#### **REPORT**



**HEALTH AND** SAFETY **AUTHORITY** WORKPLACE **ACCIDENTS** 

-----**JULY 2005** 

**HEALTH & SAFETY AUTHORITY PREPARED FOR:** Millward Brown IMS

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Management Summary



### 1. Introduction and Methodology

The Health and Safety Authority (HSA) commissioned Millward Brown IMS (MBIMS) to conduct a survey among Employers and Employees regarding workplace accidents.

The aim of the survey was to ascertain the true cost of workplace accidents in Ireland. In calculating the cost, a wide number of factors need to be taken into account, such as direct and indirect employer costs, costs to the individual, insurance costs and costs to society. The purpose of this research programme is to build the groundwork for estimating those costs.

The survey took the form of a postal survey and was mailed out to Employers who reported an accident at their workplace, and to Employees who missed more than 3 days work as a result of a work related accident.

A total of 343 Employer questionnaires were returned and analysed from a database of approximately 2,000 companies. This resulted in a response rate of approximately 17%.

Fewer employees (301) returned questionnaires from a database of approximately 4,000. The response rate for employees is approximately 8%.

A phone number was provided for employers and employees to raise any potential questions they had. MBIMS received approximately 400 calls from both Employers and Employees. Many employers called reporting they had no accidents in their workplace, while others felt the questionnaire was not geared to their particular industry and as a result would only complete the relevant sections. Employees were concerned as to how we received the information.

The survey used was developed by the ESAW (European Statistics on Accidents at Work)

Questionnaires were received from February 7<sup>th</sup> until July 11<sup>th</sup>, 2005.

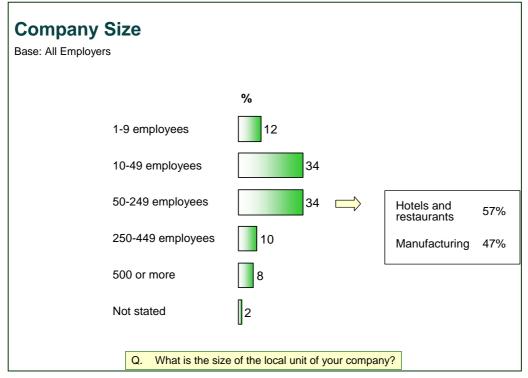
Caution must be exercised when interpreting the results because of the small base sizes. Similarly, because the data collected has been self-reported, and is not representative of each industry, but rather the company completing the questionnaire, wide variations in data are reported and must be interpreted with caution.

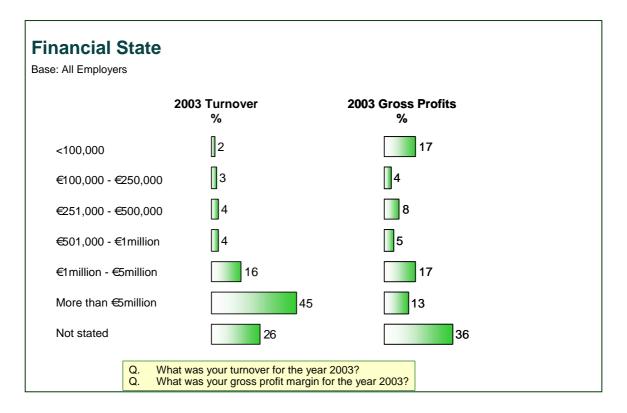
### 2. Report Findings (Employer)

#### **Demographics**

Industry C Base: All Employe	Classification	
	Manufacturing Construction Health and social work Public administration and defense Transport storage and communications Wholesale and retail Agriculture, hunting and forestry Other community service Education Electric, gas and water supply Hotels and Restaurants Mining and quarrying Financial intermediation Not stated	% 29 16 10 9 8 7 6 4 4 2 2 1 1 1 1
	Q. What is the sector of activity of the local unit	of your company?

More than half (55%) the surveys received were completed by employers in the manufacturing (29%), construction (16%) and health and social work (10%) industry sectors.





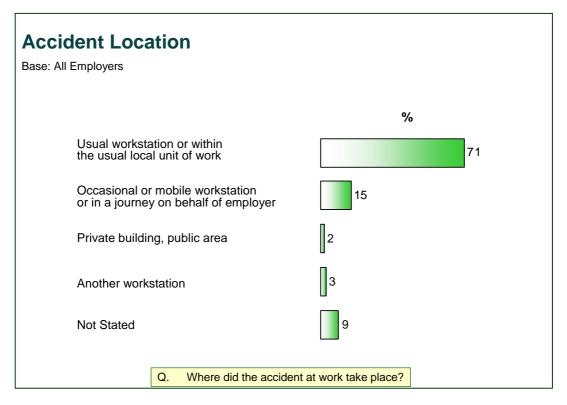
Seven-out-of-ten employers reported they employ between 10 and 250 employees, while another 18% employ 250 or more employees.

Sixty percent (61%) report their turnover for 2003 was more than 1 million euros, with more than four out of ten (45%) reporting turnover greater than 5 million euros.

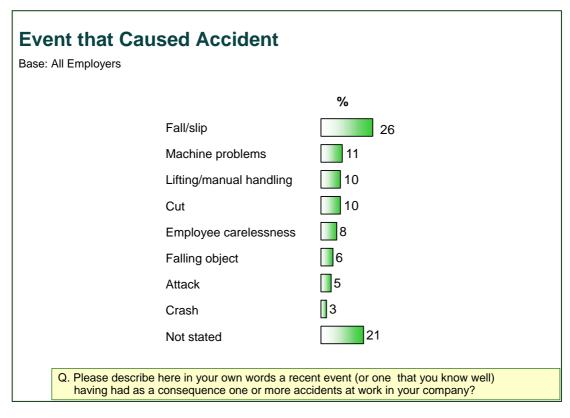
Three out of ten (30%) report gross profits greater than 1 million euros, while one fifth (17%) indicate gross profits less than 100,000 Euros. Interestingly more than one third declined to provide an answer.

Two-thirds of respondents (66%) report the average age of their equipment is more than 3 years old. Manufacturing companies were more likely than their counterparts to report their equipment was more than 5 years old.

### 3. Accident Profile

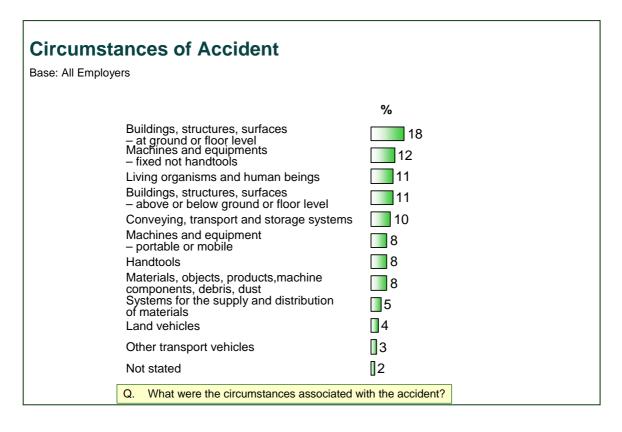


The majority (71%) of accidents reported occurred at the employee's usual workstation. Not surprisingly, employers with more than 250 employees were more likely to report accidents occurring at their usual workstation.



Falls and slips accounted for 26% of accidents reported by employers, another 11% mention the accident was as a result of machine problems, while 10% mention both lifting / manual handling incidents and cuts.

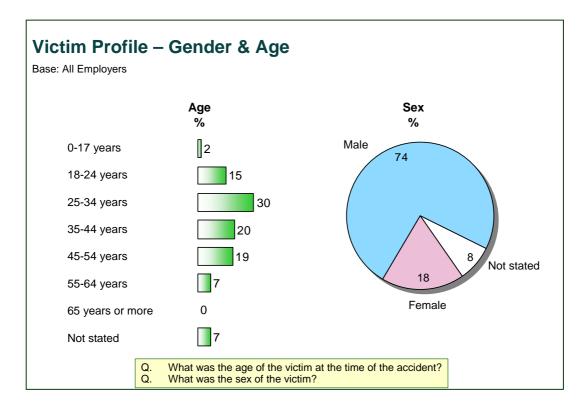
The majority (65%) of machine problem accidents occurred within the manufacturing industry sector, while four out of ten accidents reported within the construction industry were as a result of a fall / slip (26%) or carelessness (13%).



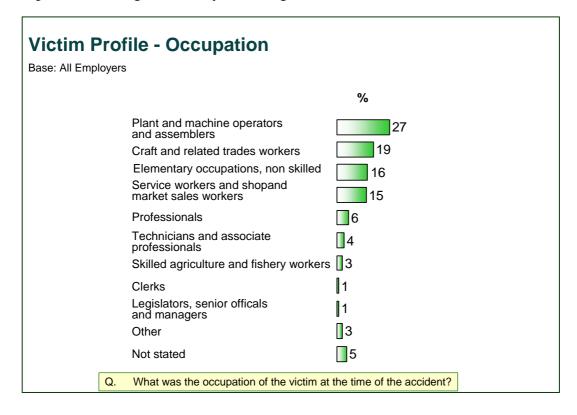
Many different circumstances are reported as being associated with the accidents, one-fifth (18%) report the accident occurred within buildings at ground or floor level, 12% were associated with fixed machines and equipment while 11% mention the accident was as a result of living organisms and building structures and surfaces above or below ground or floor level.

Another 10% of accidents mention the accident was associated with conveying, transport and storage systems.

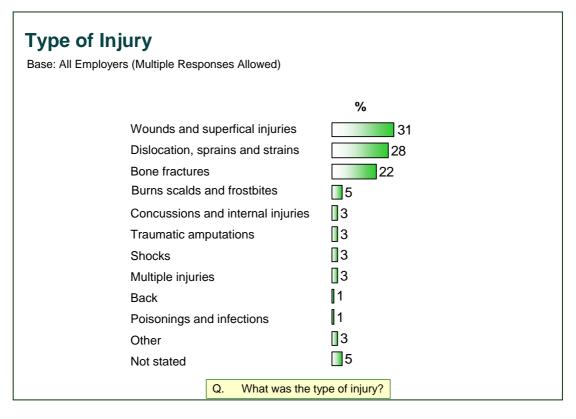
#### 4. Victim Profile



Three-quarters (74%) of accidents reported involved males, while one-half (50%) involved employees aged between 25 and 44. Another 17% of victims were reported as being under 24 years of age.



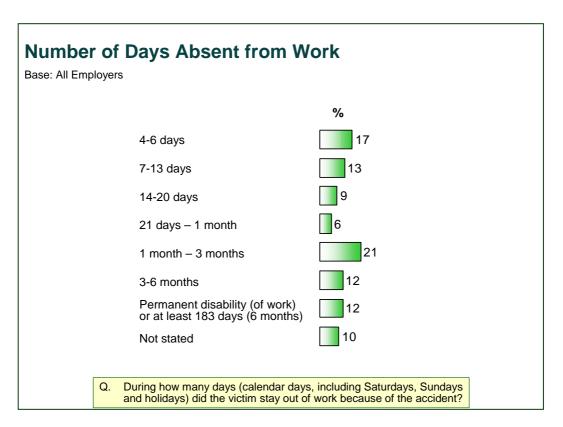
Plant and machine operators accounted for more than one-quarter (27%) of accidents reported by employers. Other positions held by employees where accidents were reported included craft and related trade workers (19%), elementary occupations, non-skilled (16%) and service workers (15%).



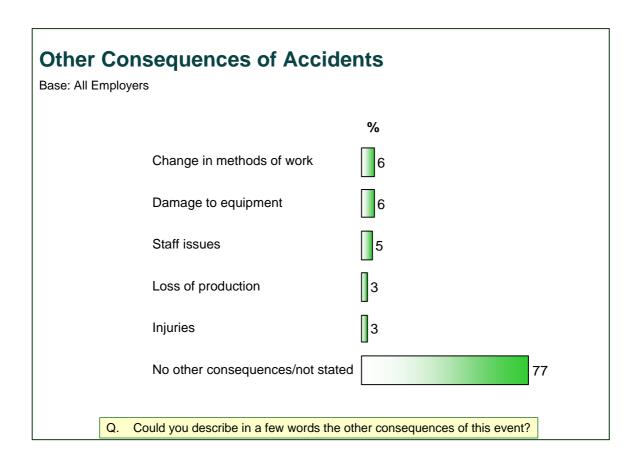
Various types of injuries were reported with wounds and superficial injuries, dislocations, sprains and strains being the most prevalent.

Type of Injury Base: All Employers (Multiple Responses Allowed)				
	%			
Upper limbs	38			
Back, including spine and vertebra in the back	19			
Lower limbs	16			
Head	13			
Neck, including spine and vertbra in the back	6			
Torso and organs	3			
Whole body or mulitple sites	2			
Other	3			
Not stated	6			
Q. What body part was injured?				

Nearly four-out-of-ten employers report the victim suffered injury to their upper limbs; another 19% report injuries to the back while 16% mention injury to lower limbs.



One-third (33%) of employers report that the victim lost between 1 and 6 months of work because of their accident, a further 12% report the employee is out on permanent disability. Thirty-eight percent (38%) of employees, out on permanent disability worked in the manufacturing industry.



More than three-quarters (77%) of employer's report that no other consequences occurred as a result of the accident, however, 6% report changes in work methods.

## 5. Cost of Accidents

# **Estimated Costs of Accident**

Cost generated by accident	Sample size	Mean Cost (In Euros)	Median (In Euros)
Material damage	14	19,789	1,750
Damage of the structures	17	21,045	3,500
Repair costs	49	37,014	2,000
Rental costs	5	2,340	600
Production costs	54	12,445	1,755
Replacement of persons – extra salary costs	5 154	10,178	3,000
Replacement of persons – costs of training	56	4,510	1,250
Loss of customers/orders	3	806,666	1,200,000

Q. In the following table, please estimate in euros the various costs generated by this event.

## **Estimated Costs of Accident (Cont'd)**

Cost generated by accident	Sample size	Mean Cost (In Euros)	Median (In Euros)
Court expenses	53	32,965	10,000
Administrative costs	133	6,109	500
Loss in terms of image	8	10,550	2,000
Other costs	82	18,970	2,208

Q. In the following table, please estimate in euros the various costs generated by this event.

The above tables highlight the cost of accidents reported. As mentioned before, caution must be exercised when interpreting these costs because of small base sizes and wide variations in costs reported.

### **Important Costs of Accidents**

	Most important %	Second most important %	Third most important %
Replacement of persons – extra salary cost	ts 9	9	6
Replacement of person – costs of training	8	8	8
Court expenses	6	4	4
Rental costs	6	3	8
Repair costs	5	6	4
Production losses	4	8	10
Damage of structures	4	7	8
Administrative costs	4	4	3
Loss of customers / orders	3	4	4
Material damage	3	6	3
Loss in terms of image	3	2	1
Other	3	-	-
Not stated	42	39	41

Q. What are, according to you, the most important costs of accidents at work in your company?

When asked about the most important costs of accidents for their company, fourout-of-ten respondents (42%) declined or were unable to give an answer. For those who did, replacement of employees (extra salary costs and costs of training) was seen as the most important costs. Costs relating to material damage and loss in terms of image are seen as less important. Not surprisingly, manufacturing companies were more likely than their counterparts to report replacement of employees as the most important cost of accidents.

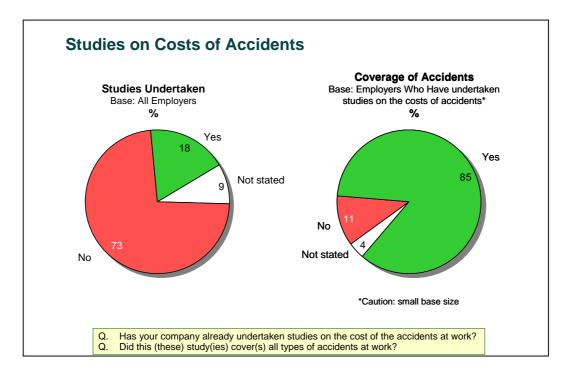
### **Most Expensive Accidents**

	Most expensive %	Second most expensive %	Third most expensive %
Building, structure, surfacesabove or below ground or floor level	12	8	4
Building, structures, surfaces at ground or floor level	10	10	4
Systems for the supply and distribution of materials	8	4	3
Motors, systems for energy transmission amd storage	4	4	3
Machines and equipment(portable or mo	bile) 4	3	4
Machines and equipment (fixed)	4	3	2
Hand tools	3	4	3
Living organisms	3	1	1
Conveying, transport and storage system	ns 2	2	2
Land vehicles	2	3	2
Office equipment	1	1	-
Bulk waste	1	-	-
Other transport vehicles	1	1	1
Other	4	4	8
Not stated	41	52	63

Q. What are, according to you, the most expensive costs of accidents at work in your company?

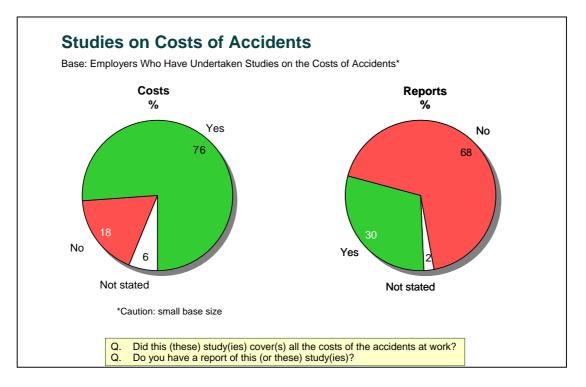
Forty-one percent (41%) of employers declined or were unable to answer questions about the most expensive accidents for their companies.

The most expensive accidents reported by employers pertain to building structures above or below ground or floor level, followed by accidents at ground or floor level.



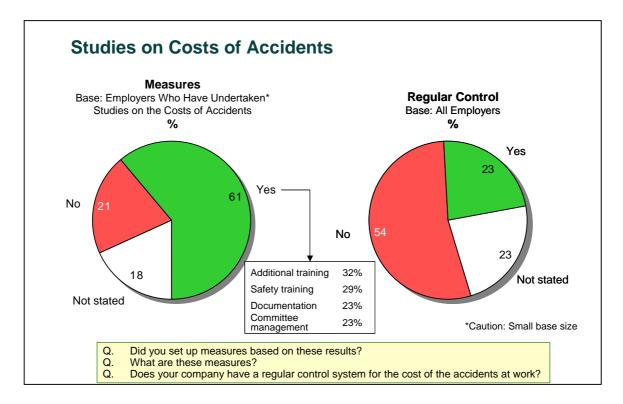
### 6. Studies on Costs of Accidents

Very few employers report they have undertaken studies on the actual cost of accidents at work, those who have, report that for the most part they cover all types of accidents in the workplace.



Three-quarters (76%) of employers who conducted studies on the cost of accidents mention that the studies cover all accidents at work. Findings related to these

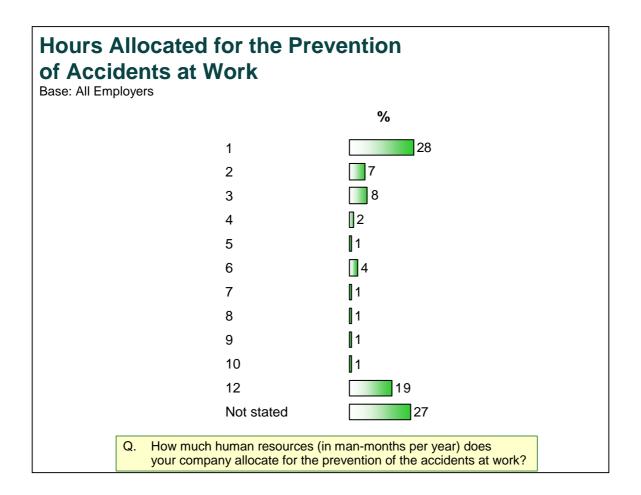
studies include prevention and safety mechanisms, additional training requirements and financial issues related to the accident. Only thirty percent (30%) of employers mention they have a report of these particular studies.



Six-out-of-ten employers (61%) who have undertaken studies mention they have set out measures based on results achieved, measures include additional training, safety training, documentation requirements and committee management.

Interestingly, one-third (29%) report they have observed progress in terms of limitations of the costs.

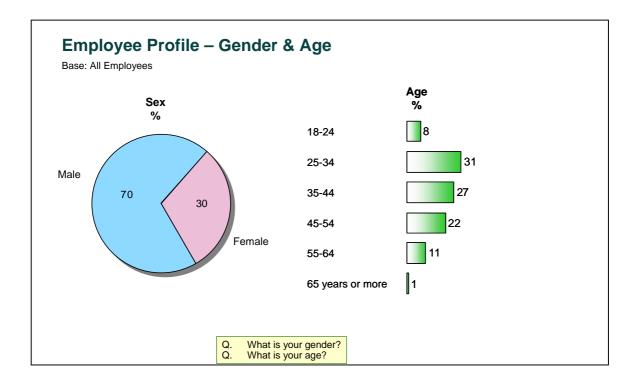
More than half of all employers (54%) report they **do not** have a regular control system for the costs of accidents at work.



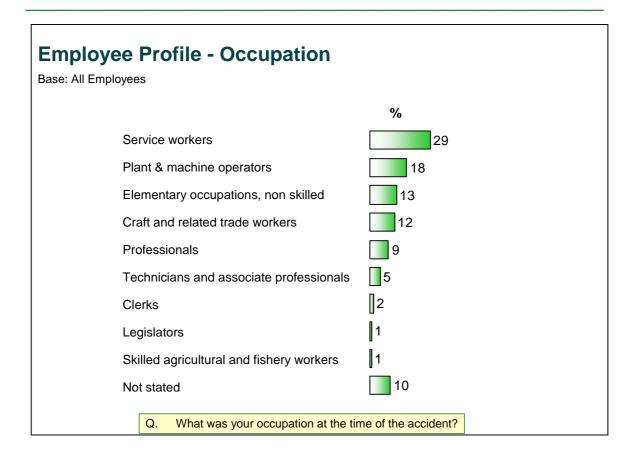
More than one-quarter (28%) of employers report they allocate 1 month of Human Resource time to the prevention of accidents at work.

### 7. Employee Findings

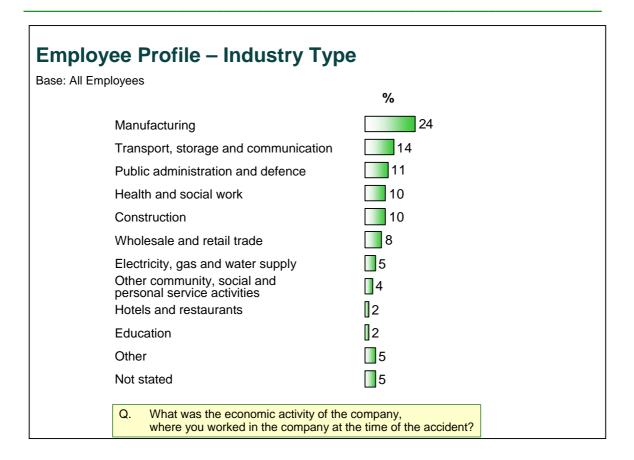
#### **Demographics**



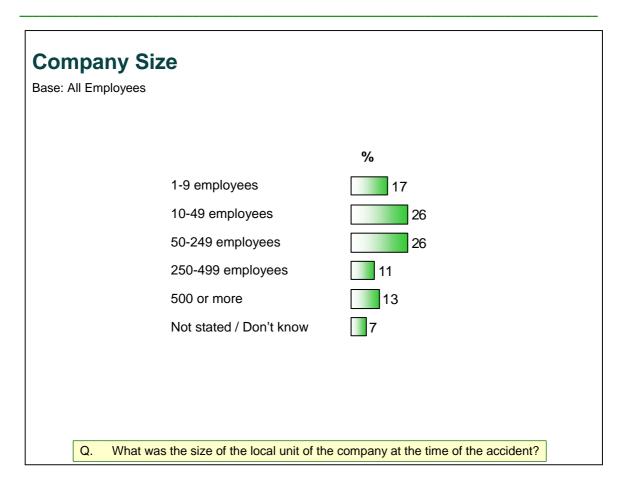
Seven-out-of-ten employees who responded to the survey are males. One-half of respondents (49%) report they are aged between 35 and 54 years of age, while three-out-of-ten (31%) are aged between 25 and 34 years of age. One-tenth (12%) are over 55 years of age.



The majority of respondents classified their occupation as service workers (29%), plant and machine operators (18%) and other non-skilled elementary occupations (13%).

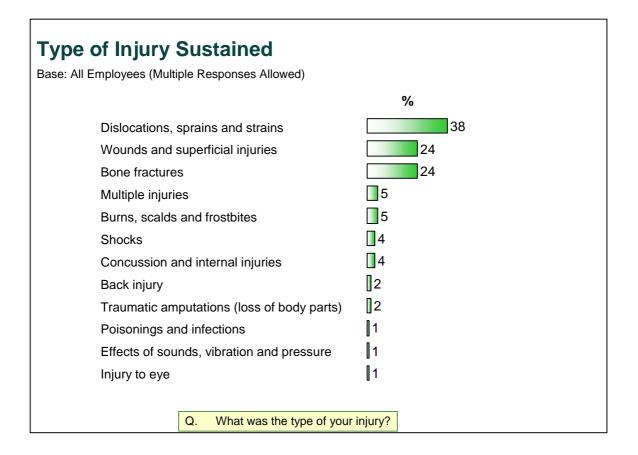


Seventy percent of the surveys received were completed by employees who worked in the manufacturing (24%), transport, storage and communications (14%), public administration and defense (11%), construction (10%) and health and social work (10%) industry sectors.



More than four-out-of-ten (43%) employees report they worked for a company with less than 50 employees at the time of the accident, one-quarter (26%) worked for medium sized companies (<250 employees), while another 24% worked for large companies (>250 employees).

### 8. Accident Profile



Four-out-of-ten employees (38%) report they suffered dislocations, sprains and strains as a result of their accident. Other types of prevalent injuries suffered included wounds and superficial injuries (24%) and bone fractures (24%).

Type of Injury Sustained Base: All Employees (Multiple Responses Allowed)					
		%			
Upper limbs		36			
Lower limbs		25			
Back, including s vertebra in the b	spine and ack	22			
Head		13			
Neck, including vertebra in the n	spine and eck	12			
Torso and organ	S	6			
Whole body or n	nultiple sites	2			
Other		4			
Q.	What body part was injur	ed?			

Consistent with employer findings, upper limbs (36%), lower limbs (25%) and injuries to the back (22%) are the most common areas of the body injured.

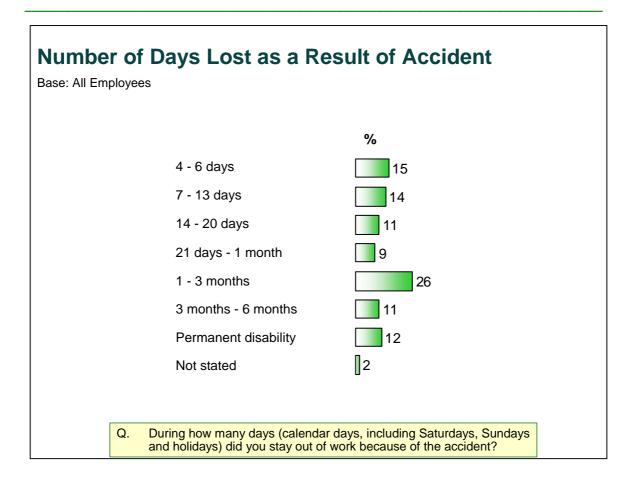
Accident Location Base: All Employees	
	%
Usual workstation or within the usual unit of work	73
Occasional or mobile workstation or in a journey on behalf of employer	20
Another work station to be specified	3
Not stated	4
Q. Where did the accid	ent take place?

Three-quarters (73%) of employees report that the accident occurred at their usual workstation, while 20% report it happened at an occasional or mobile workstation or in a journey on behalf of their employer.

Employees of manufacturing companies were more likely than all others to report the accident occurred at their usual workstation.

Circumstances Associated with Accident Base: All Employees				
	%			
Building, structures, surfaces at ground or floor level Building, structures, surfaces above or below ground floor level Machine & equipment – portable or mobile, not hand tools	24 8 8			
Land vehicles	8			
Living organisms and human beings	7			
Conveying, transport and storage systems	7			
Hand tools	6			
Office equipment	5			
Machines & equipment – fixed, not hand tools	4			
Systems for the supply and distribution of materials Materials, objects, products, machine components, debris, dust	□ 4 □ 4			
Other	9			
Not stated	6			
Q. Which of the following circumstances (items, tools object	ts) were associated with your accident?			

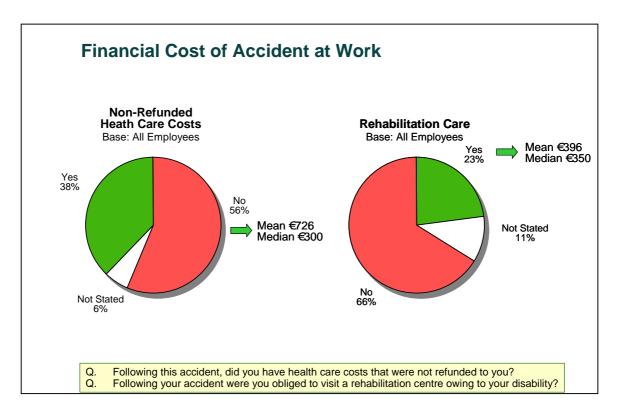
One-quarter (24%) of employees reported that their accident occurred at ground or floor level.



More than one-third (37%) report they lost between 1 and 6 months work as a result of their accident, another 12% mention they are out of work on permanent disability.

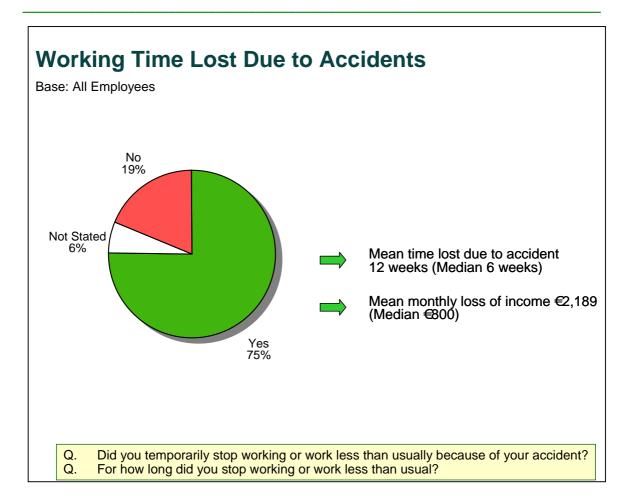
Employees working in the manufacturing industry were more likely to report being out on permanent disability than their counterparts in other industries.

### 9. Non-Refunded Costs

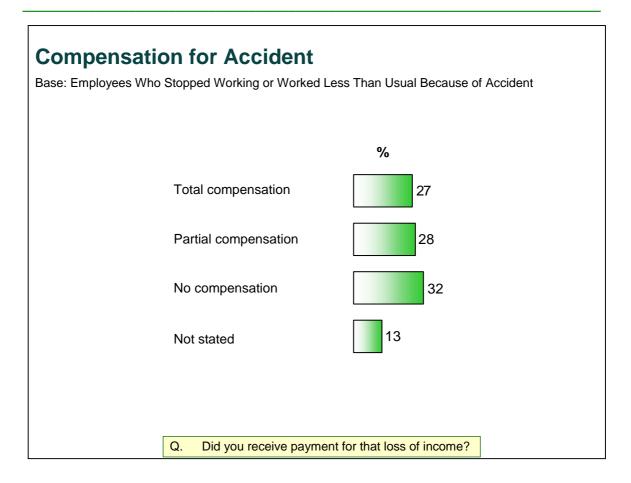


Four-out-of-ten employees (38%) mention they had health care costs that were not refunded to them. The median costs not refunded amounted to 300.

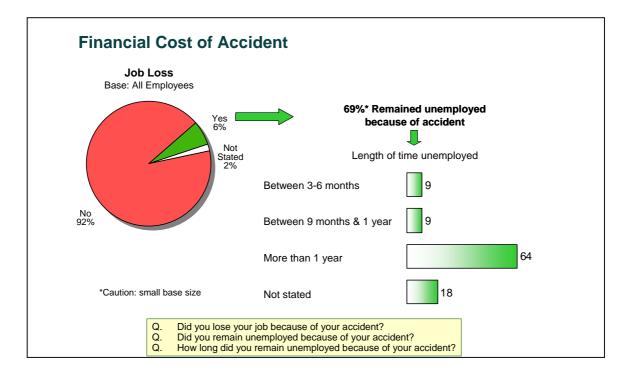
Twenty-three percent (23%) of employees mention they were obliged to visit a rehabilitation centre owing to their disability. The median costs not refunded amounted to 350.



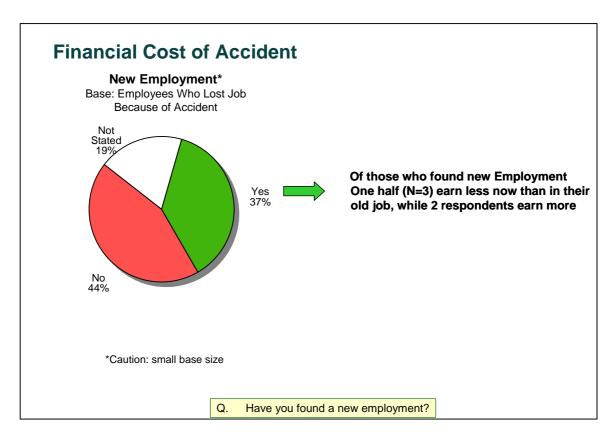
Three quarters of employees (75%) report they had to stop work or they worked less than usual because of their accident. The median amount of time lost was 6 weeks, while the median monthly loss of income was €800.



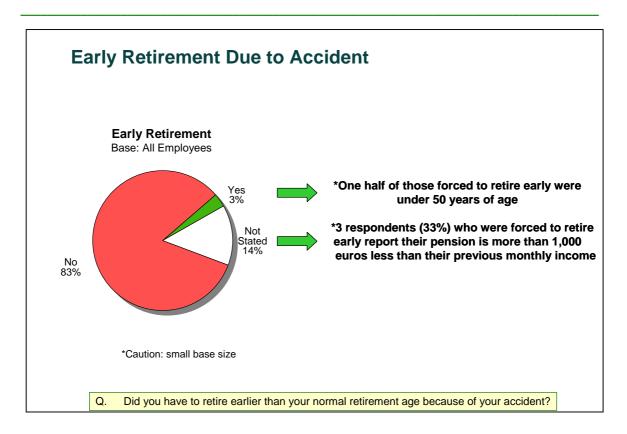
One-third (32%) of employees report they received no compensation for their loss of income.



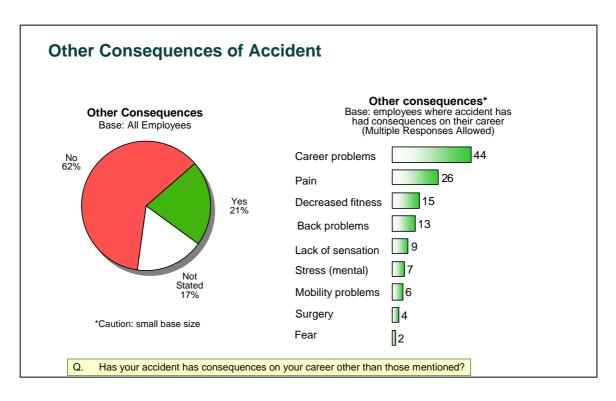
Very few employees (6%) report they lost their job because of the accident, however, for those that did loose their job, two-thirds (64%) reported they remained unemployed for more than a year.



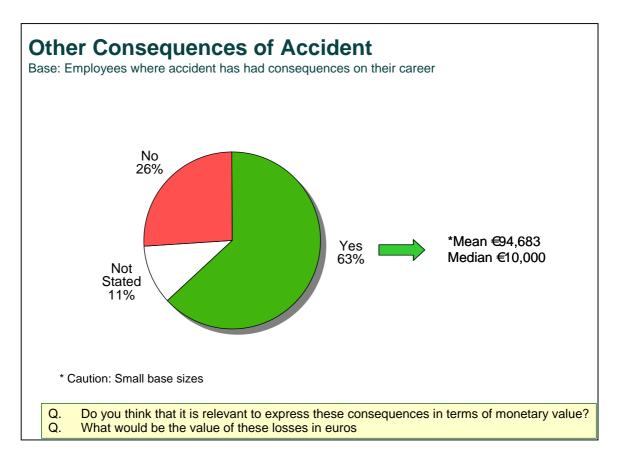
Just under forty percent (37%) of employees who lost their job because of the accident report they have found new employment.



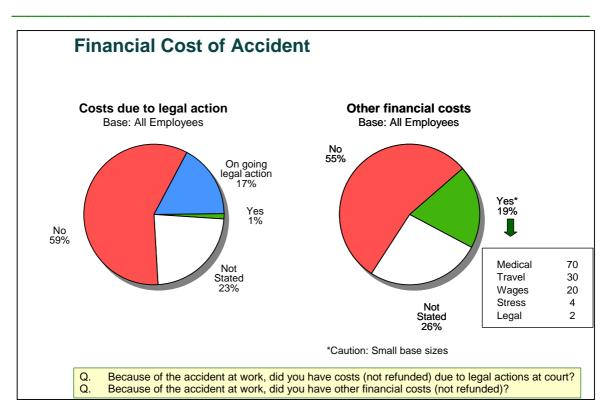
Very few employees (3%) report they had to retire early as a result of their accident.



One-fifth (21%) of employees report that their accident had other consequences on their careers, these consequences included career problems, pain, decreased fitness, back problems, lack of sensation and stress.



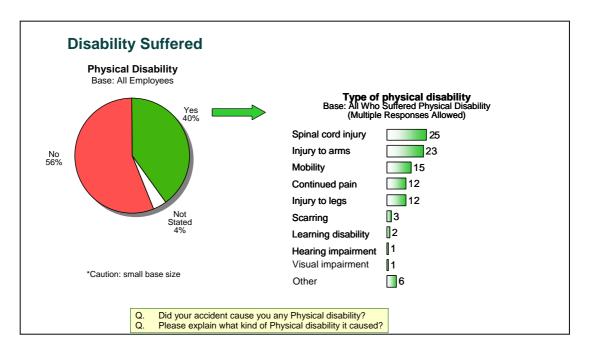
Two-thirds of employees believe it is relevant to express these consequences in terms of monetary value; the median loss reported is €10,000.



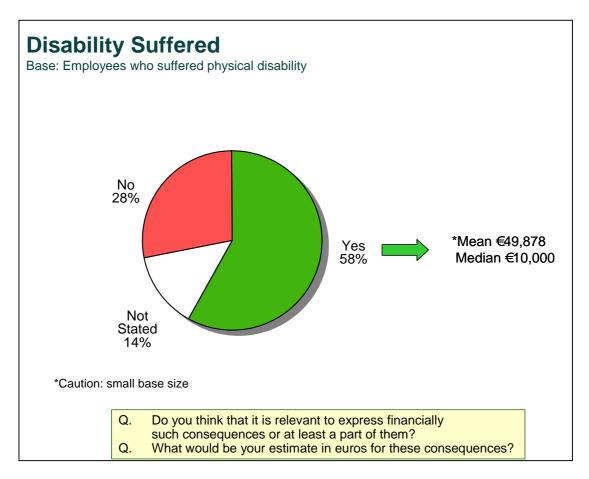
Very few respondents (1%) report they have non-refunded costs due to legal action, however 17% report they are involved with ongoing legal action

Nineteen percent (19%) of employees report they have incurred other costs that were not refunded. These cost include medical expenses, travel costs, lost wages, stress costs and legal costs.

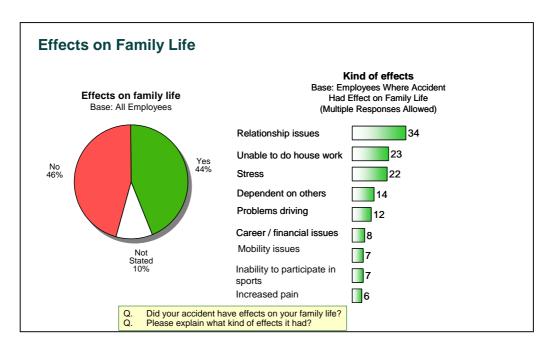
### **10. Quality of Life Costs**



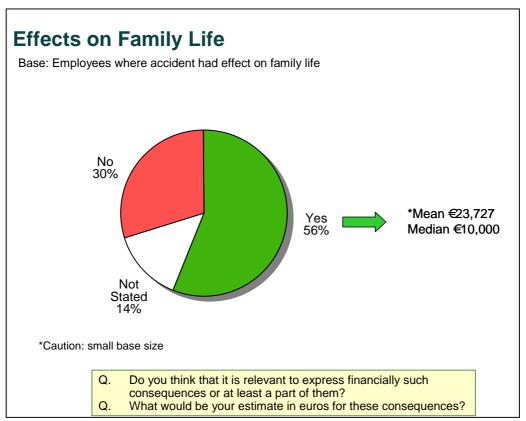
Four-out-of-ten (40%) employees mention their accident has caused a form of physical disability. The disabilities mentioned include spinal cord injuries, injury to arms, mobility, continued pain, leg injuries, scarring, learning disabilities, hearing impairment and visual impairment.



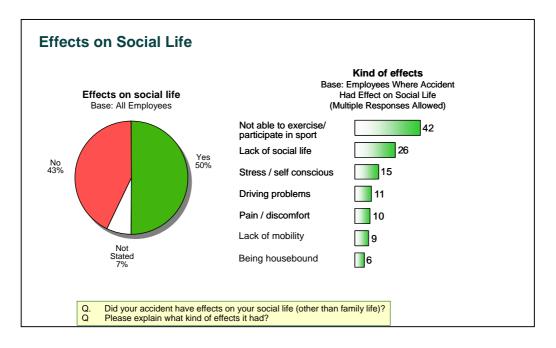
More than half (58%) of employees who suffered physical disability believe its relevant to express financially the consequences suffered as a result; the median loss reported is €10,000.



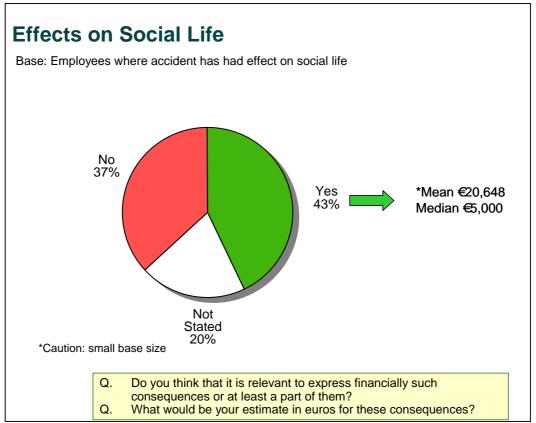
Forty-four percent (44%) of employees report that the accident has had an effect on their family life. The kind of effects mentioned include relationship issues, inability to complete household chores, stress, being dependent on others, problems driving, career / financial issues, mobility problems and increased pain.



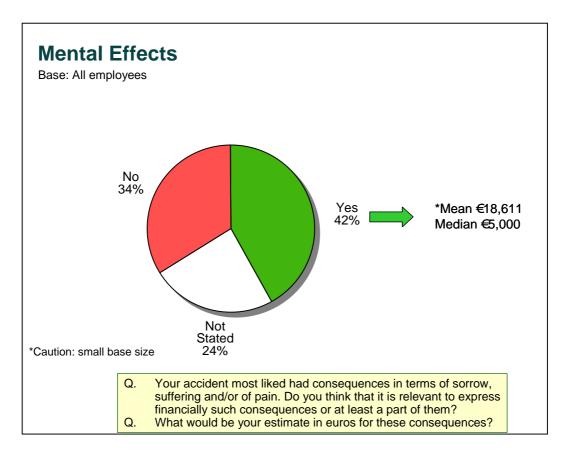
More than half (56%) of employees who reported the accident has had an effect on their family life believe its relevant to express financially the consequences suffered as a result; the median loss reported is  $\leq 10,000$ .



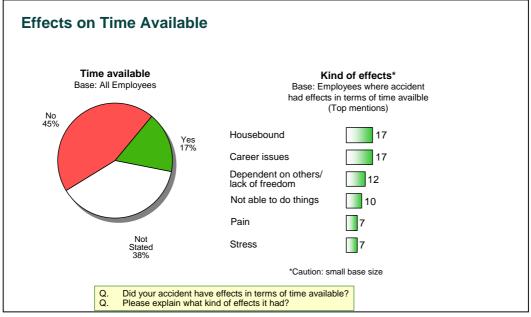
One-half (50%) of employees report that the accident has had an effect on their social life. The kinds of effects mentioned include not being able to exercise / participate in sport, lack of social life, stress, driving problems, lack of mobility and pain.



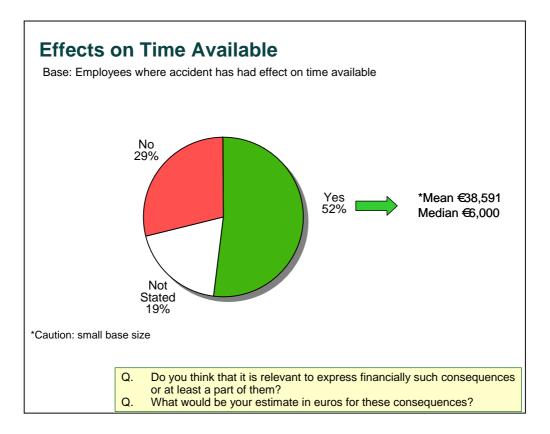
Four-out-of-ten (43%) of employees who reported the accident has had an effect on their social life believe its relevant to express financially the consequences suffered as a result; the median loss reported is 5,000.



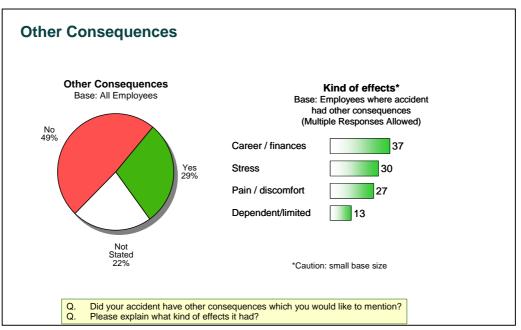
More than forty percent (42%) of employees believe it is relevant to express financially the consequences in terms of sorrow, suffering and / or pain; the median loss reported is 5,000.



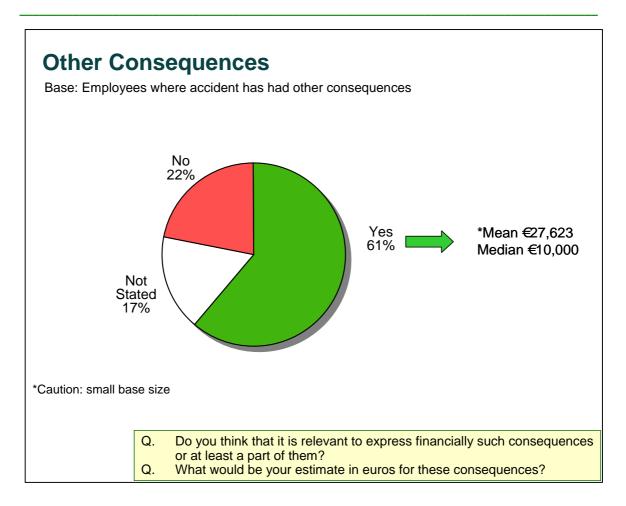
Few employees (17%) report their accident has had an effect on their time available; effects mentioned include being housebound, career issues, being dependent on others, pain and stress.



One-half (52%) of employees who reported the accident has had an effect on their time available believe its relevant to express financially the consequences suffered as a result; the median loss reported is 6,000.



When asked if the accident had other consequences, more than one-quarter (29%) of employees mention it had other consequences; other consequences mentioned include career / finances, stress, pain and being dependent on others.



Six-out-of-ten (61%) employees who reported the accident has had other consequences believe its relevant to express financially the consequences suffered as a result; the median loss reported is is  $\leq 10,000$ .

# Appendices

