

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses by industry and selected case types, 1999**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1999 Annual average employment <sup>4</sup> (000's)	Injuries and Illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost work-days	Total cases	Lost workday cases		Cases without lost work-days
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
<b>All Industries including State and local government<sup>7</sup></b>		4,443.7	7.8	3.8	1.8	4.0	6.9	3.4	1.6	3.5
<b>Private Industry<sup>7</sup></b>		3,893.6	8.1	3.9	1.8	4.2	7.0	3.4	1.6	3.6
<b>Agriculture, forestry, and fishing<sup>7</sup></b>		45.0	9.0	4.3	2.9	4.7	8.1	4.1	2.7	4.0
Agricultural production <sup>7</sup>	01-02	17.9	9.5	4.7	1.9	4.7	8.4	4.7	1.9	3.8
Agricultural services	07	26.3	8.7	4.1	3.4	4.6	7.9	3.8	3.2	4.1
<b>Mining<sup>8</sup></b>		7.2	6.2	3.3	2.0	3.0	5.9	3.1	1.9	2.8
<b>Construction</b>		193.9	8.3	3.6	3.0	4.7	8.0	3.5	2.8	4.6
General building contractors	15	43.7	6.6	2.7	2.2	3.9	6.2	2.5	1.9	3.8
Residential building construction	152	26.2	4.9	1.9	1.6	3.0	4.3	1.5	1.3	2.7
Nonresidential building construction	154	17.2	9.1	3.9	3.0	5.2	8.9	3.8	2.9	5.2
Heavy construction, except building	16	15.0	11.7	5.2	4.3	6.5	11.1	5.1	4.2	5.9
Heavy construction, except highway	162	10.7	12.3	5.7	4.6	6.6	11.5	5.6	4.6	5.9
Special trade contractors	17	135.2	8.5	3.8	3.1	4.7	8.2	3.6	2.9	4.7
Plumbing, heating, air-conditioning	171	30.9	8.9	2.4	2.0	6.5	8.7	2.2	1.8	6.4
Electrical work	173	26.9	7.5	3.2	2.4	4.3	7.4	3.1	2.3	4.3
Masonry, stonework, and plastering	174	14.8	8.4	4.4	3.7	3.9	7.7	3.8	3.1	3.9
Carpentry and floor work	175	12.6	9.1	3.6	3.6	5.5	9.0	3.5	3.5	5.5
Roofing, siding, and sheet metal work	176	7.7	13.2	7.3	6.1	6.0	12.8	6.9	5.7	5.9
Concrete work	177	12.1	7.8	4.6	3.8	3.2	7.6	4.5	3.7	3.1
Miscellaneous special trade contractors	179	23.2	8.1	4.0	3.1	4.2	8.0	3.9	2.9	4.2
<b>Manufacturing</b>		975.2	13.5	6.4	2.2	7.1	10.5	5.1	1.9	5.3
Durable goods		741.8	14.4	6.5	2.2	8.0	11.2	5.2	1.8	6.0
Lumber and wood products	24	17.8	11.6	6.7	4.0	4.9	10.7	6.3	3.8	4.4
Millwork, plywood and structural members	243	6.8	14.9	9.6	5.3	5.2	14.0	9.1	5.1	4.8
Furniture and fixtures	25	43.0	15.9	8.4	2.9	7.5	12.7	6.5	2.3	6.1
Office furniture	252	21.0	12.1	5.7	1.3	6.4	9.8	4.4	1.0	5.4
Partitions and fixtures	254	4.5	13.1	9.9	3.3	3.1	11.0	8.4	2.7	2.6
Wood partitions and fixtures	2541	2.1	8.8	5.8	1.4	3.0	8.1	5.2	1.3	2.9
Stone, clay, and glass products	32	21.3	11.5	5.2	2.3	6.3	10.0	4.4	2.1	5.7
Products of purchased glass	323	8.6	12.2	6.3	1.6	5.9	9.1	4.5	1.3	4.6
Concrete, gypsum, and plaster products	327	6.3	15.0	6.6	4.6	8.5	14.8	6.4	4.4	8.5
Primary metal industries	33	37.5	17.5	8.5	3.7	9.0	15.9	7.8	3.4	8.1
Blast furnace and basic steel products	331	11.8	11.7	4.5	2.0	7.1	10.4	4.2	1.9	6.1
Blast furnaces and steel mills	3312	8.5	12.9	4.9	1.7	8.0	11.2	4.6	1.6	6.7
Iron and steel foundries	332	10.3	23.7	11.3	5.0	12.3	21.5	9.8	4.4	11.7
Gray and ductile iron foundries	3321	7.3	22.7	10.8	4.8	12.0	21.1	9.9	4.3	11.2
Nonferrous foundries (castings)	336	7.0	17.6	7.5	2.8	10.1	16.4	7.1	2.5	9.3
Fabricated metal products	34	129.9	16.8	7.8	2.5	9.0	15.0	6.9	2.2	8.0
Cutlery, handtools, and hardware	342	5.6	16.2	9.6	4.3	6.6	13.7	7.7	3.2	6.0
Hardware, n.e.c.	3429	4.4	14.5	7.9	3.7	6.5	12.5	6.6	2.8	5.9
Fabricated structural metal products	344	16.0	11.7	6.0	3.0	5.7	10.7	5.3	2.9	5.4
Sheet metal work	3444	5.0	13.2	7.0	3.0	6.2	11.2	5.4	2.7	5.8
Screw machine products, bolts, etc.	345	14.4	17.6	8.3	3.4	9.3	16.4	7.7	3.1	8.7

See footnotes at end of table.

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses by industry and selected case types, 1999 -- Continued**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1999 Annual average employment <sup>4</sup> (000's)	Injuries and Illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost work-days	Total cases	Lost workday cases		Cases without lost work-days
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
Screw machine products	3451	7.5	15.7	7.2	2.6	8.5	13.9	6.3	2.3	7.6
Bolts, nuts, rivets, and washers	3452	6.9	19.5	9.5	4.2	10.0	19.0	9.2	3.9	9.7
Metal forgings and stampings	346	60.4	20.3	8.4	1.9	11.9	18.0	7.5	1.7	10.5
Automotive stampings	3465	54.4	20.0	8.4	1.7	11.7	17.7	7.4	1.5	10.3
Metal services, n.e.c.	347	14.6	13.5	7.9	2.5	5.6	11.6	6.8	1.9	4.8
Plating and polishing	3471	7.5	12.9	8.9	2.8	4.0	11.4	7.8	2.1	3.5
Metal coating and allied services	3479	7.1	14.1	6.9	2.1	7.2	11.9	5.8	1.7	6.1
Miscellaneous fabricated metal products	349	16.6	12.6	6.5	2.8	6.0	11.2	6.1	2.5	5.1
Industrial machinery and equipment	35	132.4	10.6	5.4	2.4	5.2	9.6	5.0	2.2	4.6
Construction and related machinery	353	9.7	12.4	5.9	2.0	6.5	11.7	5.6	1.8	6.1
Metalworking machinery	354	64.0	9.0	4.6	2.1	4.4	8.7	4.5	2.1	4.3
Machine tools, metal cutting types	3541	7.1	9.0	6.0	2.5	3.0	8.7	5.7	2.4	3.0
Special dies, tools, jigs and fixtures	3544	35.0	10.1	4.6	2.3	5.5	9.9	4.5	2.3	5.3
Machine tool accessories	3545	10.3	5.4	2.6	1.3	2.8	5.1	2.5	1.3	2.6
Special industry machinery	355	7.3	10.1	5.3	2.7	4.8	9.5	5.1	2.5	4.4
General industrial machinery	356	12.4	14.5	7.3	3.3	7.2	12.5	6.3	2.7	6.2
Industrial machinery, n.e.c.	359	28.0	12.4	7.1	3.0	5.4	10.5	6.2	2.6	4.3
Carburetors, pistons, rings, valves	3592	6.1	15.8	9.7	4.2	6.2	10.9	7.5	3.2	3.4
Industrial machinery, n.e.c.	3599	18.9	11.2	6.3	2.8	4.9	10.5	5.9	2.6	4.7
Electronic and other electric equipment	36	35.0	10.4	4.5	1.9	5.9	6.8	3.2	1.3	3.6
Household appliances	363	8.0	5.6	2.5	2.3	3.1	--	1.5	1.3	2.7
Electronic components and accessories	367	8.2	6.7	3.9	0.7	2.8	6.0	3.5	0.5	2.6
Miscellaneous electrical equipment and supplies	369	8.2	21.4	7.3	3.2	14.0	9.7	4.0	2.0	5.7
Transportation equipment	37	299.8	15.9	6.3	1.6	9.6	10.4	4.4	1.3	5.9
Motor vehicles and equipment	371	288.0	16.0	6.4	1.6	9.6	10.4	4.5	1.2	5.9
Motor vehicles and car bodies	3711	142.2	17.6	7.3	2.1	10.3	11.7	5.1	1.6	6.6
Motor vehicle parts and accessories	3714	144.0	14.6	5.6	1.2	9.0	9.2	3.9	0.9	5.3
Instruments and related products	38	16.8	6.7	2.4	0.8	4.2	5.9	1.9	0.6	4.0
Measuring and controlling devices	382	8.8	8.7	2.1	0.9	--	8.4	2.0	0.9	--
Medical instruments and supplies	384	4.7	6.5	4.4	0.5	2.1	4.7	2.8	0.2	1.9
Miscellaneous manufacturing industries	39	8.3	9.9	5.7	1.9	4.2	9.0	5.0	1.5	3.9
<b>Nondurable goods</b>		<b>233.5</b>	<b>10.3</b>	<b>6.1</b>	<b>2.5</b>	<b>4.3</b>	<b>8.2</b>	<b>4.9</b>	<b>2.0</b>	<b>3.3</b>
Food and kindred products	20	38.1	12.1	7.9	3.4	4.2	10.6	7.1	3.0	3.6
Meat products	201	5.7	12.0	8.2	1.8	3.8	9.2	6.1	1.2	3.1
Dairy products	202	4.7	10.6	8.4	3.4	2.2	10.0	7.9	3.2	2.1
Preserved fruits and vegetables	203	6.8	9.2	5.2	1.6	4.0	8.2	4.7	1.5	3.5
Grain mill products	204	5.6	7.5	4.2	2.7	3.3	6.7	4.0	2.5	2.7
Bakery products	205	5.6	13.2	9.1	3.7	4.1	11.7	8.3	3.3	3.4
Beverages	208	4.9	16.4	12.1	8.0	4.3	15.1	11.0	7.2	4.1
Apparel and other textile products	23	20.3	16.8	10.3	2.2	6.5	9.4	5.5	1.3	3.9
Miscellaneous fabricated textile products	239	19.8	17.2	10.6	2.3	6.6	9.6	5.6	1.3	4.0
Automotive and apparel trimmings	2396	17.1	19.1	11.7	2.3	7.3	10.7	6.2	1.3	4.5
Paper and allied products	26	20.2	9.0	5.3	2.1	3.8	8.3	5.1	2.0	3.2
Paper mills	262	4.9	5.5	1.9	1.6	3.6	4.9	1.8	1.5	3.1
Paperboard containers and boxes	265	7.3	13.1	9.0	2.2	4.1	12.3	8.9	2.2	3.4
Printing and publishing	27	42.5	6.7	3.8	2.2	2.9	5.7	3.3	2.0	2.5
Newspapers	271	13.8	6.9	4.0	2.7	2.9	5.9	3.6	2.4	2.3
Books	273	5.0	8.5	5.3	2.5	3.2	7.5	4.6	2.3	2.9
Commercial printing	275	16.5	6.1	3.8	1.9	2.3	5.4	3.3	1.7	2.1

See footnotes at end of table.

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses by industry and selected case types, 1999 -- Continued**

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Industry <sup>2</sup>	SIC code <sup>3</sup>	1999 Annual average employment <sup>4</sup> (000's)	Injuries and Illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost work-days	Total cases	Lost workday cases		Cases without lost work-days
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
Commercial printing, lithographic	2752	12.7	6.0	3.7	1.8	2.4	5.4	3.2	1.7	2.2
Chemicals and allied products	28	43.5	5.5	2.8	1.0	2.7	4.3	2.5	0.9	1.9
Plastics materials and synthetics	282	6.1	3.8	2.4	--	1.4	--	2.2	--	--
Drugs	283	14.0	6.3	2.1	1.3	4.2	4.1	1.7	1.0	2.4
Pharmaceutical preparations	2834	13.2	6.0	1.8	1.1	4.2	3.6	1.3	0.9	2.3
Rubber and miscellaneous plastics products	30	62.8	12.4	7.3	3.1	5.0	10.2	5.9	2.3	4.3
Miscellaneous plastics products, n.e.c.	308	52.9	12.6	7.5	3.2	5.1	10.6	6.2	2.4	4.4
Plastics products, n.e.c.	3089	40.2	12.9	7.8	3.2	5.0	10.6	6.2	2.3	4.3
<b>Transportation and public utilities<sup>8</sup></b>		170.6	9.6	5.9	3.1	3.7	9.3	5.7	3.0	3.6
Railroad transportation <sup>8</sup>	40	--	4.5	3.3	2.4	1.2	4.4	3.2	2.4	1.2
Local and interurban passenger transit	41	7.9	16.5	9.9	7.9	6.7	16.4	9.8	7.8	6.6
Trucking and warehousing	42	47.3	10.2	5.5	4.1	4.7	9.9	5.3	3.9	4.6
Transportation by air	45	32.7	15.5	10.7	4.7	4.8	15.1	10.5	4.6	4.7
Transportation services	47	16.4	10.8	7.4	2.4	3.5	10.7	7.3	2.4	3.5
Communications	48	31.5	4.0	2.7	1.0	1.3	3.8	2.6	1.0	1.2
Electric, gas, and sanitary services	49	32.3	7.2	3.8	1.8	3.4	7.0	3.7	1.7	3.3
<b>Wholesale and retail trade</b>		1,056.4	7.0	3.3	1.8	3.6	6.7	3.2	1.7	3.6
Wholesale trade		234.5	8.5	4.1	2.4	4.4	8.1	3.8	2.2	4.2
Wholesale trade--durable goods	50	155.1	7.9	3.4	2.1	4.6	7.5	3.1	2.0	4.4
Wholesale trade--nondurable goods	51	79.4	9.7	5.7	3.0	4.0	9.3	5.4	2.7	3.9
Retail trade		822.0	6.3	3.0	1.5	3.4	6.2	2.9	1.4	3.3
Building materials and garden supplies	52	40.9	8.8	4.8	2.5	4.1	8.6	4.6	2.3	4.0
Lumber and other building materials	521	21.2	9.9	5.3	2.7	4.6	9.7	--	--	4.5
Hardware stores	525	11.3	8.3	4.6	1.9	3.8	8.2	4.4	1.8	3.7
General merchandise stores	53	131.9	8.5	6.1	2.0	2.5	8.2	5.9	1.9	2.4
Food stores	54	103.6	7.1	2.8	1.8	4.4	7.0	2.7	1.7	4.3
Grocery stores	541	88.7	7.2	3.1	1.9	4.2	7.1	3.0	1.9	4.1
Automotive dealers and service stations	55	85.8	5.7	2.4	1.4	3.2	5.5	2.4	1.3	3.1
New and used car dealers	551	40.1	6.0	2.2	1.1	3.7	5.9	2.2	1.1	3.6
Gasoline service stations	554	27.7	4.5	2.1	1.1	2.5	4.4	2.1	1.1	2.4
Apparel and accessory stores	56	35.5	3.4	1.2	0.8	2.2	3.0	0.8	0.4	2.2
Furniture and home furnishings stores	57	35.7	5.8	2.6	1.8	3.2	5.8	2.6	1.8	3.2
Eating and drinking places	58	287.3	6.3	2.0	1.2	4.3	6.2	2.0	1.2	4.3
Miscellaneous retail	59	101.2	3.5	1.7	1.2	1.9	3.4	1.6	1.1	1.8
<b>Finance, insurance, and real estate</b>		201.8	1.7	0.9	0.6	0.7	1.5	0.9	0.6	0.6
Depository institutions	60	62.8	1.1	0.5	0.4	0.6	1.0	0.4	0.3	0.6
Insurance carriers	63	42.2	1.4	0.8	0.5	0.6	1.1	0.7	0.4	0.4
Real estate	65	39.5	4.7	2.8	1.7	1.9	4.4	2.8	1.7	1.7
<b>Services</b>		1,197.4	4.4	2.1	1.1	2.2	4.1	2.0	1.0	2.1
Hotels and other lodging places	70	37.4	9.9	4.3	1.8	5.5	9.4	4.1	1.7	5.3

See footnotes at end of table.

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses by industry and selected case types, 1999 -- Continued**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1999 Annual average employment <sup>4</sup> (000's)	Injuries and Illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost work-days	Total cases	Lost workday cases		Cases without lost work-days
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
Personal services	72	44.0	3.0	1.8	1.0	1.2	2.8	1.7	0.9	1.1
Laundry, cleaning, and garment services	721	15.3	5.9	3.6	1.9	2.3	5.5	3.3	1.7	2.2
Auto repair, services, and parking	75	40.2	5.7	2.4	1.3	3.3	5.5	2.4	1.3	3.2
Automotive repair shops	753	23.4	4.9	2.1	0.8	2.8	4.8	2.1	0.8	2.7
Automotive services, except repair	754	10.4	7.1	4.1	3.1	3.1	6.6	3.9	3.0	2.8
Miscellaneous repair services	76	13.7	7.8	3.8	1.3	4.0	7.7	3.7	1.3	3.9
Amusement and recreation services	79	56.1	7.3	3.9	1.9	3.3	6.6	3.6	1.8	3.0
Health services	80	353.9	6.3	3.3	1.6	3.0	5.9	3.2	1.5	2.7
Nursing and personal care facilities	805	47.8	14.0	9.0	3.4	5.0	13.5	8.9	3.4	4.6
Hospitals	806	169.1	7.6	3.8	--	3.8	6.9	3.6	--	3.3
Educational services	82	37.5	2.1	0.7	0.6	1.3	2.0	0.7	0.6	1.3
Colleges and universities	822	15.3	3.6	1.1	0.9	2.5	3.5	1.0	0.9	2.5
Social services	83	86.0	6.6	3.3	1.9	3.4	6.4	3.2	1.8	3.2
<b>State and local government</b>		550.1	6.1	3.2	2.0	3.0	5.7	3.0	1.9	2.7
<b>State government</b>		139.1	4.3	2.4	1.5	1.9	3.8	2.2	1.4	1.6
<b>Services</b>		90.4	3.4	1.9	0.9	1.5	3.0	1.7	0.9	1.3
Educational services	82	65.5	2.6	1.3	0.6	1.2	2.2	1.2	0.6	1.0
Social services	83	11.0	4.3	1.8	1.3	2.5	3.8	1.7	1.3	2.1
<b>Public administration</b>		48.7	6.3	3.6	2.7	2.6	5.6	3.3	2.4	2.2
Justice, public order, and safety	92	23.1	8.7	5.4	4.1	3.3	7.6	5.0	3.6	2.7
Administration of human resources	94	8.9	2.7	1.2	--	1.4	--	1.2	--	1.3
Administration of economic programs	96	6.6	4.8	2.2	1.9	2.6	4.6	2.1	1.8	2.5
<b>Local government</b>		411.0	6.9	3.5	2.2	3.5	6.6	3.3	2.1	3.3
<b>Construction</b>		5.6	15.2	6.7	5.0	8.6	13.6	6.3	4.6	7.3
<b>Services</b>		269.4	5.6	2.6	1.7	3.0	5.4	2.5	1.6	2.9
Nursing and personal care facilities	805	5.6	20.6	15.9	10.0	4.8	20.1	15.4	9.6	4.7
Hospitals	806	14.5	9.7	5.0	3.5	4.7	8.8	4.7	3.2	4.1
Educational services	82	247.6	5.0	2.1	1.3	2.8	4.8	2.1	1.2	2.8
Elementary and secondary schools	821	228.4	5.1	2.1	1.3	3.0	4.9	2.0	1.2	2.9

See footnotes at end of table.

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses by industry and selected case types, 1999 -- Continued**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1999 Annual average employment <sup>4</sup> (000's)	Injuries and Illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost work-days	Total cases	Lost workday cases		Cases without lost work-days
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
<b>Public administration</b>		132.3	8.7	4.7	3.0	4.0	8.2	4.4	2.8	3.8
Executive, legislative, and general Administration of human resources	91 94	119.3 7.7	8.7 6.6	4.6 5.2	3.0 2.6	4.1 1.5	8.3 --	4.4 4.9	2.8 2.4	3.9 0.8

<sup>1</sup> Incidence rates represent the number of injuries and illnesses per 100 full-time workers and were calculated as: (N/EH) x 200,000 where

N = number of injuries and illnesses  
 EH = total hours worked by all employees during the calendar year  
 200,000 = base for 100 equivalent full-time workers (working 40 hours per week, 50 weeks per year).

<sup>2</sup> Totals include data for industries not shown separately.

<sup>3</sup> *Standard Industrial Classification Manual*, 1987 Edition.

<sup>4</sup> Employment is expressed as an annual average and is derived primarily from the BLS-State Covered Employment and Wages program.

<sup>5</sup> Total lost workday cases involve days away from work, or days of restricted work activity, or both.

<sup>6</sup> Days-away-from-work cases include those which result in days away from work with or without restricted work activity.

<sup>7</sup> Excludes farms with fewer than 11 employees.

<sup>8</sup> Data conforming to OSHA definitions for mining operators in coal, metal, and nonmetal mining and for employers in railroad transportation are provided to BLS by the Mine Safety and Health Administration, U.S. Department of Labor; and the Federal Railroad Administration, U.S. Department of Transportation. Independent mining contractors are excluded from the coal, metal, and nonmetal mining industries.

<sup>9</sup> Incidence rate less than 0.05.

NOTE: Because of rounding, components may not add to totals.

n.e.c. = not elsewhere classified.

-- Indicates data not available.

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