

Table 6. Incidence rates¹ of nonfatal occupational injuries and illnesses by industry and selected case types, 1998

Michigan

Industry ²	SIC code ³	1998 Annual average employment ⁴ (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 ⁵	With days away from work ⁶			Total ⁵	With days away from work ⁶	
All Industries including State and local government⁷		4,336.6	8.4	3.9	1.9	4.4	7.4	3.5	1.7	3.9
Private Industry⁷		3,796.4	8.6	4.1	1.8	4.5	7.5	3.6	1.7	3.9
Agriculture, forestry, and fishing⁷		42.4	6.2	3.3	2.6	2.9	5.9	3.2	2.6	2.8
Agricultural production ⁷	01-02	16.8	8.6	3.6	2.5	4.9	8.1	3.4	2.4	4.7
Agricultural services	07	24.8	5.1	3.2	2.7	1.9	4.9	3.1	2.7	1.8
Construction		183.5	8.8	4.4	3.5	4.4	8.5	4.2	3.4	4.2
General building contractors	15	41.5	9.3	5.2	4.2	4.1	9.1	5.0	4.1	4.0
Residential building construction	152	24.5	7.0	3.9	3.1	3.1	7.0	3.9	3.1	3.1
Nonresidential building construction	154	16.8	12.7	7.2	5.9	5.6	12.1	6.7	5.5	5.4
Heavy construction, except building	16	14.1	11.7	5.3	4.0	6.5	11.1	5.2	4.0	5.9
Heavy construction, except highway	162	10.1	12.0	5.3	3.9	6.7	11.2	5.2	3.8	5.9
Special trade contractors	17	127.8	8.2	4.0	3.2	4.2	7.9	3.8	3.1	4.1
Plumbing, heating, air-conditioning	171	28.9	8.7	3.3	3.0	5.4	8.5	3.1	2.8	5.4
Electrical work	173	25.1	4.9	2.7	1.6	2.2	4.9	2.6	1.6	2.2
Masonry, stonework, and plastering	174	14.2	13.4	6.4	5.2	7.0	13.0	6.1	5.0	6.9
Carpentry and floor work	175	12.0	9.0	5.7	4.6	3.3	8.6	5.6	4.5	3.0
Roofing, siding, and sheet metal work	176	7.4	12.9	6.4	5.8	6.4	12.3	6.0	5.4	6.3
Concrete work	177	11.7	6.8	4.6	3.6	2.2	6.2	4.2	3.2	2.0
Miscellaneous special trade contractors	179	21.4	8.1	3.5	2.9	4.6	7.6	3.3	2.7	4.3
Manufacturing		967.9	14.2	6.7	2.4	7.5	11.4	5.5	2.0	5.9
Durable goods		724.5	15.2	6.9	2.4	8.4	12.0	5.6	2.0	6.4
Lumber and wood products	24	17.5	12.1	6.6	3.7	5.5	11.6	6.3	3.5	5.4
Millwork, plywood and structural members	243	6.4	12.3	7.1	3.9	5.2	11.5	6.4	3.5	5.1
Furniture and fixtures	25	42.4	12.9	5.6	2.1	7.3	10.5	4.3	1.7	6.1
Office furniture	252	17.8	12.0	5.9	1.3	6.1	10.0	4.6	0.9	5.4
Partitions and fixtures	254	8.6	9.1	5.1	1.6	4.1	7.9	4.1	1.5	3.8
Stone, clay, and glass products	32	20.4	13.0	6.9	2.9	6.1	11.0	5.8	2.7	5.2
Products of purchased glass	323	8.8	14.2	7.2	1.5	7.0	10.6	5.1	1.2	5.6
Concrete, gypsum, and plaster products	327	5.9	14.3	8.2	5.3	6.1	14.2	8.1	5.3	6.1
Primary metal industries	33	36.4	17.8	9.3	4.1	8.5	15.7	8.5	3.7	7.2
Blast furnace and basic steel products	331	11.7	16.6	7.3	4.1	9.3	14.6	6.8	3.8	7.8
Blast furnaces and steel mills	3312	8.6	14.7	4.4	2.3	10.3	12.4	4.0	2.1	8.4
Iron and steel foundries	332	9.4	20.0	11.6	3.9	8.4	17.1	10.6	3.7	6.5
Gray and ductile iron foundries	3321	6.5	22.0	12.7	3.2	9.2	18.3	11.5	3.0	6.8
Nonferrous foundries (castings)	336	7.0	18.1	8.0	4.8	10.0	16.4	7.3	4.4	9.1
Fabricated metal products	34	127.1	17.2	8.9	3.3	8.2	14.8	7.8	2.8	7.0
Fabricated structural metal products	344	16.2	13.2	7.2	3.6	6.0	11.1	5.6	3.0	5.5
Sheet metal work	3444	5.3	11.8	7.4	4.2	4.4	9.1	4.8	3.3	4.2
Screw machine products, bolts, etc.	345	13.9	16.8	8.1	3.2	8.8	15.4	7.6	2.8	7.9
Screw machine products	3451	7.8	13.8	5.5	3.1	8.3	11.7	4.8	2.6	6.8
Bolts, nuts, rivets, and washers	3452	6.1	20.8	11.4	3.3	9.4	20.4	11.2	3.2	9.2
Metal forgings and stampings	346	57.1	19.3	10.1	2.9	9.2	15.8	8.4	2.4	7.4
Automotive stampings	3465	50.9	18.1	9.6	2.5	8.5	14.4	7.9	2.0	6.6
Metal services, n.e.c.	347	14.5	13.7	6.9	2.9	6.9	12.8	6.4	2.6	6.4

See footnotes at end of table.

Table 6. Incidence rates¹ of nonfatal occupational injuries and illnesses by industry and selected case types, 1998 -- Continued

Michigan

Industry ²	SIC code ³	1998 Annual average employment ⁴ (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 ⁵	With days away from work ⁶			Total ⁵	With days away from work ⁶	
Plating and polishing	3471	7.6	13.2	6.4	2.9	6.8	12.5	6.2	2.8	6.3
Metal coating and allied services	3479	7.0	14.3	7.4	3.0	6.9	13.1	6.7	2.5	6.4
Miscellaneous fabricated metal products	349	15.6	15.3	8.2	2.7	7.1	13.8	7.5	2.3	6.3
Industrial machinery and equipment	35	134.8	11.5	5.3	2.4	6.3	10.7	4.9	2.2	5.9
Construction and related machinery	353	9.8	14.0	8.4	3.7	5.6	12.7	7.2	2.9	5.4
Metalworking machinery	354	65.8	10.5	4.3	1.9	6.1	10.2	4.2	1.9	6.0
Machine tools, metal cutting types	3541	6.9	5.5	3.0	1.7	2.5	5.5	3.0	1.7	2.5
Special dies, tools, jigs and fixtures	3544	36.2	12.2	5.1	2.1	7.1	12.0	4.9	2.0	7.0
Machine tool accessories	3545	11.2	8.8	2.9	2.1	5.9	8.2	2.7	2.0	5.5
Special industry machinery	355	6.0	12.7	6.0	1.9	6.7	11.9	5.6	1.7	6.4
General industrial machinery	356	13.0	10.2	4.0	2.4	6.2	9.6	3.7	2.1	5.9
Industrial machinery, n.e.c.	359	28.3	12.9	6.9	3.0	6.0	11.4	6.2	2.5	5.2
Carburetors, pistons, rings, valves	3592	6.1	11.2	6.5	2.9	4.8	8.8	5.4	2.4	3.5
Industrial machinery, n.e.c.	3599	19.2	14.4	7.6	3.2	6.8	13.2	7.1	2.8	6.1
Electronic and other electric equipment	36	34.4	9.5	4.4	1.6	5.2	6.9	3.3	1.2	3.6
Household appliances	363	8.0	6.8	2.3	1.8	4.5	5.7	1.8	1.4	3.9
Electronic components and accessories	367	8.6	6.6	3.1	0.9	3.6	6.3	2.8	0.7	3.6
Miscellaneous electrical equipment and supplies	369	7.7	17.4	7.6	2.8	9.9	8.5	4.4	1.8	4.2
Transportation equipment	37	285.6	18.1	7.3	2.0	10.7	12.5	5.3	1.5	7.2
Motor vehicles and equipment	371	274.4	18.2	7.3	1.9	10.9	12.5	5.2	1.5	7.2
Motor vehicles and car bodies	3711	141.7	17.6	7.5	2.2	10.1	12.0	5.4	1.7	6.6
Motor vehicle parts and accessories	3714	131.0	18.8	7.1	1.7	11.7	12.9	5.1	1.3	7.9
Instruments and related products	38	17.7	4.2	1.5	0.5	--	--	1.1	0.4	--
Measuring and controlling devices	382	9.3	5.9	1.7	0.5	--	--	1.4	0.4	--
Medical instruments and supplies	384	4.6	3.7	2.3	1.0	1.4	2.3	1.5	0.7	0.9
Miscellaneous manufacturing industries	39	8.1	9.7	4.8	1.5	4.9	8.5	4.1	1.1	4.4
Nondurable goods		243.4	11.0	6.2	2.2	4.8	9.4	5.3	2.0	4.0
Food and kindred products	20	40.8	11.8	6.7	2.7	5.2	10.5	5.9	2.4	4.6
Meat products	201	7.0	14.3	7.7	1.1	6.6	11.9	6.4	1.0	5.5
Dairy products	202	4.6	13.0	7.6	3.8	5.4	12.2	7.0	3.4	5.2
Preserved fruits and vegetables	203	7.1	10.2	4.9	2.4	5.4	9.8	4.6	2.3	5.1
Grain mill products	204	5.9	5.4	3.8	2.3	1.6	3.7	2.3	1.0	1.4
Bakery products	205	6.3	10.8	7.3	2.3	3.5	9.6	6.8	2.1	2.8
Beverages	208	5.0	19.6	11.1	5.0	8.5	19.1	10.8	4.9	8.3
Apparel and other textile products	23	19.4	16.6	8.8	0.8	7.8	11.0	5.9	0.6	5.1
Miscellaneous fabricated textile products	239	18.7	17.0	9.0	0.8	7.9	11.2	6.1	0.6	5.2
Automotive and apparel trimmings	2396	16.4	18.8	10.2	0.9	8.7	12.3	6.8	0.7	5.6
Paper and allied products	26	21.0	9.5	5.3	2.9	4.2	8.6	4.6	2.5	4.0
Paper mills	262	5.9	7.9	4.1	3.1	3.8	7.5	3.9	3.0	3.7
Paperboard containers and boxes	265	7.4	11.2	6.1	2.5	5.1	10.2	5.1	2.0	5.1
Printing and publishing	27	43.2	5.6	3.5	1.7	2.0	5.1	3.2	1.5	1.9
Newspapers	271	13.7	7.6	4.6	2.5	2.9	6.9	4.3	2.3	2.7
Books	273	4.7	5.4	4.4	1.4	--	5.1	4.2	1.3	--
Commercial printing	275	17.4	6.0	3.8	1.7	2.2	5.6	3.4	1.6	2.2
Commercial printing, lithographic	2752	12.5	6.2	3.7	1.5	2.5	5.7	3.2	1.4	2.4
Commercial printing, n.e.c.	2759	4.6	5.2	3.6	1.8	1.6	5.2	3.6	1.8	1.6
Chemicals and allied products	28	43.2	6.0	2.7	1.3	3.3	4.8	2.4	1.1	2.4
Plastics materials and synthetics	282	6.6	5.8	3.1	1.6	2.8	--	2.6	1.4	--
Drugs	283	13.1	5.8	1.8	1.0	4.1	3.9	1.4	0.8	2.5

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				Total ⁵	With days away from work ⁶			Total ⁵	With days away from work ⁶	
Pharmaceutical preparations	2834	12.3	5.3	1.5	0.9	3.8	3.3	1.1	0.7	2.2
Rubber and miscellaneous plastics products	30	69.3	15.2	9.1	2.9	6.1	13.6	8.1	2.7	5.4
Miscellaneous plastics products, n.e.c.	308	59.4	15.2	8.9	2.8	6.3	13.8	8.2	2.7	5.6
Plastics products, n.e.c.	3089	47.5	15.1	8.7	2.6	6.4	13.6	7.9	2.5	5.7
Transportation and public utilities⁸		170.5	8.1	4.7	2.7	3.4	7.9	4.6	2.7	3.3
Railroad transportation ⁸	40	--	4.8	3.3	2.0	1.6	4.8	3.2	2.0	1.5
Local and interurban passenger transit	41	7.9	12.5	7.2	6.4	5.4	12.2	7.1	6.4	5.1
Trucking and warehousing	42	46.8	8.6	5.2	4.2	3.4	8.5	5.1	4.2	3.3
Transportation services	47	16.8	5.0	3.1	1.5	2.0	4.9	3.0	1.4	1.9
Communications	48	32.0	4.5	2.7	1.9	1.8	4.2	2.6	1.8	1.7
Electric, gas, and sanitary services	49	32.5	5.8	3.2	0.8	2.6	5.7	3.2	0.8	2.6
Wholesale and retail trade		1,038.0	7.0	3.2	1.5	3.8	6.7	3.0	1.4	3.7
Wholesale trade		230.5	7.2	3.9	1.5	3.3	7.0	3.8	1.4	3.1
Wholesale trade--durable goods	50	153.5	7.0	3.6	1.4	3.5	6.7	3.4	1.3	3.3
Wholesale trade--nondurable goods	51	77.0	7.7	4.8	1.7	2.9	7.6	4.7	1.7	2.8
Retail trade		807.5	6.9	2.9	1.5	4.0	6.6	2.7	1.4	3.9
Building materials and garden supplies	52	38.8	9.2	4.9	1.9	4.4	9.1	4.8	1.8	4.4
Lumber and other building materials	521	19.8	12.9	7.0	2.6	5.9	12.7	6.8	2.4	5.9
Hardware stores	525	10.9	6.0	2.5	0.8	3.6	6.0	2.5	0.8	3.6
General merchandise stores	53	129.3	11.1	7.1	2.7	4.1	10.5	6.6	2.4	3.9
Food stores	54	104.6	7.8	3.3	1.9	4.4	7.4	3.0	1.8	4.4
Grocery stores	541	90.0	8.4	3.7	2.2	4.7	8.0	3.3	2.0	4.7
Retail bakeries	546	6.7	2.1	0.7	0.7	1.4	2.1	0.7	0.7	1.4
Automotive dealers and service stations	55	84.2	6.3	2.4	1.7	3.9	6.1	2.3	1.6	3.8
New and used car dealers	551	39.1	6.5	2.0	1.7	4.5	6.3	1.9	1.6	4.4
Gasoline service stations	554	27.3	6.0	2.4	1.1	3.6	6.0	2.4	1.1	3.6
Apparel and accessory stores	56	34.9	3.0	1.1	0.7	1.9	2.9	1.0	0.7	1.9
Furniture and homefurnishings stores	57	34.3	3.5	1.5	0.9	1.9	3.3	1.5	0.8	1.9
Eating and drinking places	58	283.2	6.8	1.5	1.1	5.3	6.7	1.5	1.1	5.2
Miscellaneous retail	59	98.2	2.9	1.2	0.7	1.7	2.7	1.1	0.6	1.6
Finance, insurance, and real estate		203.3	1.7	0.7	0.5	1.0	1.5	0.5	0.4	1.0
Depository institutions	60	65.1	1.1	0.6	0.5	0.6	0.8	0.3	0.3	0.5
Insurance carriers	63	41.5	1.8	0.7	0.5	1.0	1.4	0.5	0.3	0.8
Real estate	65	39.8	4.6	1.4	0.9	3.2	4.4	1.4	0.9	3.1
Services		1,162.5	5.4	2.5	1.4	2.9	5.0	2.3	1.2	2.7
Hotels and other lodging places	70	35.7	9.0	3.7	1.7	5.3	8.7	3.6	1.6	5.1
Personal services	72	43.5	4.7	2.1	1.1	2.7	4.3	1.8	1.0	2.5
Laundry, cleaning, and garment services	721	15.4	7.1	3.2	1.4	3.9	6.3	2.8	1.2	3.5
Business services	73	301.9	4.3	1.4	--	2.9	3.8	1.2	0.6	2.7
Auto repair, services, and parking	75	39.7	5.3	1.7	1.2	3.6	5.0	1.7	1.2	3.3

See footnotes at end of table.

Table 6. Incidence rates¹ of nonfatal occupational injuries and illnesses by industry and selected case types, 1998 -- Continued

Michigan

Industry ²	SIC code ³	1998 Annual average employment ⁴ (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 ⁵	With days away from work ⁶			Total ⁵	With days away from work ⁶	
Automotive repair shops	753	22.8	4.5	1.1	0.8	3.5	4.2	1.1	0.8	3.1
Automotive services, except repair	754	10.4	6.1	2.8	2.4	3.4	5.8	2.8	2.4	3.1
Miscellaneous repair services	76	13.9	9.2	4.8	3.5	4.4	8.6	4.4	3.1	4.2
Amusement and recreation services	79	52.4	15.0	6.4	2.1	--	--	6.0	2.1	--
Health services	80	352.1	6.9	3.7	2.2	3.2	6.4	3.6	2.1	2.8
Nursing and personal care facilities	805	48.1	14.4	9.7	4.9	4.6	14.2	9.6	4.8	4.6
Hospitals	806	164.0	8.2	4.3	2.7	--	7.3	4.1	2.5	--
Educational services	82	35.9	1.7	0.7	0.6	1.0	1.7	0.7	0.6	1.0
Colleges and universities	822	14.8	1.7	0.7	0.7	1.0	1.7	0.7	0.6	1.0
Social services	83	83.5	8.6	4.9	1.6	3.8	8.4	4.7	1.5	3.7
State and local government		540.2	7.0	3.1	2.2	3.9	6.7	3.0	2.1	3.7
State government		135.6	3.9	2.1	1.5	1.8	3.6	2.0	1.4	1.6
Services		87.4	3.3	1.7	1.1	1.6	3.0	1.6	1.0	1.4
Educational services	82	64.0	2.6	1.3	0.7	1.4	2.4	1.2	0.7	1.2
Public administration		48.2	5.3	3.0	2.4	2.2	4.8	2.8	2.2	2.0
Justice, public order, and safety	92	22.9	7.1	4.0	3.2	3.1	6.8	3.9	3.1	2.9
Administration of human resources	94	8.4	2.7	1.4	0.8	1.4	2.5	1.3	0.7	1.3
Local government		404.6	8.5	3.6	2.6	4.9	8.2	3.5	2.4	4.7
Construction		5.6	13.1	7.8	6.2	5.3	12.6	7.5	5.9	5.0
Services		264.1	7.6	2.7	1.8	4.9	7.4	2.5	1.7	4.8
Nursing and personal care facilities	805	5.4	24.7	18.6	8.8	6.1	23.7	17.8	8.4	5.8
Hospitals	806	12.3	11.6	4.4	3.3	7.3	11.0	4.1	3.1	6.9
Educational services	82	244.8	6.9	2.1	1.5	4.8	6.7	2.0	1.4	4.7
Elementary and secondary schools	821	225.7	7.3	2.2	1.5	5.1	7.1	2.1	1.4	5.0

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Table 6. Incidence rates¹ of nonfatal occupational injuries and illnesses by industry and selected case types, 1998 -- Continued

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				Total ⁵	With days away from work ⁶			Total ⁵	With days away from work ⁶	
Public administration		131.5	9.8	5.1	4.0	4.7	9.4	4.8	3.7	4.5
Executive, legislative, and general Administration of human resources	91 94	118.5 7.7	10.1 5.6	5.3 3.5	4.1 3.1	4.9 2.1	9.7 5.3	5.0 3.5	3.8 3.1	4.7 1.8

¹ 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).

² Totals include data for industries not shown separately.

³ *Standard Industrial Classification Manual*, 1987 Edition.

⁴ Employment is expressed as an annual average and is derived primarily from the BLS-State Covered Employment and Wages program. Employment in private households (SIC 88) is excluded.

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

⁶ Days-away-from-work cases include those which result in days away from

work with or without restricted work activity.

⁷ Excludes farms with fewer than 11 employees.

⁸ 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.

⁹ 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.