on accidents at work. Mainly, two types of reporting procedures can be identified in the various Member States of the European Union. The insurance based systems, in 10 Member

25 Decision 99/372/EC of the European Parliament and Council, OJ L46, 20.02.99

States, have reporting procedures mainly based on the notification of the accidents to the insurer, public or private according to the case. On the other hand the reporting procedures of the five other Member States (Denmark, Ireland, the Netherlands, Sweden and the United Kingdom) are mainly based on the legal obligation of the employer to notify the accidents to the relevant national authority, which is often the National Labour Inspection Service. Norway, which also provides data to Eurostat, belongs to the latter group.

In the insurance based systems, the supply or the refunding of care benefits and the payment of benefits in cash (daily subsistence allowances, rents where applicable, etc.) resulting from accidents at work, are conditioned in its report to the public or private insurer. Additionally, in a number of these countries, the benefits thus paid under the accidents at work insurance legislation are higher than in the case of non-occupational accidents. Thus, there is an economic incentive for the employer and the employee to notify an accident at work in the insurance-based systems. Due to these various factors, the reporting levels for accidents at work are in general very high in the insurance based systems and considered to be about 100 percent. However, the coverage of the data on accidents in these Member Sates is defined by the actual coverage of the insurance schemes. For example, some groups such as self-employed are often not covered by the insurance system or employees in the public sector or specific economic activities (Fishing, Mining, etc.) are covered by a specific scheme which data is not always available (see part "Groups covered by the national reporting systems" below).

The five other Member States and Norway have in general a system of universal social security "coverage ". In such systems the benefits provided to the victim of an accident at work are not depending on a preliminary reporting of the accident, except for the specific benefits paid for the most serious accidents (rents for permanent disability, etc.). Consequently, the economic incentive for notifying accidents at work is not very strong in the non-insurance based systems. Nevertheless, there is a legal obligation for the employer to notify an accident at work. In practice only a part of work accidents are actually reported and the systems based on the employers liability to notify work accidents to the authorities have only a medium reporting level usually ranging from 30 to 50 percent on average for all branches of economic activity taken together. In this case estimates of the reporting levels are provided by the Member States, based either on an evaluation of the reporting procedures or on the basis of other data sources, e.g., surveys. This information is used to correct the estimates of the total number of accidents published by Eurostat.

Groups covered by the national reporting systems

All groups or sectors should in principle be covered by national legislation or other statutory arrangements that require cases of accidents at work to be notified to the authorities, or to a private or public insurance body in accordance with the law. However, not all data are compiled for statistical purposes. Either the data are kept in a format that does not allow for statistical analyses or the data files are not for the moment available for the ESAW project. For this reason the term coverage in the following should be understood as the coverage of the accidents data that actually have been sent to Eurostat in accordance with the ESAW methodology.

Coverage of self-employed and family workers

The coverage of groups varies from one Member State to another. Self-employed and family members are not covered by some national reporting systems. In particular the agricultural sector is affected by the lack of coverage of the self-employed. Furthermore, the coverage of the data for some Member States, which have a large group of self-employed as, for example, Greece, is affected by the exclusion of this group from the reporting and registration procedures.

Branches and sectors covered - 9 common branches

Only 9 branches of activities are covered by the ESAW 1998 data of all the 15 Member States and Norway: agriculture, hunting and forestry - manufacturing - electricity, gas and water supply - construction - wholesale and retail trade and repairs - hotels and restaurants - transport and communication - financial intermediation -

real estate, renting and business activities (NACE sections A, D, E, F, G, H, I, J and K). However, in relation with the exclusions of some groups of professional status as explained above, the coverage is not yet complete for agriculture and transport: non-wage earners (the self-employed, family workers etc.) in agriculture and workers in rail, sea and air transport are not covered everywhere.

The ESAW incidence rates are then only calculated on these 9 branches where a European frequency can be considered. The total number of persons in employment covered by ESAW in these 9 "common branches" to all Member States and concerned by the calculated incidence rates, was 101,5 million in 2000, about 71% of the total coverage of the ESAW data.

Actual coverage of the various specific types of accidents at work in the Member States

Ireland and United Kingdom are not in a position to provide data on road traffic and transport accidents in the course of work. The lack of coverage for this type of accidents has a significant impact on the national numbers of fatalities and for this reason the ESAW data for fatalities, breakdown by Member States is only presented excluding on road traffic and transport accidents in the course of work.

Additionally some other national specificities exist for accidents having only a medical origin or accidents occurred in public places or within the premises of another company (at a customer, business interview, temporary assignment, etc.). However, the Member States covering accidents having only a medical origin exclude them from the ESAW data they send to Eurostat.

Finally, in UK members of the public are covered but are excluded in the ESAW data provided to Eurostat.

Reference population (based on LFS)

A reference population for the ESAW data is established in order to calculate incidence rates for accidents at work. The reference population is established from the data of the Labour Force Survey (LFS) and corresponds to the national coverage of the ESAW data in each country. The advantages of using the European Labour Force Survey are the comparability of this source and the possibility for establishing more detailed information on the national labour forces. However, this source does not provide information on employment in full-time equivalents. The reference year used for the extraction of the reference population from the LFS is the same as the reference year of the ESAW data.

The population of persons covered by the ESAW data, established from the LFS, was in 2000 more than 142 million persons in employment, which represented about 90% of the total European workforce.

ESAW harmonised data collection

Despite the differences in the national reporting procedures and coverage, all Member States **extract from their national data the information in accordance with the ESAW methodology**, its definition of an accident at work, etc., to submit the ESAW data to Eurostat. In particular, they provide data only for cases with more than 3 days' absence, they exclude accidents having only a medical origin, etc. Only minor points are not fully harmonised.

Concerning the coverage of the economic sectors, differences still remain but Eurostat harmonises the analysis by considering the incidences only on 9 "common" branches (see above). The same occurs for the calculation of national fatality incidences by Eurostat where road traffic accidents are excluded for all Member States in order to ensure comparability with the few countries that are not able to cover road traffic accidents (see part "Groups covered by the national reporting systems" above).

Finally, concerning the Member States that have not an insurance based system, Eurostat estimates the number of accidents occurred from the numbers of cases reported and detailed reporting levels (up to date breakdown mainly by branch of economic activity) evaluated by the Member States and provided to Eurostat.

Nevertheless, the extent of the adjustment to the raw data actually needed for the latter countries is hard to judge. The differences observed in the incidences (see definition above) of the accidents between countries, therefore, arise in some degree from the variation in reporting arrangements.

However, the results for the main variables (such as economic activities, age and sex, characteristics of the injury and its consequences, i.e., days lost) have a high level of coherency among all Member States so that the aggregated data at EU level on the characteristics of the accidents in terms of enterprises, victims, injury and consequences has a high quality and reliability level. Moreover, the aggregated data at EU level presented in the current publication include Norway when data was not available for some countries but was known for Norway, in order to obtain more reliable results.

6.4. European Occupational Diseases Statistics - EODS

EODS data are collected on cases of occupational disease recognised by the national authorities. A pilot data collection concerned cases of the reference year 1995 and the first data set according to the EODS Phase 1 methodology concerns the reference year 2001. The EODS Phase 1 specifications cover 68 disease entities in a compulsory way. In addition 41 entities are included in an optional way. The latter group includes especially infectious diseases and rare forms of occupational disease. The specifications were meant to include only diseases which are covered by all or by most national recognition schemes. The 2001 data are available for 12 EU Member States (excluding Germany, Greece and France). The data collected include information on age, gender, diagnosis, occupation, sector of economic activity, severity and causative agent[26,27].

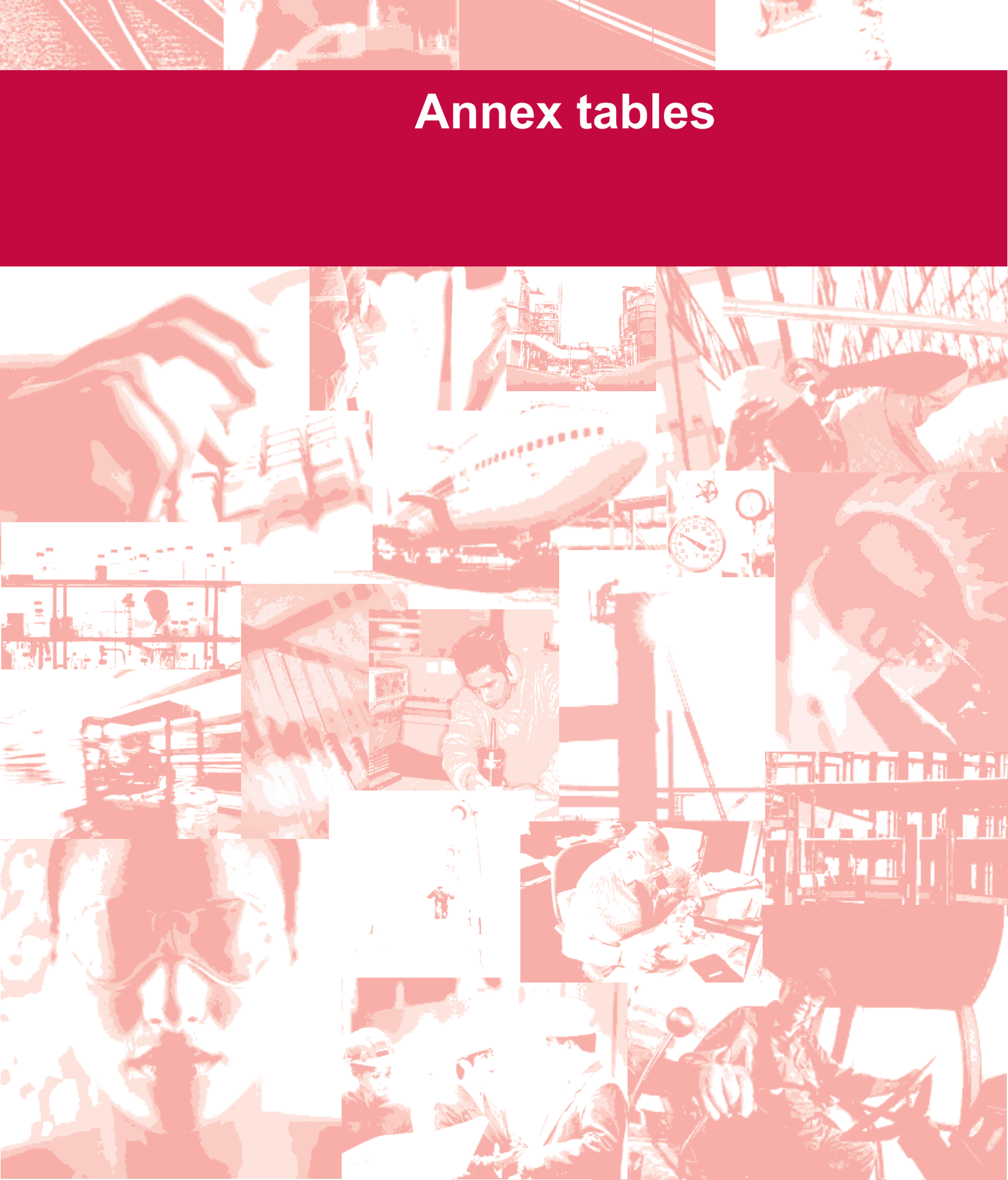
The national data collection systems used for EODS (insurance or labour inspection) do not cover all workers. The reference population used in the calculation of incidence rates is extracted from the LFS. According to the information provided by the national authorities, only sectors of economic activity and categories of professional status which are covered by the EODS data are included in the reference population.

The indicator showing the risk of occupational diseases is the incidence rate, i.e. the number of new cases of occupational disease during the year per 100 000 persons currently in employment.

26 European Occupational Diseases Statistics (EODS) - Phase 1 methodology. Eurostat Working Papers. Population and social conditions 3/2000/E/no. 19

27 Classification of the causal agents of the occupational diseases in all official European languages. Eurostat Working Papers. Population and social conditions 3/2000/E/no. 18


Annex tables



Tables[1]

Table A.1: Number of workers (x 1 000) by sector of economic activity and gender. EU-15, 2002 and 1995

	Total		Men		Women	
Sector (NACE)	2002	1995	2002	1995	2002	1995
Total workforce	160 806	146 783	91 389	85 817	69 417	60 966
Agriculture and fishing (A+B)	5 983	7 268	4 019	4 722	1 964	2 546
Mining and quarrying (C)	507	647	451	571	:	75
Manufacturing (D)	30 992	30 942	22 209	22 025	8 783	8 918
Electricity, gas and water supply (E)	1 213	1 358	970	1 107	244	251
Construction (F)	12 667	11 605	11 579	10 623	1 087	982
Wholesale and retail trade (G)	23 288	22 120	12 284	12 075	11 004	10 046
Hotels and restaurants (H)	6 688	5 769	3 116	2 752	3 573	3 017
Transport, storage and communication (I)	9 986	8 908	7 440	6 860	2 546	2 048
Financial intermediation (J)	5 454	5 182	2 797	2 751	2 658	2 431
Real estate, renting and business activities (K)	14 868	10 148	8 241	5 590	6 627	4 557
Public administration and defence (L)	12 278	11 384	6 939	6 717	5 339	4 666
Education (M)	11 035	9 793	3 540	3 351	7 495	6 442
Health and social work (N)	15 675	13 264	3 597	3 165	12 079	10 099
Other community services (O)	7 580	6 524	3 530	3 108	4 050	3 416
Private households (P)	1 639	1 394	157	148	1 482	1 246
Extra-territorial organisations (Q)	107	130	:	76	:	:

NB: The total figures contain some workers with unknown sector.

Source: Eurostat - European Union Labour Force Survey (LFS)

1 Additional detailed data tables are available in: http://forum.europa.eu.int/Public/irc/dsis/hasaw/library

Table A.2: Number of workers (x 1 000) by occupation and gender. EU-15, 2002 and 1995

	Total		Men		Women	
Occupation	2002	1995	2002	1995	2002	1995
Total workforce	160 806	146 783	91 389	85 817	69 417	60 966
Legislators, senior officials and managers	12 926	11 311	9 054	7 902	3 872	3 409
Professionals	20 379	16 326	11 285	9 200	9 093	7 126
Technicians and associate professionals	25 478	19 248	12 602	10 014	12 876	9 234
Clerks	20 757	19 486	6 520	6 617	14 236	12 869
Service workers and shop and market sales workers	22 476	18 187	7 233	6 391	15 243	11 796
Skilled agricultural and fishery workers	4 698	5 277	3 219	3 571	1 479	1 706
Craft and related trades workers	23 257	23 026	21 048	20 460	2 209	2 566
Plant and machine operators and assemblers	13 605	12 564	11 188	10 325	2 417	2 239
Elementary occupations	15 076	13 366	7 565	6 724	7 511	6 642
Armed forces	1 095	896	1 035	856	60	:

NB: The total figures contain some workers with unknown occupation.

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.3: Number of workers (x 1 000) by age category and gender. EU-15, 2002 and 1995

	Total		Men		Women	
Age category	2002	1995	2002	1995	2002	1995
Total workforce (15-64 years)	160 806	146 783	91 389	85 817	69 417	60 966
15-19 years	5 160	4 778	2 878	2 679	2 282	2 098
20-24 years	13 068	13 093	7 072	7 020	5 996	6 072
25-29 years	18 599	20 099	10 249	11 380	8 350	8 719
30-34 years	22 465	21 509	12 818	12 640	9 647	8 869
35-39 years	24 011	20 274	13 709	11 881	10 301	8 393
40-44 years	22 383	19 412	12 584	11 189	9 799	8 223
45-49 years	20 026	18 420	11 219	10 885	8 807	7 534
50-54 years	18 124	14 607	10 436	8 848	7 688	5 759
55-59 years	11 870	10 432	7 081	6 504	4 789	3 928
60-64 years	5 100	4 160	3 342	2 790	1 758	1 370

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.4: Number of workers (x 1 000) by Member State and gender. 2002 and 1995

	Total		Men		Women	
Member State	2002	1995	2002	1995	2002	1995
EU-15	160 806	146 783	91 389	85 817	69 417	60 966
BE	4 031	3 769	2 317	2 260	1 715	1 510
DK	2 700	2 580	1 429	1 423	1 271	1 157
DE	35 869	35 461	19 856	20 472	16 013	14 989
EL	3 844	3 693	2 366	2 357	1 477	1 336
ES	16 138	12 373	10 083	8 157	6 055	4 216
FR	23 737	21 782	12 965	12 101	10 772	9 682
IE	1 714	1 229	989	761	725	468
IT	21 416	19 649	13 296	12 660	8 121	6 989
LU	187	161	112	104	75	57
NL	8 092	6 728	4 555	3 980	3 536	2 747
AT	3 748	3 630	2 073	2 060	1 675	1 570
PT	4 806	4 210	2 623	2 316	2 183	1 894
FI	2 389	1 994	1 233	1 027	1 157	967
SE	4 272	3 981	2 212	2 047	2 059	1 933
UK	27 863	25 543	15 280	14 092	12 583	11 451

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.5: Proportion (%) of salaried workers by Member State and gender. 2002 and 1995

	Total		Men		Women	
Member State	2002	1995	2002	1995	2002	1995
EU-15	85.0	83.4	82.0	80.6	89.1	87.2
BE	84.9	82.4	83.5	81.3	86.8	84.0
DK	91.6	90.8	88.4	88.3	95.1	93.9
DE	89.4	89.8	87.3	88.2	92.1	91.9
EL	61.5	55.4	59.6	54.3	64.6	57.5
ES	81.0	75.4	78.7	74.3	84.8	77.4
FR	89.5	86.7	87.0	84.4	92.5	89.5
IE	83.4	79.5	76.4	72.4	92.8	91.0
IT	73.3	71.7	69.6	69.1	79.4	76.5
LU	92.5	88.8	91.1	88.5	94.7	89.5
NL	88.8	87.8	87.3	86.9	90.8	88.9
AT	87.4	86.4	86.4	86.3	88.5	86.5
PT	76.8	74.9	75.4	73.4	78.6	76.8
FI	87.6	84.9	84.2	80.5	91.3	89.6
SE	90.2	88.6	86.0	84.0	94.8	93.5
UK	88.6	87.0	84.9	82.5	93.2	92.5

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.6: Proportion (%) of part-time workers by Member State and gender. 2002 and 1995

	Total		Men		Women	
Member State	2002	1995	2002	1995	2002	1995
EU-15	17.7	15.6	6.0	4.7	33.1	31.0
BE	19.3	13.6	5.7	2.7	37.7	29.8
DK	20.0	21.4	10.1	10.0	31.1	35.3
DE	20.3	16.0	5.2	3.2	39.2	33.5
EL	4.2	4.4	2.0	2.4	7.7	7.9
ES	7.9	7.2	2.5	2.5	16.9	16.3
FR	16.1	15.5	4.9	4.8	29.6	28.8
IE	16.3	12.0	6.0	5.3	30.2	23.1
IT	8.5	6.2	3.5	2.7	16.7	12.6
LU	11.7	8.1	1.8	1.0	26.7	20.7
NL	43.4	37.0	20.6	16.1	72.7	67.2
AT	18.5	13.3	4.7	3.3	35.4	26.4
PT	8.3	6.3	4.1	2.9	13.4	10.5
FI	12.1	11.4	7.5	7.5	17.0	15.5
SE	20.4	25.4	9.8	9.3	32.3	43.0
UK	24.1	23.2	8.3	6.5	43.3	43.7

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.7: Proportion (%) of salaried workers with unlimited duration of work contract by Member State and gender. 2002 and 1995

	Total		Men		Women	
Member State	2002	1995	2002	1995	2002	1995
EU-15	87.0	88.0	88.0	88.8	85.7	87.0
BE	92.4	94.6	94.5	96.1	89.7	92.3
DK	91.1	88.4	92.8	89.3	89.5	87.4
DE	88.0	89.5	88.2	89.9	87.7	88.9
EL	88.7	90.6	90.2	90.9	86.6	90.0
ES	68.8	65.1	70.8	66.8	65.7	62.0
FR	85.9	87.6	87.5	88.6	84.0	86.4
IE	94.7	90.0	95.5	91.6	93.7	87.8
IT	90.1	92.7	91.7	93.8	87.9	90.7
LU	95.7	95.0	96.0	95.3	95.3	94.3
NL	85.8	88.8	88.0	91.3	83.2	85.4
AT	92.5	92.0	92.4	91.9	92.7	92.1
PT	78.1	87.7	79.5	89.0	76.5	86.2
FI	82.8	81.7	86.1	84.4	79.4	79.0
SE	84.7	88.3	87.1	90.1	82.4	86.7
UK	94.0	92.7	94.7	93.6	93.2	91.7

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.8: Distribution (%) of workers by Member State and sector of economic activity. 2002

Distribution (%) of workers by sector (NACE)

Member State	Number of workers	Agriculture and fishing (A+B)	Mining and quarrying (C)	Manufacturing (D)	Electricity, gas and water supply (E)	Construction (F)	Wholesale and retail trade (G)	Hotels and restaurants (H)	Transport, storage and communication (I)	Financial intermediation (J)	Real estate, renting and business activities (K)	Public administration and defence (L)	Education (M)	Health and social work (N)	Other community services (O)	Private households (P)	Extra-territorial organisations (Q)	Total workforce
European Union (15 countries)	160 806	3.7	0.3	19.4	0.8	7.9	14.6	4.2	6.2	3.4	9.3	7.7	6.9	9.8	4.7	1.0	0.1	100.0
BE	4 031	1.8	0.2	18.3	0.8	6.6	14.3	3.3	7.7	3.8	8.7	9.7	8.1	12.4	4.1	0.3	0.2	100.0
DK	2 700	3.0	0.2	16.4	0.6	6.6	14.6	2.3	6.9	3.4	9.3	5.8	7.8	18.4	4.7	0.2	:	100.0
DE	35 869	2.4	0.4	23.6	0.8	7.6	14.0	3.4	5.6	3.7	8.5	8.0	5.6	10.4	5.5	0.4	0.1	100.0
EL	3 844	14.6	0.5	13.9	0.9	7.6	17.2	7.0	6.3	2.4	5.9	7.6	6.4	4.6	3.8	1.4	:	100.0
ES	16 138	5.8	0.4	18.5	0.6	11.9	15.5	6.4	6.1	2.5	8.0	6.3	5.9	5.5	4.0	2.6	:	100.0
FR	23 737	4.0	0.2	17.9	0.8	6.6	13.1	3.2	6.8	3.0	10.0	9.3	7.6	10.6	4.4	2.3	0.1	100.0
IE	1 714	6.2	0.5	16.5	0.7	10.6	14.2	6.0	6.4	4.1	9.2	5.2	6.3	9.2	4.7	0.4	:	100.0
IT	21 416	4.7	0.3	22.8	0.8	7.9	15.5	4.2	5.4	3.1	7.8	8.7	7.4	6.1	4.4	0.9	0.1	100.0
LU	187	2.2	:	10.2	0.5	9.1	12.4	4.3	7.0	10.8	8.1	11.3	7.0	8.1	3.8	1.6	3.8	100.0
NL	8 092	2.9	0.1	14.0	0.5	6.5	15.8	4.0	6.1	3.7	12.7	7.6	6.6	15.1	4.4	:	:	100.0
AT	3 748	5.4	0.2	19.7	1.0	8.9	16.0	5.3	6.9	3.4	7.9	6.1	6.0	8.6	4.3	0.3	0.1	100.0
PT	4 806	8.5	0.3	21.7	0.8	12.7	15.4	5.4	4.2	1.7	5.0	6.8	6.1	5.1	3.3	3.0	:	100.0
FI	2 389	5.3	0.2	19.8	0.9	6.3	12.0	3.6	7.1	1.9	10.9	5.0	6.6	14.5	5.7	0.2	:	100.0
SE	4 272	2.2	0.2	16.8	0.6	5.5	12.3	2.7	6.7	2.1	13.3	5.7	8.2	18.7	5.2	:	:	100.0
UK	27 863	1.3	0.4	15.8	0.8	7.4	14.9	4.5	7.2	4.6	11.4	6.7	8.2	11.1	5.2	0.4	0.1	100.0

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.9: Distribution (%) of workers by Member State and occupation. 2002

Distribution (%) of workers by occupation

Member State	Number of workers	Agricultural workers	Armed forces	Clerks	Craft workers	Elementary occupations	Machine operators	Managers	Professionals	Service workers	Technicians	Total workforce
European Union (15 countries)	160 806	2.9	0.7	13.0	14.6	9.4	8.5	8.1	12.8	14.1	16.0	100.0
BE	4 031	1.8	0.9	17.1	11.2	9.1	8.2	10.5	19.4	10.7	11.0	100.0
DK	2 700	2.0	0.4	10.2	11.1	12.1	6.9	7.1	14.1	15.3	20.9	100.0
DE	35 869	2.0	0.6	12.9	17.0	7.9	7.4	5.8	13.4	11.9	21.2	100.0
EL	3 844	14.4	1.0	10.9	16.0	6.8	7.5	10.2	12.6	13.4	7.2	100.0
ES	16 138	3.8	0.6	9.5	17.6	13.9	10.1	7.5	12.2	14.6	10.3	100.0
FR	23 737	4.0	1.2	14.2	13.0	7.8	10.5	7.5	11.1	12.7	17.9	100.0
IE	1 714	0.8	0.4	13.6	12.8	8.5	9.7	16.3	16.4	15.7	5.7	100.0
IT	21 416	2.8	1.0	14.0	17.7	8.5	9.0	3.2	10.7	15.9	17.3	100.0
LU	187	2.1	:	17.7	11.8	11.8	7.5	5.9	16.6	11.2	15.5	100.0
NL	8 092	1.5	0.5	12.4	9.6	9.0	6.1	12.4	17.7	12.8	18.0	100.0
AT	3 748	5.0	0.4	13.7	16.7	8.9	8.0	7.4	10.1	15.1	14.8	100.0
PT	4 806	7.4	0.6	10.1	22.4	13.9	9.2	7.2	7.4	14.2	7.8	100.0
FI	2 389	5.1	0.4	8.3	12.4	8.8	8.7	8.2	16.0	15.5	16.5	100.0
SE	4 272	2.1	0.2	10.3	10.0	5.9	10.3	4.8	17.9	18.7	19.9	100.0
UK	27 863	1.0	0.3	14.6	10.1	11.2	7.6	14.1	12.8	16.1	12.3	100.0

Source: Eurostat - European Union Labour Force Survey (LFS)

Table A.10: Accidents at work by economic activity, sex, age and year. EU-15, with more than 3 days' absence.

	2000: Employment ([5]) (1000)	Number 2000	Incidence rate (per 100 000 workers)								Evolution of incidence rate (%)	
			1994	1995	1996	1997	1998	1999	2000	2001	1996-2000	1999-2000
All NACE branches	142 230	4 815 629										
9 NACE branches([1])	101 551	4 078 455	4 539	4 266	4 229	4 106	4 089	4 088	4 016	3 830 *	-5.0	-1.8
Males	63 042	3 252 664	5 960	5 534	5 458	5 291	5 268	5 253	5 160	4 904 *	-5.5	-1.8
Females	34 175	667 023	1 936	1 864	1 924	1 865	1 890	1 909	1 952	1 891 *	1.4	2.2
18-24 years	12 381	725 056	:	:	5 751	5 613	5 725	5 804	5 856	5 523 *	1.8	0.9
25-34 years	29 233	1 177 880	:	:	4 390	4 210	4 179	4 118	4 029	3 867 *	-8.2	-2.2
35-44 years	27 288	1 007 349	:	:	3 766	3 696	3 678	3 703	3 692	3 511 *	-2.0	-0.3
45-54 years	21 001	719 025	:	:	3 558	3 548	3 543	3 521	3 424	3 237 *	-3.8	-2.8
55-64 years	8 972	311 780	:	:	4 063	3 671	3 602	3 577	3 475	3 309 *	-14.5	-2.9
Agriculture	5 153	341 388	6 496	6 123	6 771	6 647	6 790	7 060	6 625	6 158 *	-2.2	-6.2
Manufacturing	30 057	1 328 898	5 071	4 962	4 660	4 607	4 492	4 471	4 421	4 280 *	-5.1	-1.1
Manufacture of food products; beverages and tobacco	3 377	210 141	7 360	6 920	6 557	6 550	6 323	6 264	6 223	6 174 *	-5.1	-0.7
Manufacture of textiles and textile products	2 178	56 315	:	2 765	2 639	2 589	2 653	2 642	2 586	2 539 *	-2.0	-2.1
Manufacture of leather and leather products	489	13 040	:	2 505	2 394	2 308	2 292	2 390	2 667	2 512 *	11.4	11.6
Manufacture of wood and wood products	930	91 186	:	10 238	10 793	12 020	10 677	10 399	9 803	9 420 *	-9.2	-5.7
Manufacture of pulp, paper and paper products; publishing and printing	2 567	67 102	:	2 795	2 686	2 606	2 596	2 548	2 614	2 522 *	-2.7	2.6
Manufacture of coke, refined petroleum products and nuclear fuel	172	1 427	:	1 158	1 094	962	875	859	828	802 *	-24.2	-3.4
Manufacture of chemicals, chemical products and man-made fibres	2 029	40 320	:	2 431	2 400	2 195	2 177	2 126	1 987	1 923 *	-17.2	-6.5
Manufacture of rubber and plastic products	1 349	56 243	:	4 233	3 897	3 843	3 827	4 102	4 169	4 233 *	7.0	1.6
Manufacture of other non-metallic mineral products([2])	1 160	76 791	6 518	6 915	6 533	6 543	6 269	6 352	6 623	6 450 *	1.3	4.2
Manufacture of basic metals and fabricated metal products	4 323	361 417	8 650	9 022	8 546	8 331	8 076	8 080	8 359	7 995 *	-2.2	3.5
Manufacture of machinery and equipment n.e.c.	3 318	113 089	:	3 708	3 308	3 523	3 615	3 412	3 408	3 279 *	3.0	-0.1
Manufacture of electrical and optical equipment	3 381	89 251	:	2 858	2 684	2 638	2 631	2 637	2 640	2 473 *	-1.6	0.1
Manufacture of transport equipment	3 040	82 875	:	2 936	2 734	2 756	2 883	2 782	2 726	2 619 *	-0.3	-2.0
Manufacturing n.e.c.	1 744	69 700	:	4 292	3 929	3 628	3 670	3 686	3 997	3 848 *	1.7	8.4
Electricity, gas and water supply	1 132	17 125	:	1 545	1 619	1 662	1 625	1 423	1 513	1 383 *	-6.6	6.3
Electricity, gas, steam and hot water supply	905	11 006	:	1 368	1 383	1 461	1 410	1 215	1 216	1 075 *	-12.1	0.1
Collection, purification and distribution of water	226	6 119	:	2 133	2 426	2 429	2 382	2 182	2 705	2 586 *	11.6	24.1
Construction	11 206	845 841	9 014	9 080	8 023	7 963	8 008	7 809	7 548	7 213 *	-5.9	-3.3
Wholesale and retail repairs	21 483	542 168	2 552	2 523	2 431	2 394	2 451	2 496	2 524	2 428 *	3.8	1.1
Hotels and restaurants([3])	5 633	213 511	4 121	3 645	3 532	3 365	3 590	3 711	3 790	3 556 *	7.3	2.1
Transport, storage and communication([4])	8 155	449 487	6 139	5 790	6 018	5 937	5 862	5 702	5 512	5 153 *	-8.4	-3.3
Land transport; transport via pipelines	3 224	190 663	5 732	5 139	6 000	6 006	5 987	5 939	5 915	5 607 *	-1.4	-0.4
Water transport	89	4 333	4 933	4 658	4 886	5 132	5 290	5 347	4 871	3 967 *	-0.4	-8.9
Air transport	381	13 457	5 470	4 397	4 121	4 184	4 317	3 682	3 535	3 306 *	-14.3	-4.1
Supporting and auxiliary transport activities; activities of travel agencies	2 103	181 381	11 580	11 829	10 526	10 415	9 755	9 643	8 624	7 868 *	-18.1	-10.6
Financial intermediation; real estate, renting and business activities	18 732	340 038	1 638	1 627	1 582	1 602	1 623	1 790	1 815	1 765 *	14.7	1.4

([1]) 9 NACE branches : Agriculture, Manufacturing, Electricity gas water supply (excluded in 1994), Construction, Wholesale and retail repairs, Hotels and restaurants, Transports communications, Financial intermediation, Real estate business activities.

([2]) Glass, ceramic goods, construction products.

([3]) Incidence rates exclude Portugal before 1996.

([4]) NACE Section I 'Transport, storage and communication' also includes Division i64 'Post and telecommunications'.

([5]) Persons in employment covered by the data on accidents.

* Provisional data for 2001 (PT = 2000 data).

NB: For some cases the gender or age is unknown, or the age is < 18 years or > 64 years. Therefore the total and the sum of categories may differ.

Source: Eurostat - European Statistics on accidents at work (ESAW)

Table A.11: Accidents at work by economic activity, sex, age and year. EU-15, fatal accidents. Including road traffic accidents on board of any means of transport in the course of work.

	2000: Employment([5]) (1000)	Number 2000	Incidence rate (per 100 000 workers)								Evolution of incidence rate (%)	
			1994	1995	1996	1997	1998	1999	2000	2001	1996-2000	1999-2000
All NACE branches	142 230	5 237										
9 NACE branches([1])	101 551	4 638	6.1	5.9	5.3	5.2	5.0	4.8	4.6	4.2 *	-11.8	-4.3
Males	63 042	4 425	:	:	7.7	7.7	7.4	7.1	7.0	6.5 *	-8.8	-1.4
Females	34 175	213	:	:	0.8	0.8	0.8	0.7	0.6	0.5 *	-18.0	-13.4
18-24 years	12 381	412	:	:	3.8	3.7	3.6	3.4	3.3	2.6 *	-14.2	-2.7
25-34 years	29 233	942	:	:	4.2	3.9	3.9	3.6	3.2	3.2 *	-21.4	-10.0
35-44 years	27 288	1 153	:	:	4.7	4.9	4.6	4.3	4.2	3.7 *	-7.7	-0.6
45-54 years	21 001	1 166	:	:	6.3	6.0	6.1	5.9	5.6	5.1 *	-11.6	-5.3
55-64 years	8 972	717	:	:	8.7	8.9	8.1	8.0	8.0	7.5 *	-3.8	0.0
Agriculture	5 153	651	14.0	13.8	12.9	12.6	12.4	13.3	12.6	11.8 *	-2.1	-5.0
Manufacturing	30 057	976	4.6	4.2	3.9	4.0	3.7	3.4	3.2	3.2 *	-16.7	-4.5
Manufacture of food products; beverages and tobacco	3 377	134	9.2	5.2	4.7	4.8	4.4	3.6	4.0	3.8 *	-15.6	10.2
Manufacture of textiles and textile products	2 178	29	:	2.1	1.4	1.5	1.8	1.4	1.3	1.4 *	-4.9	-4.9
Manufacture of leather and leather products	489	6	:	2.1	1.7	1.7	1.9	2.4	1.2	1.0 *	:	:
Manufacture of wood and wood products	930	69	:	9.5	8.5	9.1	8.9	6.4	7.4	6.3 *	-12.7	15.9
Manufacture of pulp, paper and paper products; publishing and printing	2 567	32	:	2.7	1.7	1.7	1.9	2.0	1.2	1.4 *	-26.7	-37.7
Manufacture of coke, refined petroleum products and nuclear fuel	172	0	:	1.1	0.6	4.0	2.9	2.9	0.0	2.3 *	.	.
Manufacture of chemicals, chemical products and man-made fibres	2 029	44	:	3.1	3.8	3.3	3.7	2.8	2.2	2.8 *	-42.9	-22.6
Manufacture of rubber and plastic products	1 349	26	:	2.5	2.5	2.9	2.0	3.7	1.9	1.8 *	-22.9	-47.9
Manufacture of other non-metallic mineral products(2)	1 160	113	9.1	7.3	8.1	10.4	8.2	7.8	9.7	8.0 *	20.3	24.9
Manufacture of basic metals and fabricated metal products	4 323	277	6.2	7.7	7.7	8.1	7.2	6.1	6.4	6.1 *	-16.8	5.0
Manufacture of machinery and equipment n.e.c.	3 318	80	:	2.5	2.5	2.5	2.3	2.6	2.4	2.7 *	-3.6	-7.3
Manufacture of electrical and optical equipment	3 381	89	:	3.6	3.2	2.9	2.6	2.2	2.6	2.1 *	-17.7	19.7
Manufacture of transport equipment	3 040	36	:	2.6	2.0	2.0	1.5	1.3	1.2	1.4 *	-40.8	-8.9
Manufacturing n.e.c.	1 744	41	:	2.6	2.7	2.6	2.2	2.5	2.4	2.7 *	-12.9	-6.0
Electricity, gas and water supply	1 132	42	:	4.4	5.7	3.6	3.2	3.2	3.7	4.2 *	-34.9	15.9
Electricity, gas, steam and hot water supply	905	35	:	4.3	5.8	4.4	3.6	3.7	3.9	4.3 *	-33.3	4.5
Collection, purification and distribution of water	226	7	:	4.1	1.3	0.8	1.7	1.7	3.1	3.9 *	.	.
Construction	11 206	1 279	14.7	14.8	13.3	13.1	12.8	11.7	11.4	10.4 *	-14.2	-2.4
Wholesale and retail repairs	21 483	461	2.8	2.9	2.5	2.4	2.5	2.3	2.1	1.8 *	-14.2	-6.7
Hotels and restaurants([3])	5 633	73	1.9	1.8	1.1	1.2	1.3	1.4	1.3	0.9 *	17.8	-7.4
Transport, storage and communication([4])	8 155	885	13.7	13.7	12.0	12.1	11.8	11.4	10.9	10.3 *	-9.6	-4.8
Land transport; transport via pipelines	3 224	697	21.7	22.8	20.4	20.8	20.3	20.5	21.6	20.8 *	6.0	5.5
Water transport	89	18	38.4	30.8	26.4	20.7	15.7	26.4	20.2	16.0 *	.	.
Air transport	381	22	7.9	6.0	5.7	4.3	5.3	4.2	5.8	3.2 *	.	.
Supporting and auxiliary transport activities; activities of travel agencies	2 103	117	10.3	13.8	10.0	11.3	10.2	9.1	5.6	7.0 *	-44.4	-38.9
Financial intermediation; real estate, renting and business activities	18 732	271	2.2	1.8	1.6	1.8	1.7	1.6	1.4	1.3 *	-9.6	-9.6

([1]) 9 NACE branches : Agriculture, Manufacturing, Electricity gas water supply (excluded in 1994), Construction, Wholesale and retail repairs, Hotels and restaurants, Transports communications, Financial intermediation, Real estate business activities.

([2]) Glass, ceramic goods, construction products.

([3]) Incidence rates exclude Portugal before 1996.

([4]) NACE Section I 'Transport, storage and communication' also includes Division i64 'Post and telecommunications'.

([5]) Persons in employment covered by the data on accidents.

* Provisional data for 2001 (PT = 2000 data).

Source: Eurostat - European Statistics on accidents at work (ESAW)

Table A.12: Non-fatal accidents at work and commuting accidents by Member State and severity. 2000

	Employment (1 000)	Non-fatal accidents at work								Commuting accidents (not included in accidents at work) 2001	
		with more than 3 day's absence						All accidents			
		Declared cases		Accidents							
		Number	Average declaration rate (%)	Number	Standardised incidence rate		% of all non-fatal accidents	Number	Standardised	Number	Incidence rate
					1994	2000					
	a	b	c	d = b / c%		e([7])	f([6])	g = d / f%	h([7])		
All NACE branches											
EU-15	142 230	4 271 151	89	4 815 629	.	.	63	7 628 184 *	.	650 000 *	.
EUR-12	108 008	4 084 209	95	4 317 669	.	.	73	5 883 682 *	.		
9 NACE branches([1])											
EU-15	101 551	3 595 133	89	4 078 455	4 539	4 016	64	6 364 025 *	6 267 *	430 000 *	410 *
EUR-12	78 498	3 440 691	93	3 704 251	:	4 665	73	5 069 657 *	6 377 *		
National data from the insurance system covering accidents at work([2])											
BE	2 021	81 420	100	81 420	4 415	4 213	:	:	:		
DE	24 356	1 163 825	100	1 163 825	5 583	4 757	85	:	:		
EL	1 352	11 307	32	35 765	3 702	2 595	:	:	:		
ES	9 662	667 596	100	667 596	5 736	7 052	71	:	:		
FR	13 119	631 135	100	631 135	5 515	5 030	:	:	:		
IT	14 952	572 437	([6])	628 156	4 641	4 049	62	:	:		
LU	207	9 331	100	9 331	4 508	4 891	59	:	:		
AT([4])	2 713	72 626	([6])	89 967	3 554	3 056	:	:	:		
PT	3 200	152 032	([6])	164 359	5 913	4 863	74	:	:		
FI	1 604	48 325	100	48 325	3 914	3 046	44	:	:		
National data from declarations made to another competent authority([3])											
DK	1 738	22 538	46	48 969	2 653	2 866	43	:	:		
IE([4])	978	5 154	55	9 399	1 494	1 027	51	:	:		
NL([4])	4 334	25 503	([6])	174 973	4 287	4 095	:	:	:		
SE	2 587	19 003	51	37 056	1 123	1 475	23	:	:		
UK([5])	18 728	112 901	39	288 178	1 915	1 607	33	:	:		
NO	1 239	21 063	([6])	52 658	:	4 593	:	52 658	4 585		

([1]) 9 NACE branches : Agriculture, Manufacturing, Electricity gas water supply, Construction, Wholesale and retail repairs, Hotels and restaurants, Transports communications, Financial intermediation, Real estate business activities.

([2]) Public insurance (e.g. social security) or private insurance, according to the Member State.

([3]) Usually Labour Inspectorate.
It should be stressed that the data inside both groups of Member States (insurance data and Labour Inspectorate data) are comparable but that they are not fully comparable between the two groups.

([4]) Austria and Ireland : 1994 rate = 1996; Netherlands : based on 1994 data, revalued in proportion to the evolution 2000/1994 of the number of persons in employment in Netherlands.

([5]) UK : Great Britain only.

([6]) Italy : 100% excluding self-employed craftspeople: 65%; Austria : 100% excluding agriculture and public administration; Portugal : almost 100%; Netherlands : <30% or 30-70%, depending on the branch; Norway : between 25% and 100%, including accidents with 1-3 days' absence from work.

([7]) Number per 100 000 persons in employment : e = (d/a) x 100 000, h = (g/a) x 100 000, then standardisation.

([8]) All branches. Based on the distribution of accidents of "3 days or less" and "more than 3 days" of absence in the LFS 1999 ad hoc module.

* Estimated data.

Sources: Accidents with more than 3 days' absence : ESAW;

All accidents : based on the ad hoc module in 1999 Labour Force Survey, including accidents without absence from work or with absence of less than 4 days;

Commuting accidents : estimates based on available data for 10 Member States.

Employment : persons in employment covered by the ESAW data on accidents.

Table A.13: Structural indicators EM0611-EM0613: Index of the number of serious accidents at work per thousand persons in employment. Total, Women, Men. Evolution of the standardised incidence rate of accidents at work by Member State and year 9 NACE branches([1]), more than 3 day's absence, index 1998 = 100

	EM0611 - Total Sex								EM0612 - Females only								EM0613 - Males only							
	1994	1995	1996	1997	1998	1999	2000	2001	1994	1995	1996	1997	1998	1999	2000	2001	1994	1995	1996	1997	1998	1999	2000	2001
EU-25	:	:	:	:	100	100	99	94 p	:	:	:	:	100	101	103	100 p	:	:	:	:	100	100	98	93 p
EU-15	111	104	103	100	100	100	98	94 p	102	99	102	99	100	101	103	100 p	113	105	104	100	100	100	98	93 p
Eurozone	:	105	103	101	100	99	97	92 p	:	99	102	99	100	100	102	98 p	:	106	103	100	100	99	97	92 p
BE	86	110	99	96	100	96	82 b	83	78	100	98	95	100	96	101	88	87	110	98	96	100	96	80 b	84
CZ	:	:	96	91	100	93	91	91	:	:	:	:	100	97	95	97	:	:	:	:	100	92	90	89
DK	83	82	84	100	100	95	89	82	78	83	90	104	100	103	99	88	84	81	83	99	100	93	88	83
DE	113	106	103	101	100	99	96	88	102	98	102	99	100	99	99	94	114	107	103	102	100	99	96	89
EE	:	85	77	83	100	106	105	132	:	:	:	:	100	138	130	181	:	:	:	:	100	140	114	120
EL	126	118	129	113	100	93	88	86	137	118	126	106	100	88	76	77	124	119	130	116	100	96	92	89
ES	88	92	95	95	100	107	108	106	77	80	88	91	100	109	113	110	89	93	96	96	100	108	109	108
FR	112	104	101	101	100	101	102	98	111	102	102	103	100	106	111	110	112	104	100	101	100	101	101	94
IE	59	62	104 b	115	100	90	72	105	:	:	112	120	100	106	88	173	:	:	100	113	100	87	69	91
IT	113	102	102	100	100	99	99	92	106	97	98	97	100	102	104	88	115	103	103	100	100	99	98	96
CY	:	:	:	:	:	100	112	112	:	:	:	:	:	100	118	123	:	:	:	:	:	100	112	100
LV	:	:	:	:	100	75	66	116	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
LT	:	90	88	90	100	97	94	85	:	:	:	:	100	85	95	87	:	:	:	:	100	93	84	87
LU	96	98	100	98	100	105	104	97	79	93	101	96	100	99	100	101	98	96	99	98	100	107	105	98
HU	130	123	110	103	100	93	94	86	:	:	:	:	100	92	94	90	:	:	:	:	100	93	94	85
MT	111 e	106 e	92 e	112 e	100	88	94	99	:	:	:	:	100	85	102	89	:	:	:	:	100	89	94	101
NL	110	108	109	107	100	108 b	105	92	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
AT	158	164	107 b	105	100	99	92	83	:	:	124	106	100	99	93	73	:	:	104	106	100	100	92	86
PL	:	:	:	113	100	78	85	78	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
PT	107	109	109	100	100	92	88	:	:	:	:	104	100	75	87	:	:	:	:	98	100	96	89	:
SI	102	109	110	106	100	102	98	94	:	:	:	:	100	101	98	95	:	:	:	:	100	99	97	92
SK	:	95	96	107	100	92	88	84	:	:	:	:	100	96	88	83	:	:	:	:	100	91	87	84
FI	114	106	98	98	100	91	89	87 b	108	107	96	98	100	90	89	87 b	120	107	101	99	100	93	89	87 b
SE	84	76	92	81	100	107	111	113	79	73	84	76	100	103	106	106	86	77	94	83	100	108	113	116
UK([2])	127	119	103	102	100	106	106	110	129	130	103	99	100	109	110	111	130	117	103	102	100	106	105	108
NO	:	95	89	81	100	91	94	82	:	90	86	78	100	98	107	89	:	96	90	81	100	89	91	79
BG	140	147	131	106	100	84	100 b	87	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
RO	:	:	:	106	100	100	106	113	:	:	:	:	100	94	101	112	:	:	:	:	100	102	109	117
TR	:	:	94	107	100	84	85	90	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
US([3])	121	117	107	107	100	97	97	90	121 e	117 e	107 e	107 e	100 e	96 e	91 e	91 e	121 e	117 e	107 e	107 e	100 e	98 e	97 e	90 e
JP([3])	123	117	114	107	100	93	91	91	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:

([1]) 9 NACE branches : Agriculture, Manufacturing, Electricity gas water supply (excluded in 1994), Construction, Wholesale and retail repairs, Hotels and restaurants, Transports communications, Financial intermediation, Real estate business activities.

([2]) UK : Great Britain only.

([3]) Sources other than ESAW: US :Bureau of Labour Statistics - US Department of Labour; JP: Annual Labour Standards Inspection Report and Annual Worker's Compensation Report, compiled by Japan Occupational Safety and Health Resource Center.

b: Break in time series.

e: estimated value

p: provisional data. The 2001 values for EU aggregates are provisional as for PT only 2000 data were available

Source: Eurostat - European Statistics on accidents at work (ESAW)

Table A.14: Fatal accidents at work and commuting accidents by Member State. 2000

	Employment (1 000)	Fatal accident at work							Fatal commuting accidents (not included in accidents at work) 2001	
		Total excluding RTTA			Fatal RTTA		Total including RTTA			
		Number	Standardised incidence rate		Number	% of total deaths (including RTTA)	Number	Standardised incidence rate	Number	Incidence rate
			1994	2000						
	a	b		c ([4])	d	e = d / f	f = b + d	g([4])	h	i([4])
All NACE branches										
EU-15	142 230	3 158	.	.	2 079	40	5 237	.	3 400 *	.
EUR-12	108 008	2 832	.	.	1 999	41	4 831	.		
9 NACE branches([1])										
EU-15	101 551	2 631	3.9	2.8	2 007	43	4 638	4.6	2 700 *	2.4 *
EUR-12	78 498	2 347	4.6	3.2	1 927	45	4 274	5.4		
BE	2 021	56	6.0	3.1	43	43	99	:		
DK	1 738	31	2.8	1.9	24	44	55	:		
DE	24 356	455	3.7	2.1	455	50	910	:		
EL	1 352	36	4.3	2.7	11	23	47	:		
ES	9 662	415	7.0	4.7	273	40	688	:		
FR	13 119	375	4.3	3.4	389	51	764	:		
IE([2])	978	21	3.9	2.3	2	.	23	:		
IT	14 952	469	5.3	3.3	610	57	1 079	:		
LU	207	11	.	6.8 [i]	2	15 [i]	13	:		
NL([2])	4 334	76	.	2.3	12	.	88	:		
AT	2 713	146	5.3	5.1	70	32	216	:		
PT	3 200	256	8.4	8.0	53	17	309	:		
FI	1 604	31	3.6	2.1	7	18	38	:		
SE	2 587	25	2.1	1.1	25	50	50	:		
UK([2])([3])	18 728	228	1.7	1.7	31	.	259	:		
NO([2])	1 239	:	:	:	:	.	41	3.8		

RTTA (Road traffic and transport accidents) at work : accidents in the transport branch and traffic accidents or accidents on all means of transport at work in all other branches of economic activity.

([1]) 9 NACE branches : Agriculture, Manufacturing, Electricity gas water supply, Construction, Wholesale and retail repairs, Hotels and restaurants, Transports communications, Financial intermediation, Real estate business activities. For data excluding RTTA, only 8 branches excluding transport branch.

([2]) Ireland and the United Kingdom : RTTA data not available (except accidents in the transport branch other than traffic and means of transport); Netherlands : partial data; Norway : RTTA included, but not separated from other accidents.

([3]) UK : Great Britain only.

([4]) c = (b/(a - transport branch)) x 100 000, g = (f/a) x 100 000, i = (h/a) x 100 000, then standardisation.

* Estimated data.

i : Little significant owing to small number of fatal accidents at work.

Sources: ESAW;
Commuting accidents : estimates based on available data for 8 Member States.
Employment : persons in employment covered by the data on accidents.

Table A.15: Structural indicator - EM062 : Accidents at work; fatal - Index of the number of fatal accidents at work per 100 thousand persons in employment

Evolution of the standardised incidence rate of accidents at work by Member State and year

9 NACE branches([1]), fatal accidents, index 1998 = 100

Excluding road traffic and transport accidents in the course of work

	1994	1995	1996	1997	1998	1999	2000	2001
EU-25	:	:	:	:	100	85	83	80 p
EU-15	115	109	106	100	100	85	82	79 p
Eurozone	115	105	103	95	100	83	80	77 p
BE	194	190	177	100	100	106	100	124
CZ	110	103	112	116	100	76	96	96
DK	90	106	97	74	100	71	61	55
DE	123	100	117	90	100	80	70	65
EE	:	120	102	114	100	79	56	78
EL	116	116	100	76	100	170	73	78
ES	127	127	107	115	100	91	85	81
FR	108	88	90	103	100	85	85	79
IE	66	71	56	120	100	119	39	43
IT	106	96	82	84	100	68	66	62
CY	:	:	:	:	:	100	46 i	62 i
LV	:	:	:	:	100	115	90	140
LT	:	98	102	83	100	91	78	105
LU	:	113 i	271 i	184 i	100	40 i	149 i	37 i
HU	106	117	101	97	100	107	95	71
MT	35 i	109 i	100 i	42 i	100	74 i	41 i	48 i
NL	:	:	114	140	100	107	106	79
AT	104	131	118	104	100	100	100	94
PL	:	:	:	109	100	83	96	92
PT	109	103	127	108	100	79	104	:
SI	90	118	118	130	100	88	83	105
SK	:	96	109	81	100	89	71	71
FI	150	117	71	117	100	75	88	98 b
SE	162	177	162	169	100	85	85	105
UK([2])	106	100	119	100	100	88	106	92
NO([3])	:	:	:	:	100	56	88	74
BG	122	116	120	116	100	96	100 b	100
RO	:	:	:	105	100	93	103	97
TR	:	:	121	120	100	104	68 b	92
US([3])([4])	121	111	108	106	100	98	93	93 w
JP([4])	130	135	132	114	100	109	103	98

([1]) 9 NACE branches : Agriculture, Manufacturing, Electricity gas water supply (excluded in 1994), Construction, Wholesale and retail repairs, Hotels and restaurants, Transports communications, Financial intermediation, Real estate business activities.

([2]) UK : Great Britain only.

([3]) NO and US : including road traffic and transport accidents in the course of work.

([4]) Sources other than ESAW: US :Bureau of Labour Statistics - US Department of Labour; JP: Annual Labour Standards Inspection Report and Annual Worker's Compensation Report, compiled by Japan Occupational Safety and Health Resource Center.

b: break in time series.

i : Little significant owing to small number of fatal accidents at work.

p: provisional data. The 2001 values for EU aggregates are provisional as for PT only 2000 data were available.

w: US 2001 figure is calculated without the victims of the terrorist attacks.

Source: Eurostat - European Statistics on accidents at work (ESAW)

Table A.16: Medical and economic consequences of accidents at work. EU-15+NO, 2000

	Total	<4 days' absence from work([1])	More than 3 days' absence from work - by:					Death
			Duration of absence from work				Part of body injured / type of injury	
			<2 weeks	2 weeks to less 3 months	3 & + months or permanent incapacity	Total		
Total (%) (excluding NO)	100.0	36.7	29.6	29.7	3.9	63.2		0.1
Part of body injured (%)								
Total			46.8	47.0	6.1	100.0	100.0	100.0
Head			64.4	31.5	4.1	100.0	9.2	28.6
Neck (including vertebrae)			36.6	58.5	4.9	100.0	2.5	1.7
Back (including spine)			49.7	44.1	6.2	100.0	8.5	3.2
Torso (including organs)			47.6	48.0	4.5	100.0	5.6	10.6
Upper limbs (including hands)			47.5	47.0	5.6	100.0	42.7	1.9
Lower limbs (including feet)			41.8	51.1	7.0	100.0	27.2	2.1
Whole body([1])			38.4	48.0	13.7	100.0	2.9	32.2
Other([1]) and unknown			47.0	39.8	13.2	100.0	1.3	19.7
Type of injury (%)([2])								
Total			46.8	47.0	6.1	100.0	100.0	100.0
Wounds and superficial injuries			56.0	40.3	3.7	100.0	42.1	.
Bone fractures			10.3	70.9	18.8	100.0	10.6	19.0
Dislocations, sprains, strains			45.1	49.8	5.1	100.0	27.2	.
Traumatic amputations			7.0	66.0	26.9	100.0	1.6	2.0
Concussions and internal injuries([2])			45.0	47.1	7.9	100.0	10.1	10.9
Burns and frostbite			56.0	41.2	2.9	100.0	2.5	2.3
Poisoning, infections([2])			61.3	35.0	3.7	100.0	0.2	0.4
Drowning, asphyxiation			55.3	41.6	3.1	100.0	0.1	2.5
Noise, vibration, pressure effects([2])			63.3	33.2	3.5	100.0	0.0	0.1
Temperature, light, radiation effects([2])			57.1	37.6	5.3	100.0	0.1	0.1
Shocks([2])			52.3	43.6	4.2	100.0	0.2	1.2
Multiple injuries([2])			37.8	48.2	14.0	100.0	1.1	14.8
Other and unknown			46.2	44.5	9.4	100.0	4.1	46.8
Number of days lost (excluding NO)								
Total - estimate - (1 000 000)	153.0	1.8	18.5	85.7	46.9	151.2		.
Per 100 000 persons in employment	107 470	1 191	13 038	60 248	32 993	106 279		.
Average per accident	20	1	8	38	159	31		.
Persons suffering more than one accident per year (%) (except Norway)	13.8							

([1]) Whole body : including multiple sites; other : including deaths at work of strictly medical origin in France.

([2]) Most severe injury; "multiple injuries" : injuries of the same severity; concussions, internal injuries : haemorrhages, fractures of internal organs, etc.; poisoning, infections, noise, vibration, pressure effects, extremes of temperature (including sunburn, hypothermia), light and radiation : acute effects; shocks : electric shock and shock following attack by a person, animal, etc.

Sources: ESAW : accidents with more than 3 days' absence from work and fatal accidents; 1999 LFS ad hoc module (accidents over past 12 months in 1998-1999) : accidents with no-absence and absence < 4 days, and multiple accidents.

Table A.17: Work-related health problems by sex, diagnosis group, activity status, age and severity. 1999, most serious health problem only([1])

	All (with or without absence from work)				With absence from work([2]) EU-15			
	EU-11+HU	EU-15						
	Number	Number	% of total		more than 3 days		2 weeks or more	
			All	Population group	Number	% of total	Number	% of total
All diagnosis and Population groups	6 012 672	7 711 906 *	100.0		2 953 543 *	100.0	2 063 482 *	100.0
Males	3 280 617	4 174 268 *	54.1					
Females	2 732 055	3 537 638 *	45.9					
Persons with more than one health problem			12.0					
Diagnosis group								
Musculoskeletal disorders	3 192 147	4 094 276 *	53.1		1 472 563 *	49.9	1 015 146 *	49.2
Stress, depression, anxiety	1 091 389	1 399 825 *	18.2		669 328 *	22.7	533 066 *	25.8
Breathing and pulmonary disorders	457 743	587 105 *	7.6		207 211 *	7.0	116 982 *	5.7
Cardiovascular disorders	249 050	319 434 *	4.1		101 528 *	3.4	83 796 *	4.1
Headaches, visual fatigue	204 631	262 462 *	3.4		74 932 *	2.5	33 739 *	1.6
Hearing disorders	161 412	207 028 *	2.7		50 257 *	1.7	38 512 *	1.9
Infectious diseases	152 964	196 193 *	2.5		127 656 *	4.3	60 270 *	2.9
Skin problems	152 238	195 262 *	2.5		56 183 *	1.9	34 024 *	1.6
Other	351 098	450 321 *	5.8		193 885 *	6.6	147 947 *	7.2
Active population	4 323 909	5 545 884 *	71.9	100.0	2 953 543 *	100.0	2 063 482 *	100.0
Musculoskeletal disorders	2 176 721	2 791 882 *	36.2	50.3	1 472 563 *	49.9	1 015 146 *	49.2
Stress, depression, anxiety	949 620	1 217 991 *	15.8	22.0	669 328 *	22.7	533 066 *	25.8
Breathing and pulmonary disorders	288 616	370 181 *	4.8	6.7	207 211 *	7.0	116 982 *	5.7
<45 years	2 389 606	3 064 930 *	39.7	55.3	1 608 207 *	54.5	1 054 503 *	51.1
45-64 years	1 883 999	2 416 434 *	31.3	43.6	1 310 543 *	44.4	983 781 *	47.7
65 & + years	50 304	64 520 *	0.8	1.2	34 793 *	1.2	25 198 *	1.2
Non-active persons having worked previously	1 688 763	2 166 022 *	28.1	100.0				
Musculoskeletal disorders	1 015 426	1 302 394 *	16.9	60.1				
Stress, depression, anxiety	141 769	181 834 *	2.4	8.4				
Breathing and pulmonary disorders	169 127	216 924 *	2.8	10.0				
<45 years	202 682	259 962 *	3.4	12.0				
45-64 years	786 409	1 008 655 *	13.1	46.6				
65 & + years	699 672	897 405 *	11.6	41.4				

([1]) Persons with more than one such problem : only the most severe (in medical terms and in terms of effect on activity) is counted (self-assessment by respondent).

([2]) Absence from work in past 12 months.

* Estimated data.

Source: 1999 LFS ad hoc module; health problems suffered during all or part of the past 12 months at date of interview.

Table A.18: Work-related health problems by activity status and severity. EU-15, 1999

	Work-related health problems - % of total		Number of days lost	
	All persons	Persons active or expecting never again to work through health problem([1])([2])	Total (1 000 000)	Average per work-related health problem
All victims	100		348.7 *	55 *
Total persons active or expecting never again to work	77	100	289.2 *	49 *
Active persons([1]) :				
Total	70	91	169.1 *	31 *
No absence from work	27	35	0.0 *	0 *
1-3 days lost	5	7	0.8 *	2 *
4 days to less than 1 week lost	5	7	2.1 *	5 *
1 to less than 2 weeks lost	6	8	4.7 *	10 *
2 weeks to less than 1 month lost	8	10	13.2 *	22 *
1 to less than 3 months lost	8	10	37.3 *	60 *
3 months or more lost	11	14	111.0 *	137 *
Persons expecting never again to work as result of work-related health problem([2])	7	9	120.1 *	274 *
Other inactive persons([3])	23		59.5 *	137 *

([1]) Absence from work in past 12 months.

([2]) Persons inactive through work-related health problem in the past (days lost : excluding retired persons) or expecting to become inactive (no more paid work) as a result of a recent work-related health problem.

([3]) The work-related health problem is not specified as the cause of inactivity; lost days are enumerated for non-retired persons considering that they would have been incapable of work for 3 months or more because of this health problem (unknown or partial reason for inactivity, factor preventing return to work, etc.) and the average numbers of days lost in this group and the total are calculated by including only this class.

* Estimated data.

Source: ad hoc module in LFS 1999.

Table A.19: Proportion of work-related health problems by sex. 1999, most serious health problem only([1]), with or without days' absence from work, percentage

	EU-9([2])	DK	EL	ES	IT	LU	PT	FI	SE	UK
					Males					
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Musculoskeletal disorders	51.4	57.3	38.8	53.0	50.3	44.3	45.6	58.6	59.7	44.1
Stress, depression, anxiety	16.5	8.4	10.7	7.3	12.6	7.3	15.2	11.2	14.2	30.5
Breathing and pulmonary disorders	8.4	4.8	17.5	12.6	10.3	12.6	11.3	11.8	5.8	3.7
Cardiovascular disorders	5.4	2.5	0.0	11.2	5.4	9.0	6.3	5.1	3.6	3.2
Hearing disorders	4.2	1.9	4.9	2.3	8.3	2.5	4.5	4.2	3.8	2.5
Headache, visual fatigue	2.8	3.3	9.2	2.1	4.4	7.7	2.3	1.6	1.7	2.9
Skin problems	2.4	1.6	14.1	1.1	3.2	3.7	4.4	2.9	1.0	2.5
Infectious diseases	2.3	3.3	0.0	1.6	3.0	6.1	2.2	1.2	1.2	2.8
Other	6.7	16.8	4.9	8.7	2.5	6.8	8.2	3.3	9.0	7.8
					Females					
Total	100.0	100.0	:	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Musculoskeletal disorders	54.4	63.4	:	66.1	48.3	33.6	26.8	63.9	60.7	40.4
Stress, depression, anxiety	20.2	9.3	:	8.7	17.0	13.7	34.3	11.5	20.6	36.5
Breathing and pulmonary disorders	6.4	2.5	:	5.3	9.4	13.6	13.1	10.4	3.2	4.5
Headache, visual fatigue	3.7	3.9	:	2.1	6.6	8.0	7.5	2.5	1.7	4.5
Infectious diseases	2.8	3.1	:	1.4	5.3	9.1	0.8	1.4	1.9	3.6
Skin problems	2.6	2.3	:	1.3	3.7	1.1	4.2	3.7	2.3	1.9
Cardiovascular disorders	2.5	1.0	:	6.1	3.3	7.4	1.9	2.8	1.4	1.4
Hearing disorders	1.0	1.4	:	0.4	2.8	0.4	0.5	0.8	0.8	0.4
Other	6.4	13.1	:	8.7	3.6	13.0	10.9	2.9	7.4	6.8

(1) Persons with more than one such problem : only the most severe (in medical terms and in terms of effect on activity) is counted (self-assessment by respondent).

(2) EU-9 : Excluding BE, DE, EL (women only), FR, IE, NL and AT for which data or breakdown by sex are not available.

Source: 1999 LFS ad hoc module; health problems suffered during all or part of the past 12 months at date of interview.

Table A.20: Standardised prevalence rate of work-related health problems by severity, diagnosis group and sector of economic activity. EU-11+HU, 1999

Sector (NACE)	More than 14 days lost (2 weeks' absence or more)	Total all health problems with or without days' absence from work
	Musculo-skeletal disorders	
All NACE branches - Total	817	2 645
Agriculture, hunting and forestry (A)	975	2 895
Fishing (B)	1 602	2 120
Mining and quarrying (C)	636	1 988
Manufacturing (D)	719	2 456
Electricity, gas and water supply (E)	638	2 043
Construction (F)	1 292	3 158
Wholesale and retail trade (G)	814	2 526
Hotels and restaurants (H)	499	1 729
Transport, storage and communication (I)	1 070	3 160
Financial intermediation (J)	534	1 519
Real estate, renting and business activities (K)	645	2 389
Public administration and defence (L)	832	2 202
Education (M)	691	2 162
Health and social work (N)	1 179	4 283
Other community services (O)	493	2 666
Private households (P)	331	1 510
Extra-territorial organisations (Q)	1 462	1 524
	Pulmonary disorders	
All NACE branches - Total	82	296
Agriculture, hunting and forestry (A)	75	375
Mining and quarrying (C)	376	672
Manufacturing (D)	101	338
Electricity, gas and water supply (E)	107	275
Construction (F)	50	286
Wholesale and retail trade (G)	50	194
Hotels and restaurants (H)	97	231
Transport, storage and communication (I)	72	189
Financial intermediation (J)	38	112
Real estate, renting and business activities (K)	71	207
Public administration and defence (L)	73	290
Education (M)	100	513
Health and social work (N)	114	331
Other community services (O)	63	345
Private households (P)	27	303
Extra-territorial organisations (Q)	94	274
	Stress, depression, anxiety	
All NACE branches - Total	445	1 181
Agriculture, hunting and forestry (A)	99	486
Manufacturing (D)	235	723
Electricity, gas and water supply (E)	428	928
Construction (F)	178	476
Wholesale and retail trade (G)	353	893
Hotels and restaurants (H)	227	717
Transport, storage and communication (I)	510	975
Financial intermediation (J)	308	1 066
Real estate, renting and business activities (K)	408	1 199
Public administration and defence (L)	630	1 323
Education (M)	828	2 306
Health and social work (N)	832	2 188
Other community services (O)	446	1 340
Private households (P)	243	572
Extra-territorial organizations (Q)	114	1 422

NB: EU-11+HU: see methodological notes for LFS 1999 ad hoc module.

Source: Eurostat - European Union Labour Force Survey (LFS)

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