

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses, by industry and case type, 1996**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1996 Annual average employment <sup>4</sup> (000's)	Injuries and illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost workdays	Total cases	Lost workday cases		Cases without lost workdays
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
All industries including State and local government <sup>7</sup> .....		4,218.3	10.2	4.7	2.4	5.5	8.9	4.2	2.2	4.7
Private industry <sup>7</sup> .....		3,686.1	10.6	4.9	2.4	5.7	9.2	4.3	2.2	4.9
Agriculture, forestry, and fishing <sup>7</sup> .....		40.2	11.4	5.2	3.4	6.2	10.9	5.1	3.4	5.9
Agricultural production <sup>7</sup> .....	01-02	16.0	9.1	3.2	2.3	5.9	7.9	3.0	2.2	4.9
Agricultural services .....	07	23.3	13.0	6.4	4.1	6.6	12.8	6.3	4.1	6.6
Construction .....		167.1	10.2	4.6	3.9	5.6	9.9	4.4	3.8	5.5
General building contractors .....	15	38.8	9.4	4.1	3.4	5.3	9.3	4.0	3.3	5.3
Residential building construction .....	152	22.8	9.3	4.6	3.9	4.7	9.2	4.5	3.8	4.7
Nonresidential building construction .....	154	15.6	9.3	3.5	2.7	5.9	9.2	3.4	2.6	5.9
Heavy construction, except building .....	16	13.2	10.5	4.8	4.2	5.8	10.0	4.6	4.0	5.4
Heavy construction, except highway .....	162	9.8	10.7	5.1	4.4	5.7	10.1	4.9	4.2	5.2
Special trade contractors .....	17	115.1	10.4	4.7	4.0	5.7	10.1	4.5	3.9	5.6
Plumbing, heating, air-conditioning .....	171	26.7	10.8	4.2	3.5	6.6	10.4	3.8	3.1	6.6
Electrical work .....	173	22.2	8.0	2.5	2.4	5.5	7.9	2.4	2.3	5.4
Masonry, stonework, and plastering .....	174	12.2	13.5	8.4	7.1	5.1	13.3	8.3	7.0	5.0
Carpentry and floor work .....	175	10.8	11.8	5.4	5.0	6.4	11.7	5.3	4.9	6.4
Roofing, siding, and sheet metal work .....	176	7.1	16.8	9.9	8.1	6.9	16.5	9.6	7.9	6.8
Concrete work .....	177	10.6	10.4	4.8	4.3	5.6	10.0	4.5	4.0	5.6
Miscellaneous special trade contractors .....	179	19.1	9.6	4.7	3.9	4.9	9.5	4.6	3.9	4.9
Manufacturing .....		969.8	16.9	7.8	3.1	9.1	13.3	6.2	2.6	7.0
Durable goods .....		725.5	18.0	8.1	3.3	9.9	14.0	6.5	2.7	7.5
Lumber and wood products .....	24	17.2	14.2	7.7	5.6	6.4	13.6	7.4	5.4	6.3
Millwork, plywood and structural members .....	243	6.1	17.5	8.5	6.7	9.0	16.6	7.7	6.3	9.0
Furniture and fixtures .....	25	37.4	15.4	7.0	2.4	8.5	12.2	5.1	1.9	7.1
Office furniture .....	252	15.5	12.7	6.7	1.5	6.0	9.5	4.7	1.0	4.9
Partitions and fixtures .....	254	7.2	13.3	6.7	3.3	6.6	11.6	5.6	2.7	6.0
Wood partitions and fixtures .....	2541	5.2	7.5	3.6	.8	3.9	6.8	3.1	.8	3.7
Stone, clay, and glass products .....	32	18.5	15.8	8.0	3.6	7.8	13.4	6.4	3.3	6.9
Products of purchased glass .....	323	7.0	15.6	7.4	1.8	8.2	11.0	4.2	1.1	6.7
Concrete, gypsum, and plaster products .....	327	5.9	14.4	7.9	5.4	6.5	13.9	7.7	5.2	6.2
Primary metal industries .....	33	36.7	17.9	8.7	4.9	9.2	15.7	7.7	4.4	8.0
Blast furnace and basic steel products .....	331	11.6	17.4	6.5	3.9	10.9	14.9	5.8	3.5	9.1
Blast furnaces and steel mills .....	3312	8.7	18.8	6.7	3.5	12.1	15.8	5.9	3.1	10.0
Iron and steel foundries .....	332	10.2	18.1	9.4	4.4	8.7	16.5	8.5	4.2	8.1
Gray and ductile iron foundries .....	3321	7.4	18.3	9.2	4.5	9.1	16.8	8.4	4.3	8.4
Nonferrous foundries (castings) .....	336	7.3	17.0	9.7	6.1	7.3	15.1	8.5	5.4	6.6
Fabricated metal products .....	34	127.8	20.6	9.7	3.9	10.8	17.7	8.4	3.4	9.3
Cutlery, handtools, and hardware .....	342	8.1	13.7	4.7	2.3	9.0	10.0	3.2	1.5	6.8
Hardware, n.e.c. .....	3429	7.0	14.2	4.8	2.2	9.4	10.1	3.1	1.4	6.9
Fabricated structural metal products .....	344	16.7	22.3	11.1	6.1	11.1	20.9	10.0	5.6	10.9
Sheet metalwork .....	3444	5.9	21.0	8.8	5.3	12.2	19.8	7.8	5.2	12.0
Screw machine products, bolts, etc. .....	345	13.5	17.1	8.0	3.6	9.1	16.1	7.6	3.4	8.5
Screw machine products .....	3451	7.7	14.0	6.2	3.5	7.8	12.9	5.9	3.3	7.0
Bolts, nuts, rivets, and washers .....	3452	5.8	21.3	10.4	3.8	10.9	20.5	10.0	3.6	10.5
Metal forgings and stampings .....	346	58.1	24.6	11.8	4.0	12.8	20.2	9.7	3.4	10.4
Automotive stampings .....	3465	52.3	24.8	11.8	4.0	13.0	20.1	9.7	3.3	10.4
Metal services, n.e.c. .....	347	13.8	15.3	7.6	3.4	7.7	14.7	7.2	3.2	7.4
Plating and polishing .....	3471	7.0	15.5	6.5	3.5	9.0	14.7	6.1	3.3	8.6
Metal coating and allied services .....	3479	6.8	15.1	8.7	3.3	6.4	14.6	8.4	3.0	6.2
Miscellaneous fabricated metal products .....	349	15.4	16.7	7.5	2.9	9.2	14.9	6.7	2.7	8.2

See footnotes at end of table.

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses, by industry and case type, 1996 — Continued**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1996 Annual average employment <sup>4</sup> (000's)	Injuries and illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost workdays	Total cases	Lost workday cases		Cases without lost workdays
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
Industrial machinery and equipment .....	35	133.8	12.4	5.1	2.6	7.2	11.5	4.7	2.5	6.7
Construction and related machinery .....	353	9.7	13.6	6.6	3.4	7.0	12.7	6.1	3.3	6.6
Metalworking machinery .....	354	66.1	11.6	4.5	2.4	7.1	11.1	4.3	2.3	6.8
Machine tools, metal cutting types .....	3541	7.2	8.7	2.8	1.4	5.9	8.3	2.7	1.4	5.5
Special dies, tools, jigs and fixtures .....	3544	36.0	11.9	4.3	2.1	7.6	11.3	4.2	2.1	7.2
Machine tool accessories .....	3545	11.1	12.7	4.6	3.0	8.0	12.0	4.2	2.6	7.8
Special industry machinery .....	355	5.8	14.7	6.2	3.1	8.5	13.6	5.9	2.8	7.7
General industrial machinery .....	356	12.2	19.2	8.3	3.0	10.8	18.0	7.5	2.6	10.5
Industrial machinery, n.e.c. ....	359	27.3	11.7	5.6	3.1	6.1	10.3	5.0	2.9	5.3
Carburetors, pistons, rings, valves .....	3592	5.4	17.4	8.0	3.3	9.4	13.5	6.1	2.8	7.4
Industrial machinery, n.e.c. ....	3599	19.0	11.2	5.5	3.4	5.8	10.5	5.3	3.2	5.3
Electronic and other electric equipment .....	36	32.6	13.5	5.8	2.5	7.7	9.8	4.3	1.9	5.5
Household appliances .....	363	7.1	13.2	5.2	3.8	8.0	11.7	4.5	3.2	7.2
Electronic components and accessories .....	367	7.5	8.1	3.4	1.5	4.7	6.1	2.5	1.1	3.6
Miscellaneous electrical equipment and supplies .....	369	7.6	21.8	8.7	2.8	13.2	12.6	5.5	2.0	7.1
Transportation equipment .....	37	295.3	21.3	9.4	3.3	12.0	14.6	7.0	2.5	7.7
Motor vehicles and equipment .....	371	284.9	21.6	9.5	3.3	12.0	14.8	7.1	2.5	7.7
Motor vehicles and car bodies .....	3711	152.1	20.4	8.3	2.9	12.1	14.0	5.8	2.1	8.2
Motor vehicle parts and accessories .....	3714	131.0	22.7	10.8	3.7	11.8	15.6	8.4	2.9	7.2
Instruments and related products .....	38	17.9	7.4	3.2	1.0	4.2	5.7	2.3	.8	3.5
Measuring and controlling devices .....	382	8.6	6.9	3.1	.6	3.8	6.0	2.5	.4	3.5
Medical instruments and supplies .....	384	4.8	9.3	3.3	1.7	6.0	7.5	2.3	1.3	5.2
Miscellaneous manufacturing industries .....	39	8.3	12.8	6.5	2.7	6.4	11.0	5.2	2.3	5.8
Nondurable goods .....		244.3	13.3	6.9	2.5	6.4	10.9	5.5	2.2	5.4
Food and kindred products .....	20	44.4	18.2	9.8	4.0	8.3	15.3	7.9	3.6	7.3
Meat products .....	201	9.6	29.7	18.5	4.9	11.2	22.1	13.0	4.5	9.1
Preserved fruits and vegetables .....	203	7.8	12.5	5.6	2.3	6.9	10.7	4.9	1.9	5.8
Grain mill products .....	204	6.1	9.8	6.0	5.1	3.8	9.3	5.5	4.8	3.7
Bakery products .....	205	6.4	20.4	7.9	4.3	12.5	18.9	6.9	3.7	12.0
Beverages .....	208	4.8	17.5	9.0	4.3	8.6	17.2	8.8	4.2	8.4
Apparel and other textile products .....	23	19.1	17.6	6.0	1.6	11.6	10.8	3.7	1.2	7.1
Miscellaneous fabricated textile products .....	239	18.1	17.9	6.2	1.5	11.7	10.7	3.7	1.1	7.0
Automotive and apparel trimmings .....	2396	15.2	20.8	7.3	1.7	13.5	12.2	4.4	1.2	7.8
Paper and allied products .....	26	21.4	11.1	5.0	2.8	6.1	10.1	4.3	2.4	5.7
Paper mills .....	262	6.6	6.9	2.4	1.8	4.5	6.5	2.3	1.7	4.2
Paperboard containers and boxes .....	265	7.2	13.0	6.0	2.7	7.0	11.5	5.1	2.3	6.4
Printing and publishing .....	27	43.6	6.9	4.2	1.6	2.7	6.0	3.6	1.4	2.4
Newspapers .....	271	13.4	9.1	5.5	1.9	3.6	7.9	5.1	1.8	2.8
Books .....	273	4.9	5.7	4.7	2.0	1.0	4.9	4.0	1.7	.9
Commercial printing .....	275	18.0	6.9	4.1	1.6	2.7	6.1	3.5	1.4	2.6
Commercial printing, lithographic .....	2752	12.7	6.4	3.9	1.4	2.5	5.5	3.2	1.2	2.3
Commercial printing, n.e.c. ....	2759	4.9	7.5	4.3	1.7	3.2	6.9	3.9	1.7	3.0
Chemicals and allied products .....	28	43.0	5.8	2.3	1.1	3.4	4.6	1.9	.9	2.7
Plastics materials and synthetics .....	282	6.3	6.6	3.9	.9	2.7	4.9	2.8	.8	2.1
Drugs .....	283	12.8	6.8	1.4	.9	5.5	5.0	1.1	.7	3.9
Pharmaceutical preparations .....	2834	11.9	6.6	1.2	.8	5.5	4.7	.9	.7	3.8
Rubber and miscellaneous plastics products .....	30	66.3	17.8	10.2	3.3	7.6	14.9	7.9	2.8	7.0
Miscellaneous plastics products, n.e.c. ....	308	56.5	18.4	10.6	3.4	7.8	15.9	8.5	2.9	7.3
Plastics products, n.e.c. ....	3089	45.3	19.6	11.2	3.4	8.4	16.9	9.0	3.0	7.9
Transportation and public utilities <sup>8,9</sup> .....		162.0	14.0	6.9	4.1	7.1	13.6	6.6	3.8	7.0
Railroad transportation <sup>8</sup> .....	40	—	5.1	3.8	3.4	1.3	5.0	3.7	3.3	1.3
Local and interurban passenger transit .....	41	7.5	13.6	8.1	6.3	5.5	12.8	7.9	6.1	4.8
Transportation by air <sup>9</sup> .....	45	29.0	24.1	12.6	5.8	11.5	23.5	12.4	5.7	11.1
Transportation services <sup>9</sup> .....	47	15.0	8.4	4.3	2.4	4.0	8.2	4.2	2.3	4.0
Communications .....	48	30.3	4.7	2.4	1.3	2.3	4.3	2.3	1.2	2.0
Electric, gas, and sanitary services .....	49	32.9	6.8	4.1	1.9	2.7	6.4	4.0	1.8	2.4

See footnotes at end of table.

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses, by industry and case type, 1996 — Continued**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1996 Annual average employment <sup>4</sup> (000's)	Injuries and illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost workdays	Total cases	Lost workday cases		Cases without lost workdays
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
Wholesale and retail trade .....		1,021.4	8.4	3.9	2.2	4.5	8.1	3.8	2.1	4.4
Wholesale trade .....		219.0	9.7	5.4	3.4	4.3	9.1	5.2	3.3	3.9
Wholesale trade--durable goods .....	50	144.3	9.2	5.0	3.1	4.2	8.6	4.8	3.1	3.8
Wholesale trade--nondurable goods .....	51	74.7	10.6	6.2	3.9	4.5	10.3	6.1	3.9	4.2
Retail trade .....		802.4	7.9	3.3	1.8	4.6	7.8	3.2	1.7	4.5
Building materials and garden supplies .....	52	36.1	11.7	6.9	2.6	4.8	11.6	6.8	2.5	4.8
Hardware stores .....	525	9.6	5.1	2.0	1.5	3.0	5.1	2.0	1.5	3.0
General merchandise stores .....	53	128.1	13.3	7.4	2.6	5.9	12.8	7.0	2.5	5.8
Food stores .....	54	106.1	8.1	3.5	2.4	4.7	7.7	3.2	2.2	4.4
Grocery stores .....	541	91.6	8.6	3.7	2.6	5.0	8.1	3.4	2.4	4.7
Retail bakeries .....	546	6.9	3.9	2.9	2.9	1.0	3.9	2.9	2.9	1.0
Automotive dealers and service stations .....	55	85.0	7.4	2.7	1.9	4.7	7.3	2.7	1.8	4.7
New and used car dealers .....	551	39.6	8.3	2.8	2.2	5.6	8.2	2.7	2.1	5.5
Gasoline service stations .....	554	27.5	5.9	2.8	1.6	3.1	5.8	2.8	1.6	3.0
Apparel and accessory stores .....	56	35.7	3.5	1.0	.8	2.5	3.3	.9	.7	2.5
Furniture and homefurnishings stores .....	57	33.6	6.0	1.9	1.3	4.1	6.0	1.9	1.3	4.1
Eating and drinking places .....	58	283.9	7.0	2.0	1.3	5.0	7.0	2.0	1.3	5.0
Miscellaneous retail .....	59	93.9	4.4	1.9	1.1	2.4	4.3	1.9	1.1	2.4
Finance, insurance, and real estate .....		201.6	2.4	.8	.6	1.6	2.0	.7	.5	1.3
Depository institutions .....	60	69.2	1.4	.5	.4	1.0	1.2	.4	.3	.9
Insurance carriers .....	63	39.9	1.7	.5	.4	1.3	1.4	.3	.2	1.1
Real estate .....	65	38.4	6.0	2.7	1.7	3.3	5.8	2.6	1.7	3.2
Services .....		1,110.0	5.9	2.8	1.5	3.1	5.5	2.6	1.4	2.9
Hotels and other lodging places .....	70	35.4	9.2	4.2	1.9	5.0	8.2	4.0	1.7	4.3
Personal services .....	72	43.7	6.6	3.8	1.5	2.8	5.5	3.0	1.0	2.6
Laundry, cleaning, and garment services .....	721	15.9	11.7	7.6	2.3	4.2	9.9	6.1	1.8	3.8
Business services .....	73	263.5	3.9	1.4	1.2	—	—	1.4	1.1	—
Auto repair, services, and parking .....	75	39.7	6.3	2.7	2.0	3.6	6.0	2.6	2.0	3.4
Automotive repair shops .....	753	22.5	6.2	2.5	1.8	3.7	5.8	2.5	1.8	3.4
Automotive services, except repair .....	754	10.2	7.1	3.3	2.4	3.8	6.4	2.6	2.4	3.8
Miscellaneous repair services .....	76	13.3	7.5	3.7	2.3	3.8	7.4	3.7	2.2	3.8
Motion pictures .....	78	15.5	4.3	2.5	.5	1.8	4.2	2.4	.4	1.8
Amusement and recreation services .....	79	47.3	9.1	4.3	2.4	4.8	9.0	4.3	2.4	4.8
Health services .....	80	359.1	8.6	4.3	2.2	4.3	7.9	4.1	2.1	3.8
Nursing and personal care facilities .....	805	48.6	21.9	14.3	6.2	7.6	21.2	14.2	6.0	7.0
Hospitals .....	806	169.8	9.8	4.2	2.4	5.5	8.5	3.9	2.2	4.6
Educational services .....	82	32.3	2.2	.9	.7	1.3	2.0	.8	.6	1.3
Colleges and universities .....	822	13.9	2.3	.9	.7	1.3	2.1	.8	.6	1.3
Social services .....	83	86.1	7.1	3.2	1.4	3.9	6.9	3.2	1.3	3.7
State and local government .....		532.2	7.3	3.4	2.6	3.9	6.8	3.2	2.4	3.7
State government .....		138.4	5.0	2.1	1.8	2.9	4.6	2.0	1.7	2.6
Services .....		88.3	4.6	1.9	1.5	2.8	4.2	1.7	1.4	2.5
Educational services .....	82	61.9	3.1	1.1	.9	2.0	2.8	1.0	.8	1.7
Social services .....	83	—	6.9	2.2	2.0	4.7	6.3	1.9	1.7	4.4
Individual and family services .....	832	10.1	5.9	1.2	1.1	4.8	5.3	.8	.8	4.4
Public administration .....										
Justice, public order, and safety .....	92	22.1	8.8	4.1	3.8	4.7	8.1	4.0	3.7	4.1
Administration of human resources .....	94	10.2	2.7	.8	.6	1.9	2.5	.6	.4	1.9

See footnotes at end of table.

**Table 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses, by industry and case type, 1996 — Continued**

**Michigan**

Industry <sup>2</sup>	SIC code <sup>3</sup>	1996 Annual average employment <sup>4</sup> (000's)	Injuries and illnesses				Injuries			
			Total cases	Lost workday cases		Cases without lost workdays	Total cases	Lost workday cases		Cases without lost workdays
				Total <sup>5</sup>	With days away from work <sup>6</sup>			Total <sup>5</sup>	With days away from work <sup>6</sup>	
Local government .....		393.7	8.4	3.9	2.9	4.4	7.9	3.7	2.7	4.2
Construction .....		5.5	18.9	8.9	7.6	10.0	18.0	8.5	7.2	9.5
Services .....		256.8	8.4	3.2	2.5	5.2	8.1	3.0	2.3	5.0
Hospitals .....	806	12.9	8.8	3.4	1.8	5.4	8.5	3.2	1.6	5.4
Educational services .....	82	237.7	8.1	2.9	2.4	5.2	7.8	2.7	2.2	5.1
Elementary and secondary schools .....	821	220.1	8.4	3.0	2.5	5.4	8.1	2.8	2.3	5.3
Public administration .....		128.4	7.7	4.8	3.3	2.9	7.1	4.5	3.0	2.6
Executive, legislative, and general .....	91	116.1	7.6	4.9	3.3	2.7	7.1	4.6	3.0	2.5
Administration of human resources .....	94	7.5	9.5	3.8	3.2	5.7	8.4	3.6	3.0	4.8

<sup>1</sup> The 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. Employment in private households (SIC 88) is excluded.

<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> In 1996, air courier operations previously classified in Industry Groups 421, 422, 423, 452, 473, and 478 were reclassified to Industry Group 451. As a result, the 1996 estimates for these SIC's and Major Industry Groups 42, 45, and 47 are not comparable to those for prior years. In addition, the 1996 estimates for transportation and public utilities may have more variability than those for prior years.

NOTE: Because of rounding, components may not add to totals. n.e.c. = not elsewhere classified.

- 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.