

TABLE 6. Incidence rates<sup>1</sup> of nonfatal occupational injuries and illnesses by industry and selected case types, 1997

Michigan

Industry <sup>2</sup>	SIC code <sup>3</sup>	1997 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> .....		4,292.8	9.0	4.1	2.2	4.9	7.9	3.7	2.0	4.2
<b>Private industry<sup>7</sup></b> .....		3,758.5	9.1	4.2	2.1	4.9	8.0	3.7	1.9	4.2
<b>Agriculture, forestry, and fishing<sup>7</sup></b> .....		41.9	8.0	4.2	3.2	3.8	7.5	4.0	3.1	3.6
Agricultural production <sup>7</sup> .....	01-02	16.7	5.9	2.9	1.8	3.1	5.6	2.8	1.8	2.7
Agricultural services .....	07	24.3	9.0	5.2	4.3	3.9	8.5	4.9	4.0	3.7
<b>Construction</b> .....		177.3	10.2	4.5	3.9	5.7	10.0	4.4	3.8	5.6
General building contractors .....	15	40.7	10.8	4.1	3.7	6.7	10.6	4.0	3.6	6.6
Residential building construction .....	152	24.1	10.2	3.4	3.2	6.8	10.0	3.4	3.2	6.6
Nonresidential building construction .....	154	16.3	11.3	4.9	4.1	6.4	11.1	4.8	4.0	6.3
Heavy construction, except building .....	16	13.4	10.6	4.8	4.5	5.8	10.3	4.7	4.3	5.7
Heavy construction, except highway .....	162	9.8	9.9	4.9	4.5	5.1	9.5	4.7	4.3	4.9
Special trade contractors .....	17	123.2	10.0	4.6	3.9	5.4	9.8	4.5	3.9	5.2
Plumbing, heating, air-conditioning .....	171	28.1	11.9	4.0	3.3	7.9	11.4	3.9	3.3	7.5
Electrical work .....	173	24.1	8.3	2.7	2.0	5.6	8.2	2.7	1.9	5.6
Masonry, stonework, and plastering .....	174	13.4	9.5	5.7	5.6	3.7	9.3	5.6	5.5	3.7
Carpentry and floor work .....	175	11.8	13.3	6.3	5.1	7.0	13.3	6.3	5.1	7.0
Roofing, siding, and sheet metal work .....	176	7.6	16.2	10.1	7.7	6.1	15.4	9.4	7.2	5.9
Concrete work .....	177	11.3	8.8	6.1	5.3	2.7	8.7	6.0	5.2	2.7
Miscellaneous special trade contractors .....	179	20.2	6.7	3.7	3.6	2.9	6.6	3.7	3.5	2.9
<b>Manufacturing</b> .....		967.7	15.3	6.7	2.6	8.6	12.0	5.3	2.1	6.6
Durable goods .....		725.7	16.4	7.0	2.7	9.4	12.7	5.6	2.2	7.1
Lumber and wood products .....	24	17.1	11.7	6.7	4.1	5.0	11.0	6.2	3.8	4.8
Millwork, plywood and structural members .....	243	6.0	13.7	7.4	3.3	6.3	13.2	7.0	3.1	6.2
Furniture and fixtures .....	25	38.2	14.8	8.0	2.7	6.8	12.0	6.2	2.3	5.8
Office furniture .....	252	15.7	12.1	6.4	1.6	5.7	9.4	4.6	1.2	4.7
Public building and related furniture .....	253	8.6	35.6	19.2	7.3	16.3	29.3	15.5	6.0	13.8
Partitions and fixtures .....	254	7.7	10.4	6.3	2.5	4.0	9.3	5.5	2.4	3.9
Stone, clay, and glass products .....	32	19.1	15.2	7.8	2.9	7.4	13.2	6.8	2.7	6.4
Products of purchased glass .....	323	7.5	17.8	8.4	1.8	9.5	14.6	6.5	1.5	8.1
Concrete, gypsum, and plaster products .....	327	5.9	11.9	8.6	4.8	3.3	11.8	8.5	4.7	3.3
Primary metal industries .....	33	36.8	17.2	8.4	3.7	8.9	15.0	7.1	3.2	7.9
Blast furnace and basic steel products .....	331	11.6	14.7	5.0	3.0	9.6	12.7	4.4	2.7	8.3
Blast furnaces and steel mills .....	3312	-	15.4	5.1	2.9	10.3	13.1	4.5	2.6	8.7
Iron and steel foundries .....	332	10.1	20.7	10.9	3.8	9.8	18.2	9.1	3.4	9.0
Gray and ductile iron foundries .....	3321	7.2	19.5	10.1	3.2	9.4	16.7	8.1	2.8	8.7
Nonferrous foundries (castings) .....	336	7.0	18.2	11.2	4.4	7.1	14.6	8.6	3.1	6.0
Fabricated metal products .....	34	128.1	17.5	8.1	3.6	9.3	15.1	7.2	3.2	7.9
Cutlery, handtools, and hardware .....	342	8.1	12.2	2.5	1.4	9.7	7.5	2.2	1.1	5.3
Hardware, n.e.c. .....	3429	7.0	13.1	2.4	1.2	10.6	7.9	2.2	1.0	5.7
Fabricated structural metal products .....	344	16.2	16.6	8.4	4.8	8.2	15.3	7.4	4.4	7.9
Sheet metalwork .....	3444	5.4	17.5	10.3	7.1	7.2	16.1	9.1	7.0	7.0
Screw machine products, bolts, etc. ....	345	13.9	18.7	8.0	3.4	10.6	17.1	7.3	3.1	9.8
Screw machine products .....	3451	7.7	15.5	4.9	2.2	10.6	13.5	3.9	1.8	9.6
Bolts, nuts, rivets, and washers .....	3452	6.2	22.5	11.8	4.8	10.6	21.4	11.5	4.6	9.9
Metal forgings and stampings .....	346	58.1	20.3	9.3	3.8	11.0	17.4	8.3	3.5	9.1
Automotive stampings .....	3465	51.8	19.0	8.9	3.5	10.1	16.1	8.0	3.3	8.1

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, 1997— Continued

Michigan

Industry <sup>2</sup>	SIC code <sup>3</sup>	1997 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>	
Metal services, n.e.c. ....	347	14.1	15.3	8.1	3.0	7.2	13.9	7.3	2.6	6.6
Plating and polishing .....	3471	7.5	13.3	7.4	3.3	6.0	11.8	6.3	2.4	5.5
Metal coating and allied services .....	3479	6.6	17.4	8.9	2.8	8.5	16.1	8.3	2.7	7.8
Miscellaneous fabricated metal products .....	349	15.3	12.4	6.5	3.9	5.9	10.8	5.4	2.9	5.4
Industrial machinery and equipment .....	35	134.9	13.3	5.7	2.5	7.6	12.2	5.1	2.3	7.1
Construction and related machinery .....	353	9.7	11.8	5.6	2.3	6.3	10.9	5.1	2.0	5.8
Metalworking machinery .....	354	66.1	13.6	5.5	2.3	8.1	12.8	5.0	2.1	7.8
Machine tools, metal cutting types .....	3541	7.1	6.9	3.0	1.3	3.9	6.9	3.0	1.3	3.9
Special dies, tools, jigs and fixtures .....	3544	36.0	16.0	6.5	2.5	9.5	14.8	5.7	2.3	9.1
Machine tool accessories .....	3545	11.1	10.6	3.6	2.2	6.9	10.2	3.6	2.1	6.6
Special industry machinery .....	355	5.9	17.5	7.2	3.5	10.3	16.7	6.8	3.3	9.9
General industrial machinery .....	356	12.7	11.9	6.4	2.7	5.5	10.5	5.3	2.2	5.2
Industrial machinery, n.e.c. ....	359	28.4	13.0	6.1	2.8	6.8	11.5	5.5	2.5	6.0
Carburetors, pistons, rings, valves .....	3592	6.0	8.3	2.2	.5	6.1	6.5	1.8	.4	4.7
Industrial machinery, n.e.c. ....	3599	19.4	13.6	6.2	3.4	7.4	12.4	5.7	3.1	6.8
Electronic and other electric equipment .....	36	33.4	11.6	5.5	2.0	6.1	7.3	3.5	1.3	3.8
Household appliances .....	363	7.3	9.9	5.2	3.1	4.7	7.7	4.1	2.4	3.6
Electronic components and accessories .....	367	8.4	9.7	4.8	1.1	4.9	6.3	2.6	.6	3.7
Miscellaneous electrical equipment and supplies .....	369	7.4	20.9	9.2	2.6	11.7	9.9	5.0	1.5	4.9
Transportation equipment .....	37	291.9	19.1	7.3	2.2	11.8	12.6	5.2	1.6	7.5
Motor vehicles and equipment .....	371	281.5	19.3	7.3	2.2	11.9	12.7	5.2	1.6	7.5
Motor vehicles and car bodies .....	3711	150.3	19.2	7.8	2.4	11.4	12.8	5.4	1.7	7.3
Motor vehicle parts and accessories .....	3714	129.6	19.3	6.8	1.9	12.5	12.5	4.9	1.5	7.6
Instruments and related products .....	38	17.9	7.2	3.1	1.2	4.1	6.0	2.1	.8	3.9
Measuring and controlling devices .....	382	8.8	6.3	2.3	1.3	4.0	5.1	1.5	.7	3.7
Medical instruments and supplies .....	384	4.9	11.6	6.5	1.5	5.1	9.5	4.4	1.1	5.1
Miscellaneous manufacturing industries .....	39	8.3	13.0	6.1	2.5	6.8	10.8	4.9	1.9	5.9
Nondurable goods .....		242.0	11.7	5.6	2.4	6.1	9.8	4.5	2.0	5.3
Food and kindred products .....	20	41.9	16.6	9.8	3.2	6.9	13.6	7.8	2.9	5.8
Meat products .....	201	8.4	34.5	23.3	4.8	11.2	25.1	16.5	4.5	8.6
Preserved fruits and vegetables .....	203	7.2	7.3	3.5	.8	3.8	6.8	3.2	.7	3.5
Grain mill products .....	204	5.4	7.7	4.8	3.6	2.9	6.1	4.1	3.3	1.9
Bakery products .....	205	6.4	15.4	9.5	2.5	5.9	12.7	7.5	2.0	5.2
Apparel and other textile products .....	23	19.1	16.2	7.4	1.3	8.8	10.6	4.9	1.0	5.7
Paper and allied products .....	26	21.6	10.5	5.2	2.9	5.3	9.8	4.8	2.6	5.0
Paper mills .....	262	6.4	8.7	3.4	2.2	5.2	8.2	3.3	2.1	4.9
Paperboard containers and boxes .....	265	7.2	12.3	6.9	3.8	5.4	11.7	6.7	3.6	5.1
Printing and publishing .....	27	43.2	6.9	4.0	2.0	2.8	5.9	3.4	1.6	2.5
Newspapers .....	271	13.4	8.5	5.3	2.8	3.2	7.1	4.6	2.3	2.5
Books .....	273	4.8	5.5	3.6	1.8	1.9	4.8	3.2	1.5	1.6
Commercial printing .....	275	17.6	6.9	3.9	1.8	3.0	6.0	3.2	1.4	2.8
Commercial printing, lithographic .....	2752	12.6	6.9	4.0	1.6	3.0	6.2	3.4	1.4	2.8
Commercial printing, n.e.c. ....	2759	4.6	6.8	3.9	2.5	2.9	5.6	3.0	1.7	2.6
Chemicals and allied products .....	28	42.8	5.5	2.4	1.5	3.1	4.5	2.1	1.4	2.4
Plastics materials and synthetics .....	282	6.5	6.2	2.5	1.0	3.7	4.6	2.1	.7	2.5
Drugs .....	283	12.8	6.1	1.5	1.1	4.6	4.4	1.2	.9	3.2
Pharmaceutical preparations .....	2834	12.0	6.1	1.4	1.1	4.7	4.3	1.1	.8	3.2

See footnotes at end of table.

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			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>	
Rubber and miscellaneous plastics products .....	30	67.0	14.2	5.6	2.6	8.6	12.5	4.5	2.1	8.1
Miscellaneous plastics products, n.e.c. ....	308	57.0	14.5	5.4	2.5	9.1	12.8	4.3	2.0	8.5
Plastics products, n.e.c. ....	3089	45.5	14.1	4.5	2.2	9.5	12.3	3.3	1.7	9.0
<b>Transportation and public utilities<sup>8</sup></b> .....		164.7	9.2	4.9	2.8	4.3	8.9	4.7	2.6	4.2
Railroad transportation <sup>8</sup> .....	40	—	5.1	3.8	3.1	1.3	4.9	3.6	2.9	1.3
Local and interurban passenger transit .....	41	7.8	11.5	7.2	6.8	4.3	11.2	6.9	6.4	4.3
Trucking and warehousing .....	42	44.8	10.8	4.1	2.9	—	10.8	4.1	2.8	—
Transportation by air .....	45	30.0	15.8	9.9	5.7	5.8	14.9	9.4	5.3	5.5
Transportation services .....	47	16.0	6.9	4.5	.9	2.4	6.7	4.3	.8	2.4
Communications .....	48	31.1	5.7	3.6	1.6	2.1	5.2	3.4	1.4	1.8
Electric, gas, and sanitary services .....	49	32.5	6.8	3.5	1.8	3.2	6.6	3.5	1.7	3.2
<b>Wholesale and retail trade</b> .....		1,032.8	7.9	3.7	2.2	4.2	7.7	3.6	2.1	4.1
Wholesale trade .....		225.1	8.3	4.6	2.7	3.7	7.9	4.5	2.7	3.4
Wholesale trade—durable goods .....	50	148.4	7.3	3.7	2.0	3.6	6.8	3.5	1.9	3.3
Wholesale trade—nondurable goods .....	51	76.7	10.2	6.5	4.2	3.8	10.1	6.4	4.2	3.7
Retail trade .....		807.7	7.8	3.4	2.0	4.4	7.6	3.3	1.9	4.3
Building materials and garden supplies .....	52	37.7	9.3	4.5	2.9	4.7	9.3	4.5	2.9	4.7
Lumber and other building materials .....	521	19.2	12.4	5.7	3.7	6.8	12.4	5.7	3.7	6.8
Hardware stores .....	525	10.4	5.9	3.6	1.6	2.3	5.8	3.5	1.6	2.3
General merchandise stores .....	53	129.8	10.3	5.9	2.3	4.4	10.0	5.7	2.2	4.3
Food stores .....	54	106.6	7.4	3.4	2.4	4.0	7.2	3.2	2.3	3.9
Grocery stores .....	541	91.9	7.9	3.6	2.5	4.3	7.6	3.4	2.4	4.2
Retail bakeries .....	546	6.9	2.8	1.2	1.2	1.6	2.8	1.2	1.2	1.6
Automotive dealers and service stations .....	55	85.3	6.8	2.5	1.5	4.3	6.7	2.4	1.5	4.3
New and used car dealers .....	551	40.2	7.2	1.8	1.1	5.4	7.2	1.8	1.1	5.4
Gasoline service stations .....	554	27.1	5.0	2.3	1.8	2.6	4.8	2.2	1.6	2.6
Apparel and accessory stores .....	56	34.8	2.9	1.0	.8	1.9	2.9	1.0	.8	1.9
Furniture and home furnishings stores .....	57	33.9	5.3	2.8	1.4	2.5	5.3	2.8	1.4	2.5
Eating and drinking places .....	58	283.9	9.2	3.2	2.2	6.0	9.1	3.1	2.2	5.9
Miscellaneous retail .....	59	95.6	4.0	1.8	1.1	2.2	3.8	1.7	1.1	2.1
<b>Finance, insurance, and real estate</b> .....		203.5	2.6	1.2	.9	1.4	2.4	1.1	.8	1.2
Depository institutions .....	60	68.5	1.3	.4	.4	.9	1.2	.3	.3	.9
Nondepository institutions .....	61	14.8	.4	.1	( <sup>9</sup> )	.4	( <sup>9</sup> )	( <sup>9</sup> )	( <sup>9</sup> )	.4
Insurance carriers .....	63	40.4	1.3	.7	.5	.7	1.2	.6	.4	.6
Real estate .....	65	39.0	9.3	5.0	3.5	4.3	8.5	4.8	3.4	3.7
<b>Services</b> .....		1,150.4	4.7	2.4	1.3	2.4	4.5	2.3	1.2	2.2
Hotels and other lodging places .....	70	35.8	9.8	4.9	2.2	5.0	9.5	4.8	2.1	4.7
Personal services .....	72	43.2	4.1	2.0	.9	2.1	3.9	1.8	.8	2.1
Laundry, cleaning, and garment services .....	721	15.6	6.0	2.9	1.1	3.1	5.6	2.7	1.1	3.0
Auto repair, services, and parking .....	75	40.5	5.7	2.4	1.7	3.3	5.6	2.3	1.6	3.3
Automotive repair shops .....	753	23.3	5.5	2.0	1.5	3.4	5.4	2.0	1.4	3.4
Automotive services, except repair .....	754	10.3	5.2	2.6	2.2	2.6	5.1	2.6	2.2	2.5
Miscellaneous repair services .....	76	13.7	9.1	5.3	2.9	3.8	8.0	4.7	2.7	3.3
Motion pictures .....	78	15.8	3.4	2.2	.2	1.1	3.3	2.2	.1	1.1
Amusement and recreation services .....	79	50.8	6.6	2.2	1.4	4.4	6.4	2.2	1.4	4.2

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, 1997— Continued

Michigan

Industry <sup>2</sup>	SIC code <sup>3</sup>	1997 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>	
Health services .....	80	359.6	7.9	3.9	2.2	4.1	7.4	3.8	2.1	3.7
Nursing and personal care facilities .....	805	49.9	22.9	13.1	6.2	9.8	22.7	13.0	6.1	9.7
Hospitals .....	806	166.0	8.3	3.6	2.2	4.8	7.4	3.4	2.1	3.9
Educational services .....	82	37.3	2.1	.8	.4	1.4	2.1	.7	.4	1.4
Colleges and universities .....	822	14.5	1.9	.8	.5	1.1	1.9	.8	.5	1.1
Social services .....	83	86.0	6.2	3.7	1.7	2.5	6.1	3.6	1.5	2.5
<b>State and local government</b> .....		534.4	7.9	3.6	2.5	4.3	7.4	3.4	2.4	4.1
<b>State government</b> .....		137.2	4.3	2.2	1.7	2.1	3.9	2.1	1.5	1.8
<b>Services</b> .....		87.1	3.6	1.8	1.2	1.8	3.2	1.7	1.1	1.6
Educational services .....	82	63.0	2.9	1.4	.8	1.5	2.5	1.2	.7	1.3
Social services .....	83	—	6.1	1.7	1.6	4.3	5.4	1.4	1.3	3.9
<b>Public administration</b> .....										
Justice, public order, and safety .....	92	22.1	8.0	4.5	3.5	3.5	7.7	4.4	3.4	3.3
Administration of human resources .....	94	9.2	2.7	1.3	1.1	1.4	2.5	1.1	1.0	1.3
<b>Local government</b> .....		397.2	9.7	4.3	3.0	5.5	9.3	4.1	2.8	5.3
<b>Construction</b> .....		5.6	15.0	8.8	6.0	6.2	13.6	8.3	5.6	5.3
<b>Services</b> .....		259.4	6.5	2.8	1.9	3.7	6.2	2.6	1.7	3.6
Hospitals .....	806	13.0	11.2	5.0	2.8	6.2	10.4	4.7	2.6	—
Educational services .....	82	239.8	5.8	2.3	1.6	3.4	5.6	2.2	1.5	3.4
Elementary and secondary schools .....	821	221.8	6.0	2.4	1.7	3.6	5.8	2.3	1.5	3.6
<b>Public administration</b> .....		129.0	14.7	6.4	4.6	8.3	14.0	6.1	4.4	8.0
Executive, legislative, and general .....	91	116.6	15.1	6.3	4.6	8.8	14.5	6.0	4.4	8.4
Administration of human resources .....	94	7.5	12.6	7.9	6.1	4.7	12.0	7.5	5.8	4.5

<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> 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