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ARE OUR WORKPLACES SAFE?

(2nd of a Series)

Focus on Mining and Quarrying



This series of the LABSTAT Updates is a presentation of thirteen issues on the results of the 2000 Occupational Injuries Survey (OIS). This survey has been redesigned to better serve its objective to generate statistics on occupational injuries that are useful to labor administrators in their formulation of effective policies and decision making on the enforcement of safety and health standards and to safety practitioners of the private sector in their development and implementation of programs on accident prevention.

In 1990-1996, the OIS that has been conducted annually nationwide then followed the classification by extent of disability (fatal, permanent total disability, permanent partial disability and temporary disability) set under the Employees Compensation Program for compensation and insurance purposes.

Starting with OIS 2000, changes undertaken has been in line with the Resolution Concerning Statistics of Occupational Injuries Resulting from Occupational Accidents adopted by the 16th International Conference of Labour Statisticians in October 1998. Data coverage has been expanded to include injuries by occupation, part of body injured and cause of injury. It has also adopted the concept of incapacity for work (permanent and temporary) of the International Labor Organization (ILO) in lieu of the previous classification by extent of disability. Establishment coverage has also been changed to include only those non-agricultural establishments employing at least 20 workers.

*This second issue is a profile on occupational injuries resulting from occupational accidents in **mining and quarrying** industries. (An **Occupational Injury** is any personal injury, disease or death resulting from an occupational accident. It is distinct from an occupational disease, which is a disease contracted as a result of an exposure over a period of time to risk factors such as contact with asbestos, lead, inhaling cotton dust, carrying out repetitive movement arising from work activity).*

CASES OF OCCUPATIONAL INJURIES

In the year 2000, mining and quarrying had the least number of occupational injuries among industries in non-agricultural establishments employing 20 or more workers. A total of 78 cases or 0.11 percent was recorded.

Non-metallic mining and quarrying experienced 40 cases (51.3%) of occupational injuries while metallic ore mining had 38 cases (48.7%).

- **A case of occupational injury** is the case of one worker incurring an occupational injury as a result of one occupational accident. If one person is injured in more than one occupational accident during the reference period, each case of injury to that person should be counted separately. Where more than one person is injured in a single accident, each case of occupational injury shall be counted separately.

Majority of the cases reported (60.3% or 47 cases) have no lost workdays, which means that after a medical treatment a worker can resume his/her work on the same day, or a day after the day of occurrence.

CASES WITH LOST WORKDAYS

About 40.0 percent (31 cases) of all cases of occupational injuries, resulted to lost workdays. Non-metallic mining and quarrying had 17 cases of injury while metallic ore mining had a slightly lower number with 14 cases.

By Employment Size

More than one half (54.8%) of cases with lost workdays occurred in establishments employing 100 - 199 workers. Establishments with 20 - 99 employed persons had no reported cases of injury and those with 200 or more employed persons reported a 45.2 percent share (14 cases).

Most of the injuries in metallic ore mining establishments (71.4%) occurred in establishments employing 200 or more workers. In non-metallic mining and quarrying, establishments with 100 – 199 workers reported a higher share of 76.5 percent.

By Incapacity for Work

All of the 31 cases reported with lost workdays were non-fatal. Of these 29 were of temporary incapacity and two (2) of permanent incapacity.

By Major Occupation Group

Among occupations under the mining and quarrying sector, plant and machine operators and assemblers were likely the most affected with 15 registered cases. Laborers and unskilled workers (6 cases) and technicians and associate professionals (5 cases) were the next most affected occupations.

The least exposed to hazardous work were the corporate executives, managers and managing proprietors and supervisors with one case reported.

By Type of Injury

Concussion, internal injuries were the most common type of injuries reported in mining and quarrying (11 cases). Of which, nine (9) cases were from non-metallic mining and quarrying and two (2) cases from metallic ore mining. In close second were fractures seven (7) cases reported, followed by sprains and strains as well as burns corrosions scalds, frostbite with four (4) cases each.

By Part of Body Injured

Upper extremities including the hands and arms, the most frequently used in performing a job, was the most commonly injured part of the body accounting to 17 cases.

Another part of the body mostly exposed to accidents is the lower extremities with four (4) cases of injuries.

By Cause of Injury

Due to the nature of work in mining and quarrying, caught in between objects, struck by falling objects and falls were the common causes of injury. About 12 cases in non-metallic mining and quarrying did not specify cause of injury.

SAFETY PERFORMANCE

Frequency Rate

Frequency rate of injuries on cases with lost workdays in mining and quarrying was registered at 1.35 per 500 full-time workers or one injury out of every 370 workers (derived by dividing 500 by 1.35).

Among the two sub-sectors, frequency rate of injuries in the workplace was highest in non-metallic mining and quarrying at 2.56 or one case of injury for every 195 workers. Metallic ore mining and quarrying has low frequency rate of injuries in the workplace at 0.85 or one injury for every 588 workers.

The frequency rates in the sector, however, were relatively low compared to all industry record.

Frequency Rate of Cases of Occupational Injuries With Lost Workdays In Mining and Quarrying Industry Group, Philippines: 2000 (per 500 full-time workers)

Industry	Frequency Rate
All Industries	5.70
Mining & Quarrying	1.35
Metallic ore	0.85
Non-metallic mining & quarrying	2.56

Severity Rate

Even though majority of lost workdays resulted to temporary incapacity, severity rate in this industry was at 45.2 per 500 full time workers. This indicates that about 0.09 or less than half day lost for every worker. (45.2 divided by 500).

Severity Rate of Temporary Incapacity Cases of Occupational Injuries With Lost Workdays In Mining and Quarrying Philippines: 2000 (per 500 full-time workers)

Industry	Severity Rate
All Industries	43.69
Mining & Quarrying	45.20
Metallic ore	30.57
Non-metallic mining & quarrying	80.82

Average Days Lost

It was noted that mining and quarrying had the highest average days lost per injury as compared to other major industries.

On the average, temporary incapacity cases reached 36 workdays lost per injury case in mining and quarrying. Metallic ore mining had an average of 42 lost workdays per injury while non-metallic mining and quarrying had 32 days lost per case.

Average Days Lost of Temporary Incapacity Cases of Occupational Injuries With Lost Workdays In Mining and Quarrying, Philippines: 2000

Industry	Average Days Lost
All Industries	8
Mining & Quarrying	36
Metallic ore	42
Non-metallic mining & quarrying	32

DEFINITION OF TERMS	
Incapacity for Work	inability of the victim due to an occupational injury to perform the normal duties of work in the job or position occupied <i>at the time</i> of the occupational accident.
Case of Permanent Incapacity for Work	refers to an injured person who was unable to work from the day after the day of the accident and: <ul style="list-style-type: none"> ✦ was <i>never</i> able to perform again the normal duties of work in the job or position occupied at the time of the occupational accident causing injury; ✦ will be able to perform the same job but his/her total absence from work is expected to <i>exceed a year</i> from the day of the accident.
Case of Temporary Incapacity for Work	refers to an injured person who was unable to work from the day after the day of the accident but: <ul style="list-style-type: none"> ✦ was able to perform again the normal duties of work in the job or position occupied at the time of the occupational accident causing the injury; ✦ will be able to perform the same job but his/her total absence from work is expected <i>not to exceed a year</i> from the day of the accident; ✦ 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.
1,000,000 Employee-Hours of Exposure	the number of hours worked of 500 full-time workers, each exposed to 2,000 hours per year.

FOR INQUIRIES:

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Website at <http://www.manila-online.net/bles> or <http://www.bles.dole.gov.ph> for other statistical information

**TABLE 1 - Cases of Occupational Injuries in Mining and Quarrying Establishments
Employing 20 or More Workers, Philippines: 2000**

Industry	Cases of Occupational Injuries		
	Total	With Lost Workdays	Without Lost Workdays
All Industries	69,208	26,467	42,742
Mining and Quarrying	78	31	47
Metallic Ore	38	14	24
Non-Metallic Mining and Quarrying	40	17	23

Note: Details will not add up to totals due to rounding of figures.

Source of data: Bureau of Labor and Employment Statistics, 2000 Occupational Injuries Survey.

**TABLE 2 - Cases of Occupational Injuries With Lost Workdays in Mining and Quarrying Establishments
Employing 20 or More Workers, Philippines: 2000**

INDICATOR	ALL INDUSTRIES	MINING & QUARRYING	Metallic Ore	Non-Metallic Mining & Quarrying
Cases With Lost Workdays	26,467	31	14	17
By Employment Size				
20 to 99 workers	4,236	0	0	0
100 to 199 workers	3,465	17	4	13
200 or more workers	18,766	14	10	4
By Incapacity for Work				
Fatal	178	0	0	0
Non-Fatal	26,289	31	14	17
Permanent	179	2	2	0
Temporary	26,110	29	12	17
By Major Occupation Group				
Corporate Executives, Managers, Managing Proprietors and Supervisors	470	1	0	1
Professionals	389	0	0	0
Technicians and Associate Professionals	1,007	5	4	1
Clerks	472	0	0	0
Service Workers and Shop and Market Sales Workers	2,330	0	0	0
Farmers, Forestry Workers and Fishermen	0	0	0	0
Trades and Related Workers	969	4	4	0
Plant and Machine Operators and Assemblers	7,972	15	0	15
Laborers and Unskilled Workers	12,858	6	6	0

Note: Details will not add-up to totals due to rounding of figures.

**TABLE 2 - Cases of Occupational Injuries With Lost Workdays in Mining and Quarrying Establishments
Employing 20 or More Workers, Philippines: 2000 (cont'd.)**

INDICATOR	<i>ALL INDUSTRIES</i>	MINING & QUARRYING	Metallic Ore	Non-Metallic Mining & Quarrying
By Type of Injury				
Superficial Injuries and Open Wounds	14,925	1	0	1
Fractures	1,151	7	4	3
Dislocations, Sprains and Strains	2,789	4	2	2
Amputations	354	1	0	1
Concussion, Internal Injuries	1,963	11	2	9
Burns, Corrosions, Scalds, Frostbite	1,944	4	4	0
Acute Poisoning and Infections	347	0	0	0
Foreign Body in the Eye	1,793	0	0	0
Other Injury	1,202	2	2	0
By Part of Body Injured				
Head	3,486	1	0	1
Neck	137	0	0	0
Back	651	0	0	0
Trunk or Internal Organs	354	1	0	1
Upper Extremities	13,678	17	6	11
Lower Extremities	6,256	4	2	2
Whole Body or Multiple Sites Equally Injured	969	1	0	1
Others	934	6	6	0
By Cause of Injury				
Falls of persons	1,606	4	2	2
Struck by falling objects	2,566	4	4	0
Stepping on, striking against or struck by objects, excluding falling objects	8,726	0	0	0
Caught in or between objects	4,366	6	4	2
Over-exertion or strenuous movements	2,112	1	0	1
Exposure to or contact with extreme temperatures	1,401	0	0	0
Exposure to or contact with electric current	370	2	2	0
Exposure to or contact with harmful substances or radiations	782	2	2	0
Others	4,538	12	0	12
Frequency Rate per 500 Workers¹				
Fatal	0.04	0	0	0
Non-Fatal	5.66	1.35	0.85	2.56
Permanent incapacity	0.04	0.09	0.12	0
Temporary Incapacity	5.62	1.26	0.73	2.56
Severity Rate per 500 Workers² (Temporary incapacity)				
Average Days Lost (Temporary incapacity cases)	8	36	42	32

Note: Details will not add-up to totals due to rounding of figures.

1 Number of cases of occupational injuries with lost workdays per 1,000,000 employee - hours of exposure .

2 Number of lost workdays of temporary incapacity cases of occupational injuries per 1,000,000 employee hours of exposure.

Source of data: Bureau of Labor and Employment Statistics, 2000 Occupational Injuries Survey.