Work Injuries in the United States During 1946

Bulletin No. 921

UNITED STATES DEPARTMENT OF LABOR L. B. Schwellenbach, Secretary

> BUREAU OF LABOR STATISTICS Ewan Clague, Commissioner



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Letter of Transmittal

UNITED STATES DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS, Washington, D. C., October 20, 1947.

THE SECRETARY OF LABOR:

I have the honor to transmit herewith a report on work injuries in the United States during 1946. Over 53,000 establishments participated in the survey on which the report is based.

This bulletin, a portion of which appeared in the October 1947 Monthly Labor Review, was prepared by Max D. Kossoris, Chief of the Bureau's Division of Industrial Hazards.

EWAN CLAGUE, Commissioner.

Hon. L. B. SCHWELLENBACH, Secretary of Labor.

Contents

	Page
Injury estimates and rates in 1946	1
Estimates of disabling work injuries	1
Injury-frequency rates:	
Manufacturing	3
Nonmanufacturing	3
Injury severity	4
Appendix tables:	
Table A.—Injury rates and injuries by extent of disability, 1946	6
Table B.—Changes in exposure, disabling injuries, and injury rates for 32,241	
identical establishments, 1945 to 1946	10
Table C.—Estimates of disabilities, by extent, for manufacturing industries	
1946	13
Table D.—Distribution of all reported injuries resulting in permanent partia	
disability, according to part of body affected, by industry, 1946	14
Table EIndexes of injury-frequency rates in manufacturing, 1926-46 k	
extent of disability	15

(III)

Work Injuries in the United States

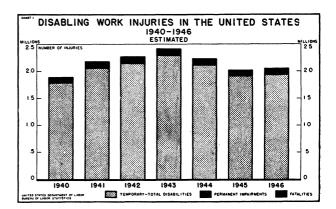
Injury Estimates and Rates in 1946

Estimates of Disabling Work Injuries

FOR THE SIXTH CONSECUTIVE YEAR, disabling work injuries in the United States exceeded 2 million in 1946. The estimated total of 2,056,000 disabling injuries constituted an increase of slightly more than 1 percent above the revised 1945 figures (2,020,300). Although the rise was slight, it marked a reversal of the downward trend from the peak in 1943. The 1946 total, nevertheless, was lower than that for any of the war years, 1941-44.

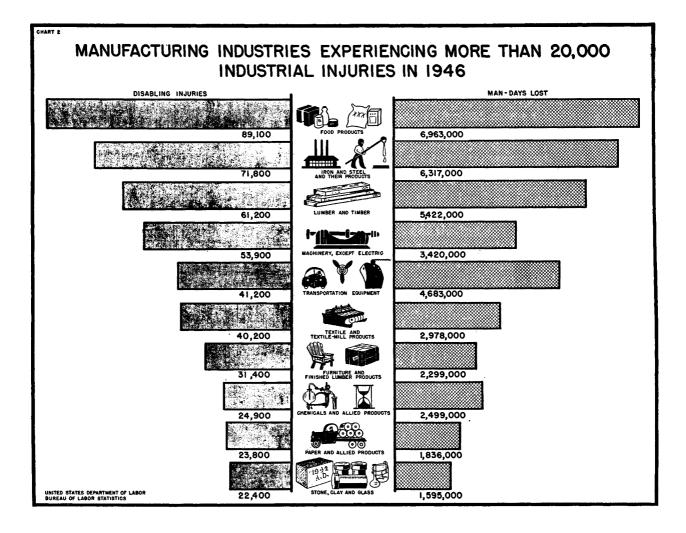
Actual time lost from work because of disabling injuries during 1946 was estimated at about 42¼ million days—a sufficient amount of time taken out of production or services to have provided full-time employment over an entire year for about 142,000 workers. In other words, the effect of disabling work injuries was to subtract that many workers from the country's labor force for all of 1946. Taking into consideration standard time charges for future economic losses occasioned by deaths and permanent impairments, the total time loss caused by the year's disabling work injuries was estimated to reach a total of nearly 230 million days, or enough to supply full-time annual employment for about 765,000 workers.

Estimated fatalities resulting from work injuries numbered 16,500—the same as the revised 1945 figure. Permanent total disabilities, which usually incapacitate workers entirely from future industrial employment, and which normally amount to 10 percent of fatalities, remained unchanged at 1,800. Permanent partial impairments, however, increased to 92,400—nearly 5,000 above the estimate for the preceding year. As in earlier years, about three-fourths of these impairments were of the hand or fingers. Most of these impairments will not prevent the workers involved from continuing in industrial employment, but many may require retraining or changes in jobs. The greatest volume of the injuries—1,945,300—were temporary in nature and resulted in a time loss of 1 or more days for each disability. In manufacturing, the duration of temporary injuries averaged 17 days.



The major industry group with the largest number of disabling work injuries, in 1945, was manufacturing. Although the 541,500 injuries estimated for this group fell about 50,000 below the 1945 level, 2,500 injuries resulted in death and more than 28,000, in permanent impairments (table 1).

The major industrial group with the largest number of fatalities—4,500—was agriculture. The data for this industry were extremely meager and have not improved during the last 10 years (1937–46), although more attention has been centered on farm safety in recent years. Work injuries were estimated at about 323,600. The injury experience for mining and quarrying during 1946 was only slightly worse than for 1945. The injury total for construction, contrary to the preliminary estimates, increased by only about 20,000 over the preceding year's level. The earlier estimates had indicated a much sharper increase. Fatalities, nevertheless, reached 2,200 in 1946, against 1,700 in 1945. The services, government, and miscellaneous industries group was estimated to have had the second largest injury total—407,900—and 2,500 of these resulted in deaths. In sharp contrast with manufacturing, however, the number of permanent partial impairments was below 20,000 even though both groups were estimated to have had the same number of fatalities. An important



reason for this difference is the more prevalent use of power machinery in manufacturing. The injury total for this large miscellaneous group was somewhat higher than the 1945 estimate.

The 1946 estimates also indicated higher levels for the remaining major industry groups. For public utilities, the 1946 total of 25,500 was almost 25 percent higher than for 1945. The trade group, including both wholesale and retail, had a 12-percent greater injury volume in 1946 than in the previous year, with a total of 333,100. Only 1,400 of these, however, were fatal.

Two groups, in addition to manufacturing, experienced decreases. For railroads, the 1946 injury total of 76,000 was about 18,000 below the 1945 figure. For miscellaneous transportation, with a 1946 total of 132,800, the estimated decrease was about 5 percent below the 1945 level.

TABLE 1.—Estimated number of disabling injuries during 1946, by industry group [Difference between total number of injuries and injuries to employees represents injuries to self-employed workers]

Industry group	All disabilities		Fatalities		Perman disab	ent total ilities	Permane disab	nt partial ilities	Tempor disab	ary total ilities
industry group	Total	To em- ployees	Total	To em- ployees	Total	To em- ployees	Total	To em- ployees	Total	To em- ployees
All groups	2, 056, 000	1, 614, 700	16, 500	11, 700	1, 800	1, 400	92, 400	72, 900	1, 945, 300	1, 528, 700
Agriculture ¹ Mining and quarrying ³ Construction ³ Manufacturing ⁴ Public utilities Trade ³ Railroads ⁴ Miscellaneous transportation ³ Services, government, and miscellaneous industries ³	323, 600 83, 800 131, 800 541, 500 25, 500 333, 100 76, 000 132, 800 407, 900	75, 100 79, 400 88, 300 532, 400 25, 500 266, 600 76, 000 114, 000 357, 400	4, 500 1, 300 2, 200 2, 500 1, 400 1, 400 800 900 2, 500	1, 100 1, 200 1, 600 2, 400 1, 200 800 700 2, 300	400 200 300 200 (*) 100 300 100 200	100 200 200 (*) 100 300 100 200	16, 200 3, 700 3, 400 28, 200 600 8, 000 5, 300 7, 600 19, 400	$\begin{array}{r} 3,700\\ 3,500\\ 2,300\\ 27,700\\ 6,00\\ 6,400\\ 5,300\\ 6,500\\ 16,900\end{array}$	302, 500 78, 600 125, 900 510, 600 24, 500 323, 600 69, 600 124, 200 335, 800	70, 200 74, 500 84, 200 502, 100 24, 500 258, 900 69, 600 106, 700 338, 000

¹ Based on fragmentary data.
 ² Based largely on Bureau of Mines data.
 ³ Based on small sample studies.

Injury-Frequency Rates

Manufacturing: For the entire group of manufacturing industries, the weighted frequency rate for 1946 was 19.9, or about 7 percent above the 1945 rate (18.6). This increase was the result of frequency-rate increases in most of the individual manufacturing industries.

Of the major groups (each composed of a number of related industries), 5 had rates in 1946 which differed by less than a full frequency-rate point from their 1945 level; 9 had group rates which were from 1 to 5 points higher than in 1945. On the downward side, only 1 group was 5 points or more below its 1945 figure, and only 2 had rates from 1 to 5 frequency points lower.

Individual manufacturing industries had much the same experience. Of the 148 industries included in the survey, 36 showed changes of less than 1 frequency-rate point, up or down. But 76 had larger increases, 22 of these experiencing a rise of 5 full frequency-rate points or more. Only 36 industries showed decreases, 7 of which dropped 5 or more points. In general, the frequency rates in manufacturing industries went up.

Among the manufacturing industries for which frequency rates in 1946 were 5 points or more higher than in the previous year, were sawmills (with an increase from 56.6 to 64.1), combined saw and planing mills (52.6 to 60.3), boatbuilding (26.1 to 47.7), cut-stone and stone products (27.6 to 42.7), leather (28.4 to 34.9), and concrete, gypsum, and plaster products (27.0 to 32.7).

Industries in which frequency rates were 40 or more, that is, at least 40 disabling injuries per 500 workers per year, were cut-stone and stone ⁴ Based on comprehensive survey. ⁵ Less than 50.

⁶ Based on Interstate Commerce Commission data.

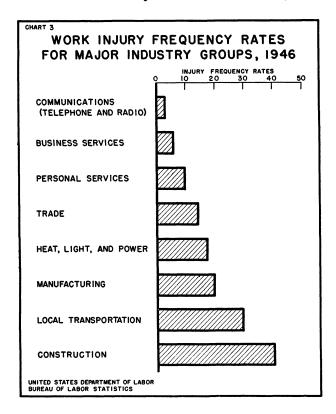
products (42.7), veneer mills (43.6), plywood mills (43.9), structural clay products (44.9), breweries (45.3), wooden containers (45.7), iron foundries (47.3), boatbuilding (47.7), combined saw and planing mills (60.3), sawmills (64.1), and logging (80.4). Although the logging rate was the highest in all manufacturing, it was about 12 points below the 1945 rate (92.0).

An important industry with a drop of more than 5 frequency-rate points was dairy products, the rate for which declined from 33.1 to 23.8.

At the other end of the scale were 4 industries which experienced less than 5 disabling work injuries for each million employee-hours worked: Synthetic rubber (1.9), millinery (2.6), electric lamps-bulbs (3.9), and women's and children's clothing (4.2). The explosives industry, in which injuries in recent years have been greatly reduced, had a frequency rate of 5.7. It is a significant tribute to accident prevention that injuries in an industry such as explosives, popularly regarded as extremely hazardous, occurred about half as frequently per million hours of exposure as in the tobacco industry, usually regarded as very safe. It also speaks eloquently for the needless toll of over 2 million disabling injuries in the country's industries, and the tremendous cost to both labor and management in terms of suffering, lost income, and output.

Nonmanufacturing: Because of the interest focused on mining accidents, the Bureau's data this year include frequency rates for mining. The rates were preliminary and were obtained from the United States Bureau of Mines. They indicated that both anthracite and bituminous-coal mining were among the most hazardous of industries, exceeded by only a few others. The frequency rate for anthracite mining for 1946 was 84.2, and for bituminous-coal mining, 61.4. The size of the bituminous rate placed it in the same category as sawmills—one of the most hazardous in the manufacturing group.

As in past years, the nonmanufacturing industry in the Bureau's own survey with the highest fre-. quency rate was stevedoring. The 1946 rate of 77.2 was substantially below that for 1945 (87.6).



The nature of the reporting sample, however, suggests that both of these rates probably understated the situation considerably. If a more comprehensive study made a few years ago is any indication of the actual injury experience in this hazardous industry, the actual frequency rate may well have been twice as high as that based on the reporting sample of 73 stevedoring contractors.

All 3 industries in the construction group had sizable increases in the frequency of disabling injuries in 1946 as compared with 1945. The least hazardous of these—building construction—had an increase in its rate from 30.9 to 35.4. In heavy engineering construction, the frequency rate jumped from 28.1 to 46.7, and the rate for highway construction advanced nearly as sharply—but to an even higher level—from 35.8 to 50.5.

For 2 other industries in which frequency rates customarily are high, the 1946 rates showed very little change from those for 1945. In trucking and hauling, the rate decreased slightly, (37.5 to 35.6), and in warehousing and storage it increased fractionally (34.3 to 34.8).

The contrast between industries with very high and very low rates was as marked in nonmanufacturing as in manufacturing. Contrasted with rates in the 60's, 70's, and 80's in the mining and stevedoring industries are rates as low as 2.4 in radio broadcasting, 2.9 in the telephone industry, 3.1 in insurance, and 3.8 in retailing of apparel and accessories.

Injury Severity

Little emphasis has been placed on the severity rate in the Bureau's analysis of work-injury experiences of the last few years. The reason for this was the conviction that the severity rate does not actually measure injury severity, but is in effect a weighted frequency rate.¹ Although the rate serves a useful purpose, it is obviously misnamed. As pointed out in earlier years, the disability distribution is a more accurate indicator of changes in the severity of injuries than the severity rate. If a single measure of injury severity is wanted, perhaps the simplest measure of all is the average time charge per disabling injury. For the injuries reported to the Bureau of Labor Statistics for 1946, this average time charge was nearly 82 days per injury. This, of course, includes, in addition to the actual time lost in temporary total disabilities, the standard time charges for deaths and permanent impairments.

The so-called severity rate, being a composite of injury frequency, time charges, and hours of exposure, may be more aptly designated as a "hazard rate," reflecting the days lost because of injuries per 1,000 hours of exposure. For the entire manufacturing group, this measure was 1.6 for 1946. The rate indicates that for every person employed a full year (i. e., 2,000 hours), 3.2 days were lost because of work injuries. This, of course, includes all workers, regardless of whether

¹ The severity rate is the average number of days lost, because of disabling work injuries, per 1,000 employee-hours worked.

5

or not they were injured, and includes standard time charges for deaths and permanent impairments. For those who were injured, the story is quite different: Those who were only temporarily disabled, lost on an average of 17 days each. (In some industries this average was appreciably higher; in shipbuilding, for instance, it was 47 days.) As already indicated, if standard time charges are included, the average comes to 82 days.

Manufacturing industries with high severity rates (5 or over) were plastics (9.9), logging (9.5), plywood mills (7.7), breweries and cut stone, each (5.5), and steel barrels (5.1). Among nonmanufacturing industries were heavy engineering (5.7), highway construction (5.1), and, topping them all, stevedoring, with an unusually high rate (25.9).

The disability distribution, as already indicated, permits a better analysis of actual injury severity than does the severity rate. Of the injuries that actually occurred, 2.0 percent in petroleum refining were fatal. The same percentage applied to waterworks, and nearly the same percentage (1.8 percent) to construction not elsewhere classified, consisting largely of demolition work. In logging, the fatality percentage was 1.2, putting that industry on about the same level as iron and steel, copper smelting, heavy engineering construction, and police departments. For all man-

Injury-frequency rates for a large number of individual industries are shown in table A. The group frequency rates shown in this table were computed by weighting the rates for the individual industries by the total employment in the respective industry classifications.

For the first time frequency rates for mining have been included among those listed in table A. These rates were secured from the United States ufacturing industries, deaths usually average about one-half of 1 percent of all disabilities.

Industries in which permanent partial impairments constituted 10 percent or more of the injuries incurred included—plastics (36.8), stevedoring (14.8), hardware and electrical appliances, each (14.4), stamped and pressed metal products (12.0), cold-finished steel (10.4), and communication equipment (10.1).

In the manufacturing group, 77 percent of permanent partial disabilities involved the hand or fingers. The percentages of such injuries to these members were particularly high in the following industries: 96 percent in metal furniture, in stamped metal products, and in commercial machinery; 92 percent in wooden containers and in leather; 90 percent in wood furniture and in hardware; 87 percent in electrical equipment; 86 percent in book and job printing; and 82 percent in paper and pulp.

Outstanding for high percentages of permanent impairments to an arm were highway construction, 17 percent; carpets, 11 percent; bakeries, 10 percent; and news and periodical printing, 10 percent.

Permanent injuries to eyes loomed large in the manufacture of tools and shipbuilding-10 percent in each industry.

Appendix Tables

Bureau of Mines and are included in this report to make it more comprehensive.

The other tables continue for 1946 the same types of data shown in the reports for previous years: changes in employment, exposure, and injuries; total injury estimates for individual industries; the distribution of permanent impairments according to the body parts affected; and the injury trend data in manufacturing industries.

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TABLE A.-Injury rates and injuries by extent of disability, 1946

[All reporting establishments]

			Employee-			t of disab resulting		A verage per disa	days lost bility 1—	Injury	rates 2-
Industry	Number of estab- lish- ments	Average number of em- ployees	hours worked (thou- sands)	Number of dis- abling injuries	Death and per- manent total dis- ability ³	Perma- nent partial disabil- ity	Tempo- rary totaldis- ability	Perma- nent partial disabil- ity	Tempo- rary totaldis- ability	Fre- quency	Sever- ity 1
All industries 4	53, 133	9, 731, 092	19, 301, 191	354, 844							
Manufacturing						<u> </u>					
Total, manufacturing		7, 894, 471	15, 246, 509	295, 576	0.3	4.9	94.8	938	17	\$ 19.9	³ 1. 6
Apparel and other finished textile products Clothing, men's and boys' Clothing, women's and children's Millinery. Apparel and accessories, not elsewhere	604	218, 297 111, 232 65, 184 2, 288	406, 648 206, 892 118, 113 4, 282	3, 023 1, 571 497 11	.1 .3 (6)	1.4 .8 (⁶)	98.5 99.2 99.7 (⁶)	1,020 1,900	12 11 9 21	5 9.5 7.6 4.2 2.6	⁵ 0.4 .2 .1 .1
Trimmings and fabricated textile prod-	83	7, 988	15, 129	121	(6)	(6)	(6)	750	14	8.0	.4
dets, not elsewhere classified		31, 605	62, 230	823	. 2	2.9	96.9	778	14	13. 2	.6
Chemicals and allied products. Compressed and liquefied gases. Drugs, toiletries, and insecticides. Explosives. Fertilizers. Industrial chemicals. Paints, varnishes, and colors. Paints, varnishes, and colors. Paints and roofing materials. Petroleum refining ' Plastic materials, except rubber. Soap and glycerin. Synthetic rubber. Synthetic textile fibers. Vegetable and animal oils. Not elsewhere classified.	$ \begin{array}{c} 71 \\ 444 \\ 399 \\ 377 \\ 41 \\ (^8) \\ 134 \\ 134 \\ 7 \\ 28 \\ 36 \\ 205 \end{array} $	$\begin{array}{c} 539, 128\\ 4, 533\\ 60, 360\\ 10, 858\\ 21, 633\\ 127, 254\\ 38, 901\\ 7, 799\\ 137, 000\\ 17, 159\\ 20, 471\\ 1, 016\\ 64, 713\\ 5, 291\\ 22, 140\\ \end{array}$	$\begin{array}{c} 1,115,154\\ 9,116\\ 120,359\\ 23,270\\ 44,258\\ 266,853\\ 81,304\\ 17,672\\ 288,000\\ 36,360\\ 40,765\\ 2,098\\ 127,285\\ 9,918\\ 47,889 \end{array}$	$15, 340 \\ 109 \\ 1, 707 \\ 133 \\ 1, 462 \\ 4, 152 \\ 1, 515 \\ 320 \\ 3, 060 \\ 361 \\ 437 \\ 4 \\ 870 \\ 244 \\ 966 \\ 1000 $	(*) (*) (*) (*) (*) (*) (*) (*) (*) (*)	$ \begin{array}{c} 5.0 \\ (^6) \\ 3.5 \\ (^6) \\ 3.7 \\ 4.7 \\ 3.1 \\ 2.7 \\ (^8) \\ 36.8 \\ 4.0 \\ (^6) \\ 2.2 \\ 6.1 \\ 5.0 \end{array} $	94. 5 (⁶) 95. 9 95. 5 94. 7 96. 9 97. 0 (⁸) (⁸) 95. 5 (⁶) 97. 8 93. 1 94. 5	$1, 110 \\ 1, 800 \\ 1, 174 \\ 2, 100 \\ 907 \\ 955 \\ 842 \\ 1, 356 \\ (8) \\ (8) \\ (8) \\ 1, 70 \\ 600 \\ \hline 2, 050 \\ 1, 227 \\ 1, 242 \\ \hline \right)$	16 19 15 36 16 13 13 16 (*) 13 17 7 7 18 14 15	515.7 12.0 14.2 5.7 33.0 15.6 18.6 18.1 10.6 9.9 10.7 1.9 6.8 24.6 20.2	⁵ 1.9 1.2 1.2 3.0 3.1 1.9 .8 1.3 (⁸) 9.9 1.1 (¹³) 1.0 3.4 2.1
Electrical machinery, equipment, and sup- plies	1, 152 28 53	645, 930 15, 157 15, 574	1, 251, 236 30, 587 30, 775	12, 374 564 592	.2	8.4 4.5 3.5	91. 4 95. 5 96. 5	743 660 576	19 11 10	\$ 10. 1 18. 4 19. 2	⁵ 1.0 .7 .6
Electrical machinery, equipment, and sup- plies	51 82 573 26 43 261 35	79, 448 31, 345 300, 743 13, 221 16, 005 163, 989 10, 448	166, 945 58, 459 564, 796 35, 094 30, 324 320, 764 23, 489	1, 162 978 5, 917 99 508 2, 359 195	(6) .5 .2 .2 (6)	10. 1 14. 4 8. 0 (⁶) 4. 5 9. 0 (⁶)	89. 4 85. 4 91. 8 (⁶) 95. 5 91. 0 (⁶)	548 667 711 1,200 350 1,008 300	24 13 21 13 18 17 10	7.0 16.7 10.5 3.9 16.8 7.4 8.3	.9 2.6 .9 1.1 .5 .8 .6
Food products Baking Beverages, not elsewhere classified Breweries Canning and preserving Confectionery Dairy products Distilleries Flour, feed, and grain-mill products Slaughtering and meat-packing Sugar refining Not elsewhere classified	4,065 673 284 299 402 247 292 119 523 847 106 273	504, 491 53, 723 9, 011 56, 243 60, 034 37, 091 19, 706 23, 997 45, 682 133, 281 20, 659 30, 064	$\begin{matrix} 1, 021, 007\\ 118, 890\\ 18, 338\\ 120, 634\\ 119, 115\\ 71, 290\\ 44, 811\\ 49, 435\\ 102, 649\\ 261, 364\\ 55, 120\\ 60, 356\end{matrix}$	$\begin{array}{c} 30,087\\ 2,151\\ 505\\ 5,465\\ 3,655\\ 1,239\\ 1,065\\ 615\\ 2,726\\ 9,343\\ 1,854\\ 1,469\end{array}$.3 .2 .5 .5 .5 .5 .5 .3 .1 .9 .3	4.0 4.6 1.6 8.1 2.5 2.3 1.6 5.8 2.3 2.6 2.8 2.8 1.2	95. 7 95. 2 98. 4 91. 7 97. 0 97. 5 97. 9 94. 2 97. 4 97. 3 96. 3 98. 5	$\begin{array}{c} 1, 194\\ 1, 129\\ 988\\ 1, 246\\ 1, 340\\ 1, 538\\ 672\\ 1, 593\\ 1, 288\\ 816\\ 943\\ 1, 388\end{array}$	13 14 10 12 15 15 13 19 14 12 15 13	⁵ 24. 6 18. 1 29. 1 45. 3 30. 7 17. 4 23. 8 12. 4 26. 6 35. 7 33. 6 24. 3	51.9 1.4 .7 5.5 2.5 1.1 1.3 1.9 1.8 1.8 3.1 1.5
Furniture and finished lumber products Furniture, metal Furniture, except metal Mattresses and bedsprings Morticians' supplies Office, store, and restaurant fixtures Wooden containers Not elsewhere classified	2, 252 86 825 212 107	213, 075 22, 929 86, 027 15, 366 7, 046 9, 144 42, 865 29, 698	434, 498 44, 932 175, 582 30, 041 13, 671 19, 002 87, 831 63, 436	14, 254 949 5, 087 1, 040 337 531 4, 017 2, 293	.2 .2 	6.0 7.8 7.1 2.9 3.9 7.9 4.4 5.0	93.8 92.2 92.7 97.1 96.1 91.7 95.3 94.5	802 849 811 571 1, 104 688 702 878	14 13 10 14 11 16 15	⁵ 32. 7 21. 1 29. 0 34. 6 24. 7 27. 9 45. 7 36. 1	^{\$} 2.7 1.7 2.3 1.0 1.4 2.6 3.0 3.5
Iron and steel and their products Bolts, nuts, washers, and rivets Cold-finished steel. Cutlery and edge tools. Fabricated structural steel. Forgings, iron and steel. Foundries, iron.	4, 902 83 48 133 425 184 823	$\begin{array}{c} \textbf{1, 414, 879} \\ \textbf{18, 076} \\ \textbf{12, 906} \\ \textbf{24, 990} \\ \textbf{48, 808} \\ \textbf{54, 205} \\ \textbf{136, 495} \\ \textbf{56, 468} \\ \textbf{59, 817} \end{array}$	2, 729, 916 33, 929 23, 839 55, 479 95, 860 101, 200 273, 673 100, 175 115, 327	60, 860 638 547 1, 278 2, 810 3, 157 12, 947 3, 468 1, 594	.4 .5 .1 .4 1.9 .1	5.4 5.6 10.4 4.1 4.4 4.5 2.4 4.6 14.4	94. 2 94. 4 89. 6 95. 9 95. 1 95. 4 97. 2 93. 5 85. 5	871 540 534 1, 462 568 805 968 752 649	18 21 20 14 25 14 14 24 14	⁵ 23. 0 18. 8 22. 9 23. 0 29. 3 31. 2 47. 3 34. 6 13. 8	 ⁵ 1. 9 .8 1. 6 2. 0 1. 6 2. 4 2. 8 4. 3 1. 3
Hardware. Heating equipment, not elsewhere classi- fied. Iron and steel. Metal coating and engraving. Ornamental metalwork. Plate fabrication and boiler-shop products.	1 122	53, 820 493, 744 10, 844 13, 672 43, 015	104, 195 915, 402 21, 959 27, 836 80, 783	3, 755 8, 689 633 642 2, 864	.2 1.3 .4	3.5 9.4 3.1 6.5 2.6	96. 3 89. 3 96. 9 93. 5 97. 0	1, 080 1, 011 600 1, 031 1, 154	12 40 12 12 13	36. 0 9. 5 28. 8 23. 1 35. 5	2.6 1.8 1.2 1.3 2.3

TABLE A.—Injury rates and injuries by extent of disability, 1946—Continued

			Employee		Percen juries	t of disab resulting	ling in- in ¹ —	Average per disal	days lost bility 1—	Injury 1	ates 2—
Industry	Number of estab- lish- ments	A verage number of em- ployees	Employee- hours worked (thou- sands)	Number of dis- abling injuries	Death and per- manent total dis- ability ³	Perma- nent partial disabil- ity	Tempo- rary total dis- ability	Perma- nent partial disabil- ity	Tempo- rary total dis- ability	Fre- quency	Sever- ity 1
Manufacturing—Continued											
ron and steel and their products—Con. Plumbers' supplies Screw-machine products	105 185 134	34, 869 24, 906 12, 442	75, 283 53, 749 24, 786	1, 524 1, 105 721	* 0.2	2.7 5.5 5.1	97. 1 94. 5 94. 9	950 729 670	13 19 22	20. 2 20. 6 29. 1	1 1 1
elsewhere classified. Steam fittings and apparatus	452 191 44 34 112 205 21 222	94, 428 39, 638 8, 487 12, 872 39, 516 29, 649 5, 002 53, 316	194, 145 78, 404 16, 092 23, 942 77, 027 61, 166 9, 223 103, 221	4, 409 2, 239 290 544 1, 321 1, 515 196 2, 447	.2 .2 2.7 .3 (6)	12.0 2.9 5.4 5.5 6.6 7.8 (6) 4.6	87.8 96.9 91.9 94.5 93.2 91.9 (⁶) 95.4	703 1, 087 550 908 523 784 525 1, 029	16 12 20 15 12 14 13 16	22. 7 28. 6 18. 0 22. 7 17. 1 24. 8 21. 3 23. 7	2
Wire and wire products Wrought pipes, welded and heavy-riveted. Not elsewhere classified	233 17 167	6, 528 26, 366	103, 221 12, 214 50, 993	2, 117 248 1, 279	⁽⁶⁾ .2	(⁶) 5.1	(⁶) 94.7	300 706	22 14	20. 3 25. 1	1
eather and leather products Boots and shoes, not rubber Leather Not elsewhere classified	744 446 179 119	171, 592 128, 947 33, 016 9, 629	336, 461 251, 577 65, 570 19, 314	5, 316 2, 718 2, 291 307	.1 .1 .1	3. 1 3. 4 2. 2 6. 8	96. 8 96. 5 97. 7 93. 2	845 541 1, 303 543	13 13 14 10	⁵ 15. 2 10. 8 34. 9 15. 9	5
umber and timber basic products Saymills. Sawmills and planing mills combined Planing mills. Plywood mills. Veneer mills. Millwork (structural).	252 539 114 316 71	137, 184 17, 492 45, 467 14, 851 15, 127 14, 004 5, 964 24, 279	259, 251 33, 700 72, 461 30, 550 31, 297 28, 974 13, 634 48, 632	13, 852 2, 708 4, 646 1, 841 1, 100 1, 273 595 1, 689	$ \begin{array}{r} .6\\ 1.2\\ .4\\ .2\\ .2\\ .9\\ .2\\ .8\\ .8 $	3.3 2.0 2.7 3.2 6.3 5.0 6.4 8.7	96. 1 96. 8 96. 9 96. 6 93. 5 94. 1 93. 4 90. 5	1, 099 1, 435 1, 070 1, 270 717 1, 791 1, 089 669	17 19 16 17 17 15 16 14	⁶ 60, 2 80, 4 64, 1 60, 3 35, 1 43, 9 43, 6 34, 7	5 4
Iachinery, except electric. Agricultural machinery and tractors. Bearings, ball and roller. Commercial and household machinery Construction and mining machinery. Elevators, escalators, and conveyors. Engines and turbines. Fabricated pipe and fittings. Food-products machinery. General industrial machinery, not else-		993, 719 116, 462 39, 457 160, 781 86, 211 13, 958 70, 507 810 24, 573	1, 965, 434 215, 455 75, 955 312, 397 174, 319 29, 033 133, 965 1, 629 51, 874	39, 337 5, 500 1, 310 4, 151 4, 789 825 2, 007 44 1, 299	.2 .3 .1 .3 .9 (6)	4.8 4.4 3.8 7.5 2.8 1.3 4.4 (⁶) 6.1	95. 0 95. 3 96. 2 92. 4 96. 9 98. 7 98. 7 94. 7 (⁶) 93. 9	775 764 513 715 1,053 675 651 898	15 11 22 18 13 11 23 11 11 13	⁵ 21. 1 25. 5 17. 2 13. 3 27. 5 28. 4 15. 0 27. 0 25. 0	\$]
General industrial machinery, not else- where classified	522	106, 528	208, 901	4, 830	.2	6.2	93.6	834	14	23. 1	
repair). Mechanical measuring and controlling	317	18, 384	37, 155	990		6.3 8.8	93.7 91.2	457 989	11 15	26.6 13.5	
instruments Mechanical power transmission equip- ment, except ball and roller bearings Metalworking machinery. Pumps and compressors Special industry machinery, not elsewhere	94 96 907 129	30, 870 27, 304 170, 456 35, 049	56, 634 53, 543 347, 731 72, 552	762 1, 298 5, 511 1, 878	.3	4.3 4.6 3.2	95. 4 95. 4 96. 4	418 701 356	14 14 14 14	24. 2 15. 8 25. 9	
Special industry machinery, not elsewhere classified Textile machinery	379 133	67, 146 25, 223	137, 986 56, 298	3, 131 1, 012	.1	4.7 2.8	95. 2 97. 2	923 914	13 16	22. 7 18. 0	
nferrous metals and their products Aluminum and magnesium products Foundries, ponferrous.	829 43 398	174, 578 12, 172 32, 392	366, 921 23, 820 67, 019	7, 657 591 2, 011	.1 .1	5.2 7.1 4.8	94. 7 92. 9 95. 1	843 954 1, 019	16 30 15	5 20. 5 24. 8 30. 0	5
Primary smelting and refining ' Copper. Lead-silver Zinc Miscellaneous Nonferrous basic shapes and forms Watches, clocks, jewelry, and silverware Not elsewhere classified	(8) (8) (8) (8) (9) 128 221	10, 200 3, 600 9, 900 5, 600 31, 090 30, 672 38, 952	23, 230 7, 270 26, 200 12, 190 68, 149 60, 824 78, 216	511 165 919 330 1, 155 563 1, 412	¹⁹ 1. 2 ¹² . 4	(8) (8) (8) 2, 9 8, 2 4, 0	(*) (*) (*) 97. 1 91. 8 96. 0	(⁸) (⁸) (⁸) 400 350 929	(8) (8) (8) 13 13 13	22. 0 22. 7 35. 1 27. 1 16. 9 9. 3 18. 1	(8) (8) (8) (8)
dnance and accessories 9	61	43, 732	89, 519	612	1.6	16.7	81.7	905	50	6.8	
per and allied products Envelopes Paper boxes and containers Paper and pulp 10 Not elsewhere classified	1, 414 71 606 521 216	302, 916 7, 674 61, 866 193, 377 39, 999	646, 461 16, 264 130, 353 418, 856 80, 986	16, 280 225 3, 037 11, 267 1, 751	.3 .4 .1 .5	4.4 2.7 7.9 3.0 3.6	95, 3 96, 9 92, 0 96, 5 96, 4	980 450 899 1, 256 784	17 15 15 19 13	^{\$} 24. 2 13. 8 23. 3 26. 9 21. 6	8
inting and publishing Book and job printing Bookbinding News and periodical	2, 498 1, 625 55 818	199, 158 98, 360 4, 019 96, 779	412, 019 206, 951 8, 523 196, 545	3, 673 1, 841 88 1, 744	.2 (⁶⁾ .5	5.5 6.7 (⁶) 4.2	94. 3 93. 3 (⁶) 95. 3	992 780 425 1, 360	16 16 16 15	\$ 9.0 8.9 10.3 8.9	ł
ubber products Rubber boots and shoes Rubber tires and tubes Not elsewhere dassified	287 33 43 211	227, 230 24, 898 118, 831 83, 501	474, 515 68, 619 238, 225 167, 670	7, 212 783 3, 074 3, 355	.3 .6 .3	6.9 5.9 4.1 8.6	92.8 94.1 95.3 91.1	1, 235 1, 392 798 1, 333	20 24 25 16	\$ 16.0 11.4 12.9 20.0	5

and in	njuries by	extent o	f disabi	lity, 194	46
	Employee-		Percen juries	t of disabl resulting	liı iz
erage nber em- yees	hours worked (thou- sands)	Number of dis- abling injuries	Death and per- manent total dis- ability ³	partial	t
3, 582 3, 500 8, 037 9, 911 3, 450 1, 453 2, 751 4, 480 4, 758 9, 363 9, 656	465, 423 57, 949 77, 063 21, 527 7, 172 187, 388 64, 945 49, 376 1, 488, 128 77, 193 19, 868	10,8356383,4587033063,2781,46099223,2311,375496	0.5 ¹² .9 .5 .7 .3 1.0 .6 .2 .3	2.4 (⁸) 2.0 4.1 4.6 2.1 4.2 3.9 8.3 5.8	
9, 656 5, 158 3, 232 8, 950	19, 868 609, 097 112, 053 17, 194	490 8, 557 2, 432 298	.4 .1 .3 .7	5.8 4.2 4.8 .7	

TABLE A.-Injury rates an 6-Continued

			Employee-			t of disabl resulting			days lost bility 1—	Injury	rates 2—
Industry	Number of estab- lish- ments	Average number of em- ployees	hours worked (thou- sands)	Number of dis- abling injuries	Death and per- manent total dis- ability ³	Perma- nent partial disabil- ity	Tempo- rary total dis- ability	Perma- nent partial disabil- ity	Tempo- rary total dis- ability	Fre- quency	Sever- ity ¹
Manufacturing—Continued											
tone, clay, and glass products Cement mills (excluding quarries) ⁷ Clay products (structural). Concrete, gypsum, and plaster products Cut stone and cut-stone products Glass. Pottery and related products Not elsewhere classified.	219 141 132	223,582 23,500 38,037 9,911 3,450 91,453 32,751 24,480	465, 423 57, 949 77, 063 21, 527 7, 172 187, 388 64, 945 49, 376	10,8356383,4587033063,2781,460992	0.5 12.9 .5 .6 .7 .3 1.0 .6	2.4 (⁸) 2.0 4.1 4.6 2.0 2.1 4.2	97. 1 (⁸) 97. 5 95. 3 94. 7 97. 7 96. 9 95. 2	1, 109 (⁸) 1, 172 1, 305 1, 771 1, 058 708 781	(8) 14 16 9 18 12 16	⁸ 24. 4 11. 0 44. 9 32. 7 42. 7 17. 5 22. 5 20. 1	\$ 2. (8) 3. 3. 5. 1. 2. 1.
extile and textile-mill products Carpets, rugs, and other floor coverings Cotdage and twine. Dyeing and finishing textiles Hats, except cloth and millinery Knit goods. Rayon, other synthetic, and silk textiles. Woolen and worsted textiles. Not elsewhere classified.	2, 459 103 55 594 305 27 703 215 399 58	744, 758 39, 363 9, 656 305, 158 53, 232 8, 950 119, 372 60, 778 140, 082 8, 167	$1, 488, 128 \\77, 193 \\19, 868 \\609, 097 \\112, 053 \\17, 194 \\228, 120 \\123, 014 \\285, 767 \\15, 819 \\$	$\begin{array}{c} 23, 231 \\ 1, 375 \\ 496 \\ 8, 557 \\ 2, 432 \\ 298 \\ 1, 870 \\ 1, 474 \\ 6, 363 \\ 366 \end{array}$.2 .3 .4 .1 .3 .7 .7 .2 (6)	3.9 8.3 5.8 4.2 4.8 7 2.3 2.4 2.5 (⁶)	95. 9 91. 4 93. 8 95. 7 94. 9 98. 6 97. 7 97. 6 97. 3 (⁶)	$\begin{array}{c} 1,152\\ 1,248\\ 757\\ 1,150\\ 1,378\\ 450\\ 1,129\\ 688\\ 1,122\\ 1,533\end{array}$	18 23 18 17 20 18 12 16 18 16	⁵ 16.0 17.8 25.0 14.0 21.7 17.3 8.2 12.0 22.3 23.1	5 1. 2. 1. 2. 1. 1. 1. 1. 1.
ransportation equipment Aircraft Aircraft parts	197 203 82 234 20	$\begin{array}{c} 836,767\\ 117,104\\ 65,225\\ 4,397\\ 240,164\\ 162,159\\ 72,452\\ 169,638\\ 5,628\end{array}$	$\begin{matrix} 1, 631, 313\\ 223, 094\\ 130, 580\\ 8, 808\\ 464, 718\\ 318, 156\\ 139, 905\\ 335, 374\\ 10, 674 \end{matrix}$	23, 970 1, 165 1, 792 420 5, 040 5, 695 2, 654 6, 927 277	.5 .7 1.0 .4 .2 .3 .9 .4	$7.0 \\ 7.4 \\ 4.0 \\ 3.6 \\ 8.0 \\ 9.9 \\ 4.6 \\ 5.7 \\ 11.9$	92. 5 91. 9 95. 0 96. 4 91. 6 89. 9 95. 1 93. 4 87. 7	798 725 823 300 713 701 535 1, 267 623	30 20 28 7 28 21 26 47 21	15.3 5.2 13.7 47.7 10.8 17.9 19.0 20.7 25.9	1. ; 2. 1. ; 1. ; 1. ; 1. ; 1. ; 2. ; 3. ;
fiscellaneous manufacturing Brooms and brushes Beehive coke ovens ⁷ Fabricated plastic products Optical and ophthalmic goods Photographic apparatus and materials Professional and scientific instruments and subplies.	1, 286 74 (⁸) (⁸) 145 44 47	303, 455 8, 301 2, 800 18, 700 24, 044 22, 649 46, 982	625, 334 • 17, 327 4, 550 53, 350 49, 556 45, 438 94, 716	7, 963 267 170 693 835 433 612	.2 	5. 5 3. 4 (⁸) (⁶) 6. 7 1. 3 3. 9	94. 3 96. 6 (⁸) 92. 9 98. 7 96. 1	716 489 ⁽⁸⁾ (⁸⁾ 614 400 690		⁵ 14. 4 15. 4 37. 4 13. 0 16. 8 9. 5 6. 5	⁵ 1. (⁸) (⁸) 1.
Tobacco products Miscellaneous manufacturing	137 206 633	28, 024 50, 324 101, 631	54, 844 99, 646 205, 905	587 930 3, 436	1.6 .1 .2	7. 1 5. 1 6. 0	91. 3 94. 8 93. 8	989 802 692	16 12 14	10.7 9.3 16.7	1. 1.
Nonmanufacturing	0.240	(8)	052 010	10.004			00 7	1, 303	16	40. 2	3.
Construction ¹¹ Building construction Heavy engineering Highway construction Not elsewhere classified	2, 346 1, 633 226 362 122	(8) (8) (8) (8) (5)	253, 910 158, 855 44, 801 42, 476 7, 619	10, 204 5, 616 2, 092 2, 147 327	.8 .6 1.1 .7 1.8	2,5 2,4 2,7 2,5 2,8	96.7 97.0 96.2 96.8 95.4	1, 303 1, 149 1, 139 1, 838 1, 422	16 23 12 16	40. 2 35. 4 46. 7 50. 5 42. 9	3. 2. 5. 5. 7.
ommunication ¹¹ Telephone (wire and radio) Radio broadcasting and television	543 112 431	493, 790 479, 615 14, 175	943, 884 916, 009 27, 874	2, 766 2, 699 67	.7 .7 (6)	.4 .2 (6)	98.9 99.1 (⁶)	1,000 1,467 300	14 14 8	2.9 2.9 2.4	•
ransportation ¹¹	1, 205 73 23	176, 248 (8) 11, 346 38, 861 88, 770 13, 585 17, 230 1, 150	463, 345 49, 043 26, 766 94, 417 213, 004 30, 758 34, 819 2, 485	13, 701 3, 784 679 1, 851 4, 809 1, 094 1, 213 37	.4 .4 .3 .5 .4 .2 (6)	5.4 14.8 1.6 2.6 1.5 .6 1.8 (⁶)	94. 2 84. 8 98. 3 97. 1 98. 0 99. 0 99. 0 98. 0 (*)	1, 818 1, 930 1, 527 1, 328 1, 499 1, 486 1, 011 1, 900	19 28 13 13 16 16 19 20	29.6 77.2 25.4 19.6 22.6 35.6 34.8 14.9	4.1 25. 1. 1. 1. 1. 1. 2.
Ieat, light, and power ¹¹ Electric light and power Gas Steam, heat, and power	622 388 221 13	305, 900 227, 881 77, 642 377	640, 210 476, 744 162, 628 836	11, 072 7, 066 3, 981 25	1.2 1.6 .4 (6)	1.7 1.9 1.5 (⁶)	97.1 96.5 98.1 ()	1, 343 1, 285 1, 473	17 19 14 9	17.3 14.8 24.5 29.9	1.9 2.0 1.4
Waterworks ¹¹	166	10, 546	21, 968	396	2.0	.3	97. 7	(6)	15	18.0	2.0
Personal services Dry cleaning. Laundries Amusements and related services. Hotels Eating and drinking places. Medical and other professional services. Miscellaneous personal services.	410 710 174	175, 161 20, 130 34, 385 38, 442 10, 194 46, 580 13, 637 8, 870 2, 923	385, 591 43, 179 74, 881 87, 211 18, 613 107, 705 29, 055 18, 862 6, 082	3, 737 227 664 726 154 1, 552 287 85 42	.2 .5 	2.5 2.2 4.2 3.2 (⁶) 1.4 2.1 (⁶) (⁶)	97.3 97.8 95.3 96.8 (⁶) 98.4 97.9 (⁶) (⁶)	$1,507 \\1,180 \\1,748 \\1,459 \\1,727 \\1,029 \\2,267 \\600$	14 16 15 14 25 13 13 13 11 24	9.7 5.3 8.9 8.3 8.3 14.4 9.9 4.5 6.9	

TABLE A.-Injury rates and injuries by extent of disability, 1946-Continued

			Employee-		Percen juries	t of disab resulting	ling in- in ¹ —	A verage per disa	days lost bility '—	Injury	rates 2
Industry	Number of estab- lish- ments	A verage number of em- ployees	hours worked (thou- sands)	Number of dis- abling injuries	Death and per- manent tote l dis- ability ³	Perma- nent p°rti?l disabil- ity	Tempo- rary totaldis- ability	Perma- nent parti°l disabil- ity	Tempo- rary totaldis- ability	Fre- quency	Sever- ity 1
Nonmanufacturing-Continued											
Business services. Banks and other financial agencies. Insurance. Real estate Miscellaneous business services. Automobile repair shops and garages. Miscellaneous repair services.	447	$174,041 \\ 51,587 \\ 86,543 \\ 5,886 \\ 20,778 \\ 5,037 \\ 4,210$	352, 482 106, 818 172, 403 12, 166 40, 807 11, 412 8, 873	1, 980 312 537 65 447 296 323	(⁶) .9	2.5 2.9 .7 (⁶) 3.1 2.4 4.0	97.3 97.1 99.3 (*) 96.0 97.6 96.0	$\begin{array}{c} 1,473\\ 2,067\\ 2,425\\ 1,650\\ 1,286\\ 1,714\\ 815 \end{array}$	12 11 8 22 16 12 13	5.6 2.9 3.1 5.3 11.0 25.9 36.4	$\begin{array}{c} 0.3 \\ .2 \\ .1 \\ .4 \\ 1.2 \\ 1.3 \\ 1.6 \end{array}$
Educational services	197	95, 104	161, 847	1, 269	.2	2.0	97.8	1, 131	12	7.8	.4
Fire departments	205	25, 040	90, 019	2, 119	.9	.8	98.3	1, 278	18	23.5	1.9
Police departments	153	18, 473	44, 720	1, 311	1.4	.4	98.2	2, 240	18	29.3	3. 1
Trade ¹¹ . Wholesale distributors. Retail food Wholesale and retail dairy products Retail automobiles. Filling stations. Retail apparel and accessories Miscellaneous retail stores. Wholesale and retail building supplies Wholesale and retail trade combined, not	7, 960 2, 443 473 755 350 664 207 696 1, 496 509	$\begin{array}{c} 362,318\\ 84,544\\ 112,049\\ 33,751\\ 24,491\\ 14,994\\ 2,425\\ 29,062\\ 34,120\\ 14,987 \end{array}$	$\begin{array}{c} 716,702\\ 179,150\\ 190,623\\ 71,032\\ 58,502\\ 33,900\\ 5,691\\ 57,539\\ 72,291\\ 32,441 \end{array}$	$10,713 \\ 3,307 \\ 1,077 \\ 1,315 \\ 1,554 \\ 610 \\ 50 \\ 220 \\ 784 \\ 1,341$.2 .2 .4 .2 .1 .1 	1.8 1.8 .4 1.1 2.0 1.8 (⁶) 1.8 1.9 3.5	98.0 98.0 99.2 98.7 97.9 98.2 (*) 98.2 97.7 96.4		13 11 14 14 14 13 14 14 14 14 12	⁵ 14. 2 18. 5 5. 6 18. 5 26. 6 18. 0 8. 8 3. 8 10. 8 41. 3	5.8 .9 .3 .9 1.3 .7 .8 .1 .7 1.6
elsewhere classified	367	11, 895	25, 529	455	.4	1.3	98.3	1, 775	14	17.8	1.1
Coal mines: Bituminous Anthracite	(8) (8)	380, 000 77, 500	730, 000 154, 000	44, 800 12, 974	12 1.8 19 1.3	(8) (8)	(8) (8)	(8) (8)	(8) (8)	61. 4 84. 2	(8) (6)
Metal mines: IronCopper Lead-zinc. Gold-silver Gold placer Miszellaneous metal	(8) (8) (8) (8) (8) (8)	24, 500 13, 600 16, 200 4, 500 3, 700 3, 000	44, 390 29, 910 33, 780 9, 250 7, 260 6, 420	1, 225 1, 588 2, 859 773 226 610	$\begin{array}{c} 12 \ 2.0 \\ 12 \ 1.4 \\ 12 \ 1.0 \\ 12 \ 1.0 \\ 12 \ 1.0 \\ 12 \ .4 \end{array}$	(8) (8) (3) (8) (8) (8) (8)	(8) (8) (9) (8) (8) (8) (8)	(8) (8) (8) (8) (8) (8)	(8) (8) (8) (8) (8) (8)	27. 6 53. 1 84. 6 83. 6 31. 1 95. 0	(8) (8) (5) (8) (8) (8)
Nonmetal mines	(8)	12,000	27, 480	1, 414	¹² 1.7	(8)	(8)	(8)	(*)	51.5	(8)
Quarries: Cement (excluding mills) Limes Marble Granite Traprock. Slate Sandstone	(8) (8) (8) (8) (8) (8) (8) (8) (8)	2, 300 22, 600 9, 000 2, 700 5, 700 2, 900 1, 300 3, 500	5, 581 43, 270 21, 600 5, 940 11, 970 5, 590 3, 320 7, 110	218 2,041 1,058 180 513 258 182 337	¹² 2.3 ¹² 1.3 ¹² .3 ¹² .6	(*) (8) (8) (8) (8) (8) (8) (8) (8)	(8) (6) (8) (8) (8) (9) (8) (8)	(8) (8) (8) (8) (6) (8) (8)	(8) (8) (8) (8) (6) (8) (8) (8) (8)	39. 1 47. 2 49. 0 30. 3 42. 9 46. 2 54. 8 47. 4	(8) (8) (9) (9) (8) (8)
Ore dressing (mills and auxiliaries): Copper	(8) (8) (5) (8) (8)	5, 700 3, 100 1, 000 4, 200 1, 400	12, 600 5, 060 2, 190 9, 290 2, 960	386 66 75 291 86	$ \begin{array}{r} 1^2 . 3 \\ 1^2 1. 5 \\ \frac{1^2 2. 1}{1^2 1. 2} \end{array} $	(8) (8) (8) (6) (9)	(8) (8) (8) (8) (8) (8)	(8) (8) (8) (8) (8) (8)	(8) (8) (6) (8) (8) (8)	30. 6 13. 0 34. 2 31. 3 29. 1	(8) (8) (8) (8) (9)

¹ Based on reports which furnished details regarding the resulting disabilities, constituting approximately 60 percent of the total sample.
 ² The frequency rate is the average number of disabiling injuries for each million employee-hours worked. The severity rate is the average number of days lost for each thousand employee-hours worked. The standard timeloss ratings for fatalities and permanent disabilities are given in Method of Compiling Industrial Injury Rates, approved by the American Standards Association, 1945.
 ³ Each death or permanent total disability is charged with a time loss of 6,000 days in the computation of severity rates.
 ⁴ Except Mining and Quarrying data compiled by the Bureau of Mines, U. S. Department of the Interior.
 ³ Weighted according to estimates of total current employment in each industry.

industry.

Disability distribution and average time charges not given because of small number of injuries for which details were reported.
Preliminary data compiled by the Bureau of Mines, U. S. Department of the Interior.
Not available.
Includes all ordnance classifications formerly shown separately.
Includes Pulp, and Paper and Pulp integrated, formerly shown separately.
Praimrily reported by company instead of by establishment.
Fatalities only.
Less than 0.05.

	Number of			Percent of	change in		
Industry	establish- ments	Employees	Employee- hours worked	Disabling injuries	Total time lost	Frequency rate	Severity rate
Manufacturing							
Total, manufacturing	20, 706	-5	-13	-9	-7	1+3	10
Apparel and other finished textile products Clothing, men's and boys' Millinery Apparel and accessories, not elsewhere classified Trimmings and fabricated textile products, not	1, 129 427 451 39 30	+1 +1 +6 -2 +3	-2 -3 +5 -2 (?)	-12 -18 -7 -57 +58	48 71 38 31 +432	1 - 2 -15 -12 -55 +57	1 - 37 - 80 - 43 - 33 + 300
elsewhere classified	182	-10	-11	-7	-35	+5	-31
Chemicals and allied products Compressed and liquefied gases. Drugs, toiletries, and insecticides Explosives. Fertilizers. Industrial chemicals. Paints, varnishes, and colors. Paving and roofing materials. Plastic materials, except rubber. Soap and glycerin. Synthetic rubber. Synthetic textile fibers. Vegetable and animal oils. Not elsewhere classified.	1, 401 18 232 263 389 13 16 93 3 20 24 24 120	$\begin{array}{c} +1\\ -39\\ +5\\ -76\\ +22\\ +111\\ +13\\ +22\\ +17\\ +6\\ -6\\ +111\\ +32\\ +17\\ +6\\ 10\\ +32\\ +32\\ +19\end{array}$	$\begin{array}{r} -7\\ -48\\ -2\\ -77\\ -3\\ +11\\ +3\\ +13\\ +5\\ -4\\ -19\\ +3\\ -4\\ +13\end{array}$	$\begin{array}{r} -1 \\ -36 \\ +3 \\ -72 \\ -24 \\ +33 \\ +33 \\ +33 \\ -12 \\ -8 \\ +33 \\ -24 \\ +25 \\ +24 \end{array}$	$\begin{array}{r} -20 \\ (3) \\ +106 \\ -77 \\ -16 \\ -10 \\ +22 \\ -28 \\ -44 \\ +43 \\ -93 \\ -40 \\ +50 \\ +2 \end{array}$	$ \begin{array}{r} 1+52\\ +222\\ +44\\ +21\\ +11\\ +17\\ -17\\ -26\\ +30\\ +10\\ \end{array} $	$ \begin{array}{c} 1 - 5 \\ (3) \\ + 114 \\ + 50 \\ - 13 \\ -9 \\ + 29 \\ - 35 \\ - 38 \\ + 43 \\ - 91 \\ - 44 \\ + 55 \\ - 12 \end{array} $
Electrical machinery, equipment, and supplies Automotive electrical equipment Batteries	616 10 28	$^{-8}_{+4}$ -21	-17 -12 -33	-16 + 3 - 47	$-16 \\ -11 \\ -73$	$^{10}_{+17}$ $^{-22}$	$^{10}_{+50}$ -67
Batteries Communication and signaling equipment, except radio Electrical appliances. Electrical equipment for industrial use Electrical lamps (bulbs). Insulated wire and cable. Radios and phonographs. Not elsewhere classified	27 26 332 22 30 122 19	-11 +53 -4 +10 -4 -16 -14	-15 +54 -16 -1 -13 -23 -26	-12 +71 -15 -26 -12 -22 -22 -28	+27 -42 -22 +158 +121 +558	$+3 +11 \\ 0 -25 +2 +2 +2 -3$	+75 -64 -9 +180 -44 +300 +600
Food products		$ \begin{array}{c} +2 \\ +20 \\ +11 \\ +6 \\ -3 \\ +9 \\ +1 \\ +4 \\ +1 \\ +5 \\ \end{array} $	$ \begin{array}{r} -4 \\ +4 \\ +3 \\ -3 \\ -2 \\ -8 \\ +7 \\ -3 \\ -5 \\ -7 \\ +1 \\ -2 \\ \end{array} $	$\begin{array}{r} -4 \\ -4 \\ +14 \\ (2) \\ +10 \\ -15 \\ -66 \\ -33 \\ -11 \\ -8 \\ +8 \\ +15 \end{array}$	$\begin{array}{r} -11 \\ +9 \\ -37 \\ +60 \\ +81 \\ +22 \\ -46 \\ +1 \\ -32 \\ -710 \end{array}$	$ \begin{array}{r} 1 - \binom{2}{1} \\ +11 \\ +10 \\ +12 \\ -8 \\ -12 \\ -31 \\ -6 \\ -17 \\ +18 \\ \end{array} $	$ \begin{array}{r} 1 -11 \\ +15 \\ -45 \\ -22 \\ +75 \\ +17 \\ +15 \\ -42 \\ +7 \\ -42 \\ +7 \\ -25 \\ -9 \\ -9 \\ -7 $
Furniture and finished lumber products Furniture, metal Furniture, except metal Mattresses and bedsprings Morticians' supplies Office, store, and restaurant fixtures Wooden containers Not elsewhere classified	1, 273 45 605 46 29 77 236 235	+13 +17 +16 +33 +13 +13 +14 +6 +15	$ \begin{array}{r} +8 \\ +8 \\ +12 \\ -10 \\ +2 \\ +9 \\ +2 \\ +10 \end{array} $	+16 +11 +15 +39 +32 +29 +5 +30	+13 +8 +13 -75 +85 +125 -2 +22 +22	1+14 +2 +54 +30 +18 +3 +19	1+4 0 +5 -70 +82 +100 -8 +7
Iron and steel and their products. Bolts, nuts, washers, and rivets. Cold finished steel. Cutlery and edge tools. Fabricated structural steel. Foundries, iron and steel. Foundries, iron. Foundries, steel. Hardware. Heating equipment, not elsewhere classified. Iron and steel. Metal coating and engraving. Ornamental metal work. Stamped and pressed metal products, n. e. c. Steel barrels, kegs, drums, and packages. Steel barrels, kegs, drums, and packages. Steel barrels, kegs, drums, and packages. Steel barrels, kegs, drums, and packages. Writeous-enameled products. Wreand wire products. Wrough tpies, welded and heavy-riveted. Not elsewhere classified.	97 60 266 130 16 14	$ \begin{array}{c} (2) \\ (3) \\ +13 \\ +150 \\ +20 \\ +17 \\ +110 \\ +111 \\ +210 \\ +111 \\ +210 \\ +111 \\ +210 \\ +210 \\ (3) \\ +8 \\ +8 \\ +8 \\ +8 \\ +4 \\ -3 \\ -6 \end{array} $	$\begin{array}{c} -12\\ -14\\ -6\\ +10\\ -5\\ -20\\ -1\\ +12\\ +3\\ -9\\ (3)\\ -17\\ +2\\ -4\\ -9\\ -17\\ -7\\ -13\\ -4\\ +3\\ -12\\ -14\\ +3\\ -12\\ -14\\ -18\\ \end{array}$	$\begin{array}{r} -9\\ -21\\ -4\\ +8\\ -11\\ -29\\ +4\\ -33\\ -11\\ +19\\ -15\\ +10\\ -14\\ +24\\ -7\\ -4\\ -52\\ +25\\ +25\\ +33\\ +35\\ +11\\ -11\\ -11\\ -34\end{array}$	$\begin{array}{c} -8\\ -32\\ +109\\ +19\\ -16\\ +22\\ +160\\ +212\\ +160\\ +212\\ +160\\ +212\\ +160\\ +212\\ +130\\ +130\\ +130\\ +1053\\ +105$	$\begin{array}{c} () 9 \\ - 9 \\ - 9 \\ + 2 \\ - 6 \\ - 1 \\ + 9 \\ - 1 \\ + 9 \\ - 1 \\ + 9 \\ - 1 \\ + 9 \\ - 1 \\ + 1 $	$\begin{array}{c} {}^{1}+6\\ -14\\ -55\\ +71\\ -55\\ +71\\ -17\\ +6\\ +42\\ +100\\ -44\\ +82\\ +100\\ -44\\ -38\\ -20\\ +111\\ +422\\ (^{3})\\ -38\\ -20\\ +100\\ -58\\ -45\\ +33\\ 0\end{array}$

See footnotes at end of table.

TABLE B.—Changes in exposure, disabling injuries, and injury rates for 32,241 identical establishments, 1945 to 1946

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TABLE B.—Changes in exposure,	disabling injuries,	, and injury rates	for 32,241 identica	l establishments,	1945 to 1946—Con.

	Number of			Percent of	change in—		
Industry	establish- ments	Employees	Employee- hours worked	Disabling injuries	Total time lost	Frequency rate	Severity rate
Leather and leather products Boots and shoes, not rubber Leather Not elsewhere classified	532 319 135 78	(²) +2 +11 +4	(2) (2) (-6) (-9) (-7) $(-$	+4 -9 +24 +13	$-29 \\ -43 \\ -16 \\ -50$	$^{1}+9$ 0 +23 +11	1 -30 -25 -18 -50
Lumber and timber basic products Logging Sawmills. Sawmills and planing mills combined Planing mills. Plywood mills. Veneer mills. Millwork (structural).	892 185 328 50 107 29 34 159	+21 +13 +37 +14 +5 +16 +14 +9	+5 +9 -2 +5 +3 +14 +16 +6	+8 -9 +17 +19 +8 +22 +18 +1	$^{+8}_{-5}$ -12 -23 +146 +24 -11	$ \begin{array}{r} 1 + 5 \\ -17 \\ + 19 \\ + 14 \\ + 5 \\ + 7 \\ + 1 \\ - 4 \end{array} $	
Machinery, except electric. Agricultural machinery and tractors Bearings, ball and roller. Commercial and household machinery. Construction and mining machinery.	1, 958 139 25 78 179	$\begin{array}{r} -9 \\ +6 \\ -26 \\ +18 \\ -3 \\ -71 \\ -39 \\ +1 \\ +17 \end{array}$	$ \begin{array}{r} -19 \\ -12 \\ -10 \\ +6 \\ -13 \\ -66 \\ -49 \\ -7 \\ +12 \end{array} $	$ \begin{array}{r} -8 \\ +9 \\ -15 \\ +8 \\ -15 \\ -8 \\ -27 \\ +40 \\ +27 \end{array} $	$\begin{array}{r} -6 \\ +51 \\ +99 \\ -44 \\ -16 \\ -79 \\ -55 \\ -10 \\ +32 \end{array}$	$ \begin{array}{r} 1 + 11 \\ + 25 \\ -5 \\ +1 \\ -2 \\ +170 \\ +44 \\ +51 \\ +13 \\ +13 \end{array} $	1+7 +33 +125 -46 -10 +300 +33 -5 +25
elsewhere classified General machine shops (jobbing and repair). Mechanical measuring and controlling instruments. Machanical novar, transmission accumment except	270 166 50	-21 -3 -11	$-28 \\ -12 \\ -22$	-14 +4 -11	$^{+15}_{+92}_{+156}$	+21 + 18 + 15 + 15	$^{+69}_{+113}$ $^{+225}_{+225}$
Elevators, escalators, and conveyors. Engines and turbines. Fabricated pipe and fittings. Food-products machinery General industrial machinery and equipment, not elsewhere classified. General machine shops (jobbing and repair). Mechanical measuring and controlling instruments. Mechanical power transmission equipment except ball and roller bearings. Metalworking machinery. Pumps and compressors. Special industry machinery, not elsewhere classified. Textile machinery.	43 519 56 197 93	$-20 \\ -9 \\ +2 \\ +14 \\ +23$	$ \begin{array}{r} -28 \\ -20 \\ -9 \\ +6 \\ +17 \end{array} $	$-27 \\ -20 \\ +8 \\ +6 \\ +17$	$-81 \\ -22 \\ +132 \\ -41 \\ -7$	$+2 \\ 0 \\ +19 \\ 0 \\ 0 \end{bmatrix}$	-81 -12 +180 -50 -20
Nonferrous metals and their products 4 Foundries, nonferrous Nonferrous basic shapes and forms Watches, clocks, jewelry, and silverware Not elsewhere classified	400 249 21 24 101	$-2 \\ -3 \\ -11 \\ +5 \\ +11$	$-13 \\ -14 \\ -23 \\ -3 \\ +2$	-15 -13 -27 +13 -4	-22 +17 -69 +2 -48	$ \begin{array}{r} 1 - 6 \\ + 1 \\ - 6 \\ + 17 \\ - 5 \end{array} $	1 -22 +27 -71 0 -45
Ordnance and accessories \$	17	-28	-41	48	-27	-12	+33
Paper and allied products Envelopes Paper boxes and containers Paper 6 Not elsewhere classified	854 67 420 211 156	+11 +8 +9 +14 +12	+8 +6 +8 +9 +6	+10 +19 +10 +10 +10	+42 +131 +44 -19 +40	$(2) \begin{array}{c} 1 + 2 \\ + 13 \\ + 2 \\ (2) \\ + 4 \end{array}$	$^{1} + 20$ +100 +30 -14 +38
Printing and publishing Book and Job printing Bookbinding News and periodical		+10 +14 -2 +7	+10 +13 +3 +3 +8	+23 +18 +106 +28	+38 +7 +16 +79	¹ +17 +6 +100 +19	¹ +17 0 +20 +75
Rubber products Rubber boots and shoes Rubber tires and tubes Not elsewhere classified	189 22 27 140	+15 + 18 + 20 + 9	$ \begin{array}{r} +8 \\ +10 \\ +10 \\ +10 \\ +6 \end{array} $	+9 +19 +5 +10	$-30 \\ -10 \\ -49 \\ -28$	$^{1} + 1$ +8 -4 +4	$ \begin{array}{r} 1 - 38 \\ -21 \\ -54 \\ -32 \end{array} $
Stone, elay, and glass products Clay products (structural) Concrete, gypsum, and plaster products Cut stone and cut stone products Hass Pottery and related products Not elsewhere classified	888 350 89 88 174 104 83	+18 +33 +35 +42 +15 +17 +4	+14 +30 +30 +39 +12 +13 -9	+24 +40 +36 +126 +111 +29 -7	$^{+10}_{+64}_{-40}_{+1540}_{+1540}_{-18}_{-24}_{-21}$	$ \begin{array}{r} 1 + 8 \\ + 8 \\ + 5 \\ + 63 \\ -1 \\ + 14 \\ + 2 \end{array} $	1 -5 +24 -53 +1,075 -23 -33 -18
Textile and textile-mill products. Carpets, rugs, and other floor coverings. Cordage and twine. Cotton yarn and textiles. Dyeing and finishing textiles. Hats, except cloth and millinery. Knit goods. Rayon, other synthetic, and silk textiles. Woolen and worsted textiles. Not elsewhere classified.	1, 711 45 22 464 199 11 508 125 307 307	+9 -9 -5 +13 +14 +10 +9 +11 +4	+5 -14 -13 +3 +10 +8 +8 +8 +5 +9 -3	+6 +13 -45 +15 +32 +14 +15 +15 +122 +33 +14 +15 +15 +15 +15 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +122 +13 +14 +15 +13 +14 +15 +13 +14 +15 +13 +14 +15 +13 +14 +15 +13 +14 +15 +13 +14 +15 +13 +14 +15 +13 +14 +13 +13 +13 +14 +13 +13 +13 +13 +14 +13 +13 +13 +14 +13 +13 +13 +13 +13 +13 +13 +13 +13 +13	+14 +36 +20 +14 +31 +266 +61 -56 +14 -19	$^{1}+6$ +31 +15 -7 +5 +22 +5 -19 +12 +36	10 + 57 + 40 + 99 + 15 + 300 + 50 - 62 + 77 - 17
Transportation equipment. Aircraft Aircraft parts. Boatbuilding. Motor vehicles. Motor-vehicle parts. Railroad equipment. Shipbuilding. Not elsewhere classified.	398 20 48 11 87 62 48 114 8	-42 -51 -59 -15 -9 -4 +4 +4 +4 +48	$\begin{array}{r} -49 \\ -57 \\ -63 \\ -25 \\ -17 \\ -16 \\ -14 \\ -65 \\ +44 \end{array}$	$\begin{array}{r} -53 \\ -75 \\ -48 \\ -7 \\ -11 \\ -12 \\ -23 \\ -70 \\ +34 \end{array}$	-30 -13 +51 +181 +9 +3 -31 -52 +381	$ \begin{array}{r} 1 -2 \\ -41 \\ +38 \\ +23 \\ +7 \\ +5 \\ -10 \\ -13 \\ -7 \\ \end{array} $	$^{+}+55$ +125 +300 +200 +25 +10 -14 +25 +236

	Number of			Percent of o	change in—		
Industry	establish- ments	Employees	Employee- hours worked	Disabling injuries	Total time lost	Frequency rate	Severity rate
Manufacturing-Continued							
Miscellaneous manufacturing Brooms and brushes Fabricated plastic products Optical and optic haimic goods Photographic apparatus and materials Professional and scientific instruments and supplies Tobacco products Miscellaneous manufacturing	$\begin{array}{c} 658 \\ 64 \\ 66 \\ 19 \\ 29 \\ 62 \\ 140 \\ 278 \end{array}$	$\begin{array}{r} -1 \\ +16 \\ -5 \\ +3 \\ +7 \\ -46 \\ +6 \\ +17 \end{array}$	$\begin{array}{r} -7 \\ +11 \\ -10 \\ -6 \\ -3 \\ -47 \\ (2) \\ +12 \end{array}$	-7 -39 -13 -4 -10 -18 -5 +12	(2) + 15 + 75 + 75 + 57 - 2	1 -7 -45 3 +-3 6 +56 5 0	$ \begin{array}{r} 1 0 \\ -64 \\ 0 \\ +100 \\ +675 \\ +75 \\ -11 \end{array} $
Nonmanufacturing							
Construction 47 Building construction Heavy engineering Highway construction Not elsewhere classified	1, 131 817 96 166 51	(3) (3) (3) (3) (3)	$^{+11}_{+30}_{-27}_{+22}_{+16}$	+33 +45 -3 +59 +48	-22 + 17 - 51 + 9 + 26	+20 +11 +34 +30 +28	$ \begin{array}{r} -31 \\ -10 \\ -32 \\ -11 \\ +8 \end{array} $
Communication 7 Telephone (wire and radio) Radio broadcasting and television	488 96 392	$^{+28}_{+29}_{+6}$	$^{+24}_{+24}_{+4}$	$^{+22}_{+21}_{+42}$	$^{+175}_{+176}_{+65}$	$^{0}_{-3}$ +33	$^{+125}_{+100}$ +50
Transportation 47. Stevedoring	836 59 20 216 47 275 198 20	$\overset{(3)}{\overset{(3)}{}}_{\begin{array}{c}+12\\+1\\+4\\+10\\+7\\+8\end{array}}$	$\begin{array}{r} -3 \\ -26 \\ +1 \\ -2 \\ -1 \\ +8 \\ +5 \\ +2 \end{array}$	8 8 7 -10 -14 +8 +8 +8 +4	$ \begin{array}{r} +9 \\ +34 \\ -40 \\ -39 \\ -11 \\ -22 \\ -33 \\ -48 \end{array} $	$\begin{array}{r} -5 \\ +24 \\ -7 \\ -9 \\ -13 \\ -1 \\ +3 \\ +2 \end{array}$	+10 +80 -41 -35 -12 -29 -35 -49
Heat, light, and power 47 Electric light and power Gas	544 356 176	+18 +18 +18	+15 +15 +16	+33 +30 +41	+11 +14 -1	$^{+15}_{+13}_{+21}$	$-5 \\ 0 \\ -11$
Waterworks 7	106	+14	+12	-9	+241	-19	+222
Personal services Dry cleaning Laundries Amusements and related services Hotels Eating and drinking places Medical and other professional services Miscellaneous personal services	2, 191 468 475 332 130 207 370 132 77	+5 +9 +5 -2 +25 +25 +6 +13 +11	(2) +4 +6 +2 +2 +19 +3 +6 +11 +11 +11 +11 +11 +11 +11 +11 +11	$+22 \\ -2 \\ +7 \\ +32 \\ -32 \\ +53 \\ +32 \\ +25 \\ -27 \\ $	+13 +98 +64 -25 +66 +24 +308 +254 -95	+17 -8 +5 +32 -43 +47 +24 +47 +24 +13 -34	$\begin{array}{r} \cdot \\ +17 \\ +200 \\ +50 \\ -29 \\ +40 \\ -14 \\ +200 \\ +221 \\ -96 \end{array}$
Business services Banks and other financial services Insurance Real estate Miscellaneous business services Automobile repair shops and garages Miscellaneous repair services	1, 829 670 317 197 210 235 200	$^{+20}_{+9}$ $^{+32}_{+32}$ $^{+1}_{+16}$ $^{+7}_{+7}$	+17 +8 +28 +3 -6 +11 +2	+33 +26 +40 -17 +16 +72 +46	$+34 \\ +34 \\ -24 \\ -2 \\ +272 \\ +230 \\ -6$	+15 +17 +7 -19 +23 +54 +54 +43	+50 0 -50 0 +350 +200 -10
Educational services	173	+15	+17	+22	+18	+4	0
Fire departments	192	+9	+12	+5	8	-6	-17
Police departments	133	+10	+11	+21	+87	+9	+69
Trade ⁷	3, 912 1, 220 243 469 233 304 138 328 808 169	+10 +10 +8 +18 +7 +17 -2 +1 +17 +7 +7 +7	$ \begin{array}{r} +6 \\ +6 \\ +11 \\ +11 \\ +8 \\ +17 \\ -3 \\ (2) \\ +6 \\ +2 \end{array} $	+22 + 36 + 111 + 4 + 300 + 333 + 1000 + 114 + 99 - 18		${}^{1}+8\\+28\\+10\\-6\\+21\\+14\\+107\\+12\\+3\\+19$	10 -18 +100 +117 0 -27 -89 0 0 -6

TABLE B.—Changes in exposure, disabling injuries, and injury rates for 32,241 identical establishments, 1945 to 1946—Con.

Weighted according to estimates of total current employment in each industry.
 Change was less than half of 1 percent.
 Not available.
 Totals include figures for industries not shown separately.

⁴ Includes all Ordnance classifications formerly shown separately. ⁶ Includes Pulp, and Paper and Pulp, integrated; formerly shown sep-arately. ⁷ Frimarily reported by company instead of establishments.

TABLE C.-Estimates of disabilities, by extent, for manufacturing industries, 1946

[Excluding self-employed]

	Al	l reporting	establishme	nts	Estimates for entire industry						
Industry		Number of em- ployees (thou- sands)	Employee- hours worked (thou- sands)	Number of dis- abling injuries	All dis- abling injuries	Death and perma- nent total disability	Perma- nent par- tial dis- ability	Tempo- rary total disability	Total days lost (thou- sands)		
Apparel and other finished textile products	2, 029	218	406, 648	3, 023	16,000	15	220	15, 765	513		
Chemicals and allied products ¹ Drugs, toiletries, and insecticides Fertilizers Industrial chemicals, not elsewhere classified Paints, varnishes, and colors Paving and roofing materials Synthetic textile fibers	2, 153 302 444 449 377 41 28	539 60 21 145 39 8 65	$\begin{array}{c} 1,115,154\\ 120,359\\ 44,258\\ 305,311\\ 81,304\\ 17,672\\ 127,285 \end{array}$	$15,340 \\ 1,707 \\ 1,462 \\ 4,517 \\ 1,515 \\ 320 \\ 870$	24, 900 2, 500 2, 200 5, 000 1, 900 800 1, 100	125 15 20 25	1, 240 90 80 390 60 20 20	23, 535 2, 395 2, 100 4, 585 1, 840 780 1, 080	2, 499 227 216 635 72 52 68		
Electrical machinery, equipment and supplies ¹ Communication and signaling equipment, ex-	1, 152	646	1, 251, 236	12, 374 1, 162	12,900	25 10	1, 080 160	11, 795 1, 430	1, 182 170		
cept radio Electrical equipment for industrial use Electrical equipment, not elsewhere classified	51 573 267	79 300 102	166, 945 564, 796 198, 728	1, 102 5, 917 2, 936	1, 600 7, 000 3, 000	15 5	560 270	6, 425 2, 725	616 226		
Food products 1 Breweries Confectionery Flour, feed, and grain-mill products Slaughtering and meat packing Sugar refining	4,065 299 247 523 847 106	504 56 37 46 133 27	$\begin{array}{c} 1,021,007\\120,634\\71,290\\102,649\\261,364\\55,120\\\end{array}$	30, 087 5, 465 1, 239 2, 726 9, 343 1, 854	89, 100 7, 000 2, 400 5, 000 12, 600 2, 100	265 15 5 15 15 20	3, 560 570 120 330 60	$\begin{array}{c} 85,275\\ 6,415\\ 2,345\\ 4,865\\ 12,255\\ 2,020\\ \end{array}$	6, 963 867 147 308 492 199		
Furniture and finished lumber products ¹ Furniture, metal and wood Mattresses and bedsprings Morticians' surplies.	2, 252 1, 027 212 107	213 118 15 7	434, 498 239, 516 30, 041 13, 671	14, 254 6, 567 1, 040 337	31, 400 10, 600 1, 700 800	65 10	1, 880 780 50 30	29, 455 9, 810 1, 650 770	2, 299 820 43 43		
Iron and steel and their products ' Bolts, nuts, washers, and rivets. Cutilery and edge tools. Fabricated structural steel. Foundries, iron. Heating equipment Iron and steel. Screw-machine products. Sheet-metal work Steem fittings and apparatus. Tin cans and other tinware. Wire and wire products. Wrought pipes, welded and heavy-riveted	4,902 83 133 425 823 256 284 185 134 191 112 233 17	$1,415 \\ 18 \\ 25 \\ 49 \\ 136 \\ 54 \\ 507 \\ 25 \\ 12 \\ 39 \\ 39 \\ 53 \\ 6 \\ 6$	2, 729, 916 33, 929 55, 479 95, 860 273, 673 104, 195 939, 241 53, 749 24, 786 78, 404 77, 027 103, 221 12, 214	60, 860 638 1, 278 2, 810 12, 947 3, 755 9, 236 1, 105 721 2, 239 1, 321 2, 247 2, 447 248	$\begin{array}{c} 71,800\\ 800\\ 1,500\\ 3,500\\ 13,500\\ 4,500\\ 9,500\\ 1,400\\ 1,700\\ 3,100\\ 1,600\\ 3,500\\ 600\end{array}$	285 	3, 880 50 150 320 160 900 80 90 90 100 160 20	67, 635 750 1, 440 3, 335 13, 125 4, 330 8, 485 1, 320 1, 610 3, 005 1, 495 1, 495 3, 340 580	6, 317 40 110 270 819 274 1, 903 84 92 168 89 219 219		
Leather and leather products ¹ Boots and shoes Leather	744 446 179	171 129 33	336, 461 251, 577 65, 570	5, 316 2, 718 2, 291	12, 200 4, 900 3, 300	10 5 5	380 170 70	11, 810 4, 725 3, 225	546 181 158		
Lumber and timber basic products ¹ Planing and plywood mills	1, 793 888	137 59	259, 251 122, 539	13, 852 4, 657	61, 200 11, 500	365 45	2, 020 770	58, 815 10, 685	5, 422 1, 145		
Manhimana anant datatio I	3 674	994 161	1, 965, 434 312, 397	39, 337 4, 151	53, 900 4, 300	110 5	2, 590 320	51, 200 3, 975	3, 420 324		
Machinery, except electric Commercial and household machinery General industrial machinery, not elsewhere classified Pumps and compressors Textile machinery	1, 972 129 133	415 35 25	827, 029 72, 552 56, 298	19, 278 1, 878 1, 012	36, 100 3, 800 1, 600	70 15	1, 440 120 50	34, 590 3, 665 1, 550	2, 095 184 67		
Nonferrous metals and their products ¹ Nonferrous basic shapes and forms	829 39	175 31	366, 921 68, 149	7, 657 1, 155	18, 000 2, 400	20	940 70	17, 040 2, 330	1, 169 58		
Nonferrous metal products, not elsewhere clas- sified	747	102	206, 059	3, 986	9, 900	10	490	9,400	604		
Paper and allied products ¹ Envelopes Paper boxes and containers Paper and pulp	1, 414 71 606 521	303 7 62 193	646, 461 16, 264 130, 353 418, 856	$16,280 \\ 225 \\ 3,037 \\ 11,267$	23, 800 400 5, 100 11, 600	70 5 60	1, 050 10 410 350	22, 680 390 4, 685 11, 190	1, 836 15 465 997		
Printing and publishing ¹ News and periodical	2, 498 818	199 97	412, 019 196, 545	3, 673 1, 744	12, 000 4, 400	25 20	660 190	11, 315 4, 190	983 446		
Rubber products ¹ Rubber tires and tubes Rubber products, not elsewhere classified		227 119 83	474, 515 238, 225 167, 670	7, 212 3, 074 3, 355	8, 700 3, 400 4, 900	25 20 15	600 140 420	8, 075 3, 240 4, 465	1, 061 309 727		
Stone, clay, and glass products ¹ Glass Pottery and related products Structural clay products	1, 233 219 141	223 91 33 38	465, 423 187, 388 64, 945 77, 063	10, 835 3, 278 1, 460 3, 458	22, 400 4, 700 2, 400 6, 300	110 15 25 30	540 90 50 130	21, 750 4, 595 2, 325 6, 140	1, 595 266 207 417		

Structural clay products.... See footnotes at end of table.

	Al	l reporting	establishmer	nts	Estimates for entire industry					
Industry	Number of estab- lishments	Number of em- ployees (thou- sands)	Employee- hours worked (thou- sands)	Number of dis- abling injuries	All dis- abling injuries	Death and perm a- nent total disability	Perma- nent par- tial dis- ability	Tempo- rary total disability	Total days lost (thou- sands)	
Textile and textile-mill products ¹ Cordage and twine Cotton yarn and textiles Dyeing and finishing textiles Hats, except cloth and millinery Knit goods Rayon, other synthetic and silk textiles Woolen and worsted textiles.	55 594 305 27 703 215	745 10 305 53 9 119 61 140	1, 488, 128 19, 868 609, 097 112, 053 17, 194 228, 120 123, 014 285, 767	23, 231 496 8, 557 2, 432 298 1, 870 1, 474 6, 363	40, 200 800 14, 100 3, 200 400 3, 200 2, 400 7, 800	80 5 15 10 5	$ \begin{array}{r} 1,570 \\ 50 \\ 590 \\ 150 \\ 5 \\ 70 \\ 60 \\ 200 \\ \end{array} $	38, 550 745 13, 495 3, 040 3,900 3, 130 2, 340 7, 585	2, 978 68 995 323 26 121 77 452	
Transportation equipment ¹ Aircraft and parts Motor vehicles and parts Railroad equipment. Shipbuilding and boatbuilding ²	950 129 400 82 319	837 182 402 72 174	1, 631, 313 353, 674 782, 874 139, 905 344, 182	23, 970 2, 957 10, 735 2, 654 7, 347	41, 200 3, 200 22, 300 3, 200 9, 600	205 30 65 10 85	2, 890 150 1, 920 150 540	38, 105 3, 020 20, 315 3, 040 8, 975	4, 683 392 2, 290 217 1, 588	
Miscellaneous manufacturing 1 Optical and opthalmic goods Tobacco products	1, 286 44 206	303 22 50	625, 334 45, 438 99, 646	7, 963 433 930	17, 700 500 2, 000	35	970 10 100	16, 695 490 1, 900	1, 139 4 115	

TABLE C.-Estimates of disabilities, by extent, for manufacturing industries, 1946-Continued

¹ Includes data for industries not shown separately because of insufficient coverage upon which to base industry estimates.

² Does not include United States navy yards.

TABLE D.—Distribution of all reported injuries resulting in permanent partial disability, according to part of body affected, by industry, 1946

	1	1				****				
		Percent of permanent partial disability cases involving the loss, or loss of use of-								
Industry	Total	An arm	A hand or fingers	A leg	A foot or toes	An eye	One or both ears (hearing)	Other		
Manufacturing										
Total, manufacturing	100	3	77	3	7	4	(1)	6		
Apparel and other finished textile products	100	4	79	0	4	4	0	9		
Chemicals and allied products Fertilizers Industrial chemicals Plastic materials, except rubber	100	5 0 3 8	• 60 41 58 55	4 6 4 3	10 9 15 11	6 9 8 0	(1) 0 0	15 35 12 23		
Electrical machinery, equipment, and supplies Electrical appliances. Electrical equipment for industrial use Radios and phonographs	100 100 100 100	2 3 2 1	82 64 87 79	1 0 0 5	10 25 7 9	2 3 1 3	0 0 0	3 5 3 3		
Food products Baking Breweries Canning and preserving Flour, feed, and grain-mill products Slaughtering and meat packing Sugar refining.	100 100 100 100 100 100 100	7 10 8 8 4 0 2	56 70 44 68 64 82 61	6 3 5 9 5 2	13 11 14 12 11 8 33	3 0 3 3 5 1 0	(1) (1) 0 0 0 0	15 6 26 4 7 4 2		
Furniture and finished lumber products Furniture, metal Furniture, except metal Wooden containers Not elsewhere classified	100 100 100 100 100	1 0 1 1 0	91 96 90 92 90	1 1 2 1	1 1 1 2 0	3 1 2 2 8	0 0 0 0	3 1 5 1 1		
Iron and steel and their products. Forgings, iron and steel. Foundries, iron. Hardware. Heating equipment. Iron and steel. Stamped and pressed metal products. Tools, except edge tools. Not elsewhere classified.	100 100 100 100	2 3 2 3 3 1 0 0	82 79 69 90 84 75 96 78 98	3 0 3 0 5 5 1 4 0	6 16 10 1 5 11 0 2 0	4 9 3 3 4 1 10 2	(1) 0 1 0 0 1 0 0 0	3 0 6 4 0 1 1 1 6 0		
Leather and leather products	100	2	92	1	3	0	0	2		
Lumber and timber basic products Logging Sawmills	100	4 7 2	76 58 77	4 6 6	7 17 7	5 6 6	(1) 2 0	4 4 2		
Machinery, except electric Agricultural machinery and tractors Commercial and household machinery Construction and mining machinery General industrial machinery, not elsewhere classi- fied	100 100	1 0 2 2	82 88 96 72 72	2 0 2 5 4	8 4 1 14 18	4 7 0 5 2	(1) 0 0 0	3 1 1 2 2		

¹Less than half of 1 percent.

		Percent of permanent partial disability cases involving the loss, or loss of use of-								
Industry		An arm	A hand or fingers	A leg	A foot or toes	An eye	One or both ears (hearing)	Other		
Nonmanufacturing—Continued										
Machinery, except electric—Continued Metalworking machinery. Special industry machinery, not elsewhere classi- fied.	100 100	1	85 72	3	4	4	0	3		
Nonferrous metals and their products	100	3	85	0	1	5	0	6		
Paper and allied products Paper boxes and containers Paper and pulp Not elsewhere classified	100 100 100 100	3 3 4 0	82 79 82 89	3 3 3 2	4 5 4 2	4 4 6 2	0 0 0 0	4 6 1 5		
Printing and publishing Book and job printing News and periodical	100 100 100	5 3 10	80 86 69	2 1 4	8 6 11	1 1 1	0 0 0	4 3 5		
Rubber products	100	9	75	4	8	2	0	2		
Stone, clay, and glass products Glass Structural clay products	100 100 100	5 9 3	67 64 73	5 2 8	6 7 5	9 9 5	0 0 0	8 9 6		
Textile and textile-mill products. Carpets, rugs, and other floor coverings Cotion yarn and textiles. Dyeing and finishing textiles. Woolen and worsted textiles.	100 100 100 100 100	7 11 6 7 6	77 64 84 61 87	4 3 3 9 4	6 15 2 9 1	3 5 3 1 1	0 0 0 0 0	3 2 2 13 1		
Transportation equipment Aircraft parts Motor vehicles Motor-vehicle parts Railroad equipment Shipbuilding	100 100	1 2 1 1 0 4	80 90 84 84 69 59	2 2 1 2 0 6	6 0 5 1 21 12	5 2 4 3 5 10	1 0 1 0 5	5 4 5 8 5 4		
Miscellaneous manufacturing Tobacco products	100 100	2 2	89 88	1 2	3 6	2 2	0 0	3 0		
Nonmanufacturing Construction Building construction Heavy engineering Highway construction	100 100 100 100	8 6 4 17	56 59 67 35	7 5 7 11	12 11 11 17	8 8 7 9	(1) 0 0	9 11 4 11		
Transportation Stevedoring Bus Streetcar and bus	100 100 100 100	5 5 0 7	37 32 62 51	16 18 10 14	27 31 10 11	(1) (1) 4 6	1 1 0 0	13 13 14 11		
Heat, light, and power Electric light and power Gas	100 100 100	6 8 3	55 54 49	9 8 14	10 10 12	6 5 8	1 2 0	13 13 14		
Personal services	100	9	69	6	5	3	0	8		
Business services	100	6	62	8	14	8	0	2		
Trade Wholesale distributors Wholesale and retail building supplies	100 100 100	4 5 0	65 57 90	9 8 0	9 15 2	7 7 4	0 0 0	6 8 4		

TABLE D.—Distribution of all reported injuries resulting in permanent partial disability, according to part of body affected, by industry, 1946—Continued
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¹ Less than half of 1 percent.

TABLE E.—Indexes of injury-frequency rates in manufacturing, 1926-46, by extent of disability 1 [1926=100]

Year	Allinjuries	Death and permanent total		Temporary total	Year	All injuries	Death and permanent total	Permanent partial	Temporary total
1926. 1927. 1928. 1929. 1930. 1931. 1932. 1933. 1934. 1935. 1936.	100. 0 93. 6 93. 2 99. 2 95. 5 78. 0 80. 9 91. 8 93. 6 88. 1 85. 7	100. 0 107. 1 92. 9 107. 1 92. 9 107. 1 85. 7 107. 1 92. 9 85. 7	100. 0 96. 3 104. 6 109. 2 111. 0 102. 8 113. 8 110. 1 128. 4 121. 1 114. 7	100. 0 93. 3 92. 5 98. 7 94. 6 76. 5 78. 9 90. 8 91. 6 86. 2 84. 1	1937	85. 8 71. 7 73. 4 75. 3 93. 5 94. 4 88. 3 81. 9 84. 3	85. 7 71. 4 71. 4 80. 3 70. 7 62. 8 62. 8 60. 1	122. 0 78. 9 80. 7 84. 8 93. 7 83. 4 75. 4 75. 4 77. 9	83. 7 68. 1 73. 9 75. 6 86. 2 94. 1 95. 0 89. 7 83. 0 85. 3

Beginning with 1937, the indexes are based on the percent of change of the frequency rates of identical establishments in each pair of successive years.

Recent Bureau of Labor Statistics Reports on Industrial Hazards and Working Conditions*

Injuries and accident causes in the longshore industry, 1942.

Bulletin No. 764. (Out of print.)

A detailed analysis of the hazards involved in loading and unloading ships. Includes sample safety codes and accident prevention suggestions.

Injuries and accident causes in the foundry industry, 1942.

Bulletin No. 805. Price 15 cents.

An analysis of foundry accidents and their causes, including accident prevention suggestions. Presents comparisons based upon plant size, geographic location, first-aid facilities, type of product, and departmental operations.

Injuries and accident causes in the slaughtering and meat-packing industry, 1943.

Bulletin No. 855. Price 15 cents.

A detailed analysis of the hazards and of the prevailing causes of accidents in the meat industry, including comparisons based upon departmental, regional, and plant-size factors. Also includes descriptions of typical accidents, accompanied by suggestions for the prevention of similar occurrences.

Injuries and accident causes in the brewing industry, 1944.

Bulletin No. 884. Price 15 cents.

Presents a detailed account of the accident record of brewery workers during 1944, with frequency rate comparisons based upon the operating divisions of the plants, the size of the plants, and the geographic location of the plants. Also includes an analysis of the causes of brewery accidents and suggestions for the prevention of typical brewery accidents.

Accident-record manual for industrial plants.

Bulletin No. 772. Price 10 cents.

This manual contains an outline of simple and useful methods of accident recording and of the use of such data for accident prevention. It also explains how to compute and use injury-frequency and severity rates and how to determine the important causes of accidents. Work injuries in the United States during 1945.

Bulletin No. 889. Price 10 cents.

A collection of basic industrial injury data for each of the major industries in the United States. Presents national average injury-frequency and severity rates for each industry. Individual establishments may evaluate their own injury records by comparison with these data. *Impaired workers in industry*.

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Graphic comparisons of the performance of impaired workers and of their unimpaired fellow workers in terms of output, efficiency, injury record, absenteeism, and stability on the job.

Workmen's compensation and the protection of seamen.

Bulletin No. 869. Price 20 cents.

A report on the financial protection afforded merchant seamen who are disabled because of injury or disease while in the service of their vessels. Presents the status of such seamen under both foreign and domestic legislation and examines the probable results of applying to seamen the recommendations of an Interdepartmental Committee for a workmen's compensation act fitted to the existing rights of merchant seamen.

U. S. GOVERNMENT PRINTING OFFICE: 1947

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