

REPORT TO THE LEGISLATURE
OCCUPATIONAL INJURIES, ILLNESSES
AND FATALITIES IN MICHIGAN

Developed by
Michigan Occupational Safety and Health Administration
Department of Licensing & Regulatory Affairs

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MICHIGAN OCCUPATIONAL INJURIES, ILLNESSES AND FATALITIES

JANUARY 2012

INTRODUCTION

The information that follows is presented in response to Section 340 of Public Act 186 of 2011. This section requires that the Department of Licensing & Regulatory Affairs (LARA), Michigan Occupational Safety and Health Administration (MIOSHA), provide an annual report by February 1 of each year "...to the appropriate house and senate appropriations subcommittees and the fiscal agencies on the number of individuals injured on the job within industries related to MIOSHA during the preceding calendar year."

"PROGRAM-RELATED" FATALITIES

The agency records "program-related" fatalities. In general, this means that the incident related to the fatality may have resulted from a hazard or hazards that occurred based upon a failure to adhere to one or more MIOSHA requirement. There were 36 such fatalities in Michigan during calendar year 2011. (See the following table for data and definitions.)

WORKPLACE INJURIES AND ILLNESSES

A complete census of occupational illnesses and injuries for Michigan does not exist. However, the agency cooperates with the U.S. Bureau of Labor Statistics to sample Michigan's employers to produce annual estimates of the number of occurrences of work-related illness and injuries. The 2011 survey collected the 2010 illness and injury occurrences of 6,500 Michigan employers. The employer sample was stratified by industry and the results were used to project total occurrence estimates. The seven page table that follows the fatality data presents the results. Footnotes at the end of the table provide additional information about the methodology used. The sample excludes self-employed individuals, railroads, selected mining industries and the federal government.

INQUIRIES

Questions about these data may be directed to the Management Information Systems Section (MISS), Management & Technical Services Division (MTSD), MIOSHA (517) 322-1850.

**MIOSHA Program-Related Fatalities
Calendar Year 2011**

| | |
|--|------------------|
| <u>General Industry Safety and Health</u> | 26 |
| <u>Construction Safety and Health</u> | <u>10</u> |
| TOTAL | 36 |

Note: Data current as of 01/12/12.

Source: MISS, MTSD, LARA

NOTE: A fatality is recorded as “program-related” if the deceased party was employed in an occupation included in MIOSHA jurisdiction as defined in Public Act 154 of 1974, as amended, and the fatality appears to be related to one or more of the following conditions:

1. The incident was found to have resulted from violations of MIOSHA safety and health standards or the general duty clause.
2. The incident was considered to be the result of a failure to follow a good safety and health practice that would be the subject of a safety and health recommendation.
3. The information describing the incident is insufficient to make a clear distinction between a “program-related” and “non-program-related” incident, but the type and nature of the injury indicates that there is a high probability that the injury was the result of a failure to adhere to one or more MIOSHA standard, the general duty clause, or good safety and health practice.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2010

Michigan

(In thousands)

| Industry ¹ | NAICS code ² | 2010 Average annual employment ³ | Total recordable cases | Cases with days away from work, job transfer, or restriction | | | Other recordable cases |
|--|-------------------------|---|------------------------|--|---|--|------------------------|
| | | | | Total | Cases with days away from work ⁴ | Cases with job transfer or restriction | |
| All industries including State and local government⁵ | | 3,687.1 | 126.8 | 61.1 | 33.3 | 27.8 | 65.7 |
| Private industry⁵ | | 3,160.6 | 106.8 | 51.4 | 26.8 | 24.5 | 55.4 |
| Goods-producing⁵ | | 607.7 | 32.1 | 16.1 | 7.5 | 8.6 | 16.0 |
| Natural resources and mining^{5,6} | | 28.0 | 1.1 | 0.8 | 0.6 | 0.2 | 0.4 |
| Agriculture, forestry, fishing and hunting⁵ | 11 | 22.4 | 1.0 | 0.7 | 0.5 | 0.2 | 0.3 |
| Crop production (scope changed in 2009) ⁵ | 111 | 13.5 | 0.4 | 0.1 | 0.1 | 0.1 | 0.2 |
| Animal production (scope changed in 2009) ⁵ | 112 | 4.7 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |
| Mining⁶ | 21 | 5.6 | 0.1 | 0.1 | (⁹) | (⁹) | (⁹) |
| Construction | | 122.1 | 4.2 | 2.1 | 1.6 | 0.6 | 2.1 |
| Construction | 23 | 122.1 | 4.2 | 2.1 | 1.6 | 0.6 | 2.1 |
| Construction of buildings | 236 | 26.5 | 0.8 | 0.3 | 0.2 | 0.1 | -- |
| Heavy and civil engineering construction | 237 | 14.0 | 0.8 | 0.4 | 0.3 | 0.1 | 0.4 |
| Specialty trade contractors | 238 | 81.6 | 2.6 | 1.4 | 1.1 | -- | 1.2 |
| Manufacturing | | 457.7 | 26.8 | 13.2 | 5.4 | 7.8 | 13.6 |
| Manufacturing | 31-33 | 457.7 | 26.8 | 13.2 | 5.4 | 7.8 | 13.6 |
| Food manufacturing | 311 | 32.3 | 1.7 | 1.1 | 0.3 | 0.8 | 0.6 |
| Beverage and tobacco product manufacturing | 312 | 4.6 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 |
| Textile product mills (scope changed in 2009) | 314 | 1.9 | (⁹) | (⁹) | (⁹) | (⁹) | (⁹) |
| Wood product manufacturing | 321 | 7.6 | 0.6 | 0.4 | 0.2 | 0.2 | 0.2 |
| Paper manufacturing | 322 | 11.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.2 |
| Printing and related support activities | 323 | 14.3 | 0.5 | 0.3 | 0.2 | 0.1 | 0.2 |

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2010 -- Continued

| Michigan | | | | | | | |
|---|-------------------------|---|------------------------|--|---|--|------------------------|
| (In thousands) | | | | | | | |
| Industry ¹ | NAICS code ² | 2010 Average annual employment ³ | Total recordable cases | Cases with days away from work, job transfer, or restriction | | | Other recordable cases |
| | | | | Total | Cases with days away from work ⁴ | Cases with job transfer or restriction | |
| Petroleum and coal products manufacturing | 324 | 1.3 | (⁹) | (⁹) | -- | (⁹) | (⁹) |
| Chemical manufacturing | 325 | 25.3 | 0.9 | 0.5 | 0.2 | 0.3 | 0.4 |
| Plastics and rubber products manufacturing (scope changed in 2009) | 326 | 28.1 | 1.6 | 0.8 | 0.4 | 0.5 | 0.7 |
| Nonmetallic mineral product manufacturing | 327 | 10.6 | 0.5 | 0.2 | 0.1 | 0.1 | 0.2 |
| Primary metal manufacturing | 331 | 16.8 | 1.4 | 0.8 | 0.4 | 0.4 | 0.6 |
| Fabricated metal product manufacturing | 332 | 60.6 | 4.7 | 2.1 | 1.1 | 1.1 | 2.6 |
| Machinery manufacturing (scope changed in 2009) | 333 | 54.0 | 2.7 | 1.1 | 0.4 | 0.6 | 1.6 |
| Computer and electronic product manufacturing | 334 | 17.3 | 0.5 | 0.2 | 0.1 | 0.1 | 0.3 |
| Electrical equipment, appliance, and component manufacturing | 335 | 9.2 | 0.3 | 0.1 | (⁹) | 0.1 | 0.1 |
| Transportation equipment manufacturing (scope changed in 2009) | 336 | 123.9 | 9.1 | 4.2 | 1.4 | 2.7 | 4.9 |
| Furniture and related product manufacturing (scope changed in 2009) | 337 | 19.1 | 0.9 | 0.5 | 0.2 | 0.3 | 0.4 |
| Miscellaneous manufacturing | 339 | 17.2 | 0.6 | 0.3 | 0.1 | 0.2 | 0.2 |
| Service-providing | | 2,552.8 | 74.6 | 35.3 | 19.3 | 16.0 | 39.4 |
| Trade, transportation, and utilities⁸ | | 706.8 | 24.4 | 14.0 | 7.0 | 7.0 | 10.4 |
| Wholesale trade | 42 | 150.4 | 5.4 | 2.6 | 1.2 | 1.4 | 2.8 |
| Merchant wholesalers, durable goods | 423 | 80.3 | 2.4 | 1.0 | 0.5 | 0.6 | 1.4 |
| Merchant wholesalers, nondurable goods | 424 | 45.6 | 2.5 | 1.4 | 0.6 | 0.8 | 1.2 |
| Retail trade | 44-45 | 447.8 | 13.6 | 7.5 | 3.8 | 3.7 | 6.1 |
| Motor vehicle and parts dealers | 441 | 51.2 | 1.9 | 0.7 | 0.5 | 0.1 | 1.2 |
| Furniture and home furnishings stores | 442 | 11.9 | 0.9 | 0.3 | 0.1 | 0.1 | -- |
| Food and beverage stores | 445 | 76.6 | 2.4 | 1.4 | 0.7 | 0.7 | 1.0 |
| Health and personal care stores | 446 | 31.3 | 0.5 | 0.3 | 0.2 | -- | 0.2 |
| Clothing and clothing accessories stores | 448 | 36.8 | 0.4 | 0.1 | 0.1 | -- | 0.3 |
| Sporting goods, hobby, book, and music stores | 451 | 20.5 | 0.3 | 0.1 | (⁹) | 0.1 | 0.1 |
| General merchandise stores | 452 | 110.4 | 3.7 | 2.7 | 1.1 | 1.6 | 1.0 |
| Miscellaneous store retailers | 453 | 22.7 | 0.6 | 0.2 | 0.1 | 0.1 | -- |
| Nonstore retailers | 454 | 8.5 | 0.2 | 0.1 | 0.1 | (⁹) | 0.1 |
| Transportation and warehousing⁸ | 48-49 | 89.0 | 4.9 | 3.6 | 1.8 | 1.8 | 1.3 |

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2010 -- Continued

| Michigan | | | | | | | |
|--|-------------------------|---|------------------------|--|---|--|------------------------|
| (In thousands) | | | | | | | |
| Industry ¹ | NAICS code ² | 2010 Average annual employment ³ | Total recordable cases | Cases with days away from work, job transfer, or restriction | | | Other recordable cases |
| | | | | Total | Cases with days away from work ⁴ | Cases with job transfer or restriction | |
| Air transportation | 481 | 13.1 | 0.9 | 0.8 | 0.5 | 0.3 | 0.2 |
| Rail transportation ⁸ | 482 | -- | 0.1 | (⁹) | (⁹) | (⁹) | (⁹) |
| Water transportation | 483 | 0.6 | (⁹) | (⁹) | (⁹) | (⁹) | (⁹) |
| Truck transportation | 484 | 33.6 | 1.8 | 1.4 | 0.8 | 0.6 | 0.4 |
| Transit and ground passenger transportation | 485 | 5.8 | 0.1 | 0.1 | (⁹) | (⁹) | (⁹) |
| Scenic and sightseeing transportation | 487 | -- | (⁹) | (⁹) | (⁹) | (⁹) | (⁹) |
| Support activities for transportation | 488 | 11.8 | 0.5 | 0.4 | 0.2 | 0.2 | 0.1 |
| Couriers and messengers | 492 | 10.3 | 0.5 | 0.2 | 0.1 | 0.1 | 0.3 |
| Warehousing and storage | 493 | 11.9 | 0.9 | 0.7 | 0.2 | 0.5 | 0.2 |
| Utilities | 22 | 19.6 | 0.5 | 0.2 | 0.1 | 0.1 | 0.3 |
| Utilities | 221 | 19.6 | 0.5 | 0.2 | 0.1 | 0.1 | 0.3 |
| Information | | 54.9 | 1.2 | 0.6 | 0.4 | 0.2 | -- |
| Information | 51 | 54.9 | 1.2 | 0.6 | 0.4 | 0.2 | -- |
| Publishing industries (except Internet) | 511 | 16.7 | 0.2 | 0.1 | (⁹) | 0.1 | 0.1 |
| Telecommunications (scope changed in 2009) | 517 | 21.8 | 0.6 | 0.4 | 0.3 | 0.1 | 0.1 |
| Financial activities | | 181.7 | 2.9 | 1.2 | 0.6 | 0.5 | 1.7 |
| Finance and insurance | 52 | 133.3 | 1.0 | 0.3 | 0.3 | 0.1 | 0.7 |
| Monetary authorities - central bank | 521 | -- | (⁹) | (⁹) | (⁹) | (⁹) | (⁹) |
| Credit intermediation and related activities | 522 | 68.8 | 0.7 | 0.2 | 0.1 | -- | 0.6 |
| Insurance carriers and related activities | 524 | 50.7 | 0.3 | 0.2 | -- | (⁹) | 0.1 |
| Real estate and rental and leasing | 53 | 48.4 | 1.9 | 0.8 | 0.3 | 0.5 | 1.0 |
| Real estate (scope changed in 2009) | 531 | 34.6 | 1.3 | 0.5 | 0.3 | 0.2 | 0.8 |
| Rental and leasing services | 532 | 13.0 | 0.6 | 0.3 | -- | 0.2 | 0.2 |
| Lessors of nonfinancial intangible assets (except copyrighted works) | 533 | 0.8 | (⁹) | (⁹) | (⁹) | (⁹) | (⁹) |
| Professional and business services | | 501.2 | 10.2 | 4.6 | 3.3 | 1.2 | 5.6 |

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2010 -- Continued

| Michigan | | | | | | | |
|---|-------------------------|---|------------------------|--|---|--|------------------------|
| (In thousands) | | | | | | | |
| Industry ¹ | NAICS code ² | 2010 Average annual employment ³ | Total recordable cases | Cases with days away from work, job transfer, or restriction | | | Other recordable cases |
| | | | | Total | Cases with days away from work ⁴ | Cases with job transfer or restriction | |
| Professional, scientific, and technical services | 54 | 222.1 | 2.1 | 0.6 | 0.3 | 0.3 | 1.5 |
| Management of companies and enterprises | 55 | 51.5 | 0.5 | 0.2 | 0.1 | 0.1 | 0.3 |
| Administrative and support and waste management and remediation services | 56 | 227.5 | 7.6 | 3.8 | 2.9 | 0.9 | 3.8 |
| Administrative and support services (scope changed in 2009) | 561 | 217.4 | 7.0 | 3.3 | 2.5 | 0.8 | 3.7 |
| Waste management and remediation services | 562 | 10.1 | 0.6 | 0.4 | 0.3 | -- | 0.1 |
| Education and health services | | 591.9 | 25.5 | 10.6 | 5.3 | 5.3 | 14.9 |
| Educational services | 61 | 61.9 | 0.8 | 0.2 | 0.1 | 0.1 | 0.5 |
| Educational services | 611 | 61.9 | 0.8 | 0.2 | 0.1 | 0.1 | 0.5 |
| Health care and social assistance | 62 | 529.9 | 24.7 | 10.4 | 5.2 | 5.2 | 14.3 |
| Ambulatory health care services | 621 | 186.3 | 3.1 | 1.3 | 1.0 | 0.2 | 1.9 |
| Hospitals | 622 | 188.8 | 12.2 | 4.1 | 2.1 | 2.1 | 8.1 |
| Nursing and residential care facilities | 623 | 98.6 | 8.0 | 4.2 | 1.7 | 2.5 | 3.8 |
| Social assistance | 624 | 56.2 | 1.4 | 0.8 | 0.4 | 0.4 | 0.6 |
| Leisure and hospitality | | 391.7 | 8.3 | 3.3 | 1.9 | 1.5 | 5.0 |
| Arts, entertainment, and recreation | 71 | 54.8 | 1.3 | 0.7 | 0.4 | 0.3 | 0.6 |
| Performing arts, spectator sports, and related industries | 711 | 8.8 | 0.4 | 0.2 | 0.1 | 0.1 | 0.2 |
| Museums, historical sites, and similar institutions | 712 | 3.7 | 0.1 | 0.1 | (⁹) | (⁹) | 0.1 |
| Amusement, gambling, and recreation industries | 713 | 42.4 | 0.8 | 0.4 | 0.3 | 0.2 | 0.4 |
| Accommodation and food services | 72 | 336.9 | 7.0 | 2.7 | 1.5 | 1.2 | 4.3 |
| Accommodation | 721 | 42.7 | 1.5 | 0.9 | 0.4 | 0.5 | 0.6 |
| Food services and drinking places | 722 | 294.3 | 5.5 | 1.7 | 1.1 | 0.7 | 3.8 |
| Other services | | 124.8 | 2.2 | 1.0 | 0.8 | 0.2 | 1.1 |

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2010 -- Continued

Michigan

(In thousands)

| Industry ¹ | NAICS code ² | 2010 Average annual employment ³ | Total recordable cases | Cases with days away from work, job transfer, or restriction | | | Other recordable cases |
|--|-------------------------|---|------------------------|--|---|--|------------------------|
| | | | | Total | Cases with days away from work ⁴ | Cases with job transfer or restriction | |
| Other services, except public administration | 81 | 124.8 | 2.2 | 1.0 | 0.8 | 0.2 | 1.1 |
| Repair and maintenance | 811 | 34.4 | 0.7 | 0.3 | 0.2 | (⁹) | -- |
| Personal and laundry services | 812 | 36.7 | 0.7 | 0.3 | 0.1 | 0.1 | -- |
| State and local government | | 526.6 | 20.0 | 9.7 | 6.4 | 3.3 | 10.3 |
| State government | | 144.3 | 4.3 | 2.0 | 1.3 | 0.7 | 2.3 |
| Service-providing | | 144.3 | 4.3 | 2.0 | 1.3 | 0.7 | 2.3 |
| Education and health services | | 103.0 | 3.3 | 1.3 | 0.7 | 0.6 | 2.0 |
| Educational services | 61 | 77.4 | 1.7 | 0.7 | 0.3 | 0.3 | 1.1 |
| Educational services | 611 | 77.4 | 1.7 | 0.7 | 0.3 | 0.3 | 1.1 |
| Health care and social assistance | 62 | 25.6 | 1.6 | 0.6 | 0.3 | 0.3 | 1.0 |
| Hospitals | 622 | 16.9 | 1.2 | 0.4 | 0.2 | 0.2 | 0.8 |
| Public administration | | 39.2 | 1.0 | 0.8 | 0.7 | 0.1 | 0.2 |
| Public administration | 92 | 39.2 | 1.0 | 0.8 | 0.7 | 0.1 | 0.2 |
| Justice, public order, and safety activities | 922 | 17.5 | 0.8 | 0.6 | 0.5 | 0.1 | 0.1 |
| Local government | | 382.3 | 15.7 | 7.7 | 5.1 | 2.6 | 8.0 |
| Goods-producing ⁵ | | 4.9 | 0.3 | 0.1 | 0.1 | (⁹) | 0.2 |
| Service-providing | | 377.4 | 15.4 | 7.5 | 5.0 | 2.5 | 7.9 |
| Trade, transportation, and utilities ⁸ | | 5.3 | 0.3 | 0.2 | 0.2 | (⁹) | 0.1 |

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2010 -- Continued

Michigan

(In thousands)

| Industry ¹ | NAICS code ² | 2010 Average annual employment ³ | Total recordable cases | Cases with days away from work, job transfer, or restriction | | | Other recordable cases |
|---|-------------------------|---|------------------------|--|---|--|------------------------|
| | | | | Total | Cases with days away from work ⁴ | Cases with job transfer or restriction | |
| Transportation and warehousing⁸ | 48-49 | 3.9 | 0.2 | 0.1 | 0.1 | -- | 0.1 |
| Transit and ground passenger transportation | 485 | 3.8 | 0.2 | 0.1 | 0.1 | -- | 0.1 |
| Utilities | 22 | 1.3 | 0.1 | 0.1 | (⁹) | (⁹) | 0.1 |
| Utilities | 221 | 1.3 | 0.1 | 0.1 | (⁹) | (⁹) | 0.1 |
| Education and health services | | 245.3 | 8.0 | 4.0 | 2.4 | 1.6 | 4.0 |
| Educational services | 61 | 223.2 | 6.5 | 3.1 | 2.1 | -- | 3.3 |
| Educational services | 611 | 223.2 | 6.5 | 3.1 | 2.1 | -- | 3.3 |
| Health care and social assistance | 62 | 22.1 | 1.5 | 0.9 | 0.3 | 0.6 | 0.6 |
| Hospitals | 622 | 13.1 | 0.6 | 0.2 | 0.1 | 0.1 | 0.4 |
| Nursing and residential care facilities | 623 | 6.7 | 0.9 | 0.6 | -- | 0.5 | 0.2 |
| Public administration | | 119.2 | 6.9 | 3.2 | 2.4 | 0.8 | 3.7 |

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2010 -- Continued

Michigan

(In thousands)

| Industry ¹ | NAICS code ² | 2010 Average annual employment ³ | Total recordable cases | Cases with days away from work, job transfer, or restriction | | | Other recordable cases |
|--|-------------------------|---|------------------------|--|---|--|------------------------|
| | | | | Total | Cases with days away from work ⁴ | Cases with job transfer or restriction | |
| Public administration | 92 | 119.2 | 6.9 | 3.2 | 2.4 | 0.8 | 3.7 |
| Justice, public order, and safety activities | 922 | 1.2 | (⁹) | (⁹) | (⁹) | (⁹) | (⁹) |

¹ Totals include data for industries not shown separately.

² *North American Industry Classification System* -- United States, 2007 Edition

³ Employment is expressed as an annual average and is derived primarily from the BLS-State Quarterly Census of Employment and Wages.

⁴ Days-away-from-work cases include those that result in days away from work with or without job transfer or restriction.

⁵ Excludes farms with fewer than 11 employees.

⁶ Data for mining (Sector 21 in the *North American Industry Classification System* -- United States, 2007) include establishments not governed by the Mine Safety and Health Administration (MSHA) rules and reporting, such as those in oil and gas extraction and related support activities. Data for mining operators in coal, metal, and nonmetal mining are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded from the coal, metal, and nonmetal mining industries. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁷ Data for mining operators in this industry are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor. Independent mining contractors are excluded. These data do not reflect the changes the Occupational Safety and Health Administration made to its recordkeeping requirements effective January 1, 2002; therefore estimates for these industries are not comparable to estimates in other industries.

⁸ Data for employers in rail transportation are provided to BLS by the Federal Railroad Administration, U.S. Department of Transportation.

⁹ Data too small to be displayed.

NOTE: Because of rounding, components may not add to totals. Dash indicates data do not meet publication guidelines.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor, Survey of Occupational Injuries and Illnesses, in cooperation with participating State agencies.