

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

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

**January 10, 2013**

# MICHIGAN OCCUPATIONAL INJURIES, ILLNESSES, AND FATALITIES

JANUARY 2013

## INTRODUCTION

The information that follows is presented in response to Section 340 of Public Act 200 of 2012. This section requires that the Department of Licensing and 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 24 such fatalities in Michigan during calendar year 2012. (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 2012 survey collected the 2011 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, select mining industries, and the federal government.

## INQUIRIES

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

**MIOSHA Program-Related Fatalities  
Calendar Year 2012**

<b><u>General Industry Safety and Health</u></b>	<b>17</b>
<b><u>Construction Safety and Health</u></b>	<b><u>7</u></b>
<b>TOTAL</b>	<b>24</b>

**Note: Data current as of 01/10/13.**

**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:**

The incident was found to have resulted from violations of MIOSHA safety and health standards or the general duty clause.

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.

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, 2011

Michigan

(In thousands)

Industry <sup>1</sup>	NAICS code <sup>2</sup>	2011 Average annual employment <sup>3</sup>	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
				Total	Cases with days away from work <sup>4</sup>	Cases with job transfer or restriction	
<b>All industries including State and local government<sup>5</sup></b> .....		3,730.2	115.1	55.1	30.2	24.9	60.0
<b>Private industry<sup>5</sup></b> .....		3,219.6	97.4	46.6	24.8	21.9	50.8
<b>Goods-producing<sup>5</sup></b> .....		629.8	31.3	15.8	8.1	7.7	15.4
<b>Natural resources and mining<sup>5,6</sup></b> .....		27.5	1.5	1.0	0.8	0.2	0.5
<b>Agriculture, forestry, fishing and hunting<sup>5</sup></b> .....	11	21.7	1.4	0.9	0.7	0.2	0.5
Crop production (scope changed in 2009) <sup>5</sup> .....	111	12.7	0.7	0.3	0.2	0.1	0.3
Animal production (scope changed in 2009) <sup>5</sup> .....	112	4.9	0.3	0.2	0.2	( <sup>9</sup> )	0.1
Support activities for agriculture and forestry .....	115	2.4	0.2	0.2	( <sup>9</sup> )	0.1	( <sup>9</sup> )
<b>Mining<sup>6</sup></b> .....	21	5.8	0.1	0.1	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
<b>Construction</b> .....		124.4	2.8	1.6	1.2	0.4	1.2
<b>Construction</b> .....	23	124.4	2.8	1.6	1.2	0.4	1.2
Construction of buildings .....	236	27.2	0.6	0.4	--	0.1	0.2
Heavy and civil engineering construction .....	237	14.0	0.2	0.1	0.1	--	0.1
Specialty trade contractors .....	238	83.2	2.0	1.1	0.8	0.3	0.9
<b>Manufacturing</b> .....		477.8	27.0	13.2	6.1	7.1	13.7
<b>Manufacturing</b> .....	31-33	477.8	27.0	13.2	6.1	7.1	13.7
Food manufacturing .....	311	32.6	1.7	1.1	0.3	0.7	0.7
Beverage and tobacco product manufacturing .....	312	4.7	0.4	0.3	0.2	0.2	0.1
Wood product manufacturing .....	321	7.9	0.4	0.3	0.1	0.1	0.2
Paper manufacturing .....	322	11.4	0.6	0.3	0.2	0.1	0.3
Printing and related support activities .....	323	14.1	0.3	0.2	0.1	0.1	0.1

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2011 -- Continued

Michigan

(In thousands)

Industry <sup>1</sup>	NAICS code <sup>2</sup>	2011 Average annual employment <sup>3</sup>	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
				Total	Cases with days away from work <sup>4</sup>	Cases with job transfer or restriction	
Petroleum and coal products manufacturing . . . . .	324	1.3	0.1	( <sup>9</sup> )	--	--	--
Chemical manufacturing . . . . .	325	26.1	0.8	0.4	0.1	0.3	0.4
Plastics and rubber products manufacturing (scope changed in 2009) . . . . .	326	31.8	1.7	1.0	0.4	0.6	0.7
Nonmetallic mineral product manufacturing . . . . .	327	10.8	0.5	0.2	0.1	0.1	0.3
Primary metal manufacturing . . . . .	331	19.7	1.5	0.7	0.5	0.2	0.8
Fabricated metal product manufacturing . . . . .	332	68.1	4.6	2.2	1.1	1.1	2.4
Machinery manufacturing (scope changed in 2009) . . . . .	333	56.4	3.7	1.5	0.7	0.7	2.2
Computer and electronic product manufacturing . . . . .	334	17.5	0.4	0.1	0.1	0.1	0.2
Electrical equipment, appliance, and component manufacturing . . . . .	335	9.8	0.3	0.1	0.1	0.1	0.2
Transportation equipment manufacturing (scope changed in 2009) . . . . .	336	124.5	8.0	3.8	1.6	2.2	4.1
Furniture and related product manufacturing (scope changed in 2009) . . . . .	337	19.2	1.0	0.5	0.3	0.2	0.4
Miscellaneous manufacturing . . . . .	339	17.8	0.7	0.3	0.1	0.2	0.4
<b>Service-providing . . . . .</b>		<b>2,589.8</b>	<b>66.1</b>	<b>30.8</b>	<b>16.6</b>	<b>14.1</b>	<b>35.3</b>
<b>Trade, transportation, and utilities<sup>8</sup> . . . . .</b>		<b>712.2</b>	<b>21.2</b>	<b>12.2</b>	<b>6.7</b>	<b>5.4</b>	<b>9.1</b>
<b>Wholesale trade . . . . .</b>	<b>42</b>	<b>153.8</b>	<b>3.6</b>	<b>2.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.5</b>
Merchant wholesalers, durable goods . . . . .	423	83.6	1.6	0.8	0.4	0.5	0.8
Merchant wholesalers, nondurable goods . . . . .	424	44.9	1.8	1.2	0.6	0.6	0.6
Wholesale electronic markets and agents and brokers . . . . .	425	25.4	0.2	0.1	--	--	0.1
<b>Retail trade . . . . .</b>	<b>44-45</b>	<b>447.2</b>	<b>12.2</b>	<b>6.7</b>	<b>3.6</b>	<b>3.1</b>	<b>5.5</b>
Motor vehicle and parts dealers . . . . .	441	52.1	2.1	0.9	0.7	0.2	1.2
Furniture and home furnishings stores . . . . .	442	12.1	--	0.2	0.2	--	0.1
Building material and garden equipment and supplies dealers . . . . .	444	39.4	1.3	0.9	0.3	0.6	0.4
Food and beverage stores . . . . .	445	75.5	2.0	1.1	0.5	0.6	0.9
Gasoline stations . . . . .	447	24.1	0.2	0.1	--	( <sup>9</sup> )	0.1
Clothing and clothing accessories stores . . . . .	448	37.2	0.4	0.1	0.1	( <sup>9</sup> )	0.3
Sporting goods, hobby, book, and music stores . . . . .	451	20.0	0.2	0.1	( <sup>9</sup> )	( <sup>9</sup> )	0.1
General merchandise stores . . . . .	452	109.9	3.9	2.4	1.0	1.4	1.5
Miscellaneous store retailers . . . . .	453	22.4	0.4	0.2	0.2	( <sup>9</sup> )	0.3
Nonstore retailers . . . . .	454	8.4	0.5	0.3	0.3	--	0.2
<b>Transportation and warehousing<sup>8</sup> . . . . .</b>	<b>48-49</b>	<b>92.0</b>	<b>5.0</b>	<b>3.1</b>	<b>2.0</b>	<b>1.2</b>	<b>1.9</b>

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2011 – Continued

Michigan

(In thousands)

Industry <sup>1</sup>	NAICS code <sup>2</sup>	2011 Average annual employment <sup>3</sup>	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
				Total	Cases with days away from work <sup>4</sup>	Cases with job transfer or restriction	
Air transportation . . . . .	481	14.0	0.6	0.5	0.3	0.2	0.1
Rail transportation <sup>8</sup> . . . . .	482	--	0.1	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
Truck transportation . . . . .	484	36.0	2.1	1.3	0.9	0.3	0.8
Transit and ground passenger transportation . . . . .	485	5.8	0.2	0.1	--	--	0.1
Support activities for transportation . . . . .	488	11.6	0.7	0.5	0.3	0.2	0.2
Couriers and messengers . . . . .	492	10.3	0.4	0.2	0.1	0.1	0.2
Warehousing and storage . . . . .	493	12.2	0.8	0.5	0.2	0.2	0.3
<b>Utilities . . . . .</b>	<b>22</b>	<b>19.2</b>	<b>0.4</b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.2</b>
Utilities . . . . .	221	19.2	0.4	0.2	0.1	0.1	0.2
<b>Information . . . . .</b>		<b>54.4</b>	<b>0.9</b>	<b>0.5</b>	<b>0.2</b>	<b>0.3</b>	<b>0.4</b>
Information . . . . .	51	54.4	0.9	0.5	0.2	0.3	0.4
Publishing industries (except Internet) . . . . .	511	16.3	0.2	0.1	( <sup>9</sup> )	( <sup>9</sup> )	0.1
Telecommunications (scope changed in 2009) . . . . .	517	20.6	0.5	0.3	0.1	0.2	0.2
<b>Financial activities . . . . .</b>		<b>181.4</b>	<b>2.2</b>	<b>1.0</b>	<b>0.5</b>	<b>0.5</b>	<b>1.2</b>
<b>Finance and insurance . . . . .</b>	<b>52</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>
Monetary authorities - central bank . . . . .	521	--	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
Insurance carriers and related activities . . . . .	524	50.9	0.3	0.1	0.1	( <sup>9</sup> )	0.2
<b>Real estate and rental and leasing . . . . .</b>	<b>53</b>	<b>49.0</b>	<b>1.3</b>	<b>0.6</b>	<b>0.3</b>	<b>0.3</b>	<b>0.7</b>
Real estate (scope changed in 2009) . . . . .	531	35.5	0.8	0.4	0.2	0.2	0.4
Rental and leasing services . . . . .	532	12.8	0.5	0.2	0.1	0.1	0.3
<b>Professional and business services . . . . .</b>		<b>538.0</b>	<b>5.3</b>	<b>2.2</b>	<b>1.4</b>	<b>0.8</b>	<b>3.1</b>
<b>Professional, scientific, and technical services . . . . .</b>	<b>54</b>	<b>230.3</b>	<b>2.0</b>	<b>0.6</b>	<b>0.3</b>	<b>0.3</b>	<b>1.4</b>
<b>Management of companies and enterprises . . . . .</b>	<b>55</b>	<b>51.1</b>	<b>0.4</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.3</b>

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2011 – Continued

Michigan

(In thousands)

Industry <sup>1</sup>	NAICS code <sup>2</sup>	2011 Average annual employment <sup>3</sup>	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
				Total	Cases with days away from work <sup>4</sup>	Cases with job transfer or restriction	
<b>Administrative and support and waste management and remediation services . . . .</b>	56	256.5	2.9	1.5	1.0	0.5	1.4
Administrative and support services (scope changed in 2009) . . . . .	561	245.6	2.5	1.2	0.9	0.3	1.3
Waste management and remediation services . . . . .	562	10.9	0.4	0.3	0.2	0.1	0.1
<b>Education and health services . . . . .</b>		596.4	24.5	10.4	5.3	5.0	14.2
<b>Educational services . . . . .</b>	61	63.0	0.9	0.2	0.2	0.1	0.7
Educational services . . . . .	611	63.0	0.9	0.2	0.2	0.1	0.7
<b>Health care and social assistance . . . . .</b>	62	533.4	23.6	10.2	5.2	5.0	13.5
Ambulatory health care services . . . . .	621	187.5	3.6	1.2	0.6	0.6	2.4
Hospitals . . . . .	622	189.4	11.5	4.1	2.2	1.9	7.4
Nursing and residential care facilities . . . . .	623	98.3	6.7	3.9	1.9	2.0	2.7
Social assistance . . . . .	624	58.1	1.9	0.9	0.5	0.5	1.0
<b>Leisure and hospitality . . . . .</b>		391.0	9.8	3.3	1.7	1.5	6.5
<b>Arts, entertainment, and recreation . . . . .</b>	71	54.0	2.2	0.9	0.4	0.5	1.4
Museums, historical sites, and similar institutions . . . . .	712	3.7	0.1	0.1	( <sup>9</sup> )	( <sup>9</sup> )	0.1
Amusement, gambling, and recreation industries . . . . .	713	41.7	1.0	0.4	0.2	0.2	0.6
<b>Accommodation and food services . . . . .</b>	72	337.0	7.6	2.4	1.4	1.1	5.1
Accommodation . . . . .	721	43.2	2.0	1.0	0.4	0.6	1.0
Food services and drinking places . . . . .	722	293.8	5.6	1.4	1.0	0.4	4.1
<b>Other services . . . . .</b>		116.5	2.1	1.2	0.7	0.5	0.9
<b>Other services, except public administration . . . . .</b>	81	116.5	2.1	1.2	0.7	0.5	0.9
Personal and laundry services . . . . .	812	36.4	0.4	0.3	0.1	0.1	0.1

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2011 -- Continued

Michigan

(In thousands)

Industry <sup>1</sup>	NAICS code <sup>2</sup>	2011 Average annual employment <sup>3</sup>	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
				Total	Cases with days away from work <sup>4</sup>	Cases with job transfer or restriction	
Religious, grantmaking, civic, professional, and similar organizations . . . . .	813	45.0	0.5	0.3	0.2	--	0.3
<b>State and local government</b> . . . . .		510.6	17.8	8.5	5.4	3.1	9.3
<b>State government</b> . . . . .		143.9	3.7	1.8	1.1	0.7	1.9
<b>Service-providing</b> . . . . .		143.9	3.7	1.8	1.1	0.7	1.9
<b>Education and health services</b> . . . . .		104.1	2.8	1.1	0.5	0.6	1.8
<b>Educational services</b> . . . . .	61	79.3	1.6	0.6	0.3	0.3	1.0
Educational services . . . . .	611	79.3	1.6	0.6	0.3	0.3	1.0
<b>Health care and social assistance</b> . . . . .	62	24.8	1.3	0.5	0.3	0.2	0.8
Hospitals . . . . .	622	--	1.0	0.4	0.1	0.2	0.7
Nursing and residential care facilities . . . . .	623	--	0.1	0.1	0.1	( <sup>9</sup> )	( <sup>9</sup> )
<b>Public administration</b> . . . . .		37.9	0.9	0.7	0.6	0.1	0.2
<b>Public administration</b> . . . . .	92	37.9	0.9	0.7	0.6	0.1	0.2
Justice, public order, and safety activities . . . . .	922	16.6	0.7	0.6	0.5	0.1	0.1
<b>Local government</b> . . . . .		366.7	14.1	6.7	4.3	2.4	7.3
<b>Goods-producing</b> <sup>5</sup> . . . . .		4.7	0.3	0.2	0.2	--	0.1
<b>Service-providing</b> . . . . .		362.0	13.7	6.5	4.1	2.4	7.2
<b>Trade, transportation, and utilities</b> <sup>8</sup> . . . . .		5.3	0.3	0.2	0.2	( <sup>9</sup> )	0.1
<b>Transportation and warehousing</b> <sup>8</sup> . . . . .	48-49	3.9	0.2	0.2	0.2	--	( <sup>9</sup> )
Transit and ground passenger transportation . . . . .	485	3.8	0.2	0.2	0.2	( <sup>9</sup> )	( <sup>9</sup> )

See footnotes at end of table.

Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2011 -- Continued

Michigan

(In thousands)

Industry <sup>1</sup>	NAICS code <sup>2</sup>	2011 Average annual employment <sup>3</sup>	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
				Total	Cases with days away from work <sup>4</sup>	Cases with job transfer or restriction	
<b>Utilities</b> .....	22	1.3	0.1	0.1	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
Utilities .....	221	1.3	0.1	0.1	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )
<b>Education and health services</b> .....		234.6	8.1	3.7	2.3	1.4	4.5
<b>Educational services</b> .....	61	212.4	6.6	2.6	1.9	0.7	4.0
Educational services .....	611	212.4	6.6	2.6	1.9	0.7	4.0
<b>Health care and social assistance</b> .....	62	22.2	1.5	1.1	0.4	0.7	0.4
Hospitals .....	622	13.1	0.7	0.4	0.2	0.2	0.2
Nursing and residential care facilities .....	623	6.8	0.8	0.6	0.2	0.5	0.2
<b>Public administration</b> .....		114.4	5.2	2.6	1.6	0.9	2.6

See footnotes at end of table.

**Table 2. Numbers of nonfatal occupational injuries and illnesses by selected industries and case types, 2011 -- Continued**

**Michigan**

(In thousands)

Industry <sup>1</sup>	NAICS code <sup>2</sup>	2011 Average annual employment <sup>3</sup>	Total recordable cases	Cases with days away from work, job transfer, or restriction			Other recordable cases
				Total	Cases with days away from work <sup>4</sup>	Cases with job transfer or restriction	
<b>Public administration</b> .....	92	114.4	5.2	2.6	1.6	0.9	2.6
Justice, public order, and safety activities .....	922	1.2	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )

<sup>1</sup> Totals include data for industries not shown separately.

<sup>2</sup> *North American Industry Classification System* -- United States, 2007 Edition

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

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

<sup>5</sup> Excludes farms with fewer than 11 employees.

<sup>6</sup> 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.

<sup>7</sup> 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.

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

<sup>9</sup> 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.