

LABSTAT

Updates

Department of Labor and Employment Manila, Philippines

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SAFETY AND HEALTH IN THE WORKPLACE

. . . Types of Injury, Parts of the Body Injured, Causes and Agents of Injury (Second of a Four-part Series)

This series of LABSTAT Updates present statistical briefs on cases of occupational injuries and diseases that affected workers in private sector establishments in 2009. The statistics were based on the results of the 2009/2010 BLES Integrated Survey (BITS) conducted in 2010 by the Bureau of Labor and Employment Statistics (BLES) in coordination with the DOLE Regional Offices.

The BITS is a nationwide survey covering 6,780 non-agricultural establishments with 20 or more workers in 65 industry groups. It also generates statistics on employment of specific groups of workers; occupational shortages and surpluses; practices on balancing work and family responsibilities; working time arrangements; and occupational safety and health practices that can be used as basis for policy and program formulation and evaluation.

Specifically, this issue discusses the results of the survey regarding the types of injury, parts of the body injured, causes and agents of occupational injuries that resulted to workdays lost of workers in establishments in 2009 compared with those in 2007. The metadata and the statistical tables of the survey are posted on the BLES website. (The earlier series of LABSTAT Updates on occupational injuries and diseases were entitled "Are our workplaces safe?")

Superficial injuries and open wounds - the most common type of occupational injuries

- Superficial injuries and open wounds were the most common type of occupational injuries in 2009, accounting for 51.1% of all cases. This proportion was not different from the 51.6% in 2007. (Table 1)
- These types of injuries were more prevalent in the manufacturing industry at 65.8% in 2007 and 62.2% in 2009, followed distantly by wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods at 10.2% and 11.4% during the period, respectively.
- Dislocations, sprains and strains ranked second at 11.6% in 2007 and 11.8% in 2009.
- Burns, corrosions, scalds and frostbites came in third at 10.1% both in 2007 and 2009.
- Most of these two types of injuries, as well as the other types, were also most common in manufacturing.

More than half of injuries affected upper extremities

- More than half (56.5%) of cases of occupational injuries with workdays lost in 2009 affected upper extremities of the body, higher by 6.4 percentage points than the 50.1% reported in 2007. (Table 2)
- Majority of occupational injuries affecting these body parts were reported in manufacturing at 68.7% in 2007 and 61.8% in 2009.
- Least share of injuries affecting upper extremities was in financial intermediation in 2007 and in other community, social and personal service activities in 2009 at 0.1% each year.
- Lower extremities were the second most commonly affected body parts accounting for 25.3% and 18.1% of total occupational injuries in 2007 and 2009, respectively.

- Similarly, manufacturing accounted for the largest share of occupational injuries affecting these body parts both in 2007 and 2009.
- The lowest share of injuries in lower extremities was noted in private health services at 0.3% in 2007 and in other community, social and personal service activities at 0.1% in 2009.
- The distribution of other parts of the body affected by occupational injuries were as follows:

| Parts of Body Injured | 2007 | 2009 |
|---|--------|--------|
| TOTAL | 20,386 | 17,713 |
| Head | 12.9 | 13.9 |
| Neck | 1.3 | 1.3 |
| Back | 3.6 | 5.0 |
| Trunk or Internal Organs | 3.2 | 2.6 |
| Multiple Body or Multiple Sites Equally | | |
| Injured | 3.7 | 2.6 |

More than a quarter of injuries in 2009 caused by stepping on, striking against or struck by objects, excluding falling objects

- More than a quarter (4,620 or 26.1%) of injuries in 2009 was caused by stepping on, striking against or struck by objects a significant drop of 25.1% from the 6,167 cases recorded in 2007. (Table 3)
- Of this cause of injury, manufacturing reported the highest share at 59.9% in 2007 and 57.3% in 2009. This was followed by transport, storage and communications at 11.6% in 2007 and 9.6% in 2009.
- Caught in or between objects ranked as the second most common cause of injuries at 19.3% in 2007 and 21.3% in 2009.
- This was most prevalent also in manufacturing at 78.6% and 73.1%, respectively.
- The rest of the industry groups posted injuries attributed to this cause ranging from 0.1% to 6.7% in 2007 and 0.03% to 12.1% in 2009.

One out of four injuries due to machines and equipment

- One out of every four (24.8%) cases of occupational injuries reported in 2009 was due to machine and equipment operations, slightly lower than the 26.9% reported in 2007. (Table 4)
- Materials and objects used emerged as the second most common agents of injuries in 2007 (23.4%) and 2009 (21.4%).
- Injuries caused by use of hand tools ranked third with 17.5% of all cases in 2007 and 19.4% in 2009.

The distribution of other agents of workrelated injuries were as follows:

| Agent of Injury | 2007 | 2009 |
|------------------------------|--------|--------|
| TOTAL | 20,386 | 17,713 |
| Buildings, Structures | 5.9 | 6.1 |
| Prime Movers | 2.9 | 2.1 |
| Distribution Systems | 1.8 | 1.4 |
| Conveying/Transport/ | | |
| Packaging Equipment or | | |
| Vehicles | 9.7 | 9.6 |
| Chemical Substances | 6.8 | 4.2 |
| Human, Animals, Plants, etc. | 1.6 | 5.1 |
| Others | 3.5 | 5.8 |

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TABLE 1 - Cases of Occupational Injuries with Workdays Lost in Non-Agricultural Establishments Employing 20 or More Workers by Major Industry Group and Type of Injury,
Philippines: 2007 and 2009

| Major Industry Group | Total | Superficial Injuries and Open Wounds | Fractures | Dislocations, Sprains and Strains | Traumatic Amputations | Concussion and Internal Injuries | Burns, Corrosions, Scalds and Frostbites | Acute Poisoning and Infections | Foreign Body in the Eye | Other Injury |
|--|--------|---|-----------|---|--------------------------|--|---|---|-------------------------------|-----------------|
| 2007 | 20,386 | 10,517 | 1,839 | 2,366 | 234 | 694 | 2,065 | 750 | 1,565 | 356 |
| Mining and Quarrying | 95 | 61 | 25 | - | - | - | 2 | - | 7 | - |
| Manufacturing | 12,427 | 6,918 | 645 | 978 | 147 | 560 | 1,242 | 591 | 1,085 | 260 |
| Electricity, Gas and Water Supply | 731 | 382 | 115 | 52 | 25 | 28 | 43 | 4 | 22 | 60 |
| Construction | 837 | 314 | 112 | 110 | 10 | 4 | 67 | 85 | 133 | 2 |
| Wholesale and Retail Trade; Repair of Motor | | | | | | | | | | |
| Vehicles, Motorcycles and Personal and Household Goods | 1,658 | 1,073 | 129 | 182 | 1 | 7 | 44 | 22 | 195 | 3 |
| Hotels and Restaurants | 1,877 | 1,073 | 457 | 277 | 42 | 23 | 536 | 28 | 35 | 13 |
| Transport, Storage and Communications | 1,701 | 732 | 177 | 556 | 5 | 63 | 80 | 13 | 66 | 8 |
| Financial Intermediation | 48 | 16 | 21 | 11 | 3 | - | - | - | - | - |
| | _ | _ | | | _ | _ | | _ | _ | _ |
| Real Estate, Renting and Business Activities | 325 | 164 | 84 | 32 | 3 | 7 | 17 | 8 | 6 | 6 |
| Private Education Services | 436 | 269 | 35 | 116 | - | - | 7 | - | 6 | 2 |
| Health and Social Work Except Public Medical, Dental and Other Health Services | 67 | 20 | 29 | 5 | | 1 | 6 | | 2 | 2 |
| Other Community, Social and Personal Service | 07 | 20 | 29 | 3 | - | 1 | 0 | _ | 2 | 2 |
| Activities | 185 | 102 | 9 | 46 | - | _ | 21 | _ | 6 | _ |
| 7.00.710.00 | 100 | 102 | Ü | 10 | | | | | Ü | |
| 2009 | 17,713 | 9,045 | 1,356 | 2,085 | 194 | 589 | 1,781 | 655 | 1,558 | 451 |
| Mining and Quarrying | 127 | 51 | 32 | 4 | 4 | 13 | 9 | - | 11 | 5 |
| Manufacturing | 9,845 | 5,630 | 638 | 910 | 129 | 345 | 872 | 100 | 995 | 225 |
| Electricity, Gas and Water Supply | 561 | 242 | 50 | 44 | 15 | 25 | 128 | 1 | 8 | 46 |
| Construction | 791 | 341 | 107 | 115 | 12 | 29 | 56 | 6 | 124 | 1 |
| Wholesale and Retail Trade; Repair of Motor | | | | | | | | | | |
| Vehicles, Motorcycles and Personal and Household Goods | 1,811 | 1,032 | 119 | 352 | 20 | 36 | 76 | 13 | 115 | 49 |
| Hotels and Restaurants | 1,102 | 475 | 31 | 98 | 20 5 | 18 | 431 | 13 | 34 | 10 |
| Transport, Storage and Communications | 1,333 | 602 | 103 | 202 | J | 85 | 119 | 100 | 117 | 2 |
| Financial Intermediation | 1,333 | 64 | 39 | 33 | - | 1 | 1 19 | - | 117 | 7 |
| Real Estate, Renting and Business Activities | 1,112 | 473 | 212 | 192 | 5 | 30 | 50 | 20 | 116 | 14 |
| Private Education Services | 197 | 99 | 12 | 22 | - | 3 | 13 | 12 | 33 | 2 |
| Health and Social Work Except Public Medical, | | | | | | Ü | | ·- | 30 | - |
| Dental and Other Health Services | 651 | 34 | 10 | 108 | - | 3 | 3 | 399 | 4 | 89 |
| Other Community, Social and Personal Service | | | _ | | | | | | | |
| Activities | 35 | 1 | 2 | 4 | 1 | | 21 | 3 | 3 | - |

Note: Details may not add up to totals due to rounding.

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TABLE 2 - Cases of Occupational Injuries with Workdays Lost in Non-Agricultural Establishments Employing 20 or More Workers by Major Industry Group and Part of Body Injured,
Philippines: 2007 and 2009

| Major Industry Group | Total | Head | Neck | Back | Trunk or Internal Organs | Upper Extremities | Lower Extremities | Multiple Body or Multiple Sites Equally Injured |
|---|----------------------------|--------------------------|----------------------|----------------------|--------------------------------|---------------------------|---------------------------|---|
| 2007 | 20,386 | 2,626 | 263 | 739 | 643 | 10,212 | 5,158 | 745 |
| Mining and Quarrying Manufacturing | 95 12,427 | 17 1,670 | 2 147 | 9 240 | 8 428 | 24 7,016 | 31 2,440 | 5 487 |
| Electricity, Gas and Water Supply Construction Wholesale and Retail Trade: Repair of Motor Vehicles, | 731 837 | 85 169 | 15 - | 15 42 | 12 88 | 187 264 | 357 261 | 59 13 |
| Motorcycles and Personal and Household Goods Hotels and Restaurants Transport, Storage and Communications | 1,658 1,877 1,701 | 201 141 187 | 1 34 40 | 105 170 126 | 5 15 71 | 867 696 723 | 465 753 503 | 13 68 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 Services | 67 | 5 | _ | - | 4 | 38 | 15 | 5 |
| Other Community, Social and Personal Service Activities | 185 | 30 | - | 1 | - | 121 | 32 | 2 |
| 2009 | 17,713 | 2,460 | 239 | 878 | 468 | 10,007 | 3,204 | 457 |
| Mining and Quarrying Manufacturing Electricity, Gas and Water Supply Construction | 127 9,845 561 791 | 27 1,321 54 139 | 2 105 21 10 | 8 360 37 41 | 9 216 7 25 | 39 6,189 212 357 | 32 1,535 182 206 | 11 121 48 13 |
| Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and Household Goods Hotels and Restaurants | 1,811 1,102 | 166 47 | 47 1 | 87 14 | 50 8 | 1,053 874 | 394 154 | 15 |
| Transport, Storage and Communications Financial Intermediation Pool Fototo, Pooting and Punicaca Activities | 1,333 147 | 271 12 | 29 - | 78 1 | 73 - | 521 83 | 352 48 | 9 2 28 |
| Real Estate, Renting and Business Activities Private Education Services Health and Social Work Except Public Medical, Dental | 1,112 197 | 138 47 | 11 2 | 162 2 | 15 7 | 529 99 | 229 39 | 1 |
| and Other Health Services Other Community, Social and Personal Service Activities | 651 35 | 220 20 | 9 | 88 1 | 59 - | 38 12 | 32 2 | 204 |

Note: Details may not add up to totals due to rounding.

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TABLE 3 - Cases of Occupational Injuries with Workdays Lost in Non-Agricultural Establishments Employing 20 or More Workers by Major Industry Group and Cause of Injury, Philippines: 2007 and 2009

| Major Industry Group | Totals | 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 Substance or Radiation | Others |
|---|-------------|---------------------|------------------------------------|---|------------------------------------|---|---|---|--|-----------|
| 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 | - 1,434 | 5 | - | | - 1,475 |
| 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 17 | 99 | 113 |
| Transport, Storage and Communications Financial Intermediation | 1,701 48 | 175 14 | 118 | 715 10 | 125 | 174 | 54 | 17 | 29 4 | 294 19 |
| | 325 | 114 | - | - | 40 | - 12 | - | _ | 47 | 36 |
| Real Estate, Renting and Business Activities Private Education Services | 436 | 52 | 22 21 | 65 155 | 13 86 | 13 63 | 6 2 | 8 7 | 6 | 44 |
| Health and Social Work Except Public Medical, | 430 | 32 | 21 | 133 | 00 | 03 | 2 | · | 0 | 44 |
| Dental and Other Health Services | 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 |
| | | | | | | | | | | |
| 2009 | 17,713 | 1,707 | 1,331 | 4,620 | 3,772 | 1,512 | 1,644 | 367 | 506 | 2,255 |
| Mining and Quarrying | 127 | 11 | 44 | 20 | 26 | 8 | 3 | 6 | | 11 |
| Manufacturing | 9,845 | 721 | 818 | 2,646 | 2,759 | 699 | 881 | 100 | 289 | 932 |
| Electricity, Gas and Water Supply | 561 | 120 | 39 | 129 | 82 | 11 | 9 | 82 | 12 | 77 |
| Construction | 791 | 164 | 103 | 243 | 94 | 39 | 40 | 39 | 57 | 12 |
| Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and | | | | | | | | | | |
| Household Goods | 1,811 | 170 | 46 | 368 | 458 | 388 | 39 | 6 | 18 | 318 |
| Hotels and Restaurants | 1,102 | 113 | 41 | 270 | 66 | 32 | 452 | 42 | 16 | 71 |
| Transport, Storage and Communications | 1,333 | 100 | 99 | 445 | 142 | 191 | 138 | 36 | 15 | 168 |
| Financial Intermediation | 147 | 18 | 3 | - | 2 | 3 | - | - | - | 121 |
| Real Estate, Renting and Business Activities | 1,112 | 239 | 123 | 395 | 128 | 30 | 66 | 35 | 18 | 79 |
| Private Education Services | 197 | 25 | 12 | 90 | 11 | 11 | 12 | 14 | 17 | 4 |
| Health and Social Work Except Public Medical, | | | | | | | | 1 | |] |
| Dental and Other Health Services | 651 | 24 | 3 | 11 | 3 | 100 | 2 | 1 | 61 | 445 |
| Other Community, Social and Personal Service | 0.5 | _ | | | _ | | | | | 100 |
| Activities | 35 | 4 | - | 3 | 1 | - | 1 | 6 | 2 | 18 |

Note: Details may not add up to totals due to rounding.

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TABLE 4 - Cases of Occupational Injuries with Workdays Lost in Non-Agricultural Establishments Employing 20 or More Workers by Major Industry Group and Agent of Injury,
Philippines: 2007 and 2009

| Major Industry Group | Total | Buildings, Structures | Prime Movers | Distribution Systems | Hand Tools | Machines, Equipments | Conveying/ Transport/ Packaging Equipment or Vehicles | Material/ Objects | Chemical Substances | Human, Animal, Plants, etc. | Others |
|---|--------|--------------------------|-----------------|-------------------------|---------------|-------------------------|---|----------------------|------------------------|--------------------------------------|--------|
| 2007 | 20,386 | 1,195 | 592 | 369 | 3,576 | 5,486 | 1,977 | 4,765 | 1,382 | 33 3 | 712 |
| Mining and Quarrying | 95 | 7 | 2 | 303 | 3,370 | 15 | 2 | 40 | 1,302 | | 712 |
| Willing and Quarrying | 33 | , | _ | | 30 | | _ | 40 | | 14 | |
| Manufacturing | 12,427 | 463 | 130 | 226 | 2,163 | 3,962 | 655 | 3,261 | 967 | 7 | 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 | 76 54 | 13 | 393 | 459 | 367 | 292 | 250 | 18 | 8 |
| Financial Intermediation | 48 | 1 | - | - | - | | 37 | - | | 10 | _ |
| | _ | | 4.4 | | 40 | 40 | | 404 | 4.0 | | 4.5 |
| Real Estate, Renting and Business Activities | 325 | 63 | 11 | = | 10 | 49 | 34 | 131 | 12 | - | 15 |
| Private Education Services Health and Social Work Except Public Medical, | 436 | 33 | 25 | = | 132 | 15 | 43 | 140 | 2 | 33 | 14 |
| Dental and Other Health Services | 67 | 2 | | | 1 | 17 | 6 | 15 | 10 | 10 | 5 |
| Other Community, Social and Personal Service | 07 | 2 | _ | - | ' | 17 | 0 | 13 | 10 | 10 | 3 |
| Activities | 185 | 41 | 1 | 1 | 16 | 23 | 16 | 44 | 19 | 4 | 20 |
| | | | | | | | | | | 91 | |
| 2009 | 17,713 | 1,082 | 379 | 245 | 3,432 | 4,401 | 1,707 | 3,782 | 749 | 1 | 1,024 |
| Mining and Quarrying | 127 | 11 | 7 | 3 | 19 | 13 | 17 | 33 | 4 | 24 | 22 |
| Manufacturing | 9,845 | 411 | 148 | 140 | 1,955 | 2,983 | 856 | 2,208 | 482 | 9 | 414 |
| Electricity, Gas and Water Supply | 561 | 22 | 106 | 12 | 73 | 73 | 116 | 78 | 20 | 33 | 30 |
| Construction | 791 | 194 | 34 | 58 | 126 | 82 | 26 | 180 | 61 | 18 | 12 |
| Wholesale and Retail Trade; Repair of Motor Vehicles, Motorcycles and Personal and | | | | | 5 | 32 | | .00 | | | |
| Household Goods | 1,811 | 86 | 2 | 3 | 485 | 354 | 156 | 506 | 34 | 49 | 137 |
| Hotels and Restaurants | 1,102 | 62 | 8 | 7 | 294 | 315 | 24 | 183 | 66 | 24 | 120 |
| Transport, Storage and Communications | 1,333 | 77 | 17 | 22 | 212 | 236 | 233 | 321 | 25 | 18 | 172 |
| Financial Intermediation | 147 | | | = | | 17 | 78 | 3 | 1 | 11 | 30 |
| Real Estate, Renting and Business Activities | 1,112 | 175 | 54 | - | 214 | 237 | 137 | 165 | 27 | 81 | 24 |
| Private Education Services | 197 | 16 | - | = | 47 | 9 | 13 | 78 | 24 | 4 | 4 |
| Health and Social Work Except Public Medical, | | | | | | | | | | 42 | |
| Dental and Other Health Services | 651 | 17 | 3 | 1 | 5 | 69 | 53 | 20 | 3 | 4 | 56 |
| Other Community, Social and Personal Service | 0.5 | _ | _ | | ^ | _ | | _ | 1 |] | |
| Activities | 35 | 4 | 1 | - | 2 | 5 | - | 9 | 1 | _ | 3 |

Note: Details may not add up to totals due to rounding.