# Work Injuries in the United States During 1950 

A Collection of Basic Work-Injury Data for Each of the Major Industries in the United States

Estimates of Disabling Work Injuries

Injury-Frequency Rates
Injury-Severity Measures
Changes in Injuries and Injury Rates

Bulletin No. 1098
UNITED STATES DEPARTMENT OF LABOR
Maurice J. Tobin, Secretary
BUREAU OF LABOR STATISTICS
Ewan Clague, Commissioner


Digitized for FRASER http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

# Work Injuries in the United States During 1950 

Bulletin No. 1098<br>UNITED STATES DEPARTMENT OF LABOR<br>Maurice J. Tobin, Secretary BUREAU OF LABOR STATISTICS<br>Ewan Clague, Commissioner



Digitized for FRASER http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

## Letter of Transmittal

United States Department of Labor, Bureau of Labor Statistics, Washington, D. C., May 27, 1952.

## The Secretary of Labor:

I have the honor to transmit a report on the occurrence of work injuries in the United States during 1950. Over 68,000 establishments with a total employment of about 11 million workers participated in the survey on which the report is based.

This bulletin, parts of which have appeared in the March 1951 and January 1952 issues of the Monthly Labor Review, was prepared by Frank S. McElroy and Robert S. Barker, of the Bureau's Branch of Industrial Hazards.

Ewan Clague, Commissioner.
Hon. Maurice J. Tobin, Secretary of Labor.

Digitized for FRASER http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

## Contents

## Page

Estimates of disabling work injuries ..... 1
Injury-frequency rates ..... 2
Manufacturing ..... 2
Nonmanufacturing ..... 4
Mining and quarrying ..... 5
Injury severity ..... 6
Manufacturing ..... 6
Nonmanufacturing ..... 8
Mining and quarrying ..... 8
Appendix
Technical notes ..... 10
Definitions ..... 10
Workers covered ..... 10
Industry classifications ..... 10
Revisions ..... 10
Tables ..... 10
A.-Injury rates by industry, 1950 (with comparable injury-frequency rates for 1949) _ ..... 12
B.-Changes in exposure, disabling injuries, and injury rates for 42,171 identical establishments, 1949-50 ..... 18
C.-Distribution of all reported injuries resulting in permanent-partial disability, according to part of body affected, by industry, 1950 ..... 22
D.-Distribution of temporary-total disabilities, by duration of disability, 1950 ..... 24
E.-Indexes of injury-frequency rates in manufacturing, 1926-50, by extent of disability ..... 27
F.-Changes in industry classification for work injury survey (manufacturing industries) ..... 28
Charts
1.-Injury-frequency rates in manufacturing, 1938-50 ..... 3
2.-Percent change in monthly injury-frequency rates in manufacturing, 1949-50 (1949 average equals base) ..... 4
3.-Injury-frequency rates and severity averages, major manufacturing groups, 1950 ..... 5
4.-Industrial injury-frequency rates in manufacturing, by type of disability, 1926-50 ..... 11

Digitized for FRASER http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

# Work Injuries in the United States During 1950 


#### Abstract

Disabling work injuries totaled about 1,952,000 in 1950, 4 percent above the 1949 level. Production losses accruing from the 1950 injuries ultimately will amount to the equivalent of a year's full-time employment for over 700,000 workers. The greatest proportionate increases in injury volume occurred in manufacturing and construction. Injury-frequency rates generally were somewhat higher than in 1949, but the average severity of the injuries tended to be lower. Monthly frequency rates available for manufacturing indicate that the upturn in injuries began early in 1950 and that the upward trend was continuous to the end of the year. In December, the manufacturing industries were producing injuries at a rate much higher than the full-year average of 14.7 per million employee-hours worked.


Reflecting increased employment and somewhat higher injury-frequency rates in many industries, the volume of disabling work injuries ${ }^{1}$ in the United States in 1950 rose about 4 percent above the total recorded in 1949. The 1950 total of $1,952,000$ injuries, however, was below the $2,019,000$ estimate for 1948 and was the second lowest figure since 1940.

Injury-frequency rates ${ }^{2}$ generally tended to be somewhat higher in 1950 than in 1949, but this adverse aspect was tempered by a general decline in average injury severity. Most of the increase was in the volume of temporary injuries. The proportion of fatalities was substantially the same as in the previous year and the proportion of permanent impairments actually declined.

[^0]
## Estimates of Disabling Work Injuries

The total volume of disabling work injuries in 1950 was estimated by the Bureau of Labor Statistics ${ }^{3}$ as $1,952,000$-an increase of 82,000 over the 1949 estimate.

Approximately 15,500 persons died as a result of work injuries experienced during 1950. An additional 84,900 suffered some permanent disability, such as the amputation of a body part or the impairment of some function of the body. This latter group included about 1,600 cases in which the impairment was serious enough to incapacitate the injured persons for any gainful employment for the remainder of their lives. The bulk of the injuries ( 95 percent), however, resulted only in temporary disability which incapacitated

[^1]the injured persons for one or more days, but from which they recovered without any permanent ill effects.

Approximately 40 million man-days were lost in 1950 as a result of injuries which occurred during the year. This is equivalent to the loss of all productive effort from 134,000 workers throughout the year. If additional allowance were made for the future effects of the deaths and permanent physical impairments, the total economic loss would amount to about 212 million man-daysor a year's full-time employment for about 706,000 workers.
Estimated number of disabling work injuries during 1950, by industry group

|  | $\begin{aligned} & \text { All disa- } \\ & \text { bilities } \end{aligned}$ | Fatalities | Perma- nent disabilities | $\left\lvert\, \begin{gathered} \text { Tempo- } \\ \text { rary-total } \\ \text { disabili- } \\ \text { ties } \end{gathered}\right.$ |
| :---: | :---: | :---: | :---: | :---: |
| All employed persons (except domestic seroants) ${ }^{1}$ |  |  |  |  |
| All groups....-...-..........- | 1,952,000 | 15,500 | 1 84, 900 | 1, 851,600 |
| Agriculture ${ }^{3}$ | 340,000 | 4,300 | 15,600 | 320, 100 |
| Mining and quarrying | 72,000 | 1,000 | 3,200 | 67, 800 |
| Construction ${ }^{3}$ | 205,000 | 2, 300 | 8,500 | 194, 200 |
| Manufacturing | 426.000 | 2, 600 | 21, 700 | 401,700 |
| Public utilities ${ }^{\text {d }}$ | 24,000 | 300 | ${ }^{600}$ | 23, 100 |
| Trade ${ }^{\text {s }}$ - | 335,000 | 1,500 | 8,100 | 325,400 165000 |
| Transportation | 177,000 | 1,300 | 9,800 | 165,900 |
| Finance, service, government, and miscellaneous industries ${ }^{3}$ | 373, 000 | 2, 200 | 17, 400 | 353, 400 |
| Employees only 1 |  |  |  |  |
| All groups. | 1, 483,000 | 11, 100 | 65,900 | 1, 406, 000 |
| Agriculture ${ }^{\text {a }}$ |  | 1,100 |  | 55, 200 |
| Mining and quarrying | 67, 000 | ${ }^{900}$ | 3,000 | ${ }^{63,100}$ |
| Construction ${ }^{\text {d }}$ d | 159,000 | $\begin{array}{r}1,800 \\ \\ \\ \hline\end{array}$ | 6,600 | ${ }^{150} 5600$ |
| Manufacturing ${ }^{\text {Prablic }}$ | 419,000 24,000 | ${ }_{2}^{2} \mathbf{4} \mathbf{3 0 0}$ | 21,400 600 | 395, 100 |
| Trade ${ }^{\text {B }}$ | 268, 000 | 1,200 | 6,500 | 260, 300 |
| Transportation? | 155,000 | 1,200 | 8.700 | 145, 100 |
| Finance, service, government, and miscellaneous | 331,000 | 2,100 | 15,400 | 313, 500 |

[^2]Increased employment and intensified activities in manufacturing and construction contributed to the increase of approximately 12 percent in the volume of work injuries in each of these industry classifications. In manufacturing, both employment and the average hours worked per week were higher in 1950 than in 1949. Together, these factors produced an increase of about 9 per-
cent in the total volume of man-hours worked in manufacturing, representing a substantial rise in the exposure to industrial injury possibilities.

A similar situation existed in construction. Construction activities were at an all-time high during most of 1950. Increased employment resulted in more hours of exposure to work hazards, and the increased tempo of work tended to raise the injury rate.

The only major decrease in the number of work injuries occurred in public-utility operations. There was a slight reduction in telephone employment and a substantial drop in employment in the other communications industries. Most of the decrease in the volume of injuries, however, can be attributed to the improvement in injuryfrequency rates recorded for most divisions of the public utility group.

Other industry groups showed little change or only minor increases in the number of injuries. Within the transportation group of industries, railroads had a modest decrease in work injuries. There was, however, a sufficient increase in injuries in other transportation activities to offset this decrease and result in a net increase for the entire group.

The mining industries as a group had a 3-percent increase in injuries despite a slight drop in the number of persons employed and a general improvement in the injury-frequency rates for most types of mining. The influence of these factors was more than balanced by an increase in the number of man-hours worked. Within the group, bituminous-coal mining did have a slight decrease in the number of injuries. Anthracite, metal, and nonmetallic mines and quarries each had an increase in injuries during 1950.

In trade, finance, service, government, and the miscellaneous industries, injuries increased moderately during 1950-paralleling in most instances changes in employment.

In agriculture an increase in mechanical hazards arising from more extensive use of farm machinery offset the drop in employment and held the volume of injuries at about the 1949 level.

## Injury-Frequency Rates

Manufacturing.-Advance indications of a 1950 reversal in the down trend of manufacturing injury rates were substantiated by the final fullyear averages. The final all-manufacturing fre-
quency rate for 1950 was 14.7, a rise of 1 percent from the 1949 average of $14.5 .{ }^{4}$ This rise, although small in magnitude, contrasted sharply with the substantial declines recorded in the all-manufacturing rate during 1947, 1948, and 1949. (See chart 1.) Actually, however, the full-year average obscures the highly significant changes in injury experience which occurred during the year.

The monthly all-manufacturing injury-frequency rate showed a definite downward trend during most of 1949. This carried over into January 1950 when the rate was 14 percent below the January 1949 level. In each of the following 3 months the 1950 rate was lower than the 1949 rate for the corresponding month, but the differences were progressively reduced in each successive month. In May the 1950 rate moved above the 1949 level and continued to move higher through the rest of the year. In December the 1950 rate was 14 percent above the corresponding rate for 1949. This sharp shift from 14 percent below the 1949 level in January to 14 percent above the 1949 level in December is lost entirely in the comparison of the two full-year averages. (See chart 2.)

In general, the 1950 frequency rates for the major manufacturing industry groups were not significantly different from the corresponding 1949 rates. The most important changes in the group averages were: An increase from 17.5 in 1949 to 19.0 in 1950 for the fabricated metal products group; an increase from 11.6 to 13.3 for the miscellaneous manufacturing group; and a decrease from 9.4 to 8.3 in the frequency rate for the transportation equipment group.

A wider range of changes occurred in the rates for the individual manufacturing industries. Among the 164 industry frequency rates computed for 1950 , there were 68 which, for all practical purposes, were unchanged from their 1949 levels; 34 were significantly lower than in 1949 ; and 62 were 1 or more frequency-rate points higher than in 1949. Only six manufacturing industries had 1950 frequency rates which were as much as five points higher than in 1949. (See table A, cols. 1 and 5.)

The greatest increase-from 36.4 disabling injuries per million employee-hours in 1949 to 50.3 in

[^3]
## Chart 1.-Injury-Frequency Rates in Manufacturing, 1938-50



1950-occurred in beehive coke oven operations. Average employment in this industry increased only slightly, but a sharp rise in the number of active plant-days during 1950 boosted the manhour total 45 percent above the 1949 level. The volume of injuries, however, increased much more sharply, bringing the injury-frequency rate up 38 percent. In terms of production, the picture was somewhat more favorable inasmuch as total production rose more rapidly than the man-hours expended. Nevertheless, the injury rate expressed in terms of million tons of coke produced was 18 percent higher in 1950 than in 1949.

The other manufacturing industries in which outstanding injury-frequency rate increases occurred during 1950 were: Metal doors, sash, and frames, in which the rate rose from 21.0 in 1949 to 29.9 in 1950; nonferrous foundries, with a rise from 19.2 to 24.8 ; metal household furniture, where the rise was from 18.3 to 23.5 ; cold finished steel, which had an increase from 14.3 to 19.4; and planing mills, for which the increase was from 38.5 to 43.5 .

Chart 2.-Percent Change in Monthly Injury-Frequency Rates in Manufacturing, 1949-50


In contrast, some manufacturing industries succeeded in effecting sharp reductions in their 1950 injury-frequency rates. For wineries the rate dropped from 25.4 in 1949 to 19.8 in 1950; for elevators, escalators, and conveyors, it fell from 21.3 to 16.1 ; and for wood office furniture it came down from 27.4 to 22.2 .

The general ranking of manufacturing industries, in terms of injury-frequency rates, during 1950 remained much the same as in previous years. The highest average for any of the industry groups was 49.8 disabling injuries per million employee-hours worked for the lumber and wood products group. (See chart 3.) The highest frequency rate for any individual manufacturing industry- 96.5 for logging-was in this group and all of the other industries in the group had rates well above the all-manufacturing average.

The lowest of the industry-group averages was 6.2 for the ordnance group, followed by 6.6 for the apparel group, and 6.8 for the tobacco group.

Some individual industries, however, held their frequency rates well below the best of the group averages. The most favorable industry rates were:

| Industry | Injury-frequency <br> $1949{ }^{\text {fates }} 1950$ |  |
| :---: | :---: | :---: |
| Synthetic fibers | 3.0 | 2.1 |
| Synthetic rubber | 3.2 | 3. 4 |
| Explosives.- | 1.4 | 3. 8 |
| Radio tubes. | 3. 1 | 3. 9 |
| Aircraft | 4. 3 | 4.0 |
| Electric lamps (bulbs) | 3.7 | 4.0 |
| Ophthalmic goods. | 5.6 | 4.8 |
| Clothing, women's and | 4.3 | 4. |

Nonmanufacturing.-As in manufacturing, in-jury-frequency rates for the nonmanufacturing industries (exclusive of mining) tended to be somewhat higher in 1950 than in 1949. Among the 52 individual industry classifications there were 21 rate increases and 13 decreases. Rates for the other 18 classifications varied by less than 1 fre-quency-rate point between the 2 years. (See table A, cols. 1 and 5.)

The average frequency rate for all construction operations advanced from 39.9 in 1949 to 41.0 in 1950. Sharp rises occurred in the rates for roofing and sheet-metal work, masonry and stonework, structural-steel erection and ornamental ironwork, and painting, paperhanging, and decorating. For general building contracting there was a moderate increase in injury frequency. On the other hand, the 1950 frequency rates for the installation and erection of building equipment, and for terrazzo, tile, marble, and mosaic work were lower than in 1949.

In the personal-services group the frequency rate for hotels rose from 13.5 in 1949 to 16.0 in 1950, and the rate for dry cleaning rose from 5.1 to 6.5.

Seven of the eleven trade classifications had significant increases in their frequency rates. The most important was a rise in the rate for filling stations from 4.8 in 1949 to 12.0 in 1950. The only improvement recorded in the group was in the rate for combination wholesale and retail trade establishments, which dropped from 16.5 to 13.6 .

Electric and gas utilities both had lower frequency rates in 1950 than in 1949. Similarly, local bus operations and the integrated local transportation systems lowered their frequency rates in

Chart 3.-Injury-Frequency Rates and Severity Averages, Major Manufacturing Groups, 1950

1950. The frequency rate for streetcar operations, on the other hand, rose somewhat. Stevedoring, with a frequency rate of 59.4 for 1950, was again near the top among the high-rate industries. This rate was substantially lower than the rate shown for 1949, but the validity of this apparent improvement may be questioned because of changes in the establishments reporting for the 2 years. Comparisons based upon the records of identical establishments reporting in both years indicate that the frequency rate for stevedoring actually rose by about 3 percent in 1950. The apparent drop in the frequency rate for waterworks is also open to question for the same reason.

Mining and quarrying.-Although the injuryfrequency rates for the mining ${ }^{5}$ and allied industries remained relatively high, there were significant decreases in the rates for 13 of the 21 operating classifications for which the Bureau of Mines compiled figures. Five increases were recorded, all in the smaller segments of the group and exercising little influence upon the general average. (See table A, cols. 1 and 5.)

[^4]In respect to work injuries, 1950 was a good year for coal mining in the United States. For the second consecutive year no disasters ${ }^{6}$ occurred in the industry and the fatality rate reached the lowest level on record. In addition, the over-all frequency rate for all coal mining dropped from 56.0 in 1949 to 52.8 in 1950. Most of this improvement resulted from a drop in the rate for bituminous-coal mining, which fell from 52.6 in 1949 to 48.8 in 1950. The rate for anthracite mining in 1950 (72.5) was essentially the same as in 1949 (72.7).

The frequency rate for metal mining also showed some improvement in 1950, dropping to 45.6 from its 1949 level of 48.5. Within the group the frequency rates for iron, copper, lead-zinc, and gold-placer mining operations were down, but the rate for gold-silver mining rose in 1950. The latter operation had the highest frequency rate (121.3) recorded for any type of mining.

The 1950 frequency rate for all quarry operations (36.6) was somewhat lower than in 1949 (38.1). This reflected minor reductions in the rates for all types of quarries except traprock operations. For traprock quarries the rate rose from 44.2 in 1949 to 51.6 in 1950.

The ore-dressing mills and auxiliaries as a group had a frequency rate of 22.8 in 1950, approximately the same as in 1949. The rate for the iron-ore treating plants, however, showed some improvement, whereas the gold-silver and lead-zinc treating plants had higher rates in 1950 than in 1949.

## Injury Severity

Although the injury-frequency rate is generally accepted as the most useful measure of injury experience, some measure of the relative severity of the injuries sustained is also recognized as assential for the complete evaluation of any injury record. The standard severity rate ${ }^{7}$ has long been the yardstick most widely used for this purpose. In recent years, however, the significance of this rate has been seriously questioned. The principal criticisms have been that the severity of an injury cannot logically be related to the amount of time worked and that the method of computation makes it, in effect, merely a weighted frequency rate rather than a true measure of injury severity.

[^5]Inasmuch as it expresses the total time charges, which in turn represent the economic consequences of the injuries in terms of actual time worked, it probably should be designated more properly as an operating cost measure or index. In this capacity it is useful in evaluating the economic loss experienced in a plant or industry as a result of work injuries.

As an accurate indicator of variations in the general severity of injuries, the disability distribution offers certain advantages. Its computation is simple, involving only the classification of the injuries into well-defined groups and the computation of simple percentages. This avoids the introduction of any artificial or extraneous factors which might alter or confuse its meaning. Chief disadvantages are that it is somewhat cumbersome to use, inasmuch as a complete comparison requires reference to several sets of figures, and that it may not be entirely satisfactory when applied to small groups of injuries.

The most favored single measure of average injury severity at the present time is the average time charge per disabling injury. This is computed by adding the amount of actual time lost because of temporary-total disabilities and the standard time charges for deaths and permanent impairments, and then dividing the total by the number of injuries. It is most commonly referred to as the severity average or the average time charge.

Manufacturing.-Injuries experienced in manufacturing tended, on the average, to be somewhat less severe than those experienced in 1949. Just why this occurred is a matter of question, inasmuch as many possible factors enter into the picture. The most encouraging interpretation probably is that intensified safety activities, which are most commonly directed at the control of the more serious hazards, were responsible. This possibility is supported by the declining ratio of permanentpartial impairments ${ }^{8}$ in the 1950 record, but is

[^6]offset in some degree by the fact that the ratio of fatalities and permanent-total disabilities did not change from the 1949 level. A second possibility is that during the setting-up period at the beginning of an industrial expansion, manual operations loom disproportionately large and machine operations recede in importance until the expansion or change-over of facilities has been completed. This would account for the rise in temporary disabilities and the drop in the ratio of permanent impairments, and would throw some light upon the drop in the average time charge for permanent impairments and temporary disabilities. Another factor to be considered is the improvement in recent years in the medical procedures for the treatment of work injuries. Therefore, the decline in general injury severity apparent in 1950 may represent, at least in part, success on the part of the medical profession in minimizing the seriousness of work injuries. The decline in the average recovery time for temporary disabilities and the reduction in average time charges for permanent impairments lends credence to this possibility. In all probabilities, each of these factors contributed in some measure to the reduction in injury severity.

For manufacturing generally, the proportion of fatalities and permanent-total disabilities remained the same in 1950 as in 1949. The ratio of per-manent-partial disabilities to the total volume of disabling injuries dropped slightly from 5.4 percent to 5.1 percent. (See table A, col. 11.) Of greater importance, the average time charge for permanent-partial disabilities dropped from 943 days per case in 1949 to 892 days in 1950, and the average recovery time for temporary disabilities dropped from 17 days per case to 16 days. As a result of these factors, the average time charge (or severity average) for all disabling injuries in manufacturing came down from 93 days per case in 1949 to 84 days in 1950. In the standard severity rate, this substantial reduction in injury severity is partially offset by the rise in injury frequency. Nevertheless, the standard severity rate (or economic loss index) for all manufacturing dropped from 1.4 days per 1,000 employee-hours worked in 1949 to 1.2 in 1950, representing, on the basis of 1950 operations, a saving of about 14 percent in lost time.

Thirteen of the 21 major groups of manufacturing industries had some reduction in their average time charge per injury during 1950, and in most
instances these reductions brought about a reduction in the standard severity rate. Outstanding reductions were accomplished in the following groups: food industries, apparel, lumber, furniture, rubber, fabricated metals, and electrical machinery. In contrast, the tobacco, printing, and chemicals groups had substantial increases in their average time charges per disabling injury along with increases in their standard severity rates. (See table A, cols. 6 and 7.)

An interesting characteristic apparent in the injury severity comparisons is the accompaniment of a low injury-frequency rate by a high average severity. For example, the following are the manufacturing industries which had the highest average time charges per case in 1950:

|  |  | Frequency rate | Severity rate |
| :---: | :---: | :---: | :---: |
| Aircraft manufacture | 280 | 4. 0 | 0. 9 |
| Blast furnaces and steel mills | 219 | 5. 7 | 1. 2 |
| Industrial organic chemicals . . - | 193 | 4. 8 | 1. 1 |
| Tires and inner tubes | 187 | 5. 6 | 1. 0 |
| Pumps and compressors. | 153 | 15. 4 | 2. 4 |

Four of these industries have very low frequency rates and average or better standard severity rates. The fifth, which had the lowest average time charge in the group, had a somewhat higher than average frequency rate and a substantially higher than average severity rate.

At the other end of the scale, the opposite relationship frequently exists. For example, the manufacturing industries with the lowest average time charges in 1950 are as follows:

|  | $\begin{aligned} & \text { Average } \\ & \text { chays } \\ & \text { charged } \\ & \text { per case } \end{aligned}$ | $\begin{aligned} & \text { Fre- } \\ & \text { guency } \\ & \text { rate } \end{aligned}$ | $\begin{aligned} & \text { Severity } \\ & \text { rate } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Bottled soft drinks | 13 | 26.7 | 0. 4 |
| Medical instruments and supplies | 15 | 13. 1 | 2 |
| Elevators, escalators, and conveyors | 17 | 16. 1 | . 4 |
| Clothing, women's and children's $\qquad$ | 18 | 4. 9 | 1 |
| Clothing, men's and boys'......- | 18 | 6. 4 | 1 |
| Metal coating and engraving.-- | 21 | 29.3 | 7 |
| Brooms and brushes. | 24 | 17. 6 | 4 |
| Hats | 24 | 18. 2 | 4 |
| Envelopes | 25 | 15. 4 | . 4 |
| Dairy products | 26 | 17. 8 | 5 |
| Cold-finished steel | 26 | 19.4 | . 7 |
| Miscellaneous food products.-- | 28 | 14.9 | . 6 |

All but 3 of the 12 industries in this group had higher than average frequency rates to offset their low average time charges.

In proportion to total employment, the logging industry probably experienced the greatest manpower losses in 1950 among all the manufacturing industries. In this industry, the proportion of fatalities and permanent-total disabilities was three times the all-manufacturing average. The proportion of permanent-partial disability cases was low, but the average time charge for these cases was double the average for all manufacturing. Similarly, the average recovery time for temporary disabilities in logging was well above the allmanufacturing level. The resulting average time charge of 129 days for each disabling injury in the industry, coupled with its high frequency rate, gave the industry a standard severity rate of 12.9 , the highest recorded for any manufacturing industry. On the basis of an 8 -hour day, this would represent a loss of about 10 percent of the total manpower available to the industry.

No other manufacturing industry had a severity rate which even approached the logging level. However, there were a number with rates warranting the designation of "very high." Among these were:


Nonmanufacturing.-In most classifications of the business, personal, and educational services. and communications and trade, the injury severity rate tended to be relatively low in 1950. In all of these classifications the proportion of disabling injuries resulting in death or permanent impairment was comparatively small and in most instances the average recovery time for temporary disabilities was relatively short.

In the heat, light, and power; construction; and transportation classifications the proportion of permanent-partial impairments was generally lower than in manufacturing but the ratio of fatalities tended to be higher. As a result, the severity
measures for some of these classifications were comparatively high, although none matched the highest levels reached in manufacturing.

In construction the most adverse severity record was for structural-steel erection and ornamental ironwork. The fatality rate in these operations was very high and permanent-partial disabilities were quite common. These factors were reflected in the high average time charge of 186 days per disabling injury. Coupled with the high frequency rate of 58.9 , this gave the classification a standard severity rate of 11.0 , indicating a manpower loss second only to that incurred in logging operations.

A similar combination of unfavorable factors gave the heavy construction (general contracting) classification an average time charge of 150 days per case and a severity rate of 6.4. A number of other construction classifications had average time charges exceeding 100 days per case, and nearly all had severity rates which substantially exceeded the average prevailing in manufacturing.

In the transportation group, stevedoring had an above-average time charge of 100 days per case and a quite high severity rate of 6.0 . Trucking and hauling, and warehousing and storage also had relatively high severity rates, although the average time charges for their injuries were not particularly high.

A high ratio of fatalities resulted in a high average time charge of 172 days per case for the electric light and power industry. The low injuryfrequency, however, held the severity rate down to 2.1.

Mining and quarrying.-In comparison with manufacturing, the ratio of fatalities in coal mining was quite high, but the ratio of permanentpartial disabilities was comparatively low. In bituminous-coal mining, the average time charge per disabling injury was 167 days and in anthracite mining it was 96 days. The bituminous-coal average may be characterized as quite high; the anthracite average is not exceptionally high. Because of the high frequency of injuries, however, the manpower losses in both branches of coal mining were very high. In bituminous-coal mining the loss averaged 8.1 days per 1,000 employeehours worked and in anthracite mining it was 6.9 days.

Severity rates and average time charges were not available for the other mining classifications.

Fatalities, however, constituted 1.3 percent of all disabling injuries in metal mining; 1.7 percent in nonmetal mining; 0.8 percent in quarrying; and 0.9 percent in ore-dressing operations. Significantly, in cement quarries, which had the lowest
frequency rate in the quarry group, the proportion of fatalities was unusually high ( 9.6 percent). Similarly, iron-ore dressing mills had the lowest frequency rate in their group, but 3.2 percent of their disabling injuries resulted in death.

## APPENDIX

## Technical Notes

All injury-rate data presented in this report were compiled according to the provisions of the American Standard Method of Compiling Industrial Injury Rates, approved by the American Standards Association, 1945.

Definitions.-The injury-frequency rate is the average number of disabling work injuries for each million employee-hours worked.

A disabling work injury is any injury occurring in the course of and arising out of employment, which (a) results in death or any degree of permanent physical impairment, or (b) makes the injured worker unable to perform the duties of any regularly established job, which is open and available to him, throughout the hours corresponding to his regular shift on any one or more days after the day of injury (including Sundays, days off, or plant shut-downs). The term "injury" includes occupational disease.

The severity rate is the average number of days lost, because of disabling work injuries, per 1,000 employee-hours worked. The computation of days lost includes the use of standard time charges for fatalities and permanent disabilities.

Workers covered.-Injury rates compiled by the Bureau of Labor Statistics include the experience of all classes of workers in each reporting establish-ment-production and related workers; forceaccount construction workers; and administrative, supervisory, sales, service, technical, professional, and office personnel.
Rates designated as having been compiled by the Bureau of Mines, U. S. Department of the Interior, include the experience of workers engaged in production, development, maintenance and repair work, and supervisory and technical personnel at the operation, but exclude office personnel and employees in stores or affiliated operations not directly connected with mining or refining operations.

Industry classifications.--The manufacturing classifications used in this report conform to the definitions of the 1945 edition of the Standard

Industrial Classification Manual (vol. I), prepared by the Division of Statistical Standards of the United States Bureau of the Budget. Classifications used in previous reports were based upon the 1942 edition of this manual.

Nonmanufacturing classifications, except those used for construction operations, are based upon the 1942 edition of the manual as in previous years. The construction classifications follow the definitions of the 1949 edition of volume II.

Revisions.-Because of the change to more current industry definitions, which necessitated the reclassification of many reporting establishments, a considerable number of the 1950 injury rates are not strictly comparable with the rates shown for the same, or similar, industry titles in previous years. The major classification changes are shown in table $F$.

In addition, all reports in the sample were reviewed in the light of product and activity data newly available to the Bureau. On the basis of this review, a number of individual reports were reclassified. To provide a basis for comparison, all 1949 data were reprocessed on the new basis and revised frequency rates for 1949 are shown in table A for direct comparison with the 1950 rates. The degree of comparability between the revised 1949 rates and those previously published is also shown.

In retabulating the 1949 data, more current employment weights than those previously available were utilized. Use of the revised weights resulted in some change in most of the group averages and reduced the 1949 all-manufacturing frequency rate from the previously published figure of 15.0 to 14.5 .

## Tables

Table A shows the injury-frequency and severity rates, average time charges per case, and the disability distribution for individual industries and for industry groups for 1950. Revised injuryfrequency rates for 1949 are also shown in this table. The group rates were computed by weighting the individual industry rates according to the total employment in each industry.

## Chart 4.-Industrial Injury-Frequency Rates in Manufacturing, by Type of Disability, 1926-50



Table B shows changes in employment, hours worked, disabling injuries, and days lost for establishments which reported for both 1949 and 1950. The purpose of this table is to measure from year to year the safety accomplishments of establishments performing substantially identical operations over the 2 -year period, by eliminating the effect of changes in the composition of each industry. It does not indicate the general injury experience of particular industries, which may be affected both by the prevailing hazards and by changes in the composition of the industry.

Table $\mathbf{C}$ shows in industry detail the percentage distribution of permanent-partial disabilities according to the part of body affected. This table serves, in part, to explain the variations in average
days charged per case among the various industries. In interpreting the table, it should be borne in mind that the time charges for permanent injuries to the different parts of the body bear approximately the following relationship to each other:

| 1 finger (not thumb) | 300 days |
| :---: | :---: |
| 1 thumb. | 600 days |
| 1 toe (not great toe) | 150 days |
| 1 great toe | 300 days |
| 1 hand | 3,000 days |
| 1 foot | 2,400 days |
| 1 arm, above elbow. | 4,500 days |
| 1 arm , below elbow | 3,600 days |
| 1 leg , above knee | 4,500 days |
| 1 leg , below knee. | 3,000 days |
| 1 eye. | 1,800 days |

Table C also presents some indications of the possibilities of reducing injuries in the various industries through greater use of certain personal protective devices such as safety shoes or goggles.

Table D shows the proportion of temporarytotal disabilities which involve less than 4 days of lost time per case. Because many reporting establishments did not supply this detail, the coverage for some industries was insufficient for inclusion in this breakdown. This table is intended, in part, to assist in the interpretation of the variations in average time lost because of tempo-rary-total disabilities among the various industries. It also serves as a basis of reference in adjusting
compensable case data to an all-disabling injury basis for those States in which the waiting period is 3 days.

Table E shows the general trend of industrial safety in terms of indexes of injury-frequency rates. These yearly indexes are based upon the percent change in the rates of establishments which reported in both the current and preceding years. They should not be considered as indicating the general frequency-rate level at any given time because they do not reflect the effect of expansion or contraction in the number of operating plants. They do indicate the safety trend in plants having continuing operations.

Table A.-Injury rates ${ }^{1}$ by industry, 1950 (with comparable injury-frequency rates for 1949)

| Industry | 1949 revised data : |  | 1050 survey data |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Injury frequency rates(1) | Percent change from previously published rates | Number of estab-lishments reporting | Number of employees reported ${ }^{3}$ <br> (4) | Injury-frequency rates | Injury-severity rates | Average days lost or charged per case ${ }^{\text {b }}$ |  |  | Percent of disabling injuries resulting in |  |  |
|  |  |  |  |  |  |  | $\underset{\text { cases }}{\text { All }}$ | Perma-nentpartial disa- <br> bilities | Tem-porarytotal disabilities | Death and perma-nenttotal disabilities | Perma-nentpartial disabilities | Tem-porarytotal disabilities |
|  |  |  |  |  |  |  | (7) | (8) | ( 9 ) | (10) | (11) | (12) |
| Manrfacturing |  |  |  |  |  |  |  |  |  |  |  |  |
| Total manufacturing | ${ }^{6} 14.5$ | (7) | 36, 530 | 8, 607, 151 | 614.7 | 81.2 | 84 | 892 | 16 | 0.4 | 5.1 | 94.5 |
| Food and kindred products | ${ }^{5} 19.7$ | ${ }^{(7)}$ | 4, 442 | 586, 304 | - 18.9 | 81.2 | 63 | 1,187 | 14 | 2 | 2.8 | 96.9 |
| Meat products. | 23.1 | (7) | 705 | 141, 811 | 21.7 | 1.4 | 38 | 989 | 11 | 1 | 2.0 | 97.9 |
| Dairy products | 17.6 | (\%) | 351 | 21, 199 | 17.8 | . 5 | 26 | 1,225 | 14 |  | 1.0 | 99.0 |
| Canning and preserving | 20.8 | (7) | 433 | 69,900 | 22.8 | 1.6 | 67 | 1,213 | 15 | .3 | 2.7 | 97.0 |
| Grain-mill products. | 18. 5 | (7) | 623 | 51,614 | 17.2 | 1.7 | 90 | 1, 418 | 16 | . 3 | 3.9 | 95.8 |
| Bakery products. | 14.8 | (7) | 739 | 76, 904 | 13.9 | 1.5 | 103 | 1,079 | 16 | . 4 | 5.7 | 93.9 |
| Sugar ----..... | 27.0 | (7) | 104 | 26,610 | 26.4 | 1.4 | 57 | 1,029 | 14 | . 3 | 2.6 | 97.1 |
| Cane sugar | 23.5 33.6 | (7) | 25 | 15, 390 | 22.3 | 1.1 | 47 | , 844 | 19 |  | 3.3 | 96.7 |
| Beet sugar Confectiongry and related products......-- | 33.6 13.0 | (7) | $\begin{array}{r}79 \\ 258 \\ \hline\end{array}$ | 11, 220 | 34.2 13.8 | 2.2 .6 | 64 40 | 1,227 | 11 | . 4 | 2.2 2.0 | 97.4 97.9 |
| Beverages | 26.4 | (8) | 823 | 93,743 | 23.8 | 1.1 | 72 | 1, 465 | 17 | .2 | 2.8 | 97.0 |
| Bottled soft drinks. | 29.3 | (7) | 335 | 10.593 | 26.7 | 4 | 13 | 300 | 12 |  | 4 | 99.6 |
| Malt and malt liquors | 28.3 | (7) | 269 | 61,096 | 25.3 | 2.1 | 80 | 1,493 | 16 | 2 | 3.5 | 96.3 |
| Wines. | 25.4 | (7) | 106 | 4, 163 | 19.8 | ${ }^{(9)}$ | (9) | (9) | (9) | (9) | (9) |  |
| Distilled liquors | 8.5 | ${ }^{7}$ ) | 118 | 22,891 | 8.3 | . 8 | 71 | 300 | 24 | . 8 | . 4 | 98.8 |
| Miscellaneous food products.---...........- | 17.1 | (I) | 311 | 35,670 | 14.9 | . 6 | 28 | 438 | 14 | 1 | 1.2 | 98.7 |
| Tobacco manufacturers. | 7.5 | (1) | 172 | 44, 114 | 6.8 | . 5 | 67 | 867 | 14 |  | 6.3 | 83.7 |
| Textile-mill products | ${ }^{1} 10.2$ | (7) | 2, 552 | 756, 795 | 011.0 | 01.0 | 82 | 1, 151 | 17 | 2 | 4.6 | 95.2 |
| Cotton yarn and textiles | 9.6 | (7) | 589 | 288, 166 | 10.0 | 1.0 | 85 | 1, 062 | 19 | 4 | 4.1 | 95.5 |
| Rayon, other synthetic, and silk textiles. | 7.7 | $+12$ | 235 | 71, 471 | 9.7 | . 6 | 52 | 1, 029 | 16 | . 2 | 2. 4 | 97.4 |
| Woolen and worsted textiles..............- | 13.1 | (7) | 329 | 119,353 | 13.8 | 1.2 | 69 | 1,400 | 20 | . 1 | 3.3 | 96.6 |
| Knit goods - .-.......------- | 5.6 | (7) | 714 | 122, 357 | 5.4 | . 2 | 43 | 1,058 | 14 | 1 | 2.0 | 97.9 |
| Dyeing and finishing textiles | 14.8 | (7) | 323 | 60, 201 | 18.3 | 1.8 | 84 | 1, 222 | 18 | 2 | 4. 6 | 95.2 |
| Carpets, rugs, and other floor coverings... | 15.2 | (7) | 84 | 50,755 | 15.0 | 2.1 | 139 | 1, 271 | 15 | 1 | 9.5 | 90.4 |
| Hats (except cloth and millinery)...- | 16. 9 | +6 | 73 | 11, 919 | 18.2 | . 4 | 24 | 800 | 11 |  | 1. 6 | 98.4 |
| Cordage and twine | 15.4 | (7) | 57 | 8, 747 | 19.0 | . 7 | 35 | 320 | 13 |  | 7.1 | 92.9 |
| Miscellaneous textile goods | 14.7 | -10 | 148 | 23,826 | 16.3 | 2.1 | 124 | 1,313 | 14 | 7 | 5.3 | 94.0 |
| Apparel and other finished textile products..- | * 6.2 | (7) | 2,344 | 246, 614 | ${ }^{6} 6.6$ | 6.2 | 21 | 610 | 9 | 1 | 1.5 | 98.4 |
| Clothing, men's and boys'---- | 6.1 | (7) | 775 | 122,969 | 6.4 | . 1 | 18 | 450 | 9 | 1 | . 3 | 99.6 |
| Clothing, women's and children's......... | 4.3 | +5 | 1, 025 | 84, 916 | 4.9 | . 1 | 18 | 1,160 | 8 |  | . 8 | 99.2 |
|  | 3.8 | (7) | 64 | 2,615 | 8.3 | (9) | (9) | (\%) | $\left.{ }^{9}\right)$ | (9) | (9) | ${ }^{(9)}$ |
| Fur goods and miscellaneous apparel....- | 5.9 | -15 | 135 | 11,688 | 7.8 | (9) | (9) | (c) | (9) | (9) |  |  |
| Miscellaneous fabricated textile products. | 13.9 | +9 | 345 | 24, 428 | 12.5 | . 6 | 36 | 532 | 10 |  | 4.8 | 95.2 |

Table A.-Injury rates ${ }^{1}$ by industry, 1950 (with comparable injury-frequency rates for 1949)-Con.

| Industry | 1949 revised data ${ }^{2}$ |  | 1950 survey data |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Injury quency rates | Percent change from previously published rates | $\begin{gathered} \text { Number } \\ \text { of estab- } \\ \text { lish- } \\ \text { ments } \\ \text { reporting } \end{gathered}$ | Number of employees reported ${ }^{3}$ | Injury-frequency rates | Injury severrates | A verage days lost or charged per case ${ }^{4}$ |  |  | Percent of disabling injuries resulting in 4 |  |  |
|  |  |  |  |  |  |  | $\begin{aligned} & \text { All } \\ & \text { cases } \end{aligned}$ | Perma-nentpartial dissbilities | Tem-porarytotal disabllities | Death and perma-nenttotal disabillties | Perma-nentpartial disabillties | Tem-porarytotal disabilities |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Manufacturing-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Lumber and wood products (except furniture). | - 49.0 | -12 | 2,622 | 225, 368 | - 49.8 | 64.3 | 99 | 1,070 | 17 | 0.7 | 3.7 | 95.6 |
|  | 93.3 | (r) | 269 | 23,453 | 96.5 | 12.9 | 129 | 1,717 | 24 | 1.2 | 2.0 | 96.8 |
| Sawmills and plaing mills ${ }^{10}$ | 58.2 | ${ }^{(8)}$ | 973 | 86, 953 | 59.3 | 5.2 | 101 | 1,087 | 16 | . 8 | 3.4 | 95.8 |
| Planing mills....---- | 38.5 | (7) | 198 | 12, 177 | 43.5 | 5.8 | 127 | 1,085 | 14 | . 9 | 5.6 | 93.5 |
|  | 58.1 | (7) | 433 | 28, 090 | 61.4 | 4. 9 | 83 | ${ }^{875}$ | 16 | . 7 | 2.7 | 96.6 |
| Sawmills and planning mills, integrated. Veneer mills | 46.6 32.1 | (7) | $\begin{array}{r}264 \\ 55 \\ \hline\end{array}$ | 40,621 4,307 | 45.6 34.6 | (9) 1 | ${ }_{(9)} 107$ | 1, 276 | 16 | . 9 | 3.1 | 96.0 |
| Millwork and related products. | 28.1 | (3) | 618 | 57, 134 | 29.5 | 2.4 | 73 | 874 | 13 | . 3 | 4.7 | ${ }^{9} 9.0$ |
| Millwork and structural wood products. | 26.5 | ( ${ }^{\text {( })}$ | 536 | 37,914 | 28.2 | 2.2 | 72 | 803 | 12 | .3 | S. 4 | 94.3 |
| Plywood mills. | 32.5 | (r) | 82 | 19,220 | 32.9 | 3.1 | 77 | 1,188 | 17 | .4 | 2.9 | 96.7 |
| Wooden containers | 34.7 | ( $)$ | 413 | 33,722 | 34.6 | 1.8 | 55 | 651 | 12 | . 1 | 5. 9 | 94.0 |
| Miscellaneous wood products | 29.0 | $+10$ | 349 | 24,106 | 27.5 | 2.9 | 95 | 1,110 | 14 | . 2 | 6.1 | 93.7 |
| Furniture and fixtures ${ }^{19}$ | ${ }^{6} 20.2$ | -11 | 1,465 | 175, 660 | - 21.0 | -1.5 | 70 | 794 | 13 | .2 | 6.2 | 93.8 |
| Household furniture | 21.1 | (8) | 1, 102 | 130, 971 | 21.6 | 1.6 | 71 | 813 | 12 | .1 | 6.3 | 93.6 |
| Household furniture, non | 21.8 | (8) | 800 | 92, 512 | 21.8 | 1.6 | 70 | 734 | 12 | . 1 | 6.8 | 93.1 |
| Metal household furniture | 18.3 | ${ }^{8}$ | 51 | 12, 035 | 23.5 | 1.1 | 56 | 1,160 | 12 |  | 3.9 | 96.1 |
| Mattresses and bedsprings | 19.0 | (\%) | 251 | 26, 424 | 18.1 | 2.0 | 91 | 1,264 | 12 | . 2 | 5.4 | 94.4 |
| Office furniture | 17.0 | (8) | 65 | 14, 006 | 18.5 | 1.8 | 83 | 697 | 11 | . 6 | 5.4 | 94.0 |
| Wood office furniture | 27.4 | (8) | 19 | 2, 408 | 22.2 | ${ }^{(9)}$ | ${ }^{(9)}$ | (9) | (9) | (8) | (9) | (0) |
| Metal office furniture. | 13.3 | (8) | 46 | 11, 598 | 17.1 | 1.8 | 87 | 781 | 11 | (8) 4 | 6.6 | ${ }^{03.0}$ |
| Public-building and professional furniture | 24.7 | (8) | 42 | 8,618 | 24.1 | (9) | ${ }^{(9)}$ | (9) | (9) | (9) | (9) | (9) |
| Partitions and fixtures...- | 19.1 | $+12$ | 178 | 14,386 | 18.8 | 1.5 | 73 | 711 | 19 |  | 7.8 | 92.2 |
| Screens, shades, and blinds | 15.4 | (9) | 76 | 7,346 | 17.1 | (9) | ${ }^{(9)}$ | (9) | (9) | (9) | (9) | (v) |
| Paper and allied products | -16. 1 | (7) | 1,653 | 324, 008 | - 16.1 | C 1.4 | 77 | 865 | 15 | . 3 | 5.3 | 94.4 |
| Pulp, paper, and paperboard mills.......- | 16.4 | (7) | 1474 | 200, 843 | 15.7 | 1. 6 | 85 | 894 | 18 | .5 | 3.9 | 95.6 |
|  | 12.7 | (7) | 79 | 8, 565 | 15.4 | . 4 | 25 | 333 | 14 |  | 3.4 | 96.6 |
| Paperboard containers and boxes....-.-. | 16.9 | (7) | 851 | 73,281 | 17.9 | 1.5 | 85 | 865 | 15 | .2 | 6. 7 | 93.1 |
| Miscellancous paper and allied products.-. | 14.7 | ( | 249 | 41,019 | 14.8 | . 9 | 55 | 965 | 13 | . 1 | 3.6 | 96.3 |
| Printing, publishing, and allied industries | ${ }^{8} 8.3$ | (1) | 2,918 | 265, 308 | 18.2 | -. 5 | 59 | 958 | 14 | . 2 | 3.7 | 96.1 |
| Newspapers and periodicals. | 8.9 | (7) | 927 | 128, 834 | 8.3 | (0) 5 | 59 | 1, 146 | 14 | . 2 | 2.8 | 97.0 |
| Bookbinding and related products Miscellaneous printing and publish | 11.2 7.5 | (7) | 131 | 9, 222 | 8. 0 | (9) 5 | ${ }^{(8)}{ }_{58}$ | (8) 801 | ${ }^{(9)} 13$ | (b) 1 | ${ }_{4}{ }_{4} 6$ | (9) ${ }^{\text {95 }}$ |
| Chemicals and allied products. | 010.4 | +11 | 2,048 | 399, 185 | ${ }^{811.1}$ | 61.2 | 99 | 1,057 | 16 | . 7 | 3.8 | 95.5 |
| Industrial inorganic chemicals | 8.4 | (8) | 2, 141 | 50,883 | 9.5 | 1.0 | 51 | 1,057 | 17 | . 4 | 2.7 | 96.9 |
| Industrial organic chemicals.-. | 5.2 | $\left.{ }^{8}\right)$ | 314 | 164, 587 | 4.8 | 1.1 | 193 | 1,071 | 19 | 1.9 | 5.6 | 92.5 |
| Flastics. except synthetic rubber | 5.0 | -8 | 56 | 33, 164 | 7.0 | 1.9 | 132 | 1, 336 | 12 | 1.5 | 6.9 | 92.6 |
| Symthetic rubber-.............-- | 3.2 | +39 | 18 | 5,912 | 3.4 | (9) | (9) | (9) | ${ }^{(8)}$ | (9) | (0) | (9) |
| Synthetic fibers. | 3.0 | -17 | 24 | 51,969 | 2.1 | (c) | (9) | (2) | (0) | (9) | (9) | ${ }^{9}$ ) |
| Explosives ....----------------------- | 1.4 | -22 | 36 | 9,075 | 3.8 | (9) | (9) | ${ }^{(9)}$ | ${ }^{(9)}$ | (9) | ${ }^{9}$ ) | (9) |
| Miscellaneous industrial organic chemicals | 7.5 | (8) | 180 | 64, 477 | 6.4 | . 8 | 131 | 1,119 | 20 | . 9 | 5.0 | 94.1 |
| Drugs and medicines | 9.0 | -6 | 255 | 64,613 | 8.2 | . 3 | 41 | 1, 813 | 16 | .2 | 2.0 | 97.8 |
| Soap and related products. | 7.3 | (7) | 197 | 26,867 | 7.9 | 1.6 | 130 | 1,489 | 17 | .4 | 5.9 | 93.7 |
| Paints, pigments, and related products... | 11.3 | (7) | 381 | 41,946 | 13.0 | . 8 | 53 | 1,156 | 12 |  | 3. 6 | 96.4 |
| Fertilizers | 22.7 | +5 | 378 | 22,440 | 23.8 | 3.0 | 126 | 1,292 | 19 | . 9 | 4. 2 | 94.9 |
| Vegetable and animal oils and fats ....... | 21.8 | +24 | 73 | 6,387 | 23.5 | 2.7 | 110 | 491 | 16 | 1.2 | 4. 5 | 94.3 |
| Compressed and liquefied gases --..--- | 12.1 | -14 | 93 | 5, 088 | 11.4 | (9) | ( ${ }^{\text {P }}$ | (9) | ${ }^{(9)}$ | ${ }^{(9)}$ | ${ }^{(2)}$ | (9) |
| Miscellaneous chemicals and allied prod. | 13.6 | +32 | 215 | 16,371 | 17.6 | . 9 | 42 | 583 | 14 | .3 | 1.8 | 97.9 |
| Products of petroleum and coal ${ }^{10}$ | 09.6 | ${ }^{(8)}$ | (1) | 176, 850 | ${ }^{6} 9.3$ | ${ }^{(9)}$ | (9) | (9) | ${ }^{(8)}$ | (9) | ${ }^{(9)}$ | (9) |
| Petroleum refining ${ }^{12}$ | 8.4 | (11) | (12) | 143, 280 | 7.7 | (0) | (9) | (9) | (9) | ${ }^{18} .7$ | (9) | (9) |
| Coke ovens ${ }^{12}$....... | 11.5 | (11) | (17) | 24, 100 | 12.1 | (9) | (0) | (0) | (9) | ${ }^{18} 1.9$ | (9) | (9) |
| Beehive- | 36.4 | (II) | (12) | 3,100 | 50.3 | (9) | (0) | (0) | (9) | 13.5 | (0) | (9) |
|  | 10.0 | $\left({ }^{15}\right)^{8}$ | ${ }^{(12)}$ | 21,000 | 88 |  | (9) |  | ( ${ }^{\text {a }}$ | ${ }^{18} 2.5$ | ${ }^{(9)}$ |  |
| Paving and roofing materials | 18.0 | -8 | 48 | 8,034 | 15.8 | 1.9 | 121 | 2,004 | 20 |  | 5.1 | 94.9 |
| Rubber products.. | 89.8 | (7) | 297 | 200,498 | ${ }^{6} 10.0$ | 61.2 | 109 | 1,191 | 25 | . 4 | 5.2 | 94.4 |
| Tires and inner tubes | 5.9 | (7) | 38 | 87,997 | 5.6 | 1.0 | 187 | 1,170 | 31 | 1.0 | 8.2 | 90.8 |
| Rubber footwear | 4.8 | (7) 32 | 10 | 26, 971 | 5.3 | (9) | ( ${ }^{1}$ | (9) | (9) | (9) | ${ }^{(9)}$ |  |
| Miscellaneous rubber products...........- | 15.2 | ${ }^{(7)}$ | 243 | 85, 530 | 15.3 | 1.6 | 102 | 1,226 | 23 | . 3 | 5.0 | 94.7 |
| Leather and leather products. | 610.8 | +6 | 779 | 171,873 | ${ }^{8} 10.8$ | ${ }^{6} 7$ | 57 | 728 | 14 | . 3 | 3.2 | 96.5 |
| Leather tanning and finishing- | 24.7 | (7) | 140 | 25,930 | 22.5 | 1. 3 | 58 | 653 | 17 | . 5 | 2.2 | 97.3 |
| Boot and shoe cut stock and findings....- | 18.5 | (8) | 59 | 2,941 | 18.4 | (9) | ${ }^{(9)}$ | ( ${ }^{(9)}$ | ${ }^{(1)}$ | (9) | ( ${ }^{\text {a }}$ | ${ }^{(1)}$ |
| Footwear (except rubber) -....-.....-...- | 7.7 | (7) | 388 | 127, 343 | 7.5 | . 3 | 43 | 658 | 12 | .3 | 2.0 | 97.7 |
| Miscellaneous leather products............. | 9.8 | (7) | 192 | 15, 659 | 11.7 | 1.0 | 73 | 692 | 12 |  | 9.0 | 91.0 |

See footnotes at end of table.

Table A.-Injury rates ${ }^{1}$ by industry, 1950 (with comparable injury-frequency rates for 1949)-Con.

| Industry | 1949 revised data ${ }^{\text {a }}$ |  | 1950 survey data |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Injury frequency rates | Percentchangefrom pre-viouslypub-lishedrates(2) | Number of estab-lishments reporting(3) | Number of ernployees reported ${ }^{3}$ <br> (4) | Injury-frequency rates | Injury. severity rates * <br> (6) | A verage days lost or charged per case |  |  | Percent of disabling injuries resulting in 4- |  |  |
|  |  |  |  |  |  |  | $\begin{aligned} & \text { All } \\ & \text { cases } \end{aligned}$ | Perma-nentpartial disabilities | Tom-porarytotal disabilities | Death and perma-nenttotal disabilities | Perma-nentpartial disabilities | Tem-porarytotal disabilities |
|  |  |  |  |  |  |  | (7) | (8) | (9) | (10) | (11) | (12) |
| Manufacturing-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Stone, clay, and glass products | - 20.6 | ${ }^{+5}$ | 1,634 | 259, 085 | ${ }^{8} 20.5$ | ${ }^{2} 2.2$ | 87 | 1,092 | 15 | 0.7 | 3. 0 | 96.3 |
| Glass and glass products | 13.4 | (7) | 246 | 92, 528 | 12.5 | 1.0 | 86 | 1,259 | 18 | 2 | 4.3 | 95. 5 |
| Cement, hydraulic ${ }^{12}$ | 7.9 | (11) | $\left({ }^{12}\right)$ | 24,733 | 7.2 | ${ }^{(9)}$ | ${ }^{(9)}$ | ${ }^{(9)}$ | ${ }^{(9)}$ | 132.0 | ${ }^{(2)}$ | ${ }^{(9)}$ |
| Structural clay products | 37.1 | (7) | 547 | 53,925 | 35.9 | 2.2 | 61 | 907 | 14 | . 5 | 1.6 | 97.9 |
| Pottery and related products. | 16.1 | (7) | 130 | 31,675 | 16.9 25 | 2. 6 | $\stackrel{148}{97}$ | 1,017 | 13 | 1.9 | 2.2 | 95.9 |
| Concrete, gypsum, and mineral woo | 25.3 31.3 | (8) | (12) ${ }^{386}$ | 16,470 6,390 | 25.5 27.7 | (9) 2.5 | ${ }_{(0)} 97$ | 1. 1894 | ${ }_{(9)}{ }^{12}$ | 13.7 | (9) 1 | 95.2 |
| Cut-stone and stone products | 36.7 | (7) | 86 | 2,562 | 34.3 | ${ }^{(9)}$ | (9) | (9) | (9) | (9) ${ }^{\text {a }}$ | (9) | (9) |
| Miscellaneous nonmetallic mineral products. | 16.7 | ${ }^{(7)}$ | 239 | 30, 802 | 19.1 | 3.0 | 139 | 1,062 | 15 | . 8 | 7.2 | 92.0 |
| Primary metal industries 10 | -14.5 | $\left.{ }^{8}\right)$ | 2, 014 | 935, 165 | ${ }^{\circ} 14.8$ | 61.4 | 111 | 882 | 22 | . 8 | 5.0 | 94.2 |
| Blast furnaces and steel mills | 6.8 | (\%) | 207 | 551, 342 | 5.7 | 1.2 | 219 | 898 | 40 | 1.8 | 8.4 | 89.8 |
| Iron and steel foundries .--- | 29.4 | $\left.{ }^{8}\right)$ | 886 | 168,953 | 31.7 | 2.2 | 04 | 835 | 14 | . 5 | 2.5 | 97.0 |
| Gray-iron and maileable foundries...- | 31.1 | ${ }^{+7}$ | 745 | 122, 160 | 33.7 | 2.2 | 59 92 | 878 | 13 | .4 | 2.4 | 97.2 |
| Steel foundries Nonferrous primary smelting and refin- | 23.7 | (7) | 141 | 46,793 | 25.0 | 2.1 | 92 | 629 | 19 | . 9 | 2.8 | 96.3 |
| ing ${ }^{12}$ | 23.2 | (11) | (12) | 30,300 | 22.9 | ${ }^{(9)}$ | ${ }^{(9)}$ | ${ }^{(8)}$ | $\left.{ }^{8}\right)$ | ${ }^{13} 1.1$ | (9) | (9) |
|  | 18.3 | (11) | (12) | 11,500 | 17.6 | (9) | ${ }^{(9)}$ | (8) | (8) | 131.0 | (9) | (9) |
| Lead-silver | 16.7 | (11) | (12) | 3,700 | 18.7 | (9) | (9) | (9) | (9) | 132.4 | (9) | (9) |
| Zinc. | 33.0 | (11) | (12) | 9,100 | 31.2 | (8) | ${ }^{(8)}$ | (9) | (9) | 131.1 | (0) | (9) |
| Miscellaneous | 20.7 | (1) | (12) | 6,000 | 22.3 | ${ }^{(9)}$ | ( ${ }^{\text {( }}$ | (9) | (9) | 13.6 | (9) | (9) |
| Nonferrous rolling, drawing, and alloying | 11.1 | (8) | 68 | 46, 182 | 15.3 | 1.6 | 94 | 919 | 18 | . 3 | 6.7 | 93.0 |
| Nonferrous foundries .-...-.-.-.-. | 19.2 | -15 | 454 | 39.292 | 24.8 | 1.0 | 37 | 504 | 12 | . 1 | 3.5 | 96.4 |
| Miscellaneous primary metal industries -- | 14.8 | ${ }^{(8)}$ | 386 | 97, 497 | 15.8 | 1.9 | 70 | 985 | 16 | .1 | 5.2 | 94.7 |
| Iron and steel forgings .------------ | 18.5 | (7) | 169 | 46. 063 | 21.2 | 1.7 | 71 | 985 | 15 | . 1 | 5.2 | 94.7 |
| Wire drawing | 10.9 | ${ }^{8}$ | 51 | 22.891 | 10.2 | ${ }^{(9)}$ | (9) | ${ }^{(9)}$ | ${ }^{(9)}$ | (9) | ${ }^{(9)}$ | (1) |
| Welded and heavy-riveted pipe......- | 15.5 | (7) | 31 | 10, 063 | 14.5 | 1.0 | 65 | 714 | 29 |  | 5.3 | 94.7 |
| Cold-finished steel ------.-. | 14.3 | (7) | 47 | 13,590 | 19.4 | 7 | 26 | 492 | 14 |  | 2.5 | 97.5 |
| Primary metal industries, not elsewhere classified. | 24.4 | (8) | 88 | 4,890 | 23.4 | ${ }^{(9)}$ | ${ }^{(9)}$ | (9) | (9) | (9) | ${ }^{(9)}$ | ${ }^{(9)}$ |
| Fabricated metal products ...------------- | ${ }^{6} 17.5$ | $\left.{ }^{8}\right)$ | 3,775 | 669, 022 | -19.0 | ${ }^{6} 1.5$ | 76 | 785 | 14 | 2 | 6.3 | 93.5 |
| Tin cans and other tinware | 11.8 | (7) | 105 | 43,934 | 12.2 | 1.2 | 110 | 567 | 16 | . 5 | 11.6 | 87.9 |
| Cutlery, hand tools, and hard | 13.1 | ${ }^{(3)}$ | 520 | 115, 091 | 14.5 | . 9 | 67 | 722 | 15 | (14) | 6.9 | 93.1 |
| Cutlery and edge tools | 14.3 | (7) | 126 | 20,664 | 18.6 | 1.0 | 49 | 529 | 15 | . 2 | 4.4 | 95.4 |
| Hand tools, files, and sa | 16.7 | (7) | 199 | 26,610 | 17.7 | . 8 | 43 | 650 | 15 |  | 4.3 | 95.7 |
| Hardware --..... | 11.0 | (7) | 195 | 67, 817 | 11.6 | . 9 | 88 | 780 | 15 |  | 9.6 | 90.4 |
| Heating and plumbing equipment.-.----- | 19.0 | (8) | 440 | 118,859 | 21.6 | 1.5 | 61 | 844 | 13 | . 1 | 5. 2 | 94.7 |
| Sanitary ware and plumbers' supplies Oilburners, heating and cooking ap- | 15.5 | (7) | 136 | 48,194 | 19.2 | 1.0 | 45 | 541 | 14 | . 1 | 4.7 | 95.2 |
| paratus.......-..--.-.-.-...-.-- | 20.3 | -6 | 304 | 70,665 | 22.5 | 1.7 | 70 | 1,000 | 12 | . 1 | 5.5 | 94.4 |
|  | 24.1 | ${ }^{(8)}$ | 1,088 | 131, 574 | 25.0 | 2.8 | 96 | 1,021 | 15 | . 5 | 5.1 | 94.4 |
| Structural steel and ornamental metalwork | 23.4 | ${ }_{(8)}+5$ | 540 | 67, ${ }^{654}$ | 23.2 | 2.4 | 100 | 892 | 17 | .6 | 5.2 | 94.2 |
| Metal doors, sash, frame, and trim---- | 21.0 | $\left.{ }^{8}\right)$ | 82 | 9,178 | 29.9 | 3. 0 | 80 | 1,027 | 7 | .2 | 5.9 | 93.9 |
| Boiler-shop products .-...........- | 25.8 | (7) | 296 | 43, 367 | 24.5 | 2.7 | 88 | 1,253 | 14 | . 3 | 4.3 | 95.4 |
| Sheet-metal work....-.......-.-- | 24.4 | +11 | 170 | 11, 175 | 26.8 | 3.4 | 138 | 1,003 | 14 | 1.1 | 5.9 | 93.0 |
| Metal stamping, coating and engraving ${ }^{10}$ | 17.0 | $\left.{ }^{8}\right)$ | 734 | 122, 225 | 20.2 | 1.4 | 81 | 702 | 15 | . 1 | 8.9 | 91.0 |
| Vitreous-enameled products .-.-...-- | 17.3 | -21 | 39 | 8,248 | 20.8 | 1.8 | 89 | 852 | 15 |  | 8.8 | 91.2 |
| Stamped and pressed metal products. | 14.5 | ${ }^{(7)}+5$ | 489 | 99,948 13,859 | 17.3 | 1.6 | 101 | 703 | 16 | . 1 | 11.2 | 88.7 |
| Metal coating and engraving........ | 24.8 | ${ }^{\text {(3) }}+5$ | 202 | 13, 859 | 29.3 | . 7 | 21 | 409 | 12 |  | 2.2 | 97.8 |
| Fabricated wire products...---.-.-....-- | 17.4 | ${ }^{(8)}$ | 237 | 42,576 | 18.3 | 1.1 | 69 | 559 | 16 | . 5 | 4.5 | 95.0 |
| Miscellaneous fabricated metal products.- | 13.8 | $\left.{ }^{8}\right)$ | 651 | 94, 763 | 14.5 | (9) 8 | 54 | 657 | 13 |  | 6.3 | 93.7 |
| Metal barrels, drums, kegs, and pails-- | 12.0 | -11 | 33 | 6,622 | 13.7 | ${ }^{(8)}$ | (9) | (9) | ${ }^{(9)}$ | (9) | ${ }^{(9)}$ | (9) |
|  | 12.9 | (7) 5 | 33 | 8,999 | 17.8 | . 8 | 34 | 525 | 14 |  | 3.9 | 96.1 |
| Bolts, nuts, washers, and rivets.....- | 13.6 | ${ }^{(7)}+8$ | 103 | 24.373 | 16.1 | . 8 | 64 | 750 | 13 |  | 6.9 | 93.1 |
| Screw-machine products --.-------- | 16.8 | +8 | 267 | 23, 172 | 14.9 | . 8 | 48 | 569 | 12 |  | 6.5 | 93.5 |
| Fabricated metal products, not elsewhere classified | 13.1 | $\left.{ }^{8}\right)$ | 215 | 31, 597 | 12.8 | .7 | 52 | 655 | 14 |  | 6.0 | 94.0 |
| Machinery (except electrical) --.-...--------- | ${ }^{8} 13.9$ | (7) | 3,923 | 1,030,825 | ${ }^{6} 13.8$ | 01.1 | 72 | 781 | 15 | .2 | 5.6 | 94.2 |
| Engines and turbines .-...------.-.-.-.-.-. | 11.7 | (7) | 74 | 55, 335 | 11.0 | . 7 | 53 | 592 | 15 | . 2 | 4.3 | 95.5 |
| Agricultural machinery and tractors.----- | 17.1 | (7) | 241 | 147, 719 | 15.8 | 1.7 | 74 | 769 | 13 | . 2 | 6.9 | 92.9 |
| Construction and mining machinery. | 19.6 | (7) | 308 | 80, 767 | 21.6 | 1.9 | 73 | 883 | 14 | . 1 | 6.0 | 93.9 |
| Metalworking machinery | 11.3 | (7) | 957 | 142, 572 | 11.5 | . 9 | 75 | 692 | 14 | . 3 | 6. 3 | 93.4 |
| Special-industry machinery.....-......-. | 16.1 | (9) | 686 | 116, 630 | 15.6 | 1.1 | 63 | 755 | 15 | 2 | 4.7 | 95.1 |
| Food-products machinery----------- | 13.8 | ${ }^{-8}$ | 151 | 21, 614 | 16.3 | 1.4 | 73 | 750 | 16 | . 3 | 5.5 | 94.2 |
| Textile machinery ..---.-............- | 13.2 | (7) | 139 | 34,940 | 11.9 | . 8 | 60 | 674 | 19 | . 3 | 3.2 | 96.5 |
| Miscellaneous special-industry ma- chinery..................................... | 18.3 | (7) | 396 | 60,076 | 17.2 | 1.2 | 62 | 781 | 13 | . 2 | 5.1 | 94.7 |

## See footuotes at end of table.

Table A.--Injury rates ${ }^{1}$ by industry, 1950 (with comparable injury-frequency rates for 1949)—Con.

| Industry | 1949 revised data ${ }^{2}$ |  | 1950 survey data |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Injury } \\ & \text { fre- } \\ & \text { quency } \\ & \text { rates } \end{aligned}$ | Percent change from previously published rates | Number of estab-lishments reporting | Number of employees reported ${ }^{3}$ <br> (4) | Injury-frequency rates | Injury-severity rates 4 | A verage days lost or charged per case |  |  | Percent of disabling injuries resulting in ${ }^{4}$ |  |  |
|  |  |  |  |  |  |  | $\begin{gathered} \text { All } \\ \text { cases } \end{gathered}$ | Perma-nentpartial disabilities | Tem-porarytotal disabilities | Death and perma-nenttotal disabilities | Perma-nentpartial disabilities | Temporary. total disabilities |
|  |  |  |  |  |  |  | (7) | (8) | (9) | (10) | (11) | (12) |
| Manufacturing-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Machinery (except electrical)-Continued General industrial machinery- | 16.4 | (8) | 641 | 141, 223 | 15.3 | 1.2 | 79 | 970 | 14 | 0.2 | 05.5 | 94.3 |
| Pumps and compressors.............. | 16.4 | $+8$ | 139 | 36,810 | 15.4 | 2.4 | 153 | 1,092 | 14 | . 4 | 10.7 | 88.9 |
| Elevators, escalators, and conveyors | 21.3 | +7 | 85 | 21,993 | 16.1 | . 4 | 17 | 300 | 14 |  | 1.2 | 98.8 |
| Mechanical power-transmission equipment (except ball and roller bearings) | 14.6 | -14 | 125 | 32,371 | 13.8 | . 5 | 40 | 413 | 16 |  | 6.2 | 93.8 |
| Miscellaneous general industrial machinery $\qquad$ | 15.1 | (7) | 292 | 50,049 | 15.9 | 1.4 | 72 | 1,145 | 14 | . 3 | 3.8 | 95.9 |
| Commercial and household machinery----- | 8.0 | (7) | 323 | 227, 742 | 9.1 | 1.8 | 99 | 1,738 | 17 | . 4 | 7.9 | 91.7 |
| Miscellaneous machinery parts.....-.... | 14.7 | (8) | 693 | 118,837 | 15.4 | . 9 | 55 | 627 | 16 | . 3 | 3.4 | 96.3 |
| Valves and fittings | 17.9 | ${ }^{8}$ | 103 | 27, 050 | 17.7 | 1.1 | 60 | 550 | 21 | . 5 | 2.3 | 97.2 |
| Fabricated pipe and fitting | 12.1 | $-36$ | 38 | 4,379 | 16.0 | (9) | (9) | (9) | (9) | (0) | ${ }^{(2)}$ |  |
| Ball and roller bearings.- | 10.9 | (7) | 62 | 50, 797 | 12.0 | . 5 | 49 | 668 | 14 | . 1 | 4.3 | 95.6 |
| Machine shops, general | 14.3 | $-16$ | 490 | 36,611 | 15.1 | . 6 | 44 | 516 | 18 | . 2 | 2.9 | 96.9 |
| Electrical machinery | -6.7 | (7) | 1, 122 | 632,992 | ${ }^{6} 7.4$ | 0.7 | 81 | 739 | 14 | . 2 | 7.6 | 92.2 |
| Electrical industrial apparatus | 7.1 | (7) | 523 | 244, 471 | 7.9 | . 7 | 74 | 737 | 14 | . 2 | 6.7 | 93.1 |
| Electrical appliances.---. | 6.7 | $-25$ | 74 | 40,866 | 7.4 | 1. 0 | 143 | 774 | 15 | . 3 | 14.8 | 84.9 |
| Insulated wire and cable | 13.7 | +19 | 46 | 14,129 | 15.6 | 1.1 | 63 | 818 | 17 | . 3 | 3.5 | 96.2 |
| Electrical equipment for vehicles | 8.0 | $-16$ | 51 | 42,779 | 5.8 | ${ }^{(9)}$ | (9) | ${ }^{(8)}$ | ${ }^{(9)}$ | (9) | ${ }^{(9)}$ | (9) |
| Electric lamps. | 3.7 | (7) | 36 | 21,244 | 4.0 | (9) | ( ${ }^{\text {( ) }}$ | (8) | $\left.{ }^{( }\right)$ | ${ }^{(8)}$ | ${ }^{(9)}$ | ${ }^{(9)}$ |
| Communication equipment. | 4.9 | $\left.{ }^{8}\right)$ | 294 | 250, 838 | 6.1 | .5 | 71 | 647 | 13 | . 1 | 8.1 | 91.8 |
| Radios and related products | 5.3 | +20 | 221 | 159,550 | 6.9 | . 3 | 62 | 624 | 12 |  | 8. 2 | 91.8 |
| Radio tubes...--.....---- | 3.1 | ${ }^{(8)}$ | 20 | 27,992 | 3.9 | ${ }^{(9)}$ | ${ }^{9}$ ) | (9) | $\left.{ }^{8}{ }^{9}\right)$ | (8) | ${ }^{9}$ ) | ${ }^{9}$ ) |
| Miscellaneous communication equip- ment |  |  | 53 | 63,296 | 5.1 | . 7 | 89 | 683 | 15 | .4 | 7.7 |  |
| Miscellaneous electrical produc | 4.6 11.5 | (8) | 98 | 18,665 | 12.7 | 1.5 | 108 | 791 | 11 | . 4 | 9.3 | 91.9 90.3 |
| Batterics.----------------- | 14.9 | (7) | 53 | 12,187 | 15.0 | 1.3 | 73 | 591 | 11 | . 5 | 5.5 | 94.0 |
| Electrical products, not elsewhere classified | 4.9 | -14 | 45 | 6,478 | 8.1 | ( ${ }^{\text {a }}$ | (9) | $\left.{ }^{8}\right)$ | (9) | (9) | ${ }^{(9)}$ | $\left.{ }^{9}\right)$ |
| Transportation equipment | 69.4 | $-7$ | 1, 008 | 1, 176, 941 | 68.3 | 0.8 | 116 | 753 | 23 | . 5 | 8.9 | 90.6 |
| Motor vehicles and equipment | 7.7 | $\left.{ }^{8}\right)$ | 493 | 745, 785 | 7.3 | . 6 | 115 | 687 | 19 | .4 | 10.8 | 88.8 |
| Motor vehicles, bodies, and trailers.-- | 6.8 | (7) | 263 | 469, 260 | 5.9 | . 6 | 113 | 742 | 19 | . 5 | 9.1 | 90.4 |
| Motor-vehicle parts and accessorjes ..- | 9.6 | -11 | 235 | 276, 525 | 9.6 | . 7 | 120 | 610 | 20 | 2 | 14.6 | 85.2 |
|  | 5.9 | (8) | 131 | 295, 210 | 4.6 | . 8 | 159 | 1, 029 | 18 | 1.0 | 8.1 | 90.9 |
| Aircraft. | 4.3 |  | 32 | 188, 185 | 4.0 | . 9 | 280 | 994 | 20 | 2.6 | 10.7 | 86.7 |
| Aircraft parts. | 9.2 | $+6$ | 99 | 107.025 | 5.9 | . 6 | 94 | 1, 059 | 17 | . 1 | 6. 7 | 93.2 |
| Ship and boat building and repairing | 27.4 | ${ }^{8}$ ) | 267 | 62, 174 | 27.5 | 2.2 | 88 | 935 | 31 | .4 | 3.7 | 95.9 |
| Ship building and repairing | 25.9 | (7) | 139 | 57,974 | 25.4 | 2.3 | 94 | 1, 020 | 33 | . 4 | 3.7 | 95.9 |
| Boat building and repairing | 38.3 | (7) | 128 | 4,200 | 38.9 | (0) | ${ }^{(9)}$ | ${ }^{(6)}$ | (9) | (0) | (9) | (8) |
| Railroad equipment .-.-......-.........-- | 14.0 | (7) | 90 | 64, 717 | 11.4 | 1.1 | 146 | 866 | 43 | . 7 | 7.3 | 92.0 |
| Miscellaneous transportation equipment | 13.6 | (7) | 22 | 9,055 | 15.8 | 1.0 | 73 | 668 | 13 | . 5 | 5.0 | 94.5 |
| Instruments and related products. | -8.2 | ${ }^{(8)}$ | 458 | 168, 643 | 07.7 | ${ }^{6} .3$ | 32 | 543 | 11 |  |  | $96.1$ |
|  | 4.4 | ${ }^{8}$ ) | 37 | 7, 237 | 5.2 | (9) | ${ }^{(9)}$ | ( ${ }^{\text {P }}$ | (9) | (9) | (9) | (9) |
| Mechanical measuring and controlling instruments | 8.5 | -12 | 125 | 46,457 | 8.5 | . 5 | 51 | 593 | 15 |  | 6.1 | 93.9 |
| Optical instruments and lenses-.........---- | 6.1 | (5) | 34 | 8,831 | 5.2 | (0) | (9) | (9) | (0) | (9) | (9) | (9) |
| Medical instruments and supplies | 16.4 | ${ }^{(5)}$ | 140 | 24,709 | 13.1 | . 2 | 15 | 675 | 8 |  | 1.1 | 98.9 |
| Ophthalmic goods.....------.-.--- | 5.6 | (8) | 43 | 8,487 | 4. 8 | (8) | (9) | (9) | ${ }^{(9)}$ | (9) | (9) | (9) |
| Photographic equipment and supplies | 5. 3 | (7) | 63 | 44, 412 | 5.5 | (9) | (9) | (9) | (9) | (9) | (9) | (9) |
| Watches and clocks. | 5.8 | (9) | 46 | 26,510 | 5.8 | (9) | (9) | ${ }^{(9)}$ | ${ }^{(9)}$ | (9) | (9) | (9) |
| Miscellaneous manufacturing industries | 011.6 | (8) | 1,159 | 159,546 | ${ }^{\circ} 13.3$ | 01.3 | 90 | 827 | 13 | . 3 | 7.3 | 92.4 |
| Jewelry, silverware, and plated ware | 6.0 | (8) | 118 | 24, 057 | 8.0 | . 7 | 96 | 1,200 | 16 |  | 6. 7 | 93.3 |
| Fabricated plastics products. | 14.9 | +12 | 179 | 26, 211 | 16.2 | 1. 9 | 100 | 1,336 | 11 | . 4 | 5.0 | 94.6 |
| Brooms and brushes. | 14.6 | (7) | 81 | 8, 285 | 17.6 | . 4 | 24 | - 394 | 14 |  | 2.7 | 97.3 |
| Morticians' goods | 19.0 | +14 | 100 | 7,325 | 20.9 | . 9 | 42 | 600 | 15 |  | 4.6 | 95.4 |
| Miscellaneous manufacturing | 11.3 | (7) | 681 | 93, 668 | 12.7 | 1.4 | 109 | 708 | 13 | . 5 | 10.0 | 89.5 |
| Ordnance and accessories | 6.6 | (3) | 29 | 24,355 | 6.2 | (9) | (9) | (9) | (9) | (9) | (9) | ${ }^{(2)}$ |
| Nonmanufacturing |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction | 39.9 | (7) | ${ }^{15} 5,606$ | ${ }^{(9)}$ | 41.0 | 3.8 | 93 | 1,332 | 14 | . 7 | 2.7 | 96.6 |
| General contractors. | 42.6 | ${ }^{(8)}$ | 2,752 | (9) | 44. 5 | 4.2 | 93 | 1,312 | 14 | . 7 | 2.8 | 96.5 |
| General building contractors | 41.7 | (7) | 1,846 | ${ }^{(9)}$ | 45.4 | 2.9 | 64 | 1,219 | 13 | . 4 | 2.2 | 97.4 |
| Heavy construction, except highway and street | 41.9 | (7) | 330 | (9) | 42.8 | 6.4 | 150 | 1,236 | 19 | 1.3 | 4.2 | 94.5 |
| Highway and street construction..... | 45.5 | (7) | 576 | (9) | 44.8 | 4.0 | 89 | 1,644 | 11 | . 7 | 2.4 | 96.9 |

See footnotes at end of table.

Table A.-Injury rates ${ }^{1}$ by industry, 1950 (with comparable injury-frequency rates for 1949)-Con.

| Industry | 1949 revised data ${ }^{\text {a }}$ |  | 1950 survey data |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Injury frequency rates <br> (1) | Percent change from previously published rates | Number of estab-lishments reporting(3) | Number of employees reported ${ }^{3}$ | Injury-frequency rates | Injury-severity rates * <br> (6) | A verage days lost or charged per case |  |  | Percent of disabling injuries resulting in 4 |  |  |
|  |  |  |  |  |  |  | $\underset{\text { cases }}{\text { All }}$ | $\begin{aligned} & \text { Perms- } \\ & \text { nent- } \\ & \text { partial } \\ & \text { diss- } \\ & \text { bilities } \end{aligned}$ | 'Tem-porarytotal disabilities | Death and perraa-nenttotal disabilities | Permas nentpartial disabilities | Tem-porarytotal dissbilities |
|  |  |  |  |  |  |  | (7) | (8) | (9) | (10) | (11) | (12) |
| Nonmanufacturing-Continued |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction-Continued <br> Special-trades contractors. | 33.2 | (1) | 2,854 | (3) | 33.4 | 3.1 | 91 | 1,399 | 13 | 0.7 |  |  |
| specialumbing, heating, and air condition- | 33.2 | ( | 2,854 |  | 33.4 | 3.1 |  | 1,399 | 13 | 0.7 | 2.4 | 96.8 |
|  | 30.7 | (7) | 726 | (9) | 28.5 | 1.7 | 61 | 1,356 | 10 | . 7 | . 0 | 98.4 |
| Painting, paperhanging, and decorating. | 17.7 | (7) | 419 | (9) | 23.5 | 3.4 | 144 | 1,533 | 23 | 1.3 | 2.7 | 96.0 |
| Electrical work | 27.7 | (7) | 363 | ${ }^{(9)}$ | 26.0 | 3.2 | 125 | 1,584 | 15 | 1.1 | 2.7 | 96.2 |
| Masonry, stone setting, and other stonework. | 29.3 | (7) | 211 | (9) | 39.6 | 2.2 | 55 | 1,700 | 13. | . 4 | 1.2 | 98.4 |
| Plastering and lathing-..-.-.-.-.----- | 42. 5 | (7) | 99 | ${ }^{(8)}$ | 44.8 | . 5 | 10 |  | 10 |  |  | 100.0 |
| Terrazzo, tile, marble, and mosaic work | 27.1 | (1) | 71 | (8) | 21.5 | ${ }^{\left({ }^{\circ}\right)}$ | (9) | (\%) | () | (9) | (1) | ${ }^{9}$ |
| Roofing and sheet-metal work | 32.6 | (7) | 278 | (9) | 43.1 | 2.4 | 56 | 1,517 | 11 | . 4 | 1.3 | 98.3 |
| Structural-steel erection and ornamental iron work. | 52.8 | +9 | 55 | ${ }^{(9)}$ | 58.9 | 11.0 | 186 | 1,582 | 14 | 1.4 | 5.7 | 92.9 |
| Installation or erection of building equipment, not elsewhere classified | 37.6 | (7) | 29 | (9) | 25.5 | $\left.{ }^{( }\right)$ | (9) | $\left.{ }^{( }\right)$ | $\left.{ }^{( }\right)$ | ( ${ }^{\circ}$ | $\left.{ }^{9}\right)$ | (9) |
| Miscellaneous special-trades contractors ${ }^{16}$ | 36.3 | ${ }^{(8)}$ | 603 | (9) | 36.8 | 3.1 | 84 | 1,072 | 14 | . 6 | 3.4 | 96.0 |
| Communication: ${ }^{17}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Telephone (wire and radio) | 2.8 | (7) | ${ }^{15} 126$ | 541, 165 | 2.1 | ${ }^{.1}$ | 64 | 1,830 | 18 | ${ }^{\text {(8) }} 6$ | (9) 5 | 98.9 |
| Radio broadcasting and television-----.-. | 1.7 | (7) | 15429 | 16, 306 | 2.5 | (9) | (9) | (9) | (6) | ( ${ }^{(1)}$ | ${ }^{(0)}$ | (9) |
| Transportation: ${ }^{17}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Stevedoring- | 67.6 | (7) | 49 | ${ }^{(9)}$ | 59.4 | 6.0 | 100 | 1,384 | 30 | . 4 | 3.6 | 96.0 |
| Streetcar | 13.4 | -6 | 14 | 8, 074 | 16.7 | . 7 | 44 | 450 | 15 | . 4 | 1.8 | 97.8 |
|  | 13.1 | -5 | 299 | 39,784 | 11.4 | . 7 | 62 | 1,171 | 18 | .2 | 2.8 | 97.0 |
| Local transportation systems, integrated - | 17.6 | ${ }^{(7)}$ | 39 | 128. 935 | 18.1 | 1.2 | 73 | 1, 834 | 17 | . 6 | 1.2 | 98.2 |
| Trucking and hauling.---------------1-1 | 28.3 | (7) | 1, 288 | 30,473 | 36.6 | 3.4 | 92 | 1,330 | 13 | 1.0 | 1.7 | 97.3 |
| Warehousing and storage | 31.0 | (7) | 2, 062 | 33, 885 | 32.5 | 2.4 | 74 | 1, 061 | 13 | . 4 | 3.8 | 95.8 |
| Transportation, not elsewhere classifed. | 5.3 | (7) | 130 | 2,329 | 5.6 | (9) | ${ }^{(0)}$ | ${ }^{(9)}$ | ${ }^{(9)}$ | (9) | (9) | (8) |
| Heat, light, and power ${ }^{10}$ | 16.0 | () | 15399 | 370,524 | 13.8 | 1.9 | 136 | 1,549 | 17 | 1.3 | 2.8 | 95.9 |
| Electric light and power | 13.9 | (7) | 371 | 276, 835 | 12.1 | 2.1 | 172 | 1,569 | 18 | 1.8 | 3.1 | 95.1 |
| Gas. | 22.1 | (7) | 214 | 93, 195 | 18.9 | 1.3 | 68 | 1, 496 | 14 | . 4 | 2.2 | 97.4 |
| Waterworks. | 27.5 | ( ${ }^{(1)}$ | ${ }^{15} 173$ | 12,265 | 21.9 | 1.6 | 73 | 2,433 | 14 | . 8 | . 6 | 98.6 |
| Personal services. | 8.9 | (1) | 3,482 | 147,429 | 10.0 | . 5 | 51 | 1,389 | 13 | . 4 | 1.2 | 98.4 |
| Dry cleaning | 5.1 | (7) | 701 | 17, 287 | 6.5 | . 1 | 18 | 1,150 | 9 |  | . 9 | 99.1 |
| Laundries -- | 6. 7 | (7) | 589 | 25, 502 | 7.1 | . 4 | 54 | 1,556 | 16 |  | 2.5 | 97.5 |
| Laundry with dry cleaning | 7.5 | (7) | 493 | 35, 286 | 7.8 | ${ }^{\text {(9) }}$. 5 | ${ }^{65}$ | 1,294 | 15 | (8) 4 | 2.3 | 97.3 |
| Amusement and related services. | 10.8 13.5 | (7) | 370 507 | 10,006 45,836 | 8.8 16.0 | ${ }^{(9)} 7$ | ${ }^{(9)} 44$ | ${ }^{(9)}$ | ${ }^{(9)} 12$ | (9) | ${ }^{\text {(9) }} 6$ | (9) |
| Hotels - -----.-.-.-.-.-.-.-.-.-. | 13.5 4.0 | (7) | 507 449 | 45,836 8,613 | 16.0 4.6 | (0) ${ }^{7}$ | ${ }_{(9)} 44$ | 1,490 | (2) $^{12}$ | (9) ${ }^{4}$ | ${ }_{\text {(9) }} .6$ | 99.0 |
| Medical and other professional services.-. <br> Miscellaneous personal services | 4.9 | (7) | 373 | 4,899 | 5.2 | (9) | (9) | (9) | (0) | (9) | (9) | ${ }^{(9)}$ |
| Business services. | 3.9 | (7) | 3,468 | 193, 343 | 3.9 | . 3 | 81 | 1,823 | 13 | . 4 | 2.4 | 97.2 |
| Banks and other financial agencies | 2.4 | (7) | 1,162 | 56,346 | 2.1 | . 3 | 123 | 1,562 | 12 | .4 | 5.5 | 94.1 |
| Insurance........................ | 2.1 | (1) | 593 | 104, 345 | 2.0 | . 1 | 51 | 1,780 | 14 | . 2 | 1.2 | 98.6 |
| Real estate. | 5.7 | (7) | 399 | 5,434 | 5.5 | (9) | $\left({ }^{(9)}\right.$ | (9) | ${ }^{(9)}$ | (9) | ()) | (9) |
| Miscellaneous business services...--- | 12.7 | (7) | 490 | 16, 100 | 12.3 | 1.5 | 119 | 2,404 | 13 | (8) 5 | 3.1 | 96.4 |
| Automobile repair shops and garages..... | 11.4 | -16 | 495 | 5,703 | 13.0 | ${ }^{(9)}$ | ${ }^{(9)}$ | (9) | ${ }^{9}$ ) | ${ }^{\text {( })}$ | ${ }^{(9)}$ | (9) |
| Miscellaneous repair services.------..---- | 27.2 | +6 | 329 | 5,415 | 21.9 | 1.4 | 63 | 1,150 | 12 | . 4 | 2.2 | 97.4 |
| Educational services. | 7.6 | (7) | 256 | 124, 403 | 7.8 | . 3 | 43 | 1,267 | 13 | . 2 | 1.3 | 98. 5 |
| Fire departments.. | 32.1 | (7) | 215 | 32, 266 | 35.5 | 1.9 | 55 | 1,350 | 14 | . 6 | . 6 | 98.8 |
| Police departments.. | 27.5 | (7) | 173 | 22,992 | 32.4 | 1.5 | 47 | 2,470 | 15 | . 4 | . 3 | 99.3 |
| Trade. | 010.9 | (7) | 13,924 | 449,334 | -12.3 | 6.6 | 45 | 1,046 | 12 | . 2 | 1.8 | 98.0 |
| Wholesale distributors. | 13.3 | (7) | 3,383 | 112, 393 | 15.2 | . 7 | 47 | 1,070 | 11 | . 4 | 1.4 | 98.2 |
| Retail, general merchandise | 5.2 | (7) | 686 | 102, 724 | 6.8 | . 2 | 32 | 835 | 14 | .2 | . 9 | 98.9 |
| Retail food. | 11.7 | (7) | 1,178 | 40, 479 | 13.3 | . 5 | 36 | 1,187 | 12 | . 1 | 1. 6 | 98.3 |
| Wholesale and retail dairy products | 23.7 | (7) | 473 | 32.209 | 26.9 | 1.4 | 52 | 1,557 | 14 | .2 | 1.8 | 98.0 |
| Retail automobiles and accessories......- | 14.1 | (7) | 1,397 | 28,651 | 15.5 | (9) 6 | 37 | 657 | 11 | . 2 | 2.1 | 97.7 |
| Filling stations --..........- | 4.8 | (7) | 1,373 | 4,346 | 12.0 | ${ }^{(9)}$ | (9) | (9) | (\%) | (\%) | (9) |  |
| Retail apparel and accessories . | 3.9 | -11 | 1,154 | 32, 136 | 4.0 | . 1 | 33 | 1,533 | 14 |  | 1.2 | 98.8 |
| Miscellaneous retail stores.-..- | 9.7 | (7) | 2, 578 | 43,588 | 11.1 | . 7 | 61 | 867 | 15 | . 4 | 2.6 | 97.0 |
| Wholesale and retail building supplies.--- | 26.4 | (7) | 824 | 22,340 | 29.1 | 1.4 | 50 | 828 | 13 | . 2 | 2.9 | 96.9 |
| Wholesale and retail trade combined, not elsewhere classified | 16.5 | (7) | 442 | 11,296 | 13.6 | . 5 | 37 | 1,283 | 14 |  | 1.8 | 98.2 |
| Eating and drinking places....-....-.....--- | 10.6 | () | 1,436 | 19, 172 | 10.8 | . 5 | 48 | 1,044 | 11 | . 2 | 2.2 | 97.6 |

[^7]Table A.-Injury rates ${ }^{1}$ by industry, 1950 (with comparable injury-frequency rates for 1949)—Con.

| Industry | 1949 revised dets ${ }^{2}$ |  | 1950 survey data |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Injury } \\ & \text { fre- } \\ & \text { quency } \\ & \text { rates } \end{aligned}$ | Percent change from previously published rates | Number of estab-lishments reporting | Number of employees reported ${ }^{3}$ <br> (4) | Injury-frequency rates | Injury-severity rates ${ }^{4}$ | Average days lost or charged ner case |  |  | Percent of disabling injuries resulting in |  |  |
|  |  |  |  |  |  |  | All | Perma-nentpartial disabilities | Tem-porarytotal disabilities | $\begin{gathered} \text { Death } \\ \text { and } \\ \text { perma- } \\ \text { nent- } \\ \text { total } \\ \text { disa- } \\ \text { bilities } \end{gathered}$ | Perma. nentpartial disabilities | Tem-porarytotal dissbilities |
|  |  |  |  |  |  |  | (7) | (8) | (9) | (10) | (11) | (12) |
| Mining and quarrying ${ }^{12}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Cosl mines. | 86.0 | (11) | (12) | 470,800 | 52.8 | 7.9 | 150 | 725 | 29 | ${ }^{19} 1.8$ | 182.1 | 96.1 |
| Bituminous | 52.6 | (1) | (12) | 402,000 | 48.8 | 8.1 | 167 | 689 | 32 | ${ }^{13} 2.0$ | 182.4 | 95.6 |
| Anthracite | 72.7 | (11) | (12) | 74,800 | 72.5 | 6. 9 | 96 | 977 | 22 | 131.1 | 181.1 | 97.8 |
| Metal mines. | 48.5 21.3 | (11) | (12) | 69,700 27 | 45.6 18.8 | (9) | (9) | (9) | (9) | 18 18 18 | (9) | (9) |
| Copper | 34.6 | (11) | (12) | 15, 900 | 32.5 | (9) | (9) | (9) | (9) | ${ }^{18} 1.5$ | (0) | (9) |
| Lead-zinc. | 89.3 | (11) | (12) | 14, 700 | 84.6 | (9) | (9) | (9) | (9) | ${ }^{18} 1.2$ | (v) | (9) |
| Gold-silver | 112.6 | (1) | (12) | 5,300 | 121.3 | (9) | (9) | (9) | (9) | 13.8 | (b) | (0) |
| Gold placer | 30.7 | (11) | (12) | 3,400 | 24.0 | (9) | ${ }^{(9)}$ | (9) | (9) |  | (9) | (9) |
| Miscellaneous metal | 70.9 | (11) | (19) | 2,600 | 79.4 | (9) | (9) | (9) | (9) | 11.3 | (9) | (9) |
| Noumetal mines --..... | 42.1 | (11) | (12) | 12, 100 | 41.4 | (2) | (v) | ${ }^{9}$ ) | (9) | ${ }^{18} 1.7$ | (9) | (9) |
| Quarries.-.-..- | 38.1 | (11) | (12) | 51,877 | 36.6 | (9) | (9) | (9) | (9) | ${ }^{13.8}$ | (9) | (9) |
| Cement (excluding mills) | 11.7 | (11) | (1) | 4,067 | 10.7 | (9) | (9) | (0) | (9) | ${ }^{13} 9.6$ | (0) | (9) |
| Limestone.---.-. | 39.0 | (19) | (12) | 28, 910 | 37.6 | (9) | (9) | (9) | (9) | ${ }^{13} 8$ | (9) | (9) |
| Marble | 38.1 | (II) | (12) | 2,700 | 32.3 | (9) | () | (9) | (9) | ${ }^{18} 1.1$ | (9) | (9) |
| Granite | 40.7 | (11) | (12) | 7,300 | 39.5 | ( 9 | (9) | ${ }^{(9)}$ | ${ }^{9}$ ) |  | (9) | (9) |
| Traprock | 44.2 | (11) | (19) | 2, 800 | 51.6 | (9) | ${ }^{9}$ ) | (9) | (9) | 13.7 | (9) | (9) |
| Slate. | 54.2 | (i1) | (12) | 1,900 | 43.7 | (9) | ${ }^{9}$ ) | (9) | (9) | ${ }^{13} .5$ | (9) | (9) |
| Sandstone | 44.4 | (1) | (1) | 4, 200 | 40.7 | (9) | (9) | ${ }^{(9)}$ | (9) |  | (9) | (9) |
| Ore dressing (mills and auxiliaries) | 23.0 | (ii) | (12) | 15, 700 | 22.8 | (9) | (9) | (9) | (9) | 13.9 | (9) | (9) |
| Copper--...--- | 15.2 | (11) | (12) | 5,900 | 15.3 | (9) | (9) | ${ }^{(9)}$ | (\%) | 18.8 | $\left.{ }^{9}\right)$ | ${ }^{\circ}{ }^{\circ}$ |
| Iron.- | 15.4 | (11) | (19) | 3,700 | 13.0 | (9) | (9) | (9) | (9) | 133.2 | (0) | (9) |
| Gold-silver | 39.4 | (it) | (19) | 900 | 45.5 | (9) | (9) | (9) | (9) | $\cdots$ | (9) | (9) |
| Lead-zinc-...-.-.-.-. | 28.5 | (11) | (19) | 3,600 | 31.6 | (9) | (9) | (9) | (9) | 13.9 | (9) | (9) |
| Miscellaneous metals. | 52.8 | (1) | (18) | 1,600 | 45.3 | ( ${ }^{(2)}$ | ${ }^{(9)}$ | (9) | $\left({ }^{9}\right.$ |  | ( ${ }^{\text {) }}$ | ${ }^{(2)}$ |

1 The injury-frequency rate is the average number of disabling work injuries for each million employee-hours worked. A disabling work injury is any injury occurring in the course of and arising out of employment, which (a) results in death or any degree of permanent physical impairment, or (b) makes the injured worker unable to perform the duties of any regularly established job, which is open and available to him, throughout the hours corresponding to his regular shift on any one or more days after the day of injury (including Sundays, days off, or plant shut-down). The severity rate is the average number of days lost for each 1,000 employee-hours worked. is the computations of days lost include standard time charges for fatalities and The computations of days lost include standard time charges for fatainent disabilites. These data are compiled according to the American permanent disabiluties. These data are compiled according to the American American Standards Association, 1945.
${ }_{2}$ Revised injury-frequency rates for 1949 reflect both changes in industry definitions and reclassification of individual reports on the basis of improved classification information. Revisions in rates for nonmanufacturing industries reflect reclassifications only, as there were no changes in definition in that group.
The use of revised employment weights also affected the averages for industry groups, e. g., the 1949 average for all-manufacturing was changed from 15.0 to 14.5 . This revised figure is reasonably comparable, however, with the all-manufacturing injury-frequency rates published for previous wears. (See table $F$ for an anslysis of changes in industry definitions. See years. (See table F for
also footnotes 7 and 8.)
also footnotes 7 and 8.)
${ }^{2}$ Reports in this survey secured by the Burean of Labor Statistics include all employees-production and related workers; force-account construction workers; administrative, supervisory, sales, technical, service, and office personnel. Reports compiled by the Bureau of Mines, U. S. Department of
the Interior (see footnote 12), include men engaged in production, development, maintenance, and repair work, and supervisory and technical personnel at the operation; but exclude office personnel and employees in stores or affiliated operations not directly connected with mining or refining.
4 Based on reports (approximately 60 percent of the total sample) which furnished details regarding the resulting disabilities.

Each death or permanent-total disability was charged with a time loss of 6,000 days.
6 Weighted average; rate for each industry was weighted by the estimated total current employment in that industry.
7 Change from previously published figure was less than 5 percent; rate may
be considered reasonably comparable with those published previously.
8 New industry, comparable ratos not a vailable for earlier years.

- Not available or insufficient data to warrant presentation of average.

10 Includes data for industries not shown separetely.
11 Rates shown represent final averages for the year, as compiled by the Bureau of Mines, rather than revisions in industry deflnition.
${ }^{12}$ Compiled by the Bureau of Mines, U. S. Department of the Interior; data represent preliminary estimates based on an average of 80 percent coverage of all mining industries.

12 Fatalities only.
1 Primarily reported by company instead of by establishment ${ }_{16}$ Includes carpentering, concrete work, excavating and foundation work and wrecking and demolition work, shown separately in previous tabulations. ${ }^{17}$ Data not available for all industries within group.
18 Includes permanent-total and permanent-partial disabilities.
19 Revised to include quarries of lime plants.

Table B.-Changes in exposure, disabling injuries, and injury rates for 42,171 identical establishments, 1949-50

| Industry | Number of establishments reporting <br> (1) | Percent of change in- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Employees <br> (2) | Employeehours worked <br> (3) | Disabling injuries <br> (4) | Total time lost ${ }^{1}$ <br> (5) | Frequency rate <br> (6) | Severity rate ${ }^{1}$ <br> (7) |
| Manufacturing |  |  |  |  |  |  |  |
| Total, manufacturing | 27,098 | +6 | $+10$ | +9 | (3) | ${ }^{3}+1$ | -3 |
| Food and kindred products. | 3,444 | +1 | +1 | -3 | -19 | $3-4$ | $8-14$ |
| Meat products.. | 652 | +2 | +1 | -3 | -11 | -5 | -14 |
| Dairy products. | 241 | $-4$ | $-5$ | -4 | -22 |  | -15 |
| Canning and preserving | 342 | +1 | +3 | $+1$ | $+68$ | -1 | +63 |
| Grain-mill products.... | 523 | $-3$ | $-2$ | -8 | $-33$ | -6 | $-31$ |
| Bakery products. | 535 | $+2$ | +1 | +1 | +21 | ${ }^{(2)} 5$ | $+20$ |
| Sugar-.-.-.-.-... | 88 <br> 24 | $\pm 1$ | +6 +2 | +2 -8 | -17 -18 | -5 -10 | -23 -21 |
| Beet sugar | 64 | $+6$ | +13 | +15 | -16 | -10 +2 | -21 |
| Confectionery and related products. | 199 | (2) | -1 | +8 | -1 | +9 | (2) |
| Beverages .-.-.....-. | 647 | $\pm 1$ | $\pm 2$ | $-7$ | ${ }^{(4)} 48$ | $-9$ | -54 |
| Bottled soft drinks-.-- | $\stackrel{209}{250}$ | -5 | -6 | $-14$ | ${ }^{(4)}-48$ | $-9$ | ( ${ }^{\text {( })} 50$ |
| Wines | 88 | +5 | +3 +3 | -30 | -48 | -31 | -50 +10 |
| Distilled liquors | 100 | +3 | +3 | +-18 | $-36$ | +13 | -39 |
| Miscellaneous food products. | 217 | $+1$ | $+1$ | -11 | -32 | -12 | -34 |
| Tobacco manufacturers. | 138 | -6 | -6 | -13 | +14 | -7 | +21 |
| Textile-mill products | 1,938 | $+6$ | +10 | +17 | $+7$ | ${ }^{3}+6$ | $3+7$ |
| Cotton yarn and textiles. | 483 | $+7$ | +15 | +18 | +14 | +3 | +1 |
| Rayon, other synthetic, and silk textiles. | 170 | +4 | +8 | +29 | +44 | +19 | +32 |
| Woolen and worsted textiles. | 288 | $+9$ | +13 | +20 | +38 | +6 | $+30$ |
| Knit goods -----.-.....- | 512 | $+2$ | +3 | $-3$ | +2 | -5 | ${ }^{(2)}$ |
| Dyeing and finishing textiles.--..--- | 270 | +3 | $+5$ | $+20$ | -9 | +15 | -12 |
| Carpets, rugs, and other floor coverings | 67 | $+5$ | $+10$ | +2 | -2 | -7 | -11 |
| Hats (except cloth and millinery)--.-- | 27 | -12 | $-9$ | +8 | (1) | +19 | (4) |
| Cordage and twine. | 47 | $+5$ | $+10$ | +45 | -18 | +33 | $-26$ |
| Miscellaneous textile goods | 74 | +8 | +13 | +23 | +234 | +9 | $+209$ |
| Apparel and other finished textile products | 1,432 | +2 | $+4$ | +8 | -52 | ${ }^{3}+3$ | $3-56$ |
| Clothing, men's and boys'--.- | 541 | $+3$ | $+6$ | +11 | $-33$ | +5 | $-36$ |
| Clothing, women's and children's. | 572 | +1 | +1 | +14 | -66 | +11 | $-65$ |
|  | 48 | +11 | $\pm 7$ | +154 |  | +138 |  |
| Fur goods and miscellaneous apparel | 68 | -3 | -1 | -5 | (4) | -4 | (4) |
| Miscellaneous fabricated textile products | 203 | $+1$ | +5 | -7 | $-58$ | -11 | -59 |
| Lumber and wood products (except furniture) | 2,002 | +7 | $+8$ | +7 | -6 | ${ }^{3}+1$ | $3-5$ |
| Logging | 207 | +4 | +1 | +5 | -31 | +4 | -32 |
| Sawmills and planing mills ${ }^{5}$. | 716 | $+5$ | +5 | $+3$ | +18 | $-2$ | $+15$ |
| Planing mills.- | 135 | +10 | +11 | +22 | +146 | $+10$ | +119 |
| Sawmills ${ }_{\text {Sawmill }}$ and planing mills, integrated | 324 | +6 | $+7$ | +2 | +8 | -5 | +2 |
| Sawmills and planing mills, integrated Veneer mills | 197 | +2 | +1 | -2 | +6 | $-3$ | +6 |
| Veneer mills....-...-...-.-.-...- | 42 | $+27$ | +33 | +43 | (4) | $+7$ | (4) |
| Millwork and related products Milwork and structural wood products | 487 | $+15$ | $+16$ | +22 | $+27$ | $+5$ | +8 |
| Milwork and structural wood products Plywood mills | 415 72 | +13 +19 | +13 +24 | +19 +27 | +33 +17 | +6 +3 | +-18 |
| Wooden containers. | 329 | +18 +6 | +24 +8 | $+7$ | $\pm$ | $\pm$ | -83 |
| Miscellaneous wood products. | 263 | +3 | +4 |  | -12 | $-5$ | $-19$ |
| Furniture and fixtures ${ }^{\text {5 }}$ - | 1,096 | +12 | +18 | +23 | $+7$ | ${ }^{3}+4$ | $3-14$ |
| Household furniture- | 842 | +15 | +21 | $+27$ | +10 | +6 | -8 |
| Household furniture, nonmetal | 606 | $+14$ | +21 | +24 | -4 | +3 | -20 |
| Metal household furniture...-. | 40 | +22 | $+26$ | +73 | +59 | +37 | +22 |
| Mattresses and bedsprings. | 196 | (3) +16 | +22 | +21 | +240 | -1 | +191 |
| Office furniture --..-.-.....---- | 46 | (2) 11 | $+6$ | $+12$ | +95 | $-1$ | +82 |
| Wood office furniture | 17 | +11 | +30 | $+7$ |  | -18 | (4) |
| Metal office furniture | 29 | -2 | +1 | $+14$ | (4) | +13 | (4) |
| Public-building and professional furniture. | 32 | +11 | +11 | +11 | (4) | -1 |  |
| Partitions and fixtures .-.. | 131 | $+5$ | +7 | +7 | +26 | $+1$ | +22 |
| Screens, shades, and blinds | 44 | $+7$ | +9 | +18 | (4) | +8 | (4) |
| Paper and allied products | 968 | +4 | $+7$ | +6 | -5 | ${ }^{3}+3$ | d -5 |
| Pulp, paper, and paperboard mills | 427 | $+4$ | $+7$ | +2 | (2) | -6 | -4 |
| Envelopes-...---.-.-.............. | 71 | +5 | +2 | +31 | $-51$ | +29 | -52 |
| Paperboard containers and boxes.-....-. | 285 | +3 | $+7$ | +27 | +18 | +18 | +13 |
| Miscellaneous paper and allied products | 185 | $+6$ | +6 | $+6$ | $-25$ | -1 | -28 |
| Printing, publishing, and allied industries. | 2, 220 | +2 | +1 | +1 | +41 | 3 -1 | ${ }^{3}+31$ |
| Newspapers and periodicals --------- | 727 | +3 | $+2$ | -3 | +58 | -6 | +54 |
| Biscellaneous printing and products | + 93 | (2) +3 | (3) +3 | $-30$ | (4) 3 | -32 | ( ${ }^{4}$ ) |
| Miscellaneous printing and publishing | 1,400 | (3) | (2) | +10 | +33 | +11 | +34 |

See footnotes at end of table.

Table B.-Changes in exposure, disabling injuries, and injury rates for 42,171 identical establishments, 1949-50-Continued


See footnotes at end of table.

Table B.-Changes in exposure, disabling injuries, and injury rates for 42,171 identical establishments, 1949-50-Continued


See footnotes at end of table.

Table B.-Changes in exposure, disabling injuries, and injury rates for 42,171 identical establishments, 1949-50-Continued

${ }^{1}$ Based on reports which furnished details regarding the resulting disabilities, constituting approximately 50 percent of the total sample. The standard time-loss ratings for fatalities and permanent disabilities are given in Method of Compiling Industrial Injury Rates, approved by the American Standards Association, 1945.
${ }^{2}$ Change was less than 0.5 percent.
${ }^{2}$ Weighted according to estimates of total employment in each industry.
4 Not a vailable.
${ }^{5}$ Totals include data for industries not shown separately, because of insufficient coverage.

Table C.-Distribution of all reported injuries resulting in permanent-partial disability, according to part of body affected, by industry, 1950


See footnotes at end of table.

Table C.-Distribution of all reported injuries resulting in permanent-partial disability, according to part of body affected, by industry, 1950-Continued


1 Totals include data for industries not shown separately.
2 Less than 0.5 percent.

Table D.-Distribution of temporary-total disabilities, ${ }^{1}$ by duration of disability, 1950

| Industry | $\underset{\text { cases }}{ }{ }^{2}$ | Percent of cases resulting in-- |  | $\underset{\substack{\text { Total days } \\ \text { lost }}}{ }$ | Percent of total days lost accruing from- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1,2, or 3 days of disability <br> (2) | 4 or more days of disability <br> (3) |  | $\begin{aligned} & 1-, 2-\text {, or } 3- \\ & \text { day cases } \end{aligned}$ <br> (5) | 4-or-more day cases <br> (6) |
| Total, manufacturing * .-.......-...... | 101,975 | 35.7 | 64.3 | 1,550,799 | 4.4 | 95.6 |
| Food and kindred products: |  |  |  |  |  |  |
| Meat products..........- | 2,773 | 41.5 | 58.5 | 29,849 | 7.4 | 92.6 |
| Dairy products. | 390 | 39.7 | 60.3 | 5,393 | 5.6 | 94.4 |
| Canning and preserving | 1,873 | 35.4 | 64.6 | 27, 462 | 4.8 | 95. 2 |
| Grain-mill products...-- | 1,287 | 35.1 | 64.9 | 20,433 | 4.2 | 95.8 |
| Bakery products. | 1,606 | 33.9 | 66.1 | 25, 270 | 4.0 | 96.0 |
| Sugar.-..-.-.-.-. | 1,049 | 32.7 | 67.3 | 14, 622 | 4.5 | 95.5 |
| Cane sugar | 408 | 21.8 | 78.2 | 8,326 | 2.0 | 98.0 |
| Beet sugar. | 641 | 39.6 | 60.4 | 6,296 | 7.6 | 92.4 |
| Confectionery and related produots | 873 | 36.3 | 63.7 | 12,005 | 4.8 | 95. 2 |
| Beverages ${ }^{3}$ Bottled soft drinks | 2,707 | 29.6 | 70.4 | 45, 257 | 3.3 76 | 96.7 92.4 |
| Malt and malt liquors | 2, 112 | 28.2 | 71.8 | 34,995 | 3.2 | 96.8 |
| Distilled liquors ..... | 256 | 21.1 | 78.8 | 5,923 | 1.6 | 98.4 |
| Miscellaneous food products. | 665 | 36.8 | 63.2 | 9,359 | 4.9 | 95.1 |
| Tobaceo manufacturers. | 507 | 34.9 | 65.1 | 6,812 | 4.3 | 95.7 |
| Textile-mill products: |  |  |  |  |  |  |
| Cotton yarn and textiles.- | 2,955 | 27.3 | 72.7 | 54,362 | 2.9 | 97.1 |
| Rayon, other synthetic, and silk textiles | 1,086 | 31.9 | 68.1 | 17, 585 | 3.6 2.9 | 96.4 97.1 |
| Woolen and worsted textiles. | 1, 133 | 30.2 32.9 | 69.8 | 22, 636 12,108 | 2.9 4.3 | 97.1 95.7 |
| Knit goods D - | 831 1,553 | 32.9 <br> 33.2 | 67.1 | 12, 1008 | 4.3 2.9 | 97.1 |
| Carpets, rugs, and other floor coverings | 1,374 | 30.7 | 69.3 | 20,556 | 4.0 | 96.0 |
| Hats (except cloth and millinery) .-.-. | 348 | 44.8 | 65.2 | 3, 835 | 7.7 | 92.3 |
| Cordage and twine | 282 | 38.3 | 61.7 | 3,726 | 5.1 | 94.9 |
| Miscellaneous textile goods. | 394 | 34.3 | 65.7 | 5,139 | b. 1 | 94.9 |
| Apparel and other finished textile products: |  |  |  |  |  |  |
| Clothing, men's and boys'--........ | 715 | 47.7 | 52.3 | 6,500 | 9.2 | 90.8 |
| Clothing, women's and children's | 554 | 54.3 | 45.7 | 4,331 | 10.9 | 89.1 |
| Miscellaneous fabricated textile products | 358 | 48.6 | 51.4 | 3,373 | 9.7 | 90.3 |
| Lumber and wood products (except furniture): |  |  |  |  |  |  |
|  | 2, 007 | 24.6 | 75.4 | 41, 169 | 2,5 | 97.5 |
| Sawmills and planing mills ${ }^{\text {8 }}$ | 4, 249 | 35.1 | 64.9 | 64, 639 | 4.8 | 95.2 |
| Planing mills ............ | , 621 | 38.5 | 61.5 | 8, 464 | 5.8 | 94.2 |
| Sawmills... | 1,961 | 36.0 | 64.0 | 30, 965 | 4.8 | 95.2 |
| Sawmills and planing mills, integrated | 1,522 | 32.9 | 67.1 | 23,225 | 4.5 | 95.5 |
| Millwork and related products..--..-..... | 2, 211 | 36. 5 | 63.5 | 27, 584 | 5.8 | 94.2 |
| Millwork and structural wood products | 917 | 40.6 | 59.4 | 10,085 | 7.1 | 92.9 |
| Plywood mills | 374 | 31.3 | 68.7 | 6, 240 | 3.8 | 96.2 |
| Wooden containers ------ | 920 | 34.6 | 65.4 | 11, 259 | 5.8 | 94.2 |
| Miscellaneous wood products. | 772 | 29.5 | 70.5 | 11,540 | 3.9 | 96.1 |
| Furniture and flxtures: |  |  |  |  |  |  |
| Household furniture. | 3,594 | 39.2 | 60.8 | 43,705 | 6.3 | 93.7 |
| Household furniture, nonmetal | 2,842 | 39.2 | 60.8 | 34, 570 | 6.4 | 93.6 |
| Metal household furniture. | 336 | 37.5 | 62.5 | 4,143 | 5.6 | 94.4 |
| Mattresses and bedsprings. | 416 | 40.9 | 59.1 | 4,992 | 6.1 | 93.9 |
| Office furniture ${ }^{3}$-----------.-- | 323 | 43.0 | 57.0 | 3,613 | 6.8 | 93.2 |
| Metal office furniture. | 223 | 43.9 | 56.1 | 2,634 | 6. 5 | 93.5 |
| Partitions and fixtures. | 301 | 32.6 | 67.4 | 5,698 | 3.2 | 96.8 |
|  |  |  |  |  |  |  |
| Envelopes. and paperboard mills | 1,171 250 | 31.5 25.6 | 68.5 74.4 | 19,481 3,477 | 3.6 3.4 | 96.4 96.6 |
| Miscellaneous paper and allicd products | 759 | 36.2 | 63.8 | 9,933 | 5.4 | 94.6 |
|  |  |  |  |  |  |  |
| Newspapers and periodicals .-.-.------ | 1,588 | 34.9 | 65.1 | 23, 138 | 4.7 | 95.3 |
| Miscellaneous printing and publishing. | 1,268 | 39.8 | 60.2 | 15,867 | 6.0 | 94.0 |
| Chemicals and allied products: |  |  |  |  |  |  |
| Industrial inorganic chemicals. | 231 | 29.4 | 70.6 | 3,807 | 3.3 | 96.7 |
| Industrial organic chemicals. | 569 | 32.5 | 67.5 | 10, 220 | 3.4 | 96.6 |
| Drugs and medicine...---. | 390 | 37.2 | 62.8 | 5,900 | 4.5 | 95.5 |
| Soap and related products | 210 | 26.2 | 73.8 | 3, 586 | 3.1 | 96.9 |
| Paints, pigments, and related products | 703 | 43.0 | 57.0 | 8,435 | 6.2 | 93.8 |
|  | 701 218 | 32.0 29.4 | 68.0 70.6 | 12,998 3,408 | 3.1 | 96.9 |
| Miscellaneous chemicals and allied products | 327 | 41.6 | 58.4 | 4,699 | 5.7 | 94.3 |
| Products of petroleum and coal: Paving and roofing materials... | 238 | 29.8 | 70.2 | 4,691 | 2.7 | 97.3 |
| Rubber products: |  |  |  |  |  |  |
| Tires and inner tubes.. | 256 | 12.9 | 87.1 | 7,957 | . 8 | 99.2 |
| Miscellaneous rubber products.. | 1,160 | 34.3 | 65.7 | 26,447 | 2.7 | 97.3 |

See footnotes at end of table.

Table D.-Distribution of temporary-total disabilities, ${ }^{1}$ by duration of disability, 1950-Continued


See footnotes at end of table.

Table D.-Distribution of temporary-total disabilities, ${ }^{1}$ by duration of disability, 1950-Continued


[^8]${ }^{2}$ Based on reports from those establishments which were able to supply the requested breakdown.
${ }^{3}$ Total includes data for industries not shown separately.

Table E.-Indexes of injury-frequency rates in manufacturing, 1926-50, by extent of disability ${ }^{1}$

| Year | $[1926=100]$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { injuries }}{\text { All }}$ | Death and permanenttotal disability | $\begin{gathered} \text { Perma- } \\ \text { nent- } \\ \text { partial } \\ \text { disabllity } \end{gathered}$ | $\begin{aligned} & \text { Tempo- } \\ & \text { rary- } \\ & \text { total } \\ & \text { disability } \end{aligned}$ | Year | $\underset{\text { injuries }}{\text { All }}$ | Death and permanenttotal disability | Perma-nentpartial disability | $\begin{gathered} \text { Tempo- } \\ \text { rary: } \\ \text { total } \\ \text { disabillity } \end{gathered}$ |
| 1926 | 100.0 | 100.0 | 100.0 | 100.0 | 1939 | 73.4 | 71.4 | 80.7 | 73.9 |
| 1927 | 93.6 | 107.1 | 96.3 | 93.3 | 1940 | 75.3 | 71. 4 | 84.8 | 75.6 |
| 1928. | 93.2 | 107.1 | 104.6 | 92.5 | 1941 | 85.8 | 80.3 | 93.7 | 86.2 |
| 1929. | 99.2 | 92.9 | 109.2 | 98.7 | 1942 | 93.5 | 70.7 | 83.4 | 94.1 |
| 1930. | 95.5 | 107.1 | 111.0 | 94.6 | 1943 | 94.4 | 70.7 | 83.4 | 95.0 |
| 1931 | 78.0 | 92.9 | 102.8 | 76.5 | 1944 | 88.3 | 62.8 | 75.4 | 89.7 |
| 1932. | 80.9 | 107. 1 | 113.8 | 78.9 | 1945. | 81.9 | 62.8 | 72.3 | 83.0 |
| 1983 | 91.8 | 85.7 | 110.1 | 90.8 | 1946. | 84.3 | 60.1 | 77.9 | 85.3 |
| 1934 | 93.6 | 107.1 | 128. 4 | 91.6 | 1947 | 78.4 | 51.7 | 70.1 | 79.3 |
| 1935. | 88.1 | 92.9 | 121.1 | 86.2 | 1948 | 69.8 | 51.7 | 67.3 | 70.6 |
| 1936 | 85.7 | 85.7 | 114.7 | 84.1 | 1949 | 61.2 | 44.3 | 61.9 | 61.6 |
| 1937 | 85.8 | 85.7 | 122.0 | 83.7 | 1950 | 61.8 | 44.3 | 61.3 | 62.2 |
| 1938.- | 71.7 | 71.4 | 78.9 | 68.1 |  |  |  |  |  |

${ }^{1}$ 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.

Table F.-Changes in industry classification for work-injury survey (manufacturing industries)

| Former industry title ${ }^{1}$ | S.I. C. code (1942 edition): | New comparable industry title ${ }^{1}$ | g. I. C. code (1945 edition) ${ }^{2}$ |
| :---: | :---: | :---: | :---: |
| Apparel and other finished textile products. Clothing, men's and boys' | 23,231,232,233,234,238235235,238237$23 \mathrm{v}, 239$ |  | ${ }_{231}^{231} 232$ |
| Clothing, women's and children's.-.-.-..--- |  | Same.-.... | $\underset{236}{233,234,}$ |
| Millinery--- |  | Same |  |
| Apparel and accessories, n. ө. c. |  | Fur goods and miscellaneous |  |
| Trimmings and fabricated textile products, п. e. c. |  | Miscellaneous fabricated textile products | $\begin{gathered} 239 \text { (except } \\ 2399 P) \end{gathered}$ |
| Chemicals and allied products. $\qquad$ Compressed and liquefied gases | $\begin{aligned} & 28,29 \\ & 2886 \\ & 2831-2833 \end{aligned}$ | (Chemicals and allied products. <br> Products of petroleum and coal | $\begin{aligned} & 28 \\ & 29 \\ & 2896 \\ & \text { non } \end{aligned}$ |
|  |  |  |  |
| Drugs, toiletries, and insecticides------.......- |  |  |  |
| Explosives | 2884, 2807 | Same | ${ }_{287}^{2826}$ |
| Industrisl chemicals | 2834, 2881,288,2885,28872889 2887-2889 | Industrial inorganic chemicals $\qquad$ <br> Miscellaneous industrial organic chemicals. | $\begin{array}{\|l\|} \hline 281 \\ 2821,2822, \\ 2829 \end{array}$ |
|  |  |  |  |
| Paints, varnishes, and colors. | 281 | Paints, pigments, and related products..-- | 285 |
| Paving and roofing materials. | 293 | Same | 295 |
| Petroleum refining.- | 291 | Same... | 291 |
| Plastic msterials, except rubber. | 2883 P | Plasties, except synthetic rubber. | 2823 |
|  |  |  |  |
| Synthetic rubber---...--------........... |  |  | ${ }_{2825}^{2324}$ |
| Synthetic textile fibers.-...-- |  | Vegetable and antmal oils and fats .-.-.-...-- | ${ }_{288}^{2825}$ |
|  |  | Miscellaneous chemicals and allied products. | $\begin{gathered} 286,2891 \\ 2895 \\ 2897- \\ 2899 \end{gathered}$ |
| Chemical products, n. e. c...................- | 286, 2891, ${ }^{2893-}$2896, <br> 2889 2899, |  |  |
|  |  | Miscellaneous products of petroleum and coal. | 299 |

[^9]| Electrical machinery, equipment, and supplies. | ${ }_{364}$ | Electrical machinery-. | 36 | A few products were transferred to other industry gro |
| :---: | :---: | :---: | :---: | :---: |
| Automotive electrical equipment.......... | ${ }_{3641}^{364}$ | Electrical equipment for vohicles. | 364 | No change. |
| Communication and signaling equipment, | 3691 3652 |  | 3691,3692 3664,3669 | No change. No change. |
| except radio. | 3652 | Miscellaneous communication equ | 3664, 3668 |  |
| Electrical appliances... | 362 | Same | 362 | Vacuum cleaners were transferred to "Commercial and household machinery" (Group 35). |
| Electric equipment for industrial use......... | 361 | Electrical industrial apparatus.. | 361 | Electric industrial furnaces were transferred to "Miscellaneous general industrial machinery" (Group 35). |
| Electric lamps (bulbs) | 365 | Same | 365 | No change. |
| Insulated wire and cable. | 363 | Same | 363 | No change. (However, under former definition many establishments drawing as well as insulating wire were included in this industry; under a clarifying clause in the present definition such establishments are classified under "Wiredrawing" (Group 33). |
| Radios and phonographs | 3661 | Radios and related products......---------- | 3661 3662 | Radios tubes and phonograph records were transferred to new industries. |
|  |  | Phonograph records. | 3663 | New industry, transferred from "Radios and phonographs." |
| Electrical equipment, n. e. c. | 3692, 3699 | Electrical products, n . e. | 3693, 3699 | No change. |
| Food products | 20 | Food and kindred products. | 20 | Only one minor change (see below). |
| Baking. | 205 | Bakery products. | 205 | No change. |
| Bottling, soft drin | 2081 | Bottled soft drinks | 2081 | No change. |
| Breweries .-.........-.... | 2082, 2083 | Malt and malt liquors | 2082, 2083 | No change. |
| Canning and preserving | 203 | Same- | 203 | No change. |
| Confectionery | 207 | Confectionery and related products | 207 | No change. |
| Distilleries | 202 | Same. | 202 | No change. |
| Flour, feed, and grain-mill | 204 | Distilled liquors---- | 2085 204 | No change. |
| Slaughtering and meat packing- | 201 | Meat products. | 201 | No change. |
| Sugar, beet | 2063 | Same | 2063 | No change. |
| Sugar, cane | 2061, 2062 | Same | 2061, 2062 | No change. |
| Food products, n . e. c | 2084 | Wines-......-- | 2084 | No change. |
| Food products, $\frac{1}{}$ e. |  | Miscelianeous fo | 209 | (Group 28). |
| Furniture and finished lumber products. | 25 | Furniture and fixtures | 25 | Several products were transferred to other industry groups (see below). |
| Furniture, metal | $\underset{253 \mathrm{P}}{\substack{2514,252 \\ 2}}$ | Metal household furniture | 2514 | New industry, broken out of "Furniture, metal"; also includes metal-frame upholstered furniture, transferred from "Furniture, except metal." |
|  |  | Metal office furniture......------.-........-- | 2522 | Now industry, broken out of "Furniture, metal." <br> Metal public building and professional furniture and metal restaurant and other furniture and fixtures were transferred to new industries (see below). |
|  | (2511-2513, | Household furniture, nonmetal............. | $\underset{2519}{2511-2513,}$ | New industry, broken out of "Furniture, except metal." |
| Furniture, except metal. | $\left\{\begin{array}{l} 2519, \end{array}\right.$ |  | 2521 | New industry, broken out of "Furniture, except metal." |
| Furnture, except metal. | $\left\{\begin{array}{l} 2521, \\ 253 \mathrm{P} \end{array}\right.$ | Public-building and professional furniture. | 253 | New industry, broken out of "Furniture, except metal," and including metal public-building and professional furniture, transferred from "Furniture, metal." |
|  |  | Miscellaneous furniture and fixtures.. | 259 | New industry, broken out of "Furniture, except metal," and including metal restaurant and miscellaneous furniture and fixtures, transferred from "Furniture, metal." Metal-frame upholstered furniture was transferred to "Metal household furniture." |
| Mattresses and bedsprings. | 2515 | Same | 2515 | No change. |
| Morticians' supplies.... | 257 | Morticians' goods | 3988 | No change. Transferred to "Miscellaneous manufacturing industries" (Group |
| Office, store, and restaurant fixtures. | 254 | Partitions and fixtures. | 254 | No change. |
| Wooden containers | 255 | Same.... | 244 | No change. Transferred to "Lumber and wood products." (Group 24). |
| Miscellaneous wood products, n. e. c.. | 256, 259 | Screens, shades, and blinds. | 256 | New industry, broken out of "Miscellaneous wood products, n . e. c." |
| Miscollaneous wood products, n. e. c.. | 250,200 | Miscellaneous wood products | 248 | Industry transferred to "Lumber and wood products" (Group 24). The following products were transferred to other industries: Window and door screens, weather strip, window shades, and venetian blinds, to new industry, above; wooden brooders and incubators, to "Agricultural' machinery and tractors"; (Group 35); excelsior mills, to "Miscellaneous special-product sawmills" (Group 24); cork products and matches, to "Miscellaneous manufacturing" (Group 39). |
| Iron and steel and their products | 33 | Primary metal industries | 33 | Two former industry groups were combined and regronped. A number of |
| Nonferrous metals and their products..........-- | 34 | Fabricated metal industrics | 34 | $\}_{\text {products }}$ were transferred to other industries (see below). ${ }^{\text {a }}$ ( A number of |
| Boits, nuts, washers, and rivets | ${ }^{3391}$ | Same | 3494 | No change. |
| Cold-finished steel. Cutlery and edge tools | ${ }_{3359}{ }^{\text {P }}$ | Same. | 3399 P | No change. |
| Cutlery and edge tools.-... Fabricated structural steel | 3351, 3354 | Same Structural steel and ornamental metal- | ${ }_{3441}^{3421,3422}$ | Hand saws and saw blades were transferred to "Hand tools, files, and saws." |
| Fabricated structural steel. |  | Structural steel and ornamental metalwork. | 3441 | Includes ornamental metalwork. |
| Forgings, fron and steel | 3392 | Same.-..-.-.-.---.-- | 3391 | No change. |
|  | $3321,3322,$ | Gray-iron and malleable foundries. | 3321, 3322 | No change. |
| Foundries, steel. | 3323 | Stegl foundries. | 3323 | No change. |
| Hardware | 3359 | Same. | 3429 | No change. |

TABLE F.-Changes in industry classification for work-injury survey (manufacturing industries) - Continued

| Former industry title ${ }^{1}$ | $\begin{gathered} \text { S. I. C. } \\ \text { code (1942 } \\ \text { edition) } \end{gathered}$ | New comparable industry title ${ }^{1}$ | $\begin{gathered} \text { S. I. C. } \\ \text { code } \\ \text { codition) } \\ \text { edian } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Iron and steel and their products <br> Nonferrous metals and their products $\}$ Con. <br> Heating equipment, n. e. c.-................. | $\begin{gathered} 3362,3363, \\ 3369 \end{gathered}$ | Oll burners, heating and cooking apparatus. | 3432, 3439 |
| Iron and steel. | 331 | Blast furnaces and steel mills. | 331 |
| Metal coating and engraving | 3374, 3375, | Same. | 3465-3468 |
| Ornamental metalwork. | 3382, 3883 | Metal doors, sash, frame, and trim. | 3442 |
| Plate fabrication and boiler-shop products Plumbers' supplies | 3364 3361 | Boiler-shop products $\qquad$ <br> Sanitary ware and plumbers' supplies. | ${ }_{3431}^{343}$ |
| Screw-machine products....----- | 3395 |  | 3495 |
| Sheet-metal work <br> Stamped and pressed metal products | $\begin{aligned} & 3495 \\ & 3372,3373 \end{aligned}$ | Same-.......-.-.-.---------- | ${ }_{3462,3483}$ |
| Steam fittings and apparatus. | 3365, 3366 | No comparable industry. |  |
| Steel barrels, kegs, drums, and packages | 3396 | Metal barrels, drums, kegs, and pails-.... | 3491 |
| Steel springs ---.-...- | ${ }_{3394}$ | Same-- | 3493 |
| Tools, except edge tools. | 3352, 3353 | Hand tools, files, and saws- | ${ }_{3423-3425}$ |
| Vitreous-enameled products. | 3371 | Same.-............. | 3461 |
| Wire and wire products....... | 334 | Wire drawng | 3392 |
| Wrought pipes, welded and heavy-riveted. |  | Fabricated wire products--.-- | $\begin{aligned} & \mathbf{3 4 8} \\ & \mathbf{3 3 9 3} \end{aligned}$ |
| Iron and steel products, n.e.c...........-- | 3398, 3399P | No comparable industry. |  |
| Aluminum and magnesium products... | 344 P | No comparable industry. |  |
| Foundries, nonferrous | 3491, 344P | Nonferrous foundries | 336 |
| Nonterrous basic shapes and forms. | 342, 343 | Nonferrous secondary smelting and refining Nonferrous rolling, drawing, and alloying- | $\begin{array}{\|l\|l\|} 334 \\ 335 \end{array}$ |
| Primary smelting and refining.-...--- | 341 | Nonferrous primary smeiting and refniag-- | 333 |
|  |  | Watches and clocks. | 387 |
| Watches, clocks, jewelry, and silverware... | 345, 346 | Jewelry, silverware, and plated ware....... | 391 |
| Nonferrous metal products, n. e. c.... | 348, 3492- | No comparable industry. |  |
| None- |  | Primary metal industries, n. e. c........... | 3399 P |
| None |  | Fabricated metal products, n. e. c.......... | 347, 3492, |

Changes in industry definition

Includes domestic steam and hot water heating apparatus, cast-iron and non ferrous radiators, complete gas and oil boiler-burner units, transferred from "Steam fittings and apparatus." Metal brooders and Incubators were trans ferred to "Agricultural machinery and tractors" (Group 35).
nonferrous additive alloys, transferred from "Industrial chemicals" (Group 28) No change.
New industry, broken out of "Ornamental metalwork"; ornamental metalwork was transferred to "Structural steel and ornamental metalwork."
No change.
No change.
No change.
No change.
Includes aluminum and other nonferrous stampings, transferred from "Aluminum and magnesium products" and from "Nonferrous metal products, n. e. c." tors, complete gas and oil boiler-burner units were transferred to "Oil burners, beating and cooking apparatus." Steam valves, fttings, and specialties were transferred to "Valves and fittings" (Group 35). Thermostats, temperatur control devices, gages and regulators were transfird to "Mechanical measur ing and controlling instruments"' (Group 38).
ferred from "Aluminum and morrous metal products, n.e.c.
No change.
Includes hand saws and saw blades, transferred from "Cutlery and edge tools."
No change.
New industry, broken out of "Wire and wire products"; also includes manufacturers of insulated wire and cable who draw their own wire.
New industry, broken out of "Wire and wire products."
No change.
Parts of industry were transferred to "Primary metal products, n.e.c.," and Parts of industry were transferred to "Nonferrous rolling, drawing, and alloying," "Stamped and pressed metal products," "Metal barrels, kegs, drums, and pails," and "Primary metal industries, n.e.c."
Nonferrous forgings were transferred to "Primary metal industries, n.e.c."
New industry, broken out of $"$ Nonferous basic shapes and forms
New industry, broken out of "Nonferrous basic shapes and forms"; also includes "Alum, drawing, and alloying of aluminum and magnesium, transferred from "Aluminum and magnesium products."
No change. (Data compiled by Bureau of Mines, U. S. Department of the New industry
New industry, broken out and transferred to "Instruments and related products" (Group 38). Time clocks and time stamps were transferred to "Commercial
New industry, broken out and transferred to "Miscellaneous manufacturing industries" (Group 38).
Parts of industry transferred to "Primary metal industries, n. e. c.," "Fabricated metal products, n. e. c.," "Stamped and pressed metal products," "Metal baructs" (Group 32).
New industry, includes: nonferrous forgings, flakes and powders, and other "Frimary nonferrous metal products, not elsewhere classified, transferred from "Foundries, nonferrous"; "Nonferrous, metal products, n. e. c;" and from elsewhere classified, and annealing and heat treating of steel for the trade, transferred from "Iron and steel products, n. e. c."
New industry, includes: lighting fxtures, collapsible tubes, gold, silver, tin, aluminum, and other foil, and other fabricated nonferrous metal products, fabricated iron and steel products, transferred from "Iron and steel products, n.e.c."
4,

## Machinery (except electrical)

Same.


## Lumber and wood products (except furniture)

Same
Same-inls
Miscellaneous special-products sawmills
Same

Ball and roller bearings
Same

Same
Same.
Same
Miscellaneous general industrial machin ery.

Machine shops, general $\qquad$
Same

Same
Same

Miscellaneous special-industry machinery Same
Valves and fitting

## Primary metal industries <br> \section*{Fabricated metal industries}

Same.
Same-
Same
Paperboard containers and boxes..........................................
Pulp, paper, and paperboard mills-........

## No change

Boot and shoe cut stock and findings broken out as new industry.
Industrial leather belting and packing was transferred to "Miscellaneous leather Includes industrial leather belting and packing, transferred from "Leather."

## includes wooden containers and miscellaneous wood products, transferred from

 "Furniture and finished lumber products."No change.
Includes unfinished wood molding, transferred from "Planing mills."
Unfinished wood molding was transferred to "Millwork and structural wood No change.
Shingle, cooperage stock, and other special-product sawmills were transferred to new industry, which also includes excelsior mills, transferred from "Mis vo change.

## No change.

Includes several products transferred from other industries (see below). Mechanical measuring and controlling instruments were transferred to "Instruments and related products" (Group 38).
Includes brooders and incubators, transferred from "Miscellaneous wood products, n.e.c." and from "Heating equipment, n. e. c." Industrial tractors were No change.
Includes vacuum cleaners, transferred from "Electrical appliances" (Group 36), measuring and dispensing pumps, transferred from "Pumps and compressors" time-clocks and time stamps, transferred from "Watches and clocks" (Group No chang
Includes overhead traveling cranes, transferred from "General industrial machin ery and equipment, n. e.c.
Includes military tank engines, transferred from "Ordnance and accessories." No change.
No change.
Includes electric industrial furnaces, transferred from "Electrical equipment for industrial use" (Group 36); industrial tractors, transferred from "Agricultura machinery and tractors." Valves and valve parts (other than plumbers' and steam valves) were transferred to "Valves and fittings"; overhead traveling air brakes, calking guns, carburators, pistons and piston rings were transferred to "Machine shops, general."
Includes blowtorches, air brakes, calking guns, carburetors, pistons and piston rings, transferred from "General industrial machinery and equipment, n. e. e." ndustry transferred to "Instruments and related products" (Group 38). transferred from "Steam fittings and apparatus" (Group 33). and regulators, No change.
No change.
Measuring and dispensing pumps were transferred to "Commercial and houseNo change.

## No change.

New industry: includes valves and valve parts (other than plumbers' and steam valves, transferred from "General industrial machinery and equipment, and apparatus" (Group 33).

Combined with "Iron and steel and their products" and regrouped (see above).

## Military tank engines were transferred to "Engines and turbines."

## Only minor changes (see below).

No change.
No change.
Includes cellophane and pliofilm bags, transferred from "Fabricated plastics
products."

Table F.-Changes in industry classification for work-injury survey (manufacturing industries)-Continued

| Former industry title ${ }^{1}$ | S. I. C. code (1942 edition): | New comparable industry title : | S. I. O. code (1945 edition) ${ }^{2}$ | Changes in industry definition |
| :---: | :---: | :---: | :---: | :---: |
| Printing and publishing. $\qquad$ <br> Book and job printing $\qquad$ | $\begin{aligned} & 27 \\ & 273, \\ & 274, \\ & 275,276, \\ & 277,279 \\ & 278, \\ & 271,272 \end{aligned}$ | Printing, publishing, and allied industries..... <br> Miscellaneous printing and publishing.... | $\begin{array}{r} 27 \\ 273, \\ 275, \\ 274, \\ 277, \\ 278, \end{array}$ | No change. No change. |
|  |  |  |  |  |
|  |  | Bookbinding and related products |  | No change. |
| News and periodicals. |  | Newspapers and periodicals.----... | 271, 272 | No change. |
| Rubberproducts. | $\begin{aligned} & 30 \\ & 302 \\ & 301 \\ & 303, \\ & 304, \\ & 305, \\ & \end{aligned}$ | Same <br> Rubber footwear <br> Tires and inner tubes. Miscellaneous rubber products | $\begin{aligned} & 30 \\ & 302 \\ & 301 \\ & 303,309 \end{aligned}$ | Only minor changes (see below). <br> No change. <br> No change. <br> Rubber dolls were transferred to "Miscellaneous manufacturing" (Group 39). |
| Rubber boots and shoes |  |  |  |  |
| Rubber tires and tubes. |  |  |  |  |
| Rubber products, n. e. c- |  |  |  |  |
| Stone, clay, and glass products $\qquad$ Cement mills (excluding quarries) Clay products, structural Concrete, gypsum, and plaster products..... <br> Cut stone and cut-stone products. | $\begin{aligned} & 32 \\ & 324 \\ & 325 \\ & 3271-3274 \end{aligned}$ |  | $\begin{aligned} & 32 \\ & 324 \\ & 325 \\ & 3271,3272, \\ & 3275 \end{aligned}$ | Only minor changes (see below): <br> No change. (Data compled by Bureau of Mines, Department of the Interior.) No change. |
|  |  | Same- |  |  |
|  |  | Structural clay products-- |  |  |
|  |  | Concrete, gypsum, and mineral wool......- |  | Includes glass wool and flberglass insulation, transferred from "Glass"; Mastic composition floor covering was transferred to "Paving and roofing materials"; (Group 29); Asphalt floor tile, to "Miscellaneous nonmetallic mineral products." |
|  | $\begin{array}{ll} 328 & \\ 321, & 322, \\ 326 & \\ 326 & \\ 329 \end{array}$ | Cut-stone and stone products Glass and glass products. | $\begin{array}{ll} 328 \\ 321, & 322, \\ 323 & \\ 326 \\ 329 \end{array}$ | No change. <br> Fiberglass insulation and glass wool were transferred to "Concrete, gypsum, and mineral wool." <br> No change. |
| Glass |  |  |  |  |
| Pottery and related products. |  | Same |  |  |
| Stone, clay, and glass products, n. e. c. |  | Miscellaneous nonmetallic mineral products. |  | Includes gaskets regardless of materials, transferred from various industries; and asphalt floor tile, transferred from "Concrete, gypsum, and plaster products." |
| None. |  |  | 3274 | Includes only lime kilns, formerly included with lime quarries under mining group. (Data compiled by Bureau of Mines, Department of the Interior.) |
| Textile and textile mill products........-........ | 22 |  |  | No change. No change. |
| Carpets, rugs, and other floor coverings..... | 228 | Same......-........-...........................- |  |  |
| Cordage and twine........ | 2298 | Same. |  | No change. |
| Cotton yarn and textiles | ${ }_{22215}^{221}$ | Same |  | No change. |
| Dyeing and finishing textiles.... | 2235, 225 | Same |  | No change. |
| Hats, except cloth and millinery | 227 | Same- |  | No change. No change. |
| Rayon, other synthetic, and silk to | 222 | Same. |  | No change. |
| Woolen and worsted textiles.......... | 2231-2234 | Same |  | No change. |
| Miscellaneous textile goods, n. e. c. | $\begin{gathered} 2291-2297, \\ 2299 \end{gathered}$ | Miscellaneous textile goods |  | No change. |
| Transportation equipment.........................- | 37, 38 |  | $\begin{array}{\|l} 37 \\ 3721 \\ 3722,3723, \\ 3729 \\ 3732 \end{array}$ | No change. ${ }^{\text {Parachutes were transferred to "Aircraft parts." }}$ |
| Aircraft | $\begin{gathered} 3722,3723, \\ 3729 \end{gathered}$ |  |  |  |
| Arrcrait parts |  |  |  | Includes parachutes, transferred from "Aircraft." |
| Boat building and repairing | $\begin{gathered} 381,382, \\ 384 \end{gathered}$ | Motor vehicles, bodies, and trallers.........- | $\begin{aligned} & 3721 \\ & 3722,3723, \\ & 37229 \\ & 3732 \end{aligned}$ | No change. <br> No change. |
| Motor vehicles... |  |  | 3711-3713, 3715, 3716 |  |
| Motor-vehicle part | 383 | Motor vehicle parts and accessories........- | 37143743731375,379 | No change. No change. No change. No change. |
| Railroad equipment | 371 |  |  |  |
| Shipbuilding and repairing | 3731 |  |  |  |
| Transportation equipment, n. e. c.. | 374, 379 | Miscellaneous transportation equipment.- |  |  |
|  |  | $\left\{\begin{array}{l}\text { Tobacco manufactures. } \\ \text { Instruments and related products } \\ \text { Miscellaneous mann facturing industriea............................. }\end{array}\right.$ | 3838 | New industry groups set up and industries regrouped. |
| Miscellaneous manufacturing....-.-.-..........- | 21, 39, 2922 |  |  |  |
| Brooms and brushes. | 392292 | (Miscellaneous mannfacturing industriea <br> Same. | ${ }_{3981}^{39}$ | No change. <br> No change; industry transferred to "Products of petroleum and coal" (Group 29). (Data compiled by Burean of Mines, U. S. Department of the Interior.) |
| Coke ovens |  | Same | 293 |  |
| Fabricated plastics products. | 398 |  | $\begin{aligned} & 397 \\ & 383 \end{aligned}$ | Cellophane bags were transferred to "Miscellaneous paper and allied products." $\}^{T w o}$ new industries, broken out of formerindustry, and transferred to "Instruments |
| Optical and ophthalmic goods. | 3913, 3914 | optical instruments and lenses <br> OOphthalmic goods |  |  |
| Photographic apparatus and materials. | $\begin{gathered} 3912 \\ 3915-3917, \\ 3911 \mathrm{P} \end{gathered}$ | Photographic equipment and supplies. <br> SScientific instruments. <br> $\left\{\begin{array}{l}\text { Medical instruments and supplies }\end{array}\right.$ | $\begin{aligned} & 386 \\ & 381 \\ & 384 \end{aligned}$ | No change; industry transferred to "Instruments and related products" (Group 38). Two new industries, broken out of former industry and transferred to "Instruments and related products" (Group 38). |
| Professional and scientific instruments and supplies. |  |  |  |  |
| supplies. |  |  |  |  |

Tobacco manufactures
Miscellaneous manufacturing


211, 212, 213,214
393,394,
395,396,

No change; industry transferred to separate group, "Tobacco manufactures." Includes cork products and matches, transferred from "Miscellaneous wood products"; fireworks and ,pyrotechnics, from "Explosives"; candles, from

1 The abbreviations n. e. c., used in certain industry titles, indicste "not elsewhere classified." ${ }^{1}$ The code numbers refer to those used in the Standard Industrial Classification Manual, vol 1. Manufacturing Industries, prepared by the Division of Statistical Standards, U. S. Bureau of the Budget. The 2 -digit codes refer to major industry groups. The code numbers shown for individual ndustries refer where several 3-digit industries are included under one titie,
the respective code numbers are shown Where a series of 4-digit industrjes are combined, a dash ( - ) is used to show that all codes in the 3-digit classification from the first to the last indicated are includedlowing a code number, indicates that only part of that S.I.C. industry is included.
a Industry classiffeations for work-injury surveys in this group were not changed, and are still based on the earlier edition of the Standard Industrial Classification Manual.

Digitized for FRASER http://fraser.stlouisfed.org/
Federal Reserve Bank of St. Louis

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

Annual Reports on Work Injuries: A collection of basic industrial injury data for each year, presenting national average injury-frequency and severity rates for each of the major industries in the United States. Individual establishments may evaluate their own injury records by comparison with these data.

## Bulletin

No. Price
1025 Work Injuries in the United States During 1949......................................................................... 20 cents
975 Work Injuries in the United States During 1948.............................................................. 15 cents
945 Work Injuries in the United States During 1947............................................................ 15 cents
921 Work Injuries in the United States During 1946................................................................ 10 cents
889 Work Injuries in the United States During 1945............................................................. 10 cents
849 Work Injuries in the United States During 1944............................................................. 10 cents
802 Work Injuries in the United States During 1943............................................................... 10 cents
758 Work Injuries in the United States During 1942................................................................ 10 cents

Injuries and Accident Causes: Intensive studies of the frequency and severity of work injuries, the kinds of injuries, type of accidents, and causes of accidents in selected major industries:

> Bulletin

No. Price
1079 Injuries and Accident Causes in Plumbing Operations, 1948 and 1949............................ 25 cents
1036 Injuries and Accident Causes in the Manufacture of Pulp and Paper-................................ 30 cents
1023 Injuries and Accident Causes in the Manufacture of Clay Construction Products............... 30 cents
1004 Work Injuries in Construction, 1948-49.......-...................................................................... 25 cents
962 Injuries and Accident Causes in Textile Dyeing and Finishing........................................ 45 cents
949 Injuries and Accident Causes in Fertilizer Manufacturing........................................... 20 cents
924 Injuries and Accident Causes in the Pulpwood-Logging Industry, 1943 and 1944............... 10 cents
884 Injuries and Accident Causes in the Brewing Industry, 1944........................................... 15 cents
855 Injuries and Accident Causes in the Slaughtering and Meat-Packing Industry, 1943........... 15 cents
839 Fatal Work Injuries in Shipyards, 1943 and 1944............................................................ 10 cents

805 Injuries and Accident Causes in the Foundry Industry, 1942............................................... 15 cents
Special Series No. 5-Injuries to Crewmen on Inland Waterways-.-................................................ 20 cents
Performance of Physically Impaired Workers in Manufacturing Industries. Bulletin No. 923 . Price 55 cents.
This report compares the work performance of physically impaired persons and unimpaired workers on the same jobs in respect to absenteeism, work injuries, output, and stability on the job. Consideration is also given to placement practices and the jobs at which the impaired persons were employed. Separate chapters are devoted to the work performance records of persons who had any of the 10 specific impairments included in the study.

Hours of Work and Output. Bulletin No. 917. Price 35 cents.
A study of production, efficiency, absenteeism, and accidents under different schedules of working hours. Findings are based upon 78 case studies which are described in detail.

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.

## Quarterly and Monthly Reports on Work Injuries in Manufacturing:

Press releases presenting injury-frequency rates for selected manufacturing industries, by months and quarters. Issued quarterly. For free distribution upon request to the Bureau of Labor Statistics. Also appears in Monthly Labor Review.

[^10]
[^0]:    ${ }^{1}$ A disabling work injury is any injury occurring in the course of and arising out of employment, which (a) results in death or any degree of permanent physical impairment, or (b) makes the injured worker unable to perform the duties of any regularly established job, which is open and available to him, throughout the hours corresponding to his regular shift on any one or more days after the day of the injury (including Sundays, days off, or plant shutdowns). The term "injury" includes occupational disease.
    ${ }^{2}$ The injury frequency rate is the average number of disabling work injuries for each million employee-hours worked.

[^1]:    ${ }^{3}$ These estimates of injury volume were prepared cooperatively by the Bureau of Labor Statistics and the National Safety Council. The basio estimates of the two organizations, therefore, are identical. Differences in the published figures represent variations in the rounding applied to the basic figures by the two organizations. These variations reflect primarily the National Safety Council's need for integrating the occupational estimates into totals for all types of accidental injuries, including injuries resulting from home, traffic, and public accidents, for which the Bureau does not prepare estimatel.

[^2]:    1 Differences between injuries to all employed persons and injuries to employees represent injuries to selfemployed and unpaid family workers. 1 Includes approximately 1,600 permanent-total disabilities.
    a The total number of infuries in agriculture is based on cross-section surveys made by the U. S. Department of Agriculture in 1947 and 1948 . These are considered to be minimum figures; injuries experienced in performing chores are excluded, and there are some indications of under-reporting. The breakdown of agricultural infuries by extent of disabilitites is based on other brearres.
    ${ }^{\text {sourrces. }}$ Based largely on data of the U. S. Bureau of Mines, Department of the Interior.
    Based on small sample studies.

    - Based on comprehensive survey.

    Diata for railroads ane based on Interstate Commerce Commission reports; data for other transportation are based on small sample surveys.

[^3]:    4 All 1949 rates quoted in this report are revised figures and may differ from the 1949 rates previously published in Bulletin No. 1025. See table A, p. 12, for a complete listing of the revised injury-frequency rates for 1949, and see Technical notes, p. 10, for a description of the revisions.

[^4]:    6 In making injury rate comparisons between mining and other industries, one should bear in mind that the rates for mining are based upon the experience of only those employees engaged in the mining operations, and exclude office workers, whereas the rates for other industries include the manhours and injury experience of office workers and others not exposed to actual operating hazards of the industry concerned.

[^5]:    - The Bureau of Mines defines a mining disaster as any single mine accident Which results in the death of five or more persons.

[^6]:    T The severity rate is the average number of days lost, because of disabling work injuries, per 1,000 employee-hours worked. The computation of days lost includes the use of standard time charges for fatalities and permanent disabilities as given in Method of Compiling Industrial Injury Rates, approved by the American Standards Association, 1945.
    ${ }^{8}$ A permanent-partial disability consists of the complete loss in one accident of any member or part of a member of the body, or any permanent impairment of functions of the body or part thereof to any degree less than permanenttotal disability. A permanent-total disability is an injury, other than death which permanently and totally incapacitates an employee from following any gainful occupstion.

[^7]:    See footnotes at end of table.

[^8]:    ${ }^{1}$ Any injury which does not result in death or permanent impairment but which renders the injured person unable to perform a regularly established job, which is open and a vailable to him, throughout the hours corresponding to his regular shift on any one or more days after the day of injury

[^9]:    No change.
    No change.
    No change.
    No change.
    No change.
    No change. (Sponging and shrinking of cloth for the trade, 2399P-is included in
    Broken down into 2 separate industry groups; several products were transferred to other industry groups (see below).
    No change.
    Includes medicinal chemicals, transferred from "Industrial chemicals." Perfumes, cosmetics, and other toilet preparations; insecticides and fungicides, househol moth repellants, were transferred to "Miscellaneous chemicals and allied products,"
    Fireworks and pyrotechnics were transferred to "Miscellaneous manufacturing." Incomplete fertilizer materials (except superphosphate) were transforred to
    New industry, broken out of "Industrial chemicals"; also includes incomplete fertilizer materials (except superphosphate), transferred from "Fertilizers." New industry, broken out of "Industrial chemicals"; also includes organic lakes, toners, and colors, transferred from "Paints, varnishes, and colors."
    The following products were transferred to other industries: ester gum, to "Plastics, except synthetic rubber"; coal-tar medicinals, to "Drugs and medicines"; "Vegetable and animal oils and fats"; natural dyeing and tanning materials; bone, carbon, and lamp black; salt; rosin, gum, and dextrine sizes; agricultural,
    industrial, and household disinfectants and deodorants; industrial compounds ndustrial, and household disinfectants and deodorants; industrial compounds such as boiler and insulating compounds, metal, oil-, and water-treating and Water-proofing compounds, and chemical supplies for foundries-to "Miscel percentage ferro-alloys and nonferrous additive alloys, to "Blast furnaces and steel mills'’ (Group 33.)
    Organic lakes, toners, and colors were transferred to "Miscellaneous industrial organic chemicals.
    from "Concretred to Group 29. Includes mastic floor composition, transferred Industry transferred to Group 29. No change. (Data compiled by Bureau of Mines, U. S. Department of the Interior).
    Includes ester gum, transferred from "Industrial chemicals."
    ncludes sulfonated oils and assistants, transferred from "Industrial chemicals": and cleaning and polishing preparations, transferred from "Chemical products, n. e. c."

    No change.
    Includes fatty acids, transforred from "Industrial chemicals"; grease and tallow, transferred from "Chemical products, n. e. c." Essential oils were transferred to "Miscellaneous chem
    salt; rosin, gum, and dextrine sizes; agricultural, ind, carbon, and lamp black; infectants and deodorants; industrial compounds, such es , and household discompounds, metal-, oil-, and water-treating and water-proofing compounds, and chemical supplies for foundries-transferred from "Industrial chemicals"; and other toilet preparations; agricultural insecticides and fungicides and household insecticides and repellants-transferred from "Drugs, toiletries, and insecticides." The following were transferred to other industries: Industrial starches, to "Miscellaneous food products" (Group 20); cleaning and polishing preparations, to "Soap and related products"; grease and tallow, to "Vegetable greases not made in petroleum refneries, and products of petroleum and coal not elsewhere classified, to "Miscellaneous products of petroleum and coal" (Group 29); candles, to "Miscellaneous manufacturing" (Groun 39).

    New industry, assigned to Group 29. Includes fuel briquets and packaged fuel, lubricating oils and greases not made in petroleum refineries, and products of petroleum and

[^10]:    -Unless otherwise designated, for sale by the Saperintendent of Documents at prices indicated. How to order publications: Address your order to the SuperIntendent of Documents, Government Printing Office, Washington 25, D. O., with remittance in check or money order. Currency is sent at sender's rist Postage stampa not acceptable.

