The formulation of occupational accident statistics in Spain

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THE DEFINITION OF OCCUPATIONAL ACCIDENT

Article 115 of the Revised General Social Security Act of June 20, 1994, defines occupational accidents as "all bodily injuries which a worker suffers as a result or consequence of work carried out as an employee". To this definition should be added those accidents which occur **en route** from the worker's home to his place of work together with health problems suffered previously by the worker but which are the worsened as a consequence of an accident in the workplace.

In addition to this there is a presumption of **Iuris Tantum,** meaning that all injuries suffered at the place of work during the working day are presumed to be occupational accidents.

THE FORMULATION OF THE OFFICIAL STATISTICS

The basic document used in the formulation of the statistics is called the "Certificate of Occupational Accident with Sick Leave", approved by ministerial order on Dec 27, 1987.

The company is required to complete all sections of the certificate and send it to the workers' compensation mutual which then has a period of 10 days in order to present the original document and two copies to the Labour Authority and the Sub-Directorate General for Social and Labour Statistics. A third copy is given to the worker and another stays with the company.

The Work and Social Affairs Ministry tabulates all sections of the certificate and produces the occupational accidents statistics.

The information on occupational accidents and occupational health which is reflected in the official statistics refers to workers affiliated to those Social Security Regimes covering that professional contingency. Those regimes which are obliged to present the Certificate of Occupational Accident with Sick Leave are:

- The General Social Security Regime
- The Special Regime for Mining and Coal
- The Special Agricultural Regime
- The Special Sea Regime

In 1999 there were 931,813 accidents with sick leave in Spain, of these 14,271 were classified as serious and 1,566 caused the death of the worker.

The health and safety in the workplace studies consider the following factors:

- Place of accident
- Economic activity of the company
- Occupation of the worker
- Type of accident
- Causative agent of the accident
- Description of the injury
- Part of body injured
- Severity of injury

Accidents in the Workplace. These are understood to be all accidents which do not occur **en route,** but which occur at the place of work. It would however seem necessary to make a distinction between those occurring in road accidents given the difficulty in developing efficient preventative policies tending to reduce the incidence of those accidents.

Accidents En Route. These refer to those accidents which occur en route to and from the worker's habitual place of residence.

Accidents by Activity (CNAE). The various activities which may lead to accident serve as a base for the setting of premium rates. An analysis of the incidence of accidents for each 100 or 1000 covered workers is vital in order to correctly define the hazards which must be covered by the workers' compensation mutual, and any advisable preventative actions.

Accidents by Occupations (CNO). This analyses the incidence of accidents for each 100 or 1000 covered workers so as to define the hazards covered by the mutual in order to set contribution levels with respect to workers' salaries.

The Way the Accident Occurred, Causative Agent, Description of Injury and Part of Body Injured. All these data allow an assessment to be made of the hazard levels of the various economic activities and worker occupation codes (CON).

Duration of Sick Leave. This is of vital importance in order to monitor the sick leave process.

The duration of the process may be monitored using two criteria:

1. The average duration of incidents which have received medical discharge: this is obtained by dividing the sum of the number of days on sick leave of the medical discharges occurring in the period by the number of medical discharges registered.

2. Average duration of the processes begun in the period. This is obtained by dividing the number of days compensated in the year amongst the number of processes recorded in the period.

Traditionally the government has used this second indicator, whilst workers' compensation mutuals usually consider the average duration of the processes which have received medical discharge in the period, without taking account of the date on which sick leave was begun.

Calculated indices. Statistical indices in accordance with recommendations of the 10th and 13th International Conferences on Occupational Statistics of the O.I.T are used in order to obtain objective information with respect to occupational accidents:

INCIDENCE INDEX

$$\frac{\text{Number of accidents in working day with sick leave} \times 1000}{\text{Number of affiliates to Social Security regimes specifically covering occupational accidents}}$$

FREQUENCY INDEX

$$\frac{\text{Number of accidents in working day with medical leave} \times 1000000}{\text{Number of affiliates to Social Security regimes specifically covering occupational accidents} \times \text{average hours per worker taken annually}}$$

PROJECT DELT@ (Electronic Reporting of Injured Workers)

The technological advances which have occurred in the field of telecommunications in the last few years have made it possible to report and transmit informa-

tion electronically (point to point connections or Internet).

The Sub-Directorate General for Data Processing of the Work and Social Affairs Ministry has set up Project Delt@ for the electronic transmission of data (an explanatory diagram is included below). This project will be the future channel for the reporting of occupational accidents.

Using the Delt@ system the company connects to one of the ministry's Internet pages and reports the accident using an electronic form which substitutes the paper certificate. These forms are automatically sent to the workers' compensation mutual which accepts them and records them, reporting this to Delt@ which will notify the accident to the Labor Authority (at present the Autonomous Communities).

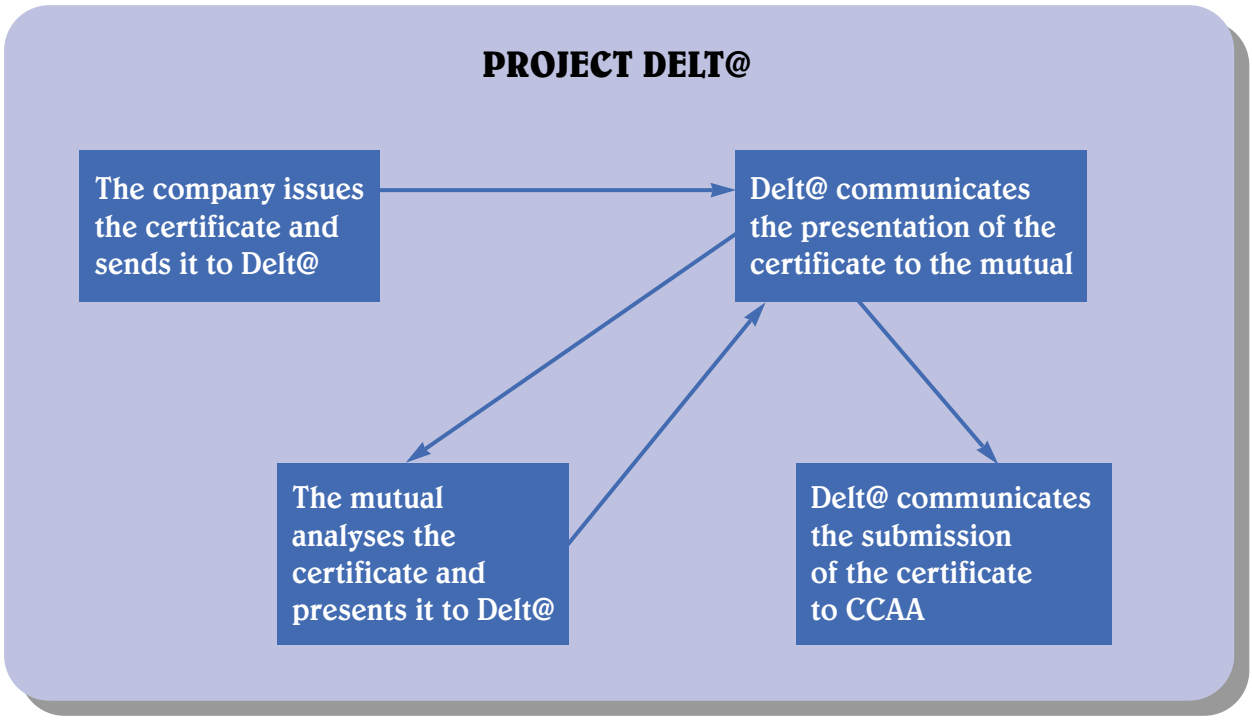
Advantages of this reporting system, amongst others:

a) The information is known almost in real time.

b) Information gathering is simplified since it is only done once.

c) The company completes the entire certificate, leaving no fields blank, thus avoiding unnecessary calls and correspondence.

d) There is a large reduction in administrative burden for the workers' compensation mutuals as well as for the Work and Social Affairs Ministry and the Autonomous Communities.



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There are however some difficulties:

a) To put the project into practice will require at least 18 months for the development of the application according to estimates made by the Sub-Directorate General for Data Processing.

b) Its development will be in parallel with the definition of contents of the new Occupational Accidents Certificates which is being carried out by the Occupational Accidents Group of the National Commission for Health and Safety in the Workplace, this could delay or change the project's timetabling. ■

SUPPLEMENTARY STATISTICS

1. Accidents grouped by severity and place of accident

	1995	% s/total	1996	% s/total	1997	% s/total	1998	% s/total	1999	% s/total
TOTAL ACCIDENTS	637,301	100.00	663,271	100.00	723,090	100.00	806,819	100.00	931,813	100.00
Slight	623,066	97.77	648,960	97.84	708,941	98.04	791,986	98.16	915,976	98.30
Serious	12,897	2.02	13,000	1.96	12,696	1.76	13,340	1.65	14,271	1.53
Fatal	1,338	0.21	1,311	0.20	1,453	0.20	1,493	0.19	1,566	0.17
TOTAL ACCIDENTS (IN WORKING DAY)	599,069	94.00	622,095	93.79	677,138	93.65	753,396	93.38	869,161	93.28
Slight (in working day)	587,289	98.03	610,306	98.10	665,565	98.29	741,455	98.42	856,286	98.52
Serious (in working day)	10,784	1.80	10,805	1.74	10,515	1.55	10,866	1.44	11,771	1.35
Fatal (in working day)	996	0.17	984	0.16	1,058	0.16	1,075	0.14	1,104	0.13
TOTAL ACCIDENTS (EN ROUTE)	38,232	6.00	41,176	6.21	45,952	6.35	53,423	6.62	62,652	6.72
Slight (en route)	35,777	93.58	38,654	93.88	43,376	94.39	50,531	94.59	59,690	95.27
Serious (en route)	2,113	5.53	2,195	5.33	2,181	4.75	2,474	4.63	2,500	3.99
Fatal (en route)	342	0.89	327	0.79	395	0.86	418	0.78	462	0.74

2. Occupational accidents with medical leave grouped according to severity and type of occurrence

	1995	% s/total	1996	% s/total	1997	% s/total	1998	% s/total	1999	% s/total
TOTAL	599,069	100.0	622,095	100.0	677,138	100.0	753,396	100.00	869,161	100.00
Falls of people to a different level	53,733	9.0	55,375	8.9	58,374	8.6	62,476	8.29	69,141	7.95
Falls of people at the same level	59,575	9.9	62,828	10.1	67,109	9.9	73,643	9.77	83,582	9.62
Falls of objects due to collapse or slide	9,241	1.5	9,088	1.5	8,940	1.3	8,677	1.15	9,478	1.09
Falls of objects being manipulated	39,666	6.6	39,850	6.4	40,874	6.0	43,564	5.78	48,355	5.56
Falls due to detachment of objects	4,367	0.7	4,243	0.7	4,307	0.6	4,538	0.60	5,011	0.58
Stepping on objects	34,329	5.7	36,243	5.8	39,677	5.9	45,505	6.04	52,835	6.08
Impacts against immobile objects	24,793	4.1	24,931	4.0	27,067	4.0	29,058	3.86	33,853	3.89
Impacts against mobile objects	14,650	2.4	14,410	2.3	15,511	2.3	16,922	2.25	18,933	2.18
Impacts due to objects or tools	114,496	19.1	115,813	18.6	126,149	18.6	141,534	18.79	162,222	18.66
Projection of fragments or particles	38,496	6.4	39,395	6.3	41,631	6.1	43,853	5.82	47,653	5.48
Trapping by or between objects	40,805	6.8	41,307	6.6	43,542	6.4	46,382	6.16	50,635	5.83
Trapping due to overturn of locomotives, tractors or vehicles	2,131	0.4	2,211	0.4	2,218	0.3	2,248	0.30	2,486	0.29
Over exertion	126,374	21.1	138,083	22.2	159,912	23.6	188,689	25.05	233,298	26.84
Exposure to extreme environmental temperatures	603	0.1	630	0.1	673	0.1	781	0.10	842	0.10
Thermal contacts	5,243	0.9	5,389	0.9	6,008	0.9	6,635	0.88	7,357	0.85
Exposure to electrical contacts	1,909	0.3	1,923	0.3	1,920	0.3	1,936	0.26	2,080	0.24
Exposure to harmful substances	2,080	0.3	2,153	0.3	2,438	0.4	2,533	0.34	3,022	0.35
Exposure to caustic or corrosive substances	4,493	0.7	4,559	0.7	4,790	0.7	5,040	0.67	5,417	0.62
Exposure to radiation	502	0.1	603	0.1	713	0.1	904	0.12	1,019	0.12
Explosions	798	0.1	659	0.1	699	0.1	679	0.09	742	0.09
Fire	668	0.1	666	0.1	692	0.1	677	0.09	674	0.08
Accidents caused by living beings	4,544	0.8	5,016	0.8	5,368	0.8	5,523	0.73	6,053	0.70
Run over or impact by vehicle	14,112	2.4	15,090	2.4	16,753	2.5	19,817	2.63	22,377	2.57
Nontraumatic pathologies	1,461	0.2	1,630	0.3	1,773	0.3	1,782	0.24	2,096	0.24