International Labour Organisation

Statistics of Occupational Injuries

Third Item on the Agenda

Report prepared for the
Thirteenth International Conference of Labour Statisticians
(Geneva, 18-29 October 1982)

Geneva
International Labour Office
1982
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I. INTRODUCTION

Every year, throughout the world, millions of occupational injuries occur. Some of them are fatal, and some result in permanent disablement, but the great majority cause temporary disablement with a varying degree and duration of loss of health, working capability and income. Man pays heavily for participating in the economic processes which provide his society with the goods and services it needs.

It is universally recognised that society itself, through its institutions and members has an obligation to reduce occupational injuries to the extent possible through the development of adequate safety measures. For this purpose, it is obviously important to have consistent, comparable and up-to-date statistical information on occupational injuries occurring in the different sectors of the economy.

The Tenth International Conference of Labour Statisticians, which met in 1962, recognised the importance of establishing an adequate statistical basis for the analysis and measurement of injury risks inherent in employment for the purpose of facilitating the establishment of prevention programmes, evaluating their efficiency and promoting the development of compensation schemes. It recognised that statistics of employment injuries were collected on different bases for different purposes by different agencies. It recommended a standard terminology, definitions and concepts for statistics of employment injuries and guiding rules for the classification and presentation of such statistics so as to facilitate the development of statistics of employment injuries with a higher degree of comparability, on both the national and international levels.

National statistics of occupational injuries present, however, a heterogeneous picture. Their scope and coverage vary considerably from one country to another and between industries within one country. Even the basic concept, the recordable occupational injury, is differently defined.

Another major weakness in national accident reporting from the point of view of accident prevention is the considerable delay with which statistics are published. This delay, which is frequently two to three years in industrial countries, drastically reduces the usefulness of such information for the development of current programmes of accident prevention.

Other differences and ambiguities are observed in the use of comparative measures of the frequency and severity of occupational injuries; this adversely affects a country's ability to compare its accident prevention performance by industry or with corresponding industries in neighbouring countries.

On the whole, in spite of their social and economic importance, statistics of occupational injuries are less developed and less standardised than other labour statistics such as those relating to the labour force, employment, unemployment, wages, etc. The efforts that have been made at the international level to standardise these statistics since the first International Conference of Labour Statisticians dealt with the subject in 1923 have not resulted in much practical improvement in terms of uniformity, comparability and availability.

The main reason for this unsatisfactory state of affairs is the close relationship in most countries between statistics and labour legislation. The available statistics generally appear as a by-product of administrative work processes and regulations and may be uncoordinated with the requirements of accident prevention. Changes in such legislation may reduce the comparability over time of the statistics.

Following a decision of the Governing Body of the International Labour Office at its 210th Session in June 1979, a Meeting of Experts was convened in Geneva in January 1980 to review questions relating to a consistent standard statistical reporting of occupational injuries, including standardisation of incidence and severity rates. Subsequently, the Governing Body, at its November 1981 session, decided to place the subject of statistics of occupational injuries on the agenda of the Thirteenth International Conference of Labour Statisticians. The purpose of the present report is to facilitate the work and discussions of this Conference. It has been prepared in the light of the reports for and the proceedings of the Meeting of Experts. It proposes for consideration by the Conference a draft resolution revising the 1962 Recommendation.
II. PURPOSE OF INTERNATIONAL RECOMMENDATIONS ON STATISTICS OF OCCUPATIONAL INJURIES

The purpose of international recommendations is twofold. First, to suggest good national practice. Second, to increase the comparability of statistics between countries by suggesting methods and definitions which countries should use if they can do so at reasonable cost and without interfering either with national use of the statistics or with the administrative or other processes of which they are the by-product.

In the field of occupational injuries, accident or injury reports and the records of compensation and insurance agencies may be used in a variety of ways for accident prevention. In this report, we are concerned only with their use to produce aggregative statistics whose usefulness in accident prevention will be enhanced if they can be compared within as well as between countries. International comparisons provide an over-all picture of accidents and hence measure one aspect of the work environment in different countries. In addition, comparisons based on industrial, occupational and establishment size classifications, permit an analysis of the effects of economic structure, technological level, etc., upon accidents. Such comparisons necessitate international agreement on the units to be compared and the measures used. It is not, of course, asserted that making comparisons constitutes the most important use of accident statistics, but merely that this is the particular use where international statistical recommendations are valuable.

III. TERMINOLOGY

The Tenth International Conference of Labour Statisticians in 1962 adopted the following basic terminology:

1. Employment injuries cover all injuries resulting from accidents arising out of or in the course of employment (industrial accidents and commuting accidents) and all occupational diseases.

2. Industrial accidents are accidents occurring at the place of work and resulting in death or personal injury.

The meaning of the term "industrial accidents", as defined above, is clear, although it would perhaps be better to call them "work accidents" and to include potentially as well as actually harmful occurrences. On the other hand, the term "employment injuries" creates some confusion because it includes not only injuries resulting from industrial accidents but also those resulting from commuting accidents as well as all occupational diseases. The use of this term is enshrined in ILO's Employment Injury Benefits Convention (No. 121) and must therefore be maintained. Without altering the broad definition of the 1962 resolution, the use of the more limited term "occupational injuries" is therefore now suggested specifically to cover those recordable injuries resulting from work accidents in the form of deaths, personal injury and acute diseases which cause some inability to work. It is suggested that injuries caused by commuting accidents, which are not always included in national statistics, should be segregated so that they can be omitted when making international comparisons. In some countries they are included in traffic accident statistics and thus dealt with separately from occupational injury statistics.

No formal distinction between injuries and diseases and no formal definition of an accident is proposed because in many countries compensation and insurance laws and regulations determine national distinctions, while in other countries the reports on which the statistics are based may be made by laymen.

IV. SOURCES OF DATA AND METHODS OF COLLECTION

The sources of information and the methodology adopted for statistics of occupational injuries vary widely from one country to another and from one type of agency to another.
In most countries, available injury statistics are a by-product of an administrative system - insurance companies, social security agencies, labour inspectorates, accident prevention agencies. The statistics they prepare vary considerably in scope and character. For example, the self-employed are often excluded. The statistics obtained from insurance companies and social security agencies generally cover only compensated injuries, so that a considerable share of the total is left out (in particular minor injuries) while sectors or categories of workers falling outside these schemes are not covered. Also, social security statistics are centred on the financial costs of injuries and therefore are prepared only when the final effects of the injury are known - hence often with considerable delay.

Labour inspectorates obtain their statistics as a result of inspections made as part of the enforcement of safety legislation. They therefore record those injuries which occur in the course of work or at the workplace to which the legislation applies, including those for which an employer's compulsory first report has been received. Such statistics generally furnish detailed information on the occurrence of injuries, stressing specific hazards of dangerous occupations or of work with certain machines, etc. and allow detailed analysis of certain types of accidents. But they contain little information on the consequences of the injury. On the other hand, while accident prevention agencies use similar methods to the labour inspectorates, they are more interested in data on the circumstances under which accidents occur, so as to identify the factors on which they may best base their action.

In some countries national statistical offices are responsible for the production of statistics of occupational injuries. Their roles may, however, differ substantially. In some cases, the Office has only an indirect contact with the primary sources of information (i.e. with the workplaces) and its work is limited to arranging and presenting information gathered by other institutions. In other cases the statistical office plays a more active role, itself conducting surveys of workplaces (establishments). Examples are the surveys of occupational injuries and illnesses conducted by statistical offices in Japan and the United States. The latter approach gets round the difficulties of administratively derived statistics, enabling wider coverage, comparability between sectors of activity, and much more rapid availability of the data, while making it possible to choose the concepts desired instead of being bound by complex rules and regulations relating to compensations, legal liability, etc. Such a national reporting system designed to furnish useful aggregative statistics and, possibly, for direct safety and health authority use, obviously has great advantages. Its disadvantages are its cost, the reporting burden placed upon respondents and the problem of under-reporting.

It may be expected that, over the years to come, more and more countries will introduce such national reporting systems. Hence international statistical recommendations relating to occupational injuries must, as far as possible:

- ensure the comparability of aggregative statistics produced by national direct reporting systems;
- reduce the incomparability of aggregative statistics that are a by-product of administrative systems;
- propose some concepts common to, and thus comparable between, both types of system.

The A/B breakdown proposed below, though not in itself of much interest, is an application of this third principle.

V. UNIT OF ENUMERATION

Accidents may or may not cause injuries. Information about those which did not, but might have, caused injuries, is extremely valuable but is not discussed here. The reason is that in general these can be reported only if there is a list of specified reportable events and the appropriate list will differ between various sectors of activity. This is a matter for national safety inspectors rather than for international statisticians. Hence we are here concerned only with job-related accidents which do result in injuries. It follows that the primary appropriate unit of statistical measurement is the injury rather than the accident.
However, not all injuries are recordable or are worth reporting. The minimum reportable event could include one or more of the following:

(i) medical aid (including or, alternatively, excluding first aid) has to be given;

(ii) the person has to leave his or her work to be attended to;

(iii) loss of consciousness, restriction of work or motion, medical treatment beyond first aid and/or has to be transferred to other work;

(iv) loss of at least, say, one working day, including or excluding the day of the accident.

Some of these are easier for an employer to know about and record than others. Because the best definition is not obvious and because of the problem of incomplete reporting, it is not proposed to provide any international definition.

VI. CLASSIFICATION OF OCCUPATIONAL INJURIES

The 1962 resolution proposed a classification in terms of consequences as follows:

(a) fatalities;
(b) permanent disablement;
(c) temporary disablement;
(d) other cases.

Definitions of fatal injuries vary from country to country. Some countries consider as fatal only those injuries leading to immediate death. In others, an injury is considered fatal irrespective of the lapse of time between the accident and its outcome. Between these extremes, there are countries that consider an injury fatal if death occurs within a year or if the person dies before the social security system has awarded an invalidity pension.

From the point of view of rough and ready statistical reporting, the "immediate death" approach presents no problems; but it involves in all probability considerable under-reporting in relation to the real number of occupational fatalities.

In principle, the "no limit of time" approach entails complete coverage of occupational fatalities, but, obviously, with the lapse of time it becomes more and more difficult to say whether a fatal occurrence is directly due to the accident or not. Subsequent pathological conditions may complicate the picture and perhaps lead to over-reporting of occupational fatalities. Also, in this case, while some administrative systems adequately cover fatal injuries, it is a possible limitation of direct reporting that the reporting employer may lose contact with workers who are injured and subsequently die.

For this reason, it seems advisable to limit the statistics of fatal cases to deaths occurring within a fixed period after the accident. A period of one year is suggested (though paragraph 10 of the draft recognises that in some countries data relate only to deaths occurring within the reporting year). It is further proposed to classify these injuries into two subgroups: within 30 days and within 31-365 days. A 30-day division is suggested in the belief that most reporting employers will be in touch with injured workers for at least this long. The upper limit to fatalities is suggested because a longer period would unduly delay the compilation of the statistics and because the attribution of cause becomes more difficult. The great majority of deaths occur within a year of the accident.

The classification discussed above is shown below:

Total number of fatal injuries (death occurring within one year of accident)
A. Within 30 days.
B. Within 31-365 days.
It is recognised that some countries will report only A; this is in fact the reason for proposing the breakdown.

Categories (b) and (c) in the 1962 resolution, permanent and temporary disablement, are non-fatal cases involving loss of working days.

In many countries the number of such cases is recorded only in respect of injuries where the number of days lost following the day of the accident exceeds some minimum. Coverage only of cases with three or more lost days seems to be fairly common, though the minimum is longer in certain countries.

While the distinction between permanent and temporary disablement may be useful, it cannot always be taken as a measure of the seriousness of the injury. The loss of one finger, for example, is permanent, while an injury resulting in prolonged hospitalisation can be "temporary".

Category (d) in the 1962 resolution, cases which neither are fatal nor involve any lost days, require the concept of some minimum reportable event such that lesser events are excluded. However, no definition is provided so that international comparability is not assured. Category (d) cases are rarely included in the statistics provided.

The above considerations lead to the proposal for classifying non-fatal injuries into "lost-time injuries" and "no lost-time injuries". In parallel with the case of fatal injuries, non-fatal ones would be injuries where no fatality ensues within a period of one year from the date the accident occurred. Lost time would normally be counted from and include the work-day following the day of accident. Furthermore, it is suggested that the number of "lost-time" cases should distinguish (A) those involving lost time not exceeding three days from (B) those exceeding that lapse of time. The primary reason for this A/B breakdown is again that some countries will be able to report only some of the cases. Thus non-fatal injuries would be classified according to the schema shown below.

Total number of non-fatal injuries
(not resulting in deaths within one year of accident)

(i) no lost time (national definitions);
(ii) lost time (excluding the day of the accident)

A. Up to 3 days.
B. More than 3 days.

Correspondingly, the amount of time lost as a result of occupational injuries would have to be shown separately as:

A. Lost time up to 3 days.
B. Lost time exceeding 3 days.

Lost time should normally exclude the day of the accident, since the time lost could be a whole working day or just five minutes. The number of days lost can be measured either as the number of working days lost or as calendar days (i.e. the number of days elapsing before a return to work) or as weekdays (i.e. calendar days excluding Sundays). As a measure of severity, calendar days are preferable, partly because of shift work, but may be more difficult to report. Hence the choice is left open, but countries reporting total working days or weekdays lost should provide an estimate of total calendar days lost.

Problems of timing arise in the statistics where, for example, days are lost or death occurs in 1982 as the result of an injury sustained in 1981. Ideally, the statistics for 1981 should relate only to the injuries sustained in 1981 but include their subsequent consequences. However this ideal is not always realised. Thus under the United States direct reporting system, statistics of fatal injuries include only cases where both the accident and the death occurred within the same calendar year, while in the Federal Republic of Germany the injury may be reported in one year and the death in the following year. This kind of thing is of negligible importance for the comparison of sectors of the economy or for chronological analysis within any one country but is awkward for international comparison. It is, of course, least awkward where there are compensating errors. Thus if 1981 days lost includes
days lost in 1981 as a result of 1980 accidents, this does not matter much if it
excludes days lost in 1982 as a result of 1981 accidents. Consequently, the aim
should merely be either to avoid, or to provide rough correction for systematic
undercounting or double counting. Thus the recommendation relating to the sub-
ideal situation is that the time dimension should be clearly explained and that
rough estimates of any systematic under- or overcounting should be provided. Such
problems are reduced by the limitation of fatal cases to those where death occurs
within one year and by creation of the sub-category of deaths occurring within
30 days, which requires information about deaths for only a 13-month period.

The definition of establishment, any employment size classes used and the
occupational and industrial classifications used should be the same as are applied
in other labour statistics. It is to be hoped that these conform with inter­
national recommendations.

Classification of injured people by occupation though (like many other items)
useful in detailed reports may not be possible. However, the operative/non-
operative (or similar) distinction is one which is already used a great deal and
does usefully divide occupations into just two groups. Classification by sex is
one way of producing a binary occupational classification so does not seem equally
useful, though classification by occupation by sex can be useful. Classification
by at least broad age group may be useful also.

The way in which detailed information about the circumstances of an accident
is collected and used varies very considerably both within and between countries
and is not likely to be changed for purely statistical reasons. Classification of
type of accident, type of injury, etc., though very useful for detailed reporting,
is, in any case, too complex (because of the number of dimensions) for international
statistical comparisons, so should not be recommended. The four-dimensional
accident/injury classification in the Annexes to the 1962 resolution which was
provided as an example of a useful classification for national use is, in any case,
somewhat out of date so should not be repeated.

VII. COMPARATIVE MEASURES

(a) Frequency and incidence rates of
occupational injuries

The 1962 resolution concerning statistics of employment injuries states that
sound comparisons between periods, industries and countries only can be made if the
statistics of industrial (i.e. work) accidents are considered in conjunction with
employment, hours of work, production, etc., data. For such purposes it may be
useful to resort to relative measures such as frequency, incidence and severity rates.

The resolution gives the following definitions of frequency and incidence rates:

The frequency rate of industrial accidents should be calculated by dividing
the number of accidents (multiplied by 1 million) which occurred during the
period covered by the statistics by the number of man-hours worked by all
persons exposed to risk during that same period, i.e.:

\[
\text{Frequency rate} = \frac{\text{total number of industrial accidents} \times 1 \text{ million}}{\text{total number of man-hours worked}}
\]

Where the number of man-hours worked is not known, the frequency rate should,
according to the resolution, be computed by converting the number of persons exposed
to risk into man-hours. The methods used for this conversion should be clearly
described.

The incidence rate of industrial accidents should be calculated by dividing
the number of accidents (multiplied by 1,000) which occurred during the period
covered by the statistics by the average number of workers exposed to risk
during that same period.

\[
\text{Incidence rate} = \frac{\text{total number of industrial accidents} \times 1,000}{\text{average number of workers exposed to risk}}
\]
The frequency rate is a more precise expression of accident risks than incidence rates, but both rates measure the same phenomenon. The concept of hours actually worked was defined in the resolution of the Tenth International Conference of Labour Statisticians (1962). However, since information on hours actually worked is often incomplete or unavailable, especially for non-manual workers, hours paid for could be substituted. Hours paid for are often readily available from payrolls and other records. There is no international definition of hours paid for, because of the wide variety of practices concerning payments for holidays and other periods when no work is performed. The frequency rate is not a concept that is easily understood, it being difficult, for instance, to think in terms of an average of one fatal occupational injury per 10 million hours worked in a country in a certain year. Hence it may be easier and more practical to calculate incidence rates, on the basis of the average number of workers exposed to risk. This average number should be calculated on a full-time basis. This means that two persons each working half a day should be counted as one person, applying the full-time criterion. Vacation and prolonged absences should be taken into account to the extent possible, to obtain the "best" estimate on a full-time basis.

Wherever possible, however, an attempt should be made to calculate the more precise frequency rates, either by using the number of hours actually worked, the number of hours paid for, or failing that, the number of days worked.

(b) Severity rates of occupational injuries

The 1962 resolution referred to above did not make any recommendation concerning the calculation of severity rates. It only included the following statement: "The purpose of a severity rate is to give some indication of the loss in terms of periods of incapacity resulting from industrial accidents. Experience has indicated wide differences in national practices; recognising this fact, it does not appear advisable, at this stage, to recommend an international standard method of compilation of severity rates without further research."

The 1962 resolution virtually put aside the recommendation concerning industrial injury rates adopted by the Sixth International Conference of Labour Statisticians in 1947. This resolution contains the following statements as regards severity rates:

The severity rate should be calculated by dividing the number of working days lost (multiplied by 1,000) by the number of hours of working time of all persons covered and, where practicable, rates should be calculated for principal industries, for each sex and for age groups.

For the purpose of computing severity rates, the loss from fatal injuries and those resulting in permanent total disability should be taken as equal to the loss of 7,500 working days.

Severity rates for injuries resulting in permanent partial disability should be computed in terms of the scales of disability in use in the various countries.

Severity rates for other injuries should be computed from the number of days of disability converted to working days by multiplying by the fraction $\frac{300}{365}$.

In publishing severity rates classifications should preferably be given according to the major groups of disability - death, permanent total, permanent partial and temporary total - in order to permit recalculation of the rates on an internationally comparable basis.

Where the number of hours worked is not known, the rates should be computed by assuming 2,400 man-hours or a standard working year of 300 days for the average full-time worker.

These recommendations for calculating severity rates, which implied arbitrary "charges" (weights) for fatalities and permanent total and partial disability, have proved largely unsuccessful. The trend at present is to relate work-days lost to time worked, to the average number of persons at risk covered by the statistics, or to the number of lost work-day cases.
In any case, severity rates based on the degree of disability do not fit into a system of basic, periodical and rapid information on occupational injuries, simply because it takes too long a time to obtain them and because the necessary data do not belong to the sphere of establishment reporting.

What establishments can report unreluctantly is the loss of work-days caused by occupational injuries. Indicators based on such data have a value in their own right as measures of severity whether the data are related to the time worked, to the average number of persons at risk calculated on a full-time basis or to the number of cases of lost work-days.

It is suggested here that two of these indicators be retained. These are (a) the average number of days lost per lost-time injury; and (b) the number of days lost per day worked by persons exposed to risk or, failing that, per person exposed to risk.

These two indicators, when related to totals, provide a summary indication of the severity of occupational injuries in the economy. If tabulated by detailed industry group, by size of establishment, for operatives, etc., they can provide a differentiated image of severities and a basis for comparison industry by industry and over time within each industry.
Annex I

RESOLUTION CONCERNING STATISTICS OF EMPLOYMENT INJURIES ADOPTED BY THE TENTH INTERNATIONAL CONFERENCE OF LABOUR STATISTICIANS

(October 1962)

The Tenth International Conference of Labour Statisticians,

Recognising the importance of establishing an adequate statistical basis for the analysis and measurement of risks of injury inherent in employment for the purpose of facilitating the establishment of prevention programmes, evaluating the efficiency of applying measures and promoting the development of compensation schemes,

Considering that the recommendation of standard terminology, definitions and concepts relating to statistics of employment injuries and of guiding rules for the classification and presentation of statistics would facilitate the development of statistics of employment injuries with a higher degree of comparability, both on the national and on the international level;

Adopts this twelfth day of October 1962 the following resolution, to replace the resolutions adopted in this field by the First and Sixth International Conferences of Labour Statisticians:

TERMINOLOGY

1. (1) Employment injuries cover all injuries resulting from accidents arising out of or in the course of employment (industrial accidents and commuting accidents) and all occupational diseases.

   (2) Industrial accidents are accidents occurring at the place of work and resulting in death or personal injury.

   (3) Commuting accidents are accidents occurring on the way to and from work and resulting in death or personal injury.

GENERAL

2. (1) Every country should attempt to collect statistics of employment injuries systematically; these statistics should be published regularly.

   (2) For the collection and compilation of such statistics, consideration should be given to the advantages of using sampling methods.

   (3) Countries where the total number of industrial accidents in the course of one year is not sufficient for a detailed statistical analysis should tabulate the data recorded for a longer period which, however, should not exceed five years.

3. (1) Where the statistics cover not only industrial accidents, but also commuting accidents, or occupational diseases, or both, the data for industrial accidents, commuting accidents and occupational diseases should be shown in separate tables.
In relation to occupational diseases, each country should, wherever possible, apply the provisions recommended in the resolution concerning statistics of occupational diseases, adopted by the Eighth International Conference of Labour Statisticians.

4. Where injuries to self-employed persons and family workers are included in the general statistics, the statistics of such injuries should be shown separately, if possible.

5. (1) In the presentation of statistics of employment injuries, information should be furnished on the following points:

(a) the nature of the sources of the statistics, e.g. reports rendered by establishments or labour inspectorates, social security records, claims for compensation, etc.;

(b) the scope of the statistics, particularly in respect of categories of persons, divisions of economic activity or industries, the minimum size of establishments covered by the statistics, etc.;

(c) methods of reporting injuries and of compiling statistics.

(2) Where the definitions and methods of statistical compilation differ from those referred to in this resolution, the definitions and methods used should be stated clearly, so that such information may be taken into account when international comparisons are attempted.

6. (1) The unit of enumeration should be the person killed or injured as a result of a recorded accident; where one person is the victim of two or more distinct recorded accidents during the period covered by the statistics, each accident should be counted separately, i.e. the same person would be counted twice or more.

(2) Countries should also consider the compilation of statistics relating to industrial accidents, using the event as the unit instead of the person, and should classify these data according to the number of persons involved.

CLASSIFICATIONS

7. (1) In the statistics relating to a given period, industrial accidents and commuting accidents should be classified in terms of consequences of the accident according to the following definitions, on the basis of the information available at the time of compilation of the statistics:

(a) fatalities: accidents resulting in death;

(b) permanent disablement: accidents resulting in permanent physical or mental limitation or impairment;

(c) temporary disablement: accidents resulting in incapacity for work for at least one full day beyond the day on which the accident occurred, irrespective of whether the days of incapacity were days on which the victim would otherwise have been at work;

(d) other cases: accidents resulting in incapacity for work lasting less than the period defined under (c), and not involving permanent disablement.

(2) Where the statistics are based on notifications made at the time of, or immediately after, an accident, cases indicated in clauses (b) and (c) could be combined in a single group.

(3) Where the classifications used fail to conform to the provisions of this paragraph, the precise methods used should be stated, and, in particular, the minimum duration of incapacity for work taken into account in the definition of temporary disablement cases should be indicated.
8. Industrial accident statistics should be classified according to the industry in which the person injured was employed. The classification to be used should be the International Standard Industrial Classification of All Economic Activities or an industrial classification convertible to the international one.

9. (1) For the study of circumstances surrounding industrial accidents, these accidents should be classified according to (a) type of accident and (b) agency, using the classifications given in Annexes A and B to the present resolution.

(2) Each country should specify whether the classification according to agency refers to an agency related to the injury or to an agency related to the accident.

10. Industrial accidents should also be classified separately according to the location of the injury and to the nature of the injury, using the Classifications given in Annexes C and D to the present resolution.

11. From time to time, non-fatal industrial accidents should be classified according to the duration of the resulting period of incapacity for work, using, where possible, the following periods: one full day, two days, three days, four to seven days, eight to 14 days, more than 14 days, beyond the day on which the accident occurred.

12. From time to time, special inquiries may be found useful for the purpose of classifying industrial accidents according to various other characteristics, such as sex, age, occupation, skill and experience, the day of the week and the month of the year, the time of the accident in respect of the work schedule, the size of the establishment, etc. Where industrial accidents are classified according to occupation, the classification used could be the International Standard Classification of Occupations.

COMPARATIVE MEASURES

13. Sound comparisons between periods, industries and countries can only be made if the statistics of industrial accidents are considered in conjunction with employment, hours of work, production, etc., data. For such purposes, it may be useful to resort to relative measures, such as frequency, incidence and severity rates.

14. Such rates should be computed by industry and, where possible, by sex and age group, and should be presented separately for accidents resulting in death, permanent and temporary disablement, in accordance with the definitions given in paragraph 7 above.

15. (1) The frequency rate of industrial accidents should be calculated by dividing the number of accidents (multiplied by 1,000,000) which occurred during the period covered by the statistics by the number of man-hours worked by all persons exposed to risk during that same period.

(2) Where the number of man-hours worked is not known, the frequency rate should be computed by converting the number of persons exposed to risk into man-hours; the methods used for this conversion should be clearly described.

16. The incidence rate of industrial accidents should be calculated by dividing the number of accidents (multiplied by 1,000) which occurred during the period covered by the statistics by the number of man-hours worked by all persons exposed to risk during that same period.

17. The purpose of a severity rate is to give some indication of the loss in terms of periods of incapacity resulting from industrial accidents. Experience has indicated wide differences in national practices; recognising this fact, it does not appear advisable, at this stage, to recommend an international standard method of compilation of severity rates without further research.

1 Not reproduced in this document.
Annex II

DRAFT RESOLUTION CONCERNING STATISTICS
OF OCCUPATIONAL INJURIES

(Paragraphs numbered to facilitate comparison
with the 1962 resolution - see Annex I)

The Thirteenth International Conference of Labour Statisticians,
Having been convened by the Governing Body of the International Labour Office,
and having met in Geneva from 18 to 29 October 1982,
Recognising the importance of establishing an adequate statistical basis for
the analysis and measurement of risks inherent in employment for the purpose of
facilitating the establishment of prevention programmes and evaluating the efficiency
of measures taken,
Noting that statistics of occupational injuries are collected on different
bases for different purposes by different agencies,
Considering that recommended standard methodology, definitions and concepts
relating to statistics of occupational injuries and guiding rules for the classifica­
tion and presentation of statistics would facilitate the development of statistics
of occupational injuries with a higher degree of comparability, both on the national
and on the international level,
Adopts this ........... day of October 1982 the following resolution to replace
the resolutions adopted in this field by the First, Sixth and Tenth International
Conferences of Labour Statisticians:

TERMINOLOGY

1. (1) Employment injuries cover all injuries resulting from accidents
arising out of or in the course of employment (industrial accidents and commuting
accidents) and all occupational diseases.

(2) Work accidents are accidents occurring at work which may result in death,
personal injury or acute disease. They exclude commuting accidents, which are
accidents occurring on the way to and from work and which may result in death or
personal injury.

(3) Occupational injuries include deaths, personal injuries and acute diseases
resulting from work accidents.

GENERAL

2. (1) Every country should systematically collect statistics of occupational
injuries; these statistics should be published regularly.

(2) For the collection and compilation of such statistics, consideration
should be given to the advantages of sampling.

(3) Where resources permit, countries should establish a universal reporting
system for occupational injuries, designed among other things to furnish reliable,
uniform and comprehensive statistics. The reporting unit should be the establish­
ment.

(4) In the absence of such a system, where statistics of occupational
injuries are obtained administratively, countries should so far as possible ensure
that they are comparable with other occupational injury statistics.
3. Where the statistics, in addition to occupational injuries as defined above, also include occupational diseases (other than acute diseases resulting from an accident) or commuting accidents or both, these should be shown separately.

4. Where possible, occupational injuries to self-employed persons and family workers (paid or unpaid) should be included in the statistics, but they should be distinguished so that comparisons can be made with countries where they are excluded.

5. In the presentation of statistics on occupational injuries, information should be furnished on the following points:

(a) the nature of the sources of the statistics, e.g. direct reporting system, records compiled by labour inspectorates, by insurance or by social security agencies, claims for compensation, etc.;

(b) the coverage of the statistics, particularly in respect of the categories of persons, divisions of economic activity (industries), occupations, the minimum size of establishment, etc.;

(c) the definitions used;

(d) the methods used for reporting injuries and compiling the statistics;

(e) the quality of the statistics.

6. (1) The unit of enumeration should be the person killed or injured as a result of a work accident; where one person is the victim of two or more distinct recorded accidents during the period covered by the statistics, each accident should be counted separately, i.e. the same person would be counted twice or more.

(2) The statistics should normally cover injuries that were sustained during a calendar year; in any case the period covered should be clearly defined.

(3) Countries should also consider the compilation of statistics relating to work accidents, using the event as the unit instead of the person, and classifying these data according to the number of persons injured or killed.

CLASSIFICATIONS

7. (1) In the statistics relating to a given period, occupational injuries should preferably be classified as follows:

I. TOTAL OCCUPATIONAL INJURIES

1. FATAL (within one year)
   A. Within 30 days
   B. Within 31-365 days.

2. NON-FATAL (within one year)
   (i) No lost time (national definition)
   (ii) Lost time (excluding the day of the accident)
       A. Up to 3 days
       B. More than 3 days.

II. TOTAL DAYS LOST

A. Lost time up to 3 days
B. Lost time exceeding 3 days.
(2) Wherever possible both the total for each item and its breakdown into A and B should be given. When the total is not available, then, under I.1.A alone, and under I.2 and II.B alone should be provided if at all possible.

(3) It should be made clear whether lost time is measured in calendar days or weekdays or in man-shifts or working days; calendar days are preferable as a measure of severity while working days are preferable as a measure of economic impact. Where working days or weekdays are used, an estimate in terms of calendar days should be provided wherever possible.

(4) A further and separate division of lost-time injuries between cases of permanent disablement and cases of temporary disablement may be considered useful.

(5) It is recognised that not all countries will be able to provide data on injuries resulting in no time lost and that countries which can provide such data will use national definitions of the minimum reportable event.

8. (1) Occupational injury statistics should be classified according to the industry in which the person injured was employed. The classification used should be the one used in other national labour statistics and should preferably conform with or be convertible into the International Standard Industrial Classification of Economic Activities.

(2) Occupational injury statistics should preferably also be classified according to the occupation of the person injured. The classification used should be the one used in other national labour statistics and should preferably conform with or be convertible into the International Standard Classification of Occupations. As a minimum, and whenever possible, aggregative data should be provided for the group of occupations classified as operatives or as manual workers in other national labour statistics.

(3) Occupational injury statistics sometimes may be usefully classified by at least broad age groups, by size of establishment where the injured person works, and by sex.

9. National definitions should be used for making detailed breakdowns of work accidents or occupational injuries according to their characteristics and relevant circumstances. In this context the usefulness of the International Statistical Classification of Diseases, Injuries and Causes of Death is recognised.

10. Where the statistics of occupational injuries sustained during a year exclude all or some of the resulting lost days and deaths in subsequent years and do not include lost days and deaths during the year which resulted from injuries sustained in previous years, then estimates of the under-count should be provided.

11. ..........  
12. ..........  

COMPARATIVE MEASURES

13. Sound comparisons between periods, industries and countries can only be made if the statistics are considered in conjunction with employment, hours of work, etc. For such purposes, it is desirable to resort to relative measures.

14. Rates should be computed by major divisions of economic activity (industry), and where possible by occupation, distinguishing at least operative or manual workers, and should be presented separately for as many as possible of the items and their A/B subdivisions given in paragraph 7(1), with due regard to paragraphs 3 and 4 above.

15. Incidence rates should use as denominator the average number of people exposed to risk (and covered by the injury statistics). Wherever possible, the number of hours worked by them, the number of hours paid for or failing that, the number of days worked by them, should also be used as a second denominator to calculate frequency rates. For convenience, incidence and frequency rates can be expressed per thousand persons and per million hours worked or paid for. In the
case of incidence rates, allowance should be made, where appropriate, for the proportion of part-time workers in the population at risk.

16. Data on days (or shifts) lost should be used to calculate (a) the average number of days lost per lost-time injury and (b) days lost per day worked by persons exposed to risk or, failing that, per person exposed to risk.
STATISTICS OF OCCUPATIONAL INJURIES
Proposed Classification.

WORK ACCIDENTS

Accidents causing Injuries

Fatal Injuries
- Death occurs within 30 days
- Death occurs within 31–365 days

Non-fatal Injuries
- No Lost Time (National definitions)
- Lost Time (excluding day of accident)
  - Lost Time up to 3 days
  - Lost Time exceeding 3 days

Accidents not causing Injuries

ILO Bureau of Statistics