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ARE OUR WORKPLACES SAFE? ... *Parts of the Body Injured, Causes and Agents of Injury* (Second of a series)

This series of LABSTAT Updates present statistical briefs on cases of occupational injuries and diseases that affected private sector establishments in 2007. The statistics were based on results of the 2007/2008 BLES Integrated Survey (BITS) conducted in 2008 by the Bureau in coordination with the DOLE Regional Offices. As a vital supplementary source of data to administrative-based statistics on occupational safety and health in DOLE, the BITS is a nationwide survey covering 6,460 sample non-agricultural establishments with 20 or more workers. It has expanded its industry coverage from 58 industries in 2003 to 65 to include building and repairing of ships and boats (manufacturing industry); bus line operation (transport, storage and communications); accounting, bookkeeping and auditing activities, tax consultancy; architectural, engineering and related technical consultancy; call center activities; medical transcription and related outsourcing activities (real estate, renting and business activities); and, animated films and cartoons production (other community, social and personal service activities) industries. The last three sub-industries are technology-based industries that have played significant roles in the Philippine economy in recent years.

The BITS also generated other labor statistics on employment of specific group of workers, occupational shortages and surpluses, safety and health practices and labor cost of employee that can be used as basis for policy and program formulation and evaluation.

Specifically, this second issue discusses the results of the survey regarding the parts of body injured, causes and agents of occupational injuries that resulted to workdays lost of workers in establishments covering the period 2007 compared with those of 2003. The metadata and the statistical tables of the survey are posted on the BLES website.

About half of injuries affected upper extremities in 2007



The occurrence of work-related injuries results to interruptions in production or service delivery, physical impairment of workers and sometimes fatalities. These eventualities should prompt employers and workers to implement preventive measures or interventions to ensure safe and productive workplaces.

In 2003, around 45% (10,366 out of 23,265) of occupational injuries with workdays lost affected upper extremities of the body. Four years after, the proportion went up to 50.1% although the numbers went down to 10,212 cases out of 20,386. (Table 1)

About 69% (7,016) of injuries to this part of the body were noted in manufacturing. Other industry groups which reported upper extremities as the most affected by occupational injuries in 2007 were as follows: other community, social and personal service activities (65.4%); private health and social work activities (56.7%); wholesale and retail trade (52.3%); private education services (48.6%); transport, storage and communications (42.5%); and construction (31.5%).

Lower extremities ranked second as the most frequently affected part of the body. It accounted for 5,158 cases (25.3%) in 2007 and 6,695 cases (28.8%) in 2003. Likewise, manufacturing exhibited the highest share of injuries in lower extremities at 47.3%.

Other industries like electricity, gas, and water supply (48.8%); hotels and restaurants (40.1%); and mining and quarrying (32.6%) also

reported that lower extremities were the most frequently affected part of the body.

The percent shares of other parts of the body affected by occupational injuries were as follows:

Parts of Body Injured	2003	2007
Total	23,265	20,386
Head	16.7	12.9
Neck	0.7	1.3
Back	4.3	3.6
Trunk or Internal Organs	2.1	3.2
Whole Body or Multiple Sites Equally Injured	2.9	3.7

More than one third of injuries caused by stepping on, striking against or struck by objects, excluding falling objects

It is important that every occupational injury in the workplace is properly recorded and its cause examined and evaluated to avoid repetition of the same occurrence. Safety trainings and workplace remedies and improvements should be applied to minimize the effects of the causes of injuries.

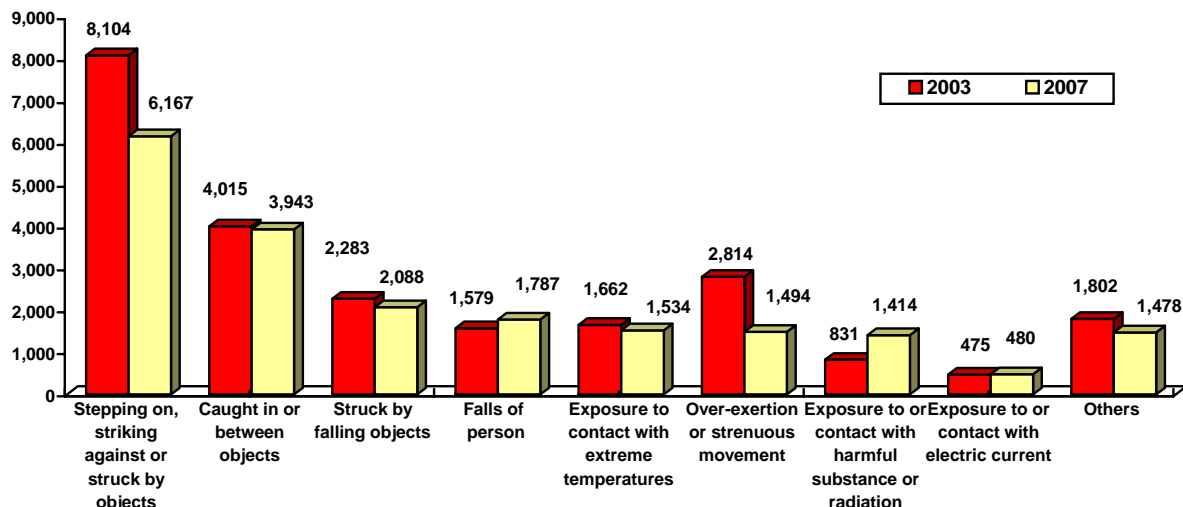
The highest recorded cause of the 20,386 work-related injuries in 2007 was stepping on, striking against or struck by object, excluding falling objects which accounted for 6,167 cases (30.3%). Caught in or between objects and struck by falling objects were second and third with 19.3% (3,943) and 10.2% (2,088) shares, respectively. (Figure 1)

Survey results in the two years under review showed that manufacturing recorded the highest proportions of cases of occupational injuries with workdays lost at 61.9% and 61.0%, respectively. These were caused mostly by stepping on, striking against or struck by objects, excluding falling objects, 37.3% of 14,403 in 2003 and 29.7% of 12,427 in 2007. (Table 2)

Other industry groups that reported high risk to stepping on, striking against or struck by objects, excluding falling objects in 2007 were transport, storage and communications (42.0% of 1,701); wholesale and retail trade, repair of motor vehicles motorcycles and personal household goods (35.9% of 1,658); private education (35.6% of 436); construction (28.8% of 837); and other community, social and personal service activities (23.2% of 185).

Other causes of injuries seemingly reflected the nature of jobs performed by the workers. Electricity, gas and water supply (28.0% of 731) and real estate, renting and business activities (35.1% of 325) were susceptible to falls of persons. Injuries in hotels and restaurants were mainly caused by exposure to or contact with extreme temperature (28.8% of 1,877). Mining and quarrying (49.5% of 95) recorded struck by falling objects as its most common cause of injuries.

FIGURE 1 - Cases of Occupational Injuries with Workdays Lost in Non-Agricultural Establishments Employing 20 or More Workers by Cause of Injury, Philippines: 2003 and 2007



More than one-fourth of injuries due to machines and equipment



There are contributory factors to occupational accidents and injuries in the workplaces. Among these are the agent of injuries like machines, equipment; hand tools; materials, objects; buildings, structures; and chemical substance. Trainings on the proper handling and correct operation of machines, use of personal and protective equipment (PPE) and precautions and carefulness in work prevent accidents and promote safety in the establishments.

The 2007 survey results revealed that 26.9% (5,486) of injuries arose from operation of machines and equipment. The same agent of injuries was also the major agent in 2003 at 30.2% (7,027) of total cases. (Table 3)

Materials and objects used in the operation of business were the second source of injuries with 21.5% (5,012) in 2003 and 23.4% (4,765) in 2007. Hand tools also emerged as highly contributory to injuries at 20.7% (4,821) in 2003 and 17.5% (3,576) in 2007.

The proportions of other agents of work-related injuries were as follows:

Agent of Injury	2003	2007
Total	23,265	20,386
<i>Conveying/Transport/ Packaging Equipment or Vehicles</i>	7.5	9.7
<i>Chemical Substances</i>	4.4	6.8
<i>Buildings, Structures</i>	5.2	5.9
<i>Prime Movers</i>	2.7	2.9
<i>Distribution Systems</i>	1.2	1.8
<i>Human Animals, Plants, etc.</i>	2.3	1.6
<i>Others</i>	4.2	3.5

Human, animals, plants as agents of injury accounted for the lowest share (333 or 1.6% of total cases) in 2007 while distribution system had the least (278 or 1.2%) in 2003.

As in the all-industry total, machines, equipment; materials, objects; and hand tools were the leading agents in manufacturing in 2003 and 2007.

On the other hand, conveying/transport/packaging equipment or vehicles was the major agent of injuries in hotels and restaurants (460) in 2007.

FOR INQUIRIES:

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 FAX 527-9325 E-mail: bles_issd@yahoo.com or visit our website at <http://www.bles.dole.gov.ph>

TABLE 1 - Cases of Occupational Injuries With Workdays Lost In Non-Agricultural Establishments Employing 20 or More Workers by Major Industry and Part of Body Injured, Philippines: 2003 and 2007

Industry	Total	Head	Neck	Back	Trunk or Internal Organs	Upper Extremities	Lower Extremities	Whole Body or Multiple Sites Equally Injured
2003	23,265	3,875	170	992	484	10,366	6,695	683
Mining and Quarrying	60	5	2	3	5	19	25	-
Manufacturing	14,403	1,721	58	443	297	7,477	4,063	344
Electricity, Gas and Water Supply	805	133	10	78	47	204	302	33
Construction	1,114	268	8	16	9	443	348	22
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	2,690	1,108	7	70	10	572	826	96
Hotels and Restaurants	1,195	116	15	143	47	648	223	4
Transport, Storage and Communications	1,558	131	39	130	39	596	507	117
Financial Intermediation	100	30	3	1	12	11	38	5
Real Estate, Renting and Business Activities	566	118	15	28	10	214	132	50
Private Education Services	132	15	6	8	1	47	50	6
Health and Social Work Except Public Medical, Dental and Other Health Activities	96	3	-	6	6	30	48	3
Other Community, Social and Personal Service Activities	546	227	9	68	1	105	133	3
2007	20,386	2,626	263	739	643	10,212	5,158	745
Mining and Quarrying	95	17	2	9	8	24	31	5
Manufacturing	12,427	1,670	147	240	428	7,016	2,440	487
Electricity, Gas and Water Supply	731	85	15	15	12	187	357	59
Construction	837	169	-	42	88	264	261	13
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	1,658	201	1	105	5	867	465	13
Hotels and Restaurants	1,877	141	34	170	15	696	753	68
Transport, Storage and Communications	1,701	187	40	126	71	723	503	51
Financial Intermediation	48	-	-	-	-	10	17	21
Real Estate, Renting and Business Activities	325	109	21	6	14	54	107	14
Private Education Services	436	11	3	24	-	212	178	8
Health and Social Work Except Public Medical, Dental and Other Health Activities	67	5	-	-	4	38	15	5
Other Community, Social and Personal Service Activities	185	30	-	1	-	121	32	2

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

Source of data: Bureau of Labor and Employment Statistics, BLES Integrated Survey (2003/2004 and 2007/2008).

**TABLE 2 - Cases of Occupational Injuries With Workdays Lost in Non-Agricultural Establishments Employing 20 or More Workers
By Major Industry and Cause of Injury, Philippines: 2003 and 2007**

Industry	Total	Falls of Persons	Struck by Falling Objects	Stepping on Striking Against or Struck By Objects, Excluding Falling Objects	Caught in or Between Objects	Over-exertion or Strenuous Movement	Exposure to or Contact with Extreme Temperatures	Exposure to or Contact with Electric Current	Exposure to or Contact with Harmful Substances or Radiation	Others
2003	23,265	1,579	2,283	8,104	4,015	2,814	1,662	475	831	1,502
Mining and Quarrying	60	9	8	18	12	-	11	-	-	-
Manufacturing	14,403	554	1,313	5,372	3,078	1,469	1,004	296	482	835
Electricity, Gas and Water Supply	805	185	157	134	57	70	5	73	39	84
Construction	1,114	154	107	411	135	43	22	6	205	30
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	2,690	198	159	726	205	953	199	2	15	232
Hotels and Restaurants	1,195	166	40	333	80	124	351	28	26	49
Transport, Storage and Communications	1,558	166	209	689	206	76	26	22	20	144
Financial Intermediation	100	13	13	37	20	3	1	-	14	-
Real Estate, Renting and Business Activities	566	70	76	229	85	42	2	2	5	36
Private Education Services	132	23	10	60	12	14	2	3	4	3
Health and Social Work Except Public Medical, Dental and Other Health Activities	96	16	11	30	7	14	1	-	11	8
Other Community, Social and Personal Service Activities	546	25	181	64	118	6	37	22	10	82
2007	20,386	1,787	2,088	6,167	3,943	1,494	1,534	480	1,414	1,478
Mining and Quarrying	95	11	47	22	11	-	5	-	-	-
Manufacturing	12,427	743	1,307	3,697	3,098	688	865	197	1,003	828
Electricity, Gas and Water Supply	731	205	41	97	51	111	7	129	27	63
Construction	837	93	139	241	91	35	8	60	149	21
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	1,658	164	179	596	265	323	35	32	26	37
Hotels and Restaurants	1,877	185	154	516	174	70	540	26	99	113
Transport, Storage and Communications	1,701	175	118	715	125	174	54	17	29	294
Financial Intermediation	48	14	-	10	-	-	-	-	4	19
Real Estate, Renting and Business Activities	325	114	22	65	13	13	6	8	47	36
Private Education Services	436	52	21	155	86	63	2	7	6	44
Health and Social Work Except Public Medical, Dental and Other Health Activities	67	12	23	11	2	6	2	-	9	1
Other Community, Social and Personal Service Activities	185	20	36	43	26	10	10	4	16	21

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

Source of data: Bureau of Labor and Employment Statistics, BLES Integrated Survey (2003/2004 and 2007/2008).

TABLE 3 - Cases of Occupational Injuries With Workdays Lost in Non-Agricultural Establishments Employing 20 or More Workers by Major Industry and Agent of Injury, Philippines: 2003 and 2007

Industry	Total	Buildings, Structures	Prime Movers	Distribution Systems	Hand Tools	Machines, Equipment	Conveying/ Transport/ Packaging Equipment or Vehicles	Materials, Objects	Chemical Substances	Human, Animals, Plants, etc	Others
2003	23,265	1,212	634	278	4,821	7,027	1,735	5,012	1,033	534	980
Mining and Quarrying	60	2	-	-	3	2	7	16	30	-	-
Manufacturing	14,403	485	258	129	3,234	4,824	738	3,337	696	232	471
Electricity, Gas and Water Supply	805	49	162	39	76	71	114	156	18	75	45
Construction	1,114	113	15	2	405	360	55	123	8	22	10
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	2,690	90	94	9	397	1,068	252	389	98	91	202
Hotels and Restaurants	1,195	135	24	62	243	215	80	231	122	31	53
Transport, Storage and Communications	1,558	105	57	14	226	297	363	355	27	41	73
Financial Intermediation	100	-	1	13	13	5	19	33	1	8	8
Real Estate, Renting and Business Activities	566	45	21	7	57	62	46	280	3	15	28
Private Education Services	132	27	2	1	22	8	7	44	8	10	4
Health and Social Work Except Public Medical, Dental and Other Health Activities	96	30	-	1	13	15	15	9	4	6	3
Other Community, Social and Personal Service Activities	546	132	-	2	132	100	38	39	17	3	82
2007	20,386	1,195	592	369	3,576	5,486	1,977	4,765	1,382	333	712
Mining and Quarrying	95	7	2	-	30	15	2	40	-	-	-
Manufacturing	12,427	463	130	226	2,163	3,962	655	3,261	967	147	452
Electricity, Gas and Water Supply	731	68	149	31	81	70	150	57	13	48	63
Construction	837	180	42	-	124	101	45	202	88	1	54
Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods	1,658	81	100	95	417	426	161	332	9	32	5
Hotels and Restaurants	1,877	184	76	3	209	349	460	253	236	29	77
Transport, Storage and Communications	1,701	72	54	13	393	459	367	292	26	18	8
Financial Intermediation	48	1	-	-	-	-	37	-	-	10	-
Real Estate, Renting and Business Activities	325	63	11	-	10	49	34	131	12	-	15
Private Education Services	436	33	25	-	132	15	43	140	2	33	14
Health and Social Work Except Public Medical, Dental and Other Health Activities	67	2	-	-	1	17	6	15	10	10	5
Other Community, Social and Personal Service Activities	185	41	1	1	16	23	16	44	19	4	20

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

Source of data: Bureau of Labor and Employment Statistics, BLES Integrated Survey (2003/2004 and 2007/2008).