

## Are our workplaces safe? ... *Establishment Inquiry on Occupational Injuries* (First of a Series)

*This issue of the LABSTAT Updates is the first in the series of statistical releases on occupational injuries that occurred in 2003. The inquiry is part of a nationwide survey called BLES Integrated Survey (BITS) conducted in coordination with the DOLE Regional Offices. The 2003/2004 BITS, undertaken last year, had a sample size of around 6,000 non-agricultural establishments employing 20 or more workers. It aimed to provide an integrated data set on employment patterns, industrial relations practices and occupational injuries.*

*The principal purpose of statistics on occupational injuries is for planning and setting priorities for preventive efforts. Information on the changes in patterns and occurrences of occupational injuries guide policymakers, program planners, employers and workers in identifying persistent and new areas of risk at the workplace and in evaluating safety performance and effectiveness of accident preventive measures. The statistics are also useful in developing training materials and programs for accident prevention and provide basis for identifying areas for future research.*

*This series of LABSTAT Updates identifies the economic activities where occupational injuries occurred in 2003, their extent, severity and the way in which they occurred. This first issue in the series provides a background on occupational injury statistics to guide users on the use and interpretation of the survey results that are contained in the succeeding issues.*

### Occupational injury: a consequence of occupational accident

The 1998 Resolution concerning statistics of occupational injuries adopted by the 16th International Conference of Labour Statisticians (<http://www.ilo.org/public/english/bureau/stat/res/>) contains the following definitions for statistical purposes:

**“occupational accident:** an unexpected and unplanned occurrence, including acts of violence, arising out of or in connection with work which results in one or more workers incurring a personal injury, disease or death;

as occupational accidents are to be considered travel, transport or road traffic accidents in which workers are injured and which arise out of or in the course of work, i.e. while engaged in an

economic activity, or at work or carrying on the business of the employer;

**occupational injury:** any personal injury, disease or death resulting from an occupational accident; an occupational injury is therefore distinct from an occupational disease, which is a disease contracted as a result of an exposure over a period of time to risk factors arising from work activity;

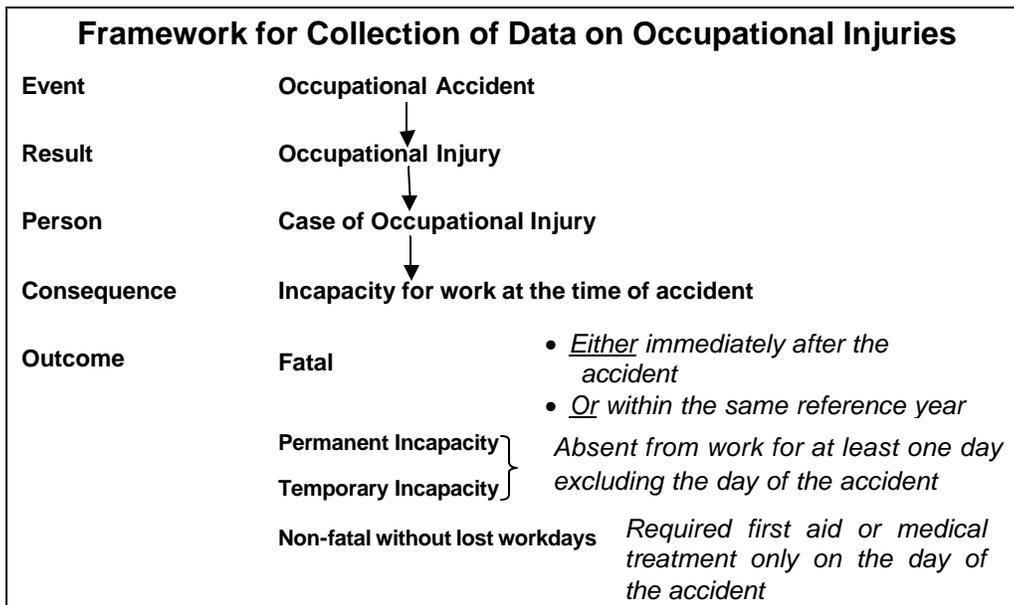
**case of occupational injury:** the case of one worker incurring an occupational injury as a result of one occupational accident;

**incapacity for work:** inability of the victim, due to an occupational injury, to perform the normal duties of work in the job or post occupied at the time of the occupational accident.”

The diagram below shows the interrelationships between an occupational accident and the resulting injury, the affected individual and outcomes that could lead to fatality, incapacity for work or injury without workdays lost.

Cases of occupational diseases and injuries resulting from commuting accidents are generally excluded from the statistics on occupational injuries.

The ICLS resolution defines a **commuting accident** as an accident occurring on the habitual route of a worker, in either direction, between the place of work or work-related training and (i) the worker's principal or secondary residence; (ii) the place where the worker usually takes his/her meals; or (iii) the place where he/she usually receives his/her remuneration, which results to death or personal injury.



## The 2003 BLES Inquiry on Occupational Injuries

### Background

The Bureau of Labor and Employment Statistics has been conducting an establishment inquiry on occupational injuries since the 1990s. The survey then was called Occupational Injuries Survey (OIS) and it covered establishments employing at least 10 workers across all major economic activities. Statistics are available from 1990 to 1996 but none for 1997 to 1999 reference years.

For the 2000 survey round, the data coverage was expanded to include injuries by major occupation

group, part of body injured and cause of injury in addition to nature/type of injury and extent of disability that were collected previously. However, the industry coverage excluded agriculture, fishery and forestry and the employment size cut-off was raised to 20 workers or more.

In the revised OIS, the concept of incapacity for work (permanent and temporary) was introduced to replace the classification by extent of disability (permanent total disability, permanent partial disability and temporary disability). The old classification follows that of the Employees

Compensation Program which considers the impact of the injury on the earning capacity of the workers.

The concept of incapacity for work was used for statistical classification because it is less subjective as it is not based on compensation or insurance schemes. Also, the statistics that will be generated would allow for international comparability.

As a consequence of the rationalization of BLES surveys in 2003, the statistics on occupational injuries are now sourced from the BLES Integrated Survey (BITS). Data from this survey are available for 2002 and 2003 reference periods.

### Scope and Coverage

The BITS is a nationwide survey that covers non-agricultural establishments employing 20 or more persons in 58 non-agricultural industries across the 12 major industry groups of the 1994 Philippine Standard Industrial Classification (PSIC).

The following industries are excluded from survey coverage: national postal activities; central banking; public administration and defense and compulsory social security; public education services; public medical, dental and other health services; activities of membership organizations; and extra territorial organizations and bodies.

For the 58 industries covered, the following statistics are available: cases of occupational injuries by incapacity for work; frequency and incidence rates of cases of occupational injuries with lost workdays; severity rates and average days lost of cases of occupational injuries resulting to temporary incapacity.

Statistics on occupational injuries with lost workdays are also available by type of injury (superficial injuries and open wounds, fractures, etc.); part of the body injured (head, neck, etc.); cause of injury (falls of persons, struck by falling objects, etc.); and agent of injury (buildings, structures, etc.).

While cases of occupational diseases and injuries resulting from commuting accidents are not part of the compilation on occupational injury statistics, data on these are available from the 2003 inquiry.

### Concepts and Definitions

The establishment inquiry on occupational injuries uses the following concepts and definitions in addition to those earlier mentioned:

***fatal case:*** refers to a person fatally injured as a result of an occupational accident whether death occurs immediately after the accident or within the same reference year as the accident;

***permanent incapacity:*** case where an injured person was absent from work for at least one day, excluding the day of the accident, and (i) was never able to perform again the normal duties of work in the job or position occupied at the time of the occupational accident, or (ii) will be able to perform the same job but his/her total absence from work is expected to exceed a year starting the day after the accident;

***temporary incapacity:*** case where an injured person was absent from work for at least one day, excluding the day of the accident, and (i) was able to perform again the normal duties of work in the job or position occupied at the time of the occupational accident, or (ii) will be able to perform the same job but his/her total absence from work is expected not to exceed a year starting the day after the accident, or (iii) did not return to the same job but the reason for changing the job is not related to his/her inability to perform the job at the time of the occupational accident;

**case without lost workdays:** case where the injured person required only first aid or medical treatment on the day of the accident and was able to perform again, on the day after the accident, the normal duties of work in the job or position occupied at the time of the occupational accident;

**lost workdays:** working days (consecutive or staggered) an injured person was absent from work, starting the day after the accident. If the person is still absent from work by the end of the reference year, his/her days lost cover the period from the day after the accident up to the end of the reference year. Temporary absences from work of less than one day for medical treatment are not included in days lost;

**occupational disease:** an abnormal condition or disorder other than one resulting from an occupational injury caused by exposure over a period of time to risk factors associated with work activity. This refers to a new case recognized, diagnosed and recorded during the year;

**hours actually worked:** include (i) normal or regular hours of work, (ii) overtime, (iii) time spent at the place of work such as the preparation of workplace, repairs, maintenance, preparation and cleaning of tools and preparation of receipts, time sheets and reports, (iv) time spent at the place of work waiting or standing by for reasons such as lack of supply of work, breakdown of machinery or accident, or time during which no work is done but for which payment is made, and (v) time corresponding to lunch/meal breaks of less than one (1) hour and to short rest periods at the workplace including tea and coffee breaks/meriendas;

**employment:** includes working owners without regular pay, workers without regular pay who work for at least one-third of the working time normal to the establishment, and employees (salaried directors, managers and executives, including working owners with regular pay, regular and non-regular workers, e.g., probationary, casual, contractual/project-based, seasonal, apprentices/learners, persons on paid vacation, sick, maternity, paternity, service incentive leave and other paid leaves, persons working away from the establishment

but paid by and under its control, e.g., bus drivers, and workers on strike).

### Comparative Measures

To take into account differences in employment and hours of work of workers, the following measures are used to allow for meaningful comparisons between different reference periods and economic activities.

**frequency rate:**

(cases of occupational injuries with lost workdays including fatalities ÷ total hours actually worked of all employed persons in the establishments) x 1,000,000

**incidence rate per 1,000 workers:**

(cases of occupational injuries with lost workdays including fatalities ÷ total employment) x 1,000

**severity rate:**

(lost workdays of cases of occupational injuries resulting to temporary incapacity ÷ total hours actually worked of all employed persons in the establishments) x 1,000,000

**average days lost:**

lost workdays of cases of occupational injuries resulting to temporary incapacity ÷ cases of occupational injuries resulting to temporary incapacity

When frequency rate is compared to incidence rate, any differences between the two rates will reflect the differences in total hours worked in the different industries (or reference periods). For example, the data for industries X and Y are as follows:

Industry	Cases	Workers	Hours
X	10	200	457,780
Y	10	200	496,000

Industry	FR	IR
X	21.84	50
Y	20.16	50

In the above example, the incidence rates are the same because the hypothetical industries have the

same number of injury cases and employed persons. On the other hand, their frequency rates differ because their total hours of work are not the same as workers in Industry Y rendered more hours of work. This resulted to a lower frequency rate for the industry compared to industry X.

There is a direct relationship between frequency rate (if measured only for cases of temporary incapacity), the severity rate and the average days lost. The severity rate is the multiple of the frequency rate and the average days lost is the result of dividing the severity rate by the frequency rate. For example, in the case of the rates on temporary incapacity cases of occupational injuries in 2003,

Severity rate is 27.31 per million hours

Frequency rate is 4.02 per million hours

Average days lost is  $27.31 \div 4.02 = 6.79$   
or around 7 days.

## Periodicity and Timeliness

Starting with the 2000 inquiry conducted in 2001, the survey on occupational injuries was planned to be conducted every two years. The 2002 inquiry conducted in 2003 was limited to occupational injuries by incapacity for work. However, for the 2003 inquiry conducted in 2004, the data coverage was expanded to include items of inquiry on type of injury, part of the body injured, cause and agent of injury. The next inquiry on occupational injuries will be conducted in 2007 with 2006 as reference period.

The statistics on occupational injuries are disseminated around 20 months after the reference year. The data are first released in the BLES Homepage (<http://www.manila-online.net/bles/bits34.htm>). The survey metadata and the corresponding questionnaire are

posted together with the survey results.

Statistical briefs on the survey findings are disseminated through the LABSTAT Updates, also first released in the BLES website and subsequently in hard copies.

## Data Limitations

While occupational accidents do occur, an occupational injury is still a relatively rare event. As such, this has implications on the precision of estimates on statistics on occupational injuries particularly when carried to specific industry levels based on a small sample size. For this reason, sampling errors, e.g. coefficients of variation, will be provided to guide the users in the analysis and interpretation of the data. These will be posted in the BLES internet website before the year ends.

A concern that to some extent affects the reliability of the statistics is the inadequacy of the sampling frame used. There are reports of permanent closures, non-location, duplicate listing and shifts in industry and employment that are discovered only at the time of data collection. The inadequate sampling frame is also the reason why establishments with employment below 20 are excluded as establishments in this group are relatively volatile in their operations/existence.

Another limitation of the inquiry on occupational injuries is the lack of regional data. Geographical breakdown was not considered in the survey design to allow for detailed industry disaggregations as this would be more meaningful for accident preventive programs in establishments. A survey that considers geographical and industry dimensions will entail a larger sample size and consequently more resources.

The cooperation of respondents has yet to reach a high level; the response rate for the 2002/2003 BITS was around 72 percent. Further, the provision of data on occupational injuries by the sample respondents is hampered by their inadequate record keeping of injuries (accident logbook) in the workplace despite this being a requirement under the Occupational Safety and Health Standards (OSHS).

The issue on timeliness of data is a big concern. As earlier mentioned, results are available some 20 months after the reference period. The survey budget is not available at the beginning of the year when it would be ideal to conduct the survey right after

the reference year. Field operations of BLES surveys begin in July as by then resources are ensured. This constraint adds a six month lag in the availability of the results.

Though these issues and concerns are considerable, the BLES inquiry is currently the only source of fairly comprehensive statistics on occupational injuries to determine occupational safety at the workplace until the time comes that the administrative-based reporting system (establishments are required to report on accidents and occupational injuries under the OSHS) on occupational injuries is strengthened.

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