

Are our workplaces safe? ... Frequency and Incidence Rates (Seventh of a Series)



This issue of the LABSTAT Updates is the seventh 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. Changes in the 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 current accident preventive measures. The statistics are also useful in developing training materials and programs for accident prevention and providing 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. To take into account differences in employment and total hours worked, several measures are used to allow for meaningful comparisons between different reference periods and economic activities. Statistics on these measures provide indications on the safety performance and effectiveness of accident preventive measures at the workplace.

This seventh issue focuses on the frequency of injuries with lost workdays relative to total hours of work and their incidences relative to total employment. In 2003, there were 23,265 cases of occupational injuries with workdays lost. National frequency and incidence rates were 4.07 and 9.75, respectively. (See footnotes of statistical tables for definition of terms.)

Manufacture of tobacco products with highest frequency rate

In 2003, the frequency rate of cases of occupational injuries with workdays lost averaged to 4.07. (Table 1)

Six of the 12 major industry groups covered by the survey posted rates higher than the all-industry rate. These were manufacturing (6.46);

electricity, gas and water supply (5.96); construction (5.87), other community, social and personal service activities (4.37); and hotels and restaurants (4.24). The rest of the industry groups had rates ranging from 0.33 in private education services

to 3.59 in transport, storage and communication.

Among sub-industries, only non-metallic mining and quarrying reported a double-digit frequency rate (13.30) other than some of the manufacturing sub-industries. The highest frequency rate in this major industry group was noted in manufacture of tobacco products at 17.39. Other sub-industries with double-digit rates were manufacture of fabricated metal products except machinery and equipment (15.69); manufacture of basic metals (15.54); manufacture of other non-metallic mineral products, n.e.c (12.30); manufacture of beverages (11.78); manufacture of textiles (10.78); and manufacture of plastic products (10.54).

Non-fatal frequency rates

Temporary incapacity cases which accounted for the majority of injuries with lost workdays recorded a frequency rate of 4.02 during the period under review. On the other hand, frequency rate of permanent incapacity cases was registered at 0.02.

Temporary incapacity cases

Manufacturing had the highest rate among major industry groups at 6.41. The same sub-industries with double-digit total frequency rates also yielded two-digit rates OF temporary incapacity which ranged from 10.50 in manufacture of plastic products to 17.39 in manufacture of tobacco products.

Construction (5.84); electricity, gas and water supply (5.74); other community, social and personal service activities (4.37); and hotels and restaurants (4.21) also had frequency rates of temporary

incapacity higher than the national rate.

On the other hand, transport, storage and communication (3.48); wholesale and retail trade (3.03); and mining and quarrying (2.20) posted rates lower than the overall frequency rate of temporary incapacity cases.

Rates of less than one percent were observed in private education services (0.31); financial intermediation (0.46); health and social work except public medical, dental and other health services (0.71); and real estate, renting and business activities (0.80).

Permanent incapacity cases

In contrast to the frequency rate of temporary incapacity, that of permanent incapacity was pegged to only 0.02 for all industries. Among the major industry groups with permanent incapacity cases resulting to lost workdays, electricity, gas and water supply had the highest rate at 0.04 while construction and real estate, renting and business activities had the lowest at 0.01. As there were no permanent incapacity cases reported in mining and quarrying; hotels and restaurants; financial intermediation; health and social work except public medical, dental and other health services; and other community, social and personal service activities, their frequency rates were nil.

Fatal frequency rates

The frequency rate of fatal cases was also very low at 0.03. Highest frequency rate of fatalities among major industries was 0.21 in mining and quarrying. Second highest rate was observed in electricity, gas and water supply at 0.19. The rest of the major industry groups had rates ranging from zero to 0.03.

Among sub-industries, fatal frequency rate of non-metallic mining and quarrying led at 1.36 followed by water transport (0.25); electricity, gas, steam and hot water supply (0.22); sale, maintenance and repair of motor vehicles and motorcycles;

retail sale of automotive fuel (0.20); and supporting and auxiliary transport activities; activities of travel agencies (0.16). While manufacturing had a fatal frequency rate of 0.01, its manufacture of transport equipment registered a rate of 0.14.

Lowest incidence of injuries with lost workdays in private education services

For every 1,000 workers, cases of work-related injuries with workdays lost registered an incidence rate of 9.75 in 2003. (*Table 2*)

Across major industry groups, incidence rates ranged from a low of 0.70 in private education services to a high of 16.01 in manufacturing.

Temporary incapacity cases

Incidence rates of temporary incapacity higher than the national rate at 9.63 were noted in four major industries. Manufacturing took the lead at 15.90, followed by construction at 13.55 and electricity, gas and water supply at 13.13 (in particular 15.24 in electricity, gas, steam and hot water supply). Other community, social and personal service activities at 9.89 (in particular 11.72 in recreational, cultural and sporting activities) ranked a far fourth. These four industry groups also had the highest frequency rates of temporary incapacity.

The following sub-industries of manufacturing posted incidence rates higher than that of its industry group rate: tobacco products, 39.18; basic metals, 38.62; fabricated metal products except machinery and equipment, 37.53; beverages, 28.82;

other non-metallic mineral products n.e.c., 28.05; textiles, 26.65; plastic products, 25.90; food products, 23.53; motor vehicles, trailers and semi-trailers, 22.74; other transport equipment, 22.68; machinery and equipment n.e.c., 21.73; furniture including repair, 21.59; cement, 20.19; wood and related products, 19.91; rubber products, 18.87; and chemical and chemical products, 17.54. These 16 sub-industries likewise had frequency rates of temporary incapacity higher than the all-manufacturing rate.

The two major industries with considerably low incidence rates of temporary incapacity were private education services (0.65) and financial intermediation (0.99).

Permanent and fatal cases

Similar to frequency rates, the incidence rates for permanent incapacity (0.05) and fatal cases (0.07) were very low. Across sub-industries, permanent incapacity incidence rates varied from zero to 1.30 (manufacture of paper and paper products) while those for fatal cases, also ranged from zero to 2.86 (non-metallic mining and quarrying).

Note: As there is a direct relationship between total hours worked (used to derive frequency rate) and employment (used to derive incidence rate), frequency and incidence rates will have the same patterns across industries.

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TABLE 1 - Frequency Rates of Cases of Occupational Injuries with Lost Workdays in Non-Agricultural Establishments Employing 20 or More Workers by Industry and Incapacity for Work, Philippines: 2003

1994 PSIC	Industry	Total	Fatal	Non-Fatal		
				Total	Permanent Incapacity	Temporary Incapacity
	Total	4.07	0.03	4.04	0.02	4.02
C	MINING AND QUARRYING	2.41	0.21	2.20	-	2.20
C10	Metallic Ore Mining	0.96	0.05	0.91	-	0.91
C11	Non-Metallic Mining and Quarrying	13.30	1.36	11.94	-	11.94
D	MANUFACTURING	6.46	0.01	6.45	0.03	6.41
D15 excl.						
D155	Manufacture of Food Products	9.16	0.02	9.14	0.01	9.13
D155	Manufacture of Beverages	11.78	0.02	11.76	0.02	11.74
D16	Manufacture of Tobacco Products	17.39	-	17.39	-	17.39
D17	Manufacture of Textiles	10.78	0.01	10.77	0.01	10.76
D18	Manufacture of Wearing Apparel	2.34	-	2.34	-	2.34
D191	Tanning and Dressing of Leather;					
	Manufacture of Luggage and Handbags	1.74	-	1.74	-	1.74
D192	Manufacture of Footwear	2.05	-	2.05	-	2.05
D201	Manufacture of Wood, Wood Products					
	and Cork except Furniture	8.04	0.07	7.97	-	7.97
D202	Manufacture of Articles of Bamboo, Cane,					
	Rattan, Cork and the Like; Manufacture of					
	Plaiting Materials	-	-	-	-	-
D21	Manufacture of Paper and Paper Products	5.91	0.06	5.85	0.49	5.36
D22	Publishing, Printing and Reproduction of					
	Recorded Media	2.91	-	2.91	-	2.91
D23	Manufacture of Coke, Refined Petroleum and					
	Other Fuel Products	3.51	-	3.51	-	3.51
D24	Manufacture of Chemicals and					
	Chemical Products	7.18	0.01	7.17	0.01	7.16
D251	Manufacture of Rubber Products	8.14	-	8.14	-	8.14
D252	Manufacture of Plastic Products	10.54	-	10.54	0.04	10.50
D261	Manufacture of Glass and Glass Products	3.43	-	3.43	-	3.43
D262	Manufacture of Cement	8.34	-	8.34	-	8.34
D269	Manufacture of Other Non-Metallic Mineral					
	Products, n.e.c.	12.30	-	12.30	0.48	11.81
D27	Manufacture of Basic Metals	15.54	-	15.54	0.03	15.52
D28	Manufacture of Fabricated Metal Products,					
	except Machinery and Equipment	15.69	-	15.69	0.19	15.51
D29	Manufacture of Machinery and Equipment, n.e.c.	9.07	-	9.07	-	9.07
D30	Manufacture of Office, Accounting and					
	Computing Machinery	1.58	-	1.58	-	1.58
D31	Manufacture of Electrical Machinery					
	and Apparatus, n.e.c.	3.87	-	3.87	-	3.87
D32	Manufacture of Radio, TV and Communication					
	Equipment and Apparatus	1.88	-	1.88	0.01	1.88
D33	Manufacture of Medical, Precision and Optical					
	Instruments, Watches and Clocks	2.73	-	2.73	-	2.73
D34	Manufacture of Motor Vehicles, Trailers					
	and Semi-Trailers	9.75	0.07	9.68	-	9.68
D35	Manufacture of Other Transport Equipment	9.02	0.14	8.88	0.07	8.81
D36	Manufacture and Repair of Furniture	8.81	-	8.81	-	8.81
D37	Recycling	4.14	-	4.14	-	4.14
D39	Manufacturing, n.e.c.	2.10	-	2.10	-	2.10
E	ELECTRICITY, GAS AND WATER SUPPLY	5.96	0.19	5.78	0.04	5.74
E40	Electricity, Gas, Steam and Hot Water Supply	6.81	0.22	6.59	0.04	6.55
E41	Collection, Purification and Distribution of Water	2.50	0.04	2.46	-	2.46

Notes: 1. Details will not add up to totals due to rounding of figures.

2. A dash (-) entry implies zero (0) or no case/s reported.

3. Frequency rate is computed as follows: (Occupational injuries with workdays lost/Total hours actually worked)
X 1,000,000 hours of exposure.

TABLE 1 - Frequency Rates of Cases of Occupational Injuries with Lost Workdays in Non-Agricultural Establishments Employing 20 or More Workers by Industry and Incapacity for Work, Philippines: 2003 (Cont'd.)

1994 PSIC	Industry	Total	Fatal	Non-Fatal		
				Total	Permanent Incapacity	Temporary Incapacity
F45	CONSTRUCTION	5.87	0.02	5.85	0.01	5.84
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES, MOTORCYCLES AND PERSONAL AND HOUSEHOLD GOODS	3.11	0.06	3.05	0.02	3.03
G50	Sale, Maintenance and Repair of Motor Vehicles and Motorcycles, Retail Sale of Automotive Fuel	3.95	0.20	3.75	-	3.75
G51	Wholesale Trade and Commission Trade, Except Motor Vehicles and Motorcycles	2.49	0.01	2.48	-	2.48
G52	Retail Trade, Except of Motor Vehicles and Motorcycles, Repair of Personal and Household Goods	3.22	0.05	3.18	0.04	3.14
H55	HOTELS AND RESTAURANTS	4.24	0.03	4.21	-	4.21
I	TRANSPORT, STORAGE AND COMMUNICATION	3.59	0.08	3.51	0.03	3.48
I60	Land Transport, Transport Via Pipelines	3.38	0.03	3.36	0.01	3.35
I61	Water Transport	3.59	0.25	3.34	0.25	3.10
I62	Air Transport	0.27	-	0.27	-	0.27
I63	Supporting and Auxiliary Transport Activities; Activities of Travel Agencies	5.69	0.16	5.53	0.02	5.50
I64 excl. I6411	Post and Telecommunications except National Postal Activities	1.36	0.01	1.35	-	1.35
J	FINANCIAL INTERMEDIATION	0.47	0.01	0.46	-	0.46
J65 excl. J65100	Banking Institutions except Central Banking	0.25	-	0.25	-	0.25
J66	Non-Bank Financial Intermediation	1.14	0.06	1.08	-	1.08
J67	Insurance and Pension Funding, Except Compulsory Social Security	0.94	-	0.94	-	0.94
J68	Activities Auxiliary to Financial Intermediation	0.06	-	0.06	-	0.06
K	REAL ESTATE, RENTING AND BUSINESS ACTIVITIES	0.83	0.02	0.81	0.01	0.80
K70	Real Estate Activities	2.33	-	2.33	0.15	2.17
K71	Renting of Machinery and Equipment Without Operator, Personal and Household Goods	-	-	-	-	-
K72	Computer and Related Activities	-	-	-	-	-
K73	Research and Development	0.80	-	0.80	-	0.80
K74	Miscellaneous Business Activities	0.75	0.02	0.72	a	0.72
M81	PRIVATE EDUCATION SERVICES	0.33	0.01	0.33	0.02	0.31
N85 excl. N8511	HEALTH AND SOCIAL WORK EXCEPT PUBLIC MEDICAL, DENTAL AND OTHER HEALTH SERVICES	0.71	-	0.71	-	0.71
O	OTHER COMMUNITY, SOCIAL AND PERSONAL SERVICE ACTIVITIES	4.37	-	4.37	-	4.37
O90	Sewage and Refuse Disposal, Sanitation and Similar Activities	-	-	-	-	-
O92	Recreational, Cultural and Sporting Activities	5.25	-	5.25	-	5.25
O93	Other Service Activities	1.33	-	1.33	-	1.33

Notes: 1. Details will not add up to totals due to rounding of figures.

2. A dash (-) entry implies zero (0) or no case/s reported.

3. Frequency rate is computed as follows: (Occupational injuries with workdays lost/Total hours actually worked)

X 1,000,000 hours of exposure.

a Less than 0.005.

Source of data: Bureau of Labor and Employment Statistics, BLES Integrated Survey.

**TABLE 2 - Incidence Rates of Cases of Occupational Injuries with Lost Workdays
in Non-Agricultural Establishments Employing 20 or More Workers by Industry
and Incapacity for Work, Philippines: 2003**

1994 PSIC	Industry	Total	Fatal	Non-Fatal		
				Total	Permanent Incapacity	Temporary Incapacity
	Total	9.75	0.07	9.68	0.05	9.63
C	MINING AND QUARRYING	5.51	0.48	5.03	-	5.03
C10	Metallic Ore Mining	2.23	0.13	2.10	-	2.10
C11	Non-Metallic Mining and Quarrying	27.88	2.86	25.02	-	25.02
D	MANUFACTURING	16.01	0.03	15.99	0.08	15.90
D15 excl.						
D155	Manufacture of Food Products	23.62	0.06	23.56	0.03	23.53
D155	Manufacture of Beverages	28.92	0.05	28.87	0.05	28.82
D16	Manufacture of Tobacco Products	39.18	-	39.18	-	39.18
D17	Manufacture of Textiles	26.72	0.03	26.68	0.03	26.65
D18	Manufacture of Wearing Apparel	5.79	-	5.79	-	5.79
D191	Tanning and Dressing of Leather; Manufacture of Luggage and Handbags	3.81	-	3.81	-	3.81
D192	Manufacture of Footwear	4.65	-	4.65	-	4.65
D201	Manufacture of Wood, Wood Products and Cork except Furniture	20.09	0.18	19.91	-	19.91
D202	Manufacture of Articles of Bamboo, Cane, Rattan, Cork and the Like; Manufacture of Plaiting Materials	-	-	-	-	-
D21	Manufacture of Paper and Paper Products	15.56	0.17	15.40	1.30	14.10
D22	Publishing, Printing and Reproduction of Recorded Media	6.83	-	6.83	-	6.83
D23	Manufacture of Coke, Refined Petroleum and Other Fuel Products	7.48	-	7.48	-	7.48
D24	Manufacture of Chemicals and Chemical Products	17.60	0.02	17.57	0.03	17.54
D251	Manufacture of Rubber Products	18.87	-	18.87	-	18.87
D252	Manufacture of Plastic Products	26.00	-	26.00	0.10	25.90
D261	Manufacture of Glass and Glass Products	9.20	-	9.20	-	9.20
D262	Manufacture of Cement	20.19	-	20.19	-	20.19
D269	Manufacture of Other Non-Metallic Mineral Products, n.e.c.	29.20	-	29.20	1.15	28.05
D27	Manufacture of Basic Metals	38.69	-	38.69	0.07	38.62
D28	Manufacture of Fabricated Metal Products, except Machinery and Equipment	37.99	-	37.99	0.45	37.53
D29	Manufacture of Machinery and Equipment, n.e.c.	21.73	-	21.73	-	21.73
D30	Manufacture of Office, Accounting and Computing Machinery	3.59	-	3.59	-	3.59
D31	Manufacture of Electrical Machinery and Apparatus, n.e.c.	9.24	-	9.24	-	9.24
D32	Manufacture of Radio, TV and Communication Equipment and Apparatus	4.91	-	4.91	0.02	4.89
D33	Manufacture of Medical, Precision and Optical Instruments, Watches and Clocks	7.06	-	7.06	-	7.06
D34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	22.92	0.17	22.74	-	22.74
D35	Manufacture of Other Transport Equipment	23.22	0.36	22.86	0.18	22.68
D36	Manufacture and Repair of Furniture	21.59	-	21.59	-	21.59
D37	Recycling	10.42	-	10.42	-	10.42
D39	Manufacturing, n.e.c.	4.90	-	4.90	-	4.90
E	ELECTRICITY, GAS AND WATER SUPPLY	13.63	0.43	13.21	0.08	13.13
E40	Electricity, Gas, Steam and Hot Water Supply	15.87	0.52	15.35	0.10	15.24
E41	Collection, Purification and Distribution of Water	5.33	0.09	5.24	-	5.24
F45	CONSTRUCTION	13.61	0.05	13.56	0.01	13.55

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2. A dash (-) entry implies zero (0) or no case/s reported.

3. Incidence rate is computed as follows: (Occupational injuries with workdays lost/Total Employment) X 1,000.

TABLE 2 - Incidence Rates of Cases of Occupational Injuries with Lost Workdays
in Non-Agricultural Establishments Employing 20 or More Workers by Industry
and Incapacity for Work, Philippines: 2003 (Cont'd.)

1994 PSIC	Industry	Total	Fatal	Non-Fatal		
				Total	Permanent Incapacity	Temporary Incapacity
G	WHOLESALE AND RETAIL TRADE; REPAIR OF MOTOR VEHICLES, MOTORCYCLES AND PERSONAL AND HOUSEHOLD GOODS	7.48	0.13	7.34	0.05	7.29
G50	Sale, Maintenance and Repair of Motor Vehicles and Motorcycles,					
	Retail Sale of Automotive Fuel	9.28	0.48	8.80	-	8.80
G51	Wholesale Trade and Commission Trade, Except Motor Vehicles and Motorcycles	5.88	0.03	5.86	-	5.86
G52	Retail Trade, Except of Motor Vehicles and Motorcycles, Repair of Personal and Household Goods	7.88	0.11	7.77	0.09	7.68
H55	HOTELS AND RESTAURANTS	9.44	0.08	9.36	-	9.36
I	TRANSPORT, STORAGE AND COMMUNICATION	8.62	0.20	8.42	0.07	8.35
I60	Land Transport, Transport Via Pipelines	8.10	0.06	8.03	0.02	8.01
I61	Water Transport	8.78	0.60	8.18	0.60	7.58
I62	Air Transport	0.75	-	0.75	-	0.75
I63	Supporting and Auxiliary Transport Activities; Activities of Travel Agencies	14.08	0.40	13.68	0.06	13.62
I64 excl. I6411	Post and Telecommunications except National Postal Activities	3.11	0.02	3.09	-	3.09
J	FINANCIAL INTERMEDIATION	1.01	0.02	0.99	-	0.99
J65 excl. J65100	Banking Institutions except Central Banking	0.54	-	0.54	-	0.54
J66	Non-Bank Financial Intermediation	2.45	0.12	2.33	-	2.33
J67	Insurance and Pension Funding, Except Compulsory Social Security	1.93	-	1.93	-	1.93
J68	Activities Auxiliary to Financial Intermediation	0.13	-	0.13	-	0.13
K	REAL ESTATE, RENTING AND BUSINESS ACTIVITIES	2.12	0.05	2.07	0.04	2.03
K70	Real Estate Activities	5.44	-	5.44	0.36	5.08
K71	Renting of Machinery and Equipment Without Operator, Personal and Household Goods	-	-	-	-	-
K72	Computer and Related Activities	-	-	-	-	-
K73	Research and Development	1.64	-	1.64	-	1.64
K74	Miscellaneous Business Activities	1.94	0.06	1.88	0.01	1.88
M81	PRIVATE EDUCATION SERVICES	0.70	0.01	0.69	0.04	0.65
N85 excl. N8511	HEALTH AND SOCIAL WORK EXCEPT PUBLIC MEDICAL, DENTAL AND OTHER HEALTH SERVICES	1.65	-	1.65	-	1.65
O	OTHER COMMUNITY, SOCIAL AND PERSONAL SERVICE ACTIVITIES	9.89	-	9.89	-	9.89
O90	Sewage and Refuse Disposal, Sanitation and Similar Activities	-	-	-	-	-
O92	Recreational, Cultural and Sporting Activities	11.72	-	11.72	-	11.72
O93	Other Service Activities	3.15	-	3.15	-	3.15

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3. Incidence rate is computed as follows: (Occupational injuries with workdays lost/Total Employment) X 1,000.

Source of data: Bureau of Labor and Employment Statistics, BLES Integrated Survey.