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This Issue in Brief

More than 10,000 old people were being cared for at the end of 1930 through the medium of public old-age pensions. This is shown by a survey just completed by the United States Bureau of Labor Statistics. Of 461 counties in the 9 States which had old-age pension systems in force, only 137 had adopted the system; the counties reporting spent \$1,714,388 in pensions for 10,307 old persons during the year. As compared with 1928, when the bureau's previous survey was made, the number of adopting counties had more than doubled, there were more than ten times as many pensioners, and more than eight times as much was spent in pensions. This increase was due to the spread of the old-age pension plan to additional States rather than to its growth in the original pension States. Page 1.

A series of recommendations dealing with the protection of employed children, and with their welfare before and after reaching an employable age, was presented at the White House Conference on Child Health and Protection by the committee on vocational guidance and child labor. A summary of the program indicated is given on page 15. The establishment of a national minimum standard of protection and opportunity is strongly urged as a basis to which each community may add special measures to meet its own local problems.

A review of industrial disputes in the United States during the 15-year period from 1916 to 1930 shows a downward trend in number of disputes over the whole period and an even sharper decline since 1922 in the number of workers concerned in such disputes. Page 23.

Violent fluctuations in employment characterize the manufacture of radio sets and tubes, and the irregularity is greater among women than men, according to a study recently published by the United States Women's Bureau. The situation varies as between establishments, and in one case the addition of a side line had rendered employment noticeably more stable. In one case practically 49,000 hirings were necessary for a force which ranged from under 8,000 to approximately 30,000. Page 40.

The provisions of the Federal vocational education act and the civilian rehabilitation act have been extended to Porto Rico by Federal legislation approved March 3, 1931. Under another Federal act passed in 1931 a department of labor was created for Porto Rico. The head of this department is designated the commissioner of labor and has charge of such government bureaus and branches as are now in existence or to be legally established to promote the welfare of wage earners. Page 100.

Rules and regulations for compressed-air work in Maine are established by a 1931 enactment of the State legislature. The law is somewhat similar to that adopted in several other States, but is enlarged and amplified by regulations pertaining to the use of recording gauges, signal codes, etc. Page 92.

The two insurance companies owned and operated by organized labor together had a premium income during 1930 amounting to nearly \$2,250,000. The insurance in force, written by these companies, totals about \$138,000,000, and they have combined assets of more than \$2,325,000. Claims paid during the year amounted to more than a million dollars. These organizations have been doing business since 1925 and 1927, respectively. Page 111.

Primarily to relieve unemployment, the Kellogg Co., cereal manufacturers of Battle Creek, Mich., inaugurated a 6-hour day on December 1, 1930. By this means the company was able to employ 20 per cent more workers. Wages were adjusted, on the basis of purchasing power and living standards, so that the workers are reported to be now receiving for the 6-hour day practically the same "real" wages that they received in 1928 for an 8-hour day. The plan has been found to be advantageous to both workers and employer and, although it was adopted as an emergency measure, the company is contemplating its permanent retention. Page 148.

Negro workers have been especially hard hit by the industrial depression, according to a report issued by the National Urban League. North and South alike, they form a larger proportion among the unemployed than among the general population, but the disproportion is most marked in the northern industrial centers. To some extent, substitution of white for colored workers is going on, and in some localities workers of other races are taking their places. However, there is no discrimination against Negroes in the giving of relief. Page 60.

Woman workers in New York City have seen their wage and salary levels decline markedly since the fall of 1929, according to a study made by the New York Department of Labor. The decline has been greatest in the case of domestic service, where the range of wages most commonly offered was formerly from \$40 to \$70, and is now from \$15 to \$55 a month. Page 66.

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Operation of Public Old-Age Pension Systems in the United States, 1930

TWO years ago the Bureau of Labor Statistics gathered data as to the extent to which aged citizens were being cared for under the State old-age pension laws in operation at the end of 1928. At that time only six States¹ and Alaska had passed such laws, although bills were pending in several other States. All of these laws were of the optional type, and the study showed that of the 351 counties in the six States, only 53 had adopted the old-age pension plan; these were caring for 1,003 old people, at an annual cost of \$208,624.

In 1929, California, Minnesota, Utah, and Wyoming passed legislation in this field and they were joined in 1930 by Massachusetts and New York. Thus at the end of 1930 there were 12 States having old-age pension² laws on the books;³ in Massachusetts, however, the system does not go into effect until July 1, 1931, and in New York pensions became payable only on January 1, 1931. The adoption of the system in Minnesota was delayed by the requirement of the law providing that the question of adoption must be voted upon at a general election and must receive, for adoption, a majority of all the votes cast. The matter did not, therefore, come before the voters of any Minnesota county until November, 1930. At that time the pension plan was adopted in five counties, but legal and other difficulties with regard to funds still further delayed the operation of the system, so that no pensions were paid in that State in 1930.

Only nine States (California, Colorado, Kentucky, Maryland, Montana, Nevada, Utah, Wisconsin, and Wyoming), therefore, had the old-age pension system in operation in 1930. Inquiry as to the working of the system was made of the county authorities in all of these States except Wisconsin, the data for which were supplied to the Bureau of Labor Statistics by the State board of control. In addition data for the early part of 1931 were obtained for New York from the department of social welfare of that State.

Data are at hand from each of the nine States whose system was in force in 1930, covering 377 of the 461 counties. Of these 377 counties, 137 had adopted the pension plan and were, at the end of the year,

¹ Colorado, Kentucky, Maryland, Montana, Nevada, and Wisconsin.

² Called "aid" in California, "relief" in New York, and "assistance" in Massachusetts and Wisconsin.

³ Since the beginning of 1931 laws on this subject have been passed in Delaware, Idaho, New Jersey, and West Virginia; in Indiana such a law was passed but was vetoed by the Governor. For the provisions of the new laws of Idaho, West Virginia, and New Jersey, see p. 82.

caring for more than 10,300 persons, at an expenditure for 1930 of some \$1,700,000—an average of \$14.32 per pensioner. This is more than double the number of counties which had the system in 1928, more than ten times as many old people being cared for and more than eight times as much being expended for their relief as in 1928. Analysis of the figures shows, however, that this increase was due mainly to the spread of the plan to additional States and not to any great growth in the original pension States. Practically no headway has been made in Colorado, Kentucky, or Nevada. In Maryland, two jurisdictions, one of them containing the largest city in the State, have recently adopted the plan, and in Montana two additional counties have done so since 1928. The greatest gain over 1928 was shown in Wisconsin. Comparison of the data in the six States covered in both 1928 and 1930 reveals the fact that in those States the number of adopting counties increased by about one-ninth, the pensioners about doubled in number, and the amount spent in pensions increased not quite 50 per cent.

Certain defects in some of the State laws are revealed by the reports. One weakness is the failure to specify means by which the adopting counties may raise the necessary funds.⁴ The outstanding feature revealed, however, is the weakness of the "optional" law, especially where no measure of State aid is provided. Of the eight States having laws whose adoption is optional with the individual county, in only two do the adopting counties form as much as one-seventh of the total number of counties in the State, and in two States, notwithstanding that the laws have been on the books since 1926 and 1927, respectively, they form less than 2 per cent of the total. In Utah, 13 of 29 and in Montana 44 of 56 counties have put the pension system into operation. In Wisconsin, 8 of the 71 counties had adopted the scheme in 1930 and a ninth has recently joined them; in this State the county receives State aid to the extent of one-third of the cost.

A brighter side to the picture is seen in the fact that though only a small proportion of counties have adopted the plan these are in most instances the larger counties, so that their adoption carries with it protection for a proportionately larger section of the State population than their numbers would indicate.

The value of the mandatory plan has been recognized in Colorado, whose legislature has just amended the law of the State, making it mandatory instead of optional.⁵ However, the relative development of the old-age pension system in such "mandatory" States as Wyoming on the one hand and California and New York on the other seems to indicate that, regardless of whether the law is or is not mandatory, funds must be forthcoming before pensions can be paid, and that State aid imparts a great impetus toward the adoption and spread of the system.

The cost of the pension varies widely from State to State and county to county. Absolute figures, however, mean little in this connection. A better criterion is the annual per capita cost of pensions. Here again a wide variation is shown, the per capita cost ranging, by States, from 4 cents to \$1.35 per inhabitant. In three States the cost was around 25 cents, while in the oldest pension State of all the cost was 37 cents.

⁴ This has just been remedied in Wyoming by an amendment authorizing a tax on real estate, and in Minnesota by an amendment authorizing the transfer of money from other funds.

⁵ Effective January, 1932.

That the amount of pension granted does not tend to approach the maximum allowable is shown by the fact that in 1928 the average pension was \$17.37, while in 1930 it was \$14.32. In the six States for which data for both years are available the average pension fell from \$17.37 to \$13.57.

Summary data for 1930 are shown in Table 1; the 1931 experience of Minnesota and New York, as far as available, is also given.

TABLE 1.—SUMMARY OF OPERATION OF STATE OLD-AGE PENSION LAWS

| Year and State | Year of passage of law | Counties in State | | Counties having pension system | | | |
|-----------------|------------------------|-------------------|---------------------|--------------------------------|----------------------|--|--------------------------|
| | | Total number | Number reported for | Number | Number of pensioners | Average pension per month ¹ | Amount paid in pensions |
| 1930 | | | | | | | |
| California..... | 1929 | 58 | 58 | 58 | ² 7,205 | ³ \$15.63 | ⁴ \$1,296,455 |
| Colorado..... | 1927 | 63 | 57 | 1 | (⁵) | (⁵) | (⁵) |
| Kentucky..... | 1926 | 120 | 67 | 2 | 18 | 5.39 | 1,164 |
| Maryland..... | 1927 | 24 | 10 | 2 | ⁶ 12 | ⁶ 12.00 | ⁶ 1,800 |
| Montana..... | 1923 | 56 | 55 | 44 | ⁷ 889 | 14.09 | ² 149,100 |
| Nevada..... | 1925 | 17 | 13 | 2 | ⁶ 5 | ⁶ 25.00 | ⁶ 900 |
| Utah..... | 1929 | 29 | 25 | 13 | 1,107 | 7.37 | ⁸ 95,780 |
| Wisconsin..... | 1925 | 71 | 71 | ⁸ 8 | 989 | 13.19 | 156,510 |
| Wyoming..... | 1929 | ¹⁰ 23 | 21 | 7 | 11 82 | 13.21 | ¹² 12,679 |
| Total..... | | 461 | 377 | 137 | ¹³ 10,307 | 14.32 | ¹⁴ 1,714,388 |
| 1931 | | | | | | | |
| Minnesota..... | 1929 | 87 | 87 | 5 | | | |
| New York..... | 1930 | 62 | 62 | 62 | 32,437 | 27.48 | ¹⁵ 888,247 |

¹ Computed on basis of number of pensioners and amount spent in pensions.

² 42 counties.

³ A verage for 41 counties for which bureau has data as to number of pensioners and amount spent in pensions; State office gives \$22.56 as average pension for entire State.

⁴ 41 counties.

⁵ No pensions paid.

⁶ 1 county.

⁷ 43 counties.

⁸ 12 counties.

⁹ A ninth county has adopted the system since the beginning of 1931.

¹⁰ Not including Yellowstone Park.

¹¹ 6 counties.

¹² 5 counties.

¹³ 116 counties.

¹⁴ 112 counties.

¹⁵ 4 months' expenditures.

The details of the study are given in the following sections.

Provisions of the Laws in Effect at End of 1930

THERE is a good deal of similarity in the old-age pension laws. Usually the applicant must have reached a certain age (65 in Maryland, Nevada, Utah, and Wyoming, and 70 in California, Colorado,⁶ Kentucky, Massachusetts, Minnesota, Montana, New York, and Wisconsin) and have lived a certain length of time in county or State or both.

No pension may be paid to persons having more than a specified amount of property (\$3,000 in California, Colorado, Maryland, Minnesota, Nevada, and Wisconsin, and \$2,500 in Kentucky) or income per year (\$300 in Montana and Utah, \$360 in Wyoming, and

⁶ Lowered to 65 by a 1931 amendment.

\$400 in Kentucky). Certain classes (such as criminals, vagrants, deserters of families, etc.) are barred by practically all of the laws.

The pension granted may not exceed \$1 per day in California, Colorado, Maryland, Minnesota, Nevada, and Wisconsin, \$25 per month in Montana and Utah, \$30 per month in Wyoming, and \$250 a year in Kentucky.

In all but four States the cost must be borne entirely by the county. In Massachusetts and Wisconsin the State pays one-third of the cost and in California and New York the State bears one-half of the cost.

Extent of Adoption of Pension System

THE pension systems have met with varying degrees of success in their acceptance by the people of the State. Table 2 divides the States according to whether the law is voluntary or mandatory in form, and shows for each State the proportion of the population in those counties which have adopted the old-age pension system. Some of the laws are clearly mandatory and others are clearly optional. There was, however, some doubt as to the laws of Montana, Utah, and Wyoming, and inquiry was therefore made of the governors of those States as to how the law should be classified.

That it is mainly the larger counties which are voluntarily adopting the system is shown in the three States of Maryland, Minnesota, and Wisconsin. In Maryland though only 2 of the 24 counties have thus far voted to accept the system, these contain slightly more than half of the entire population of the State. The 5 adopting counties (of a total of 87) in Minnesota have more than two-fifths of the population, and the 9 adopting counties (out of 71) in Wisconsin have 37.3 per cent of that State's population. In Montana (whose law has been on the statute books longer than that of any other State) 44 of the 56 counties have adopted the old-age pension system and more than three-fourths of the population of the State is under the coverage of the law. In Utah only 13 of the 29 counties have put the system into operation, but these contain nearly three-fourths of the whole population of the State. Almost negligible progress has been made in Colorado, Kentucky, and Nevada, although their laws have been in effect since 1927, 1926, and 1925, respectively. Some of the reports from Colorado express the hope that more progress will be made now that the law of that State has been made mandatory upon the counties.⁷

As would be expected, a much wider operation of the old-age pension system is found in the "mandatory" States. Nevertheless, even among these the case of Wyoming shows that even though a law may be said to be compulsory upon the counties, if the State contributes nothing and the counties have no funds for the purpose, the law remains inoperative. In Wyoming, however, an amendment to the law has just been passed which requires a specific levy for pension purposes and this, it is expected, will assist the spread of the system there. General acceptance of the system is found in California and New York; in both of these States part of the cost is borne by the State.

⁷ By action of the 1931 legislature.

TABLE 2.—EXTENT AND COVERAGE OF PENSION SYSTEM IN SPECIFIED STATES, BY TYPE OF LAW

| State and type of law | Population of State, 1930 | Number of counties in State | Counties having pension system ¹ | | |
|-----------------------|---------------------------|-----------------------------|---|------------|------------------------------|
| | | | Number | Population | Per cent of State population |
| <i>Voluntary</i> | | | | | |
| Colorado..... | 1,035,791 | 63 | 1 | 36,008 | 3.5 |
| Kentucky..... | 2,614,589 | 120 | 2 | 26,246 | 1.0 |
| Maryland..... | 1,631,526 | 24 | 2 | 823,457 | 50.5 |
| Minnesota..... | 2,563,953 | 87 | 5 | 1,067,702 | 41.6 |
| Montana..... | 537,606 | 56 | 44 | 411,602 | 76.6 |
| Nevada..... | 91,058 | 17 | 2 | 4,656 | 5.1 |
| Utah..... | 507,847 | 29 | 13 | 373,551 | 73.6 |
| Wisconsin..... | 2,939,006 | 71 | 9 | 1,097,277 | 37.3 |
| <i>Mandatory</i> | | | | | |
| California..... | 5,677,251 | 58 | 58 | 5,677,251 | 100.0 |
| New York..... | 12,588,066 | 62 | 62 | 12,588,066 | 100.0 |
| Wyoming..... | 225,565 | 23 | 7 | 78,868 | 35.0 |

¹ Includes also those which, although they have adopted the system, have not yet put it into effect.

Average Amount of Pension Paid

IN ALL States but New York and Massachusetts a maximum amount of pension is set which may in no case be exceeded. Subject to this limitation, the pension authorities fix the allowance on the basis of other income and of the pensioner's need.

The data collected show wide variation in the amounts actually granted. The most liberal State, from the point of view of the individual pension, appears to be New York, with Nevada coming second. California comes third. In Wisconsin and Wyoming the amounts granted are almost identical, while Kentucky and Utah are far behind.

Within the States, also, as Table 3 shows, there is a wide range of amounts. The second half of the table shows the distribution of the reporting counties in each State according to the size of the average pension.

TABLE 3.—AVERAGE AND RANGE OF PENSIONS, AND DISTRIBUTION OF COUNTIES BY SIZE OF PENSION PAID

| State | Average pension paid ¹ | Range of pensions paid | Number of counties in which average pension paid was— | | | | | | | Total |
|-----------------------------|-----------------------------------|------------------------|---|---------------------|---------------------|---------------------|---------------------|--------------|-------|-----------------|
| | | | Under \$10 | \$10 and under \$15 | \$15 and under \$20 | \$20 and under \$25 | \$25 and under \$30 | \$30 or over | | |
| California..... | ² \$15.63 | \$5.00—\$27.76 | 2 | 2 | 12 | 14 | 12 | ----- | ----- | ³ 42 |
| Kentucky..... | 5.39 | 5.00—12.00 | 1 | 1 | ----- | ----- | ----- | ----- | ----- | 2 |
| Maryland..... | 12.00 | 12.00 | ----- | 1 | ----- | ----- | ----- | ----- | ----- | 1 |
| Montana..... | 14.09 | 8.72—25.00 | 1 | 14 | 18 | 4 | 6 | ----- | ----- | 43 |
| Nevada..... | 25.00 | 25.00 | ----- | ----- | ----- | ----- | 1 | ----- | ----- | 1 |
| New York ⁴ | 27.48 | 13.75—33.91 | ----- | 3 | 35 | 29 | 10 | 2 | ----- | 67 |
| Utah..... | 7.37 | 4.00—15.00 | 7 | 5 | 1 | ----- | ----- | ----- | ----- | 13 |
| Wisconsin..... | 13.19 | 9.78—18.90 | 1 | 5 | 2 | ----- | ----- | ----- | ----- | 8 |
| Wyoming..... | 12.10 | 13.50—16.66 | ----- | 2 | 4 | ----- | ----- | ----- | ----- | 6 |
| Total..... | ----- | ----- | 12 | 33 | 72 | 47 | 29 | 2 | ----- | 195 |
| Per cent..... | ----- | ----- | 6.2 | 16.9 | 36.9 | 24.1 | 14.9 | 1.0 | ----- | 100.0 |

¹ Computed on basis of number of pensioners and amount paid in pensions.

² Average for counties reporting; State office gives \$22.56 as average pension for entire State.

³ Not including 2 which paid no pensions.

⁴ Not including 1 which paid no pensions.

⁵ Data for 1931.

⁶ County and city welfare districts.

Cost of Pensions

THE details of number of pensioners and cost are shown, by county, in Table 4. A wide range is shown both in average pension and in per capita cost.

It is seen that in most cases the pensioners form a very small part of the population of the county, usually less than one-half of 1 per cent. In individual counties, however, the proportion runs up above the general level, California even having two counties and Montana having one county in which the pensioners form over 1 per cent of the county population.

As regards per capita cost, the lowest State average is found in Kentucky where, in 1930, old-age pensions (in the two counties which had the system in operation) cost only 4 cents per inhabitant. At the other end of the scale is Nevada (one county only) where the cost was \$1.35 per inhabitant. The cost in the three States of California, Utah, and Wyoming was about 25 cents per capita, while in Montana, where the system has been in operation long enough for it to have become fairly stable, the per capita cost in 1930 was 37 cents. Certain counties show pensioners and costs out of all proportion to the general picture, but these were undoubtedly caused by special local conditions.

TABLE 4.—NUMBER OF PENSIONERS AND COST OF PENSIONS, 1930, BY STATE AND COUNTY

| State and county | Popula- tion, 1930 | Pensioners | | Aver- age pen- sion per month | Pensions paid, 1930 | |
|-------------------|-----------------------|-------------|-----------------------------------|--|---------------------|--|
| | | Num- ber | Per cent of popula- tion | | Amount | Annual cost per capita of popula- tion |
| <i>California</i> | | | | | | |
| Alameda..... | 474, 883 | 946 | 0.20 | \$25.00 | \$260,000.00 | \$0.55 |
| Alpine..... | 241 | (1) | ----- | (1) | (1) | ----- |
| Amador..... | 8,494 | 61 | .72 | 15.00 | 4,050.16 | .48 |
| Butte..... | 34,093 | 282 | .83 | 15.00 | 28,725.00 | .84 |
| Calaveras..... | 6,008 | 38 | .63 | 20.00 | 2,178.00 | .36 |
| Colusa..... | 10,258 | 60 | .58 | 17.45 | 5,825.66 | .57 |
| Contra Costa..... | 78,608 | 94 | .12 | 23.00 | 20,622.60 | .26 |
| Eldorado..... | 8,325 | 155 | 1.86 | 20.00 | 27,460.00 | 3.30 |
| Glenn..... | 10,935 | 44 | .40 | 17.27 | 7,599.19 | .70 |
| Imperial..... | 60,903 | 9 | .01 | 25.00 | 1,590.00 | .03 |
| Inyo..... | 6,555 | 21 | .32 | 27.76 | 3,912.00 | .60 |
| Lake..... | 7,166 | 21 | .29 | 20.00 | 5,293.00 | .74 |
| Lassen..... | 12,589 | 40 | .32 | 22.00 | 4,084.92 | .32 |
| Los Angeles..... | 2,208,492 | 1,681 | .08 | 25.36 | 416,913.36 | .10 |
| Madera..... | 17,164 | 47 | .27 | 15.00 | 6,373.78 | .39 |
| Marin..... | 41,648 | 52 | .12 | 21.00 | 12,697.00 | .30 |
| Mendocino..... | 23,505 | 92 | .39 | 15.00 | 9,486.00 | .40 |
| Merced..... | 36,748 | 20 | .05 | 18.00 | 1,022.35 | .03 |
| Modoc..... | 8,038 | 12 | .15 | 25.00 | 300.00 | .04 |
| Mono..... | 1,360 | 3 | .22 | 25.00 | 650.00 | .48 |
| Napa..... | 22,897 | (1) | ----- | (1) | (1) | ----- |
| Nevada..... | 10,596 | 68 | .64 | 22.06 | 4,12,000.00 | 1.70 |
| Orange..... | 118,674 | 115 | .10 | 20.00 | 18,398.64 | .16 |
| Placer..... | 24,468 | 110 | .45 | 12.00 | 24,511.00 | 1.00 |
| Plumas..... | 7,913 | 19 | .24 | 18.00 | 4,100.00 | .52 |
| Riverside..... | 81,024 | 68 | .08 | 24.26 | 10,000.00 | .12 |

¹ No pensions paid in 1930.

² Computed on basis of number of pensioners and amount paid in pensions.

³ Year ending in February, 1931.

⁴ 8 months.

⁵ Year ending Apr. 1, 1931.

PUBLIC OLD-AGE PENSIONS

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TABLE 4.—NUMBER OF PENSIONERS AND COST OF PENSIONS, 1930, BY STATE AND COUNTY—Continued

| State and county | Popula- tion, 1930 | Pensioners | | Average pen- sion per month | Pensions paid, 1930 | |
|-----------------------------|-----------------------|-------------|-----------------------------------|--------------------------------------|---------------------|--|
| | | Num- ber | Per cent of popu- lation | | Amount | Annual cost per capita of popu- lation |
| <i>California—Continued</i> | | | | | | |
| Sacramento..... | 141,999 | 450 | 0.32 | \$25.00 | \$44,433.00 | \$0.31 |
| San Benito..... | 11,311 | 12 | .11 | 23.80 | 3,426.00 | .30 |
| San Diego..... | 209,659 | 350 | .17 | 25.00 | 6 30,075.00 | .29 |
| San Francisco..... | 634,394 | 861 | .14 | 27.30 | 116,409.00 | .18 |
| San Luis Obispo..... | 29,613 | 80 | .27 | 25.00 | 7 22,384.00 | .64 |
| San Mateo..... | 77,405 | 80 | .10 | 5.00 | 4,000.00 | .05 |
| Santa Barbara..... | 65,167 | 82 | .13 | 25.00 | 3,275.50 | .05 |
| Santa Clara..... | 145,118 | 307 | .21 | 22.50 | 26,212.02 | .18 |
| Shasta..... | 13,927 | 250 | 1.79 | 20.00 | 60,000.00 | 4.31 |
| Sierra..... | 2,422 | 11 | .45 | 9.90 | 1,305.00 | .54 |
| Siskiyou..... | 25,480 | 70 | .28 | 15.00 | (8) | ----- |
| Solano..... | 40,834 | 66 | .16 | 21.30 | 10,478.21 | .26 |
| Sonoma..... | 62,222 | 136 | .22 | 17.32 | 6 10,326.00 | .33 |
| Stanislaus..... | 56,641 | 94 | .17 | 19.00 | 13,404.00 | .24 |
| Tehama..... | 13,866 | 59 | .43 | 10.00 | 5,507.00 | .40 |
| Tulare..... | 77,442 | 113 | .15 | 22.75 | 27,000.00 | .35 |
| Tuolumne..... | 9,271 | 60 | .65 | 15.00 | 900.00 | .10 |
| Ventura..... | 54,976 | 66 | .12 | 25.00 | 29,527.96 | .54 |
| Total (44)..... | 4,993,332 | 7,205 | 0.15 | 15.63 | 1,296,455.35 | 10.27 |
| <i>Colorado</i> | | | | | | |
| Las Animas..... | 36,008 | (11) | ----- | ----- | (11) | ----- |
| Total (1)..... | 36,008 | (11) | ----- | ----- | (11) | ----- |
| <i>Kentucky</i> | | | | | | |
| Calloway..... | 17,662 | 17 | .10 | 5.00 | 1,020.00 | .06 |
| Martin..... | 8,584 | 1 | .01 | 12.00 | 144.00 | .02 |
| Total (2)..... | 26,246 | 18 | 0.07 | 5.39 | 1,164.00 | 10.04 |
| <i>Maryland</i> | | | | | | |
| Baltimore (city)..... | 804,874 | (1) | ----- | ----- | (1) | ----- |
| Talbot..... | 18,583 | 12 | .06 | 12.00 | 1,800.00 | .10 |
| Total (2)..... | 823,457 | 12 | 0.06 | 12.00 | 1,800.00 | 10.10 |
| <i>Minnesota</i> | | | | | | |
| Blue Earth..... | 33,847 | (1) | ----- | (1) | (1) | ----- |
| Hennepin..... | 517,785 | 11 | ----- | (1) | (1) | ----- |
| Ramsay..... | 286,721 | (1) | ----- | (1) | (1) | ----- |
| St. Louis..... | 204,596 | (1) | ----- | (1) | (1) | ----- |
| Washington..... | 24,753 | (1) | ----- | (1) | (1) | ----- |
| Total (5)..... | 1,067,702 | 11 | ----- | (1) | (1) | ----- |
| <i>Montana</i> | | | | | | |
| Beaverhead..... | 6,654 | 16 | .24 | 25.00 | 5,600.00 | .84 |
| Big Horn..... | 8,543 | 3 | .04 | 15.00 | 225.00 | .03 |
| Blaine..... | 9,006 | 9 | .10 | 15.00 | 1,800.00 | .20 |
| Carbon..... | 12,571 | 21 | .17 | 15.00 | 3,322.50 | .26 |
| Carter..... | 4,136 | 4 | .10 | 10.00 | 205.00 | .05 |
| Cascade..... | 41,146 | 67 | .16 | 20.00 | 12,000.00 | .29 |
| Daniels..... | 5,553 | 7 | .13 | 14.00 | 1,800.00 | .32 |
| Dawson..... | 9,881 | 17 | .17 | 12.48 | 2,545.00 | .26 |
| Deerlodge..... | 16,293 | 33 | .20 | 15.00 | 5,685.00 | .35 |
| Fallon..... | 4,568 | 3 | .07 | 15.83 | 550.00 | .12 |

1 No pensions paid in 1930.

2 Computed on basis of number of pensioners and amount paid in pensions.

6 6 months.

7 15 months ending Mar. 1, 1931.

8 Not reported.

9 Based upon counties reporting pensioners.

10 Based upon counties reporting amount spent in pensions.

11 System does not go into effect until Jan. 1, 1932.

TABLE 4.—NUMBER OF PENSIONERS AND COST OF PENSIONS, 1930, BY STATE AND COUNTY—Continued

| State and county | Population, 1930 | Pensioners | | Average pension month | Pensions paid, 1930 | |
|------------------------------|-----------------------|------------------|------------------------|-----------------------|------------------------|--------------------------------------|
| | | Number | Per cent of population | | Amount | Annual cost per capita of population |
| <i>Montana—Continued</i> | | | | | | |
| Flathead..... | 19,200 | 63 | 0.33 | \$11.11 | \$8,467.00 | \$0.44 |
| Gallatin..... | 16,124 | 24 | .15 | 12.50 | 3,698.27 | .23 |
| Garfield..... | 4,252 | 6 | .14 | ² 16.00 | 1,062.50 | .25 |
| Glacier..... | 5,297 | 9 | .17 | 20.00 | 1,405.00 | .27 |
| Golden Valley..... | 2,126 | 8 | .38 | ² 11.46 | 1,100.00 | .52 |
| Granite..... | 3,013 | 18 | .60 | ² 14.00 | ¹² 2,855.00 | .95 |
| Hill..... | 13,775 | 24 | .17 | ² 12.19 | 3,510.00 | .25 |
| Jefferson..... | 4,133 | 50 | 1.21 | 12.50 | 6,957.50 | 1.68 |
| Judith Basin..... | 5,238 | 1 | .02 | 25.00 | 300.00 | .06 |
| Lake..... | 9,541 | 8 | .08 | 14.52 | 1,350.00 | .14 |
| Lewis and Clark..... | 18,224 | 96 | .53 | 13.94 | 16,056.00 | .88 |
| Liberty..... | 2,198 | 7 | .32 | 25.00 | 2,000.00 | .91 |
| Lincoln..... | 7,089 | 22 | .31 | 18.00 | 4,327.00 | .61 |
| McCone..... | 4,790 | (¹) | | | (¹) | |
| Meagher..... | 2,272 | 10 | .44 | ² 18.54 | 2,225.00 | .98 |
| Mineral..... | 1,626 | 15 | .92 | ² 8.72 | 1,569.00 | .96 |
| Musselshell..... | 7,242 | 19 | .26 | 15.65 | 2,600.00 | .36 |
| Park..... | 10,922 | 12 | .11 | 15.00 | 2,000.00 | .18 |
| Petroleum..... | 2,045 | 7 | .34 | { 15.00 20.00 } | (⁸) | |
| Powell..... | 6,202 | 24 | .39 | 15.00 | 3,495.00 | .56 |
| Prairie..... | 3,941 | 6 | .15 | ² 14.25 | 1,025.00 | .26 |
| Ravalli..... | 10,315 | 55 | .53 | ² 11.82 | 7,036.00 | .68 |
| Richland..... | 9,633 | 3 | .03 | 14.00 | 272.00 | .03 |
| Roosevelt..... | 10,672 | 3 | .03 | 25.00 | 900.00 | .08 |
| Rosebud..... | 7,347 | 12 | .16 | 21.25 | 3,240.00 | .44 |
| Sanders..... | 5,692 | 24 | .42 | 15.00 | 4,252.00 | .75 |
| Sheridan..... | 9,869 | 16 | .16 | 15.00 | 2,500.00 | .25 |
| Silver Bow..... | 56,969 | 107 | .19 | 15.00 | 19,100.25 | .34 |
| Stillwater..... | 6,253 | 10 | .16 | 25.00 | 1,620.00 | .26 |
| Sweet Grass..... | 3,944 | 5 | .13 | 15.00 | 845.00 | .21 |
| Toole..... | 6,714 | 15 | .22 | 25.00 | 3,275.00 | .49 |
| Treasure..... | 1,661 | 1 | .06 | 15.00 | 180.00 | .11 |
| Valley..... | 11,181 | ¹³ 18 | ¹³ 1.6 | ¹³ 21.70 | ¹³ 4,690.00 | ¹³ .42 |
| Wheatland..... | 3,751 | 11 | .29 | 15.00 | 1,515.00 | .40 |
| Total (44)..... | 411,602 | 889 | 9.22 | ² 14.09 | 149,100.02 | 10.37 |
| <i>Nevada</i> | | | | | | |
| Nye..... | 3,989 | (¹) | (¹) | (¹) | (¹) | |
| Storey..... | 667 | 5 | .75 | 25.00 | 900.00 | 1.35 |
| Total (2)..... | 4,656 | 5 | 9.75 | 25.00 | 900.00 | ¹⁰ 1.35 |
| <i>New York¹⁴</i> | | | | | | |
| Albany..... | 211,953 | 685 | .32 | 23.16 | | |
| Allegany..... | 38,025 | 71 | .19 | 17.61 | | |
| Broome..... | ¹⁵ 104,443 | 366 | .35 | 23.57 | | |
| Union..... | 42,579 | 56 | .13 | 20.89 | | |
| Cattaraugus..... | 72,398 | 263 | .36 | 18.17 | | |
| Cayuga..... | 64,751 | 294 | .45 | 14.94 | | |
| Chautauqua..... | ¹⁵ 63,500 | 258 | .41 | 14.44 | | |
| Dunkirk..... | 17,802 | 38 | .21 | 22.18 | | |
| Jamestown..... | 45,155 | 78 | .17 | 20.60 | | |
| Chemung..... | ¹⁵ 27,283 | 180 | .66 | 19.45 | | |
| Elmira..... | 47,397 | 140 | .30 | 24.34 | | |
| Chenango..... | ¹⁵ 26,287 | 199 | .76 | 15.46 | | |
| Norwich..... | 8,378 | 43 | .51 | 17.58 | | |
| Clinton..... | ¹⁵ 33,338 | 184 | .55 | 15.31 | | |
| Plattsburg..... | 13,349 | 40 | .30 | 16.45 | | |
| Columbia..... | 41,716 | 229 | .55 | 23.03 | | |

¹ No pensions paid in 1930.

² Computed on basis of number of pensioners and amount paid in pensions.

⁸ Not reported.

⁹ Based upon counties reporting pensioners.

¹⁰ Based upon counties reporting amount spent in pensions.

¹² Year ending Jan. 31, 1931.

¹³ Year ending July, 1930.

¹⁴ Data are as of May 1, 1931.

¹⁵ Population of city or cities named.

PUBLIC OLD-AGE PENSIONS

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TABLE 4.—NUMBER OF PENSIONERS AND COST OF PENSIONS, 1930, BY STATE AND COUNTY—Continued

| State and county | Popula- tion, 1930 | Pensioners | | Average pen- sion per month | Pensions paid, 1930 | |
|----------------------------------|-----------------------|-------------|-----------------------------------|--------------------------------------|---------------------|--|
| | | Num- ber | Per cent of popu- lation | | Amount | Annual cost per capita of popu- lation |
| <i>New York—Continued</i> | | | | | | |
| Cortland..... | 15 16,666 | 51 | .31 | 16.96 | | |
| Cortland..... | 15,043 | 48 | .32 | 21.44 | | |
| Delaware..... | 41,163 | 272 | .66 | 17.85 | | |
| Dutchess..... | 15 53,241 | 266 | .60 | 18.85 | | |
| Beacon..... | 11,933 | 73 | .61 | 21.32 | | |
| Poughkeepsie..... | 40,288 | 204 | .61 | 25.77 | | |
| Erie..... | 762,408 | 551 | .07 | 25.51 | | |
| Essex..... | 33,959 | 255 | .75 | 18.18 | | |
| Franklin..... | 45,694 | 364 | .80 | 16.18 | | |
| Fulton..... | 46,560 | 254 | .55 | 18.48 | | |
| Genesee..... | 15 27,093 | 73 | .27 | 18.08 | | |
| Batavia..... | 17,375 | 63 | .36 | 18.94 | | |
| Greene..... | 25,808 | 135 | .52 | 17.47 | | |
| Hamilton..... | 3,929 | 10 | .25 | 27.00 | | |
| Herkimer..... | 64,006 | 173 | .27 | 17.11 | | |
| Jefferson..... | 83,574 | 495 | .59 | 16.48 | | |
| Lewis..... | 23,447 | 113 | .48 | 18.81 | | |
| Livingston..... | 37,560 | 89 | .23 | 16.96 | | |
| Madison..... | 39,790 | 190 | .48 | 17.97 | | |
| Monroe..... | 423,881 | 644 | .15 | 28.25 | | |
| Montgomery..... | 60,076 | 201 | .33 | 18.20 | | |
| Nassau..... | 303,053 | 425 | .14 | 26.36 | | |
| New York (greater New York)..... | 6,930,446 | 15,878 | .23 | 33.91 | | |
| Niagara..... | 15 126,169 | 218 | .17 | 20.09 | | |
| Lockport..... | 23,160 | 104 | .45 | 22.13 | | |
| Oneida..... | 15196,613 | 407 | .21 | 21.83 | | |
| Sherrill..... | 2,150 | 1 | .05 | 15.00 | | |
| Onondaga..... | 15 82,280 | 225 | .27 | 21.18 | | |
| Syracuse..... | 209,326 | 419 | .20 | 24.37 | | |
| Ontario..... | 54,276 | 232 | .43 | 15.06 | | |
| Orange..... | 15 99,108 | 512 | .52 | 24.93 | | |
| Newburgh..... | 31,275 | 181 | .58 | 19.92 | | |
| Orleans..... | 28,795 | 129 | .45 | 17.85 | | |
| Oswego..... | 15 34,531 | 248 | .72 | 17.21 | | |
| Fulton..... | 12,462 | 79 | .63 | 20.34 | | |
| Oswego..... | 22,652 | 129 | .57 | 23.64 | | |
| Otsego..... | 46,710 | 269 | .58 | 18.86 | | |
| Putnam..... | 13,744 | 42 | .31 | 30.14 | | |
| Rensselaer..... | 119,781 | 742 | .62 | 26.06 | | |
| Rockland..... | 59,599 | 148 | .25 | 25.17 | | |
| St. Lawrence..... | 90,960 | 377 | .41 | 22.16 | | |
| Saratoga..... | 50,145 | 327 | .65 | 23.49 | | |
| Saratoga Springs..... | 13,169 | 73 | .55 | 18.00 | | |
| Schenectady..... | 29,329 | 80 | .27 | 23.59 | | |
| Schenectady..... | 95,692 | 176 | .18 | 27.36 | | |
| Schoharie..... | 19,667 | 149 | .76 | 13.75 | | |
| Schuyler..... | 12,909 | 98 | .76 | 21.51 | | |
| Seneca..... | 24,983 | 157 | .63 | 20.37 | | |
| Steuben..... | 82,671 | 466 | .56 | 15.58 | | |
| Suffolk..... | 161,055 | 187 | .12 | 20.36 | | |
| Sullivan..... | 35,272 | 102 | .29 | 22.83 | | |
| Tioga..... | 25,480 | 251 | .98 | 19.83 | | |
| Tompkins..... | 20,782 | 98 | .47 | 22.92 | | |
| Ithaca..... | 20,708 | 116 | .56 | 27.13 | | |
| Ulster..... | 52,067 | 357 | .69 | 18.10 | | |
| Kingston..... | 28,088 | 127 | .45 | 24.34 | | |
| Warren..... | 15,643 | 100 | .64 | 18.84 | | |
| Glens Falls..... | 18,531 | 55 | .30 | 22.96 | | |
| Washington..... | 46,482 | 244 | .52 | 21.03 | | |
| Wayne..... | 49,995 | 277 | .55 | 19.06 | | |
| Westchester..... | 520,947 | 348 | .07 | 28.95 | | |
| Wyoming..... | 28,764 | 109 | .38 | 15.28 | | |
| Yates..... | 16,848 | 127 | .75 | 22.08 | | |
| Total (79 15)..... | 12,588,066 | 23,437 | .26 | 27.48 | | |

⁹ Based upon counties reporting number of pensioners.¹⁵ Population, exclusive of city or cities named.¹⁶ County and city welfare districts.

TABLE 4.—NUMBER OF PENSIONERS AND COST OF PENSIONS, 1930, BY STATE AND COUNTY—Continued

| State and county | Popu- lation, 1930 | Pensioners | | Aver- age pen- sion per month | Pensions paid, 1930 | |
|------------------|--------------------------|-------------------|-----------------------------------|--|-------------------------|--|
| | | Num- ber | Per cent of pop- ulation | | Amount | Annual cost per capita of pop- ulation |
| <i>Utah</i> | | | | | | |
| Beaver..... | 5,136 | 20 | 0.39 | \$11.50 | \$2,260.00 | \$0.44 |
| Carbon..... | 17,798 | 20 | .11 | 15.00 | 1,985.00 | .11 |
| Duchesne..... | 8,263 | 4 | .05 | 10.00 | (1) | ----- |
| Garfield..... | 4,642 | 15 | .32 | ² 6.18 | 1,115.00 | .24 |
| Grand..... | 1,813 | 10 | .55 | 10.00 | 1,135.00 | .63 |
| Juab..... | 8,605 | 42 | .49 | 9.47 | 4,051.50 | .47 |
| Millard..... | 9,945 | 15 | .15 | 7.25 | 1,200.00 | .12 |
| Morgan..... | 2,536 | 5 | .20 | 10.00 | 120.00 | .05 |
| Salt Lake..... | 194,102 | 642 | .33 | 10.00 | 17,54,282.13 | .28 |
| San Juan..... | 3,496 | 3 | .09 | 7.50 | 270.00 | .08 |
| Sanpete..... | 16,022 | 34 | .21 | 4.00 | 15,625.50 | .09 |
| Utah..... | 49,021 | 168 | .34 | 9.51 | 15,610.00 | .32 |
| Weber..... | 52,172 | 129 | .25 | 9.00 | 13,125.50 | .25 |
| Total (13)..... | 373,551 | 1,107 | ⁹ .30 | ² 7.37 | 95,779.63 | ¹⁰ .26 |
| <i>Wisconsin</i> | | | | | | |
| Douglas..... | 46,583 | (1) | ----- | ----- | (1) | ----- |
| Kenosha..... | 63,277 | 55 | .09 | ² 14.14 | 9,995.00 | .16 |
| La Crosse..... | 54,455 | 190 | .35 | ² 14.26 | 32,517.36 | .60 |
| Langlade..... | 21,544 | 38 | .18 | ² 14.15 | 6,454.00 | .30 |
| Milwaukee..... | 725,263 | ¹⁹ 387 | .05 | ² 11.79 | ¹⁹ 54,772.86 | .08 |
| Outagamie..... | 62,790 | 139 | .22 | ² 14.34 | 23,931.50 | .38 |
| Sawyer..... | 8,878 | 23 | .26 | ² 18.90 | 5,217.00 | .59 |
| Winnebago..... | 76,622 | 96 | .13 | ² 9.78 | 11,222.00 | .15 |
| Wood..... | 37,865 | 61 | .16 | ² 16.94 | 12,400.00 | .33 |
| Total (9)..... | 1,097,277 | 989 | ⁹ .09 | ² 13.19 | 156,509.72 | ¹⁰ .15 |
| <i>Wyoming</i> | | | | | | |
| Albany..... | 12,041 | 4 | .03 | 16.66 | 460.00 | .04 |
| Big Horn..... | 11,222 | 28 | .25 | 13.50 | 9,012.55 | .08 |
| Fremont..... | 10,490 | 24 | .23 | 15.00 | 1,780.00 | .17 |
| Laramie..... | 26,845 | (1) | ----- | ----- | (1) | ----- |
| Platte..... | 9,695 | 4 | .04 | 15.50 | 372.00 | .04 |
| Teton..... | 2,003 | 2 | .10 | 15.00 | (1) | (1) |
| Uinta..... | 6,572 | 20 | .30 | 12.10 | 1,054.00 | .16 |
| Total (7)..... | 78,868 | 82 | ⁹ .16 | ² 13.21 | 12,678.55 | ¹⁰ .25 |

¹ No pensions paid in 1930.² Computed on basis of number of pensioners and amount paid in pensions.⁹ Based upon counties reporting pensioners.¹⁰ Based upon counties reporting amount spent in pensions.¹⁷ Year ending November, 1930.¹⁸ 5 months.¹⁹ Preliminary figures, subject to slight revision.

Table 5 shows for counties for which the bureau has comparable data, the proportion of pensioners and the per capita cost in 1930 and in 1928 when the bureau's previous survey was made.

Of the 45 counties covered by the table, in 33 the proportion of pensioners had increased in 1930 as compared with 1928, in 8 it had decreased, in 2 there was no change, while in 2 counties no persons were aided in 1930.

Per capita costs rose in 29 counties, declined in 11 counties, and showed no change in 2 counties. In most cases the increase in costs was very slight, but in 9 counties the cost more than doubled.

TABLE 5.—PER CENT OF PENSIONERS AND PER CAPITA COST OF PENSIONS, 1928 AND 1930

| State and county | Per cent pensioners formed of population | | Per capita cost | | State and county | Per cent pensioners formed of population | | Per capita cost | |
|-------------------------|--|------|-----------------|--------|--------------------|--|-------|-----------------|------------------|
| | 1928 | 1930 | 1928 | 1930 | | 1928 | 1930 | 1928 | 1930 |
| Kentucky: Calloway..... | 0.17 | 0.10 | \$0.41 | \$0.06 | Montana—Continued. | | | | |
| Montana: | | | | | Musselshell..... | 0.14 | 0.26 | \$0.24 | \$0.36 |
| Beaverhead..... | .21 | .24 | .63 | .84 | Park..... | .15 | .11 | .31 | .18 |
| Blaine..... | .04 | .10 | .08 | .20 | Petroleum..... | .15 | .34 | .32 | ----- |
| Carbon..... | .21 | .17 | .34 | .26 | Powell..... | .21 | .39 | .38 | .56 |
| Cascade..... | .12 | .16 | .27 | .29 | Prairie..... | .08 | .15 | .17 | .26 |
| Custer..... | .31 | (1) | .56 | (1) | Ravalli..... | .30 | .53 | .60 | .68 |
| Daniels..... | .07 | .13 | .16 | .32 | Richland..... | .02 | .03 | .05 | .03 |
| Dawson..... | .13 | .17 | .29 | .26 | Roosevelt..... | .01 | .03 | .03 | .08 |
| Fallon..... | .04 | .07 | .10 | .12 | Rosebud..... | .23 | .16 | .59 | .44 |
| Flathead..... | .15 | .33 | .29 | .44 | Sanders..... | .35 | .42 | .73 | .75 |
| Gallatin..... | .14 | .15 | .24 | .23 | Silver Bow..... | .18 | .19 | .35 | .34 |
| Glacier..... | .06 | .17 | .17 | .27 | Stillwater..... | .03 | .16 | .10 | .26 |
| Golden Valley..... | .47 | .38 | .51 | .52 | Sweet Grass..... | .15 | .13 | .27 | .21 |
| Granite..... | .63 | .60 | .93 | .95 | Toole..... | .09 | .22 | .21 | .49 |
| Hill..... | .05 | .17 | .10 | .25 | Treasure..... | .06 | .06 | .11 | .11 |
| Jefferson..... | .82 | 1.21 | 1.23 | 1.68 | Valley..... | .18 | .16 | .54 | .42 |
| Judith Basin..... | .02 | .02 | .06 | .06 | Wheatland..... | .19 | .29 | .34 | .40 |
| Lake..... | .07 | .08 | .12 | .14 | Nevada: Nye..... | .28 | ----- | .42 | ----- |
| Lewis and Clark..... | .48 | .53 | .86 | .88 | Wisconsin: | | | | |
| Liberty..... | .14 | .32 | .41 | .91 | La Crosse..... | .25 | .35 | .29 | ² .60 |
| Lincoln..... | .25 | .31 | .68 | .61 | Outagamie..... | .15 | .22 | .18 | ² .38 |
| Meagher..... | .31 | .44 | .92 | .98 | Sawyer..... | .24 | .26 | .38 | ² .59 |
| Mineral..... | .43 | .92 | .77 | .96 | Wood..... | .10 | .16 | .11 | ² .33 |

¹ System discontinued.² One-third paid by State.

Table 6 shows aggregate figures for those States whose pension laws were in operation as early as 1928. It shows that the number of adopting counties increased by about one-ninth in the 2-year interval, the number of pensioners nearly doubled, and the amount spent in pensions rose about 50 per cent.

TABLE 6.—COMPARATIVE DEVELOPMENT OF OLD-AGE PENSION SYSTEMS, 1928 AND 1930, BY STATES

| State | Number of counties with pension system | | Number of pensioners | | Amount spent in pensions | | Average pension | |
|----------------|--|------|----------------------|--------------------|--------------------------|----------------------|-----------------|--------|
| | 1928 | 1930 | 1928 | 1930 | 1928 | 1930 | 1928 | 1930 |
| Colorado..... | 1 | 1 | 1 | ----- | \$120 | ----- | \$10.00 | ----- |
| Kentucky..... | 3 | 2 | 1 30 | 18 | ² 8,064 | \$1,164 | 20.00 | \$5.39 |
| Maryland..... | ----- | 2 | ----- | ¹ 12 | ----- | ¹ 1,800 | ----- | 12.00 |
| Montana..... | 42 | 44 | 666 | ³ 889 | 132,575 | ⁴ 149,100 | 16.59 | 14.09 |
| Nevada..... | 2 | 2 | 1 11 | 1 5 | 1 1,680 | 1 900 | 15.00 | 25.00 |
| Wisconsin..... | 5 | 8 | 295 | 989 | 66,185 | 156,510 | 19.20 | 13.19 |
| Total..... | 53 | 59 | ⁵ 1,003 | ⁶ 1,913 | ⁷ 208,624 | ⁸ 309,474 | 17.37 | 13.57 |

¹ 1 county.² 2 counties.³ 43 counties.⁴ 42 counties.⁵ 50 counties.⁶ 55 counties.⁷ 51 counties.⁸ 54 counties.

Pension Situation in Individual States

California.—Although the California law has been in effect only a little over a year, it is mandatory and has been put into force over practically the entire State.

Most of the reports express satisfaction with the results of the law thus far, but a number of others show the counties as still reserving judgment on the subject. Certain minor difficulties are noted, such as difficulty in obtaining proof of age or of marriage.

One report points out that under the practice in that county the amount of aid allowed is determined from the amount earned during the 12 months previous to application. "Some of the applicants who earned the maximum amount of \$1 per day for the 12 months previous are, at the time of applying, down and out, but are not allowed the pension until they are down and outers for one year. I do not think this is so good."

Another is of the opinion that the maximum is insufficient, and another that it is "too low for some types of persons and communities."

One county welfare agent is of the opinion that the amount paid out in aid the past year was unusually large due to economic conditions; "under ordinary conditions the children of many of these old people could assist them without outside assistance."

Several reports express the feeling, noted also in reports from other States, that the law enables the children to evade their responsibility for the support of the parents, others that the law permits payment of aid to undeserving and shiftless persons. Another adds that not only do relatives feel relieved of responsibility, but employers, also, "no longer keep elderly persons on the pay roll, expecting public funds to provide. A social insurance system would work out a much sounder public policy, it seems." Another, expressing the opinion that the present form of aid under the law discourages thrift, suggests that "A form of insurance whereby an individual during years of earning ability should contribute to a fund from which he may derive benefits when incapacitated, would be satisfactory."

Colorado.—As Table 6 shows, almost no progress has been made in Colorado in respect to putting the old-age pension law into effect, although the law was passed in 1927. One report stated, "the law in Colorado is merely a name," and another expressed the opinion that the "Federal or State Government must supervise this for it to be a success." The counties are caring for their poor either at the almshouse or through the poor fund. One report expressed the opinion that the present law offers no advantage over the old system. "Where adopted it requires making an extra levy for that purpose, making one more fund for the county treasurer to make distribution of the proportionate amount of all tax collections, and serves no purpose that could not be taken care of from the poor fund."

As the 1931 legislature has passed an amendment to the law, making the adoption of the old-age pension system mandatory, a more rapid development may be expected to be shown.

Kentucky.—Kentucky is another State in which little has been done to put the old-age pension system into effect, although five years have elapsed since the passage of the act. Poverty or lack of county funds

seems to be the chief reason given for its nonadoption by the counties. County after county reports that it is unable to raise the money necessary for a general pension system, although a few cases are being cared for from the pauper funds. One judge reports that his county "has no money to pay anything."

Another county, which in 1930, spent some \$4,000 for "charity" cases, reported that it expected to consider the adoption of the pension system at its April, 1931, meeting.

Maryland.—The chief progress made in Maryland since the bureau's previous study is the adoption of the system by the city of Baltimore and by Talbot County. Baltimore has appropriated \$50,000 for the purpose of carrying out the law, but no payments had been made up to the middle of February, 1931. A letter received from the Baltimore Department of Legislative Reference stated that payments were being withheld pending action by the State Legislature on an amendment to the law simplifying the procedure for the payment of the pensions.

Montana.—A small gain is shown in Montana where 44 of the 56 counties have put the system into operation. One of the counties, in which the system was in force in 1928, but in which an unfavorable opinion as to its value was expressed at that time, discontinued the plan in January, 1929, when the county ran out of funds. Two other counties, however, have adopted the system.

In general the counties which have the system favor it, the opinions expressed as to the worth of the law ranging from a lukewarm indorsement ("fairly satisfactory") to wholehearted praise ("it works perfect"). One enthusiastic report states that in that county they have found "no fault whatever" in the system; "the indigent continue to live at home without sense of shame incident to dependency and without loss of self-respect."

A very small proportion of the counties having the system express unfavorable opinions. One county auditor feels that the law contributes to delinquency of the children in respect to caring for their parents: "It seems that children are becoming more and more irresponsible in caring for their parents and think only that \$25 is so much more money that they don't have to foot up." Another expresses a similar opinion: "Public in general believes it should be paid them whether dependent or not, at qualifying age. Relatives legally responsible for pensioners' support shirk their duty." Another "can not see any particular benefits" from the system and thinks it "gives the wrong impression to a great many." A third report expresses the opinion that "on receiving pensions many of the hardy old persons cease to make any effort for their own support. Many old persons are attracted to this State and live until they become eligible for old-age pensions and take advantage of it." Another feels that the system "penalizes frugality."

Nevada.—No progress has been made since 1928 in the adoption of the pension system in Nevada. In 1928 two counties had adopted the system, one of which was paying pensions out of funds accumulated prior to adoption and the other had at that time made no payments. The second of these has abandoned the system and the first has failed to reply to the bureau's inquiry, so that the situation in that county

at present is not known. A third county has recently adopted the system.

Many of the counties reporting have systems of mothers' pensions and indigent allowances, and have evidently failed to find any advantages offered by the old-age pension law.

Utah.—The Utah law was passed in 1929. Thirteen of the 25 counties from which reports were received have adopted the system. These 13 adopting counties are the more populous, ones containing together nearly three-fourths of the whole population of the State. Although the majority of the adopting counties have had the system only a short time, its operation appears to be satisfactory in most cases; the report from the largest county in the State expresses the opinion that the awards under the law have been too small. Another report states: "We feel that it has worked out very successfully down here and done a great deal of good."

Wyoming.—The Wyoming law also was passed in 1929. Although it is mandatory, nevertheless, only 7 of the 21 counties reporting have adopted the system. The majority of those which have not adopted the plan state that the reason was that the county had no funds for the purpose and the law contained no provision as to how the money should be raised.⁹

⁹ This situation has been remedied by a 1931 amendment, authorizing a specific levy for pension purposes

Child Labor Recommendations of White House Conference on Child Health and Protection

THE subject of the employment of children and young persons was taken up by the White House Conference on Child Health and Protection, held in Washington, D. C., November 19-22, 1930, through its Committee on Vocational Guidance and Child Labor, of which Anne S. Davis, director, vocational guidance bureau, Chicago Board of Education, was chairman. The child-labor section of this committee, of which Ellen Nathalie Matthews, director of the industrial division of the Children's Bureau of the United States Department of Labor, was chairman, was divided into four subcommittees: (1) Subcommittee on the employment of children in nonagricultural occupations (Julia C. Lathrop, chairman); (2) subcommittee on employment of children in agriculture (Dr. Samuel McCune Lindsay, chairman of the National Child Labor Committee, chairman); (3) subcommittee on hazardous occupations, industrial accidents, and workmen's compensation for injured minors (Fred M. Wilcox, chairman of the Industrial Commission of Wisconsin, chairman); and (4) subcommittee on administrative problems with reference to laws affecting the employment of minors (Frances Perkins, industrial commissioner, New York State Department of Labor, chairman). Following are the summarized recommendations of these four subcommittees as presented to the conference, which have recently become available. The detailed reports of these subcommittees and their recommendations will, it is expected, be published later in the complete reports of the White House conference.

Recommendations of Committee

IN ORDER that children and young persons may be protected against the dangers of premature employment and employment under adverse conditions, certain economic, social, and educational measures are needed as well as adequate legislative restrictions and safeguards.

Economic, Social, and Educational Measures

Income and Unemployment

INASMUCH as many child workers are from the families of unskilled and other low-paid wage earners, or, in the case of children in agriculture, are from farm families among whom the struggle for existence is most acute, and as the incomes of such families are for the most part below the income needed for any reasonable standard of living, child labor is plainly in a large measure a question of poverty. It is urged, therefore, that special attention be directed toward the solution of such problems as adult unemployment, farm economics, and a living wage, since an income earned by the chief wage earner of the family sufficient to maintain a decent standard of living is basic to a normal solution of the problem of child labor as of other problems of child welfare.

Mothers' Aid

The children of widows form a small percentage of child workers. The extension of systems of State aid to widows and dependent children in the form of mothers' aid laws adequately administered and carrying aid sufficient in amount to enable such children to remain in school up to the age of at least 16 years is recommended. Although almost all the States now have mothers' aid laws, the maximum expenditure permitted by the laws of the great majority of them is too small to maintain an adequate standard of living, and the actual grants, owing to small appropriations, are frequently much less than the maximum amounts allowed by law.

Scholarships

The development of scholarship funds to enable children and young persons to remain in school who would otherwise be obliged to go to work is recommended. Such funds where established are frequently financed by private agencies and administered in cooperation with public-school officials, but they might be made a recognized item in the public-school budget.

Special Educational Measures

Numerous studies of working children have shown that causes connected with school have furnished for large proportions of young workers the chief motive in withdrawal from school to go to work. It is generally admitted that in spite of great and continuing improvements, the type of instruction and the school curricula provided are not yet sufficiently individualized to meet the abilities and needs of all pupils. Especially is this true in the case of pupils of somewhat inferior mental ability. Although some mentally superior children leave school for gainful employment at an early age, most studies have found that children who go to work have on the whole somewhat lower ratings on standard intelligence tests than those who remain in school. Unless special provisions are made for them, such dull children are likely to develop habits of failure, lose confidence in themselves and interest in school, and withdraw as soon as possible. Yet these children are often in greater need of supervision and protection during early adolescence than those of better mental development. This committee therefore strongly urges as a child labor measure that some content of education that will mean real development for them be found and provided for children of this type during the years when they are most in need of guidance.

Legislation

UNDER present conditions it is believed to be in the public interest that general legislative standards be set up for all kinds of gainful employment of children, and that special consideration be given the legal regulation of certain employments, such as agriculture, industrial home work, street-work, employment outside of school hours, and theatrical work. Among special problems created by some of these kinds of work are problems involving interstate relations, as, for example, the problem of the migrant worker.

General Legislative Standards

The committee recommends the following general standards for all kinds of nonagricultural employment with only such exceptions as are specially noted.

A. *Age minimum.*—An age minimum of 16 years is advocated for employment in any occupation, except as noted below. More and more generally employers are indicating that they do not want child workers under 16, and more and more generally children are remaining in school up to that age. It is the minimum age recommended by physicians who have given special consideration to the subject of physical standards for children going to work, on the ground that employment during earlier years of adolescence is detrimental to health and normal physical development, the indispensable asset of the industrial worker. Studies of working children also have shown that physical defects are accentuated by the conditions of work and that young workers are more susceptible to disease and industrial poisons and more prone to accident than those of more mature years.

Higher age minima should be set for physically or morally dangerous or injurious employments. This is now done under the child labor laws of many States for specified occupations and industries, the prohibition of a few employments extending up to the age of 21 years.

Where the 16-year minimum for full-time employment is adopted children between 14 and 16 might be permitted to work outside of school hours and during school vacations in a carefully restricted list of occupations.

B. *Educational minimum.*—All children should be required to attend school full time for at least nine months, and in any case for the entire period in which the schools are in session, between the age at which compulsory school attendance begins and 16 years of age, unless physically or mentally incapacitated for attendance, and up to the age of 18, unless the minor is actually and legally employed or is a graduate from a 4-year high-school course. A 16-year minimum for leaving school for work would seem to make unnecessary a grade requirement, such as completion of the eighth grade, as a child who has not completed the eighth grade at 16 years of age probably is unable to do so.

Particular consideration should be given the subject of public provision of educational opportunities for employed youth, including continuation schools, cooperation with industry in vocational education, etc.

C. *Physical minimum.*—A child should not be allowed to go to work until he has had a physical examination by a public physician appointed for this purpose and has been found to be in sound health, of normal development for a child of his age, and physically fit to be employed in any occupation not prohibited by law.

There should be periodical physical examinations of all working minors who are under 18 years of age.

D. *Hours of work.*—No minor under 18 years of age should be employed more than 8 hours a day, or more than 6 days a week, or more than 44 hours a week. When the 8-hour day was first established for children, this was shorter than the common working-day

for adults. Since the 8-hour day is now the standard for large numbers of adults, the question of a shorter working-day for minors between 16 and 18 years might well be considered.

Night work (usually defined in child labor laws as between 7 p. m. and 6 a. m. or 6 p. m. and 7 a. m.) should be prohibited for minors under 18, except that boys between 16 and 18 might be permitted to work up to 10 p. m. Consideration should be directed to the extension of the night-work prohibition for morally hazardous occupations past the age of 18, as is now done under some State child labor laws.

E. *Conditions of work.*—Young workers should not be permitted to be employed in places and establishments that do not conform to generally recognized standards as to cleanliness, sanitation, and safety.

F. *Employment certificates.*—Employment certificates should be required for all employed minors under 18 years of age.

Administration of Laws

A system of issuance of employment certificates to minors should be developed which will insure that those not legally qualified to enter employment do not do so, but which is as simple as is consistent with complete protection of the minor from employment without the safeguards of the law.

The enforcement of school attendance should be sufficiently effective to keep in school all minors required by law to attend, up to the age when they are legally permitted to work, and after that age unless they are actually and legally employed up to the age when they are no longer subject to the full-time attendance law, and should insure the attendance at classes of suitable content of temporarily unemployed minors of compulsory school-attendance age. Special attention should be devoted to the problems of school attendance of children in rural districts and of the education of the so-called migratory child workers.

Such clear and definite legal standards should be set up by both child labor and compulsory school-attendance laws, without limitations and exemptions, and such correlation between school attendance and employment certificate requirements should be effected as will obviate the difficulties now resulting in many States from confused and defective legislation.

Inspection of places of employment should be sufficiently frequent and thorough to obtain compliance on the part of employers with the legal provisions applying to minor workers—compliance to be voluntary but if necessary to be brought about by prosecutions and the imposition of penalties adequate to deter violations. The methods of inspection should be adapted to this work and appear to be best developed by the use of a special personnel in the State labor department for the enforcement of child labor and closely related laws, as those governing hours of labor of women.

Official personnel qualified by education, experience, and training, adequately compensated and appointed under the merit system, should be provided in sufficient numbers for effective certificate issuance, school-attendance enforcement, and inspection. Supervision and assistance should be given by State agencies in the development of effective administration of each of these activities.

Minimum Wage

Although the United States Supreme Court has declared unconstitutional the fixing of mandatory minimum-wage rates for women, the decision does not apply to minors. The establishment of a minimum-wage scale for minors is recommended, in order that the industrial exploitation of children and young persons, at least so far as the remuneration for their work is concerned, may be prevented.

Special Problems

Agriculture.—Although some regulation of the employment of children in agriculture by the child-labor laws is advocated, the most effective approach to its control would seem to be the extension of school-attendance requirements for rural children. Special regulations in regard to schooling and living conditions also are necessary in the case of migrant agricultural workers.

A. School attendance: Rural children should be afforded educational opportunities equivalent to those afforded city children. The ages for compulsory attendance and the number of months' attendance required should be uniform throughout the State. Certain minor adaptations of the school term to the needs of farm work may be permitted as a method of improving attendance, but this must not decrease the length of the school term, which in no case should fall below nine months.

There should be no distinction in the enforcement of the school-attendance law for resident and nonresident or migratory children.

B. Employment: No child under 16, resident or nonresident, should be permitted to be employed in agriculture whether at home or away from home during the hours that the public schools are in session.

Children under 14 should not be hired out for agricultural work, either independently or as part of a family group, employed on a contract basis or otherwise, except that children 12 to 14 years of age might be employed outside of school hours in light agricultural tasks involving work for only a few hours a day during a short season.

The hours of work for children under 16 engaged in agricultural work but not on the home farm should be limited to an 8-hour day when school is not in session and, when school is in session, to a combined 8-hour day for work and school.

Special attention should be given the subject of prohibition of employment about dangerous agricultural machinery. (See "Hazardous occupations," below.)

Work permits, valid for the entire season, should be required for children under 16 engaged in agricultural work not on the home farm.

Hazardous occupations.—In order to insure protection from occupational hazards for young workers it is urged that in every State the agencies responsible for the administration of child labor and workmen's compensation laws develop a program for continuous study of all industrial injuries to minors under 18 years of age. Such a program should include compilation and publication of adequate annual statistics of accidents; investigation of the causes of at least all serious injuries; education of employers in the special importance of preventing injuries to minors; and education of the public in the importance, as measures of child protection, of suitable legislation dealing

with the safety of all workers, of prohibition of the employment of young persons in dangerous occupations, and of compensation for injured minors.

That this program may be as effective as possible from the point of view of the country as a whole, it is recommended that the States compile their statistics of accidents to minors on a comparable basis, and that the Federal Government through the Children's Bureau of the United States Department of Labor cooperate with the States by compiling and publishing annual statistics of industrial accidents to minors in the different States, as is now done by the Children's Bureau for other statistics relating to children, such as statistics of employment certificates and of juvenile court cases.

For the further protection of young workers from industrial hazards, it is essential that power be given to State labor departments to determine dangerous and injurious occupations and to prohibit minors' employment therein. Our present body of knowledge of the hazards of the industries and occupations in which minors are employed is so fragmentary and incomplete that a careful and comprehensive study is recommended both of occupations in which minors are engaged and of those in which industrial hazards occur, and also of possible safeguards in such occupations in order that a scientific basis for such prohibitions may be found and that legislative prohibitions may be kept abreast of new industrial hazards.

In view of the wide scope of the problem, affecting minor workers throughout the country, it is recommended that a continuing committee be appointed, of which the members of the subcommittee on hazardous occupations, industrial accidents, and workmen's compensation for injured minors might form a nucleus, to work in cooperation with the Children's Bureau of the United States Department of Labor and State departments of labor in studying all phases of the problem of protection of minor workers from dangerous and injurious employments.

Minors injured in industry are entitled to more adequate compensation than is now afforded under most State laws. Basic to a State program for the adequate compensation of such injured minors is a workmen's compensation law which is liberal in its general provisions. With reference to provisions relating especially to minors, it is urged that in all States not yet having such laws legislation be passed providing:

(1) That at least the employee's future earning capacity be considered as the basis on which compensation should be computed in the case of minors permanently disabled.

(2) That minors illegally employed when injured should not only be brought under the workmen's compensation law, but that in addition provision should be made for the payment of extra compensation in such cases.

The migrant worker.—The migrant child worker creates special problems. Attention should be given to the subject of the general welfare of children in labor camps such as those operated in connection with industrialized agriculture and with canneries. All labor camps should be under the supervision of a State agency empowered to make and enforce regulations as to sanitation, etc. Special arrangements should be made under the public-school system for provision of school

facilities for migrant children and for their attendance when schools are in session. It is recommended that State aid be made available for districts unable to meet the expense involved.

Industrial home work.—The manufacture of articles in the home should be prohibited. When the home is converted into a workshop not only do young children work under unfavorable conditions but family life also suffers. Prohibition of home work was recommended by the New York Factory Investigating Committee in 1913, and the fact that the New York Commission to Examine Laws Relating to Child Welfare found in 1924 that the only excuse for “not now recommending the immediate complete prohibition of home work in tenements”¹ was the fact that it has “become so deeply entrenched in the industrial life of the State that gradual elimination was all that could be expected” is worthy of consideration by other States in which the problem is not now one of large proportions but in which the system of industrial home work may be beginning or on the increase.

Until home work is eliminated, all State labor laws should apply to industrial work of all kinds done in the home equally with factory work. Responsibility for compliance with the laws should be placed upon the manufacturer. A system of licensing of home workers through the State department of labor is recommended.

Street work.—The child labor law should contain a regulation applying specifically to newspaper selling and other undesirable forms of street work, as the general child labor law is not usually successfully applied to street work. Newspaper selling has such undesirable features as an occupation for children that a minimum age of 16 should be considered; if public opinion does not favor such a program of prohibition, the regulation should set a minimum age of at least 14 years, should prohibit work during school hours and at night, and should limit the hours of work as in other employment outside of school hours. The work of newspaper carriers and of other employed street workers should come under the provisions of the general child labor law including those regulating employment outside of school hours of children between 14 and 16.

Employment outside of school hours.—The employment of children between 14 and 16 outside of school hours in a restricted list of employments should be so limited that the hours in school and at work shall not exceed eight a day. All other provisions of the child labor law should apply to such employment.

Because employment outside of school hours, especially in street work, is frequently resorted to because of inadequate recreational facilities, it is urged that the public provide recreational and leisure-time activities that will be available for all school children of compulsory school-attendance age.

Theatrical exhibitions, etc.—More information as to the extent, kinds, and conditions of employment in theatrical performances and enlistment of public interest based on a better understanding of the facts are needed, and surveys and studies are recommended.

Uniform legislation would appear to be especially desirable as regards employment in theatrical exhibitions because of the inter-

¹ Manufacturing in Tenements, submitted by industrial commissioner to the Commission to Examine the Laws Relating to Child Welfare, New York Department of Labor, p. 7, March and April, 1924.

state aspect of the employment of children in traveling companies. An exchange of information on traveling children between law-enforcing and other interested agencies would be helpful in protecting the children and developing standards.

Equalization of Opportunity and Protection

THE task of the child labor section of this committee has been to set up certain standards for the health and protection of working children. It has reaffirmed the conviction expressed in the earliest child labor legislation that education and freedom from premature toil go hand in hand and must advance together, and it has given evidence to show that labor in immaturity thwarts normal physical development. It was agreed that children under 16 should not be permitted to leave school for work, and the boys and girls of 16 and 17 in industrial employment should not be suffered to enter occupations known to be physically or morally hazardous, to work more than 8 hours a day or 44 hours a week, or to work at night, and that minors should be given special protection from hazardous and injurious employments. These standards, in the opinion of the committee, represent the least that in the light of present knowledge and understanding of the mental and physical needs of the child and the adolescent should be done. They should be looked upon as merely a point of departure for higher goals which it is expected will be revealed through the constantly growing contributions of scientific research.

The committee believes that progress toward such goals would be enormously facilitated by establishing a national minimum standard. The control of child labor with its corollary, the extension of education, is one of the most important of the Nation's efforts to realize democracy, and as such it is of national importance and concern. For almost a hundred years the States have been regulating child labor. Progress there has been. But this progress has been slow and uneven. Some States still fall far below others in the amount of protection they afford. Grave injustice is seen in these inequalities— injustice to children in States with low standards because they are deprived of equal opportunity with others for health, education, and immunity from injurious labor; injustice to employers in States with high standards, since they must compete with employers whose labor costs are low because the labor is child labor; injustice to all the citizens in both groups of States, since civic and economic progress is hampered when the young are not equipped to become responsible and productive members of society and since the mobility of population characteristic of modern times brings many of the ill-equipped from States with low standards to those whose own standards are high.

The sheer fact of this conference, under the auspices of the President of the United States, with its nation-wide membership, inspires confidence that means will be discovered to equalize opportunity and protection for all children in all the States.

Strikes and Lockouts in the United States, 1916 to 1930

Summary

ASIDE from the year 1928 the actual number of strikes reported in 1930 was fewer than for any other of the 15 years shown in the present report. There was also a much smaller number of workers involved than for any other year. The relative number of disputes and the relative number of workers involved for each year, 1916 to 1930, are shown in Table 1:

TABLE 1.—RELATIVE NUMBER OF DISPUTES AND OF EMPLOYEES INVOLVED, 1916 TO 1930

| Year | Relative number of— | | Year | Relative number of— | |
|-----------|---------------------|-----------|-----------|---------------------|-----------|
| | Disputes | Employees | | Disputes | Employees |
| 1916..... | 100 | 100 | 1924..... | 33 | 41 |
| 1917..... | 117 | 77 | 1925..... | 34 | 27 |
| 1918..... | 88 | 78 | 1926..... | 27 | 21 |
| 1919..... | 96 | 260 | 1927..... | 19 | 22 |
| 1920..... | 90 | 91 | 1928..... | 17 | 22 |
| 1921..... | 63 | 69 | 1929..... | 24 | 15 |
| 1922..... | 29 | 101 | 1930..... | 17 | 10 |
| 1923..... | 41 | 47 | | | |

Strike activity considered from the standpoint of the number of workers involved, was greatest in the coal mining, clothing, building, and textile industries. Over 90 per cent of the total number of persons reported on strike during 1930 are to be found in these four groups.

Industrial disputes continued to involve principally questions of wages, hours of employment, or recognition of the union.

The results of strike settlements in 1930 showed a material loss to employees as compared with 1929, there being 44 per cent in 1930 as against 40 per cent in 1929 settled in favor of employers, while only 25 per cent in 1930 as against 29 per cent in 1929 were settled in favor of employees. The number of strikes in which a compromise settlement was made in 1930 was 24 per cent as compared with 25 per cent in 1929.

Table 19 shows that 41 per cent of all strikes ending in 1930 were concluded within 6 days and 66 per cent within 14 days.

Scope and Method of Obtaining Information

INITIAL information regarding industrial disputes in the United States is obtained by the Bureau of Labor Statistics chiefly from the following sources: Labor papers and trade-union journals; trade periodicals; lists of strikes issued by labor, trade, and other organizations; clipping bureaus; daily papers from the most important industrial cities in the United States; and reports of the conciliation service of the United States Department of Labor. All leads obtained are verified either by correspondence or through the conciliators of the Department of Labor or special agents of the Bureau of Labor Statistics. For the years 1926 to 1930, inclusive, data are

shown only for disputes involving six or more workers and lasting for one day or more, no distinction being made between strikes and lockouts.

Month of Occurrence

TABLE 2 shows the number of disputes beginning in each month and in effect at the end of each month, the number of workers involved, and the man-days lost, for the year 1930. The number of man-days lost is the product of the number of working-days idle multiplied by the number of workers involved. No attempt is made to discount this time nor does the bureau have any information as to whether the workers may have held other jobs during the strike period.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN, AND IN EFFECT AT END OF, EACH MONTH IN 1930

| Month | Number of disputes | | Number of workers involved in disputes | | Number of man-days lost during month |
|----------------|--------------------|---------------------------|--|---------------------------|--------------------------------------|
| | Beginning in month | In effect at end of month | Beginning in month | In effect at end of month | |
| January..... | 45 | 21 | 9,240 | 5,316 | 184,730 |
| February..... | 52 | 40 | 37,480 | 6,683 | 438,570 |
| March..... | 49 | 38 | 15,017 | 5,957 | 291,127 |
| April..... | 64 | 41 | 6,379 | 5,840 | 189,828 |
| May..... | 66 | 29 | 9,329 | 4,386 | 185,448 |
| June..... | 59 | 34 | 14,011 | 8,311 | 144,117 |
| July..... | 78 | 30 | 14,308 | 4,815 | 141,647 |
| August..... | 51 | 33 | 15,902 | 7,131 | 142,738 |
| September..... | 72 | 44 | 16,337 | 13,778 | 208,184 |
| October..... | 47 | 36 | 10,858 | 16,007 | 335,916 |
| November..... | 44 | 29 | 4,390 | 7,759 | 273,608 |
| December..... | 26 | 7 | 4,863 | 5,144 | 194,455 |

In Table 3 the number of strikes beginning in each month of each year from 1916 to 1930, inclusive, is shown. Generally speaking, the period of greatest unrest as indicated by these figures occurs during the months of April and May. There are some exceptions, notably the year 1930 when a larger number of strikes occurred during the month of July.

TABLE 3.—NUMBER OF DISPUTES BEGINNING IN EACH MONTH

| Year | Number of disputes beginning in— | | | | | | | | | | | | Month not stated | Total |
|-----------|----------------------------------|------|------|------|-----|------|------|------|-------|------|------|------|------------------|-------|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | | |
| 1916..... | 188 | 206 | 294 | 434 | 617 | 354 | 313 | 326 | 252 | 261 | 197 | 149 | 198 | 3,789 |
| 1917..... | 288 | 211 | 318 | 445 | 463 | 323 | 448 | 360 | 349 | 322 | 257 | 197 | 469 | 4,450 |
| 1918..... | 191 | 223 | 312 | 321 | 392 | 296 | 288 | 278 | 212 | 145 | 208 | 250 | 237 | 3,353 |
| 1919..... | 199 | 198 | 192 | 270 | 431 | 322 | 381 | 417 | 425 | 334 | 165 | 140 | 156 | 3,630 |
| 1920..... | 280 | 214 | 288 | 427 | 422 | 317 | 298 | 264 | 231 | 192 | 106 | 108 | 264 | 3,411 |
| 1921..... | 238 | 172 | 194 | 292 | 575 | 152 | 167 | 143 | 124 | 90 | 92 | 76 | 70 | 2,385 |
| 1922..... | 131 | 96 | 75 | 109 | 104 | 64 | 101 | 95 | 85 | 64 | 64 | 43 | 81 | 1,112 |
| 1923..... | 69 | 72 | 123 | 212 | 246 | 133 | 146 | 106 | 93 | 117 | 66 | 59 | 111 | 1,553 |
| 1924..... | 102 | 70 | 118 | 144 | 155 | 98 | 89 | 81 | 71 | 74 | 61 | 40 | 146 | 1,249 |
| 1925..... | 94 | 89 | 83 | 161 | 161 | 108 | 103 | 123 | 104 | 77 | 63 | 45 | 90 | 1,301 |
| 1926..... | 62 | 74 | 84 | 127 | 141 | 73 | 84 | 98 | 85 | 60 | 48 | 33 | 66 | 1,035 |
| 1927..... | 37 | 65 | 74 | 87 | 107 | 80 | 65 | 57 | 57 | 50 | 27 | 28 | ----- | 734 |
| 1928..... | 48 | 52 | 41 | 71 | 80 | 44 | 54 | 59 | 52 | 61 | 44 | 23 | ----- | 629 |
| 1929..... | 48 | 54 | 77 | 117 | 115 | 73 | 80 | 78 | 98 | 69 | 61 | 33 | ----- | 903 |
| 1930..... | 45 | 32 | 49 | 64 | 66 | 59 | 78 | 51 | 72 | 47 | 44 | 26 | ----- | 653 |

Place of Occurrence of Disputes

TABLE 4 shows the number of disputes by States and geographical groups for each year of the 15-year period, 1916 to 1930. It is interesting to note that 80 per cent of the strikes of 1930 occurred in the geographical group of States lying north of the Ohio and east of the Mississippi River and 55 per cent took place in the four States, New York, Pennsylvania, New Jersey, and Massachusetts.

TABLE 4.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY STATE AND SECTION OF COUNTRY

| State and section | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| Alabama | 15 | 20 | 13 | 18 | 25 | 15 | 4 | 6 | | 3 | 5 | 1 | | 1 | 1 |
| Alaska | 3 | 5 | 3 | 3 | 1 | 1 | | | | | | | | | |
| Arizona | 7 | 20 | 4 | 7 | 9 | 4 | 1 | | | 2 | | | | | |
| Arkansas | 20 | 36 | 11 | 7 | 15 | 7 | 2 | 2 | 3 | 4 | 1 | | 3 | 2 | 1 |
| California | 55 | 112 | 94 | 102 | 120 | 99 | 37 | 47 | 29 | 40 | 34 | 20 | 16 | 28 | 14 |
| Colorado | 17 | 48 | 32 | 31 | 22 | 27 | 7 | 3 | 5 | 10 | 5 | 5 | 5 | 1 | |
| Connecticut | 326 | 178 | 92 | 135 | 128 | 61 | 30 | 52 | 26 | 46 | 29 | 27 | 11 | 13 | 13 |
| Delaware | 12 | 17 | 14 | 11 | 10 | 4 | 1 | 1 | | | | | | | |
| District of Columbia | 8 | 14 | 13 | 10 | 14 | 5 | 4 | 6 | 5 | 11 | 6 | | 2 | 6 | 3 |
| Florida | 9 | 16 | 20 | 30 | 9 | 19 | 5 | 4 | 2 | 10 | 16 | 6 | 2 | 2 | 4 |
| Georgia | 8 | 28 | 40 | 39 | 29 | 21 | 3 | 4 | 4 | 5 | 9 | 1 | 1 | 3 | 2 |
| Idaho | 5 | 32 | 10 | 10 | 5 | 3 | | 1 | | | | | | | 2 |
| Illinois | 159 | 282 | 248 | 267 | 254 | 164 | 63 | 72 | 80 | 84 | 72 | 44 | 40 | 52 | 37 |
| Indiana | 75 | 73 | 76 | 106 | 99 | 61 | 15 | 35 | 28 | 45 | 32 | 16 | 13 | 34 | 20 |
| Iowa | 26 | 65 | 41 | 57 | 47 | 42 | 15 | 14 | 15 | 12 | 14 | 6 | 8 | 5 | 5 |
| Kansas | 15 | 53 | 41 | 45 | 14 | 21 | 4 | 5 | 6 | 12 | 2 | 1 | 2 | 5 | 1 |
| Kentucky | 13 | 38 | 19 | 26 | 22 | 17 | 10 | 11 | 12 | 2 | 12 | 4 | 7 | 7 | 29 |
| Louisiana | 8 | 39 | 23 | 51 | 37 | 29 | 8 | 16 | 7 | 3 | 5 | 2 | 3 | 8 | 5 |
| Maine | 30 | 40 | 36 | 40 | 22 | 24 | 11 | 7 | 6 | 10 | 1 | 3 | 5 | 7 | 7 |
| Maryland | 48 | 59 | 72 | 41 | 57 | 27 | 12 | 19 | 25 | 17 | 7 | 9 | 8 | 13 | 10 |
| Massachusetts | 383 | 353 | 347 | 396 | 377 | 201 | 139 | 217 | 97 | 162 | 113 | 70 | 95 | 77 | 45 |
| Michigan | 71 | 64 | 60 | 84 | 63 | 71 | 18 | 19 | 10 | 14 | 12 | 7 | 7 | 16 | 14 |
| Minnesota | 30 | 53 | 40 | 49 | 50 | 45 | 9 | 14 | 4 | 5 | 9 | 11 | 3 | 9 | 6 |
| Mississippi | 4 | 13 | 5 | 2 | 4 | 9 | | 1 | | | | 2 | | 1 | 1 |
| Missouri | 97 | 122 | 105 | 69 | 63 | 54 | 26 | 27 | 35 | 11 | 9 | 14 | 8 | 17 | 11 |
| Montana | 15 | 77 | 33 | 23 | 16 | 21 | 2 | 7 | 1 | 1 | 4 | 3 | 2 | 4 | 7 |
| Nebraska | 21 | 28 | 11 | 17 | 12 | 11 | 3 | 1 | 2 | 2 | 1 | 2 | | 2 | |
| Nevada | | 2 | 7 | 5 | 4 | 1 | 3 | 1 | 1 | | | 1 | | | |
| New Hampshire | 20 | 20 | 17 | 34 | 32 | 6 | 30 | 6 | 8 | 5 | 8 | 4 | 4 | 3 | 1 |
| New Jersey | 417 | 227 | 138 | 183 | 145 | 125 | 71 | 78 | 92 | 92 | 84 | 59 | 46 | 76 | 55 |
| New Mexico | | 2 | 4 | 1 | 2 | | | | | | | 1 | | | |
| New York | 592 | 711 | 689 | 536 | 600 | 384 | 202 | 403 | 281 | 301 | 216 | 181 | 131 | 179 | 149 |
| North Carolina | 8 | 7 | 14 | 22 | 21 | 26 | 6 | 6 | 4 | 7 | 2 | 7 | 1 | 17 | 5 |
| North Dakota | | 2 | 3 | 4 | 8 | 2 | 1 | 1 | | | | | | | |
| Ohio | 290 | 279 | 197 | 237 | 206 | 167 | 73 | 65 | 68 | 73 | 68 | 21 | 27 | 41 | 33 |
| Oklahoma | 24 | 35 | 19 | 32 | 24 | 29 | 9 | 2 | 6 | 10 | 2 | 3 | 3 | 3 | 1 |
| Oregon | 23 | 58 | 18 | 38 | 22 | 23 | 8 | 15 | 13 | 5 | 8 | 10 | 6 | 7 | 2 |
| Pennsylvania | 574 | 494 | 311 | 280 | 250 | 222 | 101 | 234 | 261 | 184 | 162 | 123 | 113 | 184 | 113 |
| Rhode Island | 77 | 105 | 53 | 78 | 89 | 42 | 37 | 25 | 5 | 25 | 28 | 23 | 9 | 17 | 10 |
| South Carolina | 5 | 7 | 3 | 11 | 5 | 12 | 2 | 1 | 1 | | 1 | | | 16 | 2 |
| South Dakota | | 3 | 3 | 3 | 5 | 3 | | | 1 | | | | | 1 | |
| Tennessee | 26 | 42 | 26 | 40 | 27 | 28 | 8 | 7 | 10 | 3 | 7 | 4 | 7 | 6 | 1 |
| Texas | 28 | 56 | 41 | 50 | 73 | 64 | 10 | 15 | 16 | 11 | 4 | 9 | 5 | 5 | 6 |
| Utah | 3 | 21 | 14 | 22 | 14 | 5 | 1 | 2 | 1 | 2 | | 1 | | 1 | |
| Vermont | 10 | 8 | 9 | 13 | 12 | 2 | 13 | | | 4 | 1 | 1 | 1 | 1 | 1 |
| Virginia | 16 | 35 | 37 | 28 | 31 | 14 | 5 | 3 | 4 | 1 | 3 | 1 | 3 | 5 | 3 |
| Washington | 58 | 294 | 130 | 113 | 69 | 63 | 22 | 36 | 15 | 15 | 5 | 9 | 13 | 10 | 6 |
| West Virginia | 40 | 64 | 50 | 63 | 49 | 28 | 8 | 28 | 23 | 20 | 11 | 3 | 2 | 13 | |
| Wisconsin | 63 | 57 | 54 | 77 | 68 | 41 | 21 | 10 | 15 | 14 | 8 | 3 | 8 | 6 | 9 |
| Wyoming | | 2 | 5 | 4 | 6 | 4 | | 1 | 1 | 1 | | | 3 | | 1 |
| Interstate | 4 | 25 | 4 | 21 | 10 | 19 | 27 | 23 | 10 | 12 | 8 | 6 | 10 | 7 | 1 |
| United States ¹ | 3,758 | 4,443 | 3,347 | 3,571 | 3,291 | 2,381 | 1,088 | 1,553 | 1,240 | 1,300 | 1,032 | 734 | 629 | 903 | 653 |
| North of the Ohio and east of the Mississippi | 3,186 | 3,034 | 2,466 | 2,678 | 2,431 | 1,607 | 840 | 1,249 | 1,007 | 1,091 | 869 | 587 | 520 | 728 | 524 |
| South of the Ohio and east of the Mississippi | 147 | 309 | 243 | 278 | 227 | 186 | 66 | 71 | 60 | 51 | 66 | 49 | 18 | 60 | 60 |
| West of the Mississippi | 421 | 1,075 | 634 | 594 | 623 | 569 | 155 | 210 | 163 | 146 | 89 | 92 | 81 | 108 | 68 |
| Interstate | 4 | 25 | 4 | 21 | 10 | 19 | 27 | 23 | 10 | 12 | 8 | 6 | 10 | 7 | 1 |

¹ Does not include strikes in Hawaii, Porto Rico, Canal Zone, and Virgin Islands.

In Table 5 it may be noted that New York City continues to show a much greater number of strikes than is reported for any other city. In fact nearly 14 per cent of all strikes reported occurred in this city, while Philadelphia, the next city of importance in the number of strikes reported, shows but 5 per cent.

TABLE 5.—NUMBER OF DISPUTES IN CITIES IN WHICH 25 OR MORE DISPUTES OCCURRED IN ANY YEAR

| City | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Baltimore, Md. | 39 | 36 | 47 | 26 | 34 | 22 | 9 | 15 | 23 | 15 | 4 | 7 | 7 | 10 | 8 |
| Boston, Mass. | 62 | 87 | 68 | 98 | 51 | 43 | 22 | 43 | 31 | 49 | 39 | 22 | 24 | 19 | 9 |
| Bridgeport, Conn. | 38 | 30 | 13 | 25 | 10 | 2 | 3 | 2 | 1 | 4 | 5 | 5 | 3 | 1 | |
| Buffalo, N. Y. | 41 | 28 | 24 | 20 | 47 | 20 | 8 | 8 | 11 | 8 | 6 | 3 | 8 | 8 | 2 |
| Chicago, Ill. | 73 | 123 | 100 | 126 | 125 | 89 | 26 | 44 | 29 | 58 | 39 | 29 | 11 | 32 | 18 |
| Cincinnati, Ohio | 29 | 33 | 26 | 39 | 31 | 18 | 10 | 10 | 5 | 3 | 5 | | 1 | 4 | 3 |
| Cleveland, Ohio | 60 | 76 | 39 | 47 | 41 | 26 | 22 | 13 | 16 | 20 | 15 | 5 | 10 | 11 | 11 |
| Denver, Colo. | 8 | 26 | 19 | 22 | 15 | 16 | 2 | 2 | 2 | 6 | 3 | 2 | 3 | 1 | |
| Detroit, Mich. | 31 | 19 | 18 | 40 | 24 | 39 | 12 | 14 | 7 | 9 | 9 | 5 | 3 | 10 | 10 |
| Fall River, Mass. | 20 | 13 | 18 | 28 | 22 | 10 | 8 | 3 | 2 | 10 | 4 | 8 | 17 | 2 | 5 |
| Hartford, Conn. | 28 | 21 | 8 | 17 | 19 | 2 | 2 | 1 | 3 | 1 | 3 | 1 | 1 | 2 | 3 |
| Holyoke, Mass. | 26 | 9 | 17 | 18 | 15 | 3 | 1 | 8 | 1 | 3 | 5 | | 3 | 3 | 7 |
| Jersey City, N. J. | 28 | 24 | 7 | 25 | 14 | 9 | 9 | 5 | 7 | 6 | 7 | 2 | 3 | 3 | 4 |
| Kansas City, Mo. | 20 | 36 | 20 | 16 | 13 | 17 | 9 | 6 | 10 | 2 | 3 | 2 | 1 | 2 | 4 |
| Lynn, Mass. | 8 | 8 | 22 | 11 | 27 | 12 | 14 | 10 | 6 | 12 | 15 | 3 | 15 | 2 | 3 |
| Milwaukee, Wis. | 30 | 14 | 11 | 27 | 28 | 9 | 11 | 6 | 2 | 4 | 8 | | 9 | 13 | 16 |
| Newark, N. J. | 55 | 50 | 36 | 33 | 16 | 23 | 6 | 13 | 11 | 15 | 7 | 4 | 9 | 5 | 4 |
| New Orleans, La. | 7 | 23 | 20 | 40 | 29 | 23 | 7 | 11 | 5 | 2 | 5 | 1 | 2 | 1 | |
| New York, N. Y. | 363 | 484 | 484 | 370 | 341 | 193 | 140 | 296 | 204 | 228 | 133 | 127 | 90 | 113 | 89 |
| Paterson, N. J. | 18 | 27 | 20 | 15 | 12 | 17 | 14 | 16 | 21 | 12 | 7 | 5 | 10 | 23 | 7 |
| Philadelphia, Pa. | 74 | 89 | 80 | 60 | 59 | 61 | 21 | 32 | 54 | 37 | 30 | 23 | 22 | 73 | 33 |
| Pittsburgh, Pa. | 47 | 37 | 19 | 19 | 15 | 23 | 1 | 5 | 12 | 11 | 8 | 8 | 6 | 11 | 9 |
| Providence, R. I. | 21 | 46 | 18 | 31 | 32 | 17 | 6 | 5 | 2 | 8 | 14 | 9 | 2 | 4 | 5 |
| Rochester, N. Y. | 16 | 27 | 35 | 13 | 37 | 36 | 17 | 12 | 13 | 5 | 1 | 11 | 2 | 5 | 2 |
| San Francisco, Calif. | 23 | 37 | 30 | 34 | 26 | 22 | 7 | 14 | 4 | 11 | 7 | 7 | 2 | 5 | 3 |
| St. Louis, Mo. | 58 | 53 | 70 | 39 | 40 | 26 | 11 | 19 | 21 | 8 | 4 | 10 | 5 | 12 | 4 |
| Seattle, Wash. | 15 | 49 | 29 | 24 | 26 | 21 | 5 | 14 | 6 | 4 | 2 | 1 | 4 | 2 | 1 |
| Springfield, Mass. | 31 | 27 | 12 | 20 | 27 | 6 | 6 | 10 | 4 | 7 | 2 | | | 2 | 2 |
| Toledo, Ohio | 16 | 16 | 27 | 24 | 20 | 15 | 3 | 8 | 3 | 2 | 3 | | 1 | 2 | 2 |
| Trenton, N. J. | 25 | 15 | 11 | 4 | 21 | 5 | 1 | 3 | 3 | 4 | 2 | 2 | 1 | 6 | 3 |
| Wilkes-Barre, Pa. | 6 | 25 | 8 | 4 | 9 | 10 | 7 | 12 | 7 | 4 | 2 | 8 | 8 | 3 | 3 |
| Worcester, Mass. | 18 | 12 | 11 | 28 | 18 | 12 | 2 | 9 | 4 | 7 | 3 | 2 | 2 | 1 | 1 |
| Youngstown, Ohio | 27 | 1 | 5 | 14 | 4 | 6 | 4 | 5 | 1 | 4 | 6 | | 1 | 1 | 5 |

Sex of Workers Involved

TABLE 6 gives the number of disputes involving males, females, or both sexes, by years, 1916 to 1930:

TABLE 6.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY SEX OF EMPLOYEES

| Sex of persons involved | Number of disputes beginning in— | | | | | | | | | | | | | | |
|-------------------------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Males only | 3,121 | 3,611 | 2,467 | 2,818 | 2,347 | 1,750 | 676 | 983 | 877 | 891 | 831 | 587 | 450 | 590 | 488 |
| Females only | 122 | 158 | 90 | 88 | 78 | 30 | 22 | 31 | 23 | 31 | 33 | 15 | 15 | 22 | 15 |
| Both sexes | 269 | 190 | 278 | 521 | 343 | 558 | 357 | 445 | 280 | 338 | 150 | 132 | 164 | 291 | 150 |
| Not reported | 277 | 491 | 518 | 203 | 643 | 47 | 57 | 94 | 69 | 41 | 21 | | | | |
| Total | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 |

Relation to Labor Unions

ABOUT 83 per cent of workers reported as striking during the year 1930 were members of some labor organization. This is a slight increase over 1929. Table 7 shows the number connected with unions,

those not members of a union, those organized after the dispute began, mixed union and nonunion, and those about which no information could be obtained in this particular, for the 15 years, 1916 to 1930.

TABLE 7.—RELATION OF WORKERS TO LABOR UNIONS

| Relation of workers to union | Number of disputes | | | | | | | | | | | | | | |
|------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Connected with unions..... | 2,458 | 2,392 | 1,903 | 2,033 | 2,506 | 2,038 | 844 | 1,265 | 1,063 | 1,018 | 823 | 614 | 534 | 711 | 539 |
| Not connected with unions..... | 446 | 209 | 362 | 143 | 137 | 62 | 37 | 77 | 69 | 142 | 93 | 67 | 66 | 157 | 93 |
| Organized after dispute began..... | 71 | 55 | 26 | 30 | 8 | 5 | 5 | 18 | 14 | 16 | 19 | 16 | 4 | 20 | 15 |
| Union and nonunion workers..... | | | | | | | 12 | 29 | 31 | 38 | 15 | 5 | 4 | 15 | 6 |
| Not reported..... | 814 | 1,794 | 1,062 | 1,424 | 760 | 280 | 214 | 164 | 72 | 87 | 85 | 32 | 21 | | |
| Total..... | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 |

Causes of Disputes

IN TABLE 8 are given the principal reasons productive of disputes. While some strikes occur because of unsatisfactory conditions, discharge of employees, etc., the actuating causes of almost all of them remain about the same, being wages, hours, or recognition of the union by the employer. In 1930 there were 345 strikes, or 53 per cent, which involved some question of wages.

TABLE 8.—PRINCIPAL CAUSES OF DISPUTES BEGINNING IN EACH YEAR

| Cause of dispute | Number of disputes beginning in— | | | | | | | | | | | | | | |
|--|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Increase of wages..... | 1,301 | 1,571 | 1,397 | 1,115 | 1,429 | 120 | 156 | 445 | 255 | 277 | 260 | 142 | 98 | 101 | 62 |
| Decrease of wages..... | 35 | 36 | 36 | 86 | 147 | 896 | 261 | 49 | 125 | 117 | 52 | 57 | 53 | 72 | 122 |
| Increase of wages and decrease of hours..... | 481 | 378 | 256 | 578 | 269 | 34 | 16 | 58 | 30 | 29 | 39 | 43 | 27 | 75 | 53 |
| Decrease of wages and increase of hours..... | | | | | | 77 | 40 | | 7 | 4 | 1 | 1 | 1 | 2 | 4 |
| Other causes involving wages..... | 96 | 115 | 93 | 110 | 121 | 55 | 76 | 144 | 96 | 97 | 101 | 85 | 113 | 125 | 62 |
| Decrease of hours..... | 113 | 132 | 79 | 117 | 62 | 294 | 22 | 16 | 18 | 7 | 19 | 20 | 6 | 16 | 5 |
| Increase of hours..... | 7 | 18 | 6 | 25 | 8 | 18 | 12 | 5 | 5 | 6 | 4 | 3 | 3 | | 1 |
| Other causes involving hours..... | 3 | 18 | 2 | 5 | 2 | 7 | | 4 | 1 | | 2 | 9 | 5 | 23 | 8 |
| Recognition of unions..... | 404 | 333 | 241 | 522 | 308 | 191 | 137 | 153 | 152 | 109 | 117 | 119 | 71 | 92 | 120 |
| Recognition and wages..... | 93 | 132 | 79 | 78 | 87 | 106 | 10 | 37 | 21 | 30 | 11 | 20 | 22 | 50 | 24 |
| Recognition and hours..... | 20 | 27 | 16 | 16 | 6 | 14 | 3 | 6 | 1 | 1 | | 2 | 2 | 1 | 3 |
| Recognition, wages, and hours..... | 56 | 48 | 49 | 76 | 45 | 11 | 8 | 25 | 7 | 4 | 13 | 7 | 14 | 26 | 18 |
| Recognition and other conditions..... | 4 | 13 | 7 | 14 | 6 | 6 | 6 | 8 | 9 | 1 | 4 | 23 | 16 | 100 | 5 |
| General conditions..... | 68 | 116 | 93 | 123 | 116 | 83 | 72 | 80 | 79 | 89 | 66 | 47 | 17 | 95 | 30 |
| Discharge of employees..... | 144 | 246 | 192 | 163 | 170 | 45 | 44 | 79 | 54 | 74 | 61 | 50 | 58 | 41 | 46 |
| Unfair products..... | 7 | 9 | 1 | 5 | 30 | 27 | 18 | 7 | 8 | 4 | 16 | 3 | 7 | 2 | 3 |
| Sympathy..... | 33 | 71 | 35 | 108 | 67 | 36 | 33 | 31 | 22 | 39 | 29 | 23 | 8 | 20 | 12 |
| Jurisdiction and protest..... | 19 | 21 | 16 | 16 | 20 | 10 | 10 | 13 | 23 | 59 | 17 | 13 | 33 | 21 | 28 |
| Other conditions..... | 274 | 374 | 294 | 223 | 213 | 192 | 125 | 310 | 228 | 254 | 175 | | 75 | 41 | 47 |
| Not reported..... | 631 | 792 | 461 | 250 | 305 | 163 | 63 | 83 | 108 | 100 | 48 | 67 | | | |
| Total..... | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 |

Size of Disputes

THE number of disputes, classified according to the number of workers affected, is shown in Table 9, by years:

TABLE 9.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR, BY CLASSIFIED NUMBER OF PERSONS INVOLVED

| Number in- volved | Number of disputes beginning in— | | | | | | | | | | | | | | |
|----------------------|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| 1 to 10..... | 210 | 171 | 152 | 186 | 161 | 257 | 80 | 128 | 125 | 142 | 60 | 83 | 61 | 63 | 64 |
| 11 to 25..... | 355 | 304 | 279 | 297 | 322 | 336 | 128 | 182 | 120 | 167 | 153 | 158 | 155 | 188 | 146 |
| 26 to 50..... | 427 | 350 | 343 | 353 | 349 | 287 | 156 | 206 | 145 | 195 | 105 | 137 | 126 | 160 | 135 |
| 51 to 100..... | 420 | 361 | 357 | 404 | 367 | 352 | 159 | 157 | 114 | 166 | 124 | 112 | 82 | 156 | 88 |
| 101 to 250..... | 399 | 368 | 384 | 494 | 381 | 245 | 144 | 161 | 119 | 147 | 119 | 106 | 71 | 151 | 107 |
| 251 to 500..... | 354 | 287 | 287 | 356 | 289 | 164 | 91 | 135 | 93 | 97 | 96 | 60 | 47 | 86 | 60 |
| 501 to 1,000..... | 241 | 194 | 143 | 217 | 145 | 103 | 61 | 78 | 81 | 52 | 66 | 45 | 34 | 46 | 27 |
| 1,001 to 10,000..... | 238 | 223 | 204 | 332 | 184 | 133 | 61 | 119 | 78 | 43 | 58 | 31 | 49 | 52 | 25 |
| Over 10,000..... | 23 | 68 | 17 | 54 | 19 | 15 | 5 | 13 | 3 | 2 | 2 | 4 | 1 | 1 | 1 |
| Not reported..... | 1,122 | 2,124 | 1,187 | 937 | 1,194 | 593 | 216 | 382 | 361 | 289 | 252 | ----- | ----- | ----- | ----- |
| Total..... | 3,789 | 4,450 | 3,353 | 3,630 | 3,411 | 2,385 | 1,112 | 1,553 | 1,249 | 1,301 | 1,035 | 734 | 629 | 903 | 653 |

In Table 10 are given, by years, the total number of disputes and the total as well as the average number of employees involved:

TABLE 10.—NUMBER OF DISPUTES BEGINNING IN EACH YEAR FOR WHICH NUMBER OF EMPLOYEES IS REPORTED, AND TOTAL AND AVERAGE NUMBER INVOLVED, 1916 TO 1930

| Year | Disputes in which number of employees is reported | | | Year | Disputes in which number of employees is reported | | |
|-----------|---|---------------------|---|-----------|---|---------------------|---|
| | Number of disputes | Number of employees | Average number of employees per dispute | | Number of disputes | Number of employees | Average number of employees per dispute |
| 1916..... | 2,667 | 1,599,917 | 600 | 1924..... | 898 | 654,641 | 729 |
| 1917..... | 2,325 | 1,227,254 | 528 | 1925..... | 1,012 | 428,416 | 423 |
| 1918..... | 2,151 | 1,239,989 | 576 | 1926..... | 783 | 329,592 | 421 |
| 1919..... | 2,665 | 4,160,348 | 1,561 | 1927..... | 734 | 349,434 | 476 |
| 1920..... | 2,226 | 1,463,054 | 657 | 1928..... | 629 | 357,145 | 568 |
| 1921..... | 1,785 | 1,099,247 | 616 | 1929..... | 903 | 230,463 | 255 |
| 1922..... | 899 | 1,612,562 | 1,794 | 1930..... | 653 | 158,114 | 242 |
| 1923..... | 1,199 | 756,584 | 631 | | | | |

The bureau has defined "establishment" as a working place and not as a company, since the term "company" frequently involves several separate and distinct units. Even with this definition, it is difficult to obtain accurate information on this point, but the best obtainable data are shown in Table 11, which follows.

TABLE 11.—NUMBER OF ESTABLISHMENTS INVOLVED

| Establishments involved | Number of disputes | | | | | | | | | | | | | |
|-------------------------|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|------|-------|-------|
| | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| 1..... | 3, 078 | 2, 541 | 2, 136 | 1, 989 | 1, 071 | 745 | 1, 133 | 820 | 898 | 649 | 453 | 427 | 639 | 460 |
| 2..... | 143 | 70 | 142 | 86 | 113 | 28 | 56 | 34 | 60 | 26 | 36 | 24 | 38 | 42 |
| 3..... | 73 | 42 | 99 | 59 | 94 | 17 | 35 | 23 | 25 | 23 | 18 | 20 | 37 | 12 |
| 4..... | 41 | 23 | 59 | 40 | 62 | 17 | 15 | 16 | 24 | 10 | 16 | 18 | 9 | 10 |
| 5..... | 18 | 90 | 52 | 35 | 43 | 9 | 10 | 17 | 12 | 14 | 14 | 17 | 46 | 20 |
| Over 5..... | 403 | 327 | 910 | 426 | 584 | 104 | 103 | 84 | 98 | 94 | 163 | 95 | 134 | 100 |
| Not reported..... | 694 | 260 | 232 | 776 | 418 | 192 | 201 | 255 | 184 | 219 | 34 | 28 | ----- | ----- |
| Total..... | 4, 450 | 3, 353 | 3, 630 | 3, 411 | 2, 385 | 1, 112 | 1, 553 | 1, 249 | 1, 301 | 1, 035 | 734 | 629 | 903 | 653 |

Industries Involved in Labor Disputes

ALTHOUGH a much smaller number of workers was involved in 1930 than in 1929, the building trades, clothing, mining, and textile industries continue to occupy the most prominent position among the industries shown. Iron and steel and stone work were the only two industries showing an increase in the number of workers affected, while shipbuilding and slaughtering and meat cutting and packing show no workers on strike in 1930. Details of selected industries are given in Table 12:

TABLE 12.—NUMBER OF PERSONS DIRECTLY INVOLVED IN INDUSTRIAL DISPUTES 1929 AND 1930, BY SELECTED INDUSTRIES

| Industry | 1929 | 1930 | Industry | 1929 | 1930 |
|--------------------------|---------|---------|---|---------|---------|
| Building trades..... | 44, 198 | 25, 529 | Printing and publishing..... | 1, 564 | 160 |
| Clothing..... | 60, 540 | 54, 177 | Shipbuilding..... | 300 | ----- |
| Furniture..... | 2, 917 | 891 | Slaughtering, meat cutting and packing..... | 623 | ----- |
| Iron and steel..... | 915 | 940 | Stone work..... | 200 | 338 |
| Leather..... | 1, 403 | 130 | Textiles..... | 26, 393 | 11, 553 |
| Lumber..... | 568 | 452 | Tobacco..... | 881 | 114 |
| Metal trades..... | 6, 340 | 2, 142 | Transportation, steam and electric..... | 2, 124 | 767 |
| Mining, coal..... | 64, 202 | 35, 403 | | | |
| Paper manufacturing..... | 102 | 58 | | | |

The number of disputes in selected industry groups, by years, 1916 to 1930, is shown in Table 13:

TABLE 13.—NUMBER OF DISPUTES IN SELECTED INDUSTRY GROUPS

| Industry | Number of disputes | | | | | | | | | | | | | | |
|---|--------------------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Building trades..... | 394 | 468 | 434 | 473 | 521 | 583 | 113 | 208 | 270 | 349 | 272 | 194 | 134 | 212 | 186 |
| Clothing..... | 227 | 495 | 436 | 322 | 336 | 240 | 240 | 395 | 238 | 231 | 194 | 129 | 124 | 169 | 103 |
| Furniture..... | 50 | 43 | 26 | 35 | 26 | 17 | 4 | 12 | 35 | 56 | 46 | 41 | 25 | 32 | 19 |
| Iron and steel..... | 72 | 56 | 74 | 76 | 25 | 25 | 10 | 10 | 7 | 7 | 2 | 2 | 2 | 3 | 3 |
| Leather..... | 34 | 19 | 16 | 27 | 32 | 26 | 17 | 17 | 5 | 5 | 11 | 12 | 5 | 11 | 5 |
| Lumber..... | 44 | 299 | 76 | 46 | 38 | 25 | 10 | 19 | 6 | 9 | 3 | 3 | 7 | 3 | 3 |
| Metal trades..... | 547 | 515 | 441 | 581 | 452 | 194 | 83 | 113 | 58 | 48 | 75 | 19 | 28 | 53 | 28 |
| Mining, coal..... | 373 | 355 | 162 | 148 | 161 | 87 | 44 | 158 | 177 | 100 | 78 | 60 | 83 | 77 | 76 |
| Mining, other..... | 43 | 94 | 46 | 28 | 22 | 8 | 5 | 1 | 1 | 4 | ----- | ----- | ----- | ----- | ----- |
| Paper manufacturing..... | 54 | 41 | 40 | 47 | 39 | 42 | 12 | 16 | 6 | 6 | 10 | 1 | 2 | 3 | 2 |
| Printing and publishing..... | 27 | 41 | 40 | 71 | 83 | 506 | 56 | 19 | 12 | 14 | 9 | 22 | 10 | 8 | 11 |
| Shipbuilding..... | 31 | 106 | 140 | 109 | 45 | 20 | 4 | 6 | 1 | ----- | ----- | ----- | 2 | 1 | ----- |
| Slaughtering, meat cutting and packing..... | 70 | 38 | 42 | 74 | 42 | 30 | 6 | 11 | 14 | 2 | 5 | 5 | 4 | 3 | ----- |
| Stone..... | 61 | 26 | 14 | 13 | 29 | 34 | 61 | 15 | 15 | 17 | 11 | 4 | 8 | 2 | 5 |
| Textiles..... | 261 | 247 | 212 | 273 | 211 | 114 | 115 | 134 | 80 | 139 | 90 | 80 | 65 | 130 | 67 |
| Tobacco..... | 63 | 47 | 50 | 58 | 38 | 19 | 13 | 16 | 12 | 4 | 14 | 3 | 2 | 5 | 2 |
| Transportation, steam and electric..... | 228 | 343 | 227 | 191 | 241 | 37 | 67 | 31 | 18 | 7 | 8 | 1 | 3 | 5 | 3 |

The number of disputes by selected occupations is shown in Table 14, for the years, 1916 to 1930:

TABLE 14.—NUMBER OF DISPUTES IN SPECIFIED OCCUPATIONS, BY YEARS

| Occupation | Number of disputes | | | | | | | | | | | | | | |
|---|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Bakers..... | 81 | 106 | 47 | 88 | 75 | 99 | 24 | 35 | 72 | 55 | 14 | 8 | 10 | 7 | 7 |
| Boiler makers..... | 23 | 44 | 28 | 31 | 22 | 16 | 4 | 9 | 3 | 5 | 4 | | | 6 | |
| Boot and shoe workers..... | 45 | 38 | 50 | 54 | 63 | 28 | 55 | 53 | 27 | 31 | 25 | 13 | 34 | 53 | 21 |
| Brewery workers..... | 21 | 22 | 27 | 23 | 25 | 24 | 12 | 4 | 10 | 6 | 2 | 2 | 2 | | |
| Brick and tile workers..... | 23 | 9 | 5 | 16 | 21 | 12 | 14 | 6 | 8 | 13 | 7 | 1 | | 4 | 2 |
| Building laborers and hod carriers..... | 54 | 74 | 27 | 49 | 90 | 10 | 7 | 39 | 19 | 35 | 26 | 22 | 18 | 27 | 24 |
| Carpenters..... | 75 | 101 | 81 | 96 | 73 | 49 | 20 | 22 | 34 | 50 | 27 | 22 | 35 | 48 | 39 |
| Chauffeurs and teamsters..... | 108 | 164 | 129 | 95 | 130 | 43 | 20 | 51 | 39 | 44 | 22 | 25 | 16 | 62 | 40 |
| Freight handlers and longshoremen..... | 158 | 194 | 89 | 58 | 68 | 36 | 18 | 23 | 12 | 10 | 7 | 3 | 1 | 4 | 6 |
| Glass workers..... | 41 | 23 | 13 | 9 | 11 | 2 | 4 | 14 | 7 | 8 | 6 | 10 | 4 | 2 | |
| Hat and cap and fur workers..... | 26 | 52 | 38 | 38 | 51 | 25 | 40 | 25 | 34 | 25 | 32 | 19 | 12 | 17 | 13 |
| Inside wiremen..... | 32 | 33 | 45 | 33 | 51 | 29 | 7 | 9 | 18 | 16 | 17 | 12 | 10 | 46 | 23 |
| Machinists..... | 257 | 204 | 207 | 202 | 127 | 29 | 8 | 13 | 6 | | 15 | | 1 | 5 | 3 |
| Metal polishers..... | 43 | 25 | 29 | 61 | 78 | 8 | 3 | 4 | 10 | 8 | 10 | 3 | 6 | 7 | 8 |
| Miners, coal..... | 373 | 355 | 162 | 148 | 161 | 87 | 44 | 158 | 177 | 99 | 78 | 60 | 83 | 53 | 76 |
| Molders..... | 145 | 156 | 110 | 181 | 145 | 93 | 38 | 54 | 29 | 13 | 21 | 12 | 15 | 14 | 16 |
| Painters and paper hangers..... | 46 | 45 | 61 | 81 | 46 | 62 | 10 | 20 | 25 | 29 | 22 | 23 | 10 | 39 | 16 |
| Plumbers and steam fitters..... | 53 | 53 | 72 | 55 | 81 | 82 | 21 | 25 | 42 | 55 | 38 | 28 | 23 | 57 | 36 |
| Rubber workers..... | 38 | 19 | 15 | 15 | 14 | 3 | 3 | 7 | 2 | 6 | 2 | 2 | 2 | 4 | |
| Sheet-metal workers..... | 23 | 33 | 45 | 19 | 14 | 82 | 8 | 13 | 18 | 9 | 18 | 6 | 3 | 19 | 7 |
| Street railway employees..... | 56 | 118 | 117 | 110 | 81 | 12 | 19 | 21 | 14 | 5 | 8 | 2 | 3 | 2 | 2 |
| Structural-iron workers..... | 23 | 16 | 20 | 15 | 32 | 5 | 6 | 18 | 13 | 16 | 12 | 10 | 13 | 28 | 21 |
| Tailors..... | 38 | 59 | 51 | 70 | 42 | 58 | 19 | 32 | 11 | 22 | 16 | 14 | 6 | 3 | 2 |

Table 15 shows the number of disputes ending each month, for each year, 1916 to 1930:

TABLE 15.—NUMBER OF DISPUTES ENDING IN EACH MONTH

| Year | Number of disputes ending in— | | | | | | | | | | | | Total | |
|-----------|-------------------------------|------|------|------|-----|------|------|------|-------|------|------|------|-------|------------------|
| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | | Month not stated |
| 1916..... | 117 | 132 | 176 | 292 | 337 | 216 | 200 | 217 | 223 | 173 | 156 | 78 | 131 | 2,448 |
| 1917..... | 111 | 94 | 159 | 198 | 223 | 172 | 157 | 156 | 201 | 177 | 122 | 132 | 172 | 2,074 |
| 1918..... | 105 | 125 | 168 | 208 | 261 | 223 | 211 | 207 | 175 | 147 | 117 | 166 | 85 | 2,198 |
| 1919..... | 122 | 113 | 128 | 144 | 226 | 195 | 207 | 252 | 239 | 194 | 147 | 120 | 133 | 2,220 |
| 1920..... | 84 | 85 | 129 | 197 | 200 | 188 | 191 | 157 | 155 | 117 | 72 | 60 | 237 | 1,872 |
| 1921..... | 64 | 61 | 106 | 102 | 222 | 171 | 144 | 141 | 91 | 81 | 65 | 46 | 232 | 1,526 |
| 1922..... | 42 | 39 | 37 | 37 | 77 | 52 | 58 | 65 | 70 | 58 | 61 | 53 | 92 | 741 |
| 1923..... | 32 | 54 | 78 | 144 | 182 | 114 | 121 | 85 | 85 | 95 | 57 | 36 | 62 | 1,145 |
| 1924..... | 69 | 78 | 92 | 90 | 129 | 109 | 83 | 62 | 55 | 69 | 47 | 43 | 33 | 959 |
| 1925..... | 68 | 66 | 65 | 110 | 131 | 93 | 71 | 111 | 81 | 92 | 57 | 34 | 10 | 989 |
| 1926..... | 33 | 46 | 62 | 76 | 111 | 73 | 60 | 77 | 77 | 59 | 51 | 37 | 18 | 780 |
| 1927..... | 19 | 38 | 51 | 64 | 80 | 82 | 88 | 65 | 54 | 37 | 35 | 26 | | 639 |
| 1928..... | 41 | 57 | 52 | 70 | 72 | 54 | 58 | 59 | 60 | 53 | 48 | 32 | | 656 |
| 1929..... | 43 | 55 | 75 | 101 | 95 | 89 | 84 | 88 | 92 | 87 | 60 | 44 | | 913 |
| 1930..... | 45 | 33 | 51 | 61 | 78 | 54 | 82 | 48 | 61 | 55 | 51 | 48 | | 667 |

Termination of Disputes by Result

TABLE 16 shows the number of disputes ending each year, classified by results. For example, 294 or 44 per cent of all disputes reported ending in 1930 were settled in favor of employers, 167 or 25 per cent in favor of employees, and 159 or 24 per cent resulted in compromise.

Jurisdictional and protest strikes have increased to such an extent in recent years that it is felt that the number of such disputes may prove interesting, and for this reason such strikes have been segregated in this table. A jurisdictional dispute is one in which trades or occupations are directly involved, one against another. As far as the employer is concerned, they are often more disastrous than the dispute in which he is immediately affected. A protest strike is one which, as its name indicates, simply expresses dislike for some rule, executive, or condition. It is usually of very short duration and frequently is officially unauthorized.

TABLE 16.—RESULTS OF DISPUTES ENDING IN EACH YEAR

| Result | Number of disputes ending in— | | | | | | | | | | | | | | | | | |
|---|-------------------------------|-------|-------|-------|-------|-------|------|-------|------|------|------|------|------|------|-------|----|----|----|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | | | |
| In favor of employers..... | 748 | 395 | 465 | 687 | 677 | 701 | 248 | 368 | 283 | 253 | 226 | 169 | 272 | 367 | 294 | | | |
| In favor of employees..... | 749 | 631 | 627 | 627 | 472 | 256 | 259 | 403 | 354 | 349 | 288 | 235 | 197 | 267 | 167 | | | |
| Compromise..... | 777 | 720 | 691 | 797 | 448 | 291 | 105 | 168 | 138 | 138 | 147 | 129 | 160 | 226 | 159 | | | |
| Employees returned pending arbitration..... | 73 | 137 | 204 | 50 | 61 | 80 | 16 | 46 | 45 | 51 | 36 | 29 | 3 | 3 | | | | |
| Jurisdictional and protest..... | | | | | | | | | | | | | | | | 14 | 33 | 27 |
| Not reported..... | 101 | 191 | 211 | 59 | 214 | 198 | 113 | 160 | 139 | 198 | 83 | 77 | 1 | 10 | 2 | 17 | 3 | 20 |
| Total..... | 2,448 | 2,074 | 2,198 | 2,220 | 1,872 | 1,526 | 741 | 1,145 | 959 | 989 | 780 | 639 | 656 | 913 | 667 | | | |

¹ Results of 7 strikes undetermined.

² Results of 16 strikes undetermined.

³ Results of 20 strikes undetermined.

Duration of Disputes

TABLE 17 shows the number of disputes ending each year, 1916 to 1930, and their aggregate and average duration:

TABLE 17.—NUMBER OF DISPUTES FOR WHICH DURATION IS KNOWN, AND TOTAL AND AVERAGE DURATION

| Year in which disputes ended | Number of disputes for which duration is reported | Total duration (days) | Average duration (days) | Year in which disputes ended | Number of disputes for which duration is reported | Total duration (days) | Average duration (days) |
|------------------------------|---|-----------------------|-------------------------|------------------------------|---|-----------------------|-------------------------|
| 1916..... | 2,116 | 49,680 | 23 | 1924..... | 957 | 28,588 | 30 |
| 1917..... | 1,435 | 26,981 | 19 | 1925..... | 879 | 23,809 | 27 |
| 1918..... | 1,709 | 29,895 | 17 | 1926..... | 738 | 18,805 | 25 |
| 1919..... | 1,855 | 62,930 | 34 | 1927..... | 669 | 15,865 | 24 |
| 1920..... | 1,321 | 51,893 | 39 | 1928..... | 656 | 17,997 | 27 |
| 1921..... | 1,258 | 64,231 | 51 | 1929..... | 913 | 18,507 | 20 |
| 1922..... | 580 | 21,436 | 37 | 1930..... | 667 | 12,292 | 18 |
| 1923..... | 968 | 23,177 | 24 | | | | |

The classified period of duration of disputes by years is shown in Table 18:

TABLE 18.—DISPUTES ENDING IN EACH YEAR, BY CLASSIFIED PERIODS OF DURATION

| Duration | Number of disputes ending in— | | | | | | | | | | | | | | |
|----------------------|-------------------------------|-------|-------|-------|-------|-------|------|-------|------|------|------|-------|-------|-------|-------|
| | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 |
| Less than 1 day..... | 38 | 88 | 84 | 29 | 31 | 32 | 18 | 26 | 23 | 42 | 51 | 61 | 95 | 139 | 66 |
| 1 day..... | 141 | 196 | 145 | 76 | 57 | 27 | 48 | 82 | 42 | 55 | 51 | 61 | 38 | 56 | 72 |
| 2 days..... | 185 | 113 | 171 | 70 | 64 | 44 | 39 | 74 | 46 | 52 | 47 | 38 | 50 | 67 | 54 |
| 3 days..... | 147 | 105 | 127 | 80 | 54 | 44 | 27 | 68 | 31 | 62 | 42 | 49 | 50 | 46 | 39 |
| 4 days..... | 125 | 62 | 111 | 78 | 51 | 47 | 23 | 66 | 46 | 39 | 32 | 22 | 39 | 46 | 39 |
| 5 days..... | 131 | 56 | 72 | 74 | 36 | 35 | 26 | 36 | 27 | 34 | 34 | 29 | 27 | 44 | 27 |
| 6 days..... | 112 | 65 | 67 | 45 | 44 | 32 | 18 | 44 | 30 | 26 | 30 | 45 | 44 | 48 | 32 |
| 7 days..... | 93 | 95 | 115 | 69 | 66 | 45 | 34 | 62 | 47 | 47 | 48 | 17 | 14 | 37 | 36 |
| 8 days..... | 86 | 29 | 60 | 72 | 30 | 19 | 10 | 26 | 14 | 24 | 21 | 19 | 11 | 25 | 19 |
| 9 days..... | 50 | 31 | 38 | 33 | 30 | 19 | 10 | 20 | 17 | 23 | 25 | 18 | 21 | 21 | 20 |
| 10 days..... | 108 | 43 | 58 | 57 | 30 | 28 | 19 | 5 | 16 | 17 | 19 | 12 | 24 | 15 | 19 |
| 11 days..... | 41 | 24 | 24 | 30 | 28 | 19 | 5 | 16 | 17 | 19 | 12 | 24 | 15 | 19 | 15 |
| 12 days..... | 42 | 39 | 26 | 28 | 24 | 12 | 6 | 17 | 6 | 21 | 10 | 29 | 21 | 43 | 14 |
| 13 days..... | 27 | 13 | 16 | 30 | 21 | 14 | 10 | 32 | 12 | 14 | 6 | 16 | 12 | 17 | 10 |
| 14 days..... | 64 | 40 | 49 | 42 | 40 | 25 | 9 | 36 | 26 | 33 | 19 | 10 | 7 | 15 | 17 |
| 15 to 18 days..... | 148 | 75 | 88 | 113 | 83 | 76 | 41 | 54 | 39 | 60 | 34 | 30 | 36 | 42 | 43 |
| 19 to 21 days..... | 83 | 46 | 72 | 95 | 25 | 49 | 27 | 39 | 23 | 47 | 20 | 21 | 13 | 29 | 14 |
| 22 to 24 days..... | 40 | 23 | 40 | 51 | 41 | 16 | 15 | 12 | 17 | 36 | 20 | 18 | 12 | 19 | 18 |
| 25 to 28 days..... | 61 | 35 | 32 | 65 | 56 | 31 | 9 | 33 | 39 | 28 | 25 | 23 | 21 | 28 | 22 |
| 29 to 31 days..... | 53 | 28 | 65 | 74 | 47 | 43 | 9 | 40 | 27 | 23 | 25 | 22 | 14 | 17 | 14 |
| 32 to 35 days..... | 25 | 27 | 31 | 61 | 21 | 36 | 13 | 20 | 23 | 17 | 25 | 26 | 9 | 19 | 15 |
| 36 to 42 days..... | 50 | 38 | 39 | 81 | 46 | 54 | 14 | 14 | 26 | 2 | 24 | 19 | 21 | 26 | 18 |
| 43 to 49 days..... | 24 | 29 | 36 | 78 | 48 | 40 | 14 | 13 | 26 | 18 | 22 | 20 | 11 | 28 | 14 |
| 50 to 63 days..... | 40 | 22 | 48 | 124 | 69 | 86 | 29 | 24 | 43 | 32 | 21 | 28 | 23 | 19 | 25 |
| 64 to 77 days..... | 53 | 37 | 48 | 72 | 51 | 60 | 18 | 24 | 27 | 12 | 15 | 16 | 12 | 19 | 18 |
| 78 to 91 days..... | 40 | 22 | 17 | 57 | 41 | 61 | 14 | 16 | 12 | 9 | 8 | 5 | 14 | 13 | 14 |
| 92 to 200 days..... | 27 | 12 | 35 | 149 | 125 | 186 | 51 | 25 | 55 | 39 | 25 | 15 | 30 | 25 | 12 |
| Over 200 days..... | 99 | 55 | 31 | 46 | 51 | 15 | 19 | 23 | 15 | 5 | 1 | 15 | 7 | 7 | 2 |
| Not reported..... | 23 | 9 | 24 | 22 | 46 | 51 | 15 | 19 | 23 | 15 | 5 | 1 | 15 | 7 | 2 |
| Total..... | 332 | 639 | 489 | 365 | 551 | 268 | 165 | 178 | 174 | 114 | 93 | ----- | ----- | ----- | ----- |
| Total..... | 2,448 | 2,074 | 2,198 | 2,220 | 1,872 | 1,526 | 741 | 1,145 | 959 | 989 | 752 | 639 | 656 | 913 | 667 |

Termination of Disputes as Related to Length

OF THE 667 strikes terminated in 1930, there were 271 or 41 per cent, settled within 6 days and 438 or about two-thirds were settled within 14 days. Of those settled in favor of employees or in which some gain was made by employees through a compromise, 125 or 38 per cent were settled within 6 days, while 224 or nearly 70 per cent were settled within 14 days.

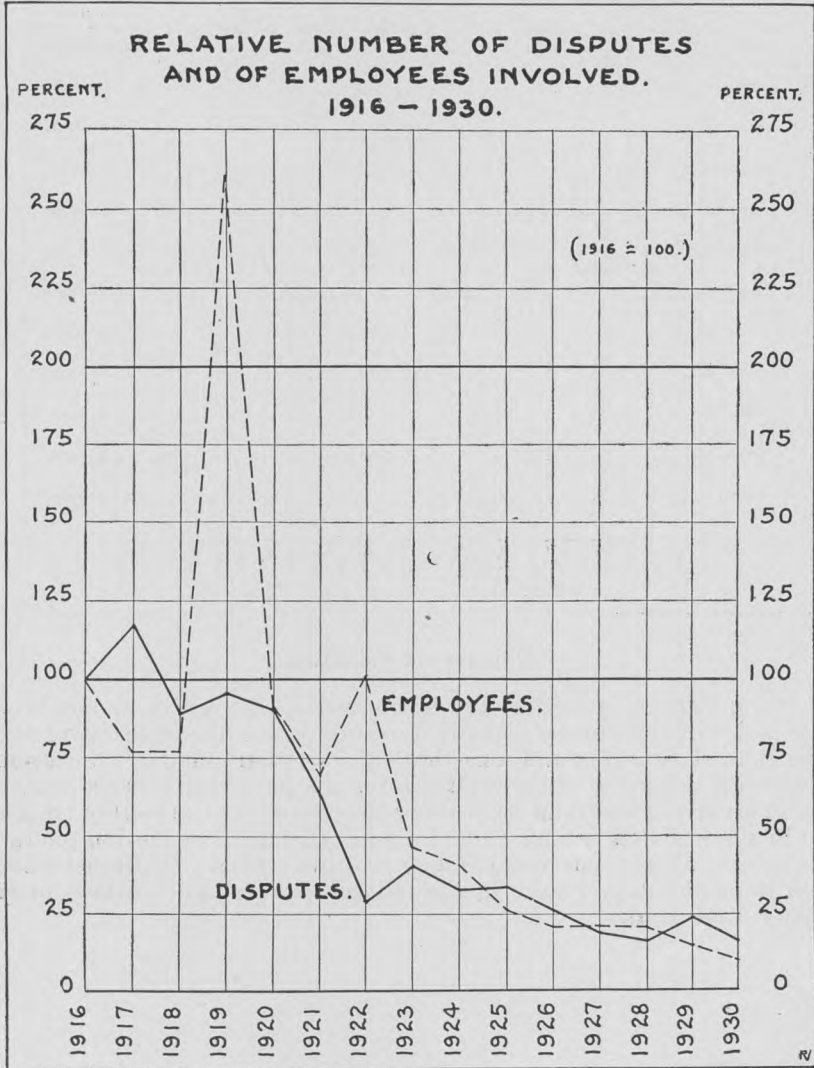
Further details as to termination of strikes by periods of duration may be followed in Table 19:

TABLE 19.—NUMBER OF STRIKES TERMINATED IN 1930, BY PERIOD OF DURATION

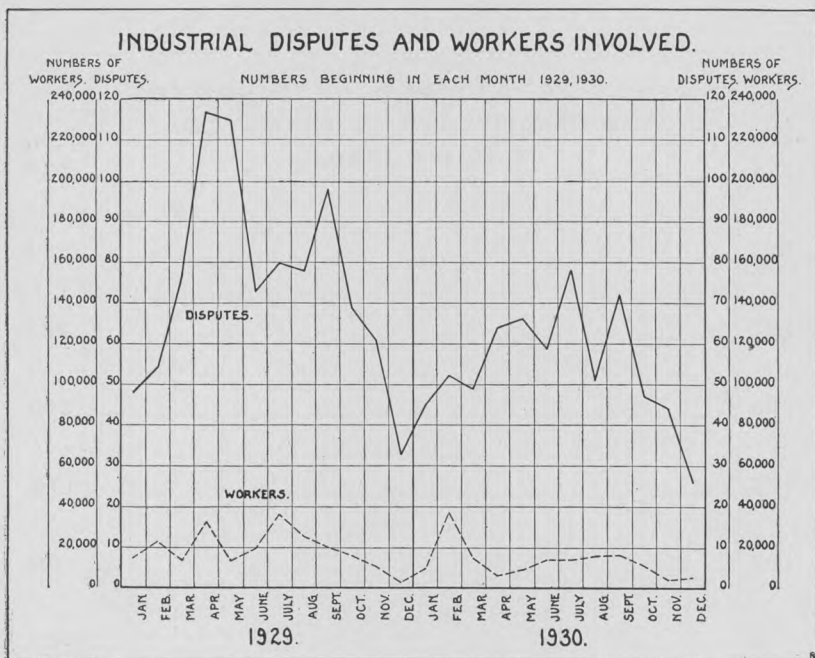
| Duration | In favor of employees | In favor of employees | Compromised | Otherwise settled | Total |
|-----------------------|-----------------------|-----------------------|-------------|-------------------|-------|
| 1 to 6 days..... | 125 | 86 | 39 | 21 | 271 |
| 7 to 14 days..... | 60 | 37 | 62 | 8 | 167 |
| 15 to 28 days..... | 40 | 24 | 28 | 5 | 97 |
| 29 days and over..... | 69 | 20 | 30 | 13 | 132 |
| Total..... | 294 | 167 | 159 | 47 | 667 |

Graphic Presentation of Disputes by Years and Month of Occurrence

THE relative number of disputes and of the employees involved therein in the years 1916 to 1930 is shown graphically in the following chart:



The number of industrial disputes beginning in each month in 1929 and 1930 and the number of workers involved therein are shown graphically in the following chart:



Disputes not Tabulated

SINCE 1926, as stated at the beginning of this report, it has been the policy of the bureau to omit from tabulation all strikes involving less than six workers and also those of less than one day's duration. A general summary of these strikes for the past year reveals that of those involving less than six workers, 9 occurred in the bakery trades, 19 in the building trades, and 14 among theatrical or motion picture operators; 37 were scattered among 19 other trades. Of those lasting less than one day, 4 were in the building trades and 6 others in as many other trades.

EMPLOYMENT CONDITIONS AND RELIEF

Policies and Practices for Stabilization of Employment in Retail Establishments

A PAMPHLET outlining the policies and practices introduced by some of the more progressive retailers to stabilize employment in their establishments has just been prepared for the President's Emergency Committee for Employment and issued by the United States Department of Commerce. The pamphlet is intended for the guidance of other employers who may wish to introduce similar measures, for it is pointed out that "unemployment is one of the worst enemies of retail trade."

The outline is reproduced below.

Plans for Employment Stabilization

Basic Procedure

IN SETTING up plans for employment stabilization, the following steps have been found desirable:

- (a) Survey individual and company needs thoroughly before taking action.
- (b) Consult with representatives of workers concerned to insure fairness to the individual worker in the application of policies under consideration.
- (c) Form a definite policy and state it clearly, either for use by the management or for general announcement.
- (d) Concentrate authority to see that the policy is followed.
- (e) Keep accurate and complete records of procedure for future guidance.
- (f) Cooperate in the exchange of information with companies in the same community, industry, region, or affiliated group.

Methods of Spreading Work

Of the expedients now in general use, spreading work through part-time operations is recognized as among the most beneficial to all concerned. Instead of laying off personnel when business declines thousands of firms in all types of work are holding their forces close to normal strength by retaining part or all of their employees on part time without reductions in wage rates.

Although individuals earn less under this plan than with full-time pay, obviously their morale and purchasing power is higher than under the old policy of extensive lay-offs. With the spreading of work a general practice, even though actual pay rolls do not mount much higher than under the old system, the wider distribution of wages together with strengthened morale is bound to be reflected in retail buying and generally better business. Firms participating in the movement stand to gain further through reduced turnover and

decreased training costs, and through a more efficient functioning, made possible by the retention of a loyal and capable staff.

The spreading of work may be undertaken not only by large department stores and chain-store groups but also by establishments employing only a few persons. For small units, the added cost is likely to be unappreciable. In larger organizations, planning is more difficult and is likely to involve some extra costs in accounting and other overhead. However, it is believed that the direct gains will compensate in most cases, aside from indirect benefits arising from the fact that every employee is a retail customer.

In spreading work, the practical problems being met by an individual retailer will vary widely in different types of merchandising. Working expedients include the following:

- (a) Reduction of overtime.
- (b) Use of staggered vacations or leaves of absence.
- (c) Rotation of days off.
- (d) Use of shorter shifts where store hours are long.
- (e) Rotation of shifts or individuals on the same job.
- (f) Transfer of employees between departments or branch stores to prevent lay-off.

The first rule of procedure is that of fairness. When part-time operations are applied, the aim is to distribute work as evenly as possible among all employees. The extent of distribution depends partly upon whether the resultant earnings are consistent with reasonable standards of living. Half-time work usually is the lower limit. Efficiency on the job and the economic needs of individuals also are to be considered.

To reduce hourly wages or commission rates for the purpose of further economies than may be gained by the spreading of work is to endanger employee morale. It has been found that when work has been divided without wage cuts, employees understand that their best interests are being served and cooperate cheerfully. To promote morale it is well to inform all employees who are to be retained that they need not worry about their jobs.

In applying a system of spreading work, much of the apportionment can be on the basis of employee preference. After adjustments have been made on a voluntary basis, the balance of the spreading can be divided equitably through the staff.

It is often desirable to discontinue deducting payments for bonuses, pensions, or savings from employee earnings so that all earnings may be used for immediate purposes.

Overtime and Contingent Force Adjustments

Overtime and contingent forces are closely related problems which may be handled with a substantial saving under part-time operations. By working the part-time force longer hours and by a suitable concentration of staggered shifts or individuals, it may be possible to meet most rush requirements without resorting to contingent force operation.

The responsibility of a store to its contingent personnel is to be recognized, although less than that to regular employees. Rather than dismiss contingent workers, it may be desirable in some cases to fit these persons into the part-time system which has been developed

for the regular employees, especially when dismissal would be a severe hardship. As with the regular personnel, individual cases should be surveyed before dismissals are made.

When hiring of contingent personnel is contemplated it may be preferable to permit regular employees, whose earnings have been reduced by part-time pay, to do work on the contingent force account in addition to their regular duties, paying them for this time at the same rate given to contingent workers for identical jobs.

Broadening the Training of Employees

Employment stabilization offers management an unusual opportunity to broaden the training of personnel so that they may be capable of handling several kinds of jobs. Keener interest of employees in time of economic stress makes them more susceptible to opportunities for increased knowledge of their vocation.

Employees trained by rotation between jobs can give alert and intelligent service for such purposes as a flying squadron, members of which can handle purchases for special customers through several departments. Rotation is good training for floorwalkers. Flexibility of staff is of further advantage in case of unforeseen absences or resignations.

Departments which bear a close relation to each other logically work into such planning. For example, a sales person handling draperies can easily learn the procedure for paper or yard goods. There are limits to rotation between types of work where methods and skills are not comparable and where a special skill may be lost through lack of practice unless switches between jobs are frequent.

Maintenance, Improvement, and Expansion

In taking up employment slack, consideration may be given to repair, modernization, replacement, improvement, and rearrangement; also expansion and new construction, financed from reserves or on credit. New cash registers or accounting machines, new lighting systems, better show cases, better arrangement of departments, repainting, and redecorating, etc., may be considered. Where the business has outgrown its facilities, there is no better time than during a depression to bring the properties up to date by expansion of floor space, offices, warehouses, workshops, and creation of new departments, if these are financially feasible. Construction prices are lower and all types of labor are plentiful at such a time.

For minor projects, members of the regular staff may do much of the work. For larger undertakings, the placing of contracts or hiring of men is a contribution to the purchasing power of the community which sooner or later tends to come back to retailers.

Keeping Adequate Stocks

Retailers can contribute further to purchasing power by maintaining reasonable stocks of goods in so far as this is compatible with sound merchandising practice. Many industrial groups report that their output and employment is at a low ebb because of the hand-to-mouth buying habits which retailers have assumed during the depression. On a falling market this practice acts to prevent inventory losses, but after wholesale prices have reached their low point, the

incentive is rather to buy. Too much stock supply or diversification, of course, may be as serious a problem as too little.

Market Analysis and Advance Planning

A thorough survey of market conditions gives a tangible basis for the amount of stock to be kept on hand. Although somewhat afield from the problem of direct employment, planned buying by retailers is of major importance in a national stabilization program and may contribute to a more even flow of production and distribution, thus reducing some of the seasonal peaks and valleys in the employment curve.

During a depression, when a high quality of management is necessary to maintain sales and employment, changes in customer demands create a need for readjustments in many lines of merchandising. New management systems are easier to apply during slack periods than through a busy season. Systems of stock control, store budgeting, new methods of work, promotion of new goods, new styles, or new uses, elimination of unprofitable items or customers, etc., may be based on continuous merchandise surveys, direct analysis of customer orders, and close cooperation with manufacturers and trade organizations.

Lay-off Procedure

General Methods

HIT-OR-MISS lay-offs, poor policy at any time, are even less warranted during a time of serious unemployment and impaired employee earnings. Measures should first be taken to survey store and employee needs in order to retain as many employees as economically possible. If staff reductions are too urgent to await this process, tentative lay-offs may be made, subject to reconsideration in the light of pay-roll analysis and personnel surveys.

The problem may be somewhat simplified by first eliminating the hiring of new employees, finding persons willing to go on furlough without pay, and predating transfer to pension roll.

After this procedure has been carried as far as possible, where dismissals are still unavoidable they should be based on a careful survey through analysis of available card records and through personal interviews either in the employment office or by department supervisors.

Preferences may be made in relation to the following:

- (a) Ability and efficiency.
- (b) Length of service.
- (c) Economic needs—number of dependents, etc.

Some authorities list detailed gradations of preference but arbitrary procedure along these lines is difficult to lay down. Needs, conditions, and abilities of individuals vary so widely that, in so far as possible, decisions should be based on the merits of each separate case, considered with the management's best judgment in relation to the problem at hand.

It has been considered inadvisable, in seeking economies through dismissals, to lay off experienced employees and replace them by lower-paid persons from the organization or outside, since this has been found to disrupt morale and to lower the quality of customer service just when the highest standards are essential.

Dismissal Compensation

There has been an increasing use of dismissal compensation in industry, usually in cases where conditions have demanded the permanent separation of employees. In time of depression, when finding a new job is a slow process, adequate compensation is essential to prevent want. As much advance notice as possible should be given before an employee loses his job. On dismissal, the compensation given has varied among companies from two weeks' to one year's wages, usually varying with the age and service of employees. Some firms give the normal vacation allowance on dismissal. Others give an amount equal to the accrued vacation allowance for the fraction of the year worked plus a lump sum of, say, two weeks' or a month's pay.

Follow-Up After Lay-Off

Few progressive firms have discontinued all responsibility for laid-off workers. The present emergency has greatly encouraged assistance to laid-off employees. Following are some of the measures in use:

(a) Placement in other jobs.

Store employment departments, employment exchanges, outside visits by employment interviewers, community exchange arrangements, advertisements, circular letters, and other means have been used to secure jobs for laid-off employees.

(b) Loans and credits.

Following friendly investigation of need, lump-sum or periodic cash loans are being extended. Loans are to be repaid on reemployment by deductions from wages, with or without interest. Tactful action assures protection against distress in cases where pride covers the need. Credits are given on food, clothing, and medical attention where company services or suitable merchandise are available. Such loans or credits usually are extended to employees temporarily laid off who are both able and willing to assume the financial obligations. Periodic surveys and visits are desirable to keep in touch with individual cases.

(c) Cooperation with relief agencies.

Some companies, willing to assume obligations to their former employees, prefer to have the work done by local or national relief organizations. In many cases firms in a community have participated in the support of an emergency relief committee or in the extension of work done by permanent agencies, such as the Red Cross or the community chest. The trained relief workers of such groups then assume charge of conditions in the entire community, their work being supported by company contributions, voluntary collections from employees, pay-roll deductions, and campaign collections in which stores can aid.

Permanent Stabilization Measures

THE stabilization policies and practices outlined in the pamphlet are offered primarily as emergency expedients which have served to increase employment during the current depression. Nevertheless, it is being found that companies which have worked along these lines are planning to retain many of these measures as permanent

procedure. Forecasting and planning and broader training for employees have an obvious place in the business structure.

Complete stabilization of retail employment will not be possible in many lines so long as periodical rush periods, such as Christmas and Easter, as well as seasonal variations in demand, act to prevent uniform operation the year round. However, united and continued action can minimize the undesirable employment features which are involved.

Among the most significant trends in personnel management is the growing acceptance of guaranteed income or employment as a permanent policy. A few firms have been able to stabilize their operations to the extent that they have guaranteed jobs to their personnel. Others are applying unemployment insurance, pension, or benefit plans, affording partial or complete income in case of disability or unemployment. The plans which have been worked out by certain industrial firms are applicable to many types of retail organizations.

Irregularity of Employment in the Radio Industry

Purpose and Scope of Inquiry

THE United States Women's Bureau has recently published, as its Bulletin No. 83, the results of a study of variations in the number of workers employed in the radio industry, made in 1930. It was undertaken as a result of statements made by a number of young women who had been attracted to the work by newspaper advertisements and had found it reasonably satisfactory until they began to suffer from irregular and uncertain employment. The study was decided upon for the purpose of discovering whether their experience reflected only a local situation or was typical of the industry as a whole; and since conditions in 1929 were abnormal, it was decided to secure employment records for a number of years so as to show the usual trend in the industry and to discover to what extent 1929 varied from normal.

In order to get a picture of employment in the radio industry as a whole, plants engaged in the manufacture of receiving sets, tubes, and parts and accessories were visited in Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Kentucky, Indiana, Michigan, and Illinois. As radio manufacturing is concentrated largely around the cities of New York and Chicago, much of the valuable information acquired was furnished by plants in these districts. Altogether, employment data were obtained from 26 firms making receiving sets, from 15 making tubes, and from 10 making parts or accessories. Authorities of the United States Department of Commerce and of the Radio Manufacturers Association agree that figures presented in this report cover firms that produced 80 to 90 per cent of the sets and at least 90 per cent of the tubes made in 1929.

The data on radio parts and accessories are far from being so inclusive, and they constitute barely a sample of employment conditions in the scores of plants, widely scattered through the States, making essential parts for the radio trade.

Data were secured from the pay roll or other records of the various firms visited. In the majority of cases it was possible to get figures for at least two years, and in some cases the records went back for 5, 6, and even 8 years.

Each branch of the industry is treated separately; and since the number of factories engaged in the manufacture of parts and acces-

sories was not considered sufficiently representative, the chief emphasis is laid on the other two branches—the manufacture of receiving sets and of tubes.

Conditions in the Manufacture of Receiving Sets

FROM 23 firms data were secured showing for 1929 the fluctuations in employment by sex of worker, and from a twenty-fourth firm similar data without distinction of sex. For 16 of the 23 showing sex, the data covered the whole year, but the remaining 7 had operated less than 12 months, so that the figures for the two groups are presented separately. Table 1 shows the number employed each month by those of the firms then in operation, while Table 2 shows the same data for the firm which gave its figures for the two sexes combined.

TABLE 1.—FLUCTUATION IN EMPLOYMENT, 23 PLANTS MAKING RECEIVING SETS, 1929

| Month | 16 plants making sets in 1929 | | | 7 plants making sets during part of 1929 | | |
|-------------------------------------|-------------------------------|------------|--------|--|--------------------|--------------------|
| | Total number of employees | Number of— | | Total number of employees | Number of— | |
| | | Men | Women | | Men | Women |
| January..... | 19,853 | 9,182 | 10,671 | | | |
| February..... | 18,104 | 8,703 | 9,401 | | | |
| March..... | 13,688 | 6,848 | 6,840 | | | |
| April..... | 13,045 | 7,086 | 5,959 | ¹ 3,366 | ¹ 2,484 | ¹ 882 |
| May..... | 14,900 | 8,328 | 6,572 | ² 5,815 | ² 3,780 | ² 2,035 |
| June..... | 18,765 | 10,190 | 8,575 | ³ 6,637 | ³ 4,157 | ³ 2,480 |
| July..... | 25,906 | 13,587 | 12,319 | 9,347 | 5,240 | 4,107 |
| August..... | 31,163 | 16,228 | 14,935 | 10,759 | 6,309 | 4,450 |
| September..... | 30,696 | 16,439 | 14,257 | 12,276 | 7,434 | 4,842 |
| October..... | 28,377 | 14,978 | 13,399 | 12,558 | 7,889 | 4,669 |
| November..... | 20,566 | 11,058 | 9,508 | 8,888 | 5,857 | 3,031 |
| December..... | 13,086 | 7,917 | 5,169 | 5,184 | 3,278 | 1,906 |
| Average..... | 20,679 | 10,879 | 9,800 | ³ 9,835 | ³ 6,001 | ³ 3,834 |
| Maximum..... | 31,163 | 16,439 | 14,935 | ³ 12,558 | ³ 7,889 | ³ 4,842 |
| Minimum..... | 13,045 | 6,848 | 5,169 | ³ 5,184 | ³ 3,278 | ³ 1,906 |
| Per cent minimum is of maximum..... | 41.9 | 41.7 | 34.6 | ³ 41.3 | ³ 41.6 | ³ 39.4 |

¹ 3 plants only.

² 6 plants.

³ July to December only.

TABLE 2.—FLUCTUATION IN 1 PLANT NOT REPORTING EMPLOYMENT BY SEX, 1929

| Month | Number of employees | Month | Number of employees |
|----------------|---------------------|-------------------------------------|---------------------|
| January..... | 6,812 | October..... | 13,103 |
| February..... | 7,209 | November..... | 7,698 |
| March..... | 7,548 | December..... | 4,896 |
| April..... | 7,345 | | |
| May..... | 5,985 | Average..... | 8,577 |
| June..... | 8,417 | Maximum..... | 13,103 |
| July..... | 10,186 | Minimum..... | 4,896 |
| August..... | 11,551 | Per cent minimum is of maximum..... | 37.4 |
| September..... | 12,175 | | |

In all cases August, September, and October were the months of highest employment, with a low point in December, and for the plants in operation throughout the year, another in the spring. The spring depression is especially significant, since it occurred months before the stock collapse of October. In plants giving the record for

the sexes separately, the variations in employment were greater in the case of women than of men.

In the 16 plants with a complete record the number at the peak was for the women two and one-half times and for the men almost two and one-half times as great as at the minimum in the spring. But reductions soon were drastic, and by December less than one-half of the men and only about one-third of the women still held their jobs.

The length of time a plant had been in operation seemed to have little to do with its continuity of employment. The plant with the best record for stable employment for women in 1929, it is stated, had been operating for less than a year, while the one with the second best record was able to furnish figures for eight years' operation.

From eight plants figures were secured covering four years of operation, which showed fluctuations as follows:

TABLE 3.—FLUCTUATION IN EMPLOYMENT, 8 SELECTED PLANTS MAKING RECEIVING SETS, 1926 TO 1929

| Month | 1926 ¹ | | | 1927 | | | 1928 | | | 1929 | | |
|--|-------------------|-------|------------|-------|-------|------------|--------|-------|------------|--------|--------|------------|
| | Total | Men | Wom- en | Total | Men | Wom- en | Total | Men | Wom- en | Total | Men | Wom- en |
| January..... | 5,907 | 2,874 | 3,033 | 4,187 | 2,527 | 1,660 | 7,353 | 3,670 | 3,683 | 10,700 | 5,358 | 5,342 |
| February..... | 5,243 | 2,597 | 2,646 | 3,507 | 2,210 | 1,297 | 6,264 | 3,365 | 2,899 | 10,279 | 5,366 | 4,913 |
| March..... | 4,418 | 2,180 | 2,238 | 3,033 | 2,001 | 1,032 | 5,517 | 3,072 | 2,445 | 8,326 | 4,529 | 3,797 |
| April..... | 3,880 | 1,920 | 1,960 | 2,848 | 1,979 | 869 | 4,544 | 2,602 | 1,942 | 8,750 | 5,058 | 3,692 |
| May..... | 3,667 | 1,864 | 1,803 | 2,967 | 2,049 | 918 | 5,003 | 2,757 | 2,246 | 10,803 | 6,236 | 4,567 |
| June..... | 4,136 | 2,170 | 1,966 | 3,997 | 2,534 | 1,463 | 6,526 | 3,391 | 3,135 | 13,641 | 7,396 | 6,245 |
| July..... | 5,012 | 2,577 | 2,435 | 4,912 | 2,904 | 2,008 | 8,946 | 4,527 | 4,419 | 18,609 | 9,546 | 9,063 |
| August..... | 6,735 | 3,282 | 3,453 | 6,051 | 3,337 | 2,714 | 11,346 | 5,549 | 5,797 | 19,930 | 10,332 | 9,598 |
| September..... | 8,327 | 3,980 | 4,347 | 7,200 | 3,591 | 3,609 | 13,612 | 6,490 | 7,122 | 17,361 | 9,136 | 8,225 |
| October..... | 8,850 | 4,282 | 4,568 | 6,995 | 3,403 | 3,592 | 14,703 | 6,922 | 7,781 | 14,533 | 8,061 | 6,472 |
| November..... | 8,458 | 4,415 | 4,043 | 7,549 | 3,477 | 4,072 | 14,511 | 6,847 | 7,664 | 8,849 | 5,295 | 3,554 |
| December..... | 5,222 | 2,853 | 2,369 | 7,244 | 3,375 | 3,869 | 11,571 | 5,646 | 5,925 | 6,982 | 4,252 | 2,730 |
| Average..... | 5,821 | 2,916 | 2,905 | 5,041 | 2,782 | 2,259 | 9,158 | 4,570 | 4,588 | 12,397 | 6,714 | 5,683 |
| Maximum..... | 8,850 | 4,415 | 4,568 | 7,549 | 3,591 | 4,072 | 14,703 | 6,922 | 7,781 | 19,930 | 10,332 | 9,598 |
| Minimum..... | 3,667 | 1,864 | 1,803 | 2,848 | 1,979 | 869 | 4,544 | 2,602 | 1,942 | 6,982 | 4,252 | 2,730 |
| Per cent minimum is of maximum..... | 41.4 | 42.2 | 39.5 | 37.7 | 55.1 | 21.3 | 30.9 | 37.6 | 25.0 | 35.0 | 41.2 | 28.4 |

¹ Includes 1 small plant not reporting figures for the first 3 months of the year.

The extreme fluctuations in employment in these eight plants tend to obscure the fact that there was a marked increase during the four years in the number of workers; in 1929 both the average and the maximum number employed were more than double the corresponding figures for 1926. The fluctuations differ in severity from year to year, but follow the same general course. Each year shows a peak of employment occurring in the fall, followed by a drop, usually abrupt, in December, and a depression in the early part of the next year.

Between the late autumn of 1926 and the spring of 1927 more than two-thirds of the employees (67.8 per cent) lost their jobs. For this period in 1927-28 the decline was 39.8 per cent, and from October, 1928, to March, 1929, it was 43.4 per cent. The debacle in the closing months of 1929 is strikingly illustrated by this table, which shows that of the 20,000 persons employed in August, 13,000, or practically two-thirds, were off the rolls by December.

The period for which employment data were collected by the Women's Bureau closed with the year 1929, but statistics furnished by the Radio Manufacturers Association show that December of that year was not unlike December of earlier years in that the lowest point in the curve had not been reached and the trend was still downward in 1930. Production in the manufacture of sets decreased 8 per cent from December, 1929, to January, 1930, 9 per cent from January to February, and 11 per cent from February to March.

Effect of Adding a Side Line

ONE plant was found in which the employers had tried to stabilize employment by combining with the manufacture of radio sets another product, also seasonal, but having a different curve of seasonality. The operations on the two products are so similar that it is possible to transfer many employees from one to the other without any slowing down of output. As a result, though employment was by no means completely stabilized, the fluctuations were much less than in plants manufacturing radio sets only. A comparison between the figures of this company and the best figure each year among the other companies shows the percentages that minimum employment formed of the maximum to be as follows:

TABLE 4.—COMPARISON OF PLANT HAVING SIDE LINE WITH BEST FIGURES OF OTHER PLANTS

| Item | Per cent minimum employment was of maximum in— | | | |
|----------------------------------|--|------|------|------|
| | 1926 | 1927 | 1928 | 1929 |
| Men: | | | | |
| Plant with side line..... | 93.0 | 83.2 | 70.7 | 70.4 |
| Best figure of other plants..... | 66.2 | 56.5 | 46.4 | 58.3 |
| Women: | | | | |
| Plant with side line..... | 80.8 | 76.0 | 63.1 | 68.6 |
| Best figure of other plants..... | 43.1 | 39.8 | 39.0 | 42.8 |

Fluctuations in Individual Establishments

MASSING the records of a number of plants together tends to hide the individual variations which appear plainly in the figures for single plants. The records of two separate plants, covering in one case six, and in the other, four and a half years, are given in the following table:

TABLE 5.—FLUCTUATION IN EMPLOYMENT IN 2 PLANTS MANUFACTURING RECEIVING SETS

Plant A

| Month | 1924 | | | 1925 | | | 1926 | | |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Total | Men | Women | Total | Men | Women | Total | Men | Women |
| January..... | 1,868 | 1,301 | 567 | 2,903 | 1,776 | 1,127 | 845 | 643 | 202 |
| February..... | 1,112 | 753 | 354 | 1,954 | 1,372 | 582 | 754 | 576 | 178 |
| March..... | 1,006 | 693 | 313 | 1,328 | 993 | 335 | 730 | 554 | 176 |
| April..... | 603 | 437 | 166 | 1,387 | 1,042 | 345 | 709 | 535 | 174 |
| May..... | 532 | 386 | 146 | 1,354 | 1,002 | 352 | 703 | 526 | 177 |
| June..... | 475 | 350 | 125 | 1,876 | 1,232 | 644 | 1,244 | 795 | 449 |
| July..... | 471 | 351 | 120 | 2,288 | 1,281 | 907 | 1,949 | 1,129 | 820 |
| August..... | 846 | 581 | 265 | 2,944 | 1,746 | 1,198 | 2,719 | 1,606 | 1,113 |
| September..... | 1,326 | 863 | 463 | 3,252 | 1,896 | 1,356 | 3,323 | 1,964 | 1,359 |
| October..... | 2,492 | 1,520 | 972 | 3,929 | 2,201 | 1,728 | 3,940 | 2,270 | 1,670 |
| November..... | 2,744 | 1,720 | 1,024 | 2,563 | 1,448 | 1,115 | 4,276 | 2,590 | 1,686 |
| December..... | 3,002 | 1,824 | 1,178 | 1,420 | 1,024 | 396 | 1,991 | 1,308 | 683 |
| Average..... | 1,373 | 899 | 474 | 2,267 | 1,426 | 841 | 1,932 | 1,208 | 724 |
| Maximum..... | 3,002 | 1,824 | 1,178 | 3,929 | 2,201 | 1,728 | 4,276 | 2,590 | 1,686 |
| Minimum..... | 471 | 350 | 120 | 1,328 | 993 | 335 | 703 | 526 | 174 |
| Per cent minimum is of maximum..... | 15.7 | 19.2 | 10.2 | 33.8 | 45.1 | 19.4 | 16.4 | 20.3 | 10.3 |

TABLE 5.—FLUCTUATION IN EMPLOYMENT IN 2 PLANTS MANUFACTURING RECEIVING SETS—Continued

Plant A—Continued

| Month | 1927 | | | 1928 | | | 1929 | | |
|-------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Total | Men | Women | Total | Men | Women | Total | Men | Women |
| January..... | 1,918 | 1,243 | 675 | 4,236 | 2,231 | 2,005 | 4,491 | 2,745 | 1,746 |
| February..... | 1,809 | 1,202 | 607 | 3,443 | 1,981 | 1,462 | 4,994 | 3,037 | 1,957 |
| March..... | 1,768 | 1,198 | 570 | 2,935 | 1,786 | 1,149 | 3,637 | 2,319 | 1,318 |
| April..... | 1,787 | 1,220 | 567 | 2,221 | 1,425 | 796 | 4,048 | 2,603 | 1,445 |
| May..... | 1,912 | 1,296 | 616 | 2,325 | 1,470 | 855 | 5,538 | 3,491 | 2,047 |
| June..... | 2,703 | 1,704 | 999 | 3,454 | 1,934 | 1,520 | 6,215 | 3,839 | 2,376 |
| July..... | 3,075 | 1,862 | 1,213 | 5,349 | 2,876 | 2,473 | 8,384 | 4,809 | 4,075 |
| August..... | 3,185 | 1,937 | 1,248 | 6,999 | 3,707 | 3,292 | 9,198 | 5,046 | 4,152 |
| September..... | 3,236 | 1,911 | 1,325 | 8,078 | 4,206 | 3,872 | 5,707 | 3,219 | 2,488 |
| October..... | 1,934 | 1,234 | 700 | 7,972 | 4,239 | 3,733 | 3,614 | 2,281 | 1,333 |
| November..... | 2,093 | 1,094 | 999 | 7,103 | 3,860 | 3,243 | 2,109 | 1,496 | 613 |
| December..... | 2,956 | 1,533 | 1,423 | 4,319 | 2,654 | 1,665 | 2,524 | 1,614 | 910 |
| Average..... | 2,365 | 1,453 | 912 | 4,889 | 2,714 | 2,175 | 5,096 | 3,043 | 2,053 |
| Maximum..... | 3,236 | 1,937 | 1,423 | 8,078 | 4,239 | 3,872 | 9,198 | 5,046 | 4,152 |
| Minimum..... | 1,768 | 1,094 | 567 | 2,221 | 1,425 | 796 | 2,109 | 1,496 | 613 |
| Per cent minimum is of maximum..... | 54.6 | 56.5 | 39.8 | 27.5 | 33.6 | 20.6 | 22.9 | 29.6 | 14.8 |

Plant B

| Month | 1925 | | | 1926 | | | 1927 | | |
|-------------------------------------|-------|-------|-------|-------|------|-------|-------|------|-------|
| | Total | Men | Women | Total | Men | Women | Total | Men | Women |
| January..... | | | | 199 | 155 | 44 | 169 | 105 | 64 |
| February..... | | | | 154 | 126 | 28 | 165 | 103 | 62 |
| March..... | | | | 113 | 100 | 13 | 108 | 81 | 27 |
| April..... | | | | 101 | 90 | 11 | 69 | 64 | 5 |
| May..... | | | | 105 | 85 | 20 | 69 | 64 | 5 |
| June..... | | | | 109 | 87 | 22 | 82 | 69 | 13 |
| July..... | 174 | 130 | 44 | 97 | 70 | 27 | 136 | 88 | 48 |
| August..... | 257 | 173 | 84 | 187 | 86 | 101 | 244 | 133 | 111 |
| September..... | 430 | 289 | 141 | 271 | 127 | 144 | 385 | 224 | 161 |
| October..... | 319 | 242 | 77 | 242 | 129 | 113 | 538 | 324 | 214 |
| November..... | 297 | 217 | 80 | 194 | 113 | 81 | 615 | 385 | 230 |
| December..... | 150 | 134 | 16 | 156 | 99 | 57 | 296 | 221 | 75 |
| Average..... | 271 | 197 | 74 | 161 | 106 | 55 | 240 | 155 | 85 |
| Maximum..... | 430 | 289 | 141 | 271 | 155 | 144 | 615 | 385 | 230 |
| Minimum..... | 150 | 130 | 16 | 97 | 70 | 11 | 69 | 64 | 5 |
| Per cent minimum is of maximum..... | 134.9 | 145.0 | 111.3 | 35.8 | 45.2 | 7.6 | 11.2 | 16.6 | 2.2 |

| Month | 1928 | | | 1929 | | |
|-------------------------------------|-------|------|-------|-------|-------|-------|
| | Total | Men | Women | Total | Men | Women |
| January..... | 225 | 174 | 51 | 515 | 308 | 207 |
| February..... | 220 | 168 | 52 | 192 | 181 | 11 |
| March..... | 201 | 161 | 50 | 177 | 168 | 9 |
| April..... | 167 | 144 | 23 | 482 | 370 | 112 |
| May..... | 351 | 205 | 146 | 724 | 559 | 165 |
| June..... | 481 | 268 | 213 | 659 | 499 | 160 |
| July..... | 444 | 260 | 184 | 1,076 | 770 | 306 |
| August..... | 242 | 179 | 63 | 2,409 | 1,449 | 960 |
| September..... | 451 | 268 | 183 | 4,139 | 2,452 | 1,687 |
| October..... | 653 | 346 | 307 | 3,861 | 2,413 | 1,448 |
| November..... | 790 | 412 | 378 | 1,690 | 1,187 | 503 |
| December..... | 764 | 429 | 335 | 1,065 | 769 | 296 |
| Average..... | 414 | 250 | 164 | 1,416 | 927 | 489 |
| Maximum..... | 790 | 429 | 378 | 4,139 | 2,452 | 1,687 |
| Minimum..... | 167 | 144 | 23 | 177 | 168 | 9 |
| Per cent minimum is of maximum..... | 21.1 | 33.6 | 6.1 | 4.3 | 6.9 | 0.5 |

¹ Based on less than a 12-month record.

In both of these plants the average number of employees increased materially during the period covered, and in both the same seasonal curve appears that is shown in the figures for the combined plants. Also both show marked differences from year to year in the extent to which employment fluctuates. Thus in plant A the per cent which the minimum number of employees formed of the maximum was 54.6 in 1927 and only 15.7 in 1924, while for plant B the variation is from 35.8 per cent in 1926 to 4.3 per cent in 1929.

Fluctuations of Employment in the Manufacture of Radio Tubes

EMPLOYMENT records for the year 1929 were obtained from 15 plants manufacturing radio tubes, and from 10 they were obtained for the 4-year period, 1926-1929. The figures for the 15 plants are given in the following table:

TABLE 6.—FLUCTUATION IN EMPLOYMENT, 15 PLANTS MAKING TUBES, 1929

| Month | Total number of employees | Number of— | | Month | Total number of employees | Number of— | |
|----------------|---------------------------|------------|--------|-------------------------------------|---------------------------|------------|--------|
| | | Men | Women | | | Men | Women |
| January..... | 7,468 | 1,447 | 6,021 | October..... | 13,825 | 2,330 | 11,495 |
| February..... | 7,739 | 1,411 | 6,328 | November..... | 9,921 | 1,562 | 8,359 |
| March..... | 7,571 | 1,402 | 6,169 | December..... | 6,479 | 1,139 | 5,340 |
| April..... | 7,788 | 1,476 | 6,312 | Average..... | 9,661 | 1,755 | 7,906 |
| May..... | 8,684 | 1,718 | 6,966 | Maximum..... | 13,825 | 2,330 | 11,495 |
| June..... | 9,671 | 1,907 | 7,764 | Minimum..... | 6,479 | 1,139 | 5,340 |
| July..... | 11,262 | 2,194 | 9,068 | Per cent minimum is of maximum..... | 46.9 | 48.9 | 46.5 |
| August..... | 12,078 | 2,188 | 9,890 | | | | |
| September..... | 13,446 | 2,281 | 11,165 | | | | |

Attention is called to two points in this table—the contrast in the employment curve as between men and women and the sharp peak of employment affecting women only.

Unlike unemployment on receiving sets in 1929, where there was a decline early in the year, employment on tubes holds its own very evenly through the first four months without a drop. Then in the next five or six months the number of women almost doubles, and in the last two months of the year it drops abruptly until lower than the beginning point in January. While the curve for the employment of women shoots up from 6,000 to almost double that number, and down again to about 5,000, the curve for the employment of men does not show such violent changes. Apparently at least 5,000 women were hired and fired within the few months, but fewer than 1,000 men had a similar experience.

In every tube plant the women outnumbered the men, as the men usually are employed only in maintenance of highly skilled work, while the women work on all the various assembly jobs.

The next table gives the employment figures for the 10 plants for which records were secured covering four years.

TABLE 7.—FLUCTUATION IN EMPLOYMENT, 10 SELECTED PLANTS MAKING TUBES, 1926 TO 1929

| Month | 1926 ¹ | | | 1927 | | | 1928 | | | 1929 | | |
|-------------------------------------|-------------------|------|-------|-------|------|-------|-------|------|-------|-------|-------|-------|
| | Total | Men | Women | Total | Men | Women | Total | Men | Women | Total | Men | Women |
| January..... | 1,906 | 278 | 1,628 | 1,937 | 354 | 1,583 | 2,476 | 389 | 2,087 | 5,049 | 954 | 4,095 |
| February..... | 1,830 | 262 | 1,568 | 1,640 | 244 | 1,396 | 2,325 | 367 | 1,958 | 5,234 | 937 | 4,297 |
| March..... | 1,697 | 239 | 1,458 | 1,536 | 235 | 1,301 | 2,218 | 355 | 1,863 | 5,302 | 938 | 4,364 |
| April..... | 1,609 | 224 | 1,385 | 1,509 | 239 | 1,270 | 2,091 | 355 | 1,736 | 5,433 | 981 | 4,452 |
| May..... | 1,589 | 217 | 1,372 | 1,518 | 239 | 1,279 | 2,041 | 340 | 1,701 | 5,690 | 1,029 | 4,661 |
| June..... | 1,581 | 217 | 1,364 | 1,571 | 272 | 1,299 | 2,174 | 378 | 1,796 | 6,321 | 1,152 | 5,169 |
| July..... | 1,673 | 236 | 1,436 | 1,736 | 292 | 1,443 | 2,357 | 416 | 1,941 | 6,960 | 1,210 | 5,750 |
| August..... | 1,739 | 258 | 1,481 | 2,112 | 379 | 1,733 | 2,646 | 468 | 2,178 | 7,655 | 1,289 | 6,366 |
| September..... | 1,973 | 320 | 1,653 | 2,541 | 463 | 2,078 | 2,962 | 538 | 2,424 | 8,538 | 1,392 | 7,146 |
| October..... | 2,428 | 410 | 2,018 | 2,766 | 463 | 2,303 | 3,522 | 730 | 2,792 | 9,409 | 1,470 | 7,939 |
| November..... | 2,477 | 447 | 2,030 | 2,860 | 481 | 2,379 | 4,217 | 838 | 3,379 | 8,184 | 1,246 | 6,938 |
| December..... | 2,242 | 381 | 1,861 | 2,758 | 483 | 2,275 | 4,585 | 902 | 3,683 | 5,968 | 1,007 | 4,961 |
| Average..... | 1,895 | 291 | 1,604 | 2,040 | 345 | 1,695 | 2,801 | 506 | 2,295 | 6,645 | 1,134 | 5,511 |
| Maximum..... | 2,477 | 447 | 2,030 | 2,860 | 483 | 2,379 | 4,585 | 902 | 3,683 | 9,409 | 1,470 | 7,939 |
| Minimum..... | 1,581 | 217 | 1,364 | 1,509 | 235 | 1,270 | 2,041 | 340 | 1,701 | 5,049 | 937 | 4,095 |
| Per cent minimum is of maximum..... | 63.8 | 48.5 | 67.2 | 52.8 | 48.7 | 53.4 | 44.5 | 37.7 | 46.2 | 53.7 | 63.7 | 51.6 |

¹ Includes 1 small plant not reporting figures for the first 3 months of the year.

The difference between the fluctuations of 1929 and of the earlier years is strikingly apparent. The trend each year is much the same until the autumn of 1928, when the number employed shows a marked increase, so that although the minimum number of employees is markedly larger than in either of the two preceding years, the difference between minimum and maximum is far greater than in the earlier years. The number continued to increase up to October, 1929, fell a little in November, and in December came down precipitously. Even so, however, there was no such decline in the number of workers as occurred in the eight plants making receiving sets during 1929, shown in a preceding table. It is noticeable that in these plants making tubes not only were women employed far more numerous than men, but that their numbers did not show such wide fluctuations as in the case of men.

Degree of Irregularity, and Variations from Average

THE degree of irregularity indicated by the employment records is discussed in detail. One fact which clearly appears is that the fluctuations can not be attributed in any large degree to the collapse of 1929. The table following compares the conditions of 1929 with those of 1928.

TABLE 8.—COMPARISON OF EMPLOYMENT IN 1928 AND 1929

| Per cent minimum was of maximum | Receiving sets | | | | Tubes | | | |
|---------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | Men | | Women | | Men | | Women | |
| | 1929 (23 plants) | 1928 (14 plants) | 1929 (23 plants) | 1928 (14 plants) | 1929 (15 plants) | 1928 (11 plants) | 1929 (15 plants) | 1928 (11 plants) |
| Under 5..... | | | 1 8 | 2 | 2 2 | | 2 5 | 1 |
| 5 and under 10..... | 3 5 | 3 | 3 | 5 | | | 1 | 1 |
| 10 and under 20..... | 4 8 | 1 | 5 7 | 3 3 | 2 | 3 | 2 | 4 |
| 20 and under 50..... | 6 8 | 3 10 | 3 4 | 4 | 8 | 3 | 5 | 3 |
| 50 and over..... | 3 2 | | 3 1 | | 3 | 5 | 2 | 3 |

¹ In 1 plant the minimum was zero, and 1 plant had less than a 12-month record.

² In 2 plants the minimum was zero.

³ Includes 1 plant with less than a 12-month record.

⁴ Includes 2 plants with less than a 12-month record.

⁵ Includes 4 plants with less than a 12-month record.

⁶ Includes 3 plants with less than a 12-month record.

Even in 1928, a less abnormal year than 1929, the employment situation in radio sets was not much better. To be sure, fewer firms fall in the lowest group—that with the minimum less than 5 per cent of the maximum—but not one falls in the highest group of 50 per cent and over. In tubes, both for men and for women, the number of firms in the highest group was greater in 1928 than in 1929.

Another fact brought out by the detailed figures is that the “average number” of employees is, in such an industry as this, a theoretic conception, bearing little relation to any usual or actual condition in the plants concerned. The following summary shows for how long each year the number of employees fell below the average:

TABLE 9.—PERIOD OF BELOW-AVERAGE EMPLOYMENT

| Number of months in which employment fell below the average for the year | Number of plants in which employment in 1929 was below the year's average in the number of months specified | | | |
|--|---|-------|-------------------------|-------|
| | Receiving sets (16 plants ¹) | | Radio tubes (15 plants) | |
| | Men | Women | Men | Women |
| 1 month..... | | | 1 | |
| 2 months..... | | | 1 | |
| 4 months..... | 1 | | | |
| 5 months..... | | | 1 | 3 |
| 6 months..... | 4 | 5 | 7 | 5 |
| 7 months..... | 8 | 3 | 2 | 4 |
| 8 months..... | 3 | 8 | 3 | 2 |
| 9 months..... | | | | 1 |

¹ Excludes 7 plants making sets during only part of 1929.

Conclusion

THE manufacture of accessories and parts was found to be carried on largely as a part of a more extended business, often in connection with the production of automobiles. As it was impossible in many cases to make a distinction between the labor employed on radio parts and that on other products, the figures secured were scanty and far from satisfactory.

As to the manufacture of receiving sets and radio tubes, however, the study showed conclusively that the industry was irregular to a high degree; that hours varied widely in accordance with the pressure of work; that as far as women were concerned while there was at times a strong demand for them there was no assurance of regular or steady employment; that wages were not uniform and earnings showed wide variations; and that the labor turnover was tremendous. Data on this point are presented covering seven plants. In 1929 their maximum force was 30,078 and the minimum 7,594, but the number of accessions during the year was 48,909, and of separations 50,760.

Activities of Fee-Charging Employment Agencies in Nevada

THE statistics given in Tables 1 and 2 on placements and charges of private employment agencies in Nevada over a period of years are taken from the biennial report of the commissioner of labor of that State, 1929-1930.

TABLE 1.—ACTIVITIES OF FEE-CHARGING EMPLOYMENT AGENCIES IN NEVADA 1920 TO 1930

| Year | Number of persons engaged | | | Fees charged | Fees refunded | Expenses refunded |
|-------------------|---------------------------|--------|-------|--------------|---------------|-------------------|
| | Male | Female | Total | | | |
| 1920 | 4,365 | 5 | 4,370 | \$6,328.55 | \$144.00 | \$5.84 |
| 1921 | 1,728 | 0 | 1,728 | 2,653.50 | 303.50 | 18.88 |
| 1922 | 2,029 | 12 | 2,041 | 2,874.50 | 129.00 | 102.79 |
| 1923 | 4,810 | 5 | 4,815 | 7,854.50 | 325.95 | 3.00 |
| 1924 | 4,929 | 49 | 4,978 | 8,089.30 | 238.25 | 10.00 |
| 1925 | 4,186 | 80 | 4,266 | 6,057.51 | 457.70 | 51.61 |
| 1926 | 3,637 | 101 | 3,738 | 6,511.71 | 553.80 | 26.75 |
| 1927 | 2,283 | 81 | 2,364 | 5,058.75 | 776.00 | ----- |
| 1928 | 3,509 | 13 | 3,522 | 8,280.38 | 786.30 | 97.00 |
| 1929 | 2,910 | 123 | 3,033 | 7,820.20 | 262.01 | 13.00 |
| 1930 ¹ | 1,121 | 120 | 1,241 | 5,383.57 | 92.00 | 5.00 |

¹ Approximate; reports for December not available at time tabulation was made.

TABLE 2.—COMPARISON OF GROSS PLACEMENTS OF FEE-CHARGING AGENCIES AND OF FEDERAL-STATE EMPLOYMENT SERVICE IN NEVADA FOR SPECIFIED PERIODS

| Period | Gross placements | | | |
|-----------------------------------|-----------------------|----------------|----------------------------------|----------------|
| | Actual comparison | | Weighted comparison ¹ | |
| | Fee-charging agencies | State agencies | Fee-charging agencies | State agencies |
| July, 1923, to November, 1924 | 7,067 | 3,251 | 3,534 | 3,251 |
| December, 1924, to November, 1925 | 4,232 | 3,090 | 2,116 | 3,090 |
| December, 1925, to November, 1926 | 3,711 | 2,650 | 1,856 | 2,650 |
| December, 1926, to November, 1927 | 2,287 | 1,395 | 1,143 | 1,395 |
| December, 1927, to November, 1928 | 3,416 | 2,316 | 854 | 2,316 |
| December, 1928, to November, 1929 | 2,951 | 3,100 | 737 | 1,033 |
| December, 1929, to November, 1930 | 1,291 | 1,532 | 258 | 383 |

¹ Based on the number of agencies participating in making the result shown in these two columns, weight given to the approximate number of placements of each agency.

For this comparison it has been assumed that the fee work of the Mount Lassen Transit Co. (which is primarily a free service) approximately offsets the number of placements made by the Yerington State office during its short existence and by the very small number by the State office at Carson City. Consequently it has been assumed that the "fee" placements were made by 4 offices in 1929 and 5 offices in 1930 and the "State" placements by 3 in 1929 and 4 in 1930. It also must be taken into consideration that 1 State office is only seasonal and 1 was opened Nov. 22, 1930, showing only 8 days' placements.

Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports, from July, 1929, to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES¹

| Date (end of month) | Australia | | Austria | Belgium | | | | Canada | |
|---------------------|----------------------------|----------|---|----------------------------------|----------|----------------------|----------|----------------------------|----------|
| | Trade-unionists unemployed | | Compulsory insurance, number unemployed in receipt of benefit | Unemployment insurance societies | | | | Trade-unionists unemployed | |
| | Number | Per cent | | Wholly unemployed | | Partially unemployed | | Number | Per cent |
| | | | | Number | Per cent | Number | Per cent | | |
| 1929 | | | | | | | | | |
| July..... | (2) | ----- | 104,399 | 4,037 | .6 | 16,452 | 2.6 | 6,003 | 3.0 |
| August..... | (2) | ----- | 101,845 | 3,200 | .5 | 15,614 | 2.5 | 7,159 | 3.5 |
| September..... | 52,480 | 12.1 | 104,947 | 3,492 | .5 | 16,714 | 2.6 | 7,654 | 3.7 |
| October..... | (2) | ----- | 125,850 | 3,261 | .5 | 13,930 | 2.2 | 12,716 | 6.0 |
| November..... | (2) | ----- | 167,487 | 6,895 | 1.1 | 13,176 | 2.1 | 19,832 | 9.3 |
| December..... | 56,801 | 13.1 | 226,567 | 15,761 | 2.4 | 29,309 | 4.6 | 24,289 | 11.4 |
| 1930 | | | | | | | | | |
| January..... | (2) | ----- | 273,197 | 22,542 | 3.5 | 25,782 | 4.0 | 22,795 | 10.8 |
| February..... | (2) | ----- | 284,543 | 16,085 | 2.6 | 31,222 | 4.9 | 24,175 | 11.5 |
| March..... | 63,144 | 14.6 | 239,094 | 14,030 | 2.2 | 28,469 | 4.5 | 22,912 | 10.8 |
| April..... | (2) | ----- | 192,477 | 13,715 | 2.2 | 36,605 | 5.8 | 18,581 | 9.0 |
| May..... | (2) | ----- | 162,678 | 12,119 | 1.9 | 38,761 | 6.1 | 20,424 | 10.3 |
| June..... | 80,595 | 18.5 | 150,075 | 12,226 | 1.9 | 41,336 | 6.5 | 21,380 | 10.6 |
| July..... | (2) | ----- | 153,188 | 15,302 | 2.4 | 48,580 | 7.7 | 18,473 | 9.2 |
| August..... | (2) | ----- | 156,145 | 17,747 | 2.8 | 51,649 | 8.2 | 18,232 | 9.3 |
| September..... | 90,379 | 20.5 | 163,894 | 23,693 | 3.8 | 61,623 | 9.9 | 19,356 | 9.4 |
| October..... | (2) | ----- | 192,778 | 27,322 | 4.3 | 54,804 | 8.5 | 22,403 | 10.8 |
| November..... | (2) | ----- | 237,745 | 38,973 | 6.1 | 76,043 | 12.0 | 28,408 | 13.8 |
| December..... | 102,900 | 23.4 | 294,845 | 63,585 | 9.3 | 117,167 | 17.0 | 37,339 | 17.0 |
| 1931 | | | | | | | | | |
| January..... | (2) | ----- | 331,239 | 77,181 | 11.1 | 112,734 | 16.2 | 33,664 | 16.0 |
| February..... | (2) | ----- | 334,041 | 81,750 | 11.7 | 121,906 | 19.4 | 31,617 | 15.6 |
| March..... | (2) | ----- | 304,082 | 81,305 | 11.3 | 125,972 | 17.7 | 32,300 | 15.5 |
| April..... | (2) | ----- | 246,795 | ----- | ----- | ----- | ----- | ----- | ----- |

¹ Sources: League of Nations—Monthly Bulletin of Statistics; International Labor Office—International Labor Review; Canada—Labor Gazette; Great Britain—Ministry of Labor Gazette; Austria—Statistische Nachrichten; Australia—Quarterly Summary of Australian Statistics; Germany—Reichsarbeitsblatt, Reichs Arbeitsmarkt Anzeiger; Switzerland—Wirt. u. Social. Mitteilungen, La Vie Economique; Poland—Wiedomosci Statystyczne; Norway—Statistiske Meddelelser; Netherlands—Maandschrift; Sweden—Sociala Meddelanden; Denmark—Statistiske Efterretninger; Finland—Bank of Finland Monthly Bulletin; France—Bulletin du Marché du Travail; Hungary—Magyar Statiztikai Szemle; Belgium—Revue du Travail; New Zealand—Monthly Abstract of Statistics; U. S. Department of Commerce—Commerce Reports; and U. S. Consular Reports.

² Not reported.

³ Figures computed in the Bureau of Labor Statistics from official report covering membership of unions reporting and per cent of unemployment.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

| Date (end of month) | Czechoslovakia | | Danzig (Free City of) | Denmark | | Estonia | Finland | France | Germany |
|---------------------|--|------------------|---------------------------------|---|---|--|---------------------------------|--|---------------------------------|
| | Trade-union insurance funds—unemployed in receipt of benefit | | Number of unemployed registered | Trade-union unemployment funds—unemployed | | Number unemployed remaining on live register | Number of unemployed registered | Number of unemployed in receipt of benefit | Number of unemployed registered |
| | Number | Per cent | | Number | Per cent | | | | |
| 1929 | | | | | | | | | |
| July | 16,859 | 1.6 | 9,007 | 26,621 | 9.6 | 780 | 1,188 | 399 | 1,251,452 |
| August | 18,674 | 1.8 | 8,958 | 25,164 | 9.1 | 609 | 1,859 | 403 | 1,271,990 |
| September | 19,468 | 1.9 | 9,296 | 24,175 | 8.7 | 902 | 2,710 | 385 | 1,323,603 |
| October | 16,248 | 1.5 | 10,664 | 28,194 | 10.1 | 3,065 | 4,997 | 396 | 1,557,146 |
| November | 17,108 | 1.6 | 13,146 | 36,302 | 13.0 | 5,288 | 9,495 | 577 | 2,035,667 |
| December | 30,170 | 2.8 | 16,198 | 62,563 | 22.4 | 6,116 | 8,716 | 817 | 2,850,849 |
| 1930 | | | | | | | | | |
| January | 39,199 | 3.6 | 19,282 | 55,876 | 20.3 | 5,608 | 12,696 | 1,484 | 3,217,608 |
| February | 40,550 | 3.6 | 21,153 | 59,363 | 21.0 | 4,580 | 11,545 | 1,683 | 3,365,811 |
| March | 45,567 | 4.0 | 20,376 | 47,109 | 15.6 | 3,575 | 10,062 | 1,630 | 3,040,797 |
| April | 42,664 | 3.7 | 18,371 | 33,471 | 11.8 | 2,227 | 7,274 | 1,203 | 2,786,912 |
| May | 41,098 | 3.8 | 16,232 | 27,966 | 9.4 | 2,065 | 4,666 | 859 | 2,634,718 |
| June | 37,853 | 3.4 | 14,975 | 24,807 | 8.7 | 910 | 3,553 | 1,019 | 2,640,681 |
| July | 46,800 | 4.1 | 15,330 | 26,200 | 9.3 | 762 | 4,026 | 856 | 2,765,258 |
| August | 52,694 | 4.7 | 15,687 | 26,232 | 9.0 | 1,039 | 5,288 | 964 | 2,883,000 |
| September | 57,542 | 5.3 | 16,073 | 27,700 | 9.0 | 1,414 | 7,157 | 988 | 3,004,000 |
| October | 61,213 | 5.5 | 17,307 | 32,880 | 11.4 | 3,282 | 10,279 | 1,663 | 3,252,000 |
| November | 65,904 | 5.9 | 20,272 | 44,200 | 15.3 | 5,675 | 10,740 | 4,893 | 3,383,000 |
| December | 93,476 | 8.3 | 24,429 | 71,100 | 24.6 | 6,163 | 9,336 | 11,952 | 4,384,000 |
| 1931 | | | | | | | | | |
| January | 104,580 | 9.5 | 27,081 | 70,961 | 24.4 | 5,364 | 11,706 | 28,536 | 4,887,000 |
| February | (²) | | 28,192 | 73,427 | 25.6 | (²) | (²) | 40,766 | 4,972,000 |
| March | | | | 73,427 | 25.6 | 4,070 | 11,557 | 50,815 | 4,756,000 |
| February | 117,450 | 10.0 | 28,192 | 73,427 | 25.6 | 4,070 | 11,557 | 40,766 | 4,972,000 |
| March | 119,350 | 10.0 | 27,070 | 67,725 | 23.6 | 3,729 | 11,491 | 50,815 | 4,756,000 |
| April | (²) | (²) | 24,186 | 45,698 | 15.9 | | | 49,958 | 4,358,000 |
| Germany | | | | | | | | | |
| Date (end of month) | Trade-unionists | | | | | Great Britain and Northern Ireland | | | |
| | Wholly unemployed | | Partially unemployed | | Number unemployed in receipt of benefit | Wholly unemployed | | Temporary stoppages | |
| | Number | Per cent | Number | Per cent | | Number | Per cent | Number | Per cent |
| 1929 | | | | | | | | | |
| July | 395,202 | 8.6 | 315,739 | 6.9 | 863,594 | 881,189 | 7.4 | 296,318 | 2.5 |
| August | 410,481 | 8.9 | 322,824 | 7.0 | 883,002 | 918,550 | 7.7 | 280,332 | 2.4 |
| September | 442,312 | 9.6 | 315,150 | 6.8 | 910,245 | 937,795 | 7.9 | 265,627 | 2.2 |
| October | 498,604 | 10.9 | 319,489 | 7.0 | 1,061,134 | 992,769 | 8.2 | 261,711 | 2.2 |
| November | 634,790 | 13.7 | 351,947 | 7.6 | 1,387,079 | 1,061,618 | 8.8 | 263,987 | 2.2 |
| December | 922,681 | 20.1 | 389,278 | 8.5 | 1,984,811 | 1,071,849 | 8.9 | 272,371 | 2.2 |
| 1930 | | | | | | | | | |
| January | 1,004,787 | 22.0 | 501,950 | 11.0 | 2,482,648 | 1,183,974 | 9.8 | 336,474 | 2.8 |
| February | 1,076,441 | 23.5 | 593,380 | 13.0 | 2,655,723 | 1,211,262 | 10.0 | 371,840 | 3.1 |
| March | 995,972 | 21.7 | 576,153 | 12.6 | 2,347,102 | 1,284,231 | 10.6 | 409,785 | 3.4 |
| April | 926,831 | 20.3 | 553,098 | 12.1 | 2,081,068 | 1,309,014 | 10.8 | 451,506 | 3.8 |
| May | 895,542 | 19.5 | 552,318 | 12.0 | 1,839,240 | 1,339,595 | 11.1 | 516,303 | 4.2 |
| June | 896,465 | 19.6 | 578,116 | 12.6 | 1,834,662 | 1,341,818 | 11.1 | 569,931 | 4.7 |
| July | 930,777 | 20.5 | 670,466 | 14.8 | 1,900,901 | 1,405,981 | 11.6 | 664,107 | 5.5 |
| August | 1,011,820 | 21.7 | 677,627 | 15.1 | 1,965,348 | 1,579,708 | 12.4 | 618,658 | 5.1 |
| September | 1,061,570 | 23.6 | 693,379 | 15.4 | 2,071,730 | 1,725,731 | 13.1 | 608,692 | 5.0 |
| October | 1,167,930 | 26.0 | 721,658 | 16.1 | 2,353,980 | 1,826,280 | 14.8 | 532,518 | 4.3 |
| December | (²) | 31.7 | (²) | 16.9 | 2,822,598 | 1,853,575 | 14.9 | 646,205 | 5.3 |
| 1931 | | | | | | | | | |
| January | (²) | 34.2 | (²) | 19.2 | 3,364,770 | 2,044,209 | 16.5 | 618,633 | 5.0 |
| February | (²) | 34.5 | (²) | 19.5 | 3,496,979 | 2,073,578 | 16.7 | 623,844 | 5.0 |
| March | | 33.6 | | 18.9 | 3,240,523 | 2,052,826 | 16.5 | 612,821 | 5.0 |
| April | (²) | | (²) | | 2,790,112 | (²) | | (²) | |

² Not reported.⁴ Provisional figure.

EMPLOYMENT CONDITIONS AND RELIEF

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

| Date (end of month) | Great Britain | Hungary | | | Irish Free State | | Italy | | Latvia |
|---------------------|--|----------------------------|--------|-------------------|---------------------------------|--------|---------------------------------|-------------------|--|
| | Number of persons registered with employment exchanges | Trade-unionists unemployed | | Social-Democratic | Compulsory insurance-unemployed | | Number of unemployed registered | | Number unemployed remaining on live register |
| | | Christian (Buda-pest) | Number | | Per cent | Number | Per cent | Wholly unemployed | |
| 1929 | | | | | | | | | |
| July | 1,154,129 | 801 | 13,964 | 9.3 | (?) | | 201,868 | 13,503 | 1,205 |
| August | 1,155,803 | 833 | 14,007 | 9.5 | 21,834 | 7.8 | 216,666 | 19,650 | 1,008 |
| September | 1,181,862 | 783 | 13,922 | 9.5 | (?) | | 228,831 | 16,835 | 1,582 |
| October | 1,234,388 | 967 | 14,215 | 9.7 | (?) | | 297,882 | 17,793 | 4,204 |
| November | 1,285,458 | 1,033 | 15,910 | 10.3 | 26,186 | 9.2 | 332,833 | 19,694 | 8,479 |
| December | 1,510,231 | 1,107 | 19,181 | 13.0 | (?) | | 408,748 | 21,349 | 8,134 |
| 1930 | | | | | | | | | |
| January | 1,491,519 | 1,161 | 21,533 | 14.5 | 31,592 | 11.1 | 466,231 | 23,185 | 9,263 |
| February | 1,539,265 | 1,120 | 21,309 | 14.8 | (?) | | 456,628 | 26,674 | 8,825 |
| March | 1,677,473 | 983 | 21,016 | 14.6 | (?) | | 385,432 | 28,026 | 6,494 |
| April | 1,698,386 | 906 | 20,139 | 13.7 | 26,027 | 9.2 | 372,236 | 24,305 | 3,683 |
| May | 1,770,051 | 875 | 19,875 | 13.6 | (?) | | 367,183 | 22,825 | 1,421 |
| June | 1,890,575 | 829 | 18,960 | 13.0 | (?) | | 322,291 | 21,887 | 779 |
| July | 2,011,467 | 920 | 19,081 | 13.2 | 23,393 | 8.2 | 342,061 | 24,209 | 607 |
| August | 2,039,702 | 847 | 21,013 | 14.5 | (?) | | 375,548 | 24,056 | 573 |
| September | 2,114,955 | 874 | 22,252 | 16.0 | (?) | | 394,630 | 22,734 | 1,470 |
| October | 2,200,413 | 999 | 22,914 | 16.7 | 20,775 | (?) | 446,496 | 19,081 | 6,058 |
| November | 2,274,338 | 975 | 23,333 | 17.0 | 22,990 | (?) | 534,356 | 22,125 | 8,608 |
| December | 2,392,738 | 935 | 24,648 | 17.9 | 25,622 | (?) | 642,169 | 21,788 | 10,022 |
| 1931 | | | | | | | | | |
| January | 2,613,749 | 953 | 26,191 | 19.1 | 26,167 | (?) | 722,612 | 27,924 | 9,207 |
| February | 2,627,559 | 965 | 27,089 | 19.8 | 28,681 | (?) | 765,325 | 27,110 | 8,303 |
| March | 2,581,030 | 996 | 27,092 | (?) | 25,413 | (?) | 707,486 | 27,545 | 8,450 |

| Date (end of month) | Netherlands | | New Zealand | | Norway | | Number unemployed remaining on live register | Poland |
|---------------------|---|----------|----------------------------|----------|--|----------|--|---------|
| | Unemployment insurance societies—unemployed | | Trade-unionists unemployed | | Trade-unionists (10 unions) unemployed | | | |
| | Number | Per cent | Number | Per cent | Number | Per cent | | |
| 1929 | | | | | | | | |
| July | 12,030 | 3.1 | (?) | | 3,999 | 10.2 | 12,417 | 97,297 |
| August | 12,701 | 3.3 | 5,226 | 9.4 | 4,245 | 10.7 | 12,493 | 90,094 |
| September | 12,517 | 3.2 | (?) | | 4,854 | 12.1 | 15,525 | 81,848 |
| October | 13,639 | 3.5 | (?) | | 5,682 | 14.0 | 18,420 | 91,035 |
| November | 20,941 | 5.3 | 3,018 | 5.6 | 6,256 | 15.4 | 20,546 | 125,066 |
| December | 48,609 | 12.3 | (?) | | 7,693 | 18.9 | 22,092 | 185,314 |
| 1930 | | | | | | | | |
| January | 56,535 | 13.9 | (?) | | 7,786 | 19.0 | 22,549 | 241,974 |
| February | 50,957 | 12.5 | 4,348 | 8.5 | 7,851 | 18.9 | 22,974 | 274,708 |
| March | 34,996 | 8.6 | (?) | | 7,503 | 17.8 | 22,533 | 289,469 |
| April | 28,421 | 6.9 | (?) | | 6,701 | 15.8 | 19,829 | 271,225 |
| May | 26,211 | 6.3 | 5,884 | 10.9 | 5,239 | 12.2 | 16,376 | 224,914 |
| June | 23,678 | 5.5 | (?) | | 4,700 | 10.8 | 13,939 | 204,982 |
| July | 29,075 | 6.7 | (?) | | 4,723 | 10.8 | 11,997 | 193,687 |
| August | 32,755 | 7.6 | 7,197 | 13.5 | 5,897 | 13.4 | 12,923 | 173,627 |
| September | 35,532 | 8.2 | (?) | | 7,010 | 15.7 | 17,053 | 170,467 |
| October | 41,088 | 9.6 | (?) | | 8,031 | 18.0 | 20,363 | 165,154 |
| November | 46,807 | 11.8 | 8,119 | 15.5 | 9,396 | 21.4 | 24,544 | 209,912 |
| December | 472,191 | 16.5 | (?) | | 11,265 | 25.5 | 27,157 | 299,797 |
| 1931 | | | | | | | | |
| January | 4103,728 | 23.4 | (?) | | (?) | | 28,596 | 340,718 |
| February | 499,753 | 22.2 | (?) | | (?) | | 29,107 | 358,925 |
| March | (?) | (?) | (?) | | (?) | | 29,095 | (?) |
| April | (?) | (?) | (?) | | (?) | | 28,477 | (?) |

² Not reported.

⁴ Provisional figure.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

| Date (end of month) | Poland | | | | Rumania | Saar Ter- ritory | Sweden | |
|---------------------|--|----------|--|----------|--|--------------------------------------|-------------------------------|----------|
| | Industrial workers | | | | Number unem- ployed remaining on live register | Number unem- ployed registered | Trade-unionists unemployed | |
| | Extractive and manufacturing industries— wholly unem- ployed | | Manufacturing industries—par- tially unem- ployed | | | | Number | Per cent |
| | Number | Per cent | Number | Per cent | | | | |
| 1929 | | | | | | | | |
| July..... | 84,300 | 9.7 | 89,639 | 17.7 | 3,909 | 3,238 | 20,048 | 6.5 |
| August..... | 77,500 | 9.0 | 82,297 | 15.7 | 3,714 | 3,398 | 19,914 | 6.3 |
| September..... | 68,700 | 8.0 | 70,055 | 13.2 | 5,171 | 3,990 | 22,271 | 7.2 |
| October..... | 76,818 | 8.9 | 84,060 | 15.3 | 5,481 | 5,025 | 27,529 | 8.6 |
| November..... | 108,200 | 12.5 | 94,890 | 17.5 | 6,958 | 6,408 | 33,581 | 10.4 |
| December..... | 166,240 | 19.5 | 94,601 | 18.5 | 6,866 | 10,515 | 53,977 | 16.6 |
| 1930 | | | | | | | | |
| January..... | 219,333 | 24.3 | 108,812 | 24.8 | 12,622 | 11,307 | 45,636 | 14.2 |
| February..... | 251,627 | 27.5 | 120,058 | 28.4 | 15,588 | 11,949 | 45,460 | 13.2 |
| March..... | 265,135 | 28.7 | 120,844 | 28.9 | 13,045 | 8,882 | 42,278 | 12.5 |
| April..... | 246,670 | 27.0 | 113,594 | 26.9 | 13,412 | 7,522 | 38,347 | 11.1 |
| May..... | 201,116 | 23.0 | 104,469 | 24.2 | 25,096 | 7,362 | 28,112 | 8.3 |
| June..... | 182,600 | 21.6 | 94,375 | 22.2 | 22,960 | 6,330 | 28,956 | 8.1 |
| July..... | 170,665 | 20.5 | 70,597 | 17.0 | 23,236 | 7,095 | 27,170 | 7.8 |
| August..... | 150,650 | 18.3 | 74,289 | 17.1 | 24,209 | 7,099 | 28,539 | 8.1 |
| September..... | 146,642 | 17.8 | 74,285 | 16.5 | 39,110 | 7,527 | 34,963 | 9.8 |
| October..... | 141,422 | 17.5 | 91,854 | 14.8 | 36,147 | 9,013 | 43,927 | 12.2 |
| November..... | (2) | | 106,835 | 23.6 | 42,689 | 12,110 | 57,070 | 15.3 |
| December..... | (2) | | 95,637 | 23.1 | 36,212 | 15,245 | 86,042 | 22.9 |
| 1931 | | | | | | | | |
| January..... | (2) | | 82,717 | 23.8 | 38,804 | 18,921 | 69,437 | 19.8 |
| February..... | | | | | 43,270 | 20,139 | 66,923 | 18.4 |
| March..... | | | | | (2) | 18,292 | 72,944 | 19.3 |

| Date (end of month) | Switzerland | | | | Yugo- slavia |
|---------------------|------------------------|----------|---------------------------|----------|-----------------|
| | Unemployment funds | | | | |
| | Wholly unem- ployed | | Partially unem- ployed | | |
| | Number | Per cent | Number | Per cent | |
| 1929 | | | | | |
| July..... | (2) | (2) | (2) | (2) | 7,652 |
| August..... | (2) | (2) | (2) | (2) | 5,790 |
| September..... | (2) | .8 | (2) | .9 | 6,755 |
| October..... | (2) | (2) | (2) | (2) | 4,739 |
| November..... | (2) | (2) | (2) | (2) | 5,026 |
| December..... | 12,309 | 4.2 | 9,805 | 3.3 | 5,663 |
| 1930 | | | | | |
| January..... | 10,523 | 4.4 | 10,710 | 4.4 | 8,508 |
| February..... | 9,971 | 4.1 | 11,445 | 4.7 | 9,437 |
| March..... | 7,882 | 2.6 | 12,642 | 4.2 | 9,739 |
| April..... | 5,203 | 2.1 | 12,755 | 5.3 | 12,052 |
| May..... | 5,356 | 2.2 | 13,129 | 5.4 | 8,704 |
| June..... | 5,368 | 1.7 | 17,688 | 5.7 | 6,991 |
| July..... | 4,751 | 1.9 | 15,112 | 6.2 | 7,236 |
| August..... | 5,703 | 2.3 | 19,441 | 7.9 | 6,111 |
| September..... | 7,792 | 2.5 | 26,111 | 8.3 | 5,973 |
| October..... | 7,399 | 3.0 | 23,309 | 9.4 | 6,609 |
| November..... | 11,666 | 4.7 | 25,793 | 10.5 | 7,219 |
| December..... | 21,400 | 6.6 | 33,483 | 10.4 | 9,989 |
| 1931 | | | | | |
| January..... | 20,551 | 8.3 | 30,977 | 12.5 | 11,903 |
| February..... | 20,081 | 7.9 | 30,879 | 12.2 | 14,424 |
| March..... | 18,991 | 5.7 | 41,880 | 12.6 | 12,029 |

² Not reported.

Unemployment Relief Measures in Australian States

THE continued pressure of unemployment in Australia has led to some changes in the measures undertaken in the earlier part of 1930 to meet the emergency. (See Monthly Labor Review, November, 1930, p. 43.) The English Ministry of Labor Gazette gives in its issue for April, 1931, some details as to these changes.

New South Wales

IN DECEMBER, 1930, New South Wales amended its act, passed earlier in the season, which had established a special tax to be used in creating and maintaining a fund for the relief of unemployment. In that act the tax rate had been set at $1\frac{1}{4}$ per cent of assessable income or wages, with exemptions of persons earning less than 30s. (\$7.30) a week, and with the usual exceptions as to income from pensions, charitable sources, and the like. The Gazette gives the following summary of the terms of the new bill:

Unemployment relief tax is now payable at the rate of—

(a) Sevenpence halfpenny in the pound ($3\frac{1}{8}$ per cent) of the net assessable income of every person resident in Australia, other than a company, whose total income exceeds £100 (\$486.65) a year during the income year ending June 30, 1930;

(b) Sevenpence halfpenny in the pound ($3\frac{1}{8}$ per cent) of the net assessable income derived by every company during the income year ending June 30, 1930; and

(c) (i) Threepence in the pound ($1\frac{1}{4}$ per cent) of the income from employment of every person, other than a company, who is paid at a rate of not less than 30 shillings (\$7.30) a week, during the income year commencing July 1, 1930, so far as payments made prior to January 1, 1931, are concerned; and

(ii) One shilling in the pound (5 per cent) of the income from employment of every person, other than a company, who is paid at a rate of not less than £2 (\$9.73) a week, so far as payments made after January 1, 1931, are concerned.

Queensland

QUEENSLAND also amended in December its act imposing an unemployment relief tax, by authorizing payments from the fund thus created for the relief of unemployment and distress among the workers generally. The original act had permitted such payments for the benefit of female workers only, the main purpose of the fund being to provide grants or loans to be used in creating employment for those out of work on terms to be prescribed by the appointed board.

By another act passed in December, 1930, Queensland amended its unemployed workers' insurance acts to exclude from receipt of a sustenance allowance persons whose earnings during the 12 months preceding their application for assistance had exceeded £220 (\$1,070.63). The amendment also brought indentured apprentices under the terms of the act. During 1930 the amounts payable as sustenance allowances to workers covered by these acts were reduced. At present the allowance for an individual worker, whether male or female, unmarried, or widower, or widow, ranges from 14s. to 18s. (\$3.41 to \$4.38) a week, according to the circumstances of the case; for a married worker supporting his wife, it is from 24s. to 32s. (\$5.84 to \$7.79), and an additional allowance of from 4s. to 5s. (\$0.97 to \$1.22) a week is granted for each dependent child under 16 wholly supported by a worker, either male or female.

Tasmania

TASMANIA had passed an act during 1930 empowering the State treasurer to raise a sum, not exceeding £20,000 (\$97,330), from which the board of management of the agricultural bank might make advances by way of loan to persons who needed them for the permanent improvement of their property and who would employ genuinely unemployed persons to make the improvements. By an amendment, passed in December, 1930, the amount which the treasurer was authorized to raise was increased to £50,000 (\$243,325), and the time during which applications for loans might be received was extended from November 30, 1930, to November 30, 1931. The original act provided for interest at 5 per cent on such loans, and this provision was unchanged.

Canadian Labor Program for Dealing with Unemployment

EARLY in 1931 the executive council of the Trades and Labor Congress of Canada and a large number of accredited Canadian representatives of affiliated organizations submitted in person to the Prime Minister and other members of the Dominion Government a legislative and administrative program. Included in this program were the following proposals for dealing with unemployment:¹

The development to greatest extent of the construction of public work and the purchase of all possible supplies during the present depression.²

Continued adherence to the policy of strict enforcement and maintenance of the regulations prohibiting the entrance of immigrant labor into the Dominion.

Control over tariff-protected industries in order to compel preference of employment for Dominion labor; the payment of wage rates and the limitations of working hours to conform with the Federal Government regulations of rates and hours on Government work; the prevention of stock watering and of charging consumers unreasonable prices; and the granting of a sufficiently high tariff to permit instituting these measures and at the same time allow well-managed industries to compete successfully in the home market.

Generous support to the National Research Council in order to promote the full development and use of Canada's natural resources in their highest manufactured form.

The insertion of a clause in all Government contracts providing that all materials used in these contracts shall be manufactured in Canada or when this is not possible that preference be accorded to countries in the British Empire.

The giving of every encouragement to "the continued development of free employment bureaus administered by the Provinces and coordinated by the Federal employment service act; toward the coordination of seasonal occupation; for the settlement of industrial workers on vacant lands, and to provide financial assistance for transportation of workers to distant jobs and temporary employment."

¹ Canadian Congress Journal, Ottawa, February, 1931, pp. 12-14.

² Previous labor recommendations for providing work, granting direct relief, limiting the hours of labor to 8 per day on all Government works and those aided by grants under the unemployment relief act were put into effect. An additional recommendation for a 5-day week was not adopted by the Government.

The gathering, in connection with the census of 1931, of data concerning unemployment, and taking action to make this information available as promptly as possible.

The establishment of a national unemployment insurance system with contributions from the State, employers, and employees.

In regard to this last-mentioned recommendation the proponents stated that they felt it unnecessary to stress their belief that the Federal Government could deal with this matter inasmuch as in 1921 the Dominion Justice Department, referring to a recommendation of the Washington Conference of the International Labor Organization, made the following statement:

Unemployment insurance has a pronounced Federal aspect and on the whole the minister thinks the establishment of a system of unemployment insurance is competent to the Dominion in the exercise of its residuary legislative power with relation to the peace, order, and good government of Canada.

It is also pointed out in the program against unemployment that the need for unemployment insurance was emphasized by various public bodies in 1930, among them several provincial and municipal authorities. Moreover, the Royal Commission on Industrial Relations (1919) declared in its report (pars. 34-36) that among the principal causes of industrial unrest, unemployment, and the fear of unemployment, had first place. Recommendation was, therefore, made by that commission for "the adoption of State social insurance for those who, through no fault of their own, are unable to obtain work."

With reference to the memorandum on unemployment, here summarized, the Prime Minister stated that the problem of unemployment insurance "should be studied from every angle so as to avoid mistakes which he felt had developed in some other countries." He declared that it was the Government's intention to set up an inter-departmental committee in order that every possible aspect of the subject could be thoroughly investigated. He also stated that the other proposals concerning unemployment would be taken up by the Minister of Labor, who would always be glad to talk over any details relative thereto with the representatives of labor.

Extent of Employment and Unemployment in Great Britain

FROM the latter half of 1929 to the early months of 1931 there was a steady increase in the number of insured workers in Great Britain and northern Ireland registered as unemployed, accompanied by a decrease in the number employed. The two movements were not identical, since the number of insured workers increases month by month and year by year, so that an increase in the number employed and the number unemployed might take place simultaneously. In its issue for April, 1931, the Ministry of Labor Gazette gives a table showing the number of insured workers, the number registered as unemployed, the number not registered as unemployed, and the estimated number of those employed. The number of the employed is calculated by deducting from the total number insured the number registered as unemployed and making a further allowance of 3½ per cent to cover those who may be absent from work on account of illness or some other form of unrecorded unemployment. According to the

unemployment insurance regulations, a person unemployed on account of a trade dispute is not eligible for benefit and is not recognized as unemployed, so two figures are given for the number employed, the first including as at work those who are known to be idle owing to a trade dispute, and the second excluding them. An index number for each of the items presented is also given, the average for 1924 being taken as 100. The following table shows these figures and index numbers for each quarter of 1930, and for the first quarter and for each month separately, of 1931.

INSURED WORKERS, AND NUMBER UNEMPLOYED AND EMPLOYED, WITH INDEX NUMBERS, JANUARY 1, 1930, TO MARCH 31, 1931

| Period | Total insured aged 16 to 64 | Number unemployed | Number not recorded as unemployed | Estimated number employed | |
|---------------------------------|-----------------------------|-------------------|-----------------------------------|--|--|
| | | | | Including persons involved in trade disputes | Not including persons involved in trade disputes |
| 1930 | | | | | |
| January to March..... | 11,995,000 | 1,552,000 | 10,443,000 | 10,023,000 | 10,021,000 |
| April to June..... | 12,115,000 | 1,784,000 | 10,331,000 | 9,907,000 | 9,868,000 |
| July to September..... | 12,173,000 | 2,056,000 | 10,117,000 | 9,691,000 | 9,689,000 |
| October to December..... | 12,225,000 | 2,317,000 | 9,908,000 | 9,480,000 | 9,477,000 |
| 1931 | | | | | |
| January to March..... | 12,275,000 | 2,595,000 | 9,680,000 | 9,250,000 | 9,207,000 |
| January..... | 12,260,000 | 2,581,000 | 9,679,000 | 9,250,000 | 9,128,000 |
| February..... | 12,275,000 | 2,617,000 | 9,658,000 | 9,228,000 | 9,225,000 |
| March..... | 12,290,000 | 2,587,000 | 9,703,000 | 9,273,000 | 9,267,000 |
| <i>Index numbers (1924=100)</i> | | | | | |
| 1930 | | | | | |
| January to March..... | 108.3 | 136.5 | 105.1 | 105.0 | 105.3 |
| April to June..... | 109.4 | 156.9 | 104.0 | 103.8 | 103.7 |
| July to September..... | 109.9 | 180.8 | 101.8 | 101.5 | 101.8 |
| October to December..... | 110.4 | 203.8 | 99.7 | 99.3 | 99.6 |
| 1931 | | | | | |
| January to March..... | 110.9 | 228.2 | 97.4 | 96.9 | 96.8 |
| January..... | 110.7 | 227.0 | 97.4 | 96.9 | 95.9 |
| February..... | 110.9 | 230.2 | 97.2 | 96.6 | 97.0 |
| March..... | 111.0 | 227.5 | 97.7 | 97.1 | 97.4 |

As compared with the first quarter of 1930, the number of insured workers showed an increase in March, 1931, of 295,000, the number of those recorded as unemployed rose by 1,035,000, and the number of those actually employed (last column) showed a decrease of 754,000. March, however, shows a change in the tendency prevailing throughout 1930 and the first two months of 1931, as the number registered as unemployed fell off by 30,000 during the month, and the number actually employed rose by 42,000. This change is attributed by the Economist (London) to a seasonal revival in building and the clothing trades and to a slight improvement in the textile trades. Moreover, the upward trend, according to the same source, was carried over into the following month.

The latest return of the ministry states that on April 13 the total number of registered unemployed was 2,561,054, of whom 1,862,991 were wholly unemployed and 583,306 temporarily stopped, while the remainder, 114,757, consisted of persons usually in casual employment. The total figure shows a reduction of nearly 20,000 as compared with the previous week.

Industrial Survey of Depressed Areas in Great Britain

ON MARCH 17, 1931, the president of the Board of Trade announced in the House of Commons that the Government has decided to undertake at an early date industrial surveys in South Wales, in Lancashire, on the northeast coast of England, and on the southwest coast of Scotland. The universities in these areas, as well as the trade-unions and the employers' organizations, have been invited to participate in the undertaking. In several of the regions local development bodies have already been formed, or are in process of formation, and it is expected that these also will join heartily in the movement. The results of the inquiries are to be embodied in reports which, besides giving a summary of the present industrial position in the areas under consideration, will deal with the prospective employing capacity of the present industries, and with the prospects of early expansion and of new industrial developments.¹

Closing of Private Employment Agencies in Germany

AN ACCOUNT of the legislation and regulations regarding the abolition of private commercial employment agencies in Germany is given in the following report from William E. Beitz, of the American consulate in Berlin.

Under paragraph 55 of the act of July 15, 1927, amended in October 1929, governing employment and unemployment insurance, all commercial employment agencies of a private nature in Germany, except concert agencies, were compelled to liquidate by December 31, 1930, after which the entire range of business of employment service became concentrated in the Federal Bureau for Employment and Unemployment Insurance (*Reichsanstalt für Arbeitsvermittlung und Arbeitslosen-Versicherung*) covering the entire country. Employment agencies maintained by organized labor, or by employers of specific callings, were allowed to continue, but all were placed under the jurisdiction and supervision of the Federal bureau and are required to cooperate with the official public employment agencies.

Provision for Compensation

UPON application certain specified amounts of compensation are paid to commercial employment agencies under the following conditions:

(1) If on December 31, 1930, the firm had run the business on its own account and under its own name uninterruptedly (a) for a minimum period of 20½ years (from June 2, 1910, or an earlier date up to and including December 31, 1930) by official permit; or (b) for more than 30 years, if established without the necessity of an official permit (from a date preceding October 1, 1900, up to and including December 31, 1930); or (c) if in either of the above cases the owner relinquished the business in 1930 in order to enter the services of a public employment agency established by the above-mentioned Federal bureau.

¹ Data are from Great Britain, Parliamentary Debates, Mar. 17, p. 1854.

(2) If the firm was registered with the proper official employment agency (*Arbeits-Nachweis-Amt*) not later than July 1, 1925.

Widows and orphans also have a claim to compensation if, since the death of the husband or father, they had run the business on their own account uninterruptedly up to December 31, 1930, under the same license, and if the deceased owner would have had a legal claim to compensation if he had survived December 31, 1930.

The compensation consists of (a) a lump sum or old-age benefit paid all persons except widows and orphans; and (b) survivors' benefit paid widows and minor orphans.

Lump sum.—The lump sum is equal to a fixed percentage of the average profits realized by the liquidated firm during the years 1927, 1928, and 1929; the profits represent the yield of the business after deduction of the expenses incurred in carrying on the business, in addition to any profits realized on the placing of persons in jobs outside of Germany. The percentages are as follows:

| | Per cent of profit |
|---|-----------------------|
| First 4,000 reichsmarks ¹ (\$952)..... | 100 |
| Next 3,000 reichsmarks (\$714)..... | 50 |
| Next 2,000 reichsmarks (\$476)..... | 30 |
| Next 2,000 reichsmarks (\$476)..... | 15 |
| Next 2,000 reichsmarks (\$476)..... | 7 |
| All higher amounts..... | 2 |

No compensation is granted (1) if the claimant after December 31, 1930, engaged in an activity liable to be construed as an evasion of the prohibition to run commercial employment agencies; or (2) if after December 31, 1930, it appears that the claimant maintains, or participates in a commercial employment agency abroad which places persons in positions in Germany, or if he is an employee or agent of such foreign enterprise.

Old-age benefit.—Old-age benefit in lieu of a lump sum is paid if the claimant is a German national; resides in Germany; has on December 31, 1930, run the business for more than 30 years; has reached the age of 60 and is needy, that is, if his annual income after December 31, 1930, will presumably not exceed 1,000 reichsmarks (\$238). The annual old-age benefit amounts to 40 per cent of the lump sum to which the claimant would have been entitled, but must not exceed 1,000 reichsmarks a year. The benefit is discontinued if the beneficiary loses his German nationality; takes up his residence abroad; or is no longer considered needy as a result of a test made three years from the date on which old-age benefit was first paid to him. Certain exceptions thereto are permitted.

Survivors' benefit.—Survivors' benefit is paid to the widow until she remarries and to minor children until they reach their majority. The benefit is equal to 30 per cent of the lump sum to which the deceased husband or father would have been entitled, not to exceed 800 reichsmarks (\$190) a year. If on December 31, 1930, more than two persons have to be supported from the proceeds of the business, the benefit is increased for each minor child by 50 per cent of the amount of survivors' benefit granted, up to a maximum of 60 per cent of the lump sum, or 1,000 reichsmarks per annum. If there are no minor children who are entitled to benefit, the widow has a claim to old-age benefit.

¹ Conversions into United States currency made on basis of reichsmark=23.8 cents.

The claim to a lump sum is transferable and inheritable; the claim to old-age benefit can, upon the beneficiary's death, be transferred to the surviving wife if the latter is of German nationality, resides in Germany, has reached the age of 60 before January 1, 1931, and is needy. The claim to old-age benefit can not be inherited.

Concert Agents

CONCERT agents and employment agencies furnishing positions for artists, dancers, etc., may until further notice continue their business operations. The date on which they must liquidate shall be set at least one year in advance by the Federal Minister of Labor in agreement with the Bureau for Employment and Unemployment Insurance and the Federal Council. Agencies of this class, however, are not granted any compensation upon liquidation.

Penalty for Use of Foreign Employment Agency

A PENALTY, either a fine or a term of imprisonment not exceeding six months will be imposed on any person using the services of a foreign employment agency unless it is for the purpose of securing employment abroad or of engaging a person employed outside of Germany.

INDUSTRIAL AND LABOR CONDITIONS

The Negro in the Industrial Depression

THE industrial relations department of the National Urban League has recently issued a report embodying the results of inquiries made early in 1931 of "governors, directors of community chests, chambers of commerce, Urban League secretaries, relief agencies, employment experts, officials of insurance companies, and other persons whose contact with labor and financial conditions gives them an opportunity to answer the question propounded: 'What is the effect of unemployment among Negroes in various parts of the country?'"

The replies received were informal and do not lend themselves readily to tabulation, but several effects are distinctly shown. There is a greater proportionate amount of unemployment among Negroes than among whites; there is a tendency in some localities to substitute white for colored workers, and, occasionally, to give preference to white over colored workers in public work; there is no discrimination against the Negroes in the matter of relief; there are indications of a change in the occupational distribution of the two races, the whites taking over forms of work hitherto held as properly belonging to the colored; and there is a growing restlessness among the Negroes, who are moving from place to place in search of jobs.

Extent of Unemployment Among Negroes

WHEREVER figures were given, the percentage of the unemployed among Negroes exceeded their percentage of the total population, and in some cases the disproportion was very marked. Thus, in Baltimore they formed 17 per cent of the population and 31.5 per cent of the unemployed; in Charleston, S. C., 49 per cent of the population and 70 per cent of the unemployed; in Chicago, 4 per cent of the population and 16 per cent of the unemployed; in Memphis, the corresponding percentages were 38 and 75; in Philadelphia, 7 and 25; and in Pittsburgh, 8 and 38. The caution is given that these percentages are not strictly comparable, since different factors enter into the returns from different places.

It is of particular significance that the highest disproportionate figures are found in northern industrial centers, where the Negro is limited to unskilled occupations and is in truth the marginal worker. This is not to be taken, however, to mean that the disproportion does not appear also in southern communities, where the percentage of cases handled by relief agencies is also in excess of the per cent Negroes form of the total population.

A part of this unemployment is direct, being due to the closing down of industrial plants, as in Youngstown, whence comes the report that "that branch of work in the large mills which engages the greatest number of Negro laborers is practically dead, resulting in critical conditions among the Negro workers." Another part is indirect,

and is due to the fact that hard times cause a falling off in the demand for services of the kind often rendered by colored workers. Thus from Danville, Va., it is reported that the general unemployment situation has been made worse by the effects of the textile strike. "Strike conditions have been felt among all classes to the extent that ordinary jobs of cleaning, washing, and general housework have been done within the families which formerly engaged Negro workers."

White Versus Colored Workers

INSTANCES of substituting white for colored workers are reported from a number of cities, both north and south. From one city comes the statement that janitor jobs, totaling 600 in number, formerly held by Negroes, have been vacated. "One concern laid off 12 colored porters to be replaced by white men." In another city "many instances of the replacement of Negro workers by whites have been reported, and hundreds of Negro domestic workers have been discharged and replaced by whites," while the statement that "several organizations have released Negroes and replaced them with white workers" comes in varying form again and again. Occasionally, some other nonwhite race is substituted for the colored workers. "One hotel replaced its force of 20 Negro maids, elevator boys, and cooks with Filipinos, and thereby cut its wage bill practically in half."

This substitution of workers of other races in jobs customarily held by Negroes has been chiefly in personal service occupations, the principal occupations being household employment, elevator operating, and hotel service. In a number of establishments, as in the case of hotels, white girls are employed in places formerly held by colored men.

General Conditions

INEVITABLY, in view of the large amount of unemployment among them, Negroes constitute a heavy part of the burden borne by relief agencies. Presumably they help one another informally to a considerable extent, but apart from that, their churches and other social organizations have taken up energetically the work of helping the unemployed. From city after city word comes in of the work they are doing, mostly in the form of direct relief. "In each of six different sections on the South Side one or more churches are maintaining free feeding stations. Funds are being raised among Negro merchants and their employees for relief work." "Several large Negro churches are serving free meals, some of them averaging more than 100 meals a day. One church has served meals to over 2,000 Negroes and approximately 1,000 white persons. A women's club has provided a dormitory for homeless women, averaging 17 lodgers a night."

Frequent references in advices from all over the Nation indicate that free kitchens, money relief, and clothing are being provided by religious institutions to supplement the work of social agencies. For the first time the Negro church has entered the field of practical social service on such a large scale.

Naturally, the search for work is leading to considerable shifts among the colored population, and a growing restlessness is noticed. In both Brooklyn and New York City there has been an influx of outsiders to make a bad situation worse; "and throughout the country there is more than expected population mobility, even for unemployment periods."

Signs of Improvement

FROM several quarters come reports of improved conditions since an inquiry of this kind was concluded in November, 1930. In Philadelphia there is "a slowly increasing demand for labor," one which, however, is far from sufficient to employ the job seekers. Unfortunately, "employment conditions among Negroes have not increased proportionately with those of the white group," and conditions are bad. In some of the Southern States seasonal activities have helped the situation, and in some other regions a general improvement has been visible.

The bright side of the picture is presented by improvements in several sections of the country—the packing plants in Omaha; roads and river construction near Memphis; the flour mills and lumbering industries of Seattle; a bumper cane crop and citrus yield in Florida; fertilizing plants in Augusta; the existence of public-work projects in Pittsburgh; general favorable conditions in Denver; a lowering of unemployment in Dayton—these are the principal sources of better times for Negro workers.

Summary

AS A RESULT of the survey, the following conclusions are presented:

That the situation has not materially improved since the issuance of our last report in November.

That measures for relief are confined almost entirely to charity.

That Negroes get more relief but fewer jobs than others from agencies established to aid the unemployed.

That Negroes continue, and unless provision is made to the contrary, will continue to contribute more than their proportionate share of the burden of relief agencies.

That the economic structure of the entire Negro race is in an alarming state of disrepair, with dire effect upon business and professional interests dependent upon the patronage of Negro wage earners.

That restlessness is evident from one end of the country to the other; for unquestionably Negroes have lost jobs to which they will not return even when normal times come again; and

That the new jobs offered Negroes in public works have not been in proportion to their need.

Factory Inspection in the Philippines, 1929

DURING 1929 the labor inspection division of the Philippine Bureau of Labor covered 138 municipalities of 21 Provinces, including the city of Manila. The total number of industrial and mercantile establishments and plantations inspected in 1929 was 4,742—a decrease of 364 as compared with the number in the preceding year, as shown in the accompanying table from the report of the Governor General of the islands for 1929. This decrease, it is explained, was due to the fact that a great portion of the time of three inspectors was taken up with field work in connection with the workmen's compensation law and interisland migration activities.

FACTORY INSPECTION WORK OF PHILIPPINE BUREAU OF LABOR, 1925 TO 1929

| Year | Industrial | | Mercantile | | Agricultural | | Total | |
|-----------|--------------------------|-------------------|--------------------------|-------------------|-----------------------|-------------------|--|-------------------|
| | Number of establishments | Number of workers | Number of establishments | Number of workers | Number of plantations | Number of workers | Number of establishments and plantations | Number of workers |
| 1925----- | 2, 445 | 60, 418 | 329 | 6, 067 | 47 | 3, 396 | 2, 821 | 69, 881 |
| 1926----- | 2, 573 | 69, 948 | 378 | 4, 243 | 294 | 19, 786 | 3, 245 | 93, 977 |
| 1927----- | 3, 718 | 59, 608 | 655 | 7, 783 | 211 | 11, 310 | 4, 584 | 78, 701 |
| 1928----- | 4, 008 | 76, 611 | 992 | 10, 941 | 106 | 6, 891 | 5, 106 | 1 94, 446 |
| 1929----- | 3, 846 | 60, 481 | 419 | 3, 055 | 477 | 16, 411 | 4, 742 | 79, 947 |

¹ As given in report; not exact sum of items.

New Labor Office in Egypt

IN THE issue of Industrial and Labor Information for February 23, 1931, the International Labor Office notes a decree of the Egyptian Minister of the Interior creating a labor office in his department. The new office will handle all matters pertaining to labor, with particular reference to the following:

Enforcement of the act and regulations of 1904 relating to unhealthy, dangerous and inconvenient establishments;

Enforcement of the act of 1909 and the orders of 1924, 1926, and 1927 relating to child labor in cotton ginning, pressing and cleaning factories, tobacco and cigarette factories, and silk, cotton, and linen spinning and weaving factories;

Execution of research and compiling of information as a basis for future labor legislation and enforcement of such legislation;

Drafting of bills and regulations relating to labor, savings, migration, and vocational training;

Supervision of the enforcement of regulations issued by the Minister of the Interior relating to workshops, factories, and commercial establishments;

Study of the causes of disputes between workers and employers and settlement of the disputes through the medium of the local administrative authorities or conciliation boards;

Study of the management of trade-unions and other workers' associations;

Study of the customs, life, and housing of the workers, the conditions of their families, their nourishment and the means of raising their standards, and education of children;

Study of the causes of unemployment, compilation of information and statistics relating to unemployed workers and negotiations with government departments or services which operate factories or workshops or employ labor or which supervise the exploitation of concessions or monopolies granted to companies or individuals or which control vocational training, with a view to providing the maximum possible employment;

Compilation of information and statistics relating to the following:

Disputes between employers and workers, the duration of strikes and the decisions of conciliation boards;

The number of workers, classified according to sex, age, nationality, and marital condition;

Occupational risks and industrial accidents;

The living conditions of workers and their families, housing, and prices of primary commodities;

The fluctuation of wages;

Hours of work by night and by day.

A report from American Consul H. Earle Russell at Alexandria, dated January 31, 1931, in reference to the creation of the new labor office, stated that there were about 70,000 industrial establishments in Egypt which were not regularly inspected, the Government having only three inspectors for such work.

WOMAN AND CHILD LABOR

Migratory Child Workers in New Jersey

IN JUNE, 1930, the Governor of New Jersey, acting in accordance with a resolution passed by both branches of the State Legislature, appointed a commission to make a study of migratory child labor in the State of New Jersey and to report its findings at the next session of the Legislature. The report was made in February of this year and has recently been published for general distribution.

For a number of years it has been the custom of New Jersey farmers to employ for at least a part of the season migratory families, largely Italians from Philadelphia or some other conveniently located city. This often involves the employment of children, sometimes of very young children, who, since the labor is agricultural, have no legal safeguards or protection. Also, since the working season often overlaps the school term, their school year is cut short and retardation is common among them. For these reasons it was felt desirable to make a study of the whole situation. The inquiry was confined entirely to children in agricultural labor; i. e., child labor in canneries or other similar seasonal occupations was not considered. It covered 580 families, with a total of 3,719 persons, which, it was believed, formed about 90 per cent of all migratory families coming to New Jersey.

Why Migratory Labor is Employed

THE fundamental reason for employing this labor is the seasonal character of the work and the necessity for having at hand a labor force which can be used when and as needed. This, in turn, is largely due to the kind of farming in which New Jersey specializes.

The outstanding characteristic of New Jersey agriculture is the large production of highly perishable vegetables and fruits. When these vegetables and fruits are ripe they must be harvested immediately because a day or two means a loss to the farmer. Farmers require steady, reliable, experienced forces to pick the crops on the day they are ready. Our survey showed that the majority of families employed by New Jersey farmers were engaged in harvesting peaches, cranberries, spinach, blackberries, asparagus, tomatoes, radishes, peas, strawberries, cherries, raspberries, blueberries, beans, and a very few in thinning carrots, pulling beets, pulling weeds, picking potatoes and apples. A majority harvested highly perishable vegetables and fruits.

When questioned as to their reasons for employing the migratory family labor, the employers gave a number of reasons, the most important being that local help was not sufficient in number, that the Italian family labor was more reliable and dependable than any other kind obtainable, and that the Italians were experienced in the kind of work to be done. In some cases this experience had been gained in Italy, but in many others it was a result of the training received in New Jersey. Of the 580 families studied, 79 per cent had been in such work for more than one season, and 64 families had had 20 or

more seasons in which to gain experience. The summer work on the farms was looked upon by the families as part of their regular occupation.

The Workers

THE 580 families studied during the season of 1930 comprised 3,719 persons. Of these, 326 were male heads of families whose average age was 47.2 years, the range being from 29 to 67 years. "These figures have great significance. It is a well known fact that the industrial establishments are not inclined to employ men of 40 years of age or over. Farmers on the contrary consider them as the best workers."

The family groups included 2,741 children, but some of these were over or under school age. The number under 6 years of age was 428, and those in the group aged 6 to 15 years, that is, of school age, numbered 1,798. The working children numbered 1,342, of whom 730 were boys and 612 were girls. Their ages ranged from 5 years (in one instance) to 15, but 90 per cent were from 9 to 15 years old, and 57.6 per cent from 12 to 15. There is considerable question as to whether the employers wish to use the children, or whether their employment is merely a necessary incident of the system.

It is possible that some growers encourage the employment of children when adult labor could readily be secured. There is good reason to believe, however, that this is not generally true. The survey made by the commission shows that the per capita production of children as a group was considerably less than that of their parents. Since the employer generally pays by the piece and the rate is usually the same for both children and adults, there would seem to be no financial advantage in employing children.

The working children, it was found, averaged about the same number of hours per day and of days per week as their parents, the demands of the crop determining the hours worked in both cases. As nearly as could be judged, the children were not overworked or subjected to hardship. A study of their output showed that they were not speeded up, they worked for the most part under the supervision of their parents, and no evidence was found that they were in any respect hardly treated.

Recommendations of the Commission

THE commission criticizes the present situation mainly in regard to two points—the workers' housing and the interference with the schooling of the children. As to the first, the housing varied widely, but on the whole was not up to the requirements of health and sanitation.

With respect to conditions surrounding the housing and sanitation of migratory children, it is brought out in the body of the report that certain conditions of overcrowding, lack of sanitation, and poor housing prevail. The commission recommends that these be corrected by the adoption and enforcement by the State commissioner of labor of a suitable code covering ventilation, garbage disposal, water supply, toilets, housing facilities, and such other items as are desirable.

The interference with school attendance is general and serious, affecting all the children alike, whether they are employed or not. The weighted average number of school days actually lost, regardless of the child's age, was for boys, 40; for girls, 38.9; and for boys and

girls together, 39. The average retardation of the children was about 60.6 per cent. The commission discusses at some length how this situation can be remedied. A compulsory school-attendance law, extended to include migrant children, has been suggested. The immediate effect of this would be to make each district responsible for the school attendance of the migrant children during their stay within its limits. To this plan there are several objections. Very few of the districts have, at present, the facilities for taking in a large number of extra children; more schoolroom space would be needed and additional teachers would have to be employed for the time of the extra attendance. This would tax the finances of most of the districts unduly. In addition, there would be the difficulty of transportation for the migrant children, who are often on farms far from the present schools or remote from the routes of the school busses.

Again, it is a serious question whether it would be wise to place the migrant children in the local schools. The retardation of the migrant children is far greater than that found in the average rural school, and to force a number of overage children into classes for their juniors might seriously interfere with the normal work of the schools. Moreover, the migrant children do not all arrive in a certain district or leave it at the same time. The dates of arrival range from early April to late June, so that pupils would be continually coming and going.

The number of pupils which many of the smaller schools would be called upon to provide for would fluctuate during a single month from 4 or 5 to 20 or 30. In two cases, at least, there would be more than 100 such transient pupils added to a normally small enrollment. It is evident that conditions such as these would disrupt the schools and seriously interfere with the instruction.

Moreover, the migrant children have a totally different background from that of the resident children, represent a different type of home, and have attitudes, habits, and responses differing materially from those of the local children. Their presence in the local schools would inevitably be a disturbing influence, interfering with the progress of the resident children. The migrants themselves would receive little benefit from such school attendance.

In view of all these facts, the commission feels that special classes adapted to the needs of migrant children should be adopted, but recognizes that the establishment of such classes presents problems of organization and administration requiring serious study. The situation as a whole calls for three bills, which the commission is planning to present, dealing respectively with compulsory education, hours of labor, and housing and sanitation.

Trend of Women's Wages in New York City Since 1929

THE division of women in industry of the New York State Labor Department has recently collected figures relating to the changes in women's wage rates following the events of October, 1929, and has published the results in the March, 1931, issue of the *Industrial Bulletin*, the official publication of the department. Data as to wages offered in New York City for various kinds of women's work in the

fall of 1929 and for the same period of 1930 were gathered from the Manhattan, Bronx, and Brooklyn branches of the State employment bureau, from a large commercial agency specializing in office help, and from the classified advertisements in the New York World. Apparently, there has been a fall in the wage rates for workers of all types. For clerical workers the range of salaries offered has declined noticeably.

Before the crash in the stock market and the decline of business generally, clerk's wages ranged from \$10 to \$22 a week, with the general average between \$15 and \$18. In February, 1931, clerks were offered \$8 to \$18 a week and much higher educational standards were required. Wages for typists dropped from a range of \$15 to \$22 to one of \$12 to \$21, with the \$12 offer being the more usual. Stenographers have fared even worse, their rates dropping from \$15 for a beginner and \$35 for an expert to \$9 and \$20, respectively. In two instances wages for the identical position were secured for the two periods; one position previously paid \$20 and now offers \$15, while the other was \$25 and now is \$18 a week. In like manner bookkeepers were offered \$23 to \$25 a week and now the orders come in for \$15.

Specialized workers, such as those in banks, insurance companies, and brokerage houses have had much the same experience, as shown by the following comparative figures:

RANGE OF WOMEN'S SALARIES IN SPECIFIED POSITIONS, 1929 AND 1930

| Kind of business and of position | Range of weekly salaries | |
|-------------------------------------|--------------------------|-----------------|
| | October, 1929 | October, 1930 |
| Insurance business: | | |
| Clerk..... | \$18-\$35 | \$18-\$30 |
| Typist..... | 23-25 | 20-25 |
| Stenographer..... | 16-35 | 12-30 |
| Bookkeeper..... | 20-35 | 18-30 |
| Office machine operator..... | 30-35 | 25-30 |
| Range of yearly salaries | | |
| Bank or brokerage position: | | |
| Statistical clerk..... | \$1,000-\$1,800 | \$1,000-\$1,600 |
| General financial stenographer..... | 1,000-1,600 | 900-1,800 |
| Senior bookkeeper..... | 2,600 | 1,600-2,000 |
| Assistant bookkeeper..... | 1,100-1,800 | 1,100-1,500 |
| Office machine operator..... | 1,100-1,800 | 1,100-1,600 |

Permanent full-time saleswomen seem to have been able to hold or even to improve their position in most cases, the weekly salaries now offered being \$12 to \$30, against a range of from \$13 to \$25 in 1929. Part-time workers and extras have suffered, the part-time workers having been reduced from \$15 to \$12 a week, and the extras from \$3 and \$4 a day to \$2 and \$3. Among restaurant workers, cashiers, who are now being offered \$18 a week as against \$23 previously, seem to have been almost the only class affected. There is one case reported, however, of a large chain of lunch rooms which formerly paid its waitresses \$10 a week and is now paying them \$6.

Wages for domestic servants show a greater reduction than for any other class. For servants who were to live in the homes of their employers the wages formerly offered ran from \$40 to \$70 a month; now the range is from \$15 to \$55, the most usual figure being \$40.

A record was secured of a placement made in February, 1931, of an experienced domestic at \$5 a week with room and board. The woman was 52 years of age,

Protestant, American born, and had been out of work for eight months. Many times employers try to secure domestic help without paying any wages but merely offering a home and food. No record has been found of any worker accepting such an offer but such offers continue to come to all the employment offices.

Domestics who do not live in the home, laundry workers, and factory workers all show reductions varying in degree. Among factory workers it is harder to trace the reductions because payment on a piece-rate basis is increasingly replacing a flat weekly rate in many unskilled operations. Formerly it was a common practice to take on a beginner at, say, \$12 a week, with an agreement either to increase the wage or to put the learner on piece rates when she became proficient. "Nowadays the beginner is taken on at piecework immediately and she has to learn the work at her own expense." Some of the factory operations which are still paid for at a weekly rate show a reduction in their starting wages of from \$1 to \$3, \$4, or \$5 a week.

The following table shows the result of such practices upon the earnings of woman factory workers:

WEEKLY EARNINGS OF WOMAN FACTORY WORKERS IN NEW YORK CITY, JANUARY, 1929, AND JANUARY, 1931

| Industry group | Weekly earnings | | Increase or decrease |
|--------------------------------------|-----------------|---------------|----------------------|
| | January, 1929 | January, 1931 | |
| Stone, clay, and glass..... | \$14.52 | \$15.23 | +\$0.71 |
| Metals and machinery..... | 17.58 | 15.34 | -2.24 |
| Wood manufacture..... | 17.28 | 16.01 | -1.27 |
| Furs, leather, and rubber goods..... | 22.90 | 18.57 | -4.33 |
| Chemicals, oils, paints, etc..... | 16.20 | 15.79 | -.41 |
| Printing and paper goods..... | 19.70 | 18.22 | -1.48 |
| Textiles..... | 18.71 | 17.50 | -1.21 |
| Clothing and millinery..... | 23.57 | 21.82 | -1.75 |
| Food and tobacco..... | 18.90 | 18.57 | -.33 |
| Total..... | 21.64 | 20.18 | -1.46 |

Basing conclusions on the figures herewith presented, there can be no doubt that the wage levels for woman workers in the city of New York have declined sharply. This has been shown to be true for all large industrial groups and for many smaller occupational classifications in the clerical, mercantile, restaurant, and domestic lines of work. In view of the fact that many firms have maintained their former wage levels, in some cases with the announced purpose of helping to maintain community purchasing power, it still remains a question as to whether the reductions in salary noted were an economic necessity or whether they were caused by a desire on the part of employers to take advantage of the present oversupply of labor.

Woman and Child Labor in Manila, 1929

IN ORDER to enforce the provisions of Act 3071, which regulates the employment of women and children in the Philippines, large and small factories and other work places were inspected in the city of Manila and in certain Provinces. All Provinces could not be included because of the limited number of inspectors.

The following statistics, from the annual report of the Governor General of the islands for 1929, show the distribution of woman and child workers in various inspected establishments in that year and the preceding one. While the number of establishments was 597 in

1929 as compared with 542 in 1928, the number of minors employed was 82 less in the later year.

DISTRIBUTION OF WOMAN AND CHILD LABOR IN INSPECTED ESTABLISHMENTS IN MANILA, 1928 AND 1929

| Industry | 1928 | | | 1929 | | |
|--------------------------------|--------------------------|-----------------|--|--------------------------|-----------------|--|
| | Number of establishments | Number of women | Number of children under 18 years of age | Number of establishments | Number of women | Number of children under 18 years of age |
| Aerated water..... | 7 | 34 | --- | 9 | 31 | 3 |
| Asbestos sheet..... | 1 | 10 | 3 | 1 | --- | 4 |
| Bag repairing..... | 10 | 107 | 17 | 12 | 69 | 13 |
| Buttons..... | 1 | 100 | 17 | 1 | 82 | 25 |
| Candles..... | 1 | 3 | --- | --- | --- | --- |
| Candy..... | 9 | 86 | 19 | 10 | 85 | 30 |
| Cigars and cigarettes..... | 40 | 5,552 | 927 | 36 | 6,486 | 856 |
| Desiccated coconut..... | 1 | 202 | --- | --- | --- | --- |
| Dressmaking and tailoring..... | 66 | 372 | 32 | 202 | 689 | 24 |
| Embroidery..... | 23 | 1,787 | 107 | 23 | 1,825 | 82 |
| Glass..... | 1 | 2 | --- | 2 | 11 | 1 |
| Hats..... | 6 | 39 | 7 | 17 | 85 | --- |
| Hemp..... | 4 | 77 | 16 | 4 | 125 | 6 |
| Ice cream..... | 1 | 2 | 6 | 1 | 2 | --- |
| Kapok..... | --- | --- | --- | --- | 6 | 2 |
| Laboratory..... | 1 | 49 | --- | 1 | 14 | 5 |
| Laundry..... | 3 | 271 | --- | 148 | 667 | --- |
| Matches..... | 1 | 53 | 8 | --- | --- | --- |
| Printing..... | 24 | 84 | 46 | 19 | 117 | 35 |
| Refreshments..... | 318 | 132 | --- | 65 | 108 | --- |
| Remnant importing..... | 2 | 15 | --- | --- | --- | --- |
| Shirts..... | 16 | 435 | 36 | 24 | 541 | 66 |
| Shoes and slippers..... | 3 | 145 | --- | 15 | 180 | 4 |
| Umbrellas..... | 3 | 47 | 11 | 4 | 48 | 14 |
| Vernicelli..... | --- | --- | --- | 1 | 10 | --- |
| Total..... | 542 | 9,604 | 1,252 | 597 | 11,181 | 1,170 |

Protection of Working Women in Panama

A DECREE (No. 23) passed by the National Assembly of Panama and published in the November 5, 1930, issue of the Gaceta Oficial, prohibits the employment of women in commercial and industrial establishments during the eight weeks before and after childbirth, provides for a vacation at half pay during this period, upon presentation of the proper medical certificate, and prohibits the discharge of any woman because of pregnancy. Employers are not allowed to make any deductions from the salaries of working mothers for the 15-minute period allowed them every four hours by law for the nursing of their children. According to the provisions of the law, day nurseries are to be established in the poorer sections of Colon and Panama, and any other towns in which they would be needed, in the judgment of the executive.

Employers or owners of industrial or commercial establishments who do not comply with the provisions of this law are subject to a fine of 50 balboas for each offense.

HEALTH AND INDUSTRIAL HYGIENE

Incidence of Illness Among Bombay Cotton Operatives

IN 1930 the Bombay Labor Office undertook, at the request of the Royal Commission on Labor, an inquiry into the incidence of illness among the cotton operatives of Bombay, the results of which are given in the Labor Gazette (Bombay) for February, 1931. The investigation presented many difficulties and its results are vague and indefinite, but as it is the first time such an inquiry has been made, its findings have a value. The plan was at first to visit in their homes all employees who were absent from the mills for three days or more, but this had to be given up because the mills kept no record of the addresses of their workers and the difficulty of tracing absentees was too great. It was finally decided to list those absent for as long as three days and upon their return to the mills to interview them to learn the cause of absence, and, if it were illness, to secure details. Even thus there was doubt as to how complete the figures were. Employees were recorded by number, and there was some uncertainty as to the extent to which these numbers could be relied upon for identification purposes.

Although there is no uniformity in the various mills in Bombay as regards the discharge of workers absent without leave, it is understood that there is some sort of a convention that if a spinner absents himself for more than two days he is either replaced permanently by another worker or on his return given a new ticket number in the same or some other department.

This practice apparently does not apply to the weavers and other operatives. The final figures showed so few cases of illness, relatively, among spinners that it seemed certain some cases must have been discharged, or hidden under a new ticket number.

The inquiry covered the employees of three mills for a period of about three months, from the early part of July to the end of September. The average number of workers, the total number absent for three or more days in succession, and the number of cases in which this absence was due to sickness are shown in the following table:

AVERAGE NUMBER OF WORKERS, AND ABSENCES DUE TO ILLNESS AND TO ALL CAUSES IN THREE BOMBAY MILLS

| Month | Average daily number of workers | Number absent 3 days or more in succession on account of— | |
|----------------|---------------------------------|---|---------|
| | | All causes | Illness |
| July..... | 12, 157 | 1, 081 | 604 |
| August..... | 11, 686 | 1, 100 | 476 |
| September..... | 11, 033 | 1, 280 | 368 |
| Total..... | | 3, 461 | 1, 448 |

The total number of man-days which could have been worked in the three mills during the period covered was 812,812, of which 8,352, or 1.03 per cent, were definitely known to have been lost on account of illness, the percentage ranging from 0.81 in the mill with the best showing to 1.4 in the worst.

Of the total number of employees who lost three consecutive days or more on account of illness, 1,294 were males and 202 were females. No figures are given as to the sex distribution of the whole group of employees, so that it is not possible to draw any conclusions as to the relative liability to illness. The male employees absent on account of sickness lost, on an average, 5.57 working-days per case; the female employees lost 5.72 days per case.

It was impossible to get accurate information as to the kind of illness which caused the absence. The returned workers could describe their symptoms, but in many cases did not know the name of their trouble, and the investigators had to make a guess at this from the account given them. The following table, therefore, is presented without any claims as to its accuracy:

CASES OF ABSENCE, BY NATURE OF ILLNESS AND SEX OF ABSENTEE

| Nature of illness | Number of cases | | | Per cent of total |
|--|-----------------|---------|-------|-------------------|
| | Males | Females | Total | |
| Malarial fever..... | 58 | 5 | 63 | 4.21 |
| Other fevers (unspecified)..... | 649 | 96 | 745 | 49.80 |
| Diarrhea..... | 138 | 29 | 167 | 11.16 |
| Stomach complaints..... | 73 | 17 | 90 | 6.02 |
| Dysentery..... | 65 | 14 | 79 | 5.28 |
| Headache or cold..... | 51 | 8 | 59 | 3.94 |
| Skin diseases..... | 63 | 9 | 72 | 4.81 |
| Injuries caused by accidents in mills..... | 28 | 2 | 30 | 2.01 |
| Other injuries..... | 39 | 4 | 43 | 2.87 |
| Respiratory diseases..... | 31 | 2 | 33 | 2.21 |
| Other diseases..... | 97 | 16 | 113 | 7.55 |
| Imperfectly specified..... | 2 | ----- | 2 | .14 |
| All diseases..... | 1,294 | 202 | 1,496 | 100.00 |

It is highly probable, the report states, that the heading "other fevers" includes many cases of malarial fever, since the only test adopted by the investigators in classifying a fever as malarial was whether or not it was attended by shivering.

As is well known, malaria appears in many garbs and it is enough for our purpose, therefore, to note that more than half the illness is due to fevers. This high proportion may be due to the fact that the period to which the inquiry relates fell within what is known as the "malaria season," which begins in the latter half of July, and from then the incidence steadily rises to its highest point, which is usually reached in October, September and October being the two most malarious months.

INDUSTRIAL ACCIDENTS

Accident Experience of Establishments Reporting to National Safety Council, 1929

THE accident experience in 1929 of 3,603 industrial establishments reporting to the National Safety Council is shown in Table 1, reproduced from Industrial Accident Statistics, 1930 edition, published by the council.

TABLE 1.—ESTABLISHMENTS, EXPOSURE, AND ACCIDENT RATES, BY INDUSTRIES
1929

[Arranged in order of frequency rates, from high to low]

| Industry | Number of establishments | Hours of exposure | Accident frequency rates (per 1,000,000 hours' exposure) | Accident severity rates (per 1,000 hours' exposure) |
|--------------------------------|--------------------------|-------------------|--|---|
| Mining..... | 162 | 82,095,942 | 74.43 | 9.99 |
| Meat packing..... | 18 | 102,832,500 | 55.94 | 1.47 |
| Construction..... | 397 | 127,344,439 | 50.41 | 4.62 |
| Refrigeration..... | 44 | 20,255,495 | 43.35 | 3.04 |
| Woodworking and lumbering..... | 222 | 160,257,172 | 42.83 | 3.59 |
| Tanning and leather..... | 34 | 28,552,020 | 31.35 | 1.60 |
| Foundry..... | 229 | 409,795,710 | 30.30 | 1.73 |
| Electric railways..... | 46 | 78,445,722 | 29.75 | 1.93 |
| Metal forming..... | 347 | 324,732,946 | 29.71 | 1.67 |
| Ceramic..... | 42 | 19,301,791 | 28.93 | 1.07 |
| Paper and pulp..... | 215 | 196,881,082 | 28.43 | 1.77 |
| Petroleum..... | 79 | 565,701,537 | 26.78 | 2.49 |
| Quarry..... | 125 | 18,011,588 | 26.71 | 6.11 |
| Nonferrous metallurgical..... | 26 | 37,515,661 | 23.16 | 2.71 |
| Public utility..... | 403 | 589,150,210 | 22.58 | 3.13 |
| Automobile..... | 67 | 346,572,274 | 22.17 | .97 |
| Railway car and equipment..... | 37 | 69,096,822 | 21.88 | 2.20 |
| Food..... | 171 | 137,278,278 | 21.07 | 1.50 |
| Rubber..... | 42 | 175,157,500 | 19.25 | 1.24 |
| Machinery..... | 212 | 448,821,236 | 18.91 | 1.11 |
| Steel..... | 128 | 567,248,244 | 18.13 | 2.75 |
| Glass products..... | 17 | 20,452,053 | 17.70 | .86 |
| Chemical..... | 172 | 206,439,640 | 17.50 | 1.72 |
| Laundry..... | 34 | 10,174,088 | 12.78 | 1.53 |
| Printing and publishing..... | 20 | 14,059,389 | 12.23 | .67 |
| Textile..... | 153 | 199,749,575 | 11.82 | .58 |
| Cement..... | 138 | 75,739,429 | 9.55 | 3.64 |
| Total ¹ | 3,603 | 5,058,942,337 | 25.53 | 2.23 |

¹ Includes also miscellaneous industries.

Table 2 gives, by industry, the accident frequency and severity rates of 1,092 establishments reporting to the National Safety Council in each of the three years 1927, 1928, and 1929. The man-hours of exposure for these years were 2,096,530,522, 2,156,131,740, and 2,291,410,441, respectively.

TABLE 2.—ACCIDENT FREQUENCY AND SEVERITY RATES OF ALL ESTABLISHMENTS REPORTING TO NATIONAL SAFETY COUNCIL IN EACH OF THREE YEARS, 1927, 1928, AND 1929, BY INDUSTRIES¹

| Industry | Number of firms | 1927 | | 1928 | | 1929 | |
|-----------------------------------|-----------------|--|---|--|---|--|---|
| | | Accident frequency rates (per 1,000,000 hours' exposure) | Accident severity rates (per 1,000 hours' exposure) | Accident frequency rates (per 1,000,000 hours' exposure) | Accident severity rates (per 1,000 hours' exposure) | Accident frequency rates (per 1,000,000 hours' exposure) | Accident severity rates (per 1,000 hours' exposure) |
| Automobile..... | 31 | 23.80 | 1.08 | 24.99 | 1.37 | 26.43 | 1.06 |
| Chemical..... | 84 | 19.50 | 2.01 | 18.52 | 2.00 | 18.95 | 1.67 |
| Construction..... | 46 | 62.94 | 5.87 | 60.16 | 4.40 | 45.02 | 4.57 |
| Electric railways..... | 10 | 22.96 | 2.05 | 20.90 | 1.50 | 15.27 | 2.79 |
| Food..... | 81 | 21.62 | 1.71 | 23.51 | 1.53 | 22.47 | 1.91 |
| Foundry..... | 111 | 24.46 | 1.50 | 23.16 | 1.12 | 26.85 | 1.64 |
| Machinery..... | 99 | 17.56 | 1.10 | 15.64 | .92 | 16.46 | 1.14 |
| Meat packing..... | 7 | 47.10 | .80 | 53.91 | 1.86 | 34.63 | .99 |
| Metal forming..... | 116 | 22.10 | 1.38 | 22.00 | 1.40 | 22.18 | 1.38 |
| Nonferrous metallurgical..... | 15 | 31.61 | 1.64 | 30.34 | 2.30 | 29.50 | 3.05 |
| Paper and pulp..... | 111 | 30.27 | 1.99 | 24.73 | 2.24 | 24.07 | 1.78 |
| Petroleum..... | 14 | 29.64 | 2.25 | 26.19 | 2.80 | 29.38 | 2.65 |
| Printing and publishing..... | 6 | 6.79 | .13 | 9.37 | .22 | 8.00 | .24 |
| Public utility ² | 106 | 28.37 | 3.74 | 21.98 | 3.84 | 20.02 | 3.52 |
| Railway car and equipment..... | 15 | 28.32 | 3.86 | 15.90 | 1.27 | 26.44 | 1.60 |
| Rubber..... | 25 | 30.84 | 1.00 | 24.95 | 1.17 | 20.15 | 1.29 |
| Steel..... | 51 | 21.75 | 2.00 | 19.81 | 2.48 | 17.59 | 2.05 |
| Tanning and leather..... | 14 | 28.88 | 1.03 | 29.98 | .78 | 30.34 | 3.04 |
| Textile..... | 51 | 12.58 | .47 | 11.80 | .54 | 10.58 | .59 |
| Woodworking..... | 80 | 49.14 | 2.35 | 47.33 | 3.33 | 46.99 | 4.12 |
| Miscellaneous industries..... | 7 | 12.66 | .23 | 10.07 | 1.27 | 11.21 | .24 |
| Total ³ | 1,092 | 25.85 | 1.92 | 23.39 | 1.97 | 22.90 | 2.02 |

¹ Data not available for cement, glass products, mining, and quarry industries.

² Does not include the manufacture and distribution of gas.

³ Totals include some establishments in ceramic, laundry, and refrigeration industries, not shown separately in the table. The exposure in these industries was so small that the rate changes could not be considered reliable indication of accident trends.

Prevention of Industrial Accidents

THAT 98 per cent of all industrial accidents are preventable, and that 88 per cent can be prevented through the enforcement of proper supervision, is asserted by H. W. Heinrich in his recent publication on industrial accident prevention.¹ This statement is based upon a study by the author of 75,000 cases, taken from insurance files and records of industrial firms. The other 10 per cent, classed as due to physical or mechanical causes, may, it is declared, also be controlled by the employer.

It is stressed that the burden and the responsibility for initiative rests largely upon the employer. It is by him that the industry is conducted and the worker brought into contact with industrial equipment and processes which may result in loss of life or bodily injury. Consequently he can not escape the obvious responsibility that accompanies this employment of his fellow men—maintaining reasonably safe operating conditions and enforcing rules for the safe conduct of the work necessary in his business.

Scientific accident-prevention work is advocated to eliminate the tremendous toll on industry, consisting, as formerly pointed out by the author, not only of the actual money paid for compensation and medical service but also of the hidden or indirect cost, estimated to be

¹ Heinrich, H. W.: Industrial accident prevention—A scientific approach. New York, McGraw-Hill Book Co., 1931.

four times as great as the direct expense. Four fundamental principles are named: (1) Executive recognition, interest, support, and participation; (2) correct cause analysis, to identify the particular condition responsible for the accident; (3) selection and application of the remedy, readily suggested through the cause analysis; (4) enforcement of the corrective practice.

It is realized that absolute perfection can not be obtained, but through observance of the effects of the methods outlined and the experiences of large industrial firms that apply safety practices the author believes it entirely possible and practicable with very little expenditure of money to achieve at least a 50 per cent reduction in accident frequency and accident cost, not only a commendable humanitarian work but in itself good business.

An analysis of 50,000 injuries, according to the classification presented by the author, shows that 30 per cent were caused by faulty instruction, 22 per cent by lack of concentration, 14 per cent by unsafe practices, 12 per cent by poor discipline, 8 per cent by inability of employee, 3 per cent by physical unfitness, 1 per cent by mental unfitness, and 10 per cent by mechanical hazards.

A section is devoted to machine, prime-mover, and power-transmission guarding of all kinds, profusely illustrated, and brief discussions are included of safety education, process revision, illumination, and statistics.

Industrial Accidents in the Philippine Islands, 1925 to 1929

THE following record of the industrial accidents in the Philippines from 1925 to 1929 is taken from the statistical bulletin of the Bureau of Commerce and Industry of the Islands, 1929:

INDUSTRIAL ACCIDENTS IN THE PHILIPPINES, 1925 TO 1929

[Peso=about 50 cents in United States currency]

| Year | Number of accidents | Number of injuries | | | | Adjustments | | |
|------------|---------------------|--------------------|-----------|-------|-------|-------------|-----------------|------------------|
| | | Temporary | Permanent | Fatal | Total | Indemnified | Not indemnified | Amount collected |
| 1925..... | 430 | 390 | 15 | 48 | 453 | 247 | 206 | Pesos 21,706 |
| 1926..... | 447 | 390 | 19 | 104 | 513 | 375 | 138 | 25,053 |
| 1927..... | 452 | 355 | 34 | 143 | 532 | 322 | 210 | 35,395 |
| 1928..... | 1,104 | 968 | 27 | 109 | 1,104 | 955 | 149 | 82,765 |
| 1929..... | 2,055 | 1,953 | 45 | 57 | 2,055 | 1,070 | 325 | 90,053 |
| Total..... | 4,488 | 4,056 | 140 | 461 | 4,657 | 2,969 | 1,028 | 254,972 |

¹ Does not include 660 cases pending adjustment.

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

Recent Compensation Reports

Maryland

THE sixteenth annual report of the State Industrial Accident Commission of Maryland for the year ending October 31, 1930, shows that 41,761 industrial accidents were reported by the 14,968 employers insured under the terms of the compensation law. This is a decrease of 1,846 from the number of accidents reported during the previous year. A total of 14,339 claims was filed with the commission, of which 191 were fatal cases.

Compensation payments made in the 14,276 claims disposed of during the year, including 174 fatalities, amounted to \$1,451,316.26, and payments for medical attention in nonclaim cases amounted to \$459,264.41. These payments, together with the sum of \$542,248.96, outstanding for future payments on specific awards, bring the grand total of benefits paid and outstanding for the year to \$2,452,829.63, not including future payments in temporary total disability cases extending beyond the year.

A summary of the 13,406 claims allowed during the year is shown in the following table, by industrial groups and extent of disability.

NUMBER OF COMPENSATION CASES ALLOWED IN MARYLAND, NOVEMBER 1, 1929, TO OCTOBER 31, 1930, BY INDUSTRY AND EXTENT OF DISABILITY

| Industry | Extent of disability | | | |
|--|----------------------|-------------------------|---------------------------|-------------------------|
| | Fatal | Perma- nent total | Perma- nent partial | Tempo- rary total |
| Agriculture..... | | | 2 | 79 |
| Mining, metallurgy, and quarrying..... | 7 | | 22 | 622 |
| Other extractive industries..... | | | 5 | 103 |
| Manufacturing..... | 40 | | 364 | 5,808 |
| Construction..... | 23 | | 107 | 2,940 |
| Transportation and public utilities..... | 27 | | 64 | 1,452 |
| Trade..... | 2 | 1 | 21 | 696 |
| Clerical and professional services..... | 1 | | 7 | 297 |
| Miscellaneous industries..... | 3 | | 10 | 317 |
| Department of State, cities, and counties of Maryland..... | 6 | 1 | 10 | 364 |
| Private employment, and not otherwise classified..... | | | | 5 |
| Total..... | 109 | 2 | 612 | 12,683 |

The annual report of the superintendent of the State accident fund, which is included, shows a surplus of \$525,000, protected by reinsurance, a reserve for unpaid claims of \$427,127.23, and an increase during the year in assets of \$153,987.57. The net premiums written during the year aggregated \$444,046.41, an increase over the previous year of \$4,158.90, while payments for losses amounted to \$134,672.05

for those occurring during the current year and \$182,259.52 for those occurring before November 1, 1929, a total of \$316,931.57. The expense of administering the fund amounted to \$40,453.05, or 9 per cent of the premiums written.

Texas

THE report of the Industrial Accident Board of Texas for the 2-year period ending August 31, 1930, points out the increasing cost of workmen's compensation insurance in the State. The figures show that more than 625,000 employees came under the terms of the act during the last year. It is explained that the great majority of these workers are heads of families, so that practically one-half of the population of the State is directly interested in the operation of the act.

The only remedy for this increasing cost, the board holds, is a well-planned and well-executed safety program, undertaken jointly by the State, the employers, the employees, and the insurance carriers. It is believed that such a program will result in fewer and less severe accidents and will not only cause a reduction in human suffering but will show a corresponding decrease in the cost to industry.

Part of the experience under the workmen's compensation act is shown in the following table:

ACCIDENTS UNDER TEXAS COMPENSATION ACT, SEPTEMBER 1, 1928, TO AUGUST 31, 1930

| Item | 1928-29 | 1929-30 |
|---|-------------------|-------------------|
| Employers under the act..... | 17, 511 | 16, 932 |
| Employees under the act..... | 593, 850 | 625, 840 |
| Fatal accidents reported..... | 465 | 448 |
| Total accidents reported..... | 129, 960 | 110, 146 |
| Claims filed: | | |
| Claims allowed..... | 1, 578 | 1, 615 |
| Claims denied..... | 348 | 412 |
| Compromise settlements approved..... | 3, 289 | 4, 807 |
| Claims still open, on which compensation is being paid and medical or hospital service furnished..... | 24, 972 | 21, 515 |
| Total..... | 30, 187 | 28, 349 |
| Compensation paid for— | | |
| Fatal cases..... | \$1, 175, 160. 50 | \$1, 189, 917. 02 |
| Specific injuries..... | \$603, 088. 49 | \$557, 592. 02 |
| Total incapacity..... | \$2, 883, 393. 85 | \$2, 686, 571. 75 |
| Partial incapacity..... | \$358, 596. 31 | \$259, 619. 29 |
| Total..... | \$5, 020, 239. 15 | \$4, 693, 700. 08 |
| Medical and hospital service paid..... | \$2, 221, 945. 95 | \$1, 983, 985. 88 |
| Net operating cost of department..... | \$46, 952. 69 | \$50, 406. 75 |

The apparent reduction in the number of accidents reported for the year ending in 1930, as compared with the previous year, is stated to be due to the fact that complete reports have not been received of all accidents occurring during the last fiscal year. It is thought that when all reports have been received they will exceed in number those for any former year.

Many of the claims shown in the table as acted on by the board during the period covered by the report were based upon injuries occurring before the period, and the compensation payments include payments made during the two years on previous injuries, some as far back as 1923.

Wyoming

THE fourteenth report of the Workmen's Compensation Department of the State of Wyoming, covering the calendar year 1929, presents several tabulations of the experience of the State industrial accident fund during the year.

A total of 2,464 accidents was reported, of which 43 were fatal, 46 caused permanent partial disability, 1,093 caused temporary total disability, and 1,282 required medical service only. Coal mining was responsible for the largest number, with a high degree of severity, showing 24 fatal, 13 permanent partial, and 549 temporary total cases, with only 18 medical-aid cases. The next highest, oil drilling and oil refining combined, showed 7 fatal, 16 permanent partial, and 132 temporary total cases, with 367 medical-aid cases.

The seemingly excessive proportion of accidents for these two industries is partly due to the larger number of workers employed in them, as explained by the statement that out of the total premiums received 35 per cent were paid by the coal industry and 21 per cent by the oil industry. As premium assessments are on a flat basis for all industries, per \$100 of pay roll, the amount paid as premium represents practically the relative importance of the industry.

The fund showed a balance of \$545,696.76 on December 31, 1929, as compared with a balance of \$330,596.39 for the previous year, an increase of \$215,100.37. The total amount of premiums collected, including "service and policing charge," was \$470,509.15, and the amount of administrative expense during the period was \$19,659.32, making the cost of administering the State fund 4.2 per cent of the premiums paid.

The number of claims allowed during the year by the State courts and the total costs for these are shown in the following table:

NUMBER OF CLAIMS ALLOWED UNDER WORKMEN'S COMPENSATION ACT OF WYOMING, AND TOTAL COSTS, 1929

| Extent of disability | Number of cases | Amount awarded | Other costs | Total costs |
|------------------------|-----------------|----------------|--------------|--------------|
| Fatal..... | 349 | \$87,885.94 | 1 \$4,950.00 | \$92,835.94 |
| Permanent total..... | 86 | 23,300.79 | | 23,300.79 |
| Permanent partial..... | 330 | 75,173.26 | | 75,173.26 |
| Temporary total..... | 1,783 | 128,681.06 | | 128,681.06 |
| Total..... | 2,548 | 315,041.05 | 2 77,317.45 | 2 392,358.50 |

¹ Funeral expenses.

² Includes medical and hospital service, \$65,804.12; investigations and witness fees, \$6,563.33.

Sickness and Accident Insurance for Workers in Estonia

THE law relating to public insurance of industrial workers against sickness and accident in Estonia is part of the former Russian law entitled "Industrial labor law (*Ustav o Promyshlennom Trude*) of 1913," Volume XI, Section II, which has been changed and amended a number of times during the period of Estonian independence.¹

¹ Data for this article were supplied by Mr. Edward Hunt, of the office of the United States vice consul at Tallinn, Estonia, in a report dated Nov. 7, 1930.

Coverage of System

SICKNESS insurance in Estonia covers wage earners and salaried employees of both sexes working in factories, plants, workshops, mining enterprises, railway and internal shipping enterprises, tramway and building enterprises, employing not fewer than five workers; also in State oil-shale industry, State peat industry, and State printing office. Workers employed in other Government institutions and public railways do not come under the insurance against sickness.

Accident insurance covers wage earners and salaried employees of both sexes working in—

(a) Mining enterprises, quarries, and other industries for excavation of minerals.

(b) Industries for manufacture, cleaning, repairing, decoration, completion, preparation for sale, breaking up, destruction, remanufacture of products, shipbuilding, generation, transformation, and transmission of electrical or other power.

(c) Construction, repairing, maintenance, reconstruction, tearing down of buildings, railways, street railways, ports, shipyards, bridges, canals, river ways, streets, tunnels, viaducts, sewer systems, wells, telegraph and telephone installations, electrical workshops, gas plants, water-supply systems, also building foundations and doing other preparatory work for the above-mentioned constructions and buildings.

(d) Transportation of passengers and freight on highways, in streets, on railroads, and internal waterways, also handling merchandise on docks, on quays, and in warehouses.

All workers employed in the above-mentioned enterprises enjoy the benefits of the existing laws regardless of sex and age.

Contributions

Sickness insurance.—Expenses of insurance against sickness in Estonia are borne by both employers and workers. Insurance societies whose membership numbers fewer than 400 persons may require contributions of from 1 to 3 per cent of the member's wages or salary, while from 1 to 2 per cent may be charged when a society has a membership exceeding 400 persons.

Where medical treatment and dispensing of medicine is included in the scope of activities of sickness insurance societies, an additional contribution is usually required of the employer; in such cases the workers pay 2 per cent and the employers 4 per cent on the wages or salaries of the insured. Where medical treatment and medicine are not furnished, the employers and workers each contribute at the rate of 2 per cent.

Accident insurance.—The expense of the accident insurance is borne exclusively by the employer. Contributions to the funds of accident insurance societies are made at fixed rates approved by the board of compulsory state insurance of the Ministry of Education and Public Welfare. The present rates of contributions were introduced as from January 1, 1926.

These rates of contribution to the funds of accident insurance societies are a specified number of Estonian cents for each 1,000 cents of the wages or salary of a member of the society. The rates vary

according to whether or not the employer uses mechanical power in the processes of manufacture.

In order to give an idea of the amount of contributions there are given below the lowest and the highest rates charged different branches of industry in Estonia.

TABLE 1.—RATE OF CONTRIBUTION REQUIRED IN ACCIDENT INSURANCE

[Estonian cent=0.268 cent (U. S. currency)]

| Industry | Contribution per 1,000 cents of wage or salary | | | |
|---|--|-----------------|---|-----------------|
| | For manufactures employing mechanical power | | For manufactures not employing mechanical power | |
| | Lowest | Highest | Lowest | Highest |
| | <i>E. cents</i> | <i>E. cents</i> | <i>E. cents</i> | <i>E. cents</i> |
| Metal industry..... | 9 | 28 | 6 | 30 |
| Manufacture of means of transportation..... | 13 | 36 | 10 | 16 |
| Stone and earth works..... | 7 | 48 | 5 | 40 |
| Chemical industry..... | 8 | 24 | 7 | 10 |
| Generation of power..... | 14 | 24 | ----- | ----- |
| Textile industry..... | 6 | 28 | 5 | 10 |
| Manufacture of wearing apparel and footwear, and hair-dressers..... | 6 | 14 | 3 | 8 |
| Paper industry..... | 8 | 24 | 6 | 10 |
| Leather industry..... | 15 | 40 | 7 | 10 |
| Printing industry..... | 5 | 7 | 4 | 4 |
| Woodworking industry..... | 8 | 50 | 6 | 50 |
| Manufacture of foods..... | 6 | 20 | 4 | 16 |
| Transport..... | 15 | 72 | 12 | 15 |
| Loading..... | 15 | 58 | 12 | 58 |
| Building enterprises..... | 15 | 15 | 7 | 72 |

Benefits

THE benefits, under the existing sickness insurance regulations, include (1) first aid, ambulance treatment, obstetrical aid, hospital treatment, with all costs paid, and free medicine and other medical and hospital supplies; and (2) financial assistance in cases of sickness or accident resulting in disability, as well as in cases of pregnancy and childbirth, and funeral expenses in case of death.

Maternity and sick benefits.—Maternity benefit is payable during a period of two weeks prior to childbirth and during four weeks following. The amount of benefit varies between one-half and full wages or salary. In case of death the amount granted for funeral expenses represents 20 to 30 times the daily wage of the deceased.

Sick benefits are payable from the fourth day of illness until recovery, but not exceeding 26 weeks for one case of sickness or a total of 30 weeks in one year. The amount of benefit varies between the limits of one-half and two-thirds of the wages or salary of the beneficiary.

Accident benefits.—Compensation for industrial accidents varies according to the degree of disability. Full annual wages or salary are paid in cases of insanity, the loss of eyesight or of both hands or both feet, and in cases so helpless as to require the complete care of others. In other cases of total disability, the benefit is two-thirds of the annual wages or salary, while for partial disability the benefit is a percentage of two-thirds of the wages or salary, depending on the degree of disability.

In cases of disability from accident when workers have not been insured against accident, benefit is paid at the same rate and for the same period as for sickness.

An insured member of an accident insurance society who is also a member of a sickness insurance society is granted benefits as follows: Sick benefit for 13 weeks, then beginning with the fourteenth week total disability benefit until recovery or until the degree of disability sustained is determined, and thereafter the benefit payable for the degree of disability sustained.

A disabled member of an accident insurance society who is not a member of a sickness insurance society is granted benefits from the date of the accident, as follows: (1) The highest rate fixed under the regulations governing insurance against sickness during the first 13 weeks; and (2) thereafter the accident benefit payable for the degree of disability.

Survivors' benefits.—Members of the family of a deceased insured member receive benefits as follows:

(1) The widow, one-third of the annual wages or salary of the deceased. This benefit is paid until her death or remarriage. In case of her remarriage her benefit ceases and she is paid a lump sum equal to three times her yearly benefit.

(2) Each legitimate, illegitimate, or adopted child, until the age of 15 years, one-sixth of the annual wage or salary if one parent is living, and one-fourth of the annual wage or salary if both parents are dead.

(3) Each blood relative, one-sixth of the annual wage or salary for life.

(4) Each orphan brother or sister, until the age of 15 years, one-sixth of the annual wage or salary.

The number of persons receiving benefits on account of sickness and accident, from 1925 to 1929, and the average amount of benefit per person during 1928 and 1929 are shown in the table following:

TABLE 2.—NUMBER RECEIVING SICK AND ACCIDENT BENEFITS AND AMOUNT OF BENEFITS PER PERSON

| Year | Number receiving benefits | | Amount of benefit per person | |
|------|---------------------------|----------|------------------------------|----------|
| | Sickness | Accident | Sickness | Accident |
| 1925 | 34,349 | 43,991 | | |
| 1926 | 37,064 | 46,295 | | |
| 1927 | 36,452 | 45,018 | | |
| 1928 | 36,732 | 49,266 | \$3.94 | \$1.49 |
| 1929 | 41,362 | 50,928 | 4.34 | 1.64 |

Administration

MEDICAL treatment and benefits in cases of sickness are granted through the sickness insurance societies, and in cases of accident through the accident insurance societies.

Both types of insurance societies come under the control of the insurance council (*Kinnitusunōkogu*) of the Ministry of Education and Public Welfare. Insurance bureaus operate under the insurance council.

Insurance council.—The insurance council is composed of the following persons: Minister of Education and Public Welfare (chairman), representative of the Ministry of Justice (1), representative of the Ministry of Agriculture (1), representatives of the Ministry of Economic Affairs (2), representative of the board of health (1), representatives of the Ministry of Education and Public Welfare (2), representatives of workers (5), and representatives of employers (2).

The insurance council is composed of three divisions: (1) Division for examination of decisions submitted from insurance bureaus; (2) division for handling matters pertinent to insurance against sickness; (3) division for handling matters pertinent to insurance against accident.

Complaints against decisions of the insurance council can be lodged only with the supreme court.

Insurance bureaus.—Each insurance bureau is composed of the following persons: Local justice of the peace (chairman), the district labor inspector, a representative of local provincial self-government, a representative of the city administration, four representatives of the workers, and two representatives of the employers.

The insurance bureaus are required: (1) To carry out the insurance laws, regulations, and instructions respecting compulsory State insurance of industrial workers and the supplemental regulations issued by the insurance council; (2) to examine complaints against the decisions of labor inspectors.

Labor inspectors.—Labor inspectors are required to carry out the provisions of labor insurance laws and regulations.

OLD-AGE PENSIONS

Idaho, West Virginia, and New Jersey Old-Age Pension Laws

BY THE approval of old-age pension laws in Idaho, West Virginia, and New Jersey, these States became the fourteenth, fifteenth, and sixteenth States, respectively, to adopt such legislation.¹

The Idaho act was approved on February 12, 1931, and establishes an old-age pension commission in the several counties, the personnel of which consists of the probate judge and the board of county commissioners. Pensions under the Idaho law are to be paid from the poor fund or the current expense fund of each county.

The West Virginia old-age pension law was passed by the State legislature on March 11, 1931, approved by the governor on March 13, and became effective 90 days after its passage. A county system of relief is established. Funds are to be raised by a special tax not to exceed 5 cents on each \$100 of assessed valuation of property.

Under the New Jersey act, approved April 24, 1931, the necessary funds for the act are to be provided by county appropriation, but three-fourths of the amount expended is to be repaid by the State. The New Jersey act does not become effective until January 2, 1932. Applications are not receivable until April 1, 1932, and pension relief will not begin until July 1, 1932. A division of old-age relief is created in the department of institutions and agencies. A county director is authorized to be appointed in each county, who will have immediate supervision of the act.

Analysis of Idaho Act

Date of approval.—February 12, 1931; in effect April 12, 1931.

Establishment of system.—In each county of the State a county old-age pension commission is created. The membership of the commission consists of the county probate judge and the board of county commissioners. The commissioners serve without extra compensation and their duties are prescribed by the State department of public welfare.

Requirements for pension.—To be eligible for benefits under the law the applicant must be (1) 65 years of age or over; (2) a citizen of the United States for 15 years; (3) a resident of Idaho for not less than 10 years and a resident of the county for 3 years. An added qualification provides that during such resident period the applicant must have pursued some useful occupation or profession as far as possible. No person may receive a pension (1) who has been imprisoned during the 10 years preceding the date of application; or (2) who has deserted his (or her) spouse; or (3) who has been a

¹ Other States having such laws are California, Colorado, Delaware, Kentucky, Maryland, Massachusetts, Minnesota, Montana, Nevada, New York, Utah, Wisconsin, and Wyoming.

professional tramp or beggar within one year prior to making application; or (4) who has deprived himself of any property for the purpose of obtaining a pension; (5) who has no child or other responsible person able to support him; or whose annual income (including pension) exceeds \$300.

Application.—Application must be made to the probate judge of the county in which the applicant resides.

Benefits.—The amount of pension allowed is determined by the commission after an investigation of each case, subject to a maximum of \$25 per month. Upon approval of the application and the establishing of a rate of pension for the first year, a certificate is issued stating the amount of the monthly pension. Annual renewal of certificates is required. All pensions are paid monthly. If the beneficiary is incapable of taking care of his money or himself (upon the testimony of at least three reputable witnesses) the commission may order the payment to a guardian of such person or may even entirely suspend payment. Upon death of a beneficiary, if his estate is insufficient to defray the funeral expenses, an additional allowance, limited to \$100, shall be made for this purpose.

Revision or revocation of benefits.—A beneficiary under the act must notify the probate judge of the receipt of any property in excess of the amount allowed under a pension, and the commission must cancel the pension or vary its amount accordingly. Whenever it is ascertained that a pensioner was possessed of property in excess of the amount allowed by law, the commission may recover as a preferred claim an amount double that of the excess relief granted. Whenever a person receiving a pension becomes an inmate of a charitable institution, payments accruing upon a certificate must be paid to such institution. Pensioners are prohibited from receiving any other public relief, except for medical and surgical assistance. The commission may suspend payments on any improperly obtained certificate. Upon conviction for an offense punishable by imprisonment for one month or longer the commission is directed to withhold payments during the period of imprisonment.

Assignability of pension.—Old-age pension certificates granted under the act are not subject to sale, assignment, execution, or attachment, nor may they pass to any trustee in bankruptcy cases. Upon the death of a pensioner or the last survivor of a married couple, the total amount of pension plus interest at 5 per cent per year from the date of allowance shall be a preferred claim against the estate of the deceased. Any amount recovered is to be refunded to the county treasury to the credit of the county poor fund.

Reports.—The old-age pension commission of each county is required to submit an annual report to the department of public welfare within 90 days after the close of each calendar year, showing (a) total number of recipients; (b) amount paid in cash; (c) total number of applications; (d) number of pensions granted, denied, and canceled.

Violations.—Violations of the act are deemed misdemeanors and punishable upon conviction by a fine of \$300, or imprisonment not to exceed 6 months, or both.

Analysis of West Virginia Act

Date of approval.—March 13, 1931; in effect June 9, 1931.

Establishment of system.—A county system of old-age pensions is established. Authorization to establish the system is given to every county court in the State. Before the system may be established, however, it must be voted upon by the people of the county at any general or special election and must receive a majority of all votes cast at the election. Pensions then become payable beginning with the next fiscal year, and shall continue until changed by a vote of the people. After two years' operation, the county court may, upon its own motion, and must upon the petition of 500 taxpayers, submit to a vote of the people the question of continuing the old-age pension system. Upon a majority vote opposing the continuance of the system, it shall then be abandoned on the following June 30. The question then can not be again submitted to the people until 5 years after the date of the last election. In counties having a population of 35,000 or more a "county pension agent" for the administration of the act may be appointed. The salary of such agent is fixed at \$250 a month. All records relating to old-age pensions must be kept by the county court of every county maintaining a pension system.

Requirements for pension.—An old-age pension may be granted only to an applicant who (1) has attained the age of 65 years or more; (2) has been a citizen of the United States for at least 15 years before making application for a pension; and (3) has resided in the State of West Virginia and the county in which he makes application continuously for at least 10 years immediately preceding the date of application. No person may receive a pension: (1) Who is at the time of his application an inmate of any public or private home for the aged, or any public home, or any public or private institution of a custodial, correctional, or curative character, except in the case of temporary medical or surgical care in a hospital; (2) who is, because of his physical or mental condition, in need of continued institutional care; (3) who, during the period of 10 years immediately preceding application, has been imprisoned for a felony; (4) who has, within one year preceding application, been an habitual tramp or beggar; (5) who has a child or other person responsible for his support and able to support him; (6) who has property, income, or other means of support; (7) who has disposed of or deprived himself, directly or indirectly, of any property for the purpose of qualifying for the pension; (8) who receives a pension from the United States or from any State or foreign government, or compensation under the laws of the State of West Virginia.

Application.—Application must be made to the county court of the county in which the applicant resides. It may be made in person or by someone in behalf of the aged person.

Benefits.—The amount of the pension is fixed according to the circumstances in each case, subject to a maximum of \$1 a day. In the discretion of the county court, relief may include medical and surgical care, including nursing. Provision is made to extend the amount of regular relief whenever the pensioner is seriously ill and in actual need of medical care. Whenever possible, relief must be provided in the

home of the pensioner or some other suitable family home. The county court determines the amount of regular relief and issues a certificate showing the amount of the monthly allowance.

In the event that the beneficiary under the act is possessed of property (other than household goods and personal property not exceeding \$300) at his death, the county court has a prior lien upon such estate, to the amount of the aggregate payments made plus 3 per cent interest on such payments. The county prosecuting attorney is delegated to collect from the estate any funds found to be due. Upon the allowance of any pension relief by the court the clerk of the county court must issue drafts on the last day of each month payable to the beneficiaries.

Revision or revocation of benefits.—If a beneficiary is convicted of any offense punishable by imprisonment for one month or longer, payment shall be withheld during such period. For offenses involving imprisonment for a period more than 90 days the right to receive further relief ceases. If a pensioner is incapable of taking care of his money or himself (upon the testimony of reputable witnesses), the court may direct the payment to any reputable person for the benefit of the pensioner or may in its discretion suspend payment. Improperly granted pensions may be objected to by any person, and an investigation must be made by the county court.

Assignability of pension.—All pensions are tax exempt and free from levy, sale, garnishment, and attachment.

Reports.—The records of each county are subject to inspection by the State tax commissioner, and within a period of 30 days after the end of each fiscal year the clerk of the court must make a report to the tax commissioner.

Appropriation.—A county court maintaining a system of old-age relief must each year estimate the probable amount needed and levy a special tax, not to exceed the sum of 5 cents on each \$100 of assessed valuation of property in the county.

Violations.—Violations of the act are deemed misdemeanors and are punishable upon conviction by a fine of \$500 or imprisonment not to exceed one year, or both.

Analysis of New Jersey Act

Date of approval.—April 24, 1931; in effect January 2, 1932; applications receivable April 1, 1932; pension relief to begin on July 1, 1932.

Establishment of system.—A division of old-age relief is created in the department of institutions and agencies. The supervision of old-age relief and the responsibility for the enforcement of the act are placed under the chief of the division. All rules and regulations made by the division of old-age relief are binding upon the county welfare boards acting as the county bureaus of old-age relief. A director of old-age relief is appointed in each county, and such other officers as are necessary to carry out the provisions of the act.

Requirements for pension.—To be eligible for relief the applicant must be (1) 70 years of age; (2) unable to maintain himself or have no one responsible for his support; (3) a citizen of the United States; (4) a resident of and domiciled in the State for 15 years; and (5) in the county where the application is made for 1 year prior thereto; (6) not in need of continued institutional care. No one may receive assistance (1) who has made an assignment of property for the purpose

of obtaining assistance; (2) has been convicted of a felony or misdemeanor; or (3) possesses property in excess of \$3,000.

Application.—Application for old-age relief must be made to the county welfare board acting as the bureau of old-age relief for the county in which the applicant resides. An investigation and record is made of the circumstances of the applicant. A rejected applicant may not apply again for 6 months.

Benefits.—The amount and nature of assistance is determined by the county welfare board according to the circumstances of each case, subject to a maximum of \$1 a day. The pensioner shall receive the relief in his own or some other suitable family home. As a condition to the granting of the relief it may be required that any property of the pensioner shall be transferred to the county. Upon the death of a beneficiary, an additional allowance where necessary may be paid, not exceeding \$100. A person receiving relief under the act shall not be considered or classed as a pauper. Pensioners are prohibited from receiving any other public relief, except for medical and surgical assistance. Nothing in the act, however, shall prevent an aged person 70 years of age, not under the act, from receiving public assistance under any other law.

Revision or revocation of benefits.—The county welfare board has the power to cancel and revoke old-age relief. Relief must be renewed once every 6 months, and the amount may be changed if the pensioner's circumstances have changed. Improperly granted relief is subject to cancellation.

Assignability of relief, etc.—Amounts paid under the act are free from levy, sale, garnishment, attachment, or any other process. Pension benefits are also tax exempt by the State or any political subdivision, and in cases of bankruptcy the pension assets of the aged poor person do not pass to the trustee.

Reports.—The county welfare board must report such details of administration as the division of old-age relief may require.

Appropriation.—Each county must annually appropriate funds necessary for the administration of the act, but three-fourths of the amount expended is repaid by the State to each county. The State's share of old-age relief is provided from the revenue produced by an inheritance tax.

Violations.—Violations of the act are deemed misdemeanors and punishable upon conviction by a fine of \$1,000 or imprisonment not to exceed one year, or both.

LABOR LAWS AND COURT DECISIONS

Constitutionality of Arkansas Full-Crew Law Upheld

ON APRIL 13, 1931, the United States Supreme Court declared the full-crew law of Arkansas to be constitutional and not arbitrary and repugnant to the due process clause of the Federal Constitution. (*Missouri Pac. R. Co. v. Norwood*, 51 Sup. Ct. 458.)

The Missouri Pacific Railroad Co. had filed a suit against the attorney general of Arkansas to enjoin the enforcement of statutes of that State regulating train crews and switching crews. The company applied for an injunction, but the court, consisting of a circuit judge and two district judges, held the complaint insufficient to show any ground for relief and dismissed the case. Thereupon the suit was appealed to the United States Supreme Court.

The acts in question were Act No. 116, Laws of 1907, and Act No. 67, Laws of 1913. The 1907 act requires railroad carriers whose lines are not less than 50 miles in length to have not less than three brakemen in every full-crew train of 25 cars or more. The 1913 act requires not less than three helpers in switch crews in yards located in cities of the first and second classes operated by companies having lines of 100 miles or more.

Mr. Justice Butler, in delivering the opinion of the Supreme Court, cited prior cases in which the constitutionality of these acts had been upheld. Regarding these decisions, he said:

The first of these cases was decided in 1911. The court held that the act of 1907 is not a regulation of interstate commerce and that upon its face it must be taken as having been enacted in aid of, and for the protection of those engaged in, such commerce. It said that Congress might have taken entire charge of the subject, but that it had not done so and had not enacted regulations in respect of the number of employees to whom might be committed the management of interstate trains and that until it does the statutes of the State, not in their nature arbitrary, must control. The court found that, while under the evidence there was admittedly room for controversy as to whether the statute was necessary, it could not be said that it was so unreasonable as to justify the court in adjudging it an arbitrary exercise of power. And it held that, being applicable alike to all belonging to the same class, there was no basis for the contention that it denied the company equal protection of the laws. The principles governing that decision were followed in the later case, decided in 1916, which upheld the act of 1913. Both acts were sustained as valid exertions of police power for the promotion of safety of employees and others.

The railroad company, however, contended that conditions had changed since these decisions and since the laws were enacted. In substance the petition alleged that—

Roads and equipment have been so improved that longer and heavier trains may be operated more safely now than much smaller trains could then be operated. It is standard practice of railroads "wherever the density of traffic is sufficient, except in the State of Arkansas, to operate freight and passenger trains and switch engines with crews consisting of less than the extra switchmen (meaning one less than required by the 1913 act) and extra brakemen (meaning one less than required by the 1907 act) provided by the Arkansas laws."

Freight trains and switch engines are safely operated on lines similar to those of plaintiff "wherever the traffic and circumstances make such operation advisable, without such extra switchmen and extra brakemen." By increasing lengths of their freight trains, the plaintiff and other railroads in States "where such extra brakemen and extra switchmen are not (by law) required" have been able to effect great economies. But by the Arkansas laws plaintiff is compelled there to employ more than the standard crew and to pay for services and time not needed or used for the operation of its freight trains.

In regard to these allegations, the United States Supreme Court said:

There is no showing that the dangers against which these laws were intended to safeguard employees and the public no longer exist or have been lessened by the improvements in road and equipment or by the changes in operating conditions there described. And, for aught that appears from the facts that are alleged, the same or greater need may now exist for the specified number of brakemen and helpers in freight-train and switching crews. It is not made to appear that the expense of complying with the State laws is now relatively more burdensome than formerly. Greater train loading tends to lessen operating expenses for brakemen. There is no statement as to present efficiency of switching crews compared with that when the 1913 act was passed, but it reasonably may be inferred that larger cars and heavier loading of to-day make for a lower switching expense per car or ton. * * * And the claim that "standard" crews are generally employed by the railroads of the United States is substantially impaired by the qualified form of the allegations and also by the fact, which we judicially notice, that other States have laws somewhat similar to the Arkansas act in question. It is clear that, so far as constitutionality is concerned, the facts alleged are not sufficient to distinguish this case from those in which this court has sustained these laws.

It was also contended that the acts were repugnant to the interstate commerce act as amended in 1920. (49 U. S. C. A. 1 et seq.) The company alleged that by this act Congress authorized the Interstate Commerce Commission to regulate the number of brakemen and helpers required. However, the Supreme Court said that "in the absence of a clearly expressed purpose so to do Congress will not be held to have intended to prevent the exertion of the police power of the States for the regulation of the number of men to be employed in such crews." After a careful consideration of the provisions of the act in question the court concluded that it was "very clear that Congress has not prescribed or empowered the commission to fix the number of men to be employed in train or switching crews."

The decree of the lower court dismissing the case was therefore affirmed.

Death Resulting from Drinking Polluted Water Held Compensable in Indiana

THE Appellate Court of Indiana recently held that the death of a highway employee as a result of drinking contaminated water containing bacilli coli was "death by accident" within the Indiana workmen's compensation act and was compensable. (State et al. v. Smith, 175 N. E. 146.)

From the facts of the case it appears that the deceased employee was engaged in resurfacing a part of the State highway between Lebanon and Frankfort, Ind. The son of the foreman was working as water boy and had been furnishing, to Smith and the other workmen, drinking water taken from the mouth of a tile ditch which carried the "surface run-off water" and was also connected directly to a septic tank

which received the sewage from a farm house. The evidence disclosed that Smith became sick on the 20th of July and on the same day four fellow workmen also became sick. They all manifested practically the same symptoms and the attending physician diagnosed their infection as gastroenteritis, caused by eating impure food or drinking impure water.

The Indiana Industrial Board awarded compensation to the widow, and the State highway commission appealed to the Appellate Court of Indiana, contending that the evidence was not sufficient to sustain the inference that Smith's death was the result of drinking polluted water furnished by the highway commission and that the death was not "death by accident arising out of and in the course of his employment." Regarding the second contention the court cited the case of *Wasmuth-Endicott Co. v. Karst* (133 N. E. 609), in which the court said:

It is clear that the entering of typhoid germs into appellee's intestines by reason of drinking the polluted water furnished him by appellant for that purpose while in its employ may rightfully be termed an "accident."

The court therefore held that the death from the facts proven was an accident arising out of and in the course of the employment.

The court reviewed the report of the chemist and the attending physician and concluded the opinion by holding that—

The industrial board are the triers of the facts in cases of this kind, and where, as in this case, 14 or 15 men are working together, and it is shown by expert evidence that a workman can be affected by either impure food or impure water and 5 or 6 of them are stricken with a malady from a common source, to wit, water, the board had the right to find as an ultimate fact that it was the polluted water that caused the death in question.

In the light of the authorities cited above, we hold that the evidence is sufficient to sustain the award.

The award of the industrial board was therefore affirmed.

Gradual Injury to Molder's Hand not Compensable in Massachusetts

AN INJURY to a molder's hand, occasioned by the gradual breaking down of tissue as the result of many years of continuous labor requiring use of the hand, was not the result of a personal injury arising "out of and in the course of employment," and was not compensable according to the Supreme Judicial Court of Massachusetts. (*Reardon's Case*, 175 N. E. 149.)

The facts developed show that for a period of approximately 25 years prior to March, 1928, John Reardon worked for the American Tube Works. His work as a molder required the constant handling of large crucible tongs and the lifting of other heavy objects. A callous formed on his right hand in 1923 or 1924 and gradually developed without much pain, but hindering his ability to perform the work. In 1928 he discontinued his employment with the American Tube Works and was engaged in sewer work for several months. Following this employment he worked for the Boston & Albany Railroad for about four months—"until they had no more work for him." From January 1 to September 25, 1929, he was unable to work on

account of the condition of his hand. On the latter date he entered the Boston City Hospital, where the condition of his hand was diagnosed as "Dupuytren's contracture." He submitted to an operation and was discharged from the hospital on October 29, 1929, completely cured. Thereupon he filed claim for compensation to cover the period of his disability. The Industrial Accident Board of Massachusetts affirmed the report of the single member that the employee had received a personal injury arising out of and in the course of his employment with the American Tube Works. On November 5, 1930, the Superior Court of Middlesex County, after a hearing, affirmed the award allowing compensation. The insurer thereupon appealed to the Massachusetts Supreme Judicial Court, where the decree was reversed.

The court said in part as follows:

The claimant has not proved with reasonable certainty that the injury to his hand arose out of and in the course of his employment. There is no evidence of a physical lesion during the long course of the claimant's employment with the American Tube Works which produced a chronic inflammation of the palm of his hand. It takes 15 to 20 years to bring about a condition of the palm of the hand such as the claimant has, and it is consequently found only in men who are getting along in years. It is not a condition peculiar to the trade of a molder; it is occasioned by any work continued over a period of years that requires the grasping of any article which causes a continuous pressure upon the palm of the hand. There is no similarity between the injury sustained by the claimant and an injury which an employee may sustain through the absorption of poisons. No disease is here traceable directly to a personal injury peculiar to the employment of a molder. The condition of the claimant's hand marks the gradual breaking down of tissue as the result of many years of continuous labor, and is not the result of a personal injury within the meaning of the act. * * * The decree must be reversed and a decree be entered for the insurer.

Recovery for Loss of Wages Based Upon Seniority Rights Allowed in Minnesota

IN November, 1922, George S. George entered the employment of the Chicago, Rock Island & Pacific Railway Co., as a locomotive fireman. Under the contract with the company he acquired seniority rights and could be discharged only for cause. In April of 1924 he was an extra fireman and because of force reduction he was "cut off the board." This left him free to take other employment, but did not cause him to lose his seniority rights as a fireman. In case the force was increased he was entitled to employment in accordance with his seniority rights. Thereafter he was employed by the railroad company as a hostler's helper.

His work in the roundhouse was not always regular, and he did not always respond promptly to calls. In discussing this with the superintendent he told the superintendent that he had promising prospects outside of railroad work and if everything went well he would quit and that if he did not return within four days they might disregard him. He went away and did not return and was no longer treated as an employee.

In May, 1925, George ceased to be a member of the Brotherhood of Locomotive Firemen and Enginemen because of nonpayment of dues. However, at his request the union negotiated with the railroad company relative to his reinstatement, and as a result he was reinstated

in the employ of the company in October, 1925. Thereupon he asserted a claim in the District Court of Hennepin County, Minn., for back pay during the time he was wrongfully deprived of employment, based upon his seniority right as fireman. He contended that the resignation as hostler's helper did not interfere with his seniority rights as an engineman. The company, however, claimed that this amounted to a resignation both as hostler's helper and as an engineman. The court referred this question to the jury for determination and the jury found that the resignation as hostler's helper did not affect his seniority rights as an engineman, as the two positions were entirely separate and independent.

Another claim of the company was that George was discharged for cause and thereby lost his seniority rights. However, the jury found that he acted reasonably and did not forfeit his seniority rights and that a discharge was not justified.

The final contention of the railroad company was that George was reinstated upon the condition that he waive any claim against the railroad for wages which he had lost, as this was the agreement between the union and the company. In regard to this claim George countered that his representative in the union had no authority to waive his claim for lost time and that before the negotiations were closed he had so informed the officers of the railroad, for at that time he had been expelled for nonpayment of dues and to some extent was representing himself. Upon this question the jury found there was neither a valid surrender of seniority rights by George nor a valid discharge by the railroad company. The court therefore held that the seniority rights continued and rendered judgment in favor of the employee. On appeal the Supreme Court of Minnesota affirmed the judgment of the district court (*George v. Chicago, R. I. & P. R. Co.*, 235 N. W. 673) and held that the questions were properly submitted to the jury and that the facts, as found, justified a judgment for the employee.

Ohio Full-Crew Law Not Applicable to Electric Cars

THE Ohio Supreme Court on March 11, 1931, affirmed an opinion of the Public Utilities Commission of Ohio which held that a motor car and an attached passenger car, to which electricity was transmitted by a generator connected with a gasoline motor were "propelled by electricity" and were within the exception from the Ohio full-crew law. (*Brotherhood of Locomotive Firemen & Enginemen et al. v. Public Utilities Commission*, 175 N. E. 454.)

The Brotherhood of Locomotive Firemen and Enginemen applied to the Ohio Public Utilities Commission for an order requiring the Wheeling & Lake Erie Railway Co. to comply with the provision of section 12553, Ohio General Code, known as the passenger full-crew law. This section provides that no train shall be sent outside of the yard limits, to carry passengers, with a crew consisting of less than 1 engineer, 1 fireman, 1 conductor, and 1 brakeman, and under certain prescribed conditions additional employees. It was contended that the railroad company was violating the statute, in that it was running a train consisting of a motor car and one car that carried passengers

between Toledo and Zanesville, Ohio, without having on the train a full crew of four men. The commission decided that the railroad company was not violating the provisions of section 12553, for the reason that the train in question was not governed by that section. The case was thereupon appealed to the Ohio Supreme Court.

Because a gasoline motor was used in generating the electricity which propelled the car, the contention was made by the Brotherhood of Locomotive Firemen and Enginemen that the car was run by a gasoline motor rather than by electricity and for this reason did not fall within the exceptions of the section. The court, however, found no merit in this contention and said in part as follows:

We are not able to appreciate any merit in the contention that the cars in this train were not propelled by electricity. We think it is entirely self-evident that they were so propelled.

And coming now to the other question as to whether they were included in the provisions of section 12554, that question is squarely answered by the plain wording of the statute, which reads as follows:

"The next preceding section shall not apply to trains picking up a car between terminals in this State, or to cars propelled by electricity."

To hold that that exception is not broad enough to cover the cars in the train in question would surely do violence to every known rule of construction. The fact that the legislature has used the term "cars," and at another time used the term "trains" is not important. Evidently the legislature intended to exclude from the operation of section 12553 all cars that were propelled by electricity.

The order of the public utilities commission was therefore affirmed.

Maine Regulations Governing Compressed-Air Work

BY CHAPTER 164, Acts of 1931, Maine enacted a law establishing rules and regulations governing compressed-air work. The law, which in the main follows the provisions adopted in other States, and in particular the Massachusetts act,¹ has been enlarged, especially relative to the use of recording gauges, daily inspections, and the addition of a set of signal codes, and is therefore reproduced in full:

SECTION 1. Regulations.—The following rules and regulations shall apply to all construction work in the prosecution of which men are required or permitted to labor in tunnels or caissons in compressed air.

SEC. 2. Notice.—No such work in compressed air shall be started until seven days after the firm, corporation, commission, or person undertaking such work has notified in writing the department of labor and industry of such contemplated work.

SEC. 3. Responsibility.—Whenever the construction work is in progress there shall be present at all times at least one competent person representing the employer, or in case the work is done by contract the contractor who employs the men, who shall in all respects be responsible for full compliance with these regulations and who shall have authority to require all employees to comply with such regulations.

SEC. 4. Daily inspection reported.—In every tunnel or section thereof, or other work requiring the use of compressed air as covered

¹ For the text of the laws of the other States, see Bureau of Labor Statistics Bul. No. 370—New Jersey, pp. 717-719; New York, pp. 772-774 (also Bul. No. 403, p. 38); Pennsylvania, pp. 906-909; Massachusetts, January, 1931, Labor Review, pp. 115-120.

by these regulations, there shall be a competent person designated by the person in charge to make a regular inspection once every working-day of all tunneling appliances, boilers, engines, compressors, magazines, shaft houses, explosives, locks, lighting circuits, and gauges, and it shall be his duty to report in writing to the person designating him, on forms approved by the department of labor and industry, the results of these inspections, which shall remain on file and shall be subject to the inspection of the department of labor and industry or its representatives.

SEC. 5. *Pressure, shifts, and intervals.*—The working time in any 24 hours shall be divided into two shifts under compressed air with an interval in open air. The minimum rest interval in open air shall not begin until the employee has reached the open air. Persons who have not previously worked in compressed air shall work therein but one shift during the first 24 hours. No person shall be subjected to pressure exceeding 50 pounds per square inch except in emergency. The maximum number of hours to each shift and minimum open-air interval between the shifts during any 24 hours for any pressure, as given in columns 1 and 2 of the following table, shall be that set opposite such pressure in columns 3, 4, 5, and 6.

SEC. 6. *Gauge pressure, etc.*—

| Pressure | | Hours | | | |
|--------------------------|--------------------------|---------------|---------------------------------------|-----------------------------------|--|
| Column 1 | Column 2 | Column 3 | Column 4 | Column 5 | Column 6 |
| Minimum number of pounds | Maximum number of pounds | Maximum total | Maximum first shift in compressed air | Minimum rest interval in open air | Maximum second shift in compressed air |
| Normal. | 18 | 8 | 4 | ½ | 4 |
| 18 | 26 | 6 | 3 | 1 | 3 |
| 26 | 33 | 4 | 2 | 2 | 2 |
| 33 | 38 | 3 | 1½ | 3 | 1½ |
| 38 | 43 | 2 | 1 | 4 | 1 |
| 43 | 48 | 1½ | ¾ | 5 | ¾ |
| 48 | 50 | 1 | ½ | 6 | ½ |

The employer may determine the time of each shift when the pressure is less than 18 pounds, provided that the total for the two shifts does not exceed 8 hours.

SEC. 7. *Decompression.*—No person employed in compressed air shall be permitted to pass from the place in which the work is being done to normal air, except after decompression in the intermediate lock as follows:

A stage decompression shall be used in which a drop of one-half of the maximum gauge pressure shall be at the rate of 5 pounds per square inch per minute. The remaining decompression shall be at a uniform rate and the total time of decompression shall equal the time specified for the original maximum pressure.

(a) Where the air pressure is greater than normal and less than 15 pounds to the square inch, decompression shall be at the minimum rate of 3 pounds per minute.

(b) Where the air pressure is 15 pounds or over and less than 20 pounds to the square inch, decompression shall be at the minimum rate of 2 pounds per minute.

(c) Where the air pressure is 20 pounds or over and less than 30 pounds to the square inch, decompression shall be at the minimum rate of 3 pounds every two minutes.

(d) Where the air pressure is 30 pounds or over to the square inch, decompression shall be at the minimum rate of 1 pound per minute.

The time of decompression shall be posted in each man lock. (See form.)

SEC. 8. *Special-attendance employee.*—The decompression lock shall be in charge of a special employee whose duty it shall be to be in attendance at the lock during the periods of decompression and to regulate the valves controlling the supply of air and the rate of pressure.

SEC. 9. *Employment record.*—A record of the men employed under air pressure shall be kept. This record shall show the period of stay in the air chamber of each employee and the time taken for decompression.

SEC. 10. *Recording gauge.*—When the pressure exceeds 17 pounds to the square inch, when practicable to do so, a recording gauge to show the rate of decompression shall be attached to the exterior of each man lock. The dial shall be of such size that the amount of rise or fall in the air pressure, within any five minutes, shall be readily shown.

There shall be on the outer side of each working chamber at least one back-pressure gauge, which shall be accessible at all times and shall be kept in accurate working order. Additional fittings shall be provided so that test gauges may be attached at all necessary times. Back-pressure gauges shall be tested every 24 hours and a record kept of such test.

A competent man shall be placed in charge of the valves and gauges which regulate and show the pressure in the working chamber.

SEC. 11. *Regulations—temperature—lighting—sanitation.*—The following provisions shall be observed in the conduct of air-pressure work:

(a) The temperature of all working chambers which are subjected to air pressure shall, by means of aftercoolers or other suitable devices, be maintained constantly at a temperature not to exceed 85° F.

(b) All lighting in compressed-air chambers shall be by electricity only; nothing herein contained shall be construed to prohibit men from carrying candles or other emergency lights for leaving the tunnels in case of breakdown of the lighting system. Lighting in tunnels and working chambers shall be supplied when practicable from a different circuit from that supplying light in the shaft.

(c) All passages shall be kept clear and properly lighted.

(d) No nuisance shall be tolerated in the air chamber and smoking shall be strictly prohibited. No animal of any kind for any purpose shall be permitted in air chambers.

SEC. 12. *Compressor plant.*—A good and sufficient air plant for the compression of air shall be provided to meet not only ordinary conditions, but emergencies, and to provide margin for repairs at all times. The plant shall be capable of furnishing to each working chamber a sufficient air supply for all pressures to enable work to be done as nearly as possible in the dry.

Duplicate air feed pipes shall be installed at all caissons.

SEC. 13. *Regulations—air supply, exhaust valve, telephone communications.*—The air-supply pipe shall be carried to and within 100 feet

of the face of tunnel or caisson. The air when working in ground that is likely to be gas bearing, or in tunnels in which there is liability for a large amount of dead air, shall be analyzed at least once in every 24 hours and the record of such analysis shall be kept at the medical officer's office. The amount of CO₂ shall never exceed 1 part in 1,000.

Exhaust valves shall be operated at intervals, especially after a blast. The men shall not be permitted to resume work after a blast until the smoke and gas have cleared sufficiently. There shall be suitable means of communicating at all times between the working chamber, the outside thereof, and the power house on the surface.

SEC. 14. *Same—shafts, locks, bulkheads, and screens.*—Whenever a shaft is used, such shaft shall be provided, where space permits, with a safe, proper, and suitable staircase for its entire length, with landing platforms not more than 20 feet apart. Where this is impracticable suitable ladders shall be installed, subject to the approval of the commissioner of labor and industry or his representative.

Shafts shall be subject to a hydrostatic pressure of 60 pounds per square inch, at which pressure they shall be made absolutely tight and stamped on the outside shell about 12 inches from each flange, showing the pressure to which they have been subjected.

All main shafts shall be properly lighted, as required by the commissioner of labor and industry or his representative.

Locks, reducers, and shafting used in connection with caissons shall be riveted construction throughout. The material used in the manufacture shall be not less than $\frac{1}{4}$ -inch steel plate.

All necessary instruments shall be attached to all caissons and air locks, showing the actual air pressure to which men employed therein are subjected. They shall include pressure gauge, timepiece, and thermometer, and shall be accessible to and in charge of a competent person and kept in accurate working order.

All outside caisson air locks shall be provided with a platform not less than 42 inches wide and provided with a guard rail 42 inches high.

All caissons, whether circular, square, or rectangular in form, in which more than 15 men are employed, shall be provided with not less than two locks and shafts, at least one of which is to be equipped with a timepiece and gauge, to be heated to 70° F. during the months when heating is necessary, with valves so arranged that the lock can be operated from within and without.

Locks shall be so located that the distance between the bottom door and water level shall be no less than 3 feet.

SEC. 15. *Medical officers, etc.*—Any person or corporation carrying on any construction work in tunnels or caissons in the prosecution of which men are employed or permitted to work in compressed air, shall, while such men are so employed, also employ and keep in employment one or more duly qualified physicians or person who has had experience in first aid in compressed-air work and approved by the commissioner of labor to act as medical officer or officers, who shall be in attendance at all times while such work is in progress so as to guarantee constant medical supervision of men employed in compressed-air work. Said medical officer shall also be charged with the duty of enforcing the following regulations:

(a) No person shall be permitted to work in compressed air until after he has been examined by such medical officer and reported by

such officer to the person in charge thereof as found to be qualified, physically, to engage in such work.

(b) No person not having previously worked in compressed air shall be permitted during the first 24 hours of his employment to work for longer than one-half day period (as provided in rules for compressed-air work adopted by the department of labor and industry), and after so working shall be reexamined and not permitted to work in a place where the gauge pressure is in excess of 15 pounds unless his physical condition be reported by the medical officer, as heretofore provided, to be such as to qualify him for such work.

(c) In the event of absence from work, by an employee, for 10 or more successive days for any cause, he shall not resume work until he shall have been reexamined by the medical officer, and his physical condition reported as heretofore provided, to be such as to permit him to work in compressed air.

(d) No person known to be addicted to the excessive use of intoxicants shall be permitted to work in compressed air.

(e) After a person has been employed continuously in compressed air for a period of two months he shall be reexamined by the medical officer, and he shall not be allowed, permitted, or compelled to work until such examination has been made, and he has been reported, as heretofore provided, as physically qualified to engage in compressed-air work.

(f) Such medical officer shall at all times keep a complete and full record of examinations made by him, which record shall contain dates on which examinations are made and a clear and full description of the person examined, his age and physical condition at the time of examination (including height and weight), also the statement as to the time such person has been engaged in like employment. This medical officer shall also keep an accurate record of any caisson or other disease incapacitating any person for work that shall occur in the operation of a tunnel, caisson, or other compartment in which compressed air is used; also a record of all loss of life that shall occur in the operation of a tunnel, caisson, or other compartment in which compressed air is used. These records shall be open to the inspection of the department of labor and industry or its representatives and a copy thereof shall be forwarded to said department within the 48 hours following the occurrence of the accident, death, injury, or caisson disease, stating as fully as possible the cause of said death or caisson or other disease and the place where the injured or sick person has been taken, and such further information relative thereto as may be required by said department.

(g) All men shall have individual lockers of reasonable size, preferably metal lockers.

A separate dry room shall be provided where working clothes may be dried within reasonable time. This room shall be well heated.

One shower bath fitted with regulating valves shall be provided for every eight men coming off shift.

One basin and stopper shall be provided for every eight men coming off shift. Running water shall be supplied.

One toilet and one urinal shall be provided for every 20 men employed on each shift, and protection from the weather shall be afforded.

A sufficient amount of hot and cold water shall be supplied at all times.

A minimum temperature of 70° F. shall be maintained at all times in wash and dressing rooms.

Coffee and utensils: A sufficient supply of hot coffee and sugar shall be supplied to men working in compressed air at the termination of shifts and during rest periods. Coffee shall be heated by means other than direct steam. Coffee containers and cups shall be kept in a clean and sanitary condition at all times. All containers shall be kept covered at all times.

(h) Whenever compressed-air work is carried on during the period from October 1 to April 1, a covered passageway shall be provided from the opening into the caisson or tunnel to the lockers or dressing rooms of the employees if practicable, and if not, heated blankets or outer clothing shall be furnished.

(i) A medical lock at least 6 feet in height shall be established and maintained in connection with all work in compressed air. Such lock shall be kept properly heated, lighted, and ventilated, and shall contain proper medical and surgical equipment. Such lock shall be in charge of the medical officer. Said lock shall be divided into two compartments. Each door shall be provided with a bull's-eye and fitted with air valves so arranged to be operated from within and without.

The patient's chamber in the medical air lock shall be so arranged that the patients may be kept under constant observation through a nonshatterable glass window without the necessity of the attendant entering the chamber.

(j) Identification badge: An identification badge, such as approved by the department of labor and industry, shall be furnished to all employees, advising police officials that the employee is a compressed-air worker, stating the location of medical lock and stating that in cases of emergency an ambulance surgeon shall remove the patient to the medical lock and not to the hospital.

SEC. 16. *Daily inspection—apparatus.*—While work is in progress a competent person designated therefor shall make a regular inspection, at least once every working-day, of all engines, boilers, steam pipes, drills, air pipes, air gauges, air locks, dynamos, electric wiring, signaling apparatus, brakes, cages, buckets, hoists, cables, ropes, timbers, supports, and all other apparatus and appliances; and he shall immediately upon discovery of any defect, report same in writing to the person present in charge.

SEC. 17. *Travel regulations.*—No employee shall ride on any loaded car, cage, or bucket nor walk up or down any incline or shaft while any car, cage, or bucket is above.

SEC. 18. *Exhaust valves.*—Exhaust valves shall be provided, having risers extending to the upper part of chamber, if necessary, and shall be operated at such times as may be required and especially after a blast, and men shall not be required to resume work after a blast until the gas and smoke have cleared.

SEC. 19. *Explosives.*—Only experienced men who have been selected and regularly designated by the engineer or superintendent in charge, and whose names have been posted in the field office or at the magazine, shall handle, transport, prepare, or use dynamite or other high explosives.

(a) The composition of explosives shall be such as to cause the least amount of injurious gases.

(b) All explosives shall be stored in a magazine provided for that purpose, and located far enough from the working shaft, tunnel, boiler house, or engine room so that in case the whole quantity should be exploded there would be no danger, and all explosives in excess of what are needed for one shift shall be kept in the magazine. Such magazine should be fireproof, and so constructed that a modern rifle or pistol bullet can not penetrate it. A suitable place for thawing powder shall be provided and kept in condition for use. The thawing should be done by the hot-water or steam-bath method; the use of dry heat is absolutely prohibited. A receptacle for carrying explosives shall not be kept in the same room. A suitable place separated from tunnel or caisson, boilers or engine room shall be provided for preparing charges. One man shall have full charge of magazine.

If the conditions under which the work is being performed make it necessary for the storage of explosives in tunnel or caisson, permission may be granted by the department of labor and industry or its representatives on application of engineer in charge of work, with good and sufficient reasons; then only in quantities sufficient for one blast. This certificate shall prescribe the limits to the amount of explosives allowed in the tunnels or caissons at any one time and shall expire after being used.

Explosives and detonators shall be taken separately into the caisson.

After blasting is completed, all explosives and detonators shall be returned at once to the magazine, observing the same rules as when conveyed to the work.

(c) Detonators shall be inserted in the explosives only as required for each round of blasting. Detonators shall not be inserted in the explosives without first making a hole in the cartridge with a sharpened stick. No holes shall be loaded except those to be fired at the next round of blasting. All explosives remaining after loading a round must be removed from the caisson before any wires are connected. Blaster shall use only hard wood rods for tamping and he shall not tamp or load any hole with a metal bar, nor shall the wooden rod have any metal parts.

All lights used when loading shall be of an inclosed type. If electric flash lamps are used, they shall be so constructed that it will not be possible to obtain a difference of potential between any two points on the outside of the lamp casing.

(d) There shall be one blaster in charge of blasting and he shall enforce his orders and directions and personally supervise the fixing of all charges and all other blasting operations and shall use every precaution to insure safety.

When firing by electricity from power or lighting wires, a proper switch shall be furnished with lever down when "off."

The switch shall be fixed in a locked box to which no person shall have access except the blaster. There shall be provided flexible leads or connecting wires not less than 5 feet in length with one end attached to the incoming lines and the other end provided with plugs that can be connected to an effective ground. After blasting, the switch lever shall be pulled out, the wires disconnected, and the box locked before any person shall be allowed to return, and shall remain so locked until again ready to blast.

In the working chamber all electric-light wires shall be provided with a disconnecting switch, which must be thrown to disconnect all current from the wires in the working chamber before electric-light wires are removed or the charge exploded.

The blaster shall cause a sufficient warning to be sounded and shall be responsible that all persons retreat to safe shelter before he sets off blast, and shall also see that none return until he reports it safe for them.

He shall report to the foreman and furnish names of all persons refusing to obey his caution.

(e) After the blast is fired loosened pieces of rock shall be scaled from the sides of the excavation and after the blasting is completed the entire working chamber shall be thoroughly scaled.

(f) The foreman in charge shall inspect the working chamber and have all loose rock or ground removed and the chamber made safe before proceeding with the work.

(g) Drilling must not be started until all remaining butts of old holes are examined for unexploded charges.

SEC. 20. *Signal codes.*—Any code of signals used shall be printed, and copies thereof, in such languages as may be necessary to be understood by all persons affected thereby, shall be kept posted in a conspicuous place near entrances to work places and in such other places as may be necessary to bring them to the attention of all persons affected thereby.

Effective and reliable signaling devices shall be maintained at all times to give instant communication between the bottom and top of the shaft.

The following code of signals shall be used for the operation of any car, cage, or bucket:

- 1 bell—stop if in motion or hoist if not in motion.
- 2 bells—lower.
- 3 bells—run slowly and carefully.

On all work in compressed air, where the whistle and repeating rap are used, the following code shall be used:

- 1 whistle or rap—hoist.
- 1 whistle or rap with a rattle—hoist slowly.
- 2 whistles or raps—come to stop at once.
- 3 whistles or raps with a rattle—lower slowly.
- 4 whistles or raps—open high pressure.
- 4 whistles or raps with a rattle—shut off high pressure.
- 5 whistles or raps—call person in charge.
- 6 whistles or raps—lights are out.
- 7 whistles or raps—lights are all right.
- 8 whistles or raps—emergency call.

In all cases reply signals, repeating the original signals, must be made before proceeding.

Additional signals to meet local conditions may be adopted.

The minimum size of type to be used in notices shall be not less than 1 inch in height.

SEC. 21. *Bracings.*—All caissons shall be properly and adequately braced before loading with concrete or other weight.

SEC. 22. *Fire prevention.*—All reasonable precaution shall be taken against fire hazards, and such regulations as may be prescribed by the commissioner for protection against fire shall be promptly complied with.

SEC. 23. *Posting of labor law.*—Copies of such sections of the labor law as apply shall be furnished by the department of labor and industry to the person in charge and posted by him in a conspicuous place at the entrance to each work place.

SEC. 24. *Definition.*—Whenever in the foregoing the words “adequate,” “suitable,” “proper,” or “safe” are used, they shall be understood to mean adequate, suitable, proper, or safe in the opinion of the department of labor and industry.

SEC. 25. *Modification or suspension of regulations.*—These regulations may be modified or suspended in whole or in part by the commissioner of labor and industry if good and sufficient reason therefor is presented to the department at a hearing where all parties are given an opportunity to be present or represented.

SEC. 26. *Violations.*—Whoever violates any reasonable rule, regulation, order, or requirement made by the department of labor and industry under authority hereof shall be punished by a fine of not more than \$100.

Federal Legislation in Behalf of Porto Rican Labor

Creation of Department of Labor

A DEPARTMENT of Labor was created in Porto Rico by a Federal act approved February 18, 1931 (Public, No. 677, 71st Cong.), amending the act of March 2, 1917, which provided a civil government for that island. Previous to the passage of this amendment there was a bureau of labor in the Porto Rican Department of Agriculture and Labor.

The head of the newly created department is designated the commissioner of labor, who “is appointed by the Governor, by and with the advice and consent of the Senate of Porto Rico,” for a 4-year term. The commissioner of labor has charge of such government bureaus and branches as are now in existence or to be legally established “to foster and promote the welfare of the wage earners of Porto Rico; to improve their working conditions, and to advance their opportunities for profitable employment.”

Provision for Vocational Education and Civilian Rehabilitation

UNDER an act approved March 3, 1931 (Public, No. 791, 71st Cong.), Porto Rico is entitled to share in the benefits of the act of 1917 (and amendments) to provide for the promotion of vocational education and for cooperation with the States in such promotion. In this connection authorization is given for an appropriation from the United States Treasury for the fiscal year ending June 30, 1932, and for each subsequent year the sum of \$105,000, to be available for allotment to Porto Rico upon conditions specified in the law.

It is also provided in the same act that Porto Rico shall be entitled to share in the benefits of the act of June 2, 1920, “to provide for the promotion of vocational rehabilitation of persons disabled in industry or otherwise and their return to civil employment.” An appropriation of \$15,000 per annum is authorized for the two years beginning July 1, 1931, for an allotment to Porto Rico to aid in the carrying on of activities looking to the converting of the physically handicapped into efficient wage earners.

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WORKERS' EDUCATION AND TRAINING

Cooperative Program of Antioch College

LAST spring 528 cooperative students of Antioch College gave their opinion on the part-time working program of that institution.¹ Only 10 per cent, mainly freshmen and sophomores, reported that work periods were a drawback to college study.

Upper-class students set a higher value on their jobs than do the freshmen. A majority of the seniors saw possibilities for promotion. Ninety per cent of the seniors, but barely 50 per cent of the freshmen, stated they had learned much from their fellow wage earners. Ability to learn from practical life seems to increase with the experience of such life.

Vocational guidance is important at Antioch College. Over two-thirds of the seniors had changed their vocational plans since they entered as freshmen. Four-fifths of the seniors were of the opinion that their jobs led to careers, and only 5 per cent of all the students thought that their cooperative jobs should not be retained by the institution.

The first-year men's earnings averaged \$20.47 per week; the senior men's \$30.31. The earnings of woman students are not so high.

Workers' Educational Association of Ontario

THE record of the Workers' Educational Association during the past year is reported to have been "splendid" by the Canadian Congress Journal of March, 1931. Eleven classes have been organized in Toronto, 3 in Hamilton, 2 in London, and one each in Kitchener, Windsor, St. Catharines, Brantford, Niagara Falls, Prescott, and Stratford, largely as a result of the activities of the association's organizing secretary. The students are all workers in the strictest sense of the word. Although economics is the main subject followed, there are also classes in labor problems, psychology, English, and public speaking. Furthermore, 21 public meetings have been held, at which addresses were delivered on current topics, most of them relating to economics. The interest taken in the library recently accumulated under the auspices of the association is shown by the number of books sent out every day to students in all parts of Ontario. This educational movement has been aided greatly by the University of Toronto, which has furnished the pay for all the tutors during the year except two for the London classes, whose pay was provided by the University of Western Ontario in that city.

Recently the association has set up a new scheme in compliance with requests from several hundred unemployed workers that they be

¹ The Vocational Guidance Magazine. Cambridge, Mass., February, 1931, p. 230.

afforded opportunity for education in elementary subjects to equip themselves to battle more effectively for a living. Classes of this kind have now been organized in Toronto. Volunteer teachers have been provided by the Ontario College of Education. No fees are charged for the instruction, which is proving highly popular and of very considerable value.

Recent Developments in Chinese Mass Education

THE establishment of a demonstration and training center for rural reconstruction in Ting Hsien¹ is one of the very latest developments in the mass education movement in China, according to recent correspondence from Y. C. James Yen, general director of that movement.²

Approximately a year ago a health campaign was started in Ting Hsien, recourse being had to the experience and technique of literacy drives in previous years.³ Three market days were selected for this educational propaganda, as on such days more people were gathered together in the open air. Campaign posters were used, parades with military bands were arranged, speeches were made, little dramas acted, lantern slides and moving pictures shown, and even the radio was utilized. The resultant interest and enthusiasm far surpassed the highest expectations of the promoters. At a follow-up conference the Ting Hsien gentry formed a health association with an executive committee which has energetically engaged in acquainting the people with the need for vaccination. A constructive 2-year health program has been outlined.

Another significant accomplishment is stated to have been the setting up of a training school to educate the youth of Ting Hsien in the principles and technique of this reconstruction movement. The leaders in these activities realize that without such provision the campaign might be successful in this district and stop there. The training experiment has been so encouraging to those making it that it has been decided to increase the number of students from 30 (the number enrolled the first year) to 80, or possibly 100, one-third of them to be women. Moreover, the 1-year course has been lengthened to two years.

There were 50 delegates at the Ting Hsien literacy institute, some of whom had traveled two weeks in order to reach the mass education headquarters. This conference is reported to be "the first step toward reducing illiteracy among the members of the Protestant Church in China."

¹ "Hsien" is the Chinese word for "county."

² *Journal of Adult Education*, Philadelphia, April, 1931, p. 248.

³ See *Monthly Labor Review*, Washington, January, 1930. Movement for education of the people in China, pp. 83-85.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in April, 1931

DATA regarding industrial disputes in the United States for April, 1931, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, 1929, and 1930, number of workers involved and man-days lost for these years and for each of the months—January, 1929, to April, 1931, inclusive—as well as the number of disputes in effect at the end of each month and the number of workers involved. The economic loss (in man-days) involved is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working-days as normally worked by the industry or trade in question.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1929, TO APRIL, 1931, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927, 1928, 1929, AND 1930

| Month and year | Number of disputes | | Number of workers involved in disputes | | Number of man-days lost during month of year |
|--------------------------|----------------------------|---------------------------|--|---------------------------|--|
| | Beginning in month or year | In effect at end of month | Beginning in month or year | In effect at end of month | |
| 1927: Total..... | 734 | ----- | 349,434 | ----- | 37,799,394 |
| 1928: Total..... | 629 | ----- | 357,145 | ----- | 31,556,947 |
| 1929: Total..... | 903 | ----- | 230,463 | ----- | 9,975,213 |
| 1930: Total..... | 653 | ----- | 158,114 | ----- | 2,730,368 |
| <i>1929</i> | | | | | |
| January..... | 48 | 36 | 14,783 | 39,569 | 951,914 |
| February..... | 54 | 35 | 22,858 | 40,306 | 926,679 |
| March..... | 77 | 37 | 14,031 | 40,516 | 1,074,468 |
| April..... | 117 | 53 | 32,989 | 52,445 | 1,429,437 |
| May..... | 115 | 73 | 13,668 | 64,853 | 1,727,694 |
| June..... | 73 | 57 | 19,989 | 58,152 | 1,627,565 |
| July..... | 80 | 53 | 36,152 | 15,589 | 1,062,428 |
| August..... | 78 | 43 | 25,616 | 6,714 | 358,148 |
| September..... | 98 | 49 | 20,233 | 8,132 | 244,864 |
| October..... | 69 | 31 | 16,315 | 6,135 | 272,018 |
| November..... | 61 | 32 | 10,443 | 6,067 | 204,457 |
| December..... | 33 | 21 | 3,386 | 2,343 | 95,541 |
| <i>1930</i> | | | | | |
| January..... | 45 | 21 | 9,240 | 5,316 | 184,730 |
| February..... | 52 | 40 | 37,480 | 6,683 | 438,570 |
| March..... | 49 | 38 | 15,017 | 5,957 | 291,127 |
| April..... | 64 | 41 | 6,379 | 5,840 | 189,828 |
| May..... | 66 | 29 | 9,329 | 4,386 | 185,448 |
| June..... | 59 | 34 | 14,011 | 8,311 | 144,117 |
| July..... | 78 | 30 | 14,308 | 4,815 | 141,647 |
| August..... | 51 | 33 | 15,902 | 7,131 | 142,738 |
| September..... | 72 | 44 | 16,337 | 13,778 | 208,184 |
| October..... | 47 | 36 | 10,858 | 16,007 | 335,916 |
| November..... | 44 | 29 | 4,390 | 7,759 | 273,608 |
| December..... | 26 | 7 | 4,863 | 5,144 | 194,455 |
| <i>1931</i> | | | | | |
| January..... | 56 | 20 | 10,147 | 2,927 | 181,031 |
| February..... | 52 | 34 | 19,984 | 12,512 | 228,329 |
| March ¹ | 42 | 25 | 25,546 | 27,574 | 420,148 |
| April ¹ | 47 | 41 | 16,331 | 14,855 | 598,525 |

¹ Preliminary figures subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in February, March, and April, 1931, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN FEBRUARY, MARCH, AND APRIL, 1931

| Industry | Number of disputes beginning in— | | | Number of workers involved in disputes beginning in— | | |
|---|----------------------------------|-------|-------|--|--------|--------|
| | February | March | April | February | March | April |
| Auto, carriage, and wagon workers..... | | | 1 | | | 100 |
| Bakers..... | 1 | | | 6 | | |
| Building trades..... | 10 | 14 | 18 | 525 | 1,212 | 4,993 |
| Chauffeurs, teamsters..... | 4 | 2 | 2 | 244 | 14 | 506 |
| Clerks, salesmen..... | 1 | | | 6 | | |
| Clothing..... | 12 | 5 | 8 | 7,245 | 241 | 1,202 |
| Electrical, gas appliance, and radio workers..... | 1 | | | 14 | | |
| Farm labor..... | 1 | | | 2,000 | | |
| Food workers..... | | | 1 | | | 54 |
| Furniture..... | 3 | 1 | | 174 | 70 | |
| Glass workers..... | 1 | 1 | | | 75 | |
| Laundry workers..... | | 1 | 1 | | 12 | 500 |
| Leather..... | 2 | 1 | 1 | 128 | 30 | 60 |
| Longshoremen, freight handlers..... | 1 | 1 | 1 | 2,000 | 50 | 400 |
| Lumber, timber, and mill work..... | 1 | 1 | | 12 | 125 | |
| Miners..... | 3 | 4 | 4 | 385 | 22,906 | 7,640 |
| Motion-picture operators, actors, and theatrical workers..... | | 2 | | | 29 | |
| Printing and publishing..... | | 1 | | | 11 | |
| Stationary engineers and firemen..... | | | 1 | | | 20 |
| Textiles..... | 11 | 8 | 8 | 7,145 | 771 | 756 |
| Other occupations..... | 1 | | 1 | 100 | | 100 |
| Total..... | 52 | 42 | 47 | 19,984 | 25,546 | 16,331 |

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in April, 1931, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN APRIL, 1931, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

| Industry | Number of disputes beginning in April, 1931, involving— | | | | | |
|--|---|--------------------------|---------------------------|-----------------------------|-------------------------------|--------------------------------|
| | 6 and under 20 workers | 20 and under 100 workers | 100 and under 500 workers | 500 and under 1,000 workers | 1,000 and under 5,000 workers | 5,000 and under 10,000 workers |
| Auto, carriage, and wagon workers..... | | | 1 | | | |
| Building trades..... | 5 | 9 | 3 | | 1 | |
| Chauffeurs, teamsters..... | 1 | | | 1 | | |
| Clothing..... | 3 | 2 | 2 | 1 | | |
| Food workers..... | | 1 | | | | |
| Laundry workers..... | | | | 1 | | |
| Leather..... | | 1 | | | | |
| Longshoremen, freight handlers..... | | | 1 | | | |
| Miners..... | | 1 | 1 | | 1 | 1 |
| Stationary engineers and firemen..... | | 1 | | | | |
| Textiles..... | | 5 | 3 | | | |
| Other occupations..... | | | 1 | | | |
| Total..... | 9 | 20 | 12 | 3 | 2 | 1 |

In Table 4 are shown the number of industrial disputes ending in April, 1931, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN APRIL, 1931, BY INDUSTRIES AND CLASSIFIED DURATION

| Industry | Classified duration of strikes ending in April, 1931 | | | |
|--|--|-------------------------------------|--------------------------------|---------------------------------|
| | One-half month or less | Over one-half and less than 1 month | 1 month and less than 2 months | 2 months and less than 3 months |
| Auto, carriage, and wagon workers..... | 1 | | | |
| Building trades..... | 6 | | 1 | |
| Chauffeurs..... | 1 | | | |
| Clothing..... | 7 | | 1 | |
| Lumber, timber, and mill work..... | 1 | | | |
| Miners..... | 1 | 2 | | |
| Textiles..... | 6 | 1 | 1 | 1 |
| Other occupations..... | 1 | | | |
| Total..... | 24 | 3 | 3 | 1 |

Principal Strikes and Lockouts Beginning in April, 1931

Drivers, Chicago.—A successful 1-day strike of some 1,300 drivers and chauffeurs, members of Commission Drivers, Chauffeurs and Helpers Union, Local No. 703, against a proposed wage reduction and longer hours is reported to have been in effect on April 1.

Bituminous coal miners, Illinois.—A strike involving 1,800 coal miners and affecting several mines of the O'Gara Coal Co. near Harrisburg began on April 1 and ended on May 2.

The miners objected to the introduction of loading machines. Apparently the strike was unsuccessful.

Painters, paper hangers, and decorators, New Jersey.—A strike or strikes aggregating 3,710 organized painters, paper hangers and decorators against a wage reduction by the Master Painters' Association from \$12 to \$10 per day is reported to have begun on April 1 and to have ended successfully by May 1. Various cities and towns throughout the State were affected, including Newark, Millburn, Orange, New Brunswick, Elizabeth, etc. Settlements affecting the different cities were concluded on April 26, April 28, and May 1.

Anthracite coal miners, Pennsylvania.—The Lehigh Coal & Navigation Co. of Lansford was affected by a strike of 7,000 miners at its collieries in the Panther Creek Valley from April 4 to May 2. It is understood that the men wanted operating conditions so changed as to give work to additional miners who were idle in District No. 7, but they resumed work under the former conditions.

The Philadelphia & Reading Coal & Iron Co. of Pottsville was also affected by a strike beginning on April 11 and ending on April 28 involving directly or indirectly some 5,700 employees at their mines in Schuylkill and Northumberland Counties. The strikers objected to the temporary closing down of a section at the Locust Gap Colliery and remained away from work, it is said, against the advice of their district officers, and returned without receiving any concession.

Cleaners and dyers, New Jersey.—Some 560 organized cleaners and dyers in Newark and other localities struck on April 14 because of a disagreement over wages, hours, etc. The strike is understood to have ended successfully on April 20.

Principal Strikes and Lockouts Continuing Into April, 1931

Textile workers, Philadelphia.—It is understood that the strike of upholstery weavers, which began on February 2 because they refused to accept an arbitration award reducing wages 14 per cent, has been settled with the acceptance of the award by the weavers, and the resumption of operations by the mills on May 4.

Hosiery workers, Philadelphia.—No report has been received of the ending of the strike of full-fashioned hosiery workers affecting non-union and open-shop mills, which began on February 16.



Conciliation Work of the Department of Labor in April, 1931

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 57 labor disputes during April, 1931. These disputes affected a known total of 53,038 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On May 1, 1931, there were 39 strikes before the department for settlement and in addition 20 controversies which had not reached the strike stage. The total number of cases pending was 59.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF APRIL, 1931

| Company or industry and location | Nature of controversy | Craftsmen concerned | Cause of dispute | Present status and terms of settlement | Duration | | Workers involved | |
|--|-----------------------|----------------------------|---|---|----------------|---------|------------------|------------|
| | | | | | Beginning | Ending | Directly | Indirectly |
| Parmlee Transportation Co., Pittsburgh, Pa. | Threatened strike. | Taxicab drivers.... | Dismissal of members of union.... | Pending..... | 1931 Apr. 2 | 1931 | 900 | --- |
| Commission merchants, Chicago, Ill. | Strike..... | Wagon drivers.... | Proposed wage cut and longer hours. | Adjusted. No cut; workday half hour shorter. | Apr. 1 | Apr. 2 | 1,300 | 900 |
| Jefferson Barracks, St. Louis, Mo. | Controversy | Building trades.... | Nonunion workers employed.... | Pending..... | do..... | | (1) | --- |
| Scotts Field, Belleville, Ill. | do..... | do..... | Protest against importation of laborers at 62½ cents per hour; prevailing rate, 75 cents. | Unable to adjust.... | Apr. 10 | May 9 | 50 | --- |
| Blue Diamond & New Jellico Coal Co., Egan, Coal Creek, and Morely, Tenn. | do..... | Miners..... | Discharges..... | Adjusted. Companies agreed to re-employ as many as possible. | Mar. 1 | Apr. 3 | 20 | 11 |
| Century of Progress Exposition, Chicago, Ill. | do..... | Concession employees. | Attempted to secure union agreement with exposition committee. | Pending..... | Mar. 24 | | 16 | --- |
| Miners, District No. 11, Indiana. | do..... | Miners..... | Renewal of agreement fixing scale and conditions. | Adjusted. New agreement concluded; \$6.10 per day and minor changes in working conditions. | Mar. 1 | Apr. 2 | 10,000 | --- |
| Charlton Mill, Fall River, Mass. | Strike..... | Textile weavers.... | Asked readjustment of wages.... | Adjusted. Returned; request for increase withdrawn. | Apr. 6 | May 1 | 110 | 390 |
| Building, Waterloo, Iowa..... | do..... | Building..... | Wage cut..... | Adjusted. Carpenters accepted cut from \$1.12½ per hour to \$1.07½; plasterers, \$1.50 to \$1.37½; metal workers, 92½ to 90½ cents. | Apr. 1 | Apr. 4 | 400 | --- |
| Painters, Baltimore, Md..... | Lockout..... | Painters..... | Wage dispute..... | Adjusted. Agreement concluded. | do..... | Apr. 15 | 70 | 110 |
| Building crafts, Cedar Rapids, Iowa. | Threatened strike. | do..... | Proposed 25 per cent wage cut.... | Adjusted. Painters settled without cut. | Mar. 1 | Apr. 11 | 90 | --- |
| Remington Arms, Ilion, N. Y..... | do..... | Machinists and toolmakers. | Proposed 10 per cent wage cut.... | Pending..... | Apr. 1 | | 180 | 1,500 |
| Vincent Horowitz Co. (Inc.), New York City..... | Strike..... | Slipper workers.... | 20 per cent wage cut; asked union recognition. | Adjusted. Signed individual agreements; returned without change. | Mar. 26 | Mar. 30 | 150 | 15 |
| Feifer Bros. Co., New York City | Strike..... | do..... | Wage cut of 10 per cent..... | do..... | Apr. 2 | | 110 | 8 |
| Olympic Suit Case Co., New York City. | do..... | Bag and slipper makers. | Shop conditions..... | do..... | Apr. 10 | | 60 | 10 |
| Slipper makers, New York City. | do..... | Slipper makers.... | Wage cuts and shop conditions.... | Adjusted. No cut; union agreement concluded. | Apr. 17 | Apr. 20 | 25 | 7 |
| Cabinetmakers, Philadelphia, Pa. | Controversy | Cabinetmakers.... | Proposed wage cut of 10 cents per hour. | Adjusted. Agreed to abide by 5-year agreement now in effect. | Apr. 3 | May 4 | 12 | --- |

1 Not reported.

LABOR DISPUTES HANDLED BY THE CONCILIATION SERVICE DURING THE MONTH OF APRIL, 1931—Continued

| Company or industry and location | Nature of controversy | Craftsmen concerned | Cause of dispute | Present status and terms of settlement | Duration | | Workers involved | |
|---|-----------------------|--|--|--|----------------|-----------------|------------------|------------|
| | | | | | Beginning | Ending | Directly | Indirectly |
| Painters, Summit, Milburn, Orange, and West Orange, N. J. | Strike..... | Painters, decorators, and paper hangers. | Wages cut from \$12 to \$10 per day.. | Adjusted. Renewed agreement at \$12 per day. | 1931 Apr. 1 | 1931 Apr. 28 | 900 | ----- |
| Painters, New Brunswick, Rahway, and Elizabeth, N. J. | do..... | do..... | do..... | do..... | do..... | do..... | 470 | ----- |
| Painters, Newark, N. J. | do..... | do..... | do..... | do..... | do..... | Apr. 26 | 940 | ----- |
| Painters, Passaic, Paterson, and Hackensack, N. J. | do..... | do..... | do..... | do..... | do..... | May 1 | 1,400 | ----- |
| Centennial Leather Co., Philadelphia, Pa. | Controversy.. | Leather workers.. | Wages and conditions..... | Adjusted. Firm canceled contract for objectionable work. | Mar. 26 | Apr. 7 | 17 | 9 |
| Real Estate Board, Chicago, Ill. | do..... | Janitors..... | Proposed wage cut of 12 per cent.... | Adjusted. New agreement concluded providing 5 per cent wage cut. | Mar. 1 | Mar. 16 | 4,000 | ----- |
| Post Office building, Pittsburg, Kans. | do..... | Building..... | Refusal to pay prevailing wage.... | Pending..... | Apr. 9 | ----- | (1) | ----- |
| Brown University, Providence, R. I. | Strike..... | Carpenters, bricklayers, and ironworkers. | Asked increase from \$1.25 to \$1.37½ per hour. | Adjusted. Request for increase withdrawn; returned to work with union agreement | Apr. 3 | Apr. 23 | 22 | ----- |
| Building, Providence, R. I. | do..... | Laborers..... | Alleged failure to pay prevailing wage; violation of agreement by workers. | Unable to adjust. Contractor refused union recognition and payment of prevailing wage. | do..... | Apr. 28 | 24 | ----- |
| Painters, Philadelphia, Pa. | Controversy.. | Painters, decorators, and paper hangers. | Repudiation of agreement; asked increase of 5 cents per hour. | Pending..... | Apr. 14 | ----- | 52 | ----- |
| Cleaners and dyers, Newark, N. J. | Strike..... | Cleaners and dyers. | Wages, hours, and conditions in new agreement. | Adjusted. Union agreement concluded. | do..... | Apr. 20 | 560 | ----- |
| Federal Building, Salt Lake City, Utah. | Threatened strike. | Structural-iron workers. | Dispute relative to 5-day week.... | Unable to adjust. May be able to obtain concession from general contractors. | Jan. 2 | May 5 | 600 | ----- |
| Pocketbook makers, New York City. | Controversy.. | Pocketbook makers | Proposed 25 per cent wage cut.... | Pending..... | Apr. 1 | ----- | 5,000 | ----- |
| Goldblatt Department Store, South Chicago, Ill. | do..... | Barbers..... | Union objected to employment of nonunion barbers below union wages. | do..... | do..... | ----- | 4 | ----- |
| Ideal Construction Co., Muncie, Ind. | Controversy.. | Hoisting engineers. | Employment of union men..... | Adjusted. Union men employed. | do..... | Apr. 14 | 3 | 47 |
| Westinghouse Bridge Co., East Pittsburgh, Pa. | Strike..... | Carpenters, ironworkers, and pile drivers. | Jurisdiction; pile drivers claimed certain work. | Pending..... | Apr. 14 | ----- | (1) | ----- |

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| | | | | | | | | | |
|--|--------------------|-----------------------------------|--|---|-------------|---------|--------|-------|-------|
| Philadelphia & Reading Coal Co., Pottsville, Pa. |do..... | Miners..... | Asked equal distribution of work. | Adjusted. Grievances will go through regular channels; miners returned to work. | Apr. 11 | Apr. 28 | 5,700 | ----- | ----- |
| Post-office building, Indianapolis, Ind. | Controversy | Building..... | Wages and working conditions. | Pending..... | Apr. 15 | ----- | (1) | ----- | ----- |
| Indianapolis Power & Light Co., Indianapolis, Ind. |do..... |do..... | Employment of union or non-union workers. |do..... | Apr. 14 | ----- | (1) | ----- | ----- |
| Lycoming Manufacturing Co., Williamsport, Pa. | Strike..... | Motor-metal products makers. | Piecework introduced and wages reduced. | Adjusted. Returned and negotiations continued. | Apr. 17 | Apr. 30 | 100 | 2,000 | ----- |
| Bliss Silk Co., Dickson City, Pa. |do..... | Silk workers | Dismissal of mill superintendent. | Adjusted. Foreman not reinstated. | Apr. 20 | Apr. 21 | 200 | ----- | ----- |
| Forest City Manufacturing Co. Collinsville, Ill. |do..... | Ladies' garment workers. | Wages cut; hours increased. | Pending..... | Mar. 30 | ----- | 600 | ----- | ----- |
| Ralph Sollett & Sons, Indianapolis, Ind. |do..... | Hoisting engineers | Sympathy with trades on strike elsewhere. | Adjusted. Agreement concluded by strikers. Engineers returned. | Apr. 6 | Apr. 18 | 4 | 36 | ----- |
| Plasterers, Niagara Falls, N. Y. | Lockout.... | Plasterers..... | Wages cut from \$1.50 to \$1.25 per hour. | Adjusted. No cut; will abide by former agreement. | Apr. 1 | Apr. 4 | 20 | 50 | ----- |
| Carpenters, Niagara Falls, N. Y. | Strike..... | Carpenters..... | Proposed wage cut from \$1.25 to \$1.05 per hour. | Adjusted. No cut; agreed to abide by 1930 agreement; negotiations continued. |do.... | Apr. 5 | 50 | 60 | ----- |
| Administration Building, public schools, Philadelphia, Pa. | Strike..... | Electricians..... | Nonunion subcontractor engaged on building. | Pending..... | Apr. 14 | ----- | 10 | ----- | ----- |
| Newark Silk Co., Wilkes-Barre, Pa. |do..... | Silk workers | Wages cut 10 per cent. | Adjusted. Compromised on 7 per cent cut; part piecework. | Apr. 21 | Apr. 23 | 65 | ----- | ----- |
| Grand Theater, Scranton, Pa. | Controversy | Operators | Nonunion operators employed. | Adjusted. Compromised differences. | Mar. 29 | May 1 | 2 | ----- | ----- |
| Conant Bakery, Detroit, Mich. | Threatened strike. | Bakers and confectionery workers. | Wages cut \$5 per week. | Adjusted. Old rates restored. | Apr. 22 | Apr. 25 | 200 | 1,400 | ----- |
| Granite workers, Concord, Mass. | Strike..... | Granite workers | Renewal of agreement expiring April 1. | Adjusted. 3-year agreement; \$9 for 8-hour day; 5-day week in winter. | Apr. 1 | Apr. 10 | 200 | ----- | ----- |
| Deep Waterway, Joliet, Ill. | Threatened strike. | Building..... | Failure to pay prevailing wage except to electricians and operating engineers. | Pending..... | Mar. 1 | ----- | 175 | 25 | ----- |
| Building, Houston, Tex. | Controversy |do..... | Wages cut from 15 to 25 per cent. |do..... | Apr. 28 | ----- | (1) | ----- | ----- |
| Gulf Building, Pittsburgh, Pa. |do..... |do..... | Jurisdiction of ironwork and pile driving. | Adjusted. Settled; structural-iron workers retained on job. | Apr. 15 | Apr. 20 | (1) | ----- | ----- |
| Road building, Greenwich, Conn. | Strike..... | Road workers | Wage cuts..... | Pending..... | Apr. 24 | ----- | 916 | 100 | ----- |
| S. K. S. Fur Dressing Co., Jersey City, N. J. |do..... | Fur workers |do..... | Adjusted. Others employed; increased \$10 per week. | Apr. 10 | Apr. 17 | 26 | 3 | ----- |
| Majestic Silk Mills (Inc.), Allentown, Pa. |do..... | Silk workers | Wages cut 5 to 10 per cent. | Pending..... | Apr. 26 | ----- | 67 | ----- | ----- |
| March Field Barracks, San Bernardino, Calif. | Controversy | Carpenters, bricklayers, etc. | Payment of prevailing wage. |do..... | Apr. 10 | ----- | 26 | 126 | ----- |
| Mount Hope Mills, Warren and Providence, R. I. | Strike..... | Textile workers | Protest introduction of longer hours. |do..... | Mar. 18 | ----- | 200 | ----- | ----- |
| Coal mines, Harlan County, Ky. |do..... | Miners..... | Wage cuts and working conditions. |do..... | Apr. 15 | ----- | 10,000 | ----- | ----- |
| Chas. E. Giretz & Sons, Joliet, Ill. | Controversy | Chauffeurs and teamsters. | Jurisdiction; two local unions claim work. |do..... | Apr. 29 | ----- | 25 | 160 | ----- |
| Total..... | ----- | ----- | ----- | ----- | ----- | ----- | 46,071 | 6,967 | ----- |

¹ Not reported.

[1375]

Labor Disputes in the Philippine Islands, 1925 to 1929

STATISTICS on strikes in the Philippines, 1925 to 1929, taken from the 1929 Statistical Bulletin of the Philippine Bureau of Commerce and Industry, are summarized in the table below:

STRIKES IN THE PHILIPPINES, 1925 TO 1929

| Year | Number of strikes | Number of strikers | Object or cause of strike | | Dispute settled in favor of— | |
|------------|-------------------|--------------------|---------------------------|-------|------------------------------|-----------|
| | | | For higher wages | Other | Workers | Employers |
| 1925..... | 23 | 9,936 | 12 | 11 | 19 | 4 |
| 1926..... | 27 | 7,279 | 18 | 9 | 16 | 11 |
| 1927..... | 53 | 8,567 | 33 | 20 | 39 | 14 |
| 1928..... | 38 | 4,729 | 21 | 17 | 21 | 17 |
| 1929..... | 26 | 4,939 | 13 | 13 | 10 | 16 |
| Total..... | 167 | 35,450 | 97 | 70 | 105 | 62 |

LABOR ORGANIZATIONS

Work of Union Insurance Companies in 1930¹

THE Union Cooperative Insurance Co., an organization owned by the International Brotherhood of Electrical Workers, completed its sixth year of operations on December 31, 1930.

It is stated that during 1930, "its assets increased as much as during the entire first five years of its history," having risen during the year from \$661,348 to \$1,258,601, an increase of more than 90 per cent. The surplus increased during the same period from \$213,978 to \$267,497.

The premium income (\$1,434,478) was more than double that of 1929 (\$714,039).

Death claims were paid during the year amounting to \$579,011, as compared with \$426,975 in 1929. Claims paid since the organization of the company have aggregated \$1,527,049. The insurance now in force amounts to \$89,324,735.

During the year the capital stock of the company was increased from \$100,000 to \$200,000, and the company took over the John Mitchell Life Insurance Co. of Pennsylvania, a union labor company organized by the anthracite miners.

The Union Labor Life Insurance Co. was organized in 1925, but did not start to write insurance until July, 1927. The company is owned by labor organizations affiliated with the American Federation of Labor. Its report for 1930 shows that its assets at the end of the year were \$1,068,108, an increase of \$178,827 over the preceding year. Its income during the year was \$813,887, while claims paid amounted to \$480,536.

The insurance in force at the end of the year amounted to \$48,372,328, of which \$5,315,778 was in individual policies and the remainder in group insurance. As compared with 1929, the insurance in force showed a gain of \$3,880,178.

Membership of Labor Organizations in Canada, 1930

STATISTICS on trade-union membership in Canada at the close of the calendar year 1930 are given in the twentieth annual report on labor organization in the Dominion, from which the following table has been compiled.

¹ Data are from Labor (Washington, D. C.), Feb. 10, 1931, and the Sleeping Car Conductor (Kansas City, Mo.), May, 1931.

NUMBER AND MEMBERSHIP OF LABOR ORGANIZATIONS IN CANADA, 1930

| Kind of organization | Units or branches | | Members | |
|---|-------------------|--|---------------------|--|
| | Number | Increase or decrease as compared with 1929 | Number | Increase or decrease as compared with 1929 |
| International craft unions..... | 1,946 | -7 | 1,203,478 | -36 |
| One Big Union..... | 45 | +2 | 23,724 | +834 |
| Industrial Workers of the World..... | 6 | (?) | 3,741 | -234 |
| Canadian central labor organizations..... | 673 | +34 | ³ 57,168 | +3,891 |
| Independent units..... | 31 | (?) | 9,338 | -1,482 |
| National Catholic unions..... | 108 | +2 | 25,000 | (?) |
| Total..... | 2,809 | +31 | 322,449 | +2,973 |

¹ Number affiliated with Trades and Labor Congress of Canada, 157,445.

² No change.

³ Number affiliated with Trades and Labor Congress of Canada, 3,488; with All-Canadian Congress of Labor, 23,984.

The figures for the membership of the Trades and Labor Congress of Canada are 23,199 greater than that claimed by that organization, the explanation being that the respective affiliated bodies in reporting to the department included all members who were in good standing, while the congress only reported the number of members for whom per capita had been received. Besides the affiliated membership of central organizations the Trades and Labor Congress has 42 directly chartered local unions with a combined membership of 7,317, which added to the above figures makes an aggregate membership of 168,250. The figures for the All-Canadian Congress indicate an affiliated membership of central bodies of 23,984, which with the membership of 3,979 comprised in the 27 directly chartered local unions gives a total of 27,963 members.

The percentage distribution of the 322,449 members of labor organizations in Canada, by trade groups, is as follows:

| | Per cent |
|---|----------|
| Railroad employees..... | 30.68 |
| Building trades..... | 12.63 |
| Public employees, personal service, and amusement trades..... | 10.04 |
| Mining and quarrying..... | 8.43 |
| Other transportation and navigation..... | 7.41 |
| Metal trades..... | 5.64 |
| Clothing, boot, and shoe trades..... | 5.22 |
| Printing and paper-making trade..... | 4.95 |
| All other trades and general labor..... | 15.00 |
| Total..... | 100.00 |

There are 84 international craft organizations with branches or members in the Dominion, the following 13 having 5,000 or more members in that country:

| | Membership in Canada |
|---|----------------------|
| United Mine Workers of America..... | 16,600 |
| Brotherhood of Maintenance-of-Way Employees..... | 16,436 |
| Brotherhood of Railroad Trainmen..... | 15,016 |
| Brotherhood of Railway Carmen..... | 14,351 |
| United Brotherhood of Carpenters and Joiners..... | 13,900 |
| Amalgamated Association of Street and Electric Railway, Bus and Coach Employees of America..... | 9,978 |
| International Association of Machinists..... | 8,700 |
| Order of Railroad Telegraphers..... | 8,317 |
| Brotherhood of Locomotive Firemen and Enginemen..... | 7,122 |
| Amalgamated Clothing Workers of America..... | 7,000 |
| Brotherhood of Locomotive Engineers..... | 5,871 |
| American Federation of Musicians..... | 5,650 |
| Bricklayers, Masons and Plasterers' International Union of America..... | 5,595 |

Canadian Trade-Union Benefits, 1930

ACCORDING to the twentieth annual report on labor organization in Canada, of the 27 Canadian central labor bodies, the 10 listed in the table following reported the payment in 1930 of \$66,936 in various benefits—an increase of \$12,722 as compared with the amounts reported for the preceding year:

BENEFITS PAID BY CANADIAN CENTRAL LABOR ORGANIZATIONS, 1930

| Name of organization | Amounts disbursed for benefits | | | |
|---|--------------------------------|---------|-------------------|-------|
| | Death | Strike | Sick and accident | Other |
| Amalgamated Carpenters of Canada..... | \$675 | | | |
| Canadian Brotherhood of Railway Employees..... | 11,750 | | \$6,383 | \$195 |
| Civil Service Association of Alberta..... | 2,000 | | | |
| Dominion Railway Mail Service Benevolent Association of Canada..... | 22,520 | | | |
| Federated Seafarers' Union of Canada..... | | | | 237 |
| Lumber and Agricultural Workers' Industrial Union of Canada..... | | \$6,000 | | |
| Mine Workers' Union of Canada..... | | 6,936 | | |
| Provincial Federation of Ontario Firefighters..... | 9,150 | | | |
| Saskatchewan Brotherhood of Steam and Operating Engineers..... | | | | 25 |
| Vancouver and District Waterfront Workers' Association..... | 830 | | 235 | |
| Total..... | 46,925 | 12,936 | 6,618 | 457 |

During 1930 the sum of \$479,161 was disbursed by 828 local branch unions in the Dominion for the different classes of benefits indicated below:

| | |
|---------------------------------|-----------|
| Death benefits..... | \$161,445 |
| Unemployment benefits..... | 66,489 |
| Strike benefits..... | 21,352 |
| Sick and accident benefits..... | 171,867 |
| Other benefits..... | 58,008 |
| Total..... | 479,161 |

The above total exceeded by \$33,534 the sum paid out for benefits in 1929 by 795 local unions.

The international labor organizations operating in Canada reported an expenditure of \$28,079,826 for benefits in 1930. The major portion of this sum, however, was not disbursed in the Dominion as the membership in such organizations in that country constituted only about 7 per cent of the total membership of these international bodies.

Labor Journals and Papers Published in Canada

THE following list of the names of various labor journals published in Canada is taken from the twentieth annual report on labor organizations in the Dominion for the calendar year 1930. The last-named 12 papers are not all indorsed or controlled by labor organizations, but they claim to be published in the interests of the trade-union movement.

CANADIAN LABOR PAPERS

| Name of journal | Place of publication | Issued by— |
|---|----------------------|--|
| <i>Publications of labor organizations</i> | | |
| Canadian Congress Journal ¹ (monthly)..... | Ottawa..... | Trades and Labor Congress of Canada. |
| Canadian Unionist ¹ (monthly)..... |do..... | The All-Canadian Congress of Labor. |
| The Communication Worker (bimonthly). | Vancouver.. | Electrical Communication Workers of Canada. |
| One Big Union Bulletin (weekly)..... | Winnipeg.. | One Big Union. |
| Canadian Railroad Employees' Monthly. ¹ | Ottawa..... | Canadian Brotherhood of Railroad Employees. |
| The Booster (monthly)..... | Toronto..... | Brotherhood of Canadian Pacific Express Employees. |
|do..... |do..... | United Postal Employees of Canada. |
| The Postal Journal of Canada (monthly)..... | Vancouver.. | Amalgamated Civil Servants of Canada. |
| The Organizer (monthly)..... | Edmonton.. | Civil Service Association of Alberta. |
| Civil Service Bulletin..... | Montreal.. | Division No. 4, Railway Employees' Department of the A. F. of L. |
| The Federated Railwayman ¹ (monthly)..... |do..... | Provincial Federation of Ontario Fire Fighters. |
|do..... |do..... | Ontario Provincial Council United Brotherhood of Carpenters and Joiners. |
| The Ontario Fire Fighter (quarterly)..... | Toronto..... | Amalgamated Carpenters of Canada. |
| Carpenters' Monthly Bulletin..... |do..... | Quebec Provincial Council of the United Brotherhood of Carpenters and Joiners. |
|do..... |do..... | Railway Mail Clerks' Federation. |
| Monthly Report..... | Winnipeg.. | |
| Le Charpentier Menuisier (monthly)..... |do..... | |
| Railway Mail Clerk (monthly)..... |do..... | |
| <i>Papers of labor interest</i> | | |
| The Citizen (weekly)..... | Halifax..... | |
| The Labor World (weekly)..... | Montreal.. | |
| The Canadian Labor Press (semimonthly). | Ottawa..... | |
| The Canadian Labor World ¹ (monthly)..... | Hamilton.. | |
| The Labor Advocate (monthly)..... | Toronto.. | |
| The Labor News (monthly)..... | Hamilton.. | |
| The Labor Leader (weekly)..... | Toronto.. | |
| Alberta Labor News (weekly)..... | Edmonton.. | |
| The Labor Statesman (weekly)..... | Vancouver.. | |
| The Weekly News (weekly)..... | Winnipeg.. | |
| The Labor Herald (periodically)..... | Toronto.. | |
| The Canadian Trade Unionist (monthly)..... |do..... | |

¹ Devotes some space to matter printed in French.

The Civil Service Review is published at Ottawa by the Civil Service Federation of Canada. That body, however, is not affiliated with any trade-union organization.

The official organ of various international unions operating in North America, with which the Canadian trade-unions are affiliated, are published in the United States.

There are three communist organs published in Canada: The Worker (weekly), Toronto, issued under the auspices of the Communist Party of Canada; Der Kampf (Struggle), a weekly, issued by the revolutionary Jewish workers; and The Young Worker (monthly), Toronto, the organ of the Young Communists' League.

FAMILY ALLOWANCES

Family Allowances for College Professors and Ministers

ACCOUNTS of several family-allowance schemes for college professors and clergymen are given in the December, 1930, issue of *Eugenics* (New Haven).

A family allowance scheme has been in operation in Wells College for several years and is reported by Kerr D. MacMillan, president of that institution, as having given general satisfaction. According to this plan, "any member of the faculty who is married and supporting a family shall receive an additional \$1,000 for spouse and \$250 for each dependent child under the age of 21." This provision includes both man and woman members of the faculty, the administration taking the attitude that though men are now usually the breadwinners, women may at no distant date assume a greater portion of this responsibility.

A salary system somewhat similar to that of Wells College has been proposed for Bennington College¹ by Robert D. Leigh, its president. Under the plan the salary of each regular faculty member would be constituted of two parts: (1) A basic wage to be determined by ability, rank, and length of service, and (2) an allowance of \$500 per annum for each actual dependent. "An actual dependent is to be defined as a wife or husband not employed at a substantial salary outside the home, a dependent mother or father, a child up to the age of 21 or as long as he or she is actually dependent." When the college employs both the husband and wife, the allowances are divided between them, each receiving \$250 per dependent. It is probable that the number of dependents for which allowances will be made will be restricted to five.

The amount of the basic salary, President Leigh points out, will have to be checked in the light of experience. Dr. Jessica B. Peixotto, as a result of her study entitled "Getting and Spending at the Professional Standard of Living," concluded that \$7,000 per annum was the amount which a professor with a family should receive in order to maintain the proper living standard in a first-class university in California. The initial minimum basic salary to be proposed for Bennington College will probably be \$2,250 and the maximum \$5,000, or \$5,500, the allowances for dependents bringing the maximum salary to \$7,000 or \$7,500 for the average professional family. The objective of this scheme is to obtain the most effective service from the members of the faculty. The president of Bennington College also suggests that this opportunity of his college "to revise salaries on an experimental basis may serve in a small way the broader purpose of plotting the most successful salary machinery for other closely-knit professional and salaried workers."

¹ This new institution for the higher education of women will not begin instruction until September, 1932. The salary arrangement here outlined has not yet been passed upon by the trustees of the college.

Another financial recognition, in academic circles, of the burden of family responsibilities is the granting of a bonus by the biological fellowship board of the National Research Council for an infant born during the period of the fellowship.

The London School of Economics makes grants of about \$150 per annum to its teachers for each of their children from 6 to 13 years of age, and increases the allowance to \$300 per annum from ages 13 to 23 if the child remains in school. Basic salaries are the same for men and women.

Two colleges in the Near East, which started under missionary auspices, the American University of Beirut and Robert College of Constantinople, grant allowances to the children of faculty members.

Since the time of John Wesley, the English Methodists have had a family-allowance system. A married minister receives more than an unmarried one. An allowance is paid for each child until he or she reaches 18 years of age. These grants are made from a denominational equalization fund constituted from assessments on all local churches. The allowance is \$40.11 per annum for each child, with an additional \$61.32 per annum for each of his last years at school. These amounts may, however, be raised at the discretion of circuits out of their own funds. The grants are not very substantial, yet the British Methodists' families number four to six children. A similar scheme is in operation among the English Presbyterians. In England there are also four dioceses of the Established Church which have family allowances. The officers of the Salvation Army all over the world receive child allowances, and such grants are made by mission boards. The American Baptist Society is among the few home mission societies paying allowances for children, but in general the foreign mission boards of the leading churches follow this practice. The boards furnish free medical, hospital, and nursing service, and make definite allowances for children, the amounts varying somewhat according to the ages of the children and the country in which they are living. These grants ordinarily run from \$50 to \$200 per annum, and in some instances from \$300 to \$570.

The problem of whether or not family allowances should be paid in proportion to a minister's salary was scheduled for discussion at a conference to be held in New York during the winter of 1930-31.

Development of Family Allowances in France

ON February 19, 1931, the French Central Committee on Family Allowances celebrated the tenth anniversary of its formation.¹ The Minister of Labor presided at a banquet which was attended by other prominent public officials and industrialists. Reports on this meeting are published in *La Journée Industrielle* (Paris), of February 20 and March 1-2, 1931.

On this occasion the president of the committee stated that the organization had made possible a social work, the results of which had surpassed all anticipations. At the beginning of 1920 there were 6 compensation funds and in 1930 the number of such funds was 230.

¹ The actual anniversary was in December, the celebration of the day being postponed.

From 1920 to 1930 the personnel of the affiliated establishments increased from 50,000 to 1,880,000 and the amount of allowances distributed, from 4,000,000 to 350,000,000 francs (\$280,000 to \$13,650,000).² If establishments not affiliated with compensation funds and public services were included, the annual disbursement would reach 1,650,000,000 francs (\$64,350,000) and the working population covered would approximate 4,260,000.

Moreover, the compensation funds have instituted a series of provisions for the protection of maternity and childhood: Birth benefits, nursing bonuses, visiting nurses, maternal and infant hygiene services, prenatal and postnatal consultations, dispensaries, preventoriums, sanitariums, rest houses, vacation colonies, social centers, housekeeping courses, and periodic family education. More recently the compensation funds have served as starting posts for the development of mutual aid societies, and their activities in this respect have been very helpful in putting the social insurance law into operation.

After congratulating the committee on the progress which the institution of family allowances had made, the Minister of Labor emphasized the truly social character of this work done in the last decade by private initiative. He then assured the adherents to the compensation funds of his desire to see Parliament ratify promptly the bill which the Government has presented tending to generalize family allowances.

² Conversions made on basis of exchange rate of franc: In 1920, 7 cents; in 1930, 3.9 cents.

LABOR TURNOVER

Labor Turnover in American Factories, April, 1931

THE Bureau of Labor Statistics presents herewith the April labor turnover rates for manufacturing as a whole and for 10 separate industries. Turnover rates are presented for the first time for the brick and the men's clothing industries. The form of average used in computing the rates shown in the following table is the weighted arithmetic mean.

The indexes for manufacturing as a whole are compiled from reports made to the Bureau of Labor Statistics by representative establishments in over 75 industries employing approximately 1,250,000 people. In the 10 industries for which separate indexes are presented reports were received from representative plants employing approximately 25 per cent of the employees in such industries as shown by the Census of Manufactures of 1927. In the automotive industry schedules are received from plants employing more than 200,000 people. Firms reporting for boots and shoes employ nearly 100,000 people, and those for cotton manufacturing employ approximately 125,000. Foundry and machine-shop firms reporting show nearly 175,000 people on their pay rolls. The furniture industry is represented by firms employing about 45,000, and the iron and steel industry by firms employing 225,000 people. The reports received from representative saw mills have approximately 65,000 employees on their pay rolls, and the plants reporting on slaughtering and meat packing have about 85,000 people. The firms reporting on brick, for which questionnaires were sent out for the first time this month, represent about 15,000 people; men's clothing, the other new industry, was represented by firms employing approximately 50,000.

Table 1 shows for all industries the total separation rate, subdivided into the quit, discharge, and lay-off rates, together with the accession and net turnover rates, presented both on a monthly and an equivalent annual basis.

The total separation rate for industry as a whole for the month of April was 3.41 and the accession rate was 3.06. This is the first time during 1931 that the accession rate has been lower than the separation rate.

Comparing the rates for April with those for March, there was an increase shown for each class of separation; there was a decrease in accessions, however. Comparing the April, 1931, rates with those for April, 1930, there was a marked decrease in all separation rates and also a decrease in the accession rate. The accession rate, however, had a much lower rate of decrease than the total separation rate. In other words, during April, 1930, for each 100 employees on the pay roll 5.21 were separated from their job and 3.55 were hired. During April, 1931, for each 100 employees on the pay roll 3.41 were separated from the pay roll and 3.06 were hired.

TABLE 1.—AVERAGE LABOR TURNOVER RATES IN SELECTED FACTORIES IN 75 INDUSTRIES

A.—Monthly Rates

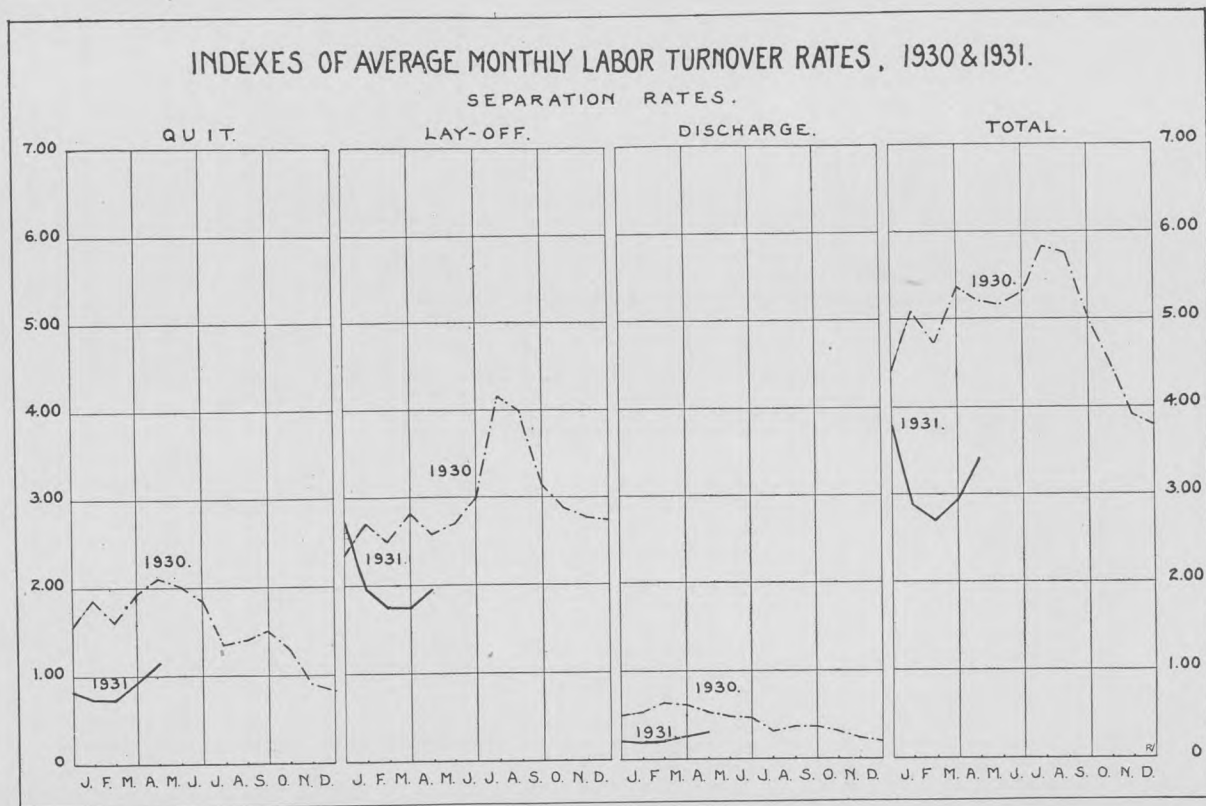
| Month | Separation rates | | | | | | | | Accession rate | | Net turnover rate | |
|----------------|------------------|-------|-------------|-------|------------|-------|-------------|-------|----------------|-------|-------------------|-------|
| | Quit | | Lay-off | | Discharge | | Total | | 1930 | 1931 | 1930 | 1931 |
| | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | | | | |
| January | 1.85 | 0.74 | 2.70 | 1.95 | 0.54 | 0.19 | 5.09 | 2.88 | 3.95 | 2.97 | 3.95 | 2.88 |
| February | 1.60 | .74 | 2.50 | 1.75 | .62 | .20 | 4.72 | 2.69 | 3.94 | 2.82 | 3.94 | 2.69 |
| March | 1.94 | .94 | 2.83 | 1.75 | .60 | .26 | 5.37 | 2.95 | 4.15 | 3.67 | 4.15 | 2.95 |
| April | 2.11 | 1.14 | 2.57 | 1.96 | .53 | .31 | 5.21 | 3.41 | 3.55 | 3.06 | 3.55 | 3.06 |
| May | 2.01 | ----- | 2.68 | ----- | .48 | ----- | 5.17 | ----- | 3.28 | ----- | 3.28 | ----- |
| June | 1.85 | ----- | 3.00 | ----- | .46 | ----- | 5.31 | ----- | 2.92 | ----- | 2.92 | ----- |
| July | 1.35 | ----- | 4.17 | ----- | .32 | ----- | 5.84 | ----- | 2.51 | ----- | 2.51 | ----- |
| August | 1.40 | ----- | 3.99 | ----- | .36 | ----- | 5.75 | ----- | 2.71 | ----- | 2.71 | ----- |
| September | 1.50 | ----- | 3.14 | ----- | .36 | ----- | 5.00 | ----- | 3.27 | ----- | 3.27 | ----- |
| October | 1.29 | ----- | 2.88 | ----- | .32 | ----- | 4.49 | ----- | 2.56 | ----- | 2.56 | ----- |
| November | .90 | ----- | 2.77 | ----- | .24 | ----- | 3.91 | ----- | 2.05 | ----- | 2.05 | ----- |
| December | .84 | ----- | 2.74 | ----- | .21 | ----- | 3.79 | ----- | 2.13 | ----- | 2.13 | ----- |
| Average | 1.55 | ----- | 3.00 | ----- | .42 | ----- | 4.97 | ----- | 3.08 | ----- | 3.08 | ----- |

B.—Equivalent Annual Rates

| | | | | | | | | | | | | |
|----------------|-------------|-------|-------------|-------|------------|-------|-------------|-------|-------------|-------|-------------|-------|
| January | 21.8 | 8.7 | 31.8 | 23.0 | 6.4 | 2.2 | 60.0 | 33.9 | 46.5 | 35.0 | 46.5 | 33.9 |
| February | 20.9 | 9.6 | 32.6 | 22.8 | 8.0 | 2.6 | 61.5 | 35.0 | 51.4 | 36.8 | 51.4 | 35.0 |
| March | 22.8 | 11.1 | 33.3 | 20.6 | 7.1 | 3.1 | 63.2 | 34.8 | 48.8 | 43.2 | 48.8 | 34.8 |
| April | 25.7 | 13.9 | 31.3 | 23.9 | 6.5 | 3.8 | 63.5 | 41.6 | 43.2 | 37.2 | 43.2 | 37.2 |
| May | 23.7 | ----- | 31.5 | ----- | 5.6 | ----- | 60.8 | ----- | 38.6 | ----- | 38.6 | ----- |
| June | 22.5 | ----- | 36.5 | ----- | 5.6 | ----- | 64.6 | ----- | 35.5 | ----- | 35.5 | ----- |
| July | 15.9 | ----- | 49.1 | ----- | 3.8 | ----- | 68.8 | ----- | 29.5 | ----- | 29.5 | ----- |
| August | 16.5 | ----- | 47.0 | ----- | 4.2 | ----- | 67.7 | ----- | 31.9 | ----- | 31.9 | ----- |
| September | 18.3 | ----- | 38.2 | ----- | 4.4 | ----- | 60.9 | ----- | 39.8 | ----- | 39.8 | ----- |
| October | 15.2 | ----- | 33.9 | ----- | 3.8 | ----- | 52.9 | ----- | 30.1 | ----- | 30.1 | ----- |
| November | 11.0 | ----- | 33.7 | ----- | 2.9 | ----- | 47.6 | ----- | 24.9 | ----- | 24.9 | ----- |
| December | 9.9 | ----- | 32.2 | ----- | 2.5 | ----- | 44.6 | ----- | 25.1 | ----- | 25.1 | ----- |
| Average | 18.7 | ----- | 35.9 | ----- | 5.1 | ----- | 59.7 | ----- | 37.1 | ----- | 37.1 | ----- |

In addition to the quit, discharge, lay-off, total separations, and accession rates the bureau presents a net turnover rate. The net turnover rate means the rate of replacement. It is the number of jobs that are vacated and filled per 100 employees. In a plant that is increasing its force the net turnover rate is the same as the separation rate, because while more people are hired than are separated from their jobs the number hired above those leaving is due to expansion and can not be justly charged to turnover. On the other hand, in a plant that is reducing its number of employees the net turnover rate is the same as the accession rate, for while more people are separated from the pay roll than are hired the excess of separations over accessions is due to a reduction of force and therefore can not be logically charged as a turnover expense. The charts on pages 120 and 121 show in graphic form the data shown in Table 1.

Table 2 shows the quit, discharge, lay-off, accession, and net turnover rates for automobiles, boots and shoes, cotton, foundry and machine shops, furniture, iron and steel, sawmills, and slaughtering and meat packing by months for the year 1930 and for the first four months of 1931, presented both on a monthly and an equivalent annual basis.



[13861]

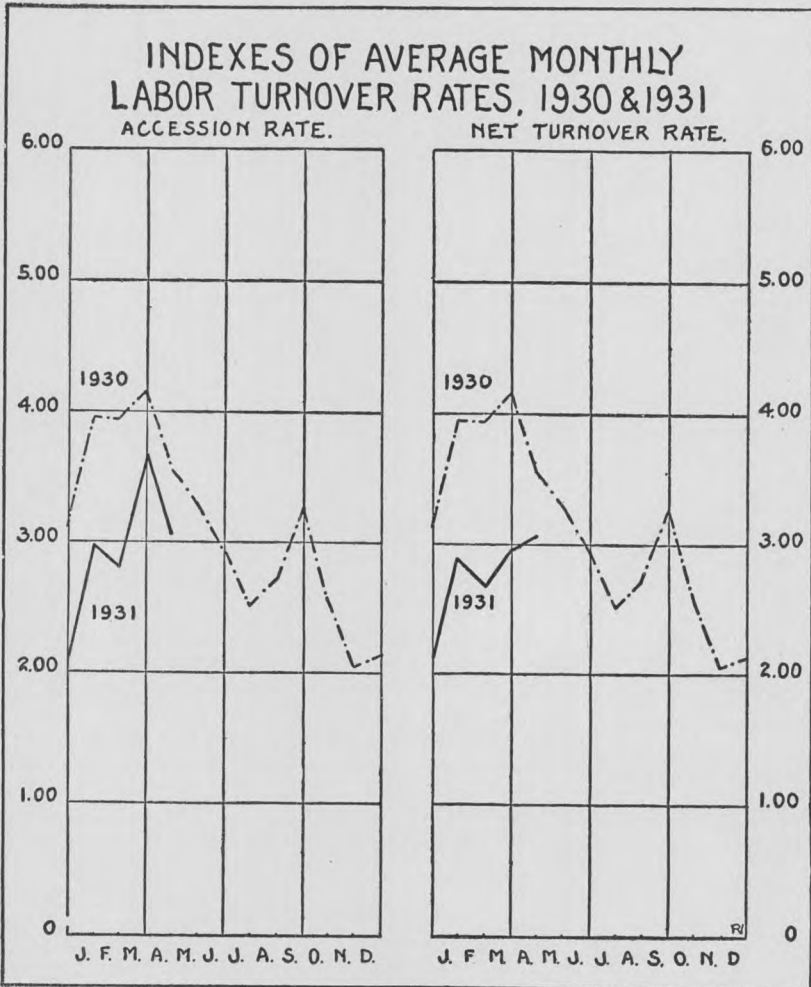


TABLE 2.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES

A.—Monthly Rates

| Industry and month | Separation rates | | | | | | | | Accession rate | | Net turnover rate | |
|-------------------------------------|------------------|-------|-----------|-------|---------|-------|-------|-------|----------------|-------|-------------------|-------|
| | Quit | | Discharge | | Lay-off | | Total | | 1930 | 1931 | 1930 | 1931 |
| | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | | | | |
| Automobiles: | | | | | | | | | | | | |
| January | 2.76 | 0.54 | 0.92 | 0.18 | 5.81 | 2.63 | 9.49 | 3.35 | 13.50 | 2.92 | 9.49 | 2.92 |
| February | 1.16 | .74 | .38 | .21 | 2.31 | 1.71 | 3.85 | 2.66 | 4.74 | 4.12 | 3.85 | 2.66 |
| March | 1.81 | 1.09 | .56 | .39 | 2.04 | 1.71 | 4.41 | 3.19 | 6.92 | 7.76 | 4.41 | 3.19 |
| April | 2.21 | 1.46 | .50 | .44 | 1.97 | 1.86 | 4.68 | 3.76 | 7.45 | 5.21 | 4.68 | 3.76 |
| May | 2.20 | ----- | .50 | ----- | 5.59 | ----- | 8.29 | ----- | 3.98 | ----- | 3.98 | ----- |
| June | 1.69 | ----- | .39 | ----- | 5.90 | ----- | 7.88 | ----- | 2.34 | ----- | 2.34 | ----- |
| July | 1.14 | ----- | .24 | ----- | 9.48 | ----- | 10.86 | ----- | 2.78 | ----- | 2.78 | ----- |
| August | 1.23 | ----- | .38 | ----- | 7.66 | ----- | 9.27 | ----- | 3.69 | ----- | 3.69 | ----- |
| September | 1.29 | ----- | .33 | ----- | 7.42 | ----- | 9.04 | ----- | 3.83 | ----- | 3.83 | ----- |
| October | 1.19 | ----- | .25 | ----- | 5.39 | ----- | 6.83 | ----- | 4.02 | ----- | 4.02 | ----- |
| November | .81 | ----- | .16 | ----- | 3.80 | ----- | 4.77 | ----- | 5.95 | ----- | 4.77 | ----- |
| December | .88 | ----- | .17 | ----- | 3.69 | ----- | 4.74 | ----- | 3.43 | ----- | 3.43 | ----- |
| Average | 1.52 | ----- | .40 | ----- | 5.09 | ----- | 7.01 | ----- | 5.22 | ----- | 5.22 | ----- |
| Boots and shoes: | | | | | | | | | | | | |
| January | 1.97 | 1.23 | .78 | .37 | 1.27 | 1.88 | 4.02 | 3.48 | 5.97 | 4.48 | 4.02 | 3.48 |
| February | 1.93 | 1.27 | .70 | .31 | 1.37 | 1.23 | 4.00 | 2.81 | 3.09 | 5.88 | 3.09 | 2.81 |
| March | 2.00 | 1.58 | .65 | .50 | 1.34 | 1.16 | 3.99 | 3.24 | 3.18 | 4.92 | 3.18 | 3.24 |
| April | 2.48 | 1.97 | .68 | .42 | 2.13 | 1.53 | 5.29 | 3.92 | 2.76 | 4.34 | 2.76 | 3.92 |
| May | 2.06 | ----- | .53 | ----- | 2.47 | ----- | 5.06 | ----- | 3.19 | ----- | 3.19 | ----- |
| June | 1.94 | ----- | .47 | ----- | 1.82 | ----- | 4.23 | ----- | 3.78 | ----- | 3.78 | ----- |
| July | 2.04 | ----- | .57 | ----- | 1.76 | ----- | 4.37 | ----- | 4.74 | ----- | 4.37 | ----- |
| August | 2.19 | ----- | .73 | ----- | 2.84 | ----- | 5.76 | ----- | 4.08 | ----- | 4.08 | ----- |
| September | 2.01 | ----- | .51 | ----- | 2.78 | ----- | 5.30 | ----- | 2.99 | ----- | 2.99 | ----- |
| October | 1.71 | ----- | .47 | ----- | 2.73 | ----- | 4.91 | ----- | 2.05 | ----- | 2.05 | ----- |
| November | 1.00 | ----- | .27 | ----- | 4.38 | ----- | 5.65 | ----- | 2.41 | ----- | 2.41 | ----- |
| December | 1.03 | ----- | .24 | ----- | 3.88 | ----- | 5.15 | ----- | 3.66 | ----- | 3.66 | ----- |
| Average | 1.86 | ----- | .55 | ----- | 2.40 | ----- | 4.81 | ----- | 3.49 | ----- | 3.30 | ----- |
| Cotton manufacturing: | | | | | | | | | | | | |
| January | 2.07 | 1.00 | .65 | .40 | 2.16 | 2.69 | 4.88 | 4.00 | 4.50 | 3.57 | 4.50 | 3.57 |
| February | 1.98 | 1.00 | .60 | .34 | 1.92 | 1.87 | 4.50 | 3.21 | 3.33 | 3.91 | 3.33 | 3.21 |
| March | 2.27 | 1.36 | .69 | .36 | 2.20 | 2.00 | 5.16 | 3.72 | 4.17 | 4.47 | 4.17 | 3.72 |
| April | 2.40 | 1.64 | .68 | .43 | 2.23 | 2.52 | 5.31 | 4.59 | 4.27 | 4.69 | 4.27 | 4.59 |
| May | 2.36 | ----- | .55 | ----- | 2.07 | ----- | 4.98 | ----- | 3.96 | ----- | 3.96 | ----- |
| June | 2.06 | ----- | .58 | ----- | 2.17 | ----- | 4.81 | ----- | 3.25 | ----- | 3.25 | ----- |
| July | 1.91 | ----- | .55 | ----- | 3.34 | ----- | 5.80 | ----- | 2.47 | ----- | 2.47 | ----- |
| August | 1.58 | ----- | .46 | ----- | 3.58 | ----- | 5.62 | ----- | 2.72 | ----- | 2.72 | ----- |
| September | 1.88 | ----- | .46 | ----- | 2.44 | ----- | 4.78 | ----- | 4.58 | ----- | 4.58 | ----- |
| October | 1.41 | ----- | .48 | ----- | 2.09 | ----- | 3.98 | ----- | 4.34 | ----- | 3.98 | ----- |
| November | 1.22 | ----- | .35 | ----- | 2.18 | ----- | 3.75 | ----- | 2.93 | ----- | 2.93 | ----- |
| December | .58 | ----- | .24 | ----- | 1.92 | ----- | 2.74 | ----- | 1.46 | ----- | 1.46 | ----- |
| Average | 1.81 | ----- | .52 | ----- | 2.36 | ----- | 4.69 | ----- | 3.50 | ----- | 3.47 | ----- |
| Foundries and machine shops: | | | | | | | | | | | | |
| January | ----- | .52 | ----- | .22 | ----- | 2.32 | ----- | 3.06 | ----- | 2.93 | ----- | 2.93 |
| February | 1.36 | .55 | .80 | .22 | 2.03 | 2.10 | 4.19 | 2.87 | 4.39 | 2.96 | 4.19 | 2.87 |
| March | 1.88 | .90 | .88 | .25 | 3.24 | 2.72 | 6.00 | 3.87 | 4.63 | 3.38 | 4.63 | 3.38 |
| April | 1.88 | .96 | .80 | .36 | 2.87 | 3.29 | 5.55 | 4.61 | 3.95 | 3.08 | 3.95 | 3.08 |
| May | 1.87 | ----- | .79 | ----- | 4.12 | ----- | 6.78 | ----- | 3.76 | ----- | 3.76 | ----- |
| June | 1.29 | ----- | .54 | ----- | 4.52 | ----- | 6.35 | ----- | 3.05 | ----- | 3.05 | ----- |
| July | 1.11 | ----- | .43 | ----- | 4.58 | ----- | 6.12 | ----- | 2.26 | ----- | 2.26 | ----- |
| August | 1.01 | ----- | .45 | ----- | 4.08 | ----- | 5.54 | ----- | 2.56 | ----- | 2.56 | ----- |
| September | 1.07 | ----- | .44 | ----- | 3.82 | ----- | 5.33 | ----- | 2.45 | ----- | 2.45 | ----- |
| October | .85 | ----- | .47 | ----- | 4.01 | ----- | 5.33 | ----- | 2.27 | ----- | 2.27 | ----- |
| November | .66 | ----- | .22 | ----- | 2.87 | ----- | 3.75 | ----- | 1.85 | ----- | 1.85 | ----- |
| December | .55 | ----- | .26 | ----- | 3.10 | ----- | 3.91 | ----- | 2.05 | ----- | 2.05 | ----- |
| Average | 1.23 | ----- | .55 | ----- | 3.57 | ----- | 5.35 | ----- | 3.02 | ----- | 3.02 | ----- |
| Furniture: | | | | | | | | | | | | |
| January | ----- | .55 | ----- | .25 | ----- | 4.84 | ----- | 5.64 | ----- | 5.24 | ----- | 5.24 |
| February | ----- | .57 | ----- | .34 | ----- | 3.86 | ----- | 4.77 | ----- | 5.51 | ----- | 4.77 |
| March | ----- | .80 | ----- | .37 | ----- | 4.52 | ----- | 5.69 | ----- | 4.78 | ----- | 4.78 |
| April | 1.73 | .95 | .64 | .51 | 4.38 | 3.31 | 6.75 | 4.77 | 3.34 | 4.66 | 3.34 | 4.66 |
| May | 1.26 | ----- | .52 | ----- | 4.39 | ----- | 6.17 | ----- | 2.87 | ----- | 2.87 | ----- |
| June | 1.44 | ----- | .41 | ----- | 4.33 | ----- | 6.18 | ----- | 3.82 | ----- | 3.82 | ----- |
| July | 1.21 | ----- | .40 | ----- | 4.50 | ----- | 6.11 | ----- | 5.09 | ----- | 5.09 | ----- |
| August | 1.18 | ----- | .41 | ----- | 3.45 | ----- | 5.04 | ----- | 5.34 | ----- | 5.04 | ----- |
| September | 1.09 | ----- | .46 | ----- | 3.30 | ----- | 4.85 | ----- | 7.07 | ----- | 4.85 | ----- |
| October | 1.03 | ----- | .45 | ----- | 3.61 | ----- | 5.09 | ----- | 3.72 | ----- | 3.72 | ----- |

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TABLE 2.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES—Continued

A.—Monthly Rates—Continued

| Industry and month | Separation rates | | | | | | | | Accession rate | | Net turnover rate | |
|--------------------------------|------------------|-------|-----------|-------|---------|-------|-------|-------|----------------|-------|-------------------|-------|
| | Quit | | Discharge | | Lay-off | | Total | | 1930 | 1931 | 1930 | 1931 |
| | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | | | | |
| Furniture—Continued. | | | | | | | | | | | | |
| November | 0.99 | ----- | 0.29 | ----- | 5.92 | ----- | 7.20 | ----- | 2.48 | ----- | 2.48 | ----- |
| December | .68 | ----- | .35 | ----- | 6.66 | ----- | 7.69 | ----- | 2.35 | ----- | 2.35 | ----- |
| Average | 1.18 | ----- | .44 | ----- | 4.50 | ----- | 6.12 | ----- | 4.01 | ----- | 4.01 | ----- |
| Iron and steel: | | | | | | | | | | | | |
| January | 1.81 | 0.71 | .45 | 0.09 | 1.24 | 1.36 | 3.50 | 2.16 | 5.52 | 2.52 | 3.50 | 2.16 |
| February | 1.91 | .72 | .34 | .15 | 1.15 | 1.03 | 3.40 | 1.90 | 5.09 | 2.24 | 3.40 | 1.90 |
| March | 1.91 | .71 | .45 | .12 | 1.22 | 1.38 | 3.58 | 2.21 | 4.06 | 2.03 | 3.58 | 2.03 |
| April | 2.26 | .89 | .42 | .15 | 1.32 | 1.90 | 4.00 | 2.94 | 3.88 | 1.69 | 3.88 | 1.69 |
| May | 2.13 | ----- | .40 | ----- | 1.71 | ----- | 4.24 | ----- | 3.25 | ----- | 3.25 | ----- |
| June | 1.87 | ----- | .49 | ----- | 2.25 | ----- | 4.61 | ----- | 2.56 | ----- | 2.56 | ----- |
| July | 1.54 | ----- | .24 | ----- | 2.29 | ----- | 4.07 | ----- | 2.27 | ----- | 2.27 | ----- |
| August | 1.61 | ----- | .26 | ----- | 2.05 | ----- | 3.92 | ----- | 1.91 | ----- | 1.91 | ----- |
| September | 1.45 | ----- | .22 | ----- | 2.16 | ----- | 3.83 | ----- | 2.32 | ----- | 2.32 | ----- |
| October | 1.13 | ----- | .20 | ----- | 2.25 | ----- | 3.58 | ----- | 1.74 | ----- | 1.74 | ----- |
| November | 1.11 | ----- | .13 | ----- | 1.95 | ----- | 3.19 | ----- | 1.31 | ----- | 1.31 | ----- |
| December | .82 | ----- | .10 | ----- | 2.23 | ----- | 3.15 | ----- | 1.40 | ----- | 1.40 | ----- |
| Average | 1.63 | ----- | .31 | ----- | 1.82 | ----- | 3.76 | ----- | 2.94 | ----- | 2.94 | ----- |
| Sawmills: | | | | | | | | | | | | |
| January | 3.80 | .97 | 1.18 | .43 | 4.52 | 8.02 | 9.50 | 9.42 | 9.39 | 9.99 | 9.39 | 9.48 |
| February | 3.39 | 1.22 | 1.37 | .50 | 3.99 | 4.56 | 9.75 | 6.28 | 9.11 | 7.44 | 8.75 | 6.28 |
| March | 3.89 | 1.74 | 1.47 | .51 | 3.54 | 4.36 | 8.90 | 6.81 | 7.91 | 7.07 | 7.91 | 6.21 |
| April | 4.28 | 1.79 | .92 | .46 | 4.97 | 7.17 | 10.17 | 9.42 | 9.66 | 7.21 | 9.66 | 7.21 |
| May | 3.51 | ----- | 1.35 | ----- | 8.10 | ----- | 12.96 | ----- | 10.09 | ----- | 10.09 | ----- |
| June | 2.93 | ----- | .96 | ----- | 5.35 | ----- | 9.24 | ----- | 5.85 | ----- | 5.85 | ----- |
| July | 2.68 | ----- | 1.07 | ----- | 6.98 | ----- | 10.73 | ----- | 6.17 | ----- | 6.17 | ----- |
| August | 3.01 | ----- | .93 | ----- | 6.09 | ----- | 10.03 | ----- | 6.71 | ----- | 6.71 | ----- |
| September | 2.99 | ----- | .95 | ----- | 7.64 | ----- | 11.58 | ----- | 6.93 | ----- | 6.93 | ----- |
| October | 2.26 | ----- | .72 | ----- | 6.58 | ----- | 9.56 | ----- | 8.32 | ----- | 8.32 | ----- |
| November | 1.93 | ----- | .83 | ----- | 7.23 | ----- | 9.99 | ----- | 4.96 | ----- | 4.96 | ----- |
| December | 1.39 | ----- | .93 | ----- | 7.42 | ----- | 9.74 | ----- | 4.51 | ----- | 4.51 | ----- |
| Average | 3.01 | ----- | 1.06 | ----- | 6.03 | ----- | 10.10 | ----- | 7.47 | ----- | 7.47 | ----- |
| Slaughtering and meat packing: | | | | | | | | | | | | |
| January | 2.32 | 1.29 | .91 | .61 | 6.68 | 4.40 | 9.91 | 6.30 | 10.02 | 9.50 | 9.91 | 6.30 |
| February | 2.37 | 1.56 | .96 | .68 | 7.70 | 6.48 | 11.03 | 8.72 | 7.39 | 5.02 | 7.39 | 5.02 |
| March | 2.49 | 1.41 | .86 | .37 | 7.51 | 6.88 | 10.86 | 8.66 | 5.23 | 5.19 | 5.23 | 5.19 |
| April | 2.91 | 1.42 | .75 | .47 | 4.47 | 5.02 | 8.13 | 6.91 | 8.47 | 6.31 | 8.13 | 6.31 |
| May | 2.84 | ----- | .79 | ----- | 4.14 | ----- | 7.77 | ----- | 9.01 | ----- | 7.77 | ----- |
| June | 2.72 | ----- | .88 | ----- | 4.59 | ----- | 8.19 | ----- | 10.34 | ----- | 8.19 | ----- |
| July | 2.08 | ----- | .79 | ----- | 5.34 | ----- | 8.21 | ----- | 6.92 | ----- | 6.92 | ----- |
| August | 2.09 | ----- | .72 | ----- | 5.14 | ----- | 7.95 | ----- | 6.34 | ----- | 6.34 | ----- |
| September | 2.26 | ----- | .65 | ----- | 3.79 | ----- | 6.70 | ----- | 7.33 | ----- | 6.70 | ----- |
| October | 1.70 | ----- | .73 | ----- | 4.67 | ----- | 7.10 | ----- | 7.62 | ----- | 7.10 | ----- |
| November | 1.12 | ----- | .56 | ----- | 4.80 | ----- | 6.48 | ----- | 7.30 | ----- | 6.48 | ----- |
| December | 1.69 | ----- | .57 | ----- | 5.59 | ----- | 7.85 | ----- | 6.24 | ----- | 6.24 | ----- |
| Average | 2.22 | ----- | .76 | ----- | 5.37 | ----- | 8.35 | ----- | 7.68 | ----- | 7.68 | ----- |

B.—Equivalent Annual Rates

| | | | | | | | | | | | | |
|--------------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Automobiles: | | | | | | | | | | | | |
| January | 32.5 | 6.4 | 10.8 | 2.1 | 68.4 | 31.0 | 111.7 | 39.5 | 158.9 | 34.4 | 111.7 | 34.4 |
| February | 15.1 | 9.6 | 5.0 | 2.7 | 30.1 | 22.3 | 50.2 | 34.6 | 61.8 | 53.7 | 50.2 | 34.6 |
| March | 21.3 | 12.8 | 6.6 | 4.6 | 24.0 | 20.1 | 51.9 | 37.5 | 81.4 | 91.3 | 51.9 | 37.5 |
| April | 26.9 | 17.8 | 6.1 | 5.4 | 24.0 | 22.6 | 57.0 | 45.8 | 90.7 | 63.4 | 57.0 | 45.8 |
| May | 25.9 | ----- | 5.9 | ----- | 65.8 | ----- | 97.6 | ----- | 46.8 | ----- | 46.8 | ----- |
| June | 19.4 | ----- | 4.7 | ----- | 71.8 | ----- | 95.9 | ----- | 28.5 | ----- | 28.5 | ----- |
| July | 13.4 | ----- | 2.8 | ----- | 111.6 | ----- | 127.8 | ----- | 32.7 | ----- | 32.7 | ----- |
| August | 14.5 | ----- | 4.5 | ----- | 90.2 | ----- | 109.2 | ----- | 43.4 | ----- | 43.4 | ----- |
| September | 15.7 | ----- | 4.0 | ----- | 90.3 | ----- | 110.0 | ----- | 46.6 | ----- | 46.6 | ----- |
| October | 14.0 | ----- | 2.9 | ----- | 63.4 | ----- | 80.3 | ----- | 47.3 | ----- | 47.3 | ----- |
| November | 9.9 | ----- | 1.9 | ----- | 46.2 | ----- | 58.0 | ----- | 72.4 | ----- | 58.0 | ----- |
| December | 10.4 | ----- | 2.0 | ----- | 43.4 | ----- | 55.8 | ----- | 40.4 | ----- | 40.4 | ----- |
| Average | 18.3 | ----- | 4.8 | ----- | 60.8 | ----- | 83.8 | ----- | 62.6 | ----- | 62.6 | ----- |

TABLE 2.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES—Continued

B.—Equivalent Annual Rates—Continued

| Industry and month | Separation rates | | | | | | | | Accession rate | | Net turn-over rate | |
|-------------------------------------|------------------|------|-----------|------|---------|------|-------|------|----------------|------|--------------------|------|
| | Quit | | Discharge | | Lay-off | | Total | | 1930 | 1931 | 1930 | 1931 |
| | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | | | | |
| Boots and shoes: | | | | | | | | | | | | |
| January | 23.2 | 14.5 | 9.2 | 4.4 | 14.9 | 22.1 | 47.3 | 41.0 | 70.3 | 52.7 | 47.3 | 41.0 |
| February | 25.2 | 16.6 | 9.1 | 4.0 | 17.9 | 16.0 | 52.2 | 36.6 | 40.3 | 76.7 | 40.3 | 36.6 |
| March | 23.5 | 18.6 | 7.7 | 5.9 | 15.8 | 13.7 | 47.0 | 38.2 | 37.4 | 57.9 | 37.4 | 38.2 |
| April | 30.2 | 24.0 | 8.3 | 5.1 | 25.9 | 18.6 | 64.4 | 47.7 | 33.6 | 52.8 | 33.6 | 47.7 |
| May | 24.2 | | 6.2 | | 29.1 | | 59.5 | | 37.5 | | 37.5 | |
| June | 23.6 | | 5.7 | | 22.1 | | 51.4 | | 46.0 | | 46.0 | |
| July | 24.0 | | 6.7 | | 20.7 | | 51.4 | | 55.8 | | 51.4 | |
| August | 25.8 | | 8.6 | | 33.4 | | 67.8 | | 48.0 | | 48.0 | |
| September | 24.5 | | 6.2 | | 33.8 | | 64.5 | | 36.4 | | 36.4 | |
| October | 20.1 | | 5.5 | | 32.1 | | 57.7 | | 24.1 | | 24.1 | |
| November | 12.2 | | 3.3 | | 53.3 | | 68.8 | | 29.3 | | 29.3 | |
| December | 12.1 | | 2.8 | | 45.7 | | 60.6 | | 43.1 | | 43.1 | |
| Average | 22.4 | | 6.6 | | 28.7 | | 57.7 | | 41.8 | | 41.8 | |
| Cotton manufacturing: | | | | | | | | | | | | |
| January | 24.4 | 11.8 | 7.7 | 4.7 | 25.4 | 30.6 | 57.5 | 47.1 | 53.0 | 42.0 | 53.0 | 42.0 |
| February | 25.8 | 13.0 | 7.8 | 4.4 | 25.0 | 24.4 | 58.6 | 41.8 | 43.4 | 51.0 | 43.4 | 41.8 |
| March | 26.7 | 16.0 | 8.1 | 4.2 | 25.9 | 23.5 | 60.7 | 43.7 | 49.1 | 52.6 | 49.1 | 43.7 |
| April | 29.2 | 20.0 | 8.3 | 5.2 | 27.1 | 30.7 | 64.6 | 55.9 | 52.0 | 57.1 | 52.0 | 55.9 |
| May | 27.8 | | 6.5 | | 24.4 | | 53.7 | | 46.5 | | 46.5 | |
| June | 25.1 | | 7.1 | | 26.4 | | 58.6 | | 39.6 | | 39.6 | |
| July | 22.5 | | 7.1 | | 39.3 | | 68.3 | | 29.1 | | 29.1 | |
| August | 18.6 | | 5.4 | | 42.1 | | 66.1 | | 32.0 | | 32.0 | |
| September | 22.9 | | 5.6 | | 29.7 | | 58.2 | | 55.7 | | 55.7 | |
| October | 16.6 | | 5.6 | | 24.6 | | 46.8 | | 51.1 | | 46.8 | |
| November | 14.8 | | 4.3 | | 26.5 | | 45.6 | | 35.7 | | 35.7 | |
| December | 6.8 | | 2.8 | | 22.6 | | 32.2 | | 17.2 | | 17.2 | |
| Average | 21.8 | | 6.3 | | 28.3 | | 56.3 | | 42.0 | | 41.7 | |
| Foundries and machine shops: | | | | | | | | | | | | |
| January | | 6.1 | | 2.6 | | 27.3 | | 36.0 | | 34.5 | | 35.5 |
| February | 17.7 | 7.2 | 10.4 | 2.9 | 26.5 | 27.4 | 54.6 | 37.5 | 57.2 | 38.6 | 54.6 | 37.5 |
| March | 17.1 | 10.6 | 10.4 | 2.9 | 38.1 | 32.0 | 70.6 | 45.5 | 54.5 | 39.8 | 54.5 | 39.8 |
| April | 22.9 | 11.7 | 9.7 | 4.4 | 34.9 | 40.0 | 67.5 | 56.1 | 48.1 | 37.5 | 48.1 | 37.5 |
| May | 22.0 | | 9.3 | | 48.5 | | 79.8 | | 44.3 | | 44.3 | |
| June | 15.7 | | 6.6 | | 55.0 | | 77.3 | | 37.1 | | 37.1 | |
| July | 13.1 | | 5.1 | | 53.9 | | 72.1 | | 26.6 | | 26.6 | |
| August | 11.9 | | 5.3 | | 48.0 | | 65.2 | | 30.1 | | 30.1 | |
| September | 13.0 | | 5.4 | | 46.5 | | 64.9 | | 29.8 | | 29.8 | |
| October | 10.0 | | 5.5 | | 47.2 | | 62.7 | | 26.7 | | 26.7 | |
| November | 8.0 | | 2.7 | | 34.9 | | 45.6 | | 22.5 | | 22.5 | |
| December | 6.5 | | 3.1 | | 36.5 | | 46.1 | | 24.1 | | 24.1 | |
| Average | 14.8 | | 6.7 | | 42.7 | | 64.2 | | 36.5 | | 36.5 | |
| Furniture: | | | | | | | | | | | | |
| January | | 6.5 | | 2.9 | | 57.0 | | 66.4 | | 61.7 | | 61.7 |
| February | | 7.4 | | 4.4 | | 50.3 | | 62.1 | | 71.9 | | 62.1 |
| March | | 9.4 | | 4.4 | | 53.2 | | 67.0 | | 56.3 | | 56.3 |
| April | 21.1 | 11.6 | 7.8 | 6.2 | 53.3 | 40.3 | 82.2 | 58.1 | 40.6 | 56.7 | 40.6 | 56.7 |
| May | 14.8 | | 6.1 | | 51.6 | | 72.5 | | 33.8 | | 33.8 | |
| June | 17.5 | | 5.0 | | 52.7 | | 75.2 | | 46.5 | | 46.5 | |
| July | 14.2 | | 4.7 | | 53.0 | | 71.9 | | 59.9 | | 59.9 | |
| August | 13.9 | | 4.8 | | 40.6 | | 59.3 | | 62.9 | | 59.3 | |
| September | 13.3 | | 5.6 | | 40.2 | | 59.1 | | 86.0 | | 59.1 | |
| October | 12.1 | | 5.3 | | 42.5 | | 59.9 | | 43.8 | | 43.8 | |
| November | 12.0 | | 3.5 | | 72.0 | | 87.5 | | 30.2 | | 30.2 | |
| December | 8.0 | | 4.1 | | 78.4 | | 90.5 | | 27.7 | | 27.7 | |
| Average | 14.1 | | 5.2 | | 53.8 | | 73.1 | | 47.9 | | 47.9 | |
| Iron and steel: | | | | | | | | | | | | |
| January | 21.3 | 8.4 | 5.3 | 1.1 | 14.6 | 16.0 | 41.2 | 25.5 | 65.0 | 29.7 | 41.2 | 25.5 |
| February | 24.9 | 9.4 | 4.4 | 2.0 | 15.0 | 13.4 | 44.3 | 24.8 | 66.4 | 29.2 | 44.3 | 24.8 |
| March | 22.5 | 8.4 | 5.3 | 1.4 | 14.4 | 16.2 | 42.2 | 26.0 | 47.8 | 23.9 | 42.2 | 23.9 |
| April | 27.5 | 10.8 | 5.1 | 1.8 | 16.1 | 23.1 | 48.7 | 35.7 | 47.2 | 20.6 | 47.2 | 20.6 |
| May | 25.1 | | 4.7 | | 20.1 | | 49.9 | | 38.3 | | 38.3 | |
| June | 22.8 | | 6.0 | | 27.4 | | 56.2 | | 31.2 | | 31.2 | |
| July | 18.1 | | 2.8 | | 27.0 | | 47.9 | | 26.7 | | 26.7 | |
| August | 18.9 | | 3.1 | | 24.1 | | 46.1 | | 22.5 | | 22.5 | |
| September | 17.6 | | 2.7 | | 26.3 | | 46.6 | | 28.2 | | 28.2 | |
| October | 13.3 | | 2.4 | | 26.5 | | 42.2 | | 20.5 | | 20.5 | |

TABLE 2.—AVERAGE LABOR TURNOVER RATES IN SPECIFIED INDUSTRIES—Continued

B.—Equivalent Annual Rates—Continued

| Industry and month | Separation rates | | | | | | | | Accession rate | | Net turnover rate | |
|--------------------------------|------------------|-------|-----------|-------|---------|-------|-------|-------|----------------|-------|-------------------|-------|
| | Quit | | Discharge | | Lay-off | | Total | | | | | |
| | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 | 1930 | 1931 |
| Iron and steel—Continued. | | | | | | | | | | | | |
| November..... | 13.5 | ----- | 1.6 | ----- | 23.7 | ----- | 38.8 | ----- | 15.9 | ----- | 15.9 | ----- |
| December..... | 9.7 | ----- | 1.2 | ----- | 26.2 | ----- | 37.1 | ----- | 16.5 | ----- | 16.5 | ----- |
| Average..... | 19.6 | ----- | 3.7 | ----- | 21.8 | ----- | 45.1 | ----- | 35.5 | ----- | 35.5 | ----- |
| Sawmills: | | | | | | | | | | | | |
| January..... | 44.7 | 11.4 | 13.9 | 5.1 | 53.2 | 94.4 | 110.8 | 111.9 | 110.5 | 117.6 | 110.5 | 110.9 |
| February..... | 44.2 | 15.9 | 17.9 | 6.5 | 52.0 | 59.5 | 114.1 | 81.9 | 118.8 | 97.0 | 114.1 | 81.9 |
| March..... | 45.8 | 20.5 | 17.3 | 6.0 | 41.7 | 53.7 | 104.8 | 80.2 | 93.1 | 83.2 | 93.1 | 80.2 |
| April..... | 52.1 | 21.8 | 11.2 | 5.6 | 60.5 | 87.3 | 123.8 | 114.7 | 117.6 | 87.7 | 117.6 | 87.7 |
| May..... | 41.3 | ----- | 15.9 | ----- | 95.3 | ----- | 152.3 | ----- | 118.8 | ----- | 118.8 | ----- |
| June..... | 35.7 | ----- | 11.7 | ----- | 65.1 | ----- | 112.3 | ----- | 71.2 | ----- | 71.2 | ----- |
| July..... | 31.5 | ----- | 12.6 | ----- | 82.2 | ----- | 126.3 | ----- | 72.6 | ----- | 72.6 | ----- |
| August..... | 35.4 | ----- | 10.9 | ----- | 71.7 | ----- | 118.0 | ----- | 79.0 | ----- | 79.0 | ----- |
| September..... | 36.4 | ----- | 11.6 | ----- | 93.0 | ----- | 141.0 | ----- | 84.3 | ----- | 84.3 | ----- |
| October..... | 26.6 | ----- | 8.5 | ----- | 77.4 | ----- | 112.5 | ----- | 97.9 | ----- | 97.9 | ----- |
| November..... | 23.5 | ----- | 10.1 | ----- | 88.0 | ----- | 121.6 | ----- | 60.4 | ----- | 60.4 | ----- |
| December..... | 16.4 | ----- | 10.9 | ----- | 87.3 | ----- | 114.6 | ----- | 53.1 | ----- | 53.1 | ----- |
| Average..... | 36.1 | ----- | 12.7 | ----- | 72.3 | ----- | 121.1 | ----- | 89.8 | ----- | 89.8 | ----- |
| Slaughtering and meat packing: | | | | | | | | | | | | |
| January..... | 27.3 | 15.2 | 10.7 | 7.2 | 78.6 | 51.8 | 116.6 | 74.2 | 117.9 | 111.8 | 116.6 | 74.2 |
| February..... | 33.9 | 20.3 | 12.5 | 8.9 | 100.4 | 84.5 | 143.8 | 113.7 | 96.4 | 65.5 | 96.4 | 65.5 |
| March..... | 29.3 | 16.6 | 10.1 | 4.4 | 88.4 | 81.0 | 127.8 | 102.0 | 61.6 | 61.1 | 61.6 | 61.1 |
| April..... | 35.4 | 17.3 | 9.1 | 5.7 | 54.4 | 61.1 | 98.9 | 84.1 | 103.1 | 76.8 | 98.9 | 76.8 |
| May..... | 33.4 | ----- | 9.3 | ----- | 48.7 | ----- | 91.4 | ----- | 106.0 | ----- | 106.0 | ----- |
| June..... | 33.1 | ----- | 10.7 | ----- | 55.9 | ----- | 99.7 | ----- | 125.8 | ----- | 125.8 | ----- |
| July..... | 24.5 | ----- | 9.3 | ----- | 62.9 | ----- | 96.7 | ----- | 81.4 | ----- | 81.4 | ----- |
| August..... | 24.6 | ----- | 8.5 | ----- | 60.5 | ----- | 93.6 | ----- | 74.6 | ----- | 74.6 | ----- |
| September..... | 27.5 | ----- | 7.9 | ----- | 46.1 | ----- | 81.5 | ----- | 89.2 | ----- | 89.2 | ----- |
| October..... | 20.0 | ----- | 8.6 | ----- | 55.0 | ----- | 83.6 | ----- | 89.7 | ----- | 89.7 | ----- |
| November..... | 13.6 | ----- | 6.8 | ----- | 58.4 | ----- | 78.8 | ----- | 88.8 | ----- | 88.8 | ----- |
| December..... | 19.9 | ----- | 6.7 | ----- | 65.8 | ----- | 92.4 | ----- | 73.4 | ----- | 73.4 | ----- |
| Average..... | 26.6 | ----- | 9.2 | ----- | 64.6 | ----- | 100.4 | ----- | 92.3 | ----- | 92.3 | ----- |

Table 3 shows for the brick and the men's clothing industries the total separation rate, subdivided into the quit, discharge, and lay-off rates, together with the accession rate and the net turnover rate for the month of April, presented both on a monthly and an equivalent annual basis.

Data for these industries were collected for the first time during the month of April.

TABLE 3.—AVERAGE LABOR TURNOVER RATES IN THE BRICK AND MEN'S CLOTHING INDUSTRIES FOR THE MONTH OF APRIL, 1931

| Industry | Separation rates | | | | | | | | Accession rate | | Net turnover rate | |
|---------------------|------------------|-------------------|-----------|-------------------|---------|-------------------|---------|-------------------|----------------|-------------------|-------------------|-------------------|
| | Quit | | Discharge | | Lay-off | | Total | | | | | |
| | Monthly | Equivalent annual | Monthly | Equivalent annual | Monthly | Equivalent annual | Monthly | Equivalent annual | Monthly | Equivalent annual | Monthly | Equivalent annual |
| Brick..... | 0.86 | 10.5 | 0.61 | 7.4 | 4.01 | 48.8 | 5.48 | 66.7 | 8.68 | 105.6 | 5.48 | 66.7 |
| Men's clothing..... | 1.40 | 17.0 | .12 | 1.5 | 2.20 | 26.8 | 3.72 | 45.3 | 3.22 | 39.2 | 3.22 | 39.2 |

A Standard Procedure for Compiling Turnover Statistics

LABOR turnover is a constant cause of loss to industry. When a new employee is hired to take the place of one who leaves, there is an expense involved in interviewing and hiring the new man. There is always an uncertainty as to his ability and efficiency that entails a greater amount of supervision than is given to an employee long in service. The new man can not be trusted fully until his capacity is known. The new man must learn the ways of the factory and he may frequently spoil material in his work.

So serious has been, and is, the subject of labor turnover that the Bureau of Labor Statistics is now collecting and publishing monthly figures relating thereto from about 3,500 manufacturing establishments to the end that the public may be informed of conditions, and that employers may have the opportunity to compare their turnover with that of manufacturing industry as a whole, and with that of certain particular lines of manufacture. It is believed that the publication of these figures will aid in stabilizing employment and reducing the cost of turnover.

The information is issued by the bureau in the form of turnover rates or indexes, computed from the average number of employees and the number of accessions and separations in the month.

A general rate is published each month for manufacturing industries as a whole, based on reports received at present (May, 1931) from about 1,500 employers in 75 different lines of manufacture. A balanced proportion is given to the several industries included in this general rate.

In addition, the bureau has expanded its monthly inquiry to such an extent in 10 industries that separate rates are now being published for them. These 10 industries collectively represent approximately 3,000 establishment. A due proportion of the establishments in these several lines are included in the general index.

The bureau has adopted the following definitions and methods in its handling of labor turnover statistics:

Labor turnover means the replacements in a working force made necessary by employees leaving the service.

An accession means the hiring of a new employee or the rehiring of an old employee.

A separation means an employee leaving the service. Separations are classified in three groups—quits, lay-offs, and discharges.

A quit is termination of employment, generally initiated by the worker because of his desire to leave, but sometimes due to his physical incapacity.

A lay-off is a termination of employment at the will of the employer, without prejudice to the worker. A permanent lay-off, a long lay-off, and an indefinite lay-off are counted by the bureau as lay-offs, but a short, definite lay-off with the name of the worker remaining on the pay roll is not counted as such.

A discharge is a termination of employment at the will of the employer, with prejudice to the worker because of some fault on the part of the worker.

A quit on the part of a worker may be due to—

- a. Dissatisfaction as to wages, hours, working conditions, or labor policies.
- b. The opportunity to get a more desirable position.
- c. A desire not to work anywhere.
- d. Sickness, disability, old age, or death.

A lay-off of the worker may be due to—

- a. Lack of orders.
- b. Lack of material.
- c. Change in product.
- d. Breakdown of plant.
- e. Reorganization of force.
- f. Release of temporary help.
- g. Introduction of labor-saving machinery.

A discharge of a worker may be due to his—

- a. Incompetence.
- b. Insubordination.
- c. Violation of rules.
- d. Dishonesty.
- e. Misfit—physical or mental.
- f. Laziness.

The above enumeration lists at least the main causes.

Each month the bureau sends out a questionnaire and gets from its correspondent establishments the following information for the month just closed:

1. Number of separations during period—
 - a. Number of quits.
 - b. Number of discharges.
 - c. Number of lay-offs.
 - d. Total separations.
2. Number of accessions during period.
3. Number of factory workers on pay roll—
 - a. At beginning of period.
 - b. At end of period.

The purpose of the last two questions is to get an approximate number on the pay roll. This is determined by adding the number at the beginning of the period and at the end of the period and dividing by two. Some plants are able to furnish the average of daily counts of the number on the pay roll. Others can furnish an average of the number on the weekly pay roll.

The items of separation and accession are divided by the average number on the pay roll to get the rate per 100 employees for the month. In compiling the rates the actual numbers for the several establishments are added and the rates computed from the grand total. Thus each establishment has an influence or "weight" in the rate in proportion to its size.

To obtain the equivalent annual rate the monthly rate is multiplied by 11.77 if the month has 31 days; by 12.17 if it is a 30-day month; by 13.04 if it is a 28-day month; and by 12.62 if it is a 29-day month.

In comparing monthly rates the number of the days in the month should be considered as no adjustment is made in the monthly rate because of the number of its days. With the adjustment in the equivalent yearly rate this latter figure affords a more exact comparison as between months.

When an establishment is growing in size it hires new employees for two reasons—first, to fill the places of employees who separate from the service, and, second, to increase the force. The replacement is a turnover, but the additional hiring is not a part of turnover proper. Hence, in this instance the turnover rate is equal to the separation rate. However, when an establishment is decreasing in size only a part of the vacancies occurring are filled. Here the net turnover rate is equal to the accession rate.

The reporting establishments are requested to omit office employees, when practicable, so as to limit the figures to factory workers. The establishments are also asked to include temporary help, part-time workers, and employees in training, in the figures reported. This inclusion is desired in order to show the degree of stability of employment as it affects all workers.

Pay rolls sometimes carry names of persons for a considerable time after the end of employment, and the bureau advises that such dead names be cleared from the pay roll at frequent intervals to insure the proper base in the computation of rates.

There is difficulty at times in getting correct statements of causes of separation. A cause may be stated which in fact is only a nominal one, with the real cause concealed. The bureau does not attempt to ascertain causes in detail, but personnel managers will find it helpful to make careful inquiry concerning causes in their efforts to reduce labor turnover.

HOUSING

Building Permits in Principal Cities, April, 1931

BUILDING permit schedules have been received by the Bureau of Labor Statistics from 340 identical cities having a population of 25,000 or over for the months of March and April, 1931, and from 292 identical cities for the months of April 1930, and April, 1931.

The cost figures as shown in the following tables apply to the cost of the buildings as estimated by the prospective builders on applying for their permits to build. No land costs are included. Only building projects within the corporate limits in the cities enumerated are shown. The States of Illinois, Massachusetts, New Jersey, New York, and Pennsylvania, through their departments of labor, are cooperating with the United States Bureau of Labor Statistics in the collection of these data.

Table 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, and of total building operations in 340 identical cities of the United States by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS IN 340 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN MARCH AND APRIL, 1931, BY GEOGRAPHIC DIVISIONS

| Geographic division | New residential buildings | | | | New nonresidential buildings, estimated cost | | Total construction (including alterations and repairs), estimated cost | |
|---------------------------|---------------------------|-------------|--|-------------|--|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | | | | |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| New England..... | \$3,187,200 | \$4,117,420 | 625 | 816 | \$7,778,484 | \$3,285,449 | \$12,663,931 | \$9,132,639 |
| Middle Atlantic..... | 23,936,846 | 28,825,173 | 5,186 | 6,706 | 34,614,205 | 44,520,260 | 66,296,576 | 82,206,684 |
| East North Central..... | 6,792,627 | 7,733,123 | 1,371 | 1,516 | 22,198,567 | 11,377,662 | 32,241,989 | 23,666,217 |
| West North Central..... | 2,620,348 | 3,134,987 | 668 | 755 | 3,251,530 | 8,494,417 | 7,516,027 | 12,575,683 |
| South Atlantic..... | 3,752,918 | 6,322,045 | 735 | 1,423 | 3,190,768 | 2,227,682 | 8,456,090 | 10,486,549 |
| South Central..... | 2,924,780 | 3,363,203 | 990 | 980 | 5,499,073 | 5,835,377 | 9,469,137 | 10,254,294 |
| Mountain and Pacific..... | 7,198,127 | 6,726,909 | 2,172 | 1,965 | 6,358,167 | 4,402,788 | 15,636,399 | 13,370,480 |
| Total..... | 50,412,846 | 60,222,860 | 11,747 | 14,161 | 82,890,794 | 80,143,635 | 152,280,149 | 161,692,546 |
| Per cent of change..... | | +19.5 | | +20.5 | | -3.3 | | +6.2 |

The estimated cost of the buildings for which permits were issued during April, 1931, was \$161,692,546, an increase of 6.2 per cent over the estimated cost of the buildings for which permits were issued during the month of March. New residential buildings increased 19.5 per cent in estimated cost comparing April permits with March permits. The estimated cost of new nonresidential buildings decreased 3.3 per cent comparing April with March. During April, 1931, 14,161 families were provided with dwelling places in new buildings, an increase of 20.5 per cent as compared with those provided for by permits issued during March.

All of the geographic divisions except the Mountain and Pacific States show increases in indicated expenditures for new residential buildings. These increases range from 13.8 per cent in the East North Central States to 68.6 per cent in the South Atlantic States. There was a decrease of 6.5 per cent in indicated expenditures for new residential buildings in the Mountain and Pacific States during April as compared with March.

Increases in indicated expenditures for new nonresidential buildings were registered in the Middle Atlantic States, the West North Central States, and the South Central States. These increases range from 6.1 per cent in the South Central States to 161.2 per cent in the West North Central States. Decreases in the estimated cost of new nonresidential buildings were shown in the New England States, the East North Central States, the South Atlantic States, and the Mountain and Pacific States. These decreases range from 30.1 per cent in the South Atlantic States to 57.8 per cent in the New England States.

Increases in the number of family dwelling units provided are shown in all geographic divisions except the South Central States and the Mountain and Pacific States.

Table 2 shows the estimated cost of additions, alterations, and repairs as shown by permits issued, together with the per cent of increase or decrease during April, 1931, as compared with March, 1931, in 340 identical cities in the United States by geographic divisions.

TABLE 2.—ESTIMATED COST OF ADDITIONS, ALTERATIONS, AND REPAIRS IN 340 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN MARCH AND APRIL, 1931, BY GEOGRAPHIC DIVISIONS

| Geographic division | Estimated cost | | Per cent of change, April, compared with March |
|---------------------------|----------------|-------------|--|
| | March, 1931 | April, 1931 | |
| New England..... | \$1,698,247 | \$1,729,770 | +1.9 |
| Middle Atlantic..... | 7,745,525 | 8,861,251 | +14.4 |
| East North Central..... | 3,250,795 | 4,555,432 | +40.1 |
| West North Central..... | 1,644,149 | 946,279 | -42.4 |
| South Atlantic..... | 1,512,404 | 1,936,822 | +28.1 |
| South Central..... | 1,045,284 | 1,055,714 | +1.0 |
| Mountain and Pacific..... | 2,080,105 | 2,240,783 | +7.7 |
| Total..... | 18,976,509 | 21,326,051 | +12.4 |

Permits issued for additions, alterations, and repairs in these 340 cities show an increase of 12.4 per cent in April, 1931, as compared with March, 1931.

Increases were shown in all of the geographic divisions except the West North Central. These increases ranged from 1.0 per cent in the South Central division to 40.1 per cent in the East North Central division.

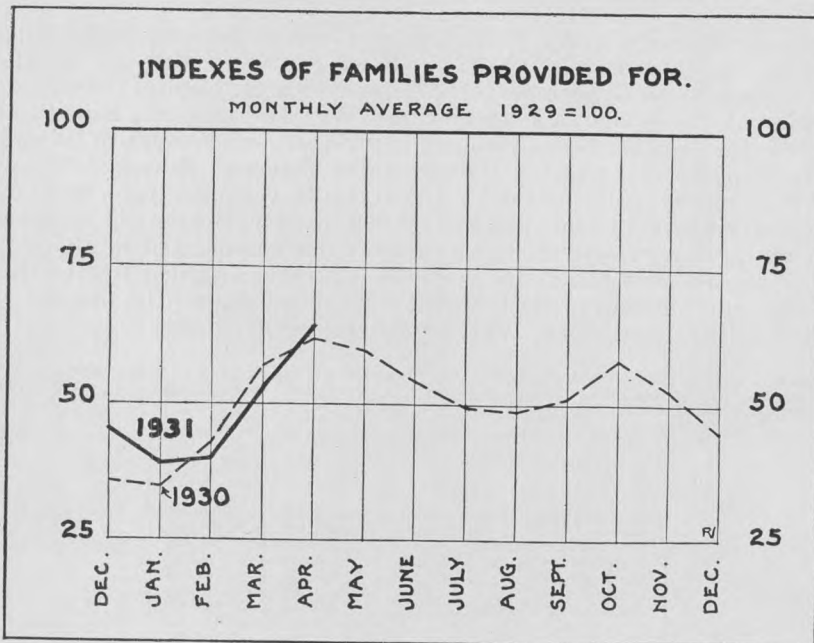
Table 3 shows the index numbers of families provided for and the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations. These indexes are worked on the chain system with the monthly average of 1929 equaling 100.

TABLE 3.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES, JANUARY, 1930, TO APRIL, 1931, INCLUSIVE

[Monthly average, 1929=100]

| Month | Families provided for | Estimated cost of— | | | |
|----------------|-----------------------|---------------------------|-------------------------------|-------------------------------------|---------------------------|
| | | New residential buildings | New non-residential buildings | Additions, alterations, and repairs | Total building operations |
| 1930 | | | | | |
| January..... | 34.2 | 29.4 | 64.3 | 55.1 | 46.1 |
| February..... | 43.0 | 34.7 | 51.8 | 57.5 | 44.1 |
| March..... | 57.1 | 47.2 | 87.1 | 77.5 | 66.4 |
| April..... | 62.0 | 51.0 | 100.1 | 81.8 | 73.8 |
| May..... | 59.6 | 48.5 | 90.7 | 84.5 | 69.3 |
| June..... | 54.4 | 45.1 | 82.5 | 74.6 | 63.3 |
| July..... | 49.9 | 44.1 | 86.7 | 77.4 | 64.8 |
| August..... | 48.7 | 43.4 | 67.2 | 58.6 | 54.4 |
| September..... | 51.3 | 44.4 | 73.8 | 64.2 | 58.2 |
| October..... | 58.3 | 44.9 | 53.5 | 58.1 | 49.7 |
| November..... | 52.9 | 42.5 | 54.4 | 37.8 | 46.3 |
| December..... | 45.0 | 37.6 | 64.3 | 53.5 | 50.1 |
| 1931 | | | | | |
| January..... | 39.1 | 30.8 | 43.4 | 55.5 | 38.9 |
| February..... | 40.3 | 30.3 | 43.8 | 48.6 | 37.9 |
| March..... | 53.4 | 40.7 | 76.4 | 58.0 | 57.1 |
| April..... | 64.6 | 48.6 | 73.9 | 65.2 | 60.6 |

The index number of total building operations for the month of April stands at 60.6, which is higher than for any month since July,



1930, and was only surpassed by four other months during the calendar year 1930. The April, 1931, index number for new residential buildings was 48.6. This is higher than for any month since April, 1930,

[1397]

the only month during 1930 which has a higher index number for this class of building than April, 1931. The index number for new non-residential buildings was lower than for March, 1931, and much lower than for April, 1930. The index number of additions, alterations, and repairs for April, 1931, was higher than for any month since July, 1930. The index number of families provided for in April, 1931, was higher than for any other month in either 1930 or 1931.

The chart on page 135 shows in graphic form the trend of estimated costs of new residential buildings, of new nonresidential buildings, and of total building operations.

Table 4 shows the dollar value of contracts let for public buildings by the different agencies of the United States Government during the months of March, 1931, and April, 1931, by geographic divisions.

TABLE 4.—CONTRACTS LET FOR PUBLIC BUILDINGS BY DIFFERENT AGENCIES OF THE UNITED STATES GOVERNMENT DURING MARCH AND APRIL, 1931, BY GEOGRAPHIC DIVISIONS

| Geographic division | March, 1931 | April, 1931 |
|---------------------------|---------------|-------------|
| New England..... | \$5, 978, 472 | \$582, 288 |
| Middle Atlantic..... | 2, 121, 013 | 1, 168, 840 |
| East North Central..... | 682, 031 | 199, 958 |
| West North Central..... | 201, 414 | 511, 464 |
| South Atlantic..... | 1, 602, 095 | 1, 873, 931 |
| South Central..... | 2, 438, 675 | 2, 718, 846 |
| Mountain and Pacific..... | 1, 460, 872 | 1, 144, 497 |
| Total..... | 14, 484, 572 | 8, 199, 824 |

Contracts were let for United States Government buildings during April, 1931, to cost \$8,199,824. These contracts were let by the following Federal agencies: The United States Capitol Architect; Office of the Quartermaster General, War Department; Bureau of Yards and Docks, Navy Department; Supervising Architect, Treasury Department; and the United States Veterans' Bureau. Whenever a contract is let by the United States Government for a building in a city having a population of 25,000 or over, the cost is included in the estimated cost as shown in the cities enumerated in Table 8.

Table 5 shows the dollar value of contracts awarded by the different State governments for public buildings during the months of March, 1931, and April, 1931, by geographic divisions.

TABLE 5.—CONTRACTS AWARDED FOR PUBLIC BUILDINGS BY THE DIFFERENT STATE GOVERNMENTS DURING MARCH AND APRIL, 1931, BY GEOGRAPHIC DIVISIONS

| Geographic division | March, 1931 | April, 1931 |
|---------------------------|---------------|--------------|
| New England..... | \$1, 615, 483 | \$743, 304 |
| Middle Atlantic..... | 1, 495, 844 | 10, 658, 763 |
| East North Central..... | 597, 836 | 135, 448 |
| West North Central..... | 58, 099 | 10, 141 |
| South Atlantic..... | 598, 480 | 166, 292 |
| South Central..... | 900 | 15, 053 |
| Mountain and Pacific..... | 398, 508 | 459, 421 |
| Total..... | 4, 765, 150 | 12, 188, 422 |

Contracts awarded by State governments during the month of April, 1931, totaled \$12,188,422, nearly three times as much as the

total value of contracts let during the month of March. Whenever a contract is let by a State government in a city having a population of 25,000 or over, the cost is included in the estimated cost as shown in the cities enumerated in Table 8.

Table 6 shows the estimated cost of new residential buildings, of new nonresidential buildings, and of total building operations in 292 identical cities having a population of 25,000 or over for April, 1930, and April, 1931, by geographic divisions.

TABLE 6.—ESTIMATED COST OF NEW BUILDINGS IN 292 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN APRIL, 1930 AND 1931, BY GEOGRAPHIC DIVISIONS

| Geographic division | New residential buildings | | | | New nonresidential buildings, estimated cost | | Total construction (including alterations and repairs), estimated cost | |
|---------------------------|---------------------------|---------------|--|-------------|--|---------------|--|---------------|
| | Estimated cost | | Families provided for in new dwellings | | April, 1930 | April, 1931 | April, 1930 | April, 1931 |
| | April, 1930 | April, 1931 | April, 1930 | April, 1931 | | | | |
| New England..... | \$5, 267, 425 | \$4, 020, 420 | 739 | 795 | \$6, 192, 306 | \$3, 269, 276 | \$13, 580, 640 | \$8, 986, 820 |
| Middle Atlantic..... | 19, 668, 371 | 28, 682, 073 | 3, 633 | 6, 671 | 41, 547, 039 | 44, 437, 098 | 71, 846, 881 | 81, 886, 814 |
| East North Central..... | 13, 088, 592 | 7, 170, 938 | 2, 703 | 1, 443 | 16, 433, 157 | 9, 423, 850 | 34, 869, 506 | 21, 015, 792 |
| West North Central..... | 5, 859, 214 | 2, 934, 187 | 1, 092 | 713 | 6, 014, 263 | 8, 484, 102 | 13, 502, 216 | 12, 355, 996 |
| South Atlantic..... | 4, 760, 641 | 6, 284, 445 | 887 | 1, 415 | 10, 129, 262 | 2, 187, 537 | 16, 811, 402 | 10, 381, 255 |
| South Central..... | 4, 900, 185 | 3, 281, 578 | 1, 383 | 935 | 7, 367, 541 | 5, 547, 816 | 14, 193, 497 | 9, 757, 386 |
| Mountain and Pacific..... | 9, 284, 555 | 6, 249, 689 | 2, 599 | 1, 825 | 7, 142, 654 | 4, 289, 124 | 19, 442, 918 | 12, 690, 001 |
| Total..... | 62, 828, 983 | 58, 623, 330 | 13, 036 | 13, 797 | 94, 826, 222 | 77, 638, 803 | 184, 247, 060 | 157, 074, 064 |
| Per cent of change..... | | -6.7 | | +5.8 | | -18.1 | | -14.7 |

Permits issued in the 292 identical cities for which reports were received for both April, 1930, and April, 1931, show a decrease of 14.7 per cent in the estimated cost of all building operations in April, 1931, as compared with April of the previous year. A decrease of 6.7 per cent was shown in the indicated expenditures for new residential buildings, and a decrease of 18.1 per cent in the indicated expenditures for new nonresidential buildings. The number of family dwelling units provided in new buildings increased 5.8 per cent in April, 1931, as compared with April, 1930.

Increases in new residential buildings were shown in the Middle Atlantic States and the South Atlantic States. All other geographic divisions showed decreases in the estimated cost of this class of structure.

Increases in the estimated cost of new nonresidential buildings were shown in the Middle Atlantic States and the West North Central States. Decreases in this class of building were registered in the other geographic divisions.

The Middle Atlantic States was the only geographic division registering an increase in total construction in April, 1931, as compared with April, 1930.

Increases in dwelling units provided occurred in the New England States, the Middle Atlantic States, and the South Atlantic States.

Table 7 shows the estimated cost of additions, alterations, and repairs as shown by permits issued, together with the per cent of decrease in April, 1931, as compared with April, 1930.

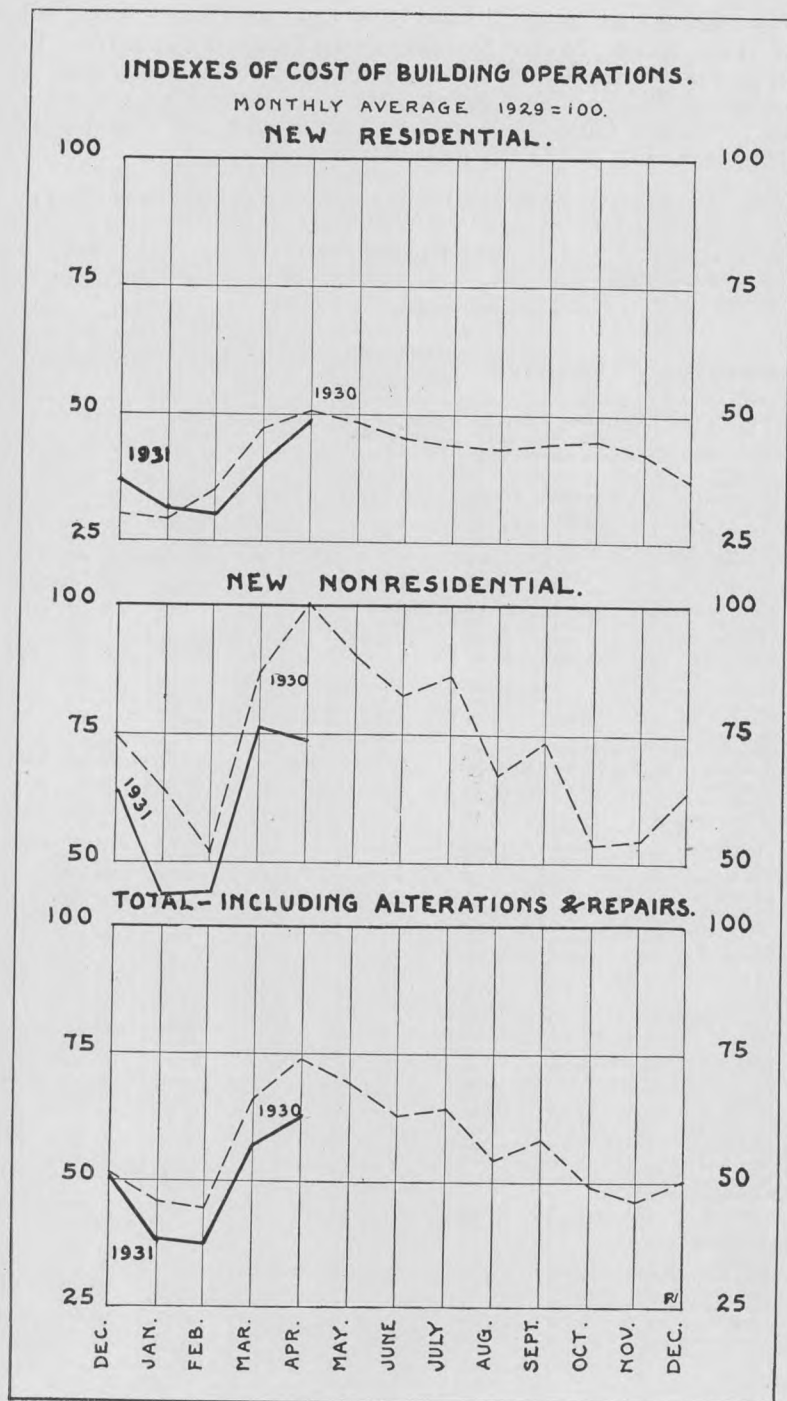
TABLE 7.—ESTIMATED COST OF ADDITIONS, ALTERATIONS, AND REPAIRS IN 292 IDENTICAL CITIES AS SHOWN BY PERMITS ISSUED IN APRIL, 1930, AND APRIL, 1931, BY GEOGRAPHIC DIVISIONS

| Geographic division | Estimated cost | | Per cent of change, April, 1931, compared with April, 1930 |
|---------------------------|----------------|---------------|--|
| | April, 1930 | April, 1931 | |
| New England..... | \$2, 120, 909 | \$1, 697, 124 | -20. 0 |
| Middle Atlantic..... | 10, 631, 471 | 8, 767, 643 | -17. 5 |
| East North Central..... | 5, 347, 757 | 4, 421, 004 | -17. 3 |
| West North Central..... | 1, 628, 739 | 937, 707 | -42. 4 |
| South Atlantic..... | 1, 921, 499 | 1, 909, 273 | -0. 6 |
| South Central..... | 1, 925, 771 | 927, 992 | -51. 8 |
| Mountain and Pacific..... | 3, 015, 709 | 2, 151, 188 | -28. 7 |
| Total..... | 26, 591, 855 | 20, 811, 931 | -21. 7 |

Projected expenditures for additions, alterations, and repairs decreased 21.7 per cent comparing permits issued during April, 1931, with those issued during April, 1930, in these 292 cities. Decreases were shown in all of the seven geographic divisions. These decreases ranged from six-tenths of 1 per cent in the South Atlantic States to 51.8 per cent in the South Central States.

Table 8 shows the estimated cost of new residential buildings, of new nonresidential buildings, and of total building operations, together with the number of families provided for in new buildings, in 340 identical cities for March, 1931, and April, 1931. Reports were received from 50 cities in the New England States, 70 cities in the Middle Atlantic States, 92 cities in the East North Central States, 26 cities in the West North Central States, 35 cities in the South Atlantic States, 32 cities in the South Central States, and 35 cities in the Mountain and Pacific States.

Permits were issued for the following important projects during the month of April: In Boston, permits were issued for three institutional buildings to cost nearly \$760,000, and for a roof garden on the Ritz Carlton Hotel to cost \$300,000; in the Borough of the Bronx, for apartment houses to cost over \$3,000,000; in the Borough of Brooklyn, for apartment houses to cost nearly \$4,500,000; in the Borough of Manhattan, for three office buildings to cost over \$22,000,000; in Rochester, for a school building to cost over \$600,000; in Philadelphia, for two office buildings to cost over \$6,500,000; in Pittsburgh, for school buildings to cost nearly \$2,000,000. A contract was let by the Supervising Architect for a new post office building in Camden, N. J., to cost nearly \$500,000. A permit was issued for a university building in Ann Arbor, Mich., to cost \$1,400,000; for an institutional building in Springfield, Ohio, to cost over \$800,000; for a school building in Milwaukee to cost nearly \$1,000,000; for a school building in Minneapolis to cost nearly \$800,000; for an office building in St. Louis to cost \$3,100,000. In Washington, D. C., the Municipal Architect awarded a contract for a new school building to cost over \$400,000; in Louisville, Ky., a permit was issued for a school building to cost nearly \$300,000; in Nashville, for a city hospital to cost \$400,000; in New Orleans, for two institutional buildings to cost over \$1,200,000 and for a store building to cost over \$500,000; in Spokane, for a school building to cost \$400,000.



No reports were received from New London, Conn.; South Bend, Ind.; Port Huron, Mich.; Newark, Ohio; Pensacola and West Palm Beach, Fla.; Savannah, Ga.; Spartanburg, S. C.; Lynchburg, Va.; Charleston, W. Va.; Fort Smith, Ark.; Lexington, Ky.; Muskogee, Okla.; Johnson City, Tenn.; Port Arthur and San Angelo, Tex.; Riverside, Calif.; and Great Falls, Minn.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1931

New England States

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | | | | |
| Connecticut: | | | | | | | | |
| Bridgeport..... | \$339,900 | \$75,200 | 113 | 19 | \$216,390 | \$83,819 | \$599,780 | \$174,169 |
| Bristol..... | 13,600 | 38,000 | 3 | 7 | 41,825 | 6,638 | 64,836 | 49,613 |
| Greenwich..... | 66,500 | 198,000 | 8 | 13 | 11,750 | 21,900 | 123,450 | 238,925 |
| Hartford..... | 40,700 | 37,500 | 9 | 8 | 8,210 | 30,560 | 117,874 | 126,776 |
| Meriden..... | 5,000 | 7,750 | 1 | 2 | 4,785 | 13,364 | 18,918 | 37,643 |
| New Britain..... | 5,000 | 26,000 | 1 | 2 | 133,625 | 2,300 | 148,407 | 40,262 |
| New Haven..... | 88,000 | 146,000 | 17 | 26 | 137,400 | 35,100 | 269,414 | 221,890 |
| Norwalk..... | 68,000 | 102,450 | 12 | 15 | 27,950 | 5,128 | 138,170 | 179,313 |
| Stamford..... | 51,500 | 57,000 | 9 | 10 | 5,475 | 7,350 | 75,925 | 75,500 |
| Torrington..... | 0 | 13,000 | 0 | 5 | 3,850 | 3,360 | 5,735 | 38,531 |
| Waterbury..... | 31,000 | 64,500 | 7 | 15 | 3,650 | 42,200 | 125,950 | 124,300 |
| Maine: | | | | | | | | |
| Bangor..... | 0 | 19,300 | 0 | 6 | 500 | 1,550 | 500 | 21,600 |
| Lewiston..... | 40,000 | 13,000 | 10 | 2 | 1,500 | 12,800 | 47,500 | 46,800 |
| Portland..... | 21,500 | 55,100 | 3 | 13 | 20,255 | 34,800 | 70,623 | 117,872 |
| Massachusetts: | | | | | | | | |
| Beverly..... | 39,200 | 28,000 | 7 | 5 | 8,600 | 4,225 | 52,775 | 37,725 |
| Boston..... | 592,800 | 1,069,220 | 138 | 249 | 4,889,870 | 1,254,500 | 5,820,033 | 2,671,346 |
| Brockton..... | 16,500 | 50,700 | 4 | 7 | 5,640 | 34,325 | 31,655 | 103,025 |
| Brookline..... | 99,500 | 73,300 | 11 | 7 | 300 | 13,200 | 108,150 | 97,885 |
| Cambridge..... | 41,250 | 134,400 | 7 | 29 | 13,450 | 8,310 | 331,760 | 182,950 |
| Chelsea..... | 22,000 | 0 | 3 | 0 | 125,000 | 100 | 158,680 | 5,890 |
| Chicopee..... | 7,500 | 14,700 | 2 | 5 | 2,325 | 201,925 | 12,600 | 230,525 |
| Everett..... | 7,000 | 34,500 | 2 | 10 | 11,400 | 169,326 | 22,800 | 209,126 |
| Fall River..... | 0 | 2,400 | 0 | 1 | 132,412 | 12,160 | 139,792 | 23,250 |
| Fitchburg..... | 250 | 0 | 1 | 0 | 0 | 6,250 | 4,750 | 28,325 |
| Haverhill..... | 11,700 | 1,600 | 3 | 1 | 6,200 | 2,970 | 19,725 | 11,735 |
| Holyoke..... | 4,500 | 19,500 | 1 | 3 | 3,500 | 26,550 | 17,000 | 52,400 |
| Lawrence..... | 8,000 | 7,500 | 1 | 1 | 128,145 | 6,050 | 168,235 | 43,970 |
| Lowell..... | 13,000 | 12,350 | 3 | 6 | 3,900 | 15,185 | 26,990 | 65,790 |
| Lynn..... | 33,800 | 54,800 | 8 | 11 | 4,385 | 341,580 | 53,254 | 428,047 |
| Malden..... | 41,500 | 131,000 | 9 | 42 | 18,570 | 14,579 | 77,700 | 170,809 |
| Medford..... | 157,000 | 113,900 | 32 | 21 | 2,400 | 13,850 | 169,175 | 134,175 |
| New Bedford..... | 9,500 | 14,000 | 1 | 2 | 11,350 | 36,975 | 38,350 | 65,925 |
| Newton..... | 489,150 | 318,000 | 43 | 39 | 249,910 | 23,350 | 792,355 | 359,275 |
| Pittsfield..... | 31,500 | 51,900 | 5 | 9 | 8,010 | 17,375 | 61,060 | 82,790 |
| Quincy..... | 59,700 | 72,100 | 14 | 21 | 13,385 | 27,435 | 90,183 | 150,872 |
| Revere..... | 15,000 | 16,800 | 3 | 4 | 14,500 | 4,975 | 40,565 | 34,775 |
| Salem..... | 31,500 | 53,200 | 5 | 8 | 6,050 | 2,050 | 62,830 | 167,540 |
| Somerville..... | 12,000 | 29,000 | 3 | 8 | 199,800 | 92,950 | 228,270 | 149,929 |
| Springfield..... | 77,000 | 81,060 | 11 | 20 | 702,922 | 63,000 | 845,377 | 179,940 |
| Waltham..... | 17,000 | 64,800 | 3 | 14 | 2,150 | 20,075 | 67,695 | 112,225 |
| Watertown..... | 50,500 | 97,000 | 10 | 21 | 212,650 | 14,500 | 278,450 | 117,675 |
| Worcester..... | 71,850 | 194,400 | 15 | 33 | 17,195 | 31,570 | 148,205 | 292,590 |
| New Hampshire: | | | | | | | | |
| Concord..... | 0 | 18,000 | 0 | 4 | 0 | 1,950 | 4,000 | 19,950 |
| Manchester..... | 6,500 | 24,600 | 3 | 10 | 133,785 | 6,345 | 155,210 | 62,607 |
| Rhode Island: | | | | | | | | |
| Cranston..... | 137,200 | 82,100 | 22 | 17 | 16,225 | 36,200 | 159,300 | 122,700 |
| East Providence..... | 50,400 | 58,100 | 8 | 10 | 19,320 | 93,935 | 79,615 | 160,760 |
| Newport..... | 20,000 | 30,500 | 4 | 7 | 122,270 | 8,900 | 145,210 | 121,079 |
| Pawtucket..... | 48,000 | 38,550 | 7 | 8 | 8,430 | 14,230 | 81,120 | 67,550 |
| Providence..... | 194,200 | 228,700 | 33 | 34 | 47,000 | 255,875 | 338,875 | 716,900 |
| Woonsocket..... | 0 | 44,000 | 0 | 6 | 20,270 | 107,805 | 25,105 | 157,390 |
| Total..... | 3,187,200 | 4,117,420 | 625 | 816 | 7,778,484 | 3,285,449 | 12,663,931 | 9,132,639 |
| Per cent of change..... | | +29.2 | | +30.6 | | -37.8 | | -27.9 |

¹ Applications filed.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1931—Continued

Middle Atlantic States

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | | | | |
| New Jersey: | | | | | | | | |
| Atlantic City | \$66,275 | \$7,848 | 10 | 5 | \$5,850 | \$1,378 | \$104,980 | \$72,093 |
| Bayonne | 0 | 0 | 0 | 0 | 500 | 34,112 | 9,150 | 37,812 |
| Belleville | 61,200 | 59,700 | 10 | 17 | 10,300 | 3,992 | 75,314 | 70,632 |
| Bloomfield | 80,000 | 40,000 | 17 | 7 | 5,000 | 38,000 | 94,000 | 107,000 |
| Camden | 38,000 | 32,000 | 14 | 15 | 32,910 | 487,441 | 85,970 | 561,126 |
| Clifton | 94,300 | 119,400 | 20 | 27 | 46,025 | 16,100 | 148,625 | 150,600 |
| East Orange | 37,500 | 34,750 | 8 | 8 | 40,805 | 286,170 | 99,755 | 370,662 |
| Elizabeth | 62,000 | 117,000 | 13 | 39 | 21,000 | 27,000 | 83,000 | 144,000 |
| Garfield | 55,200 | 18,000 | 19 | 7 | 1,775 | 1,000 | 66,475 | 27,225 |
| Hoboken | 100,000 | 0 | 40 | 0 | 0 | 1,500 | 116,620 | 15,595 |
| Irvington | 35,800 | 39,200 | 7 | 9 | 488,904 | 86,685 | 533,754 | 155,650 |
| Jersey City | 18,000 | 45,500 | 4 | 10 | 23,445 | 175,650 | 117,660 | 309,175 |
| Kearny | 33,500 | 18,000 | 8 | 6 | 3,350 | 7,755 | 39,400 | 31,165 |
| Montclair | 172,782 | 308,128 | 18 | 17 | 19,656 | 10,270 | 218,018 | 340,703 |
| Newark | 296,500 | 303,500 | 90 | 49 | 103,710 | 175,188 | 608,169 | 868,973 |
| New Brunswick | 24,800 | 30,500 | 4 | 4 | 850 | 1,659 | 38,220 | 54,174 |
| Orange | 0 | 0 | 0 | 0 | 28,604 | 0 | 28,604 | 35,282 |
| Passaic | 5,000 | 0 | 1 | 0 | 4,100 | 6,900 | 47,350 | 66,800 |
| Paterson | 48,000 | 47,725 | 11 | 10 | 41,745 | 35,665 | 148,678 | 141,015 |
| Perth Amboy | 3,500 | 17,000 | 1 | 4 | 2,460 | 3,800 | 21,578 | 27,975 |
| Plainfield | 55,000 | 46,150 | 7 | 7 | 5,000 | 12,525 | 75,000 | 69,929 |
| Trenton | 12,800 | 61,000 | 3 | 4 | 54,534 | 57,140 | 126,747 | 197,928 |
| Union City | 0 | 0 | 0 | 0 | 7,400 | 2,900 | 19,060 | 27,490 |
| West New York | 0 | 6,800 | 0 | 1 | 1,500 | 1,500 | 15,465 | 19,380 |
| New York: | | | | | | | | |
| Albany | 118,300 | 197,500 | 19 | 27 | 21,100 | 112,120 | 205,157 | 439,817 |
| Amsterdam | 15,000 | 25,100 | 3 | 5 | 1,950 | 4,050 | 26,750 | 32,800 |
| Auburn | 0 | 9,000 | 0 | 2 | 1,890 | 584,410 | 5,435 | 598,450 |
| Binghamton | 36,500 | 58,300 | 5 | 12 | 4,172 | 16,010 | 103,795 | 114,508 |
| Buffalo | 505,400 | 675,600 | 160 | 187 | 970,610 | 355,784 | 1,600,708 | 1,118,268 |
| Elmira | 10,200 | 6,400 | 2 | 2 | 9,800 | 26,640 | 38,011 | 73,245 |
| Jamestown | 9,000 | 14,000 | 2 | 1 | 2,800 | 3,950 | 21,870 | 39,893 |
| Kingston | 7,200 | 22,000 | 2 | 5 | 30,075 | 7,600 | 41,570 | 46,157 |
| Lockport | 0 | 8,500 | 0 | 4 | 600 | 840 | 1,140 | 11,975 |
| Mount Vernon | 281,000 | 443,500 | 30 | 73 | 2,860 | 55,300 | 316,195 | 538,756 |
| Newburgh | 0 | 12,000 | 0 | 2 | 5,740 | 194,443 | 7,740 | 218,618 |
| New Rochelle | 366,650 | 173,200 | 27 | 10 | 117,460 | 32,230 | 527,995 | 544,519 |
| New York City: | | | | | | | | |
| The Bronx ¹ | 6,033,550 | 4,154,752 | 1,391 | 1,049 | 7,232,850 | 612,600 | 13,618,115 | 5,124,502 |
| Brooklyn ¹ | 3,193,350 | 6,906,050 | 797 | 1,762 | 1,037,995 | 753,767 | 6,325,001 | 8,483,000 |
| Manhattan ¹ | 698,000 | 1,350,000 | 160 | 306 | 17,789,039 | 27,203,845 | 20,648,814 | 31,561,843 |
| Queens ¹ | 8,249,700 | 9,512,700 | 1,729 | 2,333 | 1,594,448 | 1,101,532 | 10,385,540 | 11,879,236 |
| Richmond ¹ | 386,500 | 429,300 | 134 | 132 | 374,955 | 531,828 | 855,193 | 1,049,365 |
| Niagara Falls | 116,450 | 84,800 | 22 | 18 | 4,750 | 17,202 | 157,751 | 151,291 |
| Poughkeepsie | 24,000 | 70,000 | 3 | 5 | 41,300 | 2,220 | 69,950 | 84,570 |
| Rochester | 213,500 | 297,600 | 21 | 19 | 267,676 | 734,195 | 570,629 | 1,082,170 |
| Schenectady | 33,000 | 40,000 | 6 | 9 | 6,550 | 35,975 | 76,950 | 124,640 |
| Syracuse | 140,600 | 142,600 | 28 | 25 | 603,350 | 386,565 | 807,845 | 595,660 |
| Troy | 299,500 | 78,700 | 6 | 17 | 2,450 | 10,400 | 345,985 | 123,108 |
| Utica | 38,000 | 43,500 | 8 | 10 | 20,735 | 15,275 | 72,410 | 132,275 |
| Watertown | 0 | 9,300 | 0 | 3 | 3,410 | 3,200 | 19,508 | 25,420 |
| White Plains | 153,200 | 118,400 | 10 | 11 | 1,095,150 | 28,575 | 1,298,250 | 186,800 |
| Yonkers | 466,690 | 1,229,800 | 50 | 160 | 245,400 | 309,310 | 769,880 | 1,574,260 |
| Pennsylvania: | | | | | | | | |
| Allentown | 0 | 65,800 | 0 | 10 | 16,575 | 12,950 | 45,475 | 91,875 |
| Altoona | 9,400 | 6,800 | 3 | 2 | 7,803 | 7,139 | 42,977 | 33,610 |
| Bethlehem | 35,500 | 28,500 | 7 | 4 | 6,150 | 7,050 | 47,950 | 40,800 |
| Butler | 0 | 0 | 0 | 0 | 750 | 7,050 | 9,350 | 15,725 |
| Chester | 5,000 | 2,000 | 2 | 1 | 14,050 | 2,125 | 34,095 | 15,225 |
| Easton | 4,467 | 26,500 | 1 | 1 | 5,450 | 1,317 | 13,022 | 34,162 |
| Erie | 65,500 | 92,600 | 12 | 19 | 192,055 | 23,000 | 330,865 | 186,472 |
| Harrisburg | 30,000 | 33,500 | 6 | 7 | 7,350 | 18,875 | 60,775 | 87,801 |
| Hazleton | 7,945 | 3,733 | 2 | 1 | 3,151 | 194,465 | 12,016 | 205,465 |
| Johnstown | 12,000 | 1,600 | 1 | 1 | 139,800 | 5,925 | 157,465 | 21,745 |
| Lancaster | 3,500 | 15,600 | 1 | 5 | 6,560 | 43,370 | 24,480 | 82,210 |
| McKeesport | 13,000 | 20,000 | 4 | 5 | 14,135 | 8,960 | 40,028 | 67,239 |
| Nanticoke | 8,000 | 18,900 | 1 | 4 | 0 | 0 | 22,000 | 23,005 |
| New Castle | 34,400 | 22,600 | 7 | 5 | 7,895 | 14,580 | 49,470 | 40,795 |
| Norristown | 89,400 | 0 | 14 | 0 | 5,734 | 4,023 | 113,359 | 13,591 |

¹ Applications filed.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1931—Continued

Middle Atlantic States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|--------------|--|-------------|---|---------------|--|---------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | | | | |
| Pennsylvania—Con. | | | | | | | | |
| Philadelphia..... | \$479, 200 | \$477, 750 | 117 | 97 | \$466, 805 | \$6, 795, 195 | \$1, 254, 050 | \$7, 628, 125 |
| Pittsburgh..... | 298, 000 | 398, 500 | 58 | 70 | 1, 105, 466 | 2, 106, 000 | 1, 662, 914 | 2, 709, 158 |
| Reading..... | 86, 200 | 28, 000 | 8 | 3 | 13, 150 | 77, 330 | 148, 729 | 187, 033 |
| Scranton..... | 4, 750 | 32, 500 | 3 | 11 | 11, 320 | 32, 315 | 107, 823 | 108, 960 |
| Wilkes-Barre..... | 12, 137 | 8, 137 | 9 | 8 | 1, 865 | 373, 507 | 35, 789 | 418, 491 |
| Wilkesburg..... | 12, 000 | 6, 000 | 3 | 1 | 3, 800 | 4, 625 | 34, 549 | 21, 876 |
| Williamsport..... | 1, 500 | 38, 100 | 1 | 7 | 134, 396 | 54, 638 | 161, 187 | 121, 387 |
| York..... | 23, 500 | 33, 250 | 6 | 9 | 11, 407 | 111, 625 | 49, 329 | 196, 396 |
| Total..... | 23, 936, 846 | 28, 825, 173 | 5, 186 | 6, 706 | 34, 614, 205 | 44, 520, 260 | 66, 296, 576 | 82, 206, 684 |
| Per cent of change..... | | +20. 4 | | +29. 3 | | +28. 6 | | +24. 0 |

East North Central States

| | | | | | | | | |
|---------------------|-------------|-------------|-----|-----|--------------|-------------|--------------|-------------|
| Illinois: | | | | | | | | |
| Alton..... | 0 | \$16, 000 | 0 | 5 | \$3, 825 | \$750 | \$13, 133 | \$30, 264 |
| Aurora..... | \$11, 085 | 23, 513 | 3 | 5 | 16, 265 | 315, 735 | 68, 052 | 355, 752 |
| Belleville..... | 10, 000 | 42, 500 | 2 | 18 | 5, 000 | 0 | 16, 325 | 42, 500 |
| Berwyn..... | 48, 000 | 50, 800 | 6 | 9 | 7, 100 | 4, 969 | 56, 350 | 57, 269 |
| Bloomington..... | 9, 000 | 16, 000 | 2 | 4 | 10, 000 | 155, 700 | 26, 000 | 176, 700 |
| Chicago..... | 1, 032, 000 | 763, 800 | 166 | 112 | 16, 606, 820 | 2, 683, 275 | 18, 361, 230 | 4, 233, 890 |
| Cicero..... | 24, 000 | 7, 000 | 5 | 1 | 3, 215 | 2, 170 | 33, 666 | 20, 185 |
| Danville..... | 0 | 16, 900 | 0 | 6 | 500 | 0 | 5, 700 | 23, 303 |
| Decatur..... | 52, 700 | 75, 300 | 7 | 13 | 14, 200 | 81, 900 | 68, 400 | 159, 150 |
| East St. Louis..... | 48, 350 | 84, 220 | 17 | 26 | 169, 400 | 10, 100 | 220, 350 | 99, 605 |
| Elgin..... | 33, 200 | 52, 450 | 5 | 10 | 17, 690 | 26, 625 | 57, 225 | 93, 200 |
| Evanston..... | 153, 000 | 61, 000 | 4 | 4 | 24, 500 | 339, 250 | 218, 000 | 625, 750 |
| Granite City..... | 5, 000 | 4, 000 | 1 | 1 | 0 | 200 | 5, 800 | 4, 200 |
| Joliet..... | 60, 500 | 46, 000 | 10 | 7 | 14, 200 | 2, 200 | 97, 900 | 71, 800 |
| Maywood..... | 0 | 5, 000 | 0 | 1 | 650 | 3, 548 | 2, 595 | 10, 848 |
| Moline..... | 26, 600 | 20, 800 | 6 | 5 | 3, 250 | 5, 660 | 52, 917 | 45, 749 |
| Oak Park..... | 53, 000 | 90, 900 | 4 | 7 | 3, 920 | 13, 950 | 63, 565 | 110, 800 |
| Peoria..... | 128, 500 | 123, 700 | 34 | 31 | 7, 975 | 11, 942 | 148, 875 | 154, 927 |
| Quincy..... | 0 | 12, 800 | 0 | 4 | 360 | 1, 318 | 2, 985 | 16, 043 |
| Rockford..... | 27, 600 | 58, 900 | 5 | 18 | 4, 350 | 8, 955 | 50, 800 | 86, 415 |
| Rock Island..... | 15, 000 | 22, 000 | 2 | 5 | 1, 535 | 4, 565 | 35, 063 | 59, 904 |
| Springfield..... | 57, 700 | 37, 200 | 12 | 9 | 69, 252 | 81, 250 | 172, 127 | 144, 844 |
| Waukegan..... | 35, 000 | 29, 000 | 6 | 4 | 46, 900 | 6, 012 | 87, 600 | 49, 632 |
| Indiana: | | | | | | | | |
| Anderson..... | 16, 300 | 32, 025 | 4 | 10 | 10, 632 | 15, 050 | 34, 582 | 61, 565 |
| East Chicago..... | 0 | 0 | 0 | 0 | 122, 350 | 7, 742 | 125, 415 | 18, 119 |
| Elkhart..... | 8, 000 | 2, 800 | 2 | 1 | 5, 905 | 17, 931 | 22, 470 | 32, 587 |
| Evansville..... | 57, 700 | 65, 150 | 15 | 17 | 3, 910 | 304, 603 | 73, 968 | 380, 569 |
| Fort Wayne..... | 68, 179 | 105, 371 | 16 | 21 | 17, 485 | 518, 835 | 112, 089 | 670, 690 |
| Gary..... | 33, 500 | 29, 000 | 6 | 6 | 5, 190 | 4, 235 | 46, 640 | 54, 120 |
| Hammond..... | 12, 000 | 17, 600 | 4 | 5 | 15, 325 | 19, 478 | 35, 175 | 43, 203 |
| Indianapolis..... | 182, 800 | 271, 850 | 33 | 38 | 709, 397 | 213, 086 | 982, 838 | 589, 583 |
| Kokomo..... | 0 | 3, 000 | 0 | 1 | 565 | 2, 600 | 74, 840 | 12, 981 |
| Lafayette..... | 0 | 18, 600 | 0 | 6 | 0 | 5, 000 | 0 | 24, 600 |
| Marion..... | 2, 800 | 800 | 3 | 1 | 710 | 750 | 7, 674 | 12, 055 |
| Michigan City..... | 5, 800 | 2, 700 | 1 | 2 | 25, 775 | 3, 875 | 32, 150 | 9, 375 |
| Mishawaka..... | 0 | 6, 500 | 0 | 3 | 4, 675 | 5, 955 | 7, 775 | 16, 405 |
| Muncie..... | 7, 800 | 8, 900 | 4 | 4 | 11, 645 | 2, 215 | 35, 422 | 26, 954 |
| Richmond..... | 22, 500 | 11, 800 | 3 | 4 | 199, 900 | 8, 800 | 227, 400 | 18, 200 |
| Terre Haute..... | 17, 500 | 0 | 5 | 0 | 2, 080 | 1, 420 | 27, 997 | 11, 982 |
| Michigan: | | | | | | | | |
| Ann Arbor..... | 36, 200 | 76, 950 | 6 | 7 | 3, 600 | 1, 408, 485 | 51, 865 | 1, 510, 244 |
| Battle Creek..... | 7, 800 | 14, 650 | 2 | 5 | 23, 450 | 267, 500 | 32, 000 | 294, 520 |
| Bay City..... | 19, 500 | 28, 500 | 5 | 10 | 10, 035 | 9, 635 | 68, 851 | 363, 696 |
| Dearborn..... | 142, 700 | 124, 400 | 30 | 27 | 26, 360 | 96, 090 | 170, 750 | 226, 311 |
| Detroit..... | 1, 335, 650 | 1, 593, 675 | 273 | 340 | 760, 654 | 775, 570 | 2, 443, 249 | 2, 709, 488 |
| Flint..... | 60, 646 | 99, 789 | 13 | 16 | 330, 958 | 231, 209 | 416, 834 | 374, 583 |
| Grand Rapids..... | 38, 000 | 55, 750 | 12 | 14 | 50, 860 | 25, 210 | 135, 495 | 133, 770 |
| Hamtramck..... | 1, 500 | 0 | 1 | 0 | 975 | 1, 150 | 10, 195 | 9, 935 |
| Highland Park..... | 0 | 0 | 0 | 0 | 1, 615 | 4, 365 | 17, 760 | 10, 190 |
| Jackson..... | 12, 200 | 26, 400 | 2 | 2 | 20, 160 | 11, 128 | 50, 375 | 47, 611 |

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1931—Continued

East North Central States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | | | | |
| Michigan—Contd. | | | | | | | | |
| Kalamazoo..... | \$34,100 | \$29,600 | 11 | 8 | \$3,620 | \$13,340 | \$57,431 | \$60,043 |
| Lansing..... | 7,400 | 46,325 | 2 | 8 | 1,325 | 41,210 | 17,675 | 141,175 |
| Muskegon..... | 4,000 | 18,900 | 1 | 6 | 15,875 | 2,975 | 19,875 | 35,940 |
| Pontiac..... | 0 | 0 | 0 | 0 | 1,530 | 30,100 | 8,860 | 37,614 |
| Saginaw..... | 4,100 | 31,800 | 3 | 12 | 7,440 | 19,504 | 25,231 | 66,121 |
| Wyandotte..... | 19,100 | 22,750 | 5 | 5 | 187,980 | 2,340 | 210,812 | 37,185 |
| Ohio: | | | | | | | | |
| Akron..... | 76,200 | 67,625 | 13 | 12 | 19,086 | 25,336 | 122,753 | 357,433 |
| Ashtabula..... | 900 | 0 | 1 | 0 | 3,665 | 48,790 | 8,690 | 51,662 |
| Canton..... | 16,500 | 27,550 | 2 | 4 | 50,935 | 38,010 | 108,030 | 101,450 |
| Cincinnati..... | \$54,800 | \$94,855 | 213 | 134 | 754,530 | 371,205 | 1,747,275 | 1,386,700 |
| Cleveland..... | 222,500 | 338,500 | 45 | 59 | 210,275 | 198,325 | 951,225 | 792,500 |
| Cleveland Heights..... | 178,700 | 95,675 | 23 | 17 | 10,850 | 24,485 | 193,290 | 124,810 |
| Columbus..... | 258,200 | 235,100 | 58 | 41 | 379,000 | 96,100 | 680,000 | 425,650 |
| Dayton..... | 132,312 | 73,400 | 33 | 21 | 41,601 | 36,404 | 250,883 | 163,982 |
| East Cleveland..... | 0 | 5,000 | 0 | 1 | 200 | 10,675 | 2,775 | 21,470 |
| Elyria..... | 10,000 | 1,800 | 3 | 2 | 10,885 | 960 | 26,745 | 7,640 |
| Hamilton..... | 21,575 | 15,400 | 6 | 5 | 6,163 | 4,610 | 33,178 | 28,540 |
| Lakewood..... | 10,500 | 91,000 | 3 | 17 | 20,540 | 17,750 | 41,040 | 114,450 |
| Lima..... | 0 | 3,000 | 0 | 1 | 805 | 615 | 10,049 | 9,890 |
| Lorain..... | 13,100 | 6,700 | 4 | 2 | 3,433 | 19,230 | 19,243 | 29,760 |
| Mansfield..... | 62,800 | 71,100 | 11 | 13 | 15,625 | 2,505 | 84,507 | 78,068 |
| Marion..... | 3,000 | 0 | 1 | 0 | 150 | 3,150 | 3,310 | 3,915 |
| Massillon..... | 3,000 | 4,560 | 1 | 1 | 1,500 | 93,295 | 26,500 | 100,105 |
| Middletown..... | 0 | 1,000 | 0 | 1 | 6,325 | 1,658 | 10,670 | 9,558 |
| Norwood..... | 25,500 | 10,500 | 4 | 2 | 12,140 | 3,180 | 46,490 | 15,320 |
| Portsmouth..... | 3,500 | 0 | 1 | 0 | 4,040 | 6,425 | 11,990 | 9,390 |
| Springfield..... | 16,900 | 26,750 | 5 | 8 | 10,040 | 830,859 | 31,270 | 863,329 |
| Steubenville..... | 9,900 | 10,500 | 3 | 4 | 500 | 1,050 | 20,000 | 12,000 |
| Toledo..... | 100,300 | 129,900 | 25 | 26 | 52,729 | 29,179 | 201,561 | 204,507 |
| Warren..... | 12,340 | 47,570 | 4 | 9 | 4,485 | 9,755 | 20,820 | 64,405 |
| Youngstown..... | 47,900 | 41,800 | 10 | 9 | 186,210 | 7,460 | 278,928 | 174,447 |
| Wisconsin: | | | | | | | | |
| Appleton..... | 34,100 | 27,800 | 7 | 7 | 170,635 | 12,315 | 224,570 | 61,505 |
| Eau Claire..... | 24,000 | 30,400 | 7 | 12 | 160,480 | 7,400 | 184,480 | 40,968 |
| Fond du Lac..... | 7,400 | 28,400 | 2 | 9 | 10,000 | 2,930 | 21,215 | 49,260 |
| Green Bay..... | 29,050 | 43,050 | 8 | 16 | 11,140 | 14,670 | 63,965 | 82,975 |
| Kenosha..... | 0 | 43,200 | 0 | 5 | 12,500 | 7,455 | 26,680 | 66,650 |
| Madison..... | 78,000 | 62,050 | 7 | 12 | 14,735 | 35,560 | 110,442 | 120,564 |
| Milwaukee..... | 437,600 | 690,970 | 84 | 136 | 216,684 | 1,448,687 | 848,471 | 2,960,772 |
| Oshkosh..... | 23,240 | 9,800 | 7 | 6 | 122,324 | 33,825 | 184,637 | 50,905 |
| Racine..... | 10,300 | 63,000 | 2 | 11 | 26,350 | 93,070 | 56,090 | 171,860 |
| Sheboygan..... | 33,500 | 90,700 | 8 | 19 | 19,049 | 9,809 | 66,752 | 131,993 |
| Superior..... | 17,500 | 4,000 | 5 | 1 | 1,445 | 3,155 | 25,499 | 11,680 |
| West Allis..... | 30,000 | 35,100 | 6 | 9 | 14,525 | 6,545 | 49,525 | 49,930 |
| Total..... | 6,792,627 | 7,733,123 | 1,371 | 1,516 | 22,198,567 | 11,377,662 | 32,241,989 | 23,666,217 |
| Per cent of change..... | | +13.8 | | +11.1 | | -48.7 | | -26.6 |

West North Central States

| | | | | | | | | |
|---------------------|----------|---------|----|----|---------|---------|----------|-----------|
| Iowa: | | | | | | | | |
| Burlington..... | \$13,050 | \$6,000 | 5 | 2 | \$5,450 | \$4,145 | \$24,185 | \$12,695 |
| Cedar Rapids..... | 31,000 | 54,800 | 10 | 20 | 9,455 | 72,657 | 61,837 | 149,497 |
| Council Bluffs..... | 5,000 | 29,000 | 2 | 7 | 1,000 | 17,200 | 16,000 | 59,700 |
| Davenport..... | 75,570 | 64,200 | 17 | 20 | 32,972 | 9,848 | 415,859 | 109,997 |
| Des Moines..... | 148,750 | 143,550 | 35 | 27 | 60,545 | 902,985 | 238,069 | 1,087,000 |
| Dubuque..... | 14,000 | 6,000 | 4 | 2 | 3,900 | 24,503 | 49,520 | 42,195 |
| Ottumwa..... | 7,500 | 31,500 | 2 | 7 | 0 | 2,050 | 13,500 | 41,300 |
| Sioux City..... | 39,000 | 79,950 | 13 | 25 | 21,150 | 109,125 | 83,685 | 253,375 |
| Waterloo..... | 29,000 | 41,625 | 10 | 18 | 9,025 | 20,800 | 42,715 | 76,725 |
| Kansas: | | | | | | | | |
| Hutchinson..... | 15,800 | 25,750 | 4 | 10 | 30,690 | 3,338 | 48,485 | 38,949 |
| Kansas City..... | 17,975 | 32,725 | 13 | 16 | 10,400 | 221,220 | 31,700 | 263,245 |
| Topeka..... | 29,900 | 21,500 | 4 | 6 | 33,340 | 70,720 | 67,765 | 107,495 |
| Wichita..... | 81,525 | 74,725 | 23 | 32 | 55,990 | 18,375 | 175,691 | 124,446 |

[1405]

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1931—Continued

West North Central States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|--------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | | | | |
| Minnesota: | | | | | | | | |
| Duluth..... | \$28, 800 | \$13, 000 | 7 | 5 | \$4, 235 | \$21, 565 | \$78, 327 | \$96, 363 |
| Minneapolis..... | 347, 025 | 668, 700 | 93 | 181 | 2, 087, 205 | 868, 365 | 2, 659, 805 | 1, 707, 855 |
| St. Paul..... | 173, 400 | 516, 960 | 35 | 53 | 91, 939 | 879, 595 | 591, 259 | 1, 512, 455 |
| Missouri: | | | | | | | | |
| Joplin..... | 19, 400 | 14, 000 | 6 | 4 | 6, 500 | 247, 303 | 32, 216 | 270, 028 |
| Kansas City..... | 268, 000 | 150, 500 | 61 | 38 | 169, 500 | 811, 000 | 475, 400 | 1, 002, 350 |
| Springfield..... | 57, 700 | 3, 800 | 16 | 13 | 2, 390 | 18, 075 | 76, 855 | 30, 350 |
| St. Joseph..... | 5, 000 | 16, 000 | 2 | 7 | 7, 060 | 20, 980 | 18, 106 | 48, 835 |
| St. Louis..... | 645, 000 | 577, 937 | 193 | 146 | 323, 597 | 3, 805, 257 | 1, 122, 821 | 4, 568, 665 |
| University City..... | 238, 050 | 141, 000 | 32 | 17 | 19, 995 | 150 | 270, 570 | 143, 892 |
| Nebraska: | | | | | | | | |
| Lincoln..... | 61, 950 | 83, 450 | 8 | 10 | 4, 900 | 4, 995 | 73, 210 | 98, 955 |
| Omaha..... | 134, 300 | 154, 150 | 30 | 36 | 147, 567 | 40, 617 | 561, 500 | 226, 947 |
| North Dakota: | | | | | | | | |
| Fargo..... | 20, 200 | 59, 800 | 6 | 25 | 240 | 10, 165 | 49, 947 | 75, 795 |
| South Dakota: | | | | | | | | |
| Sioux Falls..... | 113, 453 | 124, 565 | 27 | 28 | 112, 485 | 289, 384 | 237, 000 | 426, 574 |
| Total..... | 2, 620, 348 | 3, 134, 987 | 668 | 755 | 3, 251, 530 | 8, 494, 417 | 7, 516, 027 | 12, 575, 083 |
| Per cent of change..... | | +19. 6 | | +13. 0 | | +161. 2 | | +67. 3 |

South Atlantic States

| | | | | | | | | |
|-------------------------|-------------|-------------|-----|--------|-------------|-------------|-------------|--------------|
| Delaware: | | | | | | | | |
| Wilmington..... | \$75, 300 | \$69, 100 | 17 | 14 | \$445, 980 | \$15, 185 | \$552, 869 | \$131, 567 |
| District of Columbia: | | | | | | | | |
| Washington..... | 1, 980, 350 | 1, 630, 100 | 300 | 308 | 1, 066, 373 | 772, 298 | 3, 167, 626 | 2, 852, 058 |
| Florida: | | | | | | | | |
| Jacksonville..... | 49, 850 | 49, 850 | 19 | 16 | 45, 755 | 10, 985 | 171, 850 | 121, 725 |
| Miami..... | 56, 250 | 116, 750 | 22 | 15 | 124, 875 | 32, 470 | 235, 068 | 239, 038 |
| Orlando..... | 0 | 0 | 0 | 0 | 1, 135 | 1, 670 | 12, 065 | 18, 370 |
| St. Petersburg..... | 14, 700 | 26, 700 | 4 | 11 | 5, 200 | 27, 000 | 30, 600 | 76, 300 |
| Tampa..... | 33, 125 | 7, 450 | 11 | 8 | 8, 435 | 35, 725 | 67, 048 | 69, 621 |
| Georgia: | | | | | | | | |
| Atlanta..... | 115, 650 | 90, 825 | 53 | 41 | 17, 066 | 76, 183 | 397, 816 | 234, 012 |
| Augusta..... | 1, 475 | 9, 858 | 2 | 6 | 1, 043 | 9, 638 | 14, 116 | 43, 745 |
| Columbus..... | 20, 000 | 6, 450 | 4 | 2 | 445 | 9, 225 | 23, 935 | 25, 345 |
| Macon..... | 2, 400 | 7, 475 | 4 | 11 | 8, 100 | 8, 335 | 29, 595 | 221, 080 |
| Maryland: | | | | | | | | |
| Baltimore..... | 482, 000 | 3, 430, 000 | 104 | 827 | 904, 900 | 831, 200 | 1, 972, 300 | 4, 891, 200 |
| Cumberland..... | 15, 000 | 5, 400 | 4 | 3 | 118, 385 | 2, 930 | 137, 214 | 8, 580 |
| Hagerstown..... | 26, 500 | 9, 500 | 4 | 2 | 3, 725 | 6, 920 | 33, 535 | 16, 620 |
| North Carolina: | | | | | | | | |
| Asheville..... | 1, 000 | 8, 500 | 1 | 5 | 3, 810 | 17, 661 | 13, 771 | 29, 586 |
| Charlotte..... | 107, 300 | 133, 000 | 29 | 42 | 13, 965 | 33, 525 | 162, 398 | 176, 971 |
| Durham..... | 15, 900 | 20, 950 | 6 | 4 | 0 | 10, 500 | 26, 906 | 35, 790 |
| Greensboro..... | 19, 333 | 7, 800 | 5 | 2 | 2, 815 | 19, 450 | 43, 593 | 55, 535 |
| High Point..... | 14, 300 | 37, 200 | 7 | 8 | 22, 490 | 8, 625 | 36, 790 | 47, 236 |
| Raleigh..... | 31, 409 | 1, 500 | 4 | 1 | 2, 250 | 22, 300 | 39, 208 | 25, 475 |
| Wilmington..... | 5, 800 | 7, 000 | 3 | 3 | 48, 100 | 2, 400 | 67, 200 | 15, 400 |
| Winston-Salem..... | 49, 651 | 14, 200 | 15 | 3 | 4, 530 | 24, 410 | 77, 431 | 72, 452 |
| South Carolina: | | | | | | | | |
| Charleston..... | 15, 600 | 9, 400 | 7 | 4 | 400 | 450 | 21, 688 | 19, 890 |
| Columbia..... | 32, 200 | 41, 600 | 17 | 14 | 9, 800 | 2, 450 | 59, 550 | 54, 090 |
| Greenville..... | 39, 500 | 22, 000 | 6 | 3 | 20, 450 | 13, 975 | 72, 993 | 42, 410 |
| Virginia: | | | | | | | | |
| Newport News..... | 16, 975 | 65, 387 | 7 | 13 | 176, 864 | 17, 692 | 208, 915 | 93, 808 |
| Norfolk..... | 45, 300 | 75, 500 | 13 | 19 | 30, 545 | 18, 115 | 97, 916 | 118, 555 |
| Petersburg..... | 4, 000 | 1, 000 | 1 | 2 | 0 | 865 | 4, 250 | 4, 890 |
| Portsmouth..... | 23, 050 | 15, 400 | 8 | 5 | 2, 621 | 1, 070 | 34, 456 | 58, 932 |
| Richmond..... | 362, 500 | 122, 550 | 30 | 24 | 46, 883 | 160, 150 | 450, 874 | 307, 882 |
| Roanoke..... | 71, 000 | 258, 000 | 21 | 2 | 3, 488 | 5, 725 | 79, 545 | 275, 974 |
| West Virginia: | | | | | | | | |
| Clarksburg..... | 14, 500 | 3, 600 | 5 | 2 | 35, 780 | 2, 415 | 60, 680 | 13, 365 |
| Huntington..... | (?) | 5, 100 | (?) | 2 | (?) | 1, 325 | (?) | 16, 725 |
| Parkersburg..... | 0 | 4, 000 | 0 | 1 | 8, 050 | 8, 875 | 10, 550 | 30, 938 |
| Wheeling..... | 11, 000 | 14, 000 | 2 | 2 | 6, 510 | 17, 235 | 41, 739 | 58, 109 |
| Total..... | 3, 752, 918 | 6, 322, 045 | 735 | 1, 423 | 3, 190, 768 | 2, 227, 682 | 8, 456, 090 | 10, 486, 549 |
| Per cent of change..... | | +68. 5 | | +93. 6 | | -30. 2 | | +24. 0 |

² No report received for March; April figures not included in total.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1931—Continued

South Central States

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|-------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | | | | |
| Alabama: | | | | | | | | |
| Birmingham..... | \$33,650 | \$4,100 | 12 | 5 | \$12,975 | \$284,136 | \$102,863 | \$382,518 |
| Mobile..... | 9,400 | 21,600 | 5 | 12 | 207,500 | 11,560 | 230,416 | 55,154 |
| Montgomery..... | 60,900 | 44,000 | 24 | 16 | 11,125 | 7,625 | 85,885 | 71,265 |
| Arkansas: | | | | | | | | |
| Little Rock..... | 72,760 | 20,800 | 14 | 8 | 3,494 | 36,470 | 93,384 | 116,465 |
| Kentucky: | | | | | | | | |
| Ashland..... | 0 | 0 | 0 | 0 | 15,000 | 450 | 17,125 | 6,225 |
| Covington..... | 31,700 | 5,000 | 10 | 1 | 6,925 | 4,660 | 53,730 | 21,745 |
| Louisville..... | 155,500 | 144,000 | 20 | 21 | 591,750 | 300,505 | 820,175 | 534,395 |
| Newport..... | 4,000 | 0 | 1 | 9 | 350 | 25,300 | 11,050 | 24,600 |
| Paducah..... | 11,700 | 3,200 | 6 | 2 | 65,600 | 1,550 | 77,600 | 5,750 |
| Louisiana: | | | | | | | | |
| Baton Rouge..... | 32,927 | 6,200 | 16 | 5 | 31,637 | 82,325 | 90,590 | 92,035 |
| Monroe..... | 6,850 | 9,050 | 7 | 6 | 1,000 | 75 | 15,265 | 9,375 |
| New Orleans..... | 57,793 | 93,486 | 26 | 37 | 514,114 | 2,224,546 | 638,836 | 2,375,019 |
| Shreveport..... | 25,315 | 50,614 | 8 | 21 | 7,150 | 5,048 | 74,152 | 82,741 |
| Mississippi: | | | | | | | | |
| Jackson..... | 39,000 | 48,675 | 15 | 17 | 6,460 | 250 | 49,960 | 61,510 |
| Oklahoma: | | | | | | | | |
| Enid..... | 15,595 | 9,550 | 7 | 6 | 3,850 | 1,350 | 19,445 | 12,830 |
| Oklahoma City..... | 326,800 | 543,750 | 94 | 77 | 1,949,850 | 1,123,910 | 2,395,825 | 1,708,545 |
| Okmulgee..... | 0 | 0 | 0 | 0 | 100 | 150 | 400 | 650 |
| Tulsa..... | 210,815 | 208,705 | 39 | 56 | 42,540 | 63,305 | 290,535 | 297,717 |
| Tennessee: | | | | | | | | |
| Chattanooga..... | 21,000 | 41,709 | 10 | 14 | 14,500 | 21,500 | 64,541 | 89,864 |
| Knoxville..... | 30,000 | 25,440 | 6 | 11 | 19,380 | 33,036 | 54,450 | 72,006 |
| Memphis..... | 48,100 | 92,950 | 26 | 32 | 34,450 | 52,910 | 250,534 | 221,000 |
| Nashville..... | 82,350 | 58,850 | 27 | 20 | 48,640 | 421,965 | 200,465 | 521,061 |
| Texas: | | | | | | | | |
| Austin..... | 117,730 | 142,197 | 48 | 70 | 7,094 | 75,126 | 132,664 | 232,369 |
| Beaumont..... | 47,900 | 20,225 | 11 | 11 | 62,190 | 68,562 | 139,774 | 109,169 |
| Corpus Christi..... | 56,500 | 10,250 | 35 | 11 | 6,475 | 1,300 | 73,715 | 15,450 |
| Dallas..... | 234,600 | 188,195 | 140 | 85 | 208,182 | 146,590 | 543,390 | 527,045 |
| El Paso..... | 82,290 | 117,405 | 33 | 31 | 44,247 | 25,895 | 147,417 | 182,181 |
| Fort Worth..... | 164,705 | 163,350 | 55 | 52 | 101,213 | 202,685 | 297,573 | 415,384 |
| Houston..... | 788,700 | 1,168,750 | 194 | 284 | 218,500 | 191,850 | 1,037,750 | 1,393,650 |
| San Antonio..... | 126,710 | 87,485 | 90 | 59 | 33,600 | 415,520 | 185,395 | 544,694 |
| Waco..... | 19,200 | 33,667 | 9 | 10 | 1,227,032 | 3,733 | 1,254,732 | 63,007 |
| Wichita Falls..... | 10,300 | 0 | 2 | 0 | 2,150 | 1,500 | 19,501 | 6,875 |
| Total..... | 2,924,780 | 3,363,203 | 990 | 980 | 5,499,073 | 5,835,377 | 9,469,137 | 10,254,294 |
| Per cent of change..... | | +15.0 | | -1.0 | | +6.1 | | +8.3 |

Mountain and Pacific States

| | | | | | | | | |
|---------------------|-----------|-----------|-----|-----|-----------|---------|-----------|-----------|
| Arizona: | | | | | | | | |
| Phoenix..... | \$81,900 | \$48,690 | 29 | 11 | \$820,369 | \$9,600 | \$907,919 | \$76,577 |
| Tucson..... | 39,700 | 62,300 | 16 | 20 | 279,035 | 15,349 | 335,474 | 115,380 |
| California: | | | | | | | | |
| Alameda..... | 85,500 | 29,800 | 21 | 7 | 6,040 | 2,110 | 96,677 | 43,684 |
| Alhambra..... | 95,450 | 82,750 | 36 | 27 | 132,650 | 21,700 | 233,150 | 110,750 |
| Bakersfield..... | 50,425 | 41,205 | 15 | 15 | 56,175 | 28,850 | 125,624 | 87,015 |
| Berkeley..... | 82,250 | 135,625 | 19 | 25 | 25,933 | 11,155 | 128,009 | 160,472 |
| Fresno..... | 73,000 | 70,850 | 20 | 17 | 21,615 | 11,705 | 115,285 | 105,093 |
| Glendale..... | 255,450 | 0 | 59 | 0 | 63,035 | 0 | 332,740 | 0 |
| Long Beach..... | 364,250 | 296,850 | 142 | 105 | 167,950 | 35,350 | 584,395 | 366,745 |
| Los Angeles..... | 2,214,249 | 1,700,864 | 780 | 548 | 1,410,267 | 912,906 | 4,272,107 | 3,509,653 |
| Oakland..... | 328,543 | 257,320 | 94 | 64 | 538,669 | 604,087 | 956,225 | 933,852 |
| Pasadena..... | 112,230 | 71,300 | 18 | 14 | 224,270 | 77,595 | 336,560 | 199,389 |
| Sacramento..... | 206,000 | 176,920 | 39 | 32 | 35,095 | 313,863 | 297,545 | 532,756 |
| San Bernardino..... | 73,945 | 58,500 | 23 | 16 | 4,379 | 22,690 | 91,619 | 93,687 |
| San Diego..... | 212,677 | 217,700 | 56 | 56 | 451,367 | 287,886 | 839,906 | 551,516 |
| San Francisco..... | 932,968 | 1,212,400 | 231 | 323 | 946,203 | 566,384 | 2,071,179 | 1,998,787 |
| San Jose..... | 109,200 | 60,300 | 34 | 13 | 47,125 | 23,155 | 207,035 | 135,645 |

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MARCH AND APRIL, 1931—Continued

Mountain and Pacific States—Continued

| State and city | New residential buildings | | | | New nonresidential buildings (estimated cost) | | Total construction, including alterations and repairs (estimated cost) | |
|--------------------------|---------------------------|-------------|--|-------------|---|-------------|--|-------------|
| | Estimated cost | | Families provided for in new dwellings | | March, 1931 | April, 1931 | March, 1931 | April, 1931 |
| | March, 1931 | April, 1931 | March, 1931 | April, 1931 | | | | |
| California—Contd. | | | | | | | | |
| Santa Ana | \$71,800 | \$44,400 | 14 | 12 | \$7,300 | 0 | \$88,235 | \$51,601 |
| Santa Monica | 93,250 | 131,200 | 23 | 31 | 4,925 | \$29,710 | 106,100 | 170,285 |
| Stockton | 84,750 | 69,600 | 21 | 16 | 39,332 | 21,090 | 134,457 | 103,388 |
| Vallejo | 18,800 | 23,300 | 4 | 5 | 505 | 8,006 | 27,930 | 42,475 |
| Colorado: | | | | | | | | |
| Colorado Springs... | 12,300 | 10,450 | 5 | 5 | 3,407 | 21,005 | 24,149 | 44,580 |
| Denver | 574,950 | 828,400 | 142 | 289 | 80,690 | 204,450 | 754,440 | 1,120,450 |
| Pueblo | 2,650 | 11,500 | 2 | 6 | 7,478 | 6,680 | 23,338 | 28,650 |
| Montana: | | | | | | | | |
| Butte | 0 | 0 | 0 | 0 | 5,835 | 9,175 | 6,710 | 14,200 |
| New Mexico: | | | | | | | | |
| Albuquerque | 50,050 | 87,800 | 17 | 20 | 21,475 | 5,804 | 78,871 | 121,302 |
| Oregon: | | | | | | | | |
| Portland | 287,950 | 286,550 | 73 | 59 | 260,070 | 127,765 | 677,750 | 527,290 |
| Salem | 20,505 | 31,365 | 9 | 19 | 4,405 | 4,910 | 28,363 | 45,839 |
| Utah: | | | | | | | | |
| Ogden | 10,800 | 9,000 | 5 | 4 | 0 | 3,500 | 11,300 | 14,700 |
| Salt Lake City | 85,800 | 224,350 | 25 | 58 | 25,625 | 46,214 | 149,889 | 298,163 |
| Washington: | | | | | | | | |
| Bellingham | 12,100 | 9,900 | 5 | 3 | 725 | 3,000 | 31,385 | 17,857 |
| Everett | 3,500 | 3,000 | 2 | 1 | 1,475 | 8,670 | 9,940 | 18,216 |
| Seattle | 347,275 | 296,320 | 123 | 106 | 307,228 | 424,699 | 910,623 | 994,549 |
| Spokane | 112,350 | 104,400 | 28 | 24 | 137,175 | 418,175 | 293,520 | 542,019 |
| Tacoma | 91,500 | 32,000 | 42 | 14 | 220,340 | 115,550 | 347,950 | 193,915 |
| Total | 7,198,127 | 6,726,909 | 2,172 | 1,965 | 6,358,167 | 4,402,788 | 15,636,399 | 13,370,480 |
| Per cent of change | | -6.5 | | -9.5 | | -30.8 | | -14.5 |

Hawaii

| | | | | | | | | |
|--------------------------|-----------|-----------|----|-------|----------|-----------|-----------|-----------|
| Honolulu | \$164,100 | \$170,822 | 90 | 57 | \$64,246 | \$255,861 | \$263,304 | \$454,743 |
| Per cent of change | | +4.1 | | -36.7 | | +298.3 | | +72.7 |

WAGES AND HOURS OF LABOR

Recent Changes in Wages and Hours of Labor

INFORMATION received by the bureau regarding wage changes is presented below in two distinct groups: Part 1 relates to manufacturing establishments that report monthly figures regarding volume of employment, while part 2 presents data obtained from new trade agreements and other miscellaneous sources. Although the effort is made, it is not always possible to avoid duplication of data as between parts 1 and 2.

Part 1.—Wage-Rate Changes in Manufacturing Industries

EIGHT establishments in 6 industries reported wage-rate increases during the month ending April 15. These increases, averaging 6.8 per cent, affected 345 employees or 20 per cent of all employees in the establishments concerned.

One hundred and ninety-five establishments in 47 industries reported wage-rate decreases during the same period. These decreases, averaging 10.1 per cent, affected 22,543 employees or 72 per cent of all employees in the establishments concerned.

Twenty-four of the wage-rate decreases were reported by establishments in the textile group of industries; 38 of the decreases were in the iron and steel group of industries; 41 decreases were in the lumber group of industries.

WAGE CHANGES OCCURRING BETWEEN MARCH 15 AND APRIL 15, 1931

| Industry | Establishments | | Per cent of increase or decrease in wage rate | | Employees affected | | |
|------------------------------|--|---|---|---------|--------------------|--|---------------------------------|
| | Total number reporting employment and pay roll | Number reporting increase or decrease in wage rates | Range | Average | Total number | Per cent of employees | |
| | | | | | | In establishments reporting increase or decrease in wage rates | In all establishments reporting |
| | | | <i>Increases</i> | | | | |
| Hosiery and knit goods..... | 350 | 1 | 5.0-15.0 | 8.6 | 121 | 12 | (1) |
| Paper boxes..... | 312 | 1 | 10.0 | 10.0 | 12 | 7 | (1) |
| Printing, book and job..... | 608 | 2 | 2.0-7.0 | 2.2 | 75 | 40 | (1) |
| Printing, newspapers..... | 447 | 1 | 2.0 | 2.0 | 45 | 24 | (1) |
| Fertilizers..... | 205 | 1 | 10.0 | 10.0 | 40 | 27 | (1) |
| Agricultural implements..... | 83 | 2 | 10.0 | 10.0 | 52 | 100 | (1) |
| Total..... | | 8 | 2.0-15.0 | 6.8 | 345 | 20 | |

¹ Less than one-half of 1 per cent.

WAGE CHANGES OCCURRING BETWEEN MARCH 15 AND APRIL 15, 1931—Continued

| Industry | Establishments | | Per cent of increase or decrease in wage rate | | Employees affected | | |
|--|--|---|---|---------|--------------------|--|---------------------------------|
| | Total number reporting employment and pay roll | Number reporting increase or decrease in wage rates | Range | Average | Total number | Per cent of employees | |
| | | | | | | In establishments reporting increase or decrease in wage rates | In all establishments reporting |
| | | | <i>Decreases</i> | | | | |
| Slaughtering and meat packing..... | 213 | 4 | 10.0-13.0 | 10.8 | 262 | 83 | (1) |
| Confectionery..... | 332 | 1 | 5.0 | 5.0 | 107 | 16 | (1) |
| Ice cream..... | 322 | 2 | 5.0-8.0 | 7.3 | 13 | 34 | (1) |
| Flour..... | 399 | 8 | 10.0-15.0 | 11.6 | 401 | 99 | 3 |
| Baking..... | 725 | 10 | 2.5-25.0 | 8.6 | 566 | 75 | 1 |
| Cotton goods..... | 445 | 10 | 7.0-20.0 | 11.3 | 4,104 | 85 | 2 |
| Hosiery and knit goods..... | 350 | 2 | 8.0-10.0 | 8.6 | 216 | 87 | (1) |
| Silk goods..... | 254 | 1 | 15.0 | 15.0 | 159 | 20 | (1) |
| Woolen and worsted goods..... | 193 | 3 | 10.0 | 10.0 | 234 | 98 | (1) |
| Carpets and rugs..... | 30 | 1 | 12.5 | 12.5 | 30 | 13 | (1) |
| Dyeing and finishing textiles..... | 120 | 1 | 10.0 | 10.0 | 184 | 100 | 1 |
| Clothing, men's..... | 349 | 1 | 10.0 | 10.0 | 170 | 100 | (1) |
| Clothing, women's..... | 399 | 1 | 10.0 | 10.0 | 52 | 100 | (1) |
| Millinery and lace goods..... | 122 | 4 | 7.5-15.0 | 9.7 | 1,368 | 82 | 9 |
| Iron and steel..... | 187 | 1 | 5.0 | 5.0 | 110 | 100 | (1) |
| Cast-iron pipe..... | 43 | 1 | 10.0 | 10.0 | 43 | 100 | (1) |
| Structural ironwork..... | 170 | 3 | 8.0-20.0 | 12.7 | 47 | 76 | (1) |
| Foundry and machine-shop products..... | 1,093 | 25 | 4.0-20.0 | 10.3 | 2,979 | 87 | 2 |
| Hardware..... | 91 | 1 | 10.0 | 10.0 | 327 | 100 | 1 |
| Machine tools..... | 150 | 1 | 5.0 | 5.0 | 119 | 100 | 1 |
| Steam fittings and steam and hot-water heating apparatus..... | 107 | 1 | 11.0 | 11.0 | 300 | 68 | 1 |
| Stoves..... | 135 | 5 | 8.5-12.5 | 9.2 | 419 | 36 | 2 |
| Lumber, sawmills..... | 698 | 17 | 5.0-25.0 | 9.6 | 2,064 | 86 | 2 |
| Lumber, millwork..... | 324 | 12 | 5.0-20.0 | 11.9 | 1,396 | 94 | 6 |
| Furniture..... | 462 | 12 | 10.0-21.6 | 12.0 | 854 | 87 | 2 |
| Leather..... | 131 | 7 | 5.0-10.0 | 7.0 | 447 | 32 | 2 |
| Paper and pulp..... | 246 | 2 | 10.0 | 10.0 | 337 | 100 | 1 |
| Paper boxes..... | 312 | 2 | 10.0-13.5 | 10.5 | 71 | 59 | (1) |
| Printing, book and job..... | 608 | 2 | 10.0 | 10.0 | 389 | 100 | 1 |
| Printing, newspapers..... | 447 | 2 | 3.2-10.0 | 8.2 | 101 | 65 | (1) |
| Fertilizers..... | 205 | 3 | 10.0-20.0 | 11.4 | 147 | 75 | 1 |
| Cement..... | 113 | 2 | 10.0-12.5 | 11.0 | 241 | 89 | 1 |
| Brick, tile, and terra cotta..... | 729 | 21 | 4.0-20.0 | 9.9 | 1,102 | 93 | 3 |
| Pottery..... | 116 | 3 | 10.0-20.0 | 11.3 | 157 | 15 | 1 |
| Glass..... | 170 | 2 | 10.0 | 10.0 | 86 | 43 | (1) |
| Stamped and enameled ware..... | 78 | 1 | 10.0 | 10.0 | 8 | 100 | (1) |
| Brass, bronze, and copper products..... | 156 | 3 | 5.0-10.0 | 5.1 | 325 | 88 | 1 |
| Cigars and cigarettes..... | 185 | 1 | 4.0 | 4.0 | 443 | 48 | 1 |
| Automobiles..... | 218 | 2 | 10.0 | 10.0 | 1,076 | 100 | (1) |
| Car building and repairing, steam-railroad..... | 537 | 3 | 6.0 | 6.0 | 94 | 64 | (1) |
| Agricultural implements..... | 83 | 3 | 5.0-11.0 | 9.4 | 633 | 45 | 4 |
| Electrical machinery, apparatus and supplies..... | 206 | 2 | 10.0 | 10.0 | 95 | 25 | (1) |
| Pianos and organs..... | 65 | 2 | 10.0-12.5 | 12.1 | 155 | 100 | 3 |
| Shipbuilding..... | 87 | 1 | 10.0 | 10.0 | 59 | 100 | (1) |
| Paint and varnish..... | 284 | 1 | 10.0 | 10.0 | 22 | 100 | (1) |
| Beverages..... | 255 | 1 | 4.0 | 4.0 | 8 | 100 | (1) |
| Cash registers, adding machines, and calculating machines..... | 45 | 1 | 10.0 | 10.0 | 23 | 10 | (1) |
| Total..... | | 195 | 2.5-25.0 | 10.1 | 22,543 | 72 | ----- |

1 Less than one-half of 1 per cent.

Part 2.—Wage Changes Reported by Trade-Unions Since February, 1931

CHANGES in wages and hours reported by trade-unions and, in a few instances, from other sources are given in the table following. Notices of these changes received during the past month and covering the months since February show changes for 19,985 workers, of whom 10,821 were reported to have obtained the 5-day week and 4,586 suffered reductions in wage rates. In the building-trades group the principal change reported was the adoption of the 5-day week, the number of increases and decreases in wages being about equal. Almost the only group to show any consistent advance in wages was the printing trades, where increases of from \$1 to \$5 per week were secured.

RECENT UNION WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, FEBRUARY TO MAY, 1931

| Industry, occupation, and locality | Date of change | Rate of wages | | Hours per week | |
|---|----------------|------------------------------|------------------------------|----------------|--------------|
| | | Before change | After change | Before change | After change |
| Barbers, Scranton, Pa.----- | Apr. 1.--- | <i>Per week</i> 1 \$30.00 | <i>Per week</i> 2 \$28.00 | 59 | 59 |
| Building trades: | | | | | |
| Carpenters— | | <i>Per hour</i> | <i>Per hour</i> | | |
| Baltimore, Md. (city job)----- | Apr. 18.--- | 1.10 | 1.04½ | 40 | 40 |
| Boston, Mass.----- | Apr. 1.--- | 1.37½ | 1.37½ | 44 | 40 |
| Fremont, Ohio.----- | do.----- | 1.00 | .80 | 48 | 48 |
| Hollywood, Calif. (studio work)----- | May 1.--- | 1.06¼ | 1.09¾ | 48 | 48 |
| Portland, Oreg.----- | do.----- | (3) | (3) | 44 | 40 |
| San Diego, Calif., and vicinity.----- | May 8.--- | 1.00 | 1.00 | 44 | 40 |
| Engineers, hoisting, Portland, Oreg.----- | May 1.--- | (3) | (3) | 44 | 40 |
| House wreckers, New York, N. Y., and vicinity.----- | Apr. 18.--- | 1.25-1.35 | 1.00-1.10 | 44 | 44 |
| Laborers, Portland, Oreg.----- | May 1.--- | (3) | (3) | 44 | 40 |
| Masons, East Liverpool, Ohio.----- | do.----- | 1.50 | 1.25 | 44 | 44 |
| Mosaic and terrazzo workers, Detroit, Mich., and vicinity.----- | Mar. 20.--- | 1.00 | 1.12½ | 44 | 44 |
| Painters and paper hangers, Kingsville, Tex.----- | Mar. 1.--- | 1.12½ | 1.12½ | 44 | 40 |
| Pile drivers, Portland, Oreg.----- | May 1.--- | (3) | (3) | 44 | 40 |
| Plumbers and steam fitters— | | | | | |
| Bellingham, Wash.----- | Mar. 24.--- | (3) | (3) | 45 | 40 |
| Superior, Wis.----- | Feb. 15.--- | 1.12½ | 1.12½ | 44 | 40 |
| Waukegan, Ill., and vicinity.----- | Apr. 1.--- | 1.70 | 1.70 | 44 | 40 |
| Wenatchee, Wash.----- | Feb. 2.--- | 1.12½ | 1.00 | 44 | (4) |
| Structural-iron workers, Portland, Oreg.----- | May 1.--- | (3) | (3) | 44 | 40 |
| Terrazzo workers, helpers, Detroit, Mich., and vicinity.----- | Mar. 20.--- | .75-.80 | .80-.90 | 44 | 44 |
| All building-trades workers— | | | | | |
| Alliance, Ohio.----- | (3) | (3) | (3) | 45 | 40 |
| San Bernardino, Calif.----- | Apr. 1.--- | (3) | (3) | 44 | 40 |
| Chauffeurs and teamsters, truck drivers, Chicago, Ill.----- | do.----- | <i>Per week</i> 42.00 | <i>Per week</i> (5) | 57½ | 55 |
| Furniture workers: Upholsterers, High Point, N. C.----- | Feb. 2.--- | (6) | (7) | 55 | 55 |
| Leather workers: Tannery workers, Milwaukee, Wis.----- | Feb. 11.--- | 24.25 | 22.00 | 50 | 50 |
| Lumber, timber and mill work: | | | | | |
| Box-factory workers, Klamath Falls, Oreg., and vicinity.----- | Mar. 10.--- | <i>Per day</i> 3.20-5.60 | <i>Per day</i> (8) | 43 | 48 |
| Mill carpenters, Chicago, Ill.----- | Feb. 5.--- | <i>Per hour</i> 1.20 | <i>Per hour</i> (9) | 44 | 44-48 |
| Miners, Lico, W. Va.----- | Mar. 9.--- | <i>Per day</i> 3.20-4.00 | <i>Per day</i> 2.50-3.00 | (5) | (3) |

1 And 50 per cent of receipts over \$40.

2 And 50 per cent of receipts over \$38.

3 Not reported.

4 Unlimited.

5 No change.

6 Piecework.

7 20 per cent reduction.

8 10 per cent reduction.

9 Reduction, amount not reported.

RECENT UNION WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY,
FEBRUARY TO MAY, 1931—Continued

| Industry, occupation, and locality | Date of change | Rate of wages | | Hours per week | |
|---|----------------|--|-------------------------------------|------------------|------------------|
| | | Before change | After change | Before change | After change |
| Printing trades: | | | | | |
| Compositors— | | | | | |
| Ashtabula, Ohio: | | <i>Per week</i> | <i>Per week</i> | | |
| Job work, day..... | Apr. 1..... | \$30. 00 | \$35. 00 | 44 | 44 |
| Job work, night..... | do..... | 33. 00 | 38. 00 | 44 | 44 |
| Newspaper work, day..... | do..... | 30. 00 | 35. 00 | 48 | 48 |
| Newspaper work, night..... | do..... | 33. 00 | 38. 00 | 48 | 48 |
| Green Bay, Wis.: | | | | | |
| Job work..... | May 1..... | 35. 00 | 36. 00 | 44 | 44 |
| Newspaper work..... | do..... | 35. 00 | 36. 00 | 48 | 48 |
| New York, N. Y., newspaper work..... | do..... | (³) | (³) | 45 | ¹⁰ 45 |
| Street-railway workers: | | | | | |
| Shreveport, La..... | Feb. 15..... | <i>Per hour</i> 0. 45-0. 65 | <i>Per hour</i> 0. 45-0. 60 | 48-60 | 48-60 |
| Tulsa, Okla., motormen and bus drivers..... | Mar. 1..... | (³) | (³) | 70 | 60 |
| Municipal workers: | | | | | |
| Fall River, Mass.— | | | | | |
| Firemen..... | Apr. 5..... | (³) | (⁷) | (³) | (³) |
| Police department employees..... | Apr. 6..... | (³) | (¹¹) | (³) | (³) |
| School department employees, superintendent, supervisors, principals, and teachers..... | Apr. 4..... | <i>Per year</i> 1, 300. 00-7, 500. 00 | <i>Per year</i> (⁷) | (³) | (³) |
| Clerks..... | do..... | 1, 200. 00-2, 800. 00 | (⁷) | (³) | (³) |
| Janitors and repairmen..... | do..... | <i>Per week</i> 28. 50-33. 50 | <i>Per week</i> (⁷) | (³) | (³) |
| Fremont, Ohio, road construction and repair workers..... | May 1..... | <i>Per hour</i> . 50-. 75 | <i>Per hour</i> . 40-. 65 | 48 | 48 |

³ Not reported.⁴ No change.⁷ 20 per cent reduction.¹⁰ Sixth day of week given to some unemployed member of union.¹¹ 15 per cent reduction.

Salaries of Social Workers, 1929

DURING the summer of 1929 a study of the salaries paid to social workers of member agencies of the Family Welfare Association was made by the Russell Sage Foundation. Data were secured for May, 1929, from 217 of the 229 agencies. With the cooperation of the Bureau of Jewish Social Research, information was secured on salaries paid by 47 Jewish family welfare agencies. All but two of these reports were also for May, 1929. The Jewish organizations, like the member agencies, are scattered over the United States. One member agency, however, is in Honolulu and four member agencies and two Jewish agencies are in Canada. The majority of the organizations are located in large cities. In both groups the few agencies which did not give salary figures were small organizations.

While 264 agencies in all reported on salaries, the figures of 4 were not included, 3 having only part-time or volunteer workers and 1 having maintenance provided as part of compensation. A summary of the findings on salaries is here reproduced from the report on this investigation.

SALARIES FOR THE MORE COMMON POSITIONS IN 260 FAMILY CASE WORK ORGANIZATIONS IN MAY, 1929

| Position | Size of organization (workers) | Annual salaries | | | | | Number of workers included | Number of organizations represented |
|--|--------------------------------|-----------------|----------------|---------|----------------|------------------|----------------------------|-------------------------------------|
| | | Lowest | Lower quartile | Median | Upper quartile | Highest | | |
| Executives..... | 1..... | \$1,092 | | \$1,500 | | \$1,800 | 7 | 7 |
| | 2 or 3..... | 1,020 | \$1,800 | 2,020 | \$2,400 | 4,000 | 74 | 74 |
| | 4 or 5..... | 1,500 | 2,100 | 2,400 | 2,550 | 6,000 | 45 | 45 |
| | 6 to 9..... | 1,800 | 2,505 | 2,820 | 3,000 | 5,000 | 47 | 47 |
| | 10 to 19..... | 2,400 | 3,200 | 3,600 | 4,900 | 7,000 | 28 | 28 |
| | 20 to 49..... | 2,400 | 3,525 | 4,750 | 5,500 | 9,000 | 23 | 23 |
| Subexecutives in charge of family-case work. | 4 or more..... | 4,200 | 5,000 | 7,250 | 9,000 | (¹) | 18 | 18 |
| | 75 or more..... | 3,300 | | 4,150 | | 6,000 | 10 | 10 |
| Case-work supervisors..... | 6 to 9..... | 1,560 | 1,800 | 1,930 | 2,100 | 2,400 | 14 | 14 |
| | 10 to 19..... | 1,800 | 2,070 | 2,400 | 2,820 | 3,600 | 24 | 24 |
| | 20 to 49..... | 1,800 | 2,100 | 2,400 | 2,775 | 3,600 | 25 | 25 |
| | 50 or more..... | 1,980 | 2,780 | 3,050 | 3,300 | 4,200 | 20 | 17 |
| District secretaries..... | 10 to 19..... | 1,200 | | 1,920 | | 2,400 | 8 | 4 |
| | 20 to 49..... | 1,320 | 1,705 | 1,980 | 2,100 | 2,460 | 63 | 17 |
| | 50 or more..... | 1,300 | 2,000 | 2,180 | 2,550 | 3,000 | 156 | 18 |
| Assistant district secretaries..... | 50 or more..... | 1,350 | 1,680 | 1,860 | 2,100 | 2,600 | 48 | 9 |
| Case workers..... | 2 or 3..... | 900 | 1,200 | 1,300 | 1,500 | 1,950 | 39 | 39 |
| | 4 or 5..... | 720 | 1,200 | 1,400 | 1,550 | 2,100 | 80 | 47 |
| | 6 to 9..... | 720 | 1,200 | 1,500 | 1,730 | 2,100 | 131 | 46 |
| | 10 to 19..... | 840 | 1,260 | 1,500 | 1,620 | 2,200 | 163 | 31 |
| | 20 to 49..... | 900 | 1,265 | 1,500 | 1,680 | 2,000 | 271 | 25 |
| | 50 or more..... | 840 | 1,380 | 1,560 | 1,800 | 2,520 | 475 | 18 |
| Case workers in training..... | 4 or 5..... | 600 | | 780 | | 1,300 | 10 | 9 |
| | 6 to 9..... | 300 | 900 | 1,040 | 1,350 | 1,500 | 31 | 17 |
| | 10 to 19..... | 360 | 1,000 | 1,080 | 1,200 | 1,500 | 41 | 19 |
| | 20 to 49..... | 600 | 990 | 1,140 | 1,260 | 1,560 | 69 | 16 |
| | 50 or more..... | 600 | 1,020 | 1,200 | 1,320 | 1,680 | 219 | 14 |
| | 4 or 5..... | 900 | | 1,140 | | 1,320 | 8 | 8 |
| Bookkeepers and stenographer-bookkeepers. | 6 to 9..... | 960 | 1,200 | 1,250 | 1,500 | 1,860 | 22 | 22 |
| | 10 to 19..... | 960 | 1,275 | 1,600 | 1,615 | 2,400 | 27 | 27 |
| | 20 to 49..... | 1,140 | 1,320 | 1,560 | 2,010 | 2,400 | 25 | 23 |
| | 50 or more..... | 1,200 | 1,680 | 1,860 | 2,250 | 3,600 | 24 | 17 |
| | 2 or 3..... | 520 | 810 | 1,036 | 1,200 | 1,800 | 60 | 60 |
| Secretaries, stenographers, and clerks. | 4 or 5..... | 720 | 900 | 1,106 | 1,200 | 1,800 | 50 | 44 |
| | 6 to 9..... | 600 | 900 | 1,068 | 1,200 | 1,800 | 66 | 45 |
| | 10 to 19..... | 600 | 900 | 1,080 | 1,200 | 1,800 | 94 | 33 |
| | 20 to 49..... | 600 | 960 | 1,140 | 1,300 | 1,980 | 189 | 25 |
| | 50 or more..... | 600 | 1,080 | 1,260 | 1,500 | 2,760 | 510 | 18 |

¹ Over \$10,000.

The proportion of the clerical force to other staff members was found to be approximately 1 to 2, while the ratio of those defined as case workers in training to case workers is reported as 1 to 3, with relatively more case workers being trained in the larger agencies.

The agencies employ few men and in this small group executives predominate. The salaries of man executives tend to be substantially above those of woman executives. Man case workers and case workers in training apparently receive about the same as women.

A comparison of salaries paid by Jewish agencies with all the other organizations included in the study indicated a tendency among the former to pay slightly higher salaries.

The length of vacations varies somewhat with salaries, being most commonly one month for executives and the case-work staff. Vacations, however, are also quite frequently four weeks for such employees. Vacations for stenographers are predominantly two weeks. Slightly over 25 per cent of the agencies grant the same length of vacation to all staff members, and approximately 75 per cent of the organizations having case workers grant the same vacations to these workers as to executives.

Operation of 6-Hour Day in Plants of the Kellogg Co.

THE Kellogg Co., of Battle Creek, Mich., manufacturers of cereal foods, adopted the 6-hour day December 1, 1930, primarily to help relieve unemployment. By continuing to operate 24 hours a day and replacing the former 3 daily shifts of 8 hours each with the present system of 4 shifts of 6 hours each, the company reported that it was enabled to employ about 20 per cent more workers.

A description of operations under the plan is given in a press statement by Lewis J. Brown, president of the company, under date of April 14. This statement is given in full below.

Statement by President of Company

WHEN the mists which have obscured the business horizon for the past year and a half finally lift, and normal visibility prevails once more, it is entirely possible that we shall discover that we still have more people than we have jobs. For in the mad race for production in the period just before the depression, American engineering skill and ingenuity was working at top speed on the development of automatic machinery and the simplification and acceleration of industrial processes; and many of the machines and processes developed during that period have not yet been put into operation, due to the fact that just as they were about ready to start, the bottom dropped out of business.

In the old days, such a situation would have made it incumbent upon labor to assume a belligerent attitude and start to fight against the adoption of any and all new machines and processes. But happily we have arrived at a point where management, as well as labor, realizes that such a problem is fundamental to industry, and that a way must be found to give people work if we expect them to consume. Our whole American system of economics is based on steady and universal consumption.

The Kellogg Co. has already faced this situation. We have adopted the 6-hour day. We adopted it as an emergency expedient to relieve the unemployment situation in Battle Creek, where our main plant is located. But it has proved so satisfactory that so far as we can see now we shall adopt the 6-hour day as a permanent operating policy.

Admittedly, a policy which fits a cereal business, operating continuously 24 hours a day, 6 days a week, will not fit every type of business. On the other hand, I am convinced that there are many industries in the United States that would find the 6-hour day not only practicable but actually profitable to themselves and their communities, through the greater security of their workers, and their protection and well-being as consumers.

It is this belief which leads me to comply with the request that I outline our plan of 6-hour-day operation, and report on its results to date and its promise for the future.

The Background Facts

First let us consider a few background facts which bear on the situation and show the need for considering the adoption of the 6-hour day—or some shorter working period.

During the past 17 years the rate of population throughout the world has increased 10 per cent, while the production of food products and raw materials has increased 25 per cent.

In the United States the population during the past 17 years has increased 25 per cent, while the production of food products and raw materials has increased 60 per cent. In other words, production has increased more than twice as fast as the population.

This brings us face to face with the fact that throughout the world, and especially in the United States, there is a large overcapacity of production facilities. This is convincingly evidenced at this time by the low capacity at which the manufacturing plants have been running, and also by the 6,050,000 people out of employment last January, as reported by the United States Department of Commerce.

It has been argued by writers and self-styled economists, that a revival of purchasing power would immediately bring out "prosperity." Advertising campaigns and other promotional activities have been indulged in, urging people to spend their money and also asking manufacturers to make commitments for raw materials, machinery, and other goods to stimulate business.

Actually, prosperity can not be stabilized in this country unless the people have continuous employment, for prosperity depends upon the purchasing power of the public, and unless the men and women who make up the public have employment, they will not have the money to spend. Furthermore, unless those who have employment feel reasonably secure in their jobs, they will be slow to spend their money.

I believe the time has come to admit to ourselves that we can not expect consumption of manufactured products to equal the production capacity of our industries. If this is true, it is a fundamental fact which we must learn to live with. And capital and management are as deeply concerned as labor in finding a solution to the problem it represents.

There is an additional angle of the problem, and a relatively new one: Several large countries—Russia, France, England, Germany, and others—are now importing or developing modern machinery. They have seen our success and they are rehabilitating their plants to go into competition with us.

There has been considerable argument that labor-saving machinery is absolutely necessary to our standard of living, and more necessary in this country than in any other, inasmuch as we are now paying two, three, or four times the rate per hour paid to the workers in the countries of Europe. If we are to compete successfully with these European countries, who seem to have awakened to the fact that a high rate of efficiency, obtainable only with modern machinery and processes, is absolutely necessary, we must continue to develop labor-saving equipment in the interests of progressively reducing our costs.

Such a problem as this can hardly be solved on a national scale. It must be worked out in individual industries by men with the courage to face the situation and the desire to adjust their own enterprises, no matter how small or how great, to the trend of the times and to the public need.

From Eight Hours to Six

In our own business the reduction of the working-day from eight hours to six hours seemed to be the most practical method of adjusting ourselves to the needs of the current situation, and at the same time of working toward a permanent adjustment to economic trends. Also, it promised to iron out some inequalities and eliminate some petty evils which had grown up over a period of years, including the rectifying of some faulty pay-roll practices which had originated during the war period and never been readjusted.

Under our old plan of working three 8-hour shifts our employees on each shift were given a half-hour meal period, and also were paid time and a half for all time over eight hours, as well as for all work on Sundays.

Employees working on the 3 to 11 p. m. shifts were paid 5 per cent more than the employees working on the 7 to 3 p. m. shifts, while the employees working on the 11 p. m. to 7 a. m. shifts were paid 5 per cent over the previous shifts, or 10 per cent over the 7 a. m. to 3 p. m. shifts.

There is a tendency in the 8-hour day to slow down before meal-time; and the pick-up after mealtime is always slow.

We took all this into consideration, along with the current unemployment situation, and decided to act.

On December 1, 1930, we introduced the 6-hour day into our plant, creating four 6-hour shifts instead of three 8-hour shifts. These four shifts are organized as follows: Shift 1, from 6 a. m. to 12 noon; shift 2, from 12 noon to 6 p. m.; shift 3, from 6 p. m. to 12 midnight; and shift 4, from 12 midnight to 6 a. m.

Under such a schedule there are no inequalities. Each shift has equal advantages. This eliminated the need for extra allowances for any shift, and also eliminated the stop for meals, as each shift works straight through without a break.

It can be readily seen that in working on a 6-hour basis the efficiency is greater than when working on an 8-hour basis, for only 6 hours of energy and application are required out of the 24 hours of the day.

It is much like a relay race, this 6-hour-shift method of operation. If a man started out to run a mile himself he would realize that he could not run at full speed all the way; he would run at a steady gait, but never at his best speed. But if this same man were one of four in a mile relay race, each running a quarter of a mile, he could let himself go, as could his three teammates, and the over-all time for the mile run would be much shorter.

In working a 6-hour shift, the employee starts out and works steadily at full capacity for 6 hours, and in doing so naturally increases the per hour production efficiency at his task or station during those 6 hours. Then he stops and has 18 hours for rest and recreation, and his task or station is taken over by another worker, fresh from 18 hours of rest and recreation.

Less Tendency to Succumb to Monotony

In a business such as ours, where the jobs outside of mechanical and maintenance are mostly repetitious, the work tends to become monotonous. It used to be that toward the end of an 8-hour shift,

the employees grew somewhat careless and waste increased. We had to adjust the speed of our processes and machines to this human factor. In a shorter working-day the workers are much more alert and efficient, knowing that the working time is short, and that it "won't be long now" until the whistle will blow. Because of this we were able to make a slight increase in the rate of our production lines that multiplies itself into a substantial increase in total production and gives us a greater return on our investment and machinery.

We have discovered also, that this increased production tempo is a benefit to the workers, for it keeps their minds alertly intent upon their work and makes the time pass more swiftly and pleasantly. With the working period so short, fatigue is not a factor as it was in the longer working-day.

Other Advantages to Employees

While the chief advantages to the worker, under the 6-hour day, are fairly obvious in the actual operation, we have discovered others which were not so obvious to us before we inaugurated the system. An enumeration of these advantages may prove interesting:

More leisure time for recreation (embracing both rest and play).

Opportunity to cultivate farms or gardens, especially by those living on the outskirts of the city, affording them both wholesome exercise and a supply of fruits and flowers, vegetables, and dairy products for their tables.

Time to pursue educational courses, music, or other cultural studies.

Increased incentive to prepare for managerial jobs, as the change from three to four shifts makes necessary an additional full staff of managers, foremen, foreladies, etc.

Less fatigue due to smaller number of hours of work daily, and longer periods of rest between, resulting in a more healthy, ambitious, alert, and aggressive working force.

Opportunity for mothers who must support children to earn a living and yet have ample time at home to care for their families.

Less waste time, due to concentration of work in a single period.

Decreased cost of living, on account of being able to have all meals at home.

Greater assurance of a steady job due to the fact that the increase in the number of workers employed absorbs more of the city's working people, makes them earners and consumers, and stabilizes the local industrial situation.

I hesitate to stop here, for almost daily our employees are finding additional advantages in the plan. But this brief list will serve to indicate the directions those advantages take.

Meanwhile, what of the company? Are its stockholders getting a square deal?

Advantages to the Business

The list of advantages to the company is almost as impressive. It includes:

Increased daily production from the plant as an operating unit, due to increased production at every station or task, slight in itself but considerable in the aggregate.

Elimination of meal periods, with their waste, and the expense of a large cafeteria.

Increased return from the capital invested in plant and machinery, owing to the increased rate of plant operation.

Opportunity for reorganizing the working force to rectify inequalities and fit all "pegs" in appropriate "holes."

Decreased overhead due to the fact that the factory produces more packages of cereals per dollar of overhead than under the 8-hour shift. We have found that in our plant, where the overhead in proportion to direct labor is approximately two and one-half times, that if we increase the efficiency, thereby decreasing the cost per package of cereal, the overhead drops two and one-half times more than the direct labor cost per package. Or, in other words, if we save 10 cents per hundred pounds of production on direct labor, we would save 25 cents additional on overhead. As the majority of our foremen and foreladies also work on production, the increased supervisory force does not have any material effect on the pay roll, and it is offset by the increased efficiency obtained from the plant as an operating machine.

Wage Adjustment

In reducing the number of working hours a day, under the 6-hour-day plan, there was naturally a reduction in the day wages for the higher-paid employees. In fact, there are two hours' less work, or 25 per cent less actual working time.

Our company made a study of what the daily wage should be for an employee to give him approximately the same purchasing power as he had had two years or so ago, when commodity prices were much higher. It was found that if we increased the base rate of the employees 12½ per cent, their purchasing power would be, when operating 6 hours a day, 6 days a week, approximately the same as it was in 1928.

An investigation was also made of the minimum daily wage a male employee should have, in order to provide himself and family with a proper living. As a result, it was decided that the minimum wage for a male employee should be \$4 per day, this being the same rate we were paying when operating on the 8-hour basis—a minimum wage of 50 cents an hour, or \$4 for an 8-hour day. Thus, in working on a 6-hour-day basis, the base rate for the minimum wage of an employee was increased 33⅓ per cent. While those receiving a higher wage received a 12½ per cent increase in base rate.

In determining the increase in hourly wages it was necessary that this figure be so established as to be sufficient for the employees to continue to live at the same scale as on the 8-hour shift, and it was also necessary to keep in mind the pay-roll cost so as not materially to affect the cost of production.

Therefore, the cost of living was considered in connection with this preliminary study and in announcing the new plan to the employees the results of this investigation were given. For we believe workers have a right to know how wage rates are arrived at, and that they will respond in intelligent fashion to the needs of a given situation if that situation is explained to them simply and honestly. For this reason we did not put the plan into operation without careful preparation. We realized that we were taking a novel and drastic step, and that, as with any new idea, thoughtless resistance might easily develop unless we gave the management group time to think it over and talk it over.

How the Plan was Inaugurated

Accordingly a series of special meetings was called. First the administrative group. Then the factory managerial staff, including superintendents. Then the foremen and foreladies. Following these meetings we allowed time for discussion and assimilation.

After due deliberation, and the answering of many questions, all the groups finally agreed that the plan was feasible. The department foremen then conveyed this information to the employees and explained to them the various phases of the proposed arrangement. Immediately thereafter a general meeting was held and at this time the plan was finally approved and the date of its inauguration was publicly announced.

After having obtained the approval of the plan, our industrial research department, which had prepared the studies dealing with the advisability of the change, was instructed to make the necessary preparations, such as reorganization of the pay-roll function; assisting in reorganizing the various groups and departments; assigning to the factory key men their individual tasks, such as the employing of new help, promoting various employees to foremen and foreladies; rearranging production schedules and so on.

As a result of this careful preparation there was absolutely no confusion at the time of the change. A complete program of procedure was prepared in advance and followed out to the letter.

Before the adoption of the plan careful studies had been made in every department in our factory, so that employees might be put on the jobs best suited to them, and also for the best interests of the company. Ratings were set, whereby an employee in one department working at the same job as an employee in another, would get the same occupational rating, except that an additional allowance was given to employees who had been with the company for a period of years.

This careful placement of employees was not necessarily peculiar to the 6-hour shift, but special care was taken at the time of reorganizing the various groups to place persons especially fitted for certain tasks so that the increased force required by the 6-hour shift would be minimized. This was an opportune time for such adjusting to be done.

The Proof of the Pudding

The plan has now been in operation for nearly six months. While no executive is safe in stating that any given policy will be followed out in perpetuity, I have no hesitancy in stating that unless some at present unlooked-for development occurs, or some unsuspected weakness develops in the plan, we shall continue to operate on the 6-hour day permanently. It is a profitable operating plan—profitable for the workers and equally profitable for the business, due to the increased operating efficiency and the lowered cost per unit of production.

What are the Disadvantages?

I am often asked, "What disadvantages have you encountered in connection with the 6-hour day?"

To date we have discovered no real disadvantages in the new system. In fact, the plan is indorsed by everyone concerned.

From the workers' standpoint, the real benefits will be fully realized this summer, due to their greatly increased leisure time. Aside from a few discontented employees, who had formerly enjoyed abnormal earnings due to working unnecessary hours involving overtime pay, Sunday work and night wage allowances, the employees are thoroughly satisfied with the new plan and there is no evidence of anyone wanting to go back to the 8-hour basis.

The reaction of organized labor, as has been evidenced by letters received, and by articles in various publications, indicates an enthusiastic indorsement of the new plan.

That the plan has considerable merit and is causing unusual interest is also evidenced by the fact that research agencies, such as Princeton, Harvard, Columbia universities, and the Department of Labor, are obtaining data relative to the operation of the plan and its various economic, social, and industrial phases.

The world-wide publicity which attended the inauguration of the plan indicates that the general public also unanimously approves the 6-hour day.

Another question that is often asked us is, "Is there no rest period in the 6-hour day?"

No rest period is provided. However, employees are provided with relief by foremen and foreladies, and other available help, for personal care. In determining our wage incentive standards an allowance is made for personal attention amounting to 30 minutes per day for woman workers and 18 minutes for male employees.

Because the majority of our production operations are machine-attending tasks, rather than machine operating, cumulative fatigue is not created as in the case of intensive production. In the operation of automatic packing machinery and continuous-process equipment, the operators only care for the machines and make minor adjustments, check weights, and inspect the product. There is no strain connected with any of these operations; merely dexterity and normal vigilance.

Short Shifts Solve Many Problems

Still another group of questions that is sometimes put to us concerns the arrangement of shifts: "Was it necessary to put younger men and women on the night shifts?" "Were the workers given any choice?" "If so, did they express any objection to any particular shift?" "Are they changed from one shift to another on a regular schedule?"

It was not necessary to put younger men and women on the night shifts. Night shifts are nothing new in our business, and it was possible to recruit all the additional employees we needed from among people who had been previously employed by the company during the peak summer months.

The workers are given a choice only where it is necessary to accommodate children in the nursery, as we endeavor to group the nursery attendance on the two daylight shifts. And I might mention that our company maintains a nursery where mothers who work in our plant may, while they work, leave their children in charge of capable nurses who see that they receive the proper rest and food at no cost.

Workers are not changed from one shift to another. They are hired for a particular shift, and ordinarily they stay on this shift.

One great advantage of the 6-hour day is that each shift is in one unbroken unit, and that unit is not a long enough period to be a hardship to anyone, day or night.

The 6-hour day does not, of course, extend to the office. It is confined to the production, mechanical, and maintenance departments.

I am aware that this plan would not fit all businesses. Perhaps it could not be adopted very generally. But might it not be adapted—adjusted as to some of its features—by many industries? It seems probable that American business will shortly face the need of providing for a shorter working-day, and at a wage providing for a decent American standard of living, if we are to keep our people busy and stabilize our prosperity. Some such formula as the 6-hour day may force itself upon us. Meanwhile, it will do us no harm to be studying the problem and conducting research to determine its broad economic effect.

Wages in Mining Camps in Nevada

THE accompanying table, showing the average wages in various occupations in Nevada mining camps in effect in 1930, is compiled from more detailed statistics published in the biennial report of the State commissioner of labor for 1929–30.

AVERAGE WAGES IN NEVADA MINING CAMPS, 1930

| Occupation | Average daily wage | Occupation | Average daily wage |
|---------------------------|--------------------|-------------------------|--------------------|
| Battery men..... | \$5.17 | Helpers..... | \$4.90 |
| Blacksmiths..... | 5.90 | Hoisting engineers..... | 5.63 |
| Blacksmiths' helpers..... | 4.78 | Machine miners..... | 5.20 |
| Cagers..... | 4.90 | Mill labor..... | 4.86 |
| Carpenters..... | 6.13 | Muckers..... | 4.64 |
| Conveyor men..... | 4.63 | Pipe fitters..... | 5.54 |
| Crusher men..... | 5.29 | Refinery men..... | 5.25 |
| Electricians..... | 6.32 | Solution men..... | 5.45 |
| Filter men..... | 5.15 | Tool sharpeners..... | 5.75 |

Wages of Miners in Utah

Coal Mining, 1929

THE wage rates prevailing in Utah coal mines in 1929, which are given in the accompanying tables, are taken from Bulletin No. 4 of the industrial commission of that State. This bulletin contains the biennial reports of several departments of the commission for the biennium closing June 30, 1930.

WAGE SCHEDULE ADOPTED BY UTAH COAL PRODUCERS, MARCH 26, 1929

| Occupation | Rate per day | Occupation | Rate per day |
|---------------------------------|--------------|--|--------------|
| <i>Outside</i> | | <i>Inside</i> | |
| Armature winders..... | \$7. 20 | Brattice men..... | \$6. 72 |
| Blacksmiths..... | 7. 28 | Drillers in coal..... | 7. 20 |
| Blacksmiths' helpers..... | 6. 16 | Drivers, boys..... | 5. 12 |
| Blacksmiths, second..... | 6. 88 | Drivers, men..... | 6. 72 |
| Bony pickers, boys..... | 4. 00 | Fire bosses..... | 8. 00 |
| Bony pickers, men..... | 5. 80 | Hoist men..... | 7. 00 |
| Box-car loader runners..... | 6. 60 | Machine runners, daywork..... | 7. 20 |
| Car droppers, head..... | 6. 16 | Machine runners' helpers, daywork..... | 6. 80 |
| Car droppers, other..... | 6. 00 | Masons..... | 7. 00 |
| Car oilers, boys..... | 4. 00 | Miners, taken from face..... | 6. 80 |
| Car oilers, men..... | 5. 92 | Motormen..... | 7. 00 |
| Car repairers, head..... | 6. 56 | Nippers..... | 5. 56 |
| Car repairers, other..... | 6. 20 | Pipe men..... | 6. 80 |
| Carpenters, head..... | 7. 00 | Pump men..... | 6. 56 |
| Carpenters' helpers..... | 6. 16 | Rock men, head..... | 6. 96 |
| Carpenters, house..... | 6. 96 | Rock men, others..... | 6. 56 |
| Carpenters, other..... | 6. 96 | Roller men, boys..... | 5. 12 |
| Checkmen and lamp men..... | 6. 32 | Roller men, men..... | 6. 72 |
| Couplers, boys..... | 4. 00 | Rope riders..... | 6. 72 |
| Couplers, men..... | 5. 92 | Shot firers..... | 8. 00 |
| Dumpers..... | 6. 20 | Shovel operators..... | 8. 50 |
| Electricians..... | 7. 00 | Shovel operators, assistant..... | 7. 80 |
| Heaters, firemen..... | 6. 40 | Shovel operators, assistant..... | 5. 12 |
| Hoist men..... | 7. 00 | Sprinklers, boys..... | 6. 56 |
| Masons and bricklayers..... | 7. 00 | Sprinklers, men..... | 6. 96 |
| Mechanics..... | 7. 00 | Timbermen..... | 6. 56 |
| Mechanics, assistant..... | 6. 56 | Timbermen's helpers..... | 6. 56 |
| Mechanics' helpers..... | 6. 32 | Trackmen, head..... | 6. 96 |
| Pipemen..... | 6. 80 | Trackmen's helpers..... | 6. 56 |
| Pipemen's helpers..... | 5. 92 | Trackmen, other..... | 6. 72 |
| Plumbers..... | 7. 00 | Wiremen..... | 6. 96 |
| Prop sawyers..... | 6. 00 | Wiremen's helpers..... | 6. 56 |
| Prop sawyers' helpers..... | 5. 92 | Unclassified labor: | |
| Rope riders..... | 6. 72 | Boys..... | 4. 00 |
| Shapers and spiral runners..... | 6. 60 | Men..... | 6. 56 |
| Teamsters..... | 6. 16 | | |
| Tipple men..... | 6. 20 | | |
| Weighmen, mine cars..... | 7. 00 | | |
| Unclassified labor: | | | |
| Boys..... | 4. 00 | | |
| Men..... | 5. 92 | | |

Contract rates

| | |
|--|---------|
| Hand mining after machine cutting (including drilling, loading, track work, timber, and explosives) per ton of 2,000 pounds: | |
| 5-foot coal or over..... | \$0. 68 |
| Under 5-foot coal..... | . 72 |
| Pillar mining, per ton of 2,000 pounds..... | . 68 |
| Loading, per ton of 2,000 pounds..... | . 45 |
| Machinemen and helpers, 5 feet or over, per ton ¹ | . 10 |
| Machinemen and helpers, under 5 feet, per ton ¹ | . 12 |
| Yardage miners, entry, 12 feet or under..... | 1. 17 |
| Yardage miners, wet places..... | 1. 77 |
| Yardage machinemen..... | . 87 |
| Motormen and nippers, per ton..... | . 07 |

Metal Mines, 1928-1930

THE average daily wage scales in effect in metal mines in 1928-29 and 1929-30 in certain districts in Utah were as follows, according to the above-mentioned bulletin:

¹ Differential of 2 cents per ton over these prices allowed at Castle Gate No. 2 Mine, Utah Fuel Co., because of unusual conditions.

DAILY WAGE SCALES IN METAL MINES IN SPECIFIED DISTRICTS, 1928-29 AND 1929-30

| Occupation | Districts | |
|---------------------|--------------------------------------|-------------------|
| | Bingham, Park City, Tintic (1928-29) | Bingham (1929-30) |
| Hand miners..... | \$5. 00 | \$4. 75 |
| Machine miners..... | 5. 25 | 5. 00 |
| Muckers..... | 4. 75 | 4. 50 |
| Timbermen..... | 5. 25 | 5. 00 |
| Laborers..... | 4. 00 | 3. 75 |

Wage-Collection Work of Utah Industrial Commission, 1928-1930

THE biennial report of the wage collection department of the Utah Industrial Commission for the biennium ending June 30, 1930, is published in Bulletin No. 4 of that body. A statistical summary of the report is given below:

REPORT OF WAGE-COLLECTION DEPARTMENT OF INDUSTRIAL COMMISSION OF UTAH, JULY 1, 1928, TO JUNE 30, 1930

| Item | Claims | |
|---|------------------|--------------------------|
| | Number | Amount |
| On books, July 1, 1928: | | |
| Collected by department..... | 32 | \$1, 004. 47 |
| Collected through legal service..... | 20 | 5, 671. 88 |
| Carried over, judgments, etc..... | 17 | 3, 606. 28 |
| Closed out, noncollectible, etc..... | 65 | 15, 746. 12 |
| Total..... | 134 | ¹ 26, 028. 77 |
| Filed July 1, 1928, to June 30, 1930: | | |
| Collected by department..... | 482 | 23, 375. 47 |
| Collected through legal service..... | 132 | 13, 702. 75 |
| Claimed in excess of collection..... | | 2, 743. 88 |
| Not collected but closed out— | | |
| Employers irresponsible (no legal service needed)..... | 102 | 4, 766. 83 |
| Employers irresponsible (legal services required)..... | 33 | 2, 756. 19 |
| Did not return or answer correspondence..... | 58 | 5, 122. 03 |
| Claimants advised to seek legal service..... | 20 | 3, 866. 74 |
| No cause for action (no legal service needed)..... | 139 | 4, 278. 46 |
| No cause for action (legal service required)..... | 20 | 2, 518. 85 |
| No foundation in fact (no legal service needed)..... | 32 | 2, 546. 58 |
| No foundation in fact (legal service required)..... | 3 | 5, 283. 59 |
| Cases withdrawn, no reason given..... | 18 | 4, 584. 80 |
| Department could not take jurisdiction..... | 16 | 1, 550. 29 |
| Claimants came for advice; no statements as to amount involved..... | 53 | |
| Release of baggage secured, no wage collections..... | 3 | |
| Total closed out, 1928-1930..... | 1, 111 | 77, 096. 46 |
| Carried over to July 1, 1930..... | 305 | 41, 480. 23 |
| Total filed July 1, 1928, to June 30, 1930..... | 1, 416 | 118, 576. 69 |
| Total collected, July 1, 1928, to June 30, 1930..... | ² 666 | ² 43, 754. 57 |
| Total carried over to July 1, 1930..... | 322 | 45, 086. 51 |

¹ As given in report; not the exact sum of items.

² Includes collections of claims carried over from preceding biennium.

In concluding his report the wage collector states that a careful analysis of it, of his records, and of the provisions of chapter 71, Session Laws of 1919 will completely "justify the recommendation that

this law be repealed in its entirety and that more effective legislation, such as surrounding States have, be enacted in its stead." He also calls attention to the need of an appropriation adequate to the needs and importance of the wage collection department.

Hours of Labor in Manila, 1928 and 1929

THE hours of labor of different industry groups in the city of Manila for 1929 as compared with 1928 are reported as follows in the Statistical Bulletin of the Philippines, 1929, published by the Department of Commerce and Communications of the Islands:

HOURS OF LABOR IN SPECIFIED INDUSTRIES IN MANILA, 1928 AND 1929

| Industrial group | 1928 | | | 1929 | | |
|---|--------------------------|----------------|--------------------|--------------------------|----------------|--------------------|
| | Number of establishments | Hours of labor | Number of laborers | Number of establishments | Hours of labor | Number of laborers |
| Food and kindred products..... | 156 | 8.5-10.0 | 2,592 | 170 | 8-12 | 1,777 |
| Textiles and clothing..... | 809 | 8.0-9.0 | 7,566 | 527 | 8-12 | 4,338 |
| Metal, mechanical, and electrical..... | 241 | 9.0 | 2,476 | 116 | 8-11 | 1,206 |
| Home construction and furniture making..... | 127 | 9.0 | 3,163 | 95 | 8-11 | 2,727 |
| Leather and allied products..... | 270 | 9.0 | 1,729 | 14 | 8-9 | 75 |
| Printing and allied industries..... | 99 | 8.5-9.0 | 1,900 | 66 | 8-9 | 1,669 |
| Liquor, beverages, and tobacco..... | 89 | 8.5-9.0 | 10,794 | 50 | 7-12 | 4,593 |
| Chemical and allied products..... | 42 | 9.0 | 1,288 | 43 | 8-12 | 400 |
| Clay, stones, and glass products..... | 16 | 8.5-9.0 | 282 | 12 | 8-12 | 142 |
| Cars and carriages and allied industries..... | 80 | 9.0 | 1,348 | 59 | 9-10 | 660 |
| Works of arts..... | 42 | 8.5-9.0 | 361 | 102 | 8-10 | 891 |
| Lumber and wood manufactures..... | 92 | 9.0-10.0 | 1,324 | 13 | 9-10 | 114 |
| Transportation and communication..... | 62 | 1.9.0 | 8,781 | 33 | 9-12 | 520 |
| Miscellaneous..... | 237 | 8.5-9.0 | 1,216 | 447 | 8-12 | 3,236 |
| Total..... | 2,362 | ----- | 44,820 | 1,747 | ----- | 22,348 |

¹ Garages and stables and fishing industries have no fixed hours.

Salaries in Philippine Civil Service, 1925 to 1929

THE table below gives the average salaries of the regular and permanent personnel in the Philippine civil service: ¹

SALARIES IN PHILIPPINE CIVIL SERVICE—REGULAR AND PERMANENT PERSONNEL, 1925-1929

[Peso=about 50 cents in United States currency]

| Year | Officers and employees | | | Average salaries | |
|-----------|------------------------|-----------|--------|------------------|----------------|
| | Americans | Filipinos | Total | Americans | Filipinos |
| 1925..... | 506 | 16,339 | 16,845 | Pesos 4,229.22 | Pesos 1,253.56 |
| 1926..... | 462 | 17,756 | 18,218 | 4,338.35 | 1,270.46 |
| 1927..... | 484 | 19,165 | 19,649 | 4,225.96 | 1,275.54 |
| 1928..... | 494 | 19,606 | 20,100 | 4,298.25 | 1,279.20 |
| 1929..... | 471 | 20,332 | 20,803 | 4,471.75 | 1,283.98 |

¹ Philippine Islands. Department of Commerce and Communications. Bureau of commerce and industry. Statistical bulletin, 1929. Manila, 1930, p. 87.

Adjustment of Wage Claims by Philippine Bureau of Labor, 1925 to 1929

WORKERS who can not afford to pay for legal aid are assisted by the Philippine Bureau of Labor in the prosecution of their claims involving industrial relations. Not only Filipino laborers but also American employees and other nationals avail themselves of this service. A statistical summary of the activities of the bureau along this line for the 5-year period, 1925-1929, is taken from the annual report of the Governor General of the islands for the last-mentioned year:

ADJUSTMENT OF WAGE CLAIMS, PHILIPPINE BUREAU OF LABOR, 1925-1929
[Peso=about 50 cents in United States currency]

| Year | Number of cases | Number of claimants | Adjustments | | Amount collected |
|------------|-----------------|---------------------|-------------|-------------|---------------------------|
| | | | Favorable | Unfavorable | |
| 1925..... | 615 | 1,371 | 365 | 250 | <i>Pesos</i> 19,209.63 |
| 1926..... | 766 | 1,697 | 447 | 319 | 23,575.26 |
| 1927..... | 728 | 1,418 | 493 | 235 | 18,171.91 |
| 1928..... | 923 | 2,146 | 511 | 412 | 22,912.21 |
| 1929..... | 956 | 1,630 | 560 | 396 | 22,611.79 |
| Total..... | 3,988 | 8,262 | 2,376 | 1,612 | 106,480.80 |

Wages in Czechoslovak Glass Factories Using the Fourcault System, 1930

THE table below, supplied by John W. Bailey, jr., American consul at Prague, shows the 1930 minimum and maximum wages for a week of 48 hours, in Czechoslovak window-glass factories using the Fourcault system. The range is due, it is explained, to the variation in the general wage scale during the year and to the bonuses on production. The rates are "net" rates; i. e., exclusive of the contributions for social insurance (which are paid by the employers) and various items such as housing, coal, etc., supplied by employers and valued at from 7 to 10 per cent of the money wage.

WEEKLY WAGES IN SPECIFIED OCCUPATIONS IN THE CZECHOSLOVAK WINDOW-GLASS FACTORIES USING FOURCAULT SYSTEM, 1930

[Conversions into U. S. currency on basis of crown=2.96 cents]

| Occupation | Minimum rate | | Maximum rate | |
|------------------------|-----------------------|------------------------|-----------------------|------------------------|
| | Czechoslovak currency | United States currency | Czechoslovak currency | United States currency |
| | <i>Crowns</i> | | <i>Crowns</i> | |
| Mixers..... | 235.57 | \$6.97 | 345.18 | \$10.22 |
| Drawers..... | 297.72 | 8.81 | 397.18 | 11.77 |
| Cutters..... | 183.70 | 5.44 | 477.44 | 14.13 |
| Box makers..... | 200.22 | 5.93 | 379.86 | 11.24 |
| Packers..... | 202.68 | 6.00 | 335.68 | 9.94 |
| Gas producer men..... | 204.60 | 6.06 | 301.00 | 8.91 |
| Glass carriers..... | 172.00 | 5.09 | 309.00 | 9.15 |
| Furnace operators..... | 185.00 | 5.48 | 331.00 | 9.80 |
| Electricians..... | 188.00 | 5.56 | 366.00 | 10.83 |
| Machinists..... | 258.00 | 7.64 | 347.00 | 10.27 |
| Foremen..... | 305.00 | 9.03 | 475.00 | 14.06 |
| Laborers..... | 148.80 | 4.40 | 182.02 | 5.39 |

Agricultural Wages in Canada, 1929 and 1930

IN CANADA in 1930 the wages of farm help declined, as farmers were not able to pay as much for such labor. During the summer season of that year, for the Dominion as a whole, the average monthly wages of male helpers were \$34 as compared with \$40 in the corresponding season of 1929, and for woman helpers, \$20 as compared with \$23. In the later period the value of board per month for men was \$22 as against \$23 for the previous summer season, while the women's board was valued at \$18 in 1930 as against \$20 in 1929. Combining wages and board, the figures are \$56 as compared with \$63 for men, and \$38 as compared with \$43 for women.

By the year, wages and board together for men amounted in 1930 to \$559 as against \$627 in 1929, and for women to \$409 as against \$465.

Average wages of agricultural labor in the various Provinces of Canada in 1929 and 1930 are given in the following table, compiled from the February, 1931, issue of the Monthly Bulletin of Agricultural Statistics, published by the Dominion Bureau of Statistics:

AVERAGE WAGES OF FARM WORKERS IN CANADA, 1929 AND 1930

| Province and year | Per month, summer season | | | | | | Per year | | | | | |
|-----------------------|--------------------------|----------------|-------|-------------|----------------|-------|-------------|----------------|-------|-------------|----------------|-------|
| | Males | | | Females | | | Males | | | Females | | |
| | Rate of pay | Value of board | Total | Rate of pay | Value of board | Total | Rate of pay | Value of board | Total | Rate of pay | Value of board | Total |
| Canada: | | | | | | | | | | | | |
| 1929..... | \$40 | \$23 | \$63 | \$23 | \$20 | \$43 | \$373 | \$254 | \$627 | \$242 | \$223 | \$465 |
| 1930..... | 34 | 22 | 56 | 20 | 18 | 38 | 326 | 233 | 559 | 210 | 199 | 409 |
| Alberta: | | | | | | | | | | | | |
| 1929..... | 43 | 25 | 68 | 25 | 21 | 46 | 404 | 274 | 678 | 253 | 232 | 485 |
| 1930..... | 37 | 23 | 60 | 21 | 20 | 41 | 342 | 256 | 598 | 223 | 222 | 445 |
| British Columbia: | | | | | | | | | | | | |
| 1929..... | 49 | 27 | 76 | 28 | 23 | 51 | 482 | 310 | 792 | 291 | 271 | 562 |
| 1930..... | 46 | 26 | 72 | 25 | 21 | 46 | 450 | 291 | 741 | 270 | 242 | 512 |
| Manitoba: | | | | | | | | | | | | |
| 1929..... | 38 | 23 | 61 | 21 | 19 | 40 | 352 | 256 | 608 | 222 | 216 | 438 |
| 1930..... | 32 | 21 | 53 | 18 | 18 | 36 | 298 | 238 | 536 | 194 | 204 | 398 |
| New Brunswick: | | | | | | | | | | | | |
| 1929..... | 40 | 20 | 60 | 18 | 15 | 33 | 375 | 214 | 589 | 198 | 169 | 367 |
| 1930..... | 34 | 20 | 54 | 16 | 15 | 31 | 335 | 215 | 550 | 181 | 164 | 345 |
| Nova Scotia: | | | | | | | | | | | | |
| 1929..... | 38 | 19 | 57 | 19 | 15 | 34 | 383 | 222 | 605 | 212 | 179 | 391 |
| 1930..... | 34 | 20 | 54 | 17 | 14 | 31 | 353 | 209 | 562 | 187 | 157 | 344 |
| Ontario: | | | | | | | | | | | | |
| 1929..... | 35 | 22 | 57 | 22 | 19 | 41 | 341 | 254 | 595 | 242 | 212 | 454 |
| 1930..... | 31 | 20 | 51 | 21 | 17 | 38 | 304 | 228 | 532 | 229 | 194 | 423 |
| Prince Edward Island: | | | | | | | | | | | | |
| 1929..... | 34 | 18 | 52 | 19 | 13 | 32 | 327 | 207 | 534 | 196 | 159 | 355 |
| 1930..... | 32 | 18 | 50 | 16 | 14 | 30 | 308 | 205 | 513 | 179 | 165 | 344 |
| Quebec: | | | | | | | | | | | | |
| 1929..... | 41 | 20 | 61 | 19 | 14 | 33 | 369 | 208 | 577 | 191 | 151 | 342 |
| 1930..... | 33 | 19 | 52 | 17 | 13 | 30 | 316 | 194 | 510 | 175 | 139 | 314 |
| Saskatchewan: | | | | | | | | | | | | |
| 1929..... | 44 | 25 | 69 | 24 | 22 | 46 | 398 | 287 | 685 | 256 | 240 | 496 |
| 1930..... | 37 | 23 | 60 | 21 | 19 | 40 | 340 | 253 | 593 | 215 | 212 | 427 |

Wages and Working Conditions of Maid Servants in Tokyo

AN INVESTIGATION was recently undertaken by the women's commission of the Japanese Association for Social Legislation to ascertain the working conditions of maid servants in Tokyo and its suburbs.¹ Data were received concerning 834 women and girls between 13 and 65 years of age, over 80 per cent being between 16 and 25. As to marital status, 2.9 per cent reported they were married and 83.5 that they were single; the remainder did not reply. Those who had completed at least their compulsory education formed 47 per cent of the total, while 25 per cent are reported as having gone through continuation school and 8 per cent had received higher education. Less than 10 per cent had not finished their compulsory schooling.

Working hours and wages.—Approximately 90 per cent of these women and girls rose between 5 and 6.30 in the morning and retired between 10 and 12 at night. Of the total number, 10 per cent were on duty for over 18 hours; 80 per cent, from 16 to 18 hours; and 10 per cent for less than 16 hours. Slightly over 23 per cent had no time off duty during the day; 10.4 per cent had 1 hour; 22 per cent, 2 hours; and 29 per cent, 3 hours. No rest day was reported by 20 per cent; 1 rest day per month, by 50 per cent; and 1 to 5 rest days per annum, by 18 per cent.

Wages were paid monthly to 85 per cent of these domestic servants and annually to 4.6 per cent. The monthly wages ranged from 2 to 60 yen² (\$0.99 to \$29.64), the majority of maids receiving from 10 to 15 yen (\$4.94 to \$7.41). The minimum annual wage was 30 yen (\$14.82), the maximum 200 yen (\$98.80), the usual amount being approximately 100 yen (\$49.40). When low wages were paid, the maids usually were accorded such advantages as an opportunity to go to school, dismissal allowances, or gifts of clothing. Wages were generally low and usually had no relation to the length of time the maid had been in the household. No case was reported of an increase in wages in proportion to the period of continuous service.

As a rule, bonuses were granted twice a year—once at the close of the year and once for the Buddhist festival which occurs in midsummer. In approximately 50 per cent of all cases these bonuses were in kind, ordinarily clothing; in 30 per cent of the cases the allowances were in kind and in cash, the latter approximating 5 yen (\$2.47) and in 10 per cent of the cases these additions to wages were in cash only and amounted to 5 to 10 yen (\$2.47 to \$4.94) for each bonus period.

Of the women and girls included in this survey, only 3.2 per cent were afforded opportunity for training, ordinarily in cooking, sewing, arrangement of flowers, tea ceremony, etc. In the majority of cases in which they had such opportunity the employers paid for the training.

Nearly two-thirds of these servants reported that it was customary for their employers to pay their maids' medical expenses in case of accident or sickness, but 15 per cent reported that such was not the practice in the households in which they were employed.

¹ International Labor Office. Industrial and Labor Information, Geneva, Jan. 26, 1931, pp. 102, 103.

² A average exchange rate of yen for 1:30=49.4 cents.

Personal expenditures.—The monthly personal expenditures of 10 per cent of these maids was from 1 to 5 yen (\$0.49 to \$2.47), while 14 per cent reported spending no money. Remittances of from 3 to 10 yen (\$1.48 to \$4.94) per month were sent by 25 per cent of the maids to their families and 75 per cent made no such remittances. Monthly savings of from 5 to 15 yen (\$2.47 to \$7.41) were reported by 75 per cent; and no savings by 23.5 per cent.

Living conditions.—Rooms for maids were provided for about 81 per cent of all the women and girls covered, but 18.5 per cent reported that they had no separate private rooms. The size of the rooms were in 22.1 per cent of the cases 2½ mats³ per person; in 17.4 per cent, 2 mats; in 16.6 per cent, 1½ mats; in 10.2 per cent, 3 mats. In 86 per cent of the cases the maid servants were furnished the same quality of food as the family, and in 11.9 per cent of the cases they were provided with inferior food.

Improvements desired.—Nearly all the maids interviewed expressed the wish for higher wages, more time for sleep, an increase in free hours, and more frequent holidays. The outstanding demands with reference to health and sanitation were for better accommodations, better food, improvement in the heating system, and sanitary bedding. Demand was also made that the family members should not take a contemptuous attitude toward their maids, should not call them by their surnames, that children should not be allowed to annoy servants, and that mistresses should treat them more kindly. A demand was made by some of these domestics for the establishment of a maid servants' union or club. Comparatively slight interest was manifested in the matter of cultural opportunities.

As a rule, the maids who were engaged through employment agencies were better treated than others. They also seemed more interested in replying to the questionnaires and expressed their wishes more freely concerning working conditions.

Recommendations of Japanese Association for Social Legislation.—In view of the facts brought out in the investigation, the findings of which are summarized above, the Japanese Association for Social Legislation at its sixth annual general meeting adopted a resolution urging various improvements in the treatment of maid servants, such improvements to include:

A guaranty of 8 hours for sleep in every 24 hours and of at least 1 rest day in the month; the grant of at least 2 hours' free time during the day, and the utilization of these hours for cultural development; the provision of a separate room, well lighted and ventilated, the size of which should be at least 1½ mats per person, and of clean bedding; the payment of wages monthly in cash to the maid herself; the abolition of discrimination in regard to food and of the contemptuous manner of addressing the maid; the grant of a reasonable discharge allowance when the maid is dismissed through no fault of her own, and the grant of reasonable medical treatment in the event of injury or sickness arising out of the employment.

³ One mat is equal to approximately 18 square feet.

TREND OF EMPLOYMENT

Summary for April, 1931

EMPLOYMENT increased 0.2 per cent in April, 1931, as compared with March, 1931, and pay-roll totals decreased 1.5 per cent.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both March and April, together with the per cent of change in April, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, MARCH AND APRIL, 1931

| Industrial group | Estab-lish-ments | Employment | | Per cent of change | Amount of pay roll (1 week) | | Per cent of change |
|--|------------------|-------------|-------------|--------------------|-----------------------------|----------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| 1. Manufacturing ----- | 14, 633 | 2, 967, 762 | 2, 966, 475 | -0.4 | \$72, 286, 472 | \$71, 637, 447 | -1.6 |
| 2. Coal mining ----- | 1, 534 | 327, 325 | 324, 611 | -0.8 | 6, 886, 149 | 6, 630, 461 | -3.7 |
| Anthracite----- | 162 | 112, 281 | 116, 616 | +3.9 | 2, 834, 904 | 2, 988, 394 | +5.4 |
| Bituminous----- | 1, 372 | 215, 044 | 207, 995 | -3.3 | 4, 051, 245 | 3, 642, 067 | -10.1 |
| 3. Metalliferous mining ----- | 324 | 41, 827 | 42, 121 | +0.7 | 1, 055, 916 | 1, 028, 132 | -2.6 |
| 4. Quarrying and nonmetallic mining ----- | 765 | 30, 268 | 32, 897 | +8.7 | 671, 646 | 722, 017 | +7.5 |
| 5. Crude petroleum producing ----- | 570 | 28, 503 | 27, 553 | -3.3 | 1, 064, 472 | 964, 464 | -9.4 |
| 6. Public utilities ----- | 12, 297 | 701, 307 | 700, 982 | -(²) | 22, 083, 075 | 21, 345, 528 | -3.3 |
| Telephone and telegraph----- | 8, 061 | 314, 231 | 312, 244 | -0.6 | 9, 386, 610 | 9, 103, 687 | -3.0 |
| Power, light, and water----- | 3, 708 | 241, 307 | 242, 299 | +0.4 | 7, 954, 852 | 7, 583, 183 | -4.7 |
| Electric railroad operation and maintenance, exclusive of car shops----- | 528 | 145, 769 | 146, 439 | +0.5 | 4, 741, 613 | 4, 658, 658 | -1.7 |
| 7. Trade ----- | 11, 666 | 375, 459 | 383, 504 | +2.1 | 9, 581, 847 | 9, 548, 880 | -0.3 |
| Wholesale----- | 2, 315 | 69, 330 | 69, 353 | +(²) | 2, 236, 760 | 2, 138, 723 | -4.4 |
| Retail----- | 9, 351 | 306, 129 | 314, 151 | +2.6 | 7, 345, 087 | 7, 410, 157 | +0.9 |
| 8. Hotels ----- | 2, 083 | 155, 334 | 153, 960 | -0.9 | 2, 584, 059 | 2, 486, 453 | -3.8 |
| 9. Canning and preserving ----- | 826 | 32, 190 | 36, 216 | +12.5 | 547, 289 | 620, 930 | +13.5 |
| 10. Laundries ----- | 374 | 32, 075 | 32, 432 | +1.1 | 606, 603 | 615, 344 | +1.4 |
| 11. Dyeing and cleaning ----- | 156 | 5, 172 | 5, 628 | +8.8 | 114, 773 | 131, 116 | +14.2 |
| Total ----- | 45, 228 | 4, 697, 222 | 4, 706, 379 | +0.2 | 117, 482, 301 | 115, 730, 772 | -1.5 |

RECAPITULATION BY GEOGRAPHIC DIVISIONS

| GEOGRAPHIC DIVISION | Estab-lish-ments | March, 1931 | April, 1931 | Per cent of change | March, 1931 | April, 1931 | Per cent of change |
|--|------------------|-------------|-------------|--------------------|----------------|----------------|--------------------|
| New England ⁴ ----- | 5, 448 | 488, 095 | 490, 118 | +0.4 | \$11, 745, 070 | \$11, 675, 819 | -0.6 |
| Middle Atlantic ⁵ ----- | 7, 340 | 1, 399, 945 | 1, 398, 237 | -0.1 | 36, 787, 949 | 36, 205, 207 | -1.6 |
| East North Central ⁶ ----- | 9, 985 | 1, 302, 996 | 1, 307, 967 | +0.4 | 34, 646, 293 | 34, 338, 315 | -0.9 |
| West North Central ⁷ ----- | 4, 865 | 297, 764 | 298, 146 | +0.1 | 7, 358, 267 | 7, 216, 720 | -1.9 |
| South Atlantic ⁸ ----- | 4, 644 | 478, 795 | 477, 648 | -0.2 | 9, 447, 389 | 9, 172, 389 | -2.9 |
| East South Central ⁹ ----- | 2, 424 | 195, 990 | 194, 411 | -0.8 | 3, 494, 370 | 3, 401, 279 | -2.7 |
| West South Central ¹⁰ ----- | 3, 379 | 182, 460 | 181, 976 | -0.3 | 4, 421, 390 | 4, 245, 109 | -4.0 |
| Mountain ¹¹ ----- | 1, 663 | 86, 854 | 86, 622 | -0.3 | 2, 308, 711 | 2, 311, 985 | +0.1 |
| Pacific ¹² ----- | 5, 477 | 264, 323 | 271, 254 | +2.6 | 7, 272, 862 | 7, 163, 949 | -1.5 |
| All divisions ----- | 45, 228 | 4, 697, 222 | 4, 706, 379 | +0.2 | 117, 482, 301 | 115, 730, 772 | -1.5 |

¹ Weighted per cent of change for the combined 54 manufacturing industries, repeated from Table 2, p. 169, the remaining per cents of change, including total, are unweighted.

² Less than one-tenth of 1 per cent.

³ Cash payments only; see note 3, p. 181.

⁴ Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

⁵ New Jersey, New York, Pennsylvania.

⁶ Illinois, Indiana, Michigan, Ohio, Wisconsin.

⁷ Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

⁸ Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia.

⁹ Alabama, Kentucky, Mississippi, Tennessee.

¹⁰ Arkansas, Louisiana, Oklahoma, Texas.

¹¹ Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming.

¹² California, Oregon, Washington.

The per cents of change shown for the total figures represent only the changes in the establishments reporting, as the figures for the several industrial groups are not weighted according to the relative importance of each group.

Increased employment in April was shown in 10 of the 15 industrial groups: Anthracite mining, 3.9 per cent; metalliferous mining, 0.7 per cent; quarrying and nonmetallic mining, 8.7 per cent; power, light, and water, 0.4 per cent; electric railroads, 0.5 per cent; wholesale trade, less than one-tenth of 1 per cent; retail trade, 2.6 per cent; canning and preserving, 12.5 per cent; laundries, 1.1 per cent; and dyeing and cleaning, 8.8 per cent.

Decreased employment was shown in April in the remaining 5 groups: Manufacturing, 0.4 per cent; bituminous coal mining, 3.3 per cent; crude petroleum producing, 3.3 per cent; telephone and telegraph, 0.6 per cent; and hotels, 0.9 per cent.

Pay-roll totals were greater in April than in March in 6 of the 15 industrial groups, namely, anthracite mining, quarrying and non-metallic mining, retail trade, canning and preserving, laundries, and dyeing and cleaning. The remaining nine groups showed decreased earnings over the month interval.

The Pacific geographic division showed an increase in employment of 2.6 per cent, the New England and East North Central divisions reported increases of 0.4 per cent each, and the West North Central division increased 0.1 per cent. The remaining 5 divisions reported decreased employment, the East South Central showing the greatest loss, 0.8 per cent. Decreased pay-roll totals were shown in each geographic division with the exception of the Mountain division, which reported a slight increase over the month interval.

PER CAPITA WEEKLY EARNINGS IN APRIL, 1931, AND COMPARISON WITH MARCH, 1931, AND APRIL, 1930

| Industrial group | Per capita weekly earnings in April, 1931 | Per cent of change April, 1931, compared with— | |
|---|---|--|-------------|
| | | March, 1931 | April, 1930 |
| 1. Manufacturing..... | \$24.12 | -1.2 | -10.2 |
| 2. Coal mining:..... | | | |
| Anthracite..... | 25.63 | +1.5 | -1.0 |
| Bituminous..... | 17.51 | -7.1 | -21.2 |
| 3. Metalliferous mining..... | 24.40 | -3.2 | -18.7 |
| 4. Quarrying and nonmetallic mining..... | 21.95 | -1.0 | -15.8 |
| 5. Crude petroleum producing..... | 35.00 | -6.3 | -4.8 |
| 6. Public utilities:..... | | | |
| Telephone and telegraph..... | 29.16 | -2.4 | + 3.1 |
| Power, light, and water..... | 31.30 | -5.1 | -1.4 |
| Electric railroads..... | 31.81 | -2.2 | -2.2 |
| 7. Trade:..... | | | |
| Wholesale..... | 30.84 | -4.3 | -3.1 |
| Retail..... | 23.59 | -1.7 | -2.2 |
| 8. Hotels (cash payments only) ¹ | 16.15 | -2.9 | -6.5 |
| 9. Canning and preserving..... | 17.15 | +0.9 | -1.3 |
| 10. Laundries..... | 18.97 | +0.3 | (?) |
| 11. Dyeing and cleaning..... | 23.30 | +5.0 | (?) |
| Total..... | 24.59 | -1.7 | (?) |

¹ The additional value of board, room, and tips can not be computed.

² Data not available.

Per capita earnings for April, 1931, given in the preceding table must not be confused with full-time weekly rates of wages; they are actual per capita weekly earnings computed by dividing the total

number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers.

Comparisons are made with per capita earnings in March, 1931, and with April, 1930, where data are available.

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are shown in the following statement. These reports are for the months of February and March, 1931, instead of for March and April, 1931, consequently the figures can not be combined with those presented in the foregoing table.

EMPLOYMENT AND PAY-ROLL TOTALS, CLASS I RAILROADS

| Industry | Employment | | Per cent of change | Amount of pay roll in entire month | | Per cent of change |
|------------------------|---------------|---------------|--------------------|------------------------------------|---------------|--------------------|
| | Feb. 15, 1931 | Mar. 15, 1931 | | February, 1931 | March, 1931 | |
| Class I railroads..... | 1,300,580 | 1,303,468 | +0.2 | \$168,126,650 | \$181,744,757 | +8.1 |

The total number of employees included in this summary is about 6,000,000 whose combined earnings in one week amounted to approximately \$156,000,000.

1. Employment in Selected Manufacturing Industries in April, 1931

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, March and April, 1931

EMPLOYMENT in manufacturing industries in April, 1931, decreased 0.4 per cent as compared with March, and pay-roll totals decreased 1.6 per cent. These changes are based upon returns from 13,623 identical establishments in 54 of the principal manufacturing industries in the United States, having in April 2,828,807 employees whose combined earnings in one week were \$68,226,331.

Decreased employment and earnings in manufacturing industries have been shown in April as compared with March in 7 of the 9 years covered by the bureau's indexes, the decrease of 0.4 per cent in employment in April, 1931, being slightly less than the average decreases shown from March to April in previous years.

The bureau's weighted index of employment for April, 1931, is 74.5, as compared with 74.8 for March, 1931, 74.1 for February, 1931, and 89.1 for April, 1930; the index of pay-roll totals for April, 1931, is 67.4, as compared with 68.5 for March, 1931, 67.0 for February, 1931, and 89.8 for April, 1930. The monthly average for 1926 equals 100.

Three of the 12 groups of manufacturing industries—chemicals, stone-clay-glass, and vehicles—showed gains in both employment and pay rolls, while the lumber group reported increased employment coupled with decreased earnings. The remaining 8 groups reported decreases in both employment and pay-roll totals.

Increased employment in April was shown in 24 of the 54 separate manufacturing industries, and increased pay-roll totals in 14 indus-

tries. The outstanding increase in employment, 24.3 per cent in the fertilizer industry, was greater than the usual seasonal gain shown in this industry from March to April. Rubber boots and shoes increased 10.6 per cent in employment; petroleum refining, 8.9 per cent; brick and carriages and wagons over 7 per cent each, and cement 6.5 per cent. The ice cream and the cast-iron pipe industries increased over 3 per cent in employment, automobiles 2.1 per cent, and shipbuilding 2.8 per cent, from March to April.

The greatest increase in pay-roll totals was a seasonal one in fertilizers, 34.5 per cent. The rubber boot and shoe industry reported an increase of 25.9 per cent in earnings, a recovery to some extent from the decrease of 26.4 per cent reported in March. Other sizable increases in pay-roll totals were shown in cement (8.3 per cent), petroleum and cast-iron pipe (6.5 per cent), brick (4.8 per cent), pottery (4.7 per cent), and automobiles (4.3 per cent).

The outstanding decreases in employment in April in the separate industries were: Chewing and smoking tobacco, 13.5 per cent; agricultural implements, 9.9 per cent; woolen and worsted goods, 6.2 per cent; confectionery, 5.2 per cent; millinery and lace goods, 4.4 per cent; and steam fittings, 3.9 per cent. Decreases ranging from 2.9 to 2.0 per cent were shown in 7 industries, while the remaining 16 manufacturing industries in which decreased employment occurred reported decreases of less than 2 per cent.

Five of the 10 manufacturing industries surveyed but not included in the bureau's indexes reported gains in employment in April over March; these were rayon, radio, paint and varnish, beet sugar, and beverages. The remaining 5 industries, aircraft, jewelry, miscellaneous rubber goods, cash registers, and typewriters reported fewer employees in April.

Employment increased in April in 4 of the 9 geographic divisions, the Mountain and the Pacific divisions reporting gains of 3.1 and 1.3 per cent, respectively, while the South Atlantic and the East North Central divisions showed smaller increases. The decreases in employment in the remaining 5 divisions were 0.6 per cent or less.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1931, BY INDUSTRIES

| Industry | Estab-lish-ments | Number on pay roll | | Per cent of change | Amount of pay roll (1 week) | | Per cent of change |
|-------------------------------------|------------------|--------------------|-----------------|--------------------|-----------------------------|----------------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| Food and kindred products. | 2, 006 | 221, 988 | 219, 736 | (¹) | \$5, 566, 332 | \$5, 508, 029 | (¹) |
| Slaughtering and meat packing..... | 213 | 84, 427 | 83, 765 | -0.8 | 2, 157, 335 | 2, 152, 984 | -0.2 |
| Confectionery..... | 332 | 35, 497 | 33, 653 | -5.2 | 627, 570 | 595, 056 | -5.2 |
| Ice cream..... | 322 | 12, 098 | 12, 477 | +3.1 | 408, 184 | 421, 736 | +3.3 |
| Flour..... | 399 | 15, 916 | 15, 969 | +0.3 | 401, 437 | 397, 679 | -0.9 |
| Baking..... | 725 | 65, 482 | 65, 168 | -0.5 | 1, 718, 587 | 1, 690, 290 | -1.6 |
| Sugar refining, cane..... | 15 | 8, 568 | 8, 704 | +1.6 | 253, 219 | 250, 284 | -1.2 |
| Textiles and their products. | 2, 369 | 546, 891 | 541, 386 | (¹) | 10, 242, 680 | 9, 784, 250 | (¹) |
| Cotton goods..... | 445 | 169, 093 | 170, 184 | +0.6 | 2, 472, 242 | 2, 529, 335 | +2.3 |
| Hosiery and knit goods..... | 350 | 86, 501 | 86, 999 | +0.6 | 1, 465, 602 | 1, 453, 776 | -0.8 |
| Silk goods..... | 254 | 55, 421 | 53, 813 | -2.9 | 1, 032, 838 | 975, 034 | -5.6 |
| Woolen and worsted goods..... | 193 | 53, 235 | 49, 918 | -6.2 | 1, 134, 196 | 1, 016, 322 | -10.4 |
| Carpets and rugs..... | 30 | 18, 166 | 18, 431 | +1.5 | 404, 841 | 404, 294 | -0.1 |
| Dyeing and finishing textiles..... | 120 | 37, 280 | 36, 526 | -2.0 | 942, 368 | 902, 577 | -4.2 |

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1931, BY INDUSTRIES—Continued

| Industry | Estab-lish-ments | Number on pay roll | | Per cent of change | Amount of pay roll (1 week) | | Per cent of change |
|---|------------------|--------------------|----------------|--------------------|-----------------------------|-------------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| Textiles and their products— | | | | | | | |
| Continued. | | | | | | | |
| Clothing, men's..... | 349 | 61,155 | 60,040 | -1.8 | \$1,263,668 | \$1,110,669 | -12.1 |
| Shirts and collars..... | 107 | 17,164 | 17,373 | +1.2 | 237,933 | 239,360 | +0.6 |
| Clothing, women's..... | 399 | 33,513 | 33,419 | -0.3 | 920,889 | 820,992 | -10.8 |
| Millinery and lace goods..... | 122 | 15,363 | 14,683 | -4.4 | 368,103 | 331,891 | -9.8 |
| Iron and steel and their products | 1,976 | 559,041 | 553,014 | (1) | 14,191,338 | 13,906,075 | (1) |
| Iron and steel..... | 187 | 227,238 | 226,930 | -0.1 | 6,164,463 | 6,123,289 | -0.7 |
| Cast-iron pipe..... | 43 | 9,295 | 9,622 | +3.5 | 201,925 | 214,973 | +6.5 |
| Structural ironwork..... | 170 | 23,760 | 23,359 | -1.7 | 601,374 | 571,407 | -5.0 |
| Foundry and machine-shop products..... | 1,093 | 203,577 | 196,652 | -1.9 | 5,044,061 | 4,893,707 | -3.0 |
| Hardware..... | 91 | 26,853 | 26,662 | -0.7 | 554,336 | 538,187 | -2.9 |
| Machine tools..... | 150 | 24,023 | 23,324 | -2.9 | 594,754 | 572,432 | -3.8 |
| Steam fittings and steam and hot-water heating apparatus..... | 107 | 26,419 | 25,395 | -3.9 | 616,688 | 580,843 | -5.8 |
| Stoves..... | 135 | 17,876 | 18,070 | +1.1 | 413,737 | 411,237 | -0.6 |
| Lumber and its products | 1,454 | 166,343 | 166,674 | (1) | 3,048,721 | 2,954,920 | (1) |
| Lumber, sawmills..... | 668 | 88,655 | 89,981 | +1.5 | 1,505,869 | 1,467,038 | -2.6 |
| Lumber, millwork..... | 324 | 23,828 | 23,928 | +0.4 | 484,153 | 484,758 | +0.1 |
| Furniture..... | 462 | 53,860 | 52,765 | -2.0 | 1,058,699 | 1,003,124 | -5.2 |
| Leather and its products | 434 | 129,140 | 127,982 | (1) | 2,619,150 | 2,518,088 | (1) |
| Leather..... | 131 | 23,770 | 23,534 | -1.0 | 557,491 | 553,384 | -0.7 |
| Boots and shoes..... | 303 | 105,370 | 104,448 | -0.9 | 2,061,659 | 1,964,704 | -4.7 |
| Paper and printing | 1,613 | 221,295 | 220,375 | (1) | 7,107,473 | 7,028,896 | (1) |
| Paper and pulp..... | 246 | 58,471 | 58,471 | (0) | 1,444,127 | 1,414,253 | -2.1 |
| Paper boxes..... | 312 | 24,212 | 24,230 | +0.1 | 537,994 | 532,222 | -1.1 |
| Printing, book and job..... | 608 | 57,978 | 57,261 | -1.2 | 1,942,732 | 1,906,007 | -1.9 |
| Printing, newspapers..... | 447 | 80,634 | 80,413 | -0.3 | 3,182,620 | 3,176,414 | -0.2 |
| Chemicals and allied products | 466 | 97,396 | 103,928 | (1) | 2,714,295 | 2,848,333 | (1) |
| Chemicals..... | 160 | 37,315 | 36,382 | -2.5 | 1,011,408 | 976,002 | -3.5 |
| Fertilizers..... | 205 | 13,611 | 16,923 | +24.3 | 207,429 | 279,092 | +34.5 |
| Petroleum refining..... | 101 | 46,470 | 50,623 | +8.9 | 1,495,458 | 1,593,239 | +6.5 |
| Stone, clay, and glass products | 1,128 | 104,145 | 108,188 | (1) | 2,356,753 | 2,456,577 | (1) |
| Cement..... | 113 | 18,669 | 19,884 | +6.5 | 486,277 | 526,650 | +8.3 |
| Brick, tile, and terra cotta..... | 729 | 28,792 | 30,903 | +7.3 | 562,858 | 589,764 | +4.8 |
| Pottery..... | 116 | 16,787 | 17,112 | +1.9 | 366,360 | 383,596 | +4.7 |
| Glass..... | 170 | 39,897 | 40,289 | +1.0 | 971,258 | 956,567 | -1.5 |
| Metal products, other than iron and steel | 234 | 44,049 | 43,909 | (1) | 1,031,569 | 1,018,710 | (1) |
| Stamped and enameled ware..... | 78 | 16,546 | 16,816 | +1.6 | 366,194 | 365,812 | -0.1 |
| Brass, bronze, and copper products..... | 156 | 27,503 | 27,093 | -1.5 | 665,375 | 652,898 | -1.9 |
| Tobacco products | 212 | 58,526 | 56,315 | (1) | 839,681 | 803,050 | (1) |
| Chewing and smoking tobacco and snuff..... | 27 | 9,196 | 7,951 | -13.5 | 139,341 | 122,175 | -12.3 |
| Cigars and cigarettes..... | 185 | 49,330 | 48,364 | -2.0 | 700,340 | 680,875 | -2.8 |
| Vehicles for land transportation | 1,242 | 419,433 | 424,211 | (1) | 12,076,977 | 12,402,761 | (1) |
| Automobiles..... | 218 | 289,335 | 295,434 | +2.1 | 8,309,816 | 8,668,097 | +4.3 |
| Carriages and wagons..... | 49 | 778 | 836 | +7.5 | 16,648 | 16,642 | -(0) |
| Car building and repairing, electric-railroad..... | 438 | 28,822 | 28,640 | -0.6 | 889,185 | 870,718 | -2.1 |
| Car building and repairing, steam-railroad..... | 537 | 100,498 | 99,301 | -1.2 | 2,861,328 | 2,847,304 | -0.5 |

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1931, BY INDUSTRIES—Continued

| Industry | Estab-lish-ments | Number on pay roll | | Per cent of change | Amount of pay roll (1 week) | | Per cent of change |
|---|------------------|--------------------|------------------|--------------------|-----------------------------|--------------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| Miscellaneous industries | 489 | 263,847 | 263,089 | | \$7,062,800 | \$6,996,642 | (¹) |
| Agricultural implements..... | 83 | 16,844 | 15,176 | -9.9 | 388,414 | 315,424 | -18.8 |
| Electrical machinery, apparatus, and supplies..... | 206 | 157,991 | 156,568 | -0.9 | 4,339,974 | 4,252,594 | -2.0 |
| Pianos and organs..... | 65 | 5,335 | 5,230 | -2.0 | 128,862 | 125,113 | -2.9 |
| Rubber boots and shoes..... | 10 | 10,603 | 11,724 | +10.6 | 154,561 | 194,626 | +25.9 |
| Automobile tires and inner tubes..... | 38 | 38,541 | 38,908 | +1.0 | 1,097,310 | 1,128,044 | +2.8 |
| Shipbuilding..... | 87 | 34,533 | 35,483 | +2.8 | 953,679 | 980,841 | +2.8 |
| Total—54 industries used in computing index numbers of employment and pay roll | 13,623 | 2,832,094 | 2,828,807 | (¹) | 68,887,769 | 68,226,331 | (¹) |
| Industries added since February, 1929, for which data for the index-base year (1926) are not available | 1,010 | 135,668 | 137,668 | (⁴) | 3,398,703 | 3,411,116 | (⁴) |
| Rayon..... | 16 | 20,252 | 20,699 | +2.2 | 417,642 | 416,010 | -0.4 |
| Radio..... | 47 | 18,687 | 20,491 | +9.7 | 448,612 | 491,378 | +9.5 |
| Aircraft..... | 39 | 8,194 | 7,916 | -3.4 | 281,694 | 259,733 | -7.8 |
| Jewelry..... | 159 | 15,674 | 15,483 | -1.2 | 336,409 | 322,620 | -4.1 |
| Paint and varnish..... | 284 | 16,536 | 16,797 | +1.6 | 461,924 | 466,220 | +0.9 |
| Rubber goods, other than boots, shoes, tires, and inner tubes..... | 81 | 16,623 | 16,541 | -0.5 | 367,104 | 360,839 | -1.7 |
| Beet sugar..... | 69 | 2,311 | 2,320 | +0.4 | 79,841 | 74,078 | -7.2 |
| Beverages..... | 255 | 10,917 | 11,493 | +5.3 | 328,681 | 348,627 | +6.1 |
| Cash registers, adding machines, and calculating machines..... | 45 | 16,939 | 16,916 | -0.1 | 481,042 | 477,678 | -0.7 |
| Typewriters and supplies..... | 15 | 9,535 | 9,012 | -5.5 | 195,754 | 193,933 | -0.9 |
| All Industries | 14,633 | 2,967,762 | 2,966,475 | (⁴) | 72,286,472 | 71,637,447 | (⁴) |

RECAPITULATION BY GEOGRAPHIC DIVISIONS

| GEOGRAPHIC DIVISIONS ³ | | | | | | | |
|-----------------------------------|---------------|------------------|------------------|------------------|-------------------|-------------------|------------------|
| New England..... | 1,620 | 353,177 | 352,979 | -0.1 | \$7,917,052 | \$7,802,296 | -1.4 |
| Middle Atlantic..... | 3,651 | 865,926 | 861,118 | -0.6 | 22,347,567 | 21,951,148 | -1.8 |
| East North Central..... | 3,556 | 954,608 | 956,023 | +0.1 | 25,189,631 | 25,175,502 | -0.1 |
| West North Central..... | 1,393 | 159,558 | 158,639 | -0.6 | 3,854,876 | 3,846,729 | -0.2 |
| South Atlantic..... | 1,713 | 313,032 | 314,359 | +0.4 | 5,788,004 | 5,671,468 | -2.0 |
| East South Central..... | 707 | 107,188 | 106,995 | -0.2 | 1,916,322 | 1,878,164 | -2.0 |
| West South Central..... | 813 | 86,484 | 86,483 | (²) | 1,922,313 | 1,889,051 | -1.7 |
| Mountain..... | 311 | 26,035 | 26,842 | +3.1 | 700,790 | 783,102 | +11.7 |
| Pacific..... | 869 | 101,754 | 103,037 | +1.3 | 2,649,917 | 2,639,987 | -0.4 |
| All divisions | 14,633 | 2,967,762 | 2,966,475 | (⁴) | 72,286,472 | 71,637,447 | (⁴) |

¹ The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

² No change.

³ Less than one-tenth of 1 per cent.

⁴ The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting.

⁵ See footnotes 4 to 12, p. 163.

TABLE 2.—PER CENT OF CHANGE, MARCH TO APRIL, 1931—12 GROUPS OF MANUFACTURING INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

| Group | Per cent of change, March to April, 1931 | | Group | Per cent of change, March to April, 1931 | |
|---|--|--------------------------|---|--|--------------------------|
| | Number on pay roll | Amount of pay roll | | Number on pay roll | Amount of pay roll |
| Food and kindred products..... | -1.0 | -1.2 | Stone, clay, and glass products... | +4.1 | +3.0 |
| Textiles and their products..... | -1.1 | -5.3 | Metal products, other than iron and steel..... | -0.4 | -1.4 |
| Iron and steel and their prod- ucts..... | -1.0 | -2.1 | Tobacco products..... | -3.4 | -4.0 |
| Lumber and its products..... | +0.4 | -2.9 | Vehicles for land transportation.. | +0.6 | +1.9 |
| Leather and its products..... | -1.0 | -3.8 | Miscellaneous industries..... | -0.1 | -0.7 |
| Paper and printing..... | -0.4 | -1.2 | | | |
| Chemicals and allied products.. | +5.6 | +3.8 | 54 Industries..... | -0.4 | -1.6 |

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, April, 1931, with April, 1930

THE level of employment in manufacturing industries in April, 1931, was 16.4 per cent below the level of April, 1930, and pay-roll totals were 24.9 per cent lower.

Each of the 54 industries upon which the bureau's indexes are based had fewer employees and smaller pay-roll totals in April, 1931, than in April, 1930. The greatest decreases in employment in the separate industries were 47.8 per cent in agricultural implements, 36.7 per cent in carriages and wagons, 35.9 per cent in machine tools, 30.7 per cent in sawmills, 28.3 per cent in rubber boots and shoes, and 26.5 per cent in foundries and machine shops. Structural ironwork, furniture, fertilizers, brick, automobiles, steam-railroad car shops, and electrical machinery decreased more than 20 per cent in employment over the year period. The iron and steel industry had 16.1 per cent fewer employees and cotton goods decreased 11.0 per cent during the 12-month interval.

Each of the nine geographic divisions showed a falling-off in employment and earnings in April, 1931, as compared with April, 1930, the West South Central division reporting the largest decrease in employment—22.2 per cent.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, APRIL, 1931, WITH APRIL, 1930

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

| Industry | Per cent of change, April, 1930, compared with April, 1931 | | Industry | Per cent of change, April, 1930, compared with April, 1931 | |
|--|--|--------------------|--|--|--------------------|
| | Number on pay roll | Amount of pay roll | | Number on pay roll | Amount of pay roll |
| Food and kindred products | -7.2 | -11.5 | Paper and printing—Contd. | | |
| Slaughtering and meat packing..... | -6.1 | -8.9 | Printing, book and job..... | -8.6 | -11.1 |
| Confectionery..... | -6.2 | -14.0 | Printing, newspapers..... | -1.3 | -3.8 |
| Ice cream..... | -8.9 | -8.9 | Chemicals and allied products | -14.7 | -17.9 |
| Flour..... | -8.3 | -16.2 | Chemicals..... | -8.3 | -12.8 |
| Baking..... | -7.4 | -12.5 | Fertilizers..... | -20.1 | -24.7 |
| Sugar refining, cane..... | -11.9 | -11.2 | Petroleum refining..... | -18.9 | -20.9 |
| Textiles and their products | -9.7 | -14.2 | Stone, clay, and glass products | -19.1 | -27.7 |
| Cotton goods..... | -11.0 | -13.1 | Cement..... | -17.3 | -25.9 |
| Hosiery and knit goods..... | -11.4 | -19.7 | Brick, tile, and terra cotta..... | -23.7 | -37.7 |
| Silk goods..... | -15.3 | -22.5 | Pottery..... | -11.0 | -16.5 |
| Woolen and worsted goods..... | -2.7 | -2.5 | Glass..... | -19.3 | -24.2 |
| Carpets and rugs..... | -18.7 | -16.8 | Metal products, other than iron and steel | -15.3 | -23.6 |
| Dyeing and finishing textiles..... | -4.6 | -5.9 | Stamped and enameled ware..... | -11.7 | -17.6 |
| Clothing, men's..... | -7.1 | -13.4 | Brass, bronze, and copper products..... | -16.9 | -25.8 |
| Shirts and collars..... | -13.6 | -18.2 | Tobacco products | -8.9 | -14.9 |
| Clothing, women's..... | -5.3 | -14.2 | Chewing and smoking tobacco and snuff..... | -10.1 | -15.3 |
| Millinery and lace goods..... | -13.6 | -20.4 | Cigars and cigarettes..... | -8.7 | -14.8 |
| Iron and steel and their products | -21.8 | -34.6 | Vehicles for land transportation | -21.4 | -29.3 |
| Iron and steel..... | -16.1 | -28.6 | Automobiles..... | -20.1 | -29.9 |
| Cast-iron pipe..... | -16.0 | -21.9 | Carriages and wagons..... | -36.7 | -42.9 |
| Structural ironwork..... | -21.8 | -37.0 | Car building and repairing, electric-railroad..... | -11.7 | -15.9 |
| Foundry and machine-shop products..... | -26.5 | -39.9 | Car building and repairing, steam-railroad..... | -23.7 | -29.7 |
| Hardware..... | -17.5 | -28.3 | Miscellaneous industries | -22.1 | -31.8 |
| Machine tools..... | -35.9 | -47.9 | Agricultural implements..... | -47.8 | -62.9 |
| Steam fittings and steam apparatus..... | -16.1 | -31.2 | Electrical machinery, apparatus, and supplies..... | -21.1 | -30.9 |
| Stoves..... | -17.6 | -29.3 | Pianos and organs..... | -15.7 | -26.3 |
| Lumber and its products | -26.7 | -39.3 | Rubber boots and shoes..... | -28.3 | -47.3 |
| Lumber, sawmills..... | -30.7 | -46.8 | Automobile tires..... | -17.0 | -25.2 |
| Lumber, millwork..... | -18.8 | -29.1 | Shipbuilding..... | -17.6 | -24.6 |
| Furniture..... | -21.0 | -29.8 | All industries | -16.4 | -24.9 |
| Leather and its products | -8.3 | -13.6 | | | |
| Leather..... | -12.1 | -15.0 | | | |
| Boots and shoes..... | -7.4 | -13.0 | | | |
| Paper and printing | -7.7 | -11.1 | | | |
| Paper and pulp..... | -13.6 | -22.6 | | | |
| Paper boxes..... | -8.2 | -11.9 | | | |

RECAPITULATION BY GEOGRAPHIC DIVISIONS

| GEOGRAPHIC DIVISION | | | GEOGRAPHIC DIVISION—CON. | | |
|-------------------------|-------|-------|----------------------------|--------------|--------------|
| New England..... | -11.9 | -18.1 | West South Central..... | -22.2 | -28.7 |
| Middle Atlantic..... | -15.2 | -23.9 | Mountain..... | -18.7 | -18.2 |
| East North Central..... | -19.1 | -28.9 | Pacific..... | -19.5 | -28.8 |
| West North Central..... | -17.1 | -23.1 | All divisions | -16.4 | -24.9 |
| South Atlantic..... | -13.5 | -21.8 | | | |
| East South Central..... | -19.1 | -26.8 | | | |

Per Capita Earnings in Manufacturing Industries

ACTUAL per capita weekly earnings in April, 1931, for each of the 64 manufacturing industries surveyed by the Bureau of Labor Statistics, together with per cents of change in April, 1931, as compared with March, 1931, and April, 1930, are shown in Table 4.

Per capita earnings in April, 1931, for the combined 54 chief manufacturing industries of the United States, upon which the bureau's indexes of employment and pay rolls are based, were 1.2 per cent less than in March, 1931, and 10.2 per cent less than in April, 1930.

The actual average per capita weekly earnings in April, 1931, for the 54 manufacturing industries were \$24.12; the average per capita earnings for all of the 64 manufacturing industries surveyed were \$24.15.

Per capita earnings given in Table 4 must not be confused with full-time weekly rates of wages. They are actual per capita weekly earnings computed by dividing the total number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers.

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN APRIL, 1931, AND COMPARISON WITH MARCH, 1931, AND APRIL, 1930

| Industry | Per capita weekly earnings in April, 1931 | Per cent of change, April, 1931, compared with— | |
|---|---|---|-------------|
| | | March, 1931 | April, 1930 |
| Food and kindred products: | | | |
| Slaughtering and meat packing..... | \$25.70 | +0.6 | -2.8 |
| Confectionery..... | 17.68 | (1) | -8.2 |
| Ice cream..... | 33.80 | +0.2 | -0.1 |
| Flour..... | 24.90 | -1.3 | -8.5 |
| Baking..... | 25.94 | -1.2 | -5.4 |
| Sugar refining, cane..... | 28.76 | -2.7 | +0.9 |
| Textiles and their products: | | | |
| Cotton goods..... | 14.86 | +1.6 | -2.1 |
| Hosiery and knit goods..... | 16.71 | -1.4 | -9.5 |
| Silk goods..... | 18.12 | -2.8 | -8.6 |
| Woolen and worsted goods..... | 20.36 | -4.5 | +0.5 |
| Carpets and rugs..... | 21.94 | -1.6 | +2.2 |
| Dyeing and finishing textiles..... | 24.71 | -2.3 | -1.6 |
| Clothing, men's..... | 18.50 | -10.5 | -7.0 |
| Shirts and collars..... | 13.78 | -0.6 | -5.3 |
| Clothing, women's..... | 24.57 | -10.6 | -9.8 |
| Millinery and lace goods..... | 22.60 | -5.7 | -7.9 |
| Iron and steel and their products: | | | |
| Iron and steel..... | 26.98 | -0.6 | -14.7 |
| Cast-iron pipe..... | 22.34 | +2.9 | -7.0 |
| Structural ironwork..... | 24.46 | -3.4 | -19.6 |
| Foundry and machine-shop products..... | 24.51 | -1.1 | -18.4 |
| Hardware..... | 20.19 | -2.2 | -13.2 |
| Machine tools..... | 24.54 | -0.9 | -18.6 |
| Steam fittings and steam and hot-water heating apparatus..... | 22.87 | -2.0 | -17.9 |
| Stoves..... | 22.76 | -1.6 | -13.9 |
| Lumber and its products: | | | |
| Lumber, sawmills..... | 16.30 | -4.1 | -23.2 |
| Lumber, millwork..... | 20.26 | -0.3 | -12.5 |
| Furniture..... | 19.01 | -3.3 | -11.2 |
| Leather and its products: | | | |
| Leather..... | 23.51 | +0.3 | -3.5 |
| Boots and shoes..... | 18.81 | -3.9 | -6.1 |
| Paper and printing: | | | |
| Paper and pulp..... | 24.19 | -2.1 | -10.7 |
| Paper boxes..... | 21.97 | -1.1 | -3.7 |
| Printing, book and job..... | 33.29 | -0.7 | -3.0 |
| Printing, newspapers..... | 39.50 | +0.1 | -2.3 |

1 No change.

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN APRIL, 1931, AND COMPARISON WITH MARCH, 1931, AND APRIL, 1930—Continued

| Industry | Per capita weekly earnings in April, 1931 | Per cent of change, April, 1931, compared with— | |
|---|---|---|------------------|
| | | March, 1931 | April, 1930 |
| Chemicals and allied products: | | | |
| Chemicals..... | \$26. 83 | -1. 0 | -5. 1 |
| Fertilizers..... | 16. 49 | +8. 2 | -6. 0 |
| Petroleum refining..... | 31. 47 | -2. 2 | -2. 6 |
| Stone, clay, and glass products: | | | |
| Cement..... | 26. 49 | +1. 7 | -10. 4 |
| Brick, tile, and terra cotta..... | 19. 08 | -2. 4 | -18. 3 |
| Pottery..... | 22. 42 | +2. 7 | -6. 2 |
| Glass..... | 23. 74 | -2. 5 | -5. 9 |
| Metal products, other than iron and steel: | | | |
| Stamped and enameled ware..... | 21. 75 | -1. 7 | -6. 9 |
| Brass, bronze, and copper products..... | 24. 10 | -0. 4 | -10. 6 |
| Tobacco products: | | | |
| Chewing and smoking tobacco and snuff..... | 15. 37 | +1. 5 | -5. 1 |
| Cigars and cigarettes..... | 14. 08 | -0. 8 | -6. 8 |
| Vehicles for land transportation: | | | |
| Automobiles..... | 29. 34 | +2. 2 | -11. 9 |
| Carriages and wagons..... | 19. 91 | -7. 0 | -9. 4 |
| Car building and repairing, electric-railroad..... | 30. 40 | -1. 5 | -4. 9 |
| Car building and repairing, steam-railroad..... | 28. 67 | +0. 7 | -7. 8 |
| Miscellaneous industries: | | | |
| Agricultural implements..... | 20. 78 | -9. 9 | -29. 0 |
| Electrical machinery, apparatus, and supplies..... | 27. 16 | -1. 1 | -12. 4 |
| Pianos and organs..... | 23. 92 | -1. 0 | -12. 9 |
| Rubber boots and shoes..... | 16. 60 | +13. 9 | -26. 5 |
| Automobile tires and inner tubes..... | 28. 99 | +1. 8 | -10. 1 |
| Shipbuilding..... | 27. 64 | +0. 1 | -8. 6 |
| Industries added since February, 1929, for which data for the index-base year (1926) are not available: | | | |
| Rayon..... | 20. 10 | -2. 5 | -2. 9 |
| Radio..... | 23. 98 | -0. 1 | -12. 8 |
| Aircraft..... | 32. 81 | -4. 6 | +2. 1 |
| Jewelry..... | 20. 84 | -2. 9 | -13. 0 |
| Paint and varnish..... | 27. 76 | -0. 6 | -3. 6 |
| Rubber goods, other than boots, shoes, tires, and inner tubes..... | 21. 81 | -1. 2 | -10. 1 |
| Beet sugar..... | 31. 93 | -7. 6 | (²) |
| Beverages..... | 30. 33 | +0. 7 | (²) |
| Cash registers, adding machines, and calculating machines..... | 28. 24 | -0. 6 | (²) |
| Typewriters and supplies..... | 21. 52 | +4. 8 | (²) |

² Data not available.

Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

TABLE 5 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to April, 1931, together with the average indexes for each of the years 1923 to 1930, inclusive.

Index numbers showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics and in each of the 12 groups of industries, and also general indexes for the combined 12 groups of industries, are shown in Table 6 for April, 1930, and February, March, and April, 1931.

In computing the general indexes and the group indexes the index numbers of separate industries are weighted according to the relative importance of the industries.

TABLE 5.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO APRIL, 1931

[Monthly average, 1926=100]

| Month | Employment | | | | | | | | | | Pay-roll totals | | | | | | | | | |
|-----------|------------|-------|-------|-------|------|------|------|------|-------|-------|-----------------|-------|-------|-------|------|-------|------|-------|--|--|
| | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | | |
| Jan..... | 106.6 | 103.8 | 97.9 | 100.4 | 97.3 | 91.6 | 95.2 | 90.2 | 73.1 | 95.8 | 98.6 | 93.9 | 98.0 | 94.9 | 89.6 | 94.5 | 87.6 | 62.3 | | |
| Feb..... | 108.4 | 105.1 | 99.7 | 101.5 | 99.0 | 93.0 | 97.4 | 90.3 | 74.1 | 99.4 | 103.8 | 99.3 | 102.2 | 100.6 | 93.9 | 101.8 | 90.7 | 67.0 | | |
| Mar..... | 110.8 | 104.9 | 100.4 | 102.0 | 99.5 | 93.7 | 98.6 | 89.8 | 74.8 | 104.7 | 103.3 | 100.8 | 103.4 | 102.0 | 95.2 | 103.9 | 90.8 | 68.5 | | |
| Apr..... | 110.8 | 102.8 | 100.2 | 101.0 | 98.6 | 93.3 | 99.1 | 89.1 | 74.5 | 105.7 | 101.1 | 98.3 | 101.5 | 100.8 | 93.8 | 104.6 | 89.8 | 67.4 | | |
| May..... | 110.8 | 98.8 | 98.9 | 99.8 | 97.6 | 93.0 | 99.2 | 87.7 | ----- | 109.4 | 96.5 | 95.5 | 99.8 | 99.8 | 94.1 | 104.8 | 87.6 | ----- | | |
| June..... | 110.9 | 95.6 | 98.0 | 99.3 | 97.0 | 93.1 | 98.8 | 85.5 | ----- | 109.3 | 90.8 | 95.7 | 99.7 | 97.4 | 94.2 | 102.8 | 84.1 | ----- | | |
| July..... | 109.2 | 92.3 | 97.2 | 97.7 | 95.0 | 92.2 | 98.2 | 81.6 | ----- | 104.3 | 84.3 | 93.5 | 95.2 | 93.0 | 91.2 | 98.2 | 75.9 | ----- | | |
| Aug..... | 108.5 | 92.5 | 97.8 | 98.7 | 95.1 | 93.6 | 98.6 | 79.9 | ----- | 103.7 | 87.2 | 95.4 | 98.7 | 95.0 | 94.2 | 102.1 | 73.9 | ----- | | |
| Sept..... | 108.6 | 94.3 | 98.9 | 100.3 | 95.8 | 95.0 | 99.3 | 79.7 | ----- | 104.4 | 89.8 | 94.4 | 99.3 | 94.1 | 95.4 | 102.6 | 74.2 | ----- | | |
| Oct..... | 108.1 | 95.6 | 100.4 | 100.7 | 95.3 | 95.9 | 98.3 | 78.6 | ----- | 106.8 | 92.4 | 100.4 | 102.9 | 95.2 | 99.0 | 102.3 | 72.7 | ----- | | |
| Nov..... | 107.4 | 95.5 | 100.7 | 99.5 | 93.5 | 95.4 | 94.8 | 76.5 | ----- | 105.4 | 91.4 | 100.4 | 99.6 | 91.6 | 96.1 | 95.1 | 68.3 | ----- | | |
| Dec..... | 105.4 | 97.3 | 100.8 | 98.9 | 92.6 | 95.5 | 91.9 | 75.1 | ----- | 103.2 | 95.7 | 101.6 | 99.8 | 93.2 | 97.7 | 92.0 | 67.4 | ----- | | |
| Av..... | 108.8 | 98.2 | 99.2 | 100.0 | 96.4 | 93.8 | 97.5 | 83.7 | 74.1 | 104.3 | 94.6 | 97.7 | 100.0 | 96.5 | 94.5 | 100.4 | 80.3 | 66.3 | | |

1 Average for 4 months.

Following Table 6 are two charts which represent the 54 separate industries combined and show the course of pay-roll totals as well as the course of employment for each month of the years 1926 to 1930, and January, February, March, and April, 1931, inclusive.

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, APRIL, 1930, AND FEBRUARY, MARCH, AND APRIL, 1931

[Monthly average, 1926=100]

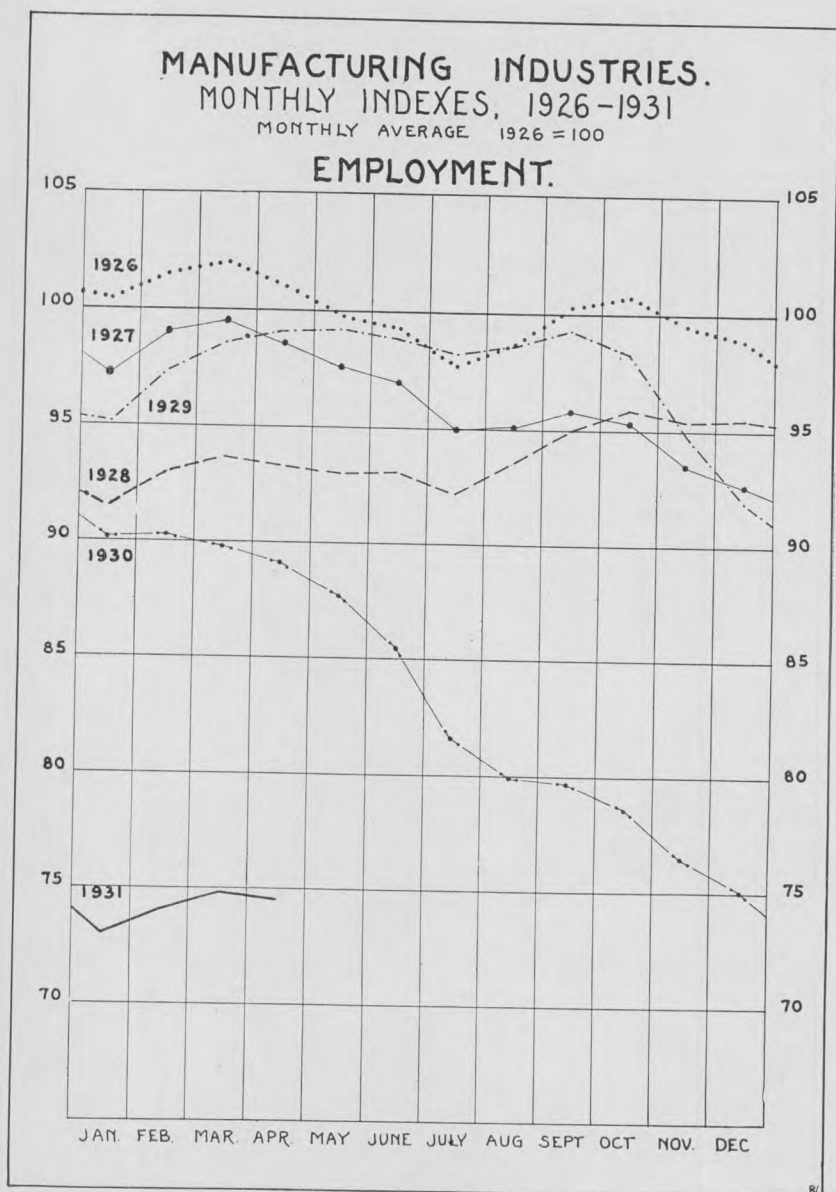
| Industry | Employment | | | | Pay-roll totals | | | |
|---|-------------|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|
| | 1930 | | 1931 | | 1930 | | 1931 | |
| | April | February | March | April | April | February | March | April |
| General index..... | 89.1 | 74.1 | 74.8 | 74.5 | 89.8 | 67.0 | 68.5 | 67.4 |
| Food and kindred products..... | 93.7 | 89.2 | 87.9 | 87.0 | 97.1 | 89.3 | 86.9 | 85.9 |
| Slaughtering and meat packing..... | 95.2 | 94.0 | 90.2 | 89.4 | 98.8 | 96.3 | 90.2 | 90.0 |
| Confectionery..... | 83.3 | 83.9 | 82.3 | 78.1 | 85.1 | 79.1 | 77.2 | 73.2 |
| Ice cream..... | 86.2 | 74.7 | 76.2 | 78.5 | 87.2 | 76.2 | 76.9 | 79.4 |
| Flour..... | 95.9 | 89.0 | 87.7 | 87.9 | 100.7 | 87.9 | 85.2 | 84.4 |
| Baking..... | 97.3 | 90.6 | 90.6 | 90.1 | 100.0 | 89.5 | 88.9 | 87.5 |
| Sugar refining, cane..... | 94.8 | 79.9 | 82.2 | 83.5 | 94.0 | 82.3 | 84.5 | 83.5 |
| Textiles and their products..... | 88.7 | 78.6 | 81.0 | 80.1 | 83.2 | 72.3 | 75.4 | 71.4 |
| Cotton goods..... | 86.9 | 73.3 | 76.8 | 77.3 | 82.2 | 65.8 | 69.8 | 71.4 |
| Hosiery and knit goods..... | 91.0 | 79.3 | 80.1 | 80.6 | 90.8 | 72.0 | 73.4 | 72.9 |
| Silk goods..... | 95.3 | 84.3 | 83.2 | 80.7 | 92.8 | 78.6 | 76.2 | 71.9 |
| Woolen and worsted goods..... | 73.7 | 74.8 | 76.4 | 71.7 | 67.1 | 71.9 | 73.0 | 65.4 |
| Carpets and rugs..... | 95.0 | 71.7 | 76.1 | 77.2 | 77.6 | 62.8 | 64.6 | 64.6 |
| Dyeing and finishing textiles..... | 98.0 | 95.5 | 95.4 | 93.5 | 96.3 | 96.2 | 94.5 | 90.6 |
| Clothing, men's..... | 81.9 | 75.6 | 77.5 | 76.1 | 67.2 | 62.9 | 66.2 | 58.2 |
| Shirts and collars..... | 86.9 | 71.5 | 74.2 | 75.1 | 76.8 | 59.1 | 62.4 | 62.8 |
| Clothing, women's..... | 103.8 | 93.6 | 98.6 | 98.3 | 97.5 | 85.3 | 93.8 | 83.7 |
| Millinery and lace goods..... | 97.7 | 82.4 | 88.3 | 84.4 | 97.6 | 73.0 | 86.1 | 77.7 |

TABLE 6.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, APRIL, 1930, AND FEBRUARY, MARCH, AND APRIL, 1931—Continued

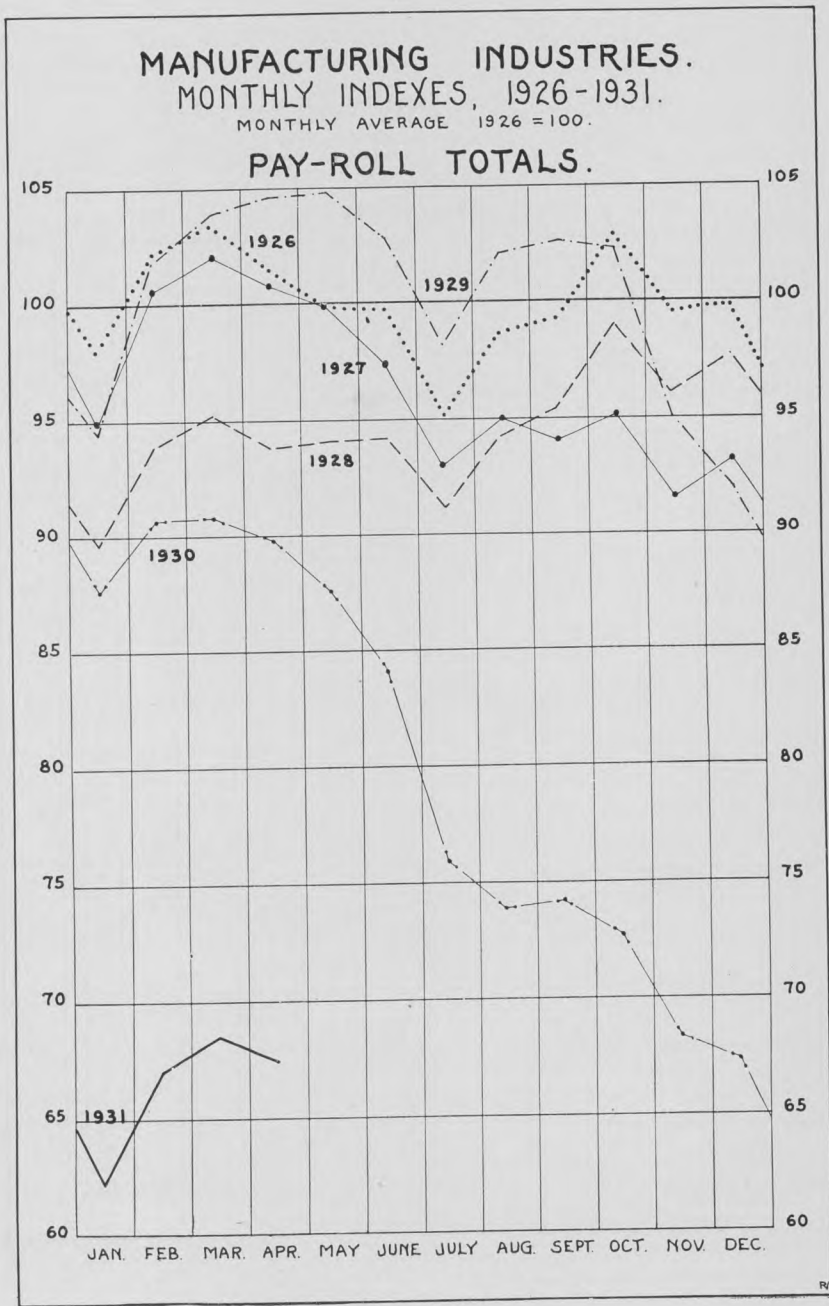
[Monthly average, 1926=100]

| Industry | Employment | | | | Pay-roll totals | | | |
|---|--------------|-------------|-------------|-------------|-----------------|-------------|-------------|-------------|
| | 1930 | 1931 | | | 1930 | 1931 | | |
| | April | February | March | April | April | February | March | April |
| Iron and steel and their products | 91.9 | 72.0 | 72.6 | 71.9 | 92.8 | 60.4 | 62.0 | 60.7 |
| Iron and steel..... | 90.8 | 75.1 | 76.2 | 76.2 | 94.3 | 64.9 | 67.8 | 67.3 |
| Cast-iron pipe..... | 72.1 | 56.8 | 58.5 | 60.6 | 74.5 | 50.6 | 54.6 | 58.2 |
| Structural ironwork..... | 94.7 | 75.8 | 75.4 | 74.1 | 96.3 | 64.6 | 63.9 | 60.7 |
| Foundry and machine-shop products..... | 96.4 | 72.3 | 72.3 | 70.9 | 96.8 | 59.1 | 59.9 | 58.2 |
| Hardware..... | 83.4 | 69.2 | 69.3 | 68.8 | 74.8 | 54.1 | 55.2 | 53.6 |
| Machine tools..... | 110.4 | 73.0 | 72.9 | 70.8 | 107.6 | 57.6 | 58.3 | 56.1 |
| Steam fittings and steam and hot-water heating apparatus..... | 68.8 | 60.0 | 60.1 | 57.7 | 65.0 | 49.9 | 47.4 | 44.7 |
| Stoves..... | 79.4 | 60.0 | 64.7 | 65.4 | 70.7 | 47.1 | 50.3 | 50.0 |
| Lumber and its products | 74.1 | 54.3 | 54.1 | 54.3 | 72.7 | 44.7 | 45.4 | 44.1 |
| Lumber, sawmills..... | 73.7 | 50.6 | 50.3 | 51.1 | 75.4 | 40.3 | 41.2 | 40.1 |
| Lumber, millwork..... | 68.0 | 54.8 | 55.0 | 55.2 | 67.3 | 47.1 | 47.6 | 47.7 |
| Furniture..... | 78.7 | 63.7 | 63.4 | 62.2 | 70.8 | 52.2 | 52.4 | 49.7 |
| Leather and its products | 88.9 | 79.4 | 82.3 | 81.5 | 78.9 | 66.5 | 70.9 | 68.2 |
| Leather..... | 88.3 | 77.6 | 78.4 | 77.6 | 86.2 | 72.0 | 73.8 | 73.3 |
| Boots and shoes..... | 89.1 | 79.9 | 83.3 | 82.5 | 76.8 | 64.9 | 70.1 | 66.8 |
| Paper and printing | 99.7 | 92.5 | 92.4 | 92.0 | 105.1 | 93.3 | 94.5 | 93.4 |
| Paper and pulp..... | 94.9 | 82.4 | 82.0 | 82.0 | 97.5 | 77.9 | 77.1 | 75.5 |
| Paper boxes..... | 89.3 | 81.7 | 81.9 | 82.0 | 93.2 | 80.6 | 83.0 | 82.1 |
| Printing, book and job..... | 100.5 | 94.8 | 93.0 | 91.9 | 104.2 | 94.0 | 94.4 | 92.6 |
| Printing, newspapers..... | 109.0 | 105.8 | 107.9 | 107.6 | 114.6 | 107.2 | 110.4 | 110.2 |
| Chemicals and allied products | 101.7 | 83.9 | 82.2 | 86.8 | 102.0 | 83.7 | 80.6 | 83.7 |
| Chemicals..... | 94.4 | 90.5 | 88.8 | 86.6 | 96.5 | 87.5 | 87.2 | 84.1 |
| Fertilizers..... | 145.7 | 74.2 | 93.7 | 116.4 | 139.9 | 66.5 | 78.3 | 105.4 |
| Petroleum refining..... | 96.1 | 79.7 | 71.5 | 77.9 | 100.7 | 83.1 | 74.8 | 79.7 |
| Stone, clay, and glass products | 78.6 | 58.8 | 61.1 | 63.6 | 75.7 | 50.7 | 53.1 | 54.7 |
| Cement..... | 77.3 | 56.9 | 60.0 | 63.9 | 77.7 | 50.3 | 53.2 | 57.6 |
| Brick, tile, and terra cotta..... | 67.0 | 44.5 | 47.7 | 51.1 | 61.8 | 34.0 | 36.8 | 38.5 |
| Pottery..... | 90.6 | 79.5 | 79.1 | 80.6 | 84.6 | 65.4 | 67.4 | 70.6 |
| Glass..... | 90.3 | 70.1 | 72.2 | 72.9 | 89.8 | 67.3 | 69.1 | 68.1 |
| Metal products, other than iron and steel | 83.8 | 70.7 | 71.3 | 71.0 | 82.6 | 62.4 | 64.0 | 63.1 |
| Stamped and enameled ware..... | 83.6 | 72.7 | 72.7 | 73.8 | 81.7 | 67.0 | 67.3 | 67.3 |
| Brass, bronze, and copper products..... | 83.9 | 69.8 | 70.7 | 69.7 | 82.9 | 60.6 | 62.7 | 61.5 |
| Tobacco products | 90.1 | 85.6 | 85.0 | 82.1 | 81.7 | 69.3 | 72.4 | 69.5 |
| Chewing and smoking tobacco and snuff..... | 88.8 | 93.8 | 92.2 | 79.8 | 87.2 | 88.1 | 84.3 | 73.9 |
| Cigars and cigarettes..... | 90.3 | 84.6 | 84.1 | 82.4 | 81.0 | 67.0 | 71.0 | 69.0 |
| Vehicles for land transportation | 86.8 | 66.9 | 67.8 | 65.2 | 91.5 | 61.0 | 63.5 | 64.7 |
| Automobiles..... | 96.1 | 71.5 | 75.2 | 76.8 | 98.1 | 59.4 | 65.9 | 68.8 |
| Carriages and wagons..... | 64.5 | 36.4 | 37.9 | 40.8 | 71.6 | 38.4 | 40.9 | 40.9 |
| Car building and repairing, electric-railroad..... | 89.4 | 79.7 | 79.4 | 78.9 | 92.6 | 78.3 | 79.5 | 77.9 |
| Car building and repairing, steam-railroad..... | 78.5 | 62.1 | 60.6 | 59.9 | 84.8 | 61.5 | 59.9 | 59.6 |
| Miscellaneous industries | 101.8 | 81.3 | 79.4 | 79.3 | 105.4 | 73.6 | 72.4 | 71.9 |
| Agricultural implements..... | 114.7 | 75.8 | 66.4 | 59.9 | 117.5 | 66.6 | 53.7 | 43.6 |
| Electrical machinery, apparatus, and supplies..... | 109.2 | 87.7 | 87.0 | 86.2 | 114.2 | 80.5 | 80.5 | 78.9 |
| Pianos and organs..... | 49.2 | 42.1 | 42.4 | 41.5 | 42.9 | 30.6 | 32.5 | 31.6 |
| Rubber boots and shoes..... | 86.0 | 68.1 | 55.8 | 61.7 | 83.3 | 47.4 | 34.9 | 43.9 |
| Automobile tires..... | 83.1 | 68.1 | 68.3 | 69.0 | 87.0 | 60.9 | 63.3 | 65.1 |
| Shipbuilding..... | 121.7 | 100.3 | 97.6 | 100.3 | 125.9 | 96.2 | 92.3 | 94.9 |

[1440]



[1441]



Time Worked in Manufacturing Industries in April, 1931

REPORTS as to working time of employees in April were received from 11,948 establishments in 62 manufacturing industries. One per cent of the establishments were idle, while employees in 60 per cent were working full time, and employees in 38 per cent were working part time.

Employees in the establishments in operation in April were working an average of 91 per cent of full time, this percentage remaining unchanged over the month interval.

Employees in the 38 per cent of the establishments working part time in April were averaging 76 per cent of full-time operation.

TABLE 7.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1931

| Industry | Establishments reporting | | Per cent of establishments in which employees worked | | Average per cent of full time reported by— | |
|--|--------------------------|---------------|--|-----------|--|------------------------------------|
| | Total number | Per cent idle | Full time | Part time | All operating establishments | Establishments operating part time |
| Food and kindred products | 1,734 | 1 | 80 | 19 | 96 | 80 |
| Slaughtering and meat packing | 178 | | 76 | 24 | 97 | 88 |
| Confectionery | 273 | 1 | 52 | 46 | 91 | 81 |
| Ice cream | 235 | | 86 | 14 | 98 | 86 |
| Flour | 367 | 3 | 79 | 18 | 95 | 73 |
| Baking | 667 | | 91 | 9 | 98 | 81 |
| Sugar refining, cane | 14 | 7 | 50 | 43 | 86 | 69 |
| Textiles and their products | 1,931 | 1 | 68 | 31 | 93 | 81 |
| Cotton goods | 402 | 2 | 65 | 33 | 91 | 74 |
| Hosiery and knit goods | 300 | 1 | 62 | 37 | 91 | 76 |
| Silk goods | 236 | (1) | 79 | 22 | 96 | 80 |
| Woolen and worsted goods | 171 | 1 | 64 | 35 | 93 | 95 |
| Carpets and rugs | 26 | | 42 | 58 | 89 | 81 |
| Dyeing and finishing textiles | 111 | | 59 | 41 | 92 | 91 |
| Clothing, men's | 258 | 1 | 71 | 28 | 95 | 81 |
| Shirts and collars | 78 | 6 | 64 | 29 | 95 | 83 |
| Clothing, women's | 267 | 1 | 79 | 21 | 96 | 80 |
| Millinery and lace goods | 82 | | 71 | 29 | 95 | 83 |
| Iron and steel and their products | 1,765 | 1 | 31 | 67 | 80 | 70 |
| Iron and steel | 132 | 5 | 55 | 40 | 86 | 66 |
| Cast-iron pipe | 39 | 13 | 18 | 69 | 68 | 59 |
| Structural ironwork | 162 | 1 | 37 | 62 | 86 | 77 |
| Foundry and machine-shop products | 1,008 | 1 | 31 | 68 | 80 | 71 |
| Hardware | 61 | | 20 | 80 | 77 | 71 |
| Machine tools | 140 | 1 | 19 | 80 | 75 | 69 |
| Steam fittings and steam and hot-water heating apparatus | 102 | 1 | 21 | 78 | 75 | 68 |
| Stoves | 124 | 2 | 34 | 65 | 81 | 71 |
| Lumber and its products | 1,048 | 3 | 46 | 52 | 86 | 73 |
| Lumber, sawmills | 416 | 4 | 50 | 46 | 86 | 71 |
| Lumber, millwork | 271 | 1 | 45 | 54 | 87 | 77 |
| Furniture | 361 | 2 | 41 | 57 | 84 | 71 |
| Leather and its products | 381 | (1) | 65 | 35 | 92 | 77 |
| Leather | 116 | | 65 | 35 | 92 | 76 |
| Boots and shoes | 265 | (1) | 65 | 35 | 92 | 77 |
| Paper and printing | 1,352 | 1 | 74 | 25 | 95 | 82 |
| Paper and pulp | 146 | 5 | 57 | 38 | 91 | 76 |
| Paper boxes | 264 | | 50 | 50 | 90 | 81 |
| Printing, book and job | 548 | | 77 | 23 | 96 | 83 |
| Printing, newspapers | 394 | | 92 | 8 | 99 | 90 |

¹ Less than one-half of 1 per cent.

TABLE 7.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN APRIL, 1931—Continued

| Industry | Establishments reporting | | Per cent of establishments in which employees worked | | Average per cent of full time reported by— | |
|--|--------------------------|---------------|--|-----------|--|------------------------------------|
| | Total number | Per cent idle | Full time | Part time | All operating establishments | Establishments operating part time |
| Chemicals and allied products | 362 | 1 | 79 | 20 | 97 | 84 |
| Chemicals..... | 130 | 2 | 65 | 32 | 94 | 83 |
| Fertilizers..... | 163 | 1 | 83 | 16 | 98 | 85 |
| Petroleum refining..... | 69 | ----- | 96 | 4 | 100 | 91 |
| Stone, clay, and glass products | 701 | 7 | 59 | 34 | 91 | 76 |
| Cement..... | 88 | 3 | 83 | 14 | 96 | 73 |
| Brick, tile, and terra cotta..... | 388 | 10 | 50 | 40 | 89 | 75 |
| Pottery..... | 101 | 2 | 50 | 49 | 89 | 79 |
| Glass..... | 124 | 6 | 77 | 17 | 96 | 76 |
| Metal products, other than iron and steel | 210 | (1) | 41 | 58 | 86 | 76 |
| Stamped and enameled ware..... | 69 | ----- | 61 | 39 | 91 | 76 |
| Brass, bronze, and copper products..... | 141 | 1 | 32 | 67 | 84 | 76 |
| Tobacco products | 204 | 2 | 40 | 58 | 86 | 76 |
| Chewing and smoking tobacco and snuff..... | 26 | 8 | 46 | 46 | 92 | 84 |
| Cigars and cigarettes..... | 178 | 2 | 39 | 60 | 85 | 75 |
| Vehicles for land transportation | 1,116 | (1) | 59 | 41 | 92 | 80 |
| Automobiles..... | 180 | ----- | 48 | 52 | 89 | 79 |
| Carriages and wagons..... | 42 | 7 | 45 | 48 | 90 | 80 |
| Car building and repairing, electric-railroad..... | 392 | ----- | 85 | 15 | 98 | 84 |
| Car building and repairing, steam-railroad..... | 502 | (1) | 44 | 56 | 89 | 80 |
| Miscellaneous industries | 425 | 1 | 42 | 57 | 88 | 78 |
| Agricultural implements..... | 73 | 4 | 29 | 67 | 79 | 71 |
| Electrical machinery, apparatus, and supplies..... | 176 | ----- | 35 | 65 | 88 | 82 |
| Pianos and organs..... | 54 | ----- | 33 | 67 | 82 | 73 |
| Rubber boots and shoes..... | 9 | ----- | 33 | 67 | 83 | 75 |
| Automobile tires and inner tubes..... | 32 | ----- | 41 | 59 | 89 | 82 |
| Shipbuilding..... | 81 | 1 | 78 | 21 | 97 | 84 |
| Industries added in 1929 and 1930 | 716 | ----- | 69 | 31 | 94 | 80 |
| Radio..... | 44 | ----- | 70 | 30 | 94 | 80 |
| Rayon..... | 6 | ----- | 67 | 33 | 94 | 83 |
| Aircraft..... | 35 | ----- | 77 | 23 | 98 | 91 |
| Jewelry..... | 127 | ----- | 41 | 59 | 85 | 75 |
| Paint and varnish..... | 225 | ----- | 75 | 25 | 96 | 83 |
| Rubber goods, other than boots, shoes, tires, and inner tubes..... | 69 | ----- | 54 | 46 | 92 | 82 |
| Beverages..... | 177 | ----- | 85 | 15 | 97 | 81 |
| Cash registers, adding machines, and calculating machines..... | 33 | ----- | 67 | 33 | 94 | 81 |
| Total | 11,948 | 1 | 60 | 38 | 91 | 76 |

¹ Less than one-half of 1 per cent.

2. Employment in Nonmanufacturing Industries in April, 1931

IN THE following table the bureau presents by geographic divisions the data for 14 nonmanufacturing industries, the totals for which also appear in the summary of employment and pay-roll totals, page 163.

TREND OF EMPLOYMENT

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TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **NONMANUFACTURING** ESTABLISHMENTS IN MARCH AND APRIL, 1931, BY INDUSTRIES

| Geographic division | Estab-lish-ments | Number on pay roll | | Per cent of change | Amount of pay roll (1 week) | | Per cent of change |
|---|------------------|--------------------|----------------|--------------------|-----------------------------|------------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| ANTHRACITE MINING | | | | | | | |
| Middle Atlantic..... | 162 | 112,281 | 116,616 | +3.9 | \$2,834,904 | \$2,988,394 | +5.4 |
| BITUMINOUS COAL MINING | | | | | | | |
| Middle Atlantic..... | 406 | 63,477 | 62,590 | -1.4 | \$1,178,575 | \$1,100,312 | -6.6 |
| East North Central..... | 168 | 31,028 | 28,701 | -7.5 | 695,717 | 526,705 | -24.3 |
| West North Central..... | 56 | 5,522 | 4,818 | -12.7 | 109,487 | 88,665 | -19.0 |
| South Atlantic..... | 341 | 52,978 | 52,700 | -0.5 | 952,250 | 892,250 | -6.3 |
| East South Central..... | 234 | 43,165 | 42,113 | -2.4 | 656,262 | 628,757 | -4.2 |
| West South Central..... | 29 | 1,639 | 1,692 | +3.2 | 29,932 | 29,153 | -2.6 |
| Mountain..... | 127 | 15,639 | 13,818 | -11.6 | 384,933 | 332,745 | -13.6 |
| Pacific..... | 11 | 1,596 | 1,563 | -2.1 | 44,089 | 43,480 | -1.4 |
| All divisions..... | 1,372 | 215,044 | 207,995 | -3.3 | 4,051,245 | 3,642,067 | -10.1 |
| METALLIFEROUS MINING | | | | | | | |
| Middle Atlantic..... | 7 | 1,095 | 1,092 | -0.3 | \$23,375 | \$21,445 | -8.3 |
| East North Central..... | 48 | 10,677 | 10,607 | -0.7 | 216,713 | 208,350 | -3.9 |
| West North Central..... | 50 | 6,250 | 6,245 | -0.1 | 170,568 | 160,437 | -5.9 |
| East South Central..... | 13 | 2,688 | 2,628 | -2.2 | 49,211 | 52,283 | +6.2 |
| West South Central..... | 66 | 2,229 | 2,452 | +10.0 | 43,247 | 45,322 | +4.8 |
| Mountain..... | 105 | 16,774 | 16,963 | +1.1 | 488,593 | 477,089 | -2.4 |
| Pacific..... | 34 | 2,114 | 2,134 | +0.9 | 64,209 | 63,206 | -1.6 |
| All divisions..... | 324 | 41,827 | 42,121 | +0.7 | 1,055,916 | 1,028,132 | -2.6 |
| QUARRYING AND NONMETALLIC MINING | | | | | | | |
| New England..... | 107 | 3,832 | 4,457 | +16.3 | \$106,441 | \$123,878 | +16.4 |
| Middle Atlantic..... | 114 | 5,493 | 6,193 | +12.7 | 137,282 | 152,636 | +11.2 |
| East North Central..... | 225 | 7,362 | 8,096 | +10.0 | 180,219 | 194,603 | +8.0 |
| West North Central..... | 72 | 1,766 | 1,890 | +7.0 | 37,729 | 39,657 | +5.1 |
| South Atlantic..... | 101 | 5,159 | 5,454 | +5.7 | 80,769 | 87,483 | +8.3 |
| East South Central..... | 60 | 2,887 | 3,128 | +8.3 | 39,947 | 39,260 | -1.7 |
| West South Central..... | 44 | 2,438 | 2,401 | -1.5 | 51,972 | 49,511 | -4.7 |
| Mountain..... | 4 | 66 | 69 | +4.5 | 2,289 | 2,418 | +5.6 |
| Pacific..... | 38 | 1,265 | 1,209 | -4.4 | 34,998 | 32,571 | -6.9 |
| All divisions..... | 765 | 30,268 | 32,897 | +8.7 | 671,646 | 732,017 | +7.5 |
| CRUDE PETROLEUM PRODUCING | | | | | | | |
| Middle Atlantic..... | 42 | 685 | 697 | +1.8 | \$19,457 | \$16,969 | -12.8 |
| East North Central..... | 5 | 34 | 29 | -14.7 | 812 | 597 | -26.5 |
| West North Central..... | 21 | 105 | 103 | -1.9 | 2,332 | 2,164 | -7.2 |
| South Atlantic..... | 12 | 458 | 395 | -13.8 | 12,774 | 11,512 | -9.9 |
| East South Central..... | 5 | 222 | 212 | -4.5 | 5,254 | 4,285 | -18.4 |
| West South Central..... | 381 | 19,117 | 18,562 | -2.9 | 702,518 | 640,899 | -8.8 |
| Mountain..... | 20 | 284 | 274 | -3.5 | 10,026 | 9,132 | -8.9 |
| Pacific..... | 84 | 7,598 | 7,281 | -4.2 | 311,299 | 278,906 | -10.4 |
| All divisions..... | 570 | 28,503 | 27,553 | -3.3 | 1,064,472 | 964,464 | -9.4 |

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **NONMANUFACTURING** ESTABLISHMENTS IN MARCH AND APRIL, 1931, BY INDUSTRIES—Continued

| Geographic division | Estab-lish-ments | Number on pay roll | | Per cent of change | Amount of pay roll (1 week) | | Per cent of change |
|---------------------------------------|------------------|--------------------|----------------|--------------------|-----------------------------|------------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| TELEPHONE AND TELEGRAPH | | | | | | | |
| New England..... | 720 | 27,349 | 27,201 | -0.5 | \$855,748 | \$868,034 | +1.4 |
| Middle Atlantic..... | 1,230 | 101,058 | 100,491 | -0.6 | 3,379,099 | 3,270,639 | -3.2 |
| East North Central..... | 1,460 | 71,691 | 70,841 | -1.2 | 2,049,588 | 1,960,799 | -4.3 |
| West North Central..... | 1,374 | 28,947 | 28,877 | -0.3 | 749,929 | 724,520 | -3.4 |
| South Atlantic..... | 560 | 20,389 | 20,329 | -0.3 | 570,117 | 560,346 | -1.7 |
| East South Central..... | 621 | 10,104 | 10,060 | -0.4 | 230,890 | 224,249 | -2.9 |
| West South Central..... | 693 | 17,383 | 17,239 | -0.8 | 409,895 | 396,950 | -3.2 |
| Mountain..... | 482 | 7,196 | 7,172 | -0.3 | 182,486 | 177,311 | -2.8 |
| Pacific..... | 921 | 30,114 | 30,054 | -0.2 | 958,858 | 920,839 | -4.0 |
| All divisions..... | 8,061 | 314,231 | 312,244 | -0.6 | 9,386,610 | 9,103,687 | -3.0 |
| POWER, LIGHT, AND WATER | | | | | | | |
| New England..... | 271 | 21,681 | 22,186 | +2.3 | \$714,862 | \$714,202 | -0.1 |
| Middle Atlantic..... | 322 | 61,203 | 59,375 | -3.0 | 2,090,446 | 1,963,802 | -6.1 |
| East North Central..... | 660 | 53,859 | 55,811 | +3.6 | 1,873,816 | 1,800,896 | -3.9 |
| West North Central..... | 437 | 27,351 | 27,542 | +0.7 | 832,681 | 793,672 | -4.7 |
| South Atlantic..... | 274 | 24,091 | 23,952 | -0.6 | 765,302 | 727,639 | -4.9 |
| East South Central..... | 176 | 6,821 | 6,568 | -3.7 | 177,394 | 163,884 | -7.6 |
| West South Central..... | 598 | 17,221 | 17,214 | (-) | 510,357 | 474,827 | -7.0 |
| Mountain..... | 124 | 5,763 | 6,108 | +6.0 | 185,013 | 183,127 | -1.0 |
| Pacific..... | 846 | 23,317 | 23,543 | +1.0 | 804,981 | 761,034 | -5.5 |
| All divisions..... | 3,708 | 241,307 | 242,299 | +0.4 | 7,954,852 | 7,583,183 | -4.7 |
| ELECTRIC RAILROADS² | | | | | | | |
| New England..... | 49 | 13,495 | 13,509 | +0.1 | \$486,856 | \$484,422 | -0.4 |
| Middle Atlantic..... | 156 | 37,057 | 36,988 | -0.2 | 1,225,096 | 1,211,572 | -1.1 |
| East North Central..... | 109 | 43,885 | 44,552 | +1.5 | 1,455,817 | 1,451,623 | -0.3 |
| West North Central..... | 69 | 13,307 | 13,528 | +1.7 | 426,840 | 405,364 | -5.0 |
| South Atlantic..... | 45 | 11,093 | 10,962 | -1.2 | 315,856 | 309,927 | -1.9 |
| East South Central..... | 11 | 3,462 | 3,436 | -0.8 | 96,307 | 93,421 | -3.0 |
| West South Central..... | 37 | 5,322 | 5,225 | -1.8 | 149,539 | 139,525 | -6.7 |
| Mountain..... | 14 | 1,893 | 1,887 | -0.3 | 54,194 | 49,964 | -7.8 |
| Pacific..... | 38 | 16,255 | 16,352 | +0.6 | 531,608 | 512,840 | -3.5 |
| All divisions..... | 528 | 145,769 | 146,439 | +0.5 | 4,741,613 | 4,658,658 | -1.7 |
| WHOLESALE TRADE | | | | | | | |
| New England..... | 493 | 11,599 | 11,666 | +0.6 | \$359,557 | \$360,768 | +0.3 |
| Middle Atlantic..... | 308 | 9,402 | 9,372 | -0.3 | 318,382 | 309,765 | -2.7 |
| East North Central..... | 290 | 11,871 | 11,825 | -0.4 | 379,276 | 367,225 | -3.2 |
| West North Central..... | 265 | 12,983 | 13,045 | +0.5 | 403,539 | 376,427 | -6.7 |
| South Atlantic..... | 187 | 3,619 | 3,595 | -0.7 | 111,039 | 106,288 | -4.3 |
| East South Central..... | 66 | 1,683 | 1,678 | -0.3 | 48,979 | 45,799 | -6.5 |
| West South Central..... | 271 | 6,051 | 6,089 | +0.6 | 188,390 | 174,413 | -7.4 |
| Mountain..... | 85 | 1,849 | 1,863 | +0.8 | 66,075 | 63,230 | -4.3 |
| Pacific..... | 350 | 10,273 | 10,220 | -0.5 | 361,523 | 334,808 | -7.4 |
| All divisions..... | 2,315 | 69,330 | 69,353 | + (1) | 2,236,760 | 2,138,723 | -4.4 |
| RETAIL TRADE | | | | | | | |
| New England..... | 1,985 | 45,724 | 46,428 | +1.5 | \$1,108,957 | \$1,115,183 | +0.6 |
| Middle Atlantic..... | 397 | 78,002 | 79,540 | +2.0 | 2,023,083 | 2,042,632 | +1.0 |
| East North Central..... | 2,746 | 75,147 | 77,536 | +3.2 | 1,831,276 | 1,869,292 | +2.1 |
| West North Central..... | 691 | 19,672 | 20,879 | +6.1 | 422,748 | 430,816 | +1.9 |
| South Atlantic..... | 1,062 | 20,911 | 21,202 | +1.4 | 459,104 | 460,843 | +0.4 |
| East South Central..... | 372 | 8,574 | 8,691 | +1.4 | 163,251 | 163,285 | (+) |
| West South Central..... | 236 | 12,820 | 13,238 | +3.3 | 265,690 | 261,572 | -1.5 |
| Mountain..... | 201 | 5,054 | 5,264 | +4.2 | 114,466 | 114,942 | +0.4 |
| Pacific..... | 1,661 | 40,225 | 41,373 | +2.9 | 956,452 | 951,592 | -0.5 |
| All divisions..... | 9,351 | 306,129 | 314,151 | +2.6 | 7,345,087 | 7,410,157 | +0.9 |

See footnotes at end of table.

[1446]

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL NONMANUFACTURING ESTABLISHMENTS IN MARCH AND APRIL, 1931, BY INDUSTRIES—Continued

| Geographic division | Estab-lish-ments | Number on pay roll | | Per cent of change | Amount of pay roll (1 week) | | Per cent of change |
|-------------------------------|------------------|--------------------|----------------|--------------------|-----------------------------|------------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| HOTELS¹ | | | | | | | |
| New England..... | 99 | 7,965 | 7,932 | -0.4 | \$131,261 | \$130,989 | -0.2 |
| Middle Atlantic..... | 387 | 47,552 | 47,137 | -0.9 | 855,341 | 815,692 | -4.6 |
| East North Central..... | 402 | 31,410 | 31,763 | +1.1 | 548,084 | 546,778 | -0.2 |
| West North Central..... | 290 | 15,207 | 15,236 | +0.2 | 218,029 | 211,531 | -3.0 |
| South Atlantic..... | 195 | 16,848 | 15,859 | -5.9 | 247,231 | 209,781 | -15.1 |
| East South Central..... | 100 | 6,179 | 6,218 | +0.6 | 76,202 | 74,753 | -1.9 |
| West South Central..... | 149 | 9,394 | 9,186 | -2.2 | 123,217 | 119,932 | -2.7 |
| Mountain..... | 110 | 3,562 | 3,559 | -0.1 | 61,196 | 59,550 | -2.7 |
| Pacific..... | 351 | 17,217 | 17,070 | -0.9 | 323,498 | 317,447 | -1.9 |
| All divisions..... | 2,083 | 155,334 | 153,960 | -0.9 | 2,584,059 | 2,486,453 | -3.8 |
| CANNING AND PRESERVING | | | | | | | |
| New England..... | 57 | 957 | 1,414 | +47.8 | \$16,543 | \$26,524 | +60.3 |
| Middle Atlantic..... | 83 | 7,055 | 7,202 | +2.1 | 151,827 | 149,782 | -1.3 |
| East North Central..... | 230 | 6,029 | 6,645 | +10.2 | 118,945 | 122,919 | +3.3 |
| West North Central..... | 44 | 1,109 | 1,136 | +2.4 | 19,914 | 20,691 | +3.9 |
| South Atlantic..... | 90 | 4,891 | 3,456 | -29.3 | 56,170 | 43,489 | -22.6 |
| East South Central..... | 32 | 1,678 | 1,290 | -23.1 | 15,567 | 13,635 | -12.4 |
| West South Central..... | 34 | 1,167 | 985 | -15.6 | 6,109 | 5,679 | -7.0 |
| Mountain..... | 48 | 890 | 920 | +3.4 | 24,187 | 24,295 | +0.4 |
| Pacific..... | 208 | 8,414 | 13,168 | +56.5 | 138,027 | 213,916 | +55.0 |
| All divisions..... | 826 | 32,190 | 36,216 | +12.5 | 547,289 | 620,930 | +13.5 |
| LAUNDRIES | | | | | | | |
| New England..... | 37 | 1,955 | 1,968 | +0.7 | \$38,847 | \$38,811 | -0.1 |
| Middle Atlantic..... | 64 | 8,959 | 9,059 | +1.1 | 186,898 | 189,681 | +1.5 |
| East North Central..... | 63 | 4,232 | 4,241 | +0.2 | 81,222 | 82,770 | +1.9 |
| West North Central..... | 64 | 5,129 | 5,267 | +2.7 | 90,698 | 94,232 | +3.9 |
| South Atlantic..... | 40 | 4,596 | 4,620 | +0.5 | 74,999 | 76,275 | +1.7 |
| East South Central..... | 20 | 1,122 | 1,151 | +2.6 | 14,919 | 15,015 | +0.6 |
| West South Central..... | 15 | 980 | 979 | -0.1 | 14,208 | 14,121 | -0.6 |
| Mountain..... | 17 | 1,617 | 1,631 | +0.9 | 28,745 | 28,917 | +0.6 |
| Pacific..... | 54 | 3,485 | 3,516 | +0.9 | 76,067 | 75,522 | -0.7 |
| All divisions..... | 374 | 32,075 | 32,432 | +1.1 | 606,603 | 615,344 | +1.4 |
| DYEING AND CLEANING | | | | | | | |
| New England..... | 10 | 361 | 378 | +4.7 | \$9,446 | \$10,612 | +12.3 |
| Middle Atlantic..... | 14 | 700 | 767 | +9.6 | 16,617 | 20,738 | +24.8 |
| East North Central..... | 23 | 1,163 | 1,297 | +11.5 | 25,177 | 30,256 | +20.2 |
| West North Central..... | 39 | 858 | 961 | +12.0 | 18,897 | 21,815 | +15.4 |
| South Atlantic..... | 24 | 730 | 765 | +4.8 | 13,714 | 15,088 | +10.0 |
| East South Central..... | 7 | 217 | 243 | +12.0 | 3,860 | 4,489 | +16.3 |
| West South Central..... | 13 | 215 | 231 | +7.4 | 4,008 | 4,154 | +3.6 |
| Mountain..... | 14 | 232 | 252 | +8.6 | 5,718 | 6,163 | +7.8 |
| Pacific..... | 12 | 696 | 734 | +5.5 | 17,336 | 17,801 | +2.7 |
| All divisions..... | 156 | 5,172 | 5,628 | +8.8 | 114,773 | 131,116 | +14.2 |

¹ Less than one-tenth of 1 per cent.² Not including car building and repairing, see manufacturing industries, p. 167, et seq.³ The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.⁴ Not including 334 establishments in this seasonal industry which were closed in both April and March; 31 of the 826 plants reported were reopened in April due to seasonal activity in this industry.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN **NONMANUFACTURING** INDUSTRIES, APRIL, 1931, WITH APRIL, 1930

| Industry | Per cent of change, April, 1931, compared with April, 1930 | | Industry | Per cent of change, April, 1931, compared with April, 1930 | |
|--|--|-----------------------|-----------------------------|--|-----------------------|
| | Number on pay roll | Amount of pay roll | | Number on pay roll | Amount of pay roll |
| Anthracite mining..... | +1.3 | +0.3 | Electric railroads..... | -8.8 | -10.8 |
| Bituminous coal mining..... | -9.0 | -28.3 | Wholesale trade..... | -10.2 | -13.0 |
| Metalliferous mining..... | -28.4 | -41.8 | Retail trade..... | -7.4 | -9.4 |
| Quarrying and nonmetallic mining..... | -12.9 | -26.7 | Hotels..... | -4.2 | -10.4 |
| Crude petroleum producing..... | -19.6 | -23.4 | Canning and preserving..... | -20.3 | -21.3 |
| Telephone and telegraph..... | -10.9 | -8.1 | Laundries..... | (1) | (1) |
| Power, light, and water..... | -3.6 | -4.9 | Dyeing and cleaning..... | (1) | (1) |

¹ Data not available.

Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

TABLE 3 shows the index numbers of employment and pay-roll totals for anthracite, bituminous coal, and metalliferous mining, quarrying, crude petroleum producing, telephone and telegraph, power, light, and water, electric railroads, wholesale and retail trade, hotels, and canning and preserving, by months, from January, 1930, to April, 1931, with the monthly average for 1929 as 100.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS FOR **NONMANUFACTURING INDUSTRIES**, JANUARY, 1930, TO APRIL, 1931

[Monthly average, 1929=100]

| Year and month | Anthracite mining | | Bituminous coal mining | | Metalliferous mining | | Quarrying and non-metallic mining | | Crude petroleum producing | | Telephone and telegraph | | Power, light, and water | | Operation and maintenance of electric railroads ¹ | | Wholesale trade | | Retail trade | | Hotels | | Canning and preserving | |
|----------------|-------------------|--------------------|------------------------|-----------------|----------------------|-----------------|-----------------------------------|-----------------|---------------------------|-----------------|-------------------------|-----------------|-------------------------|-----------------|--|-----------------|-----------------|-----------------|--------------|-----------------|-------------|-----------------|------------------------|-----------------|
| | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals | Employment | Pay-roll totals |
| 1930 | | | | | | | | | | | | | | | | | | | | | | | | |
| January | 102.1 | 105.8 | 102.5 | 101.4 | 95.7 | 92.7 | 79.6 | 71.9 | 92.7 | 94.0 | 101.6 | 105.1 | 99.6 | 99.7 | 97.1 | 97.8 | 100.0 | 100.0 | 98.9 | 99.7 | 100.4 | 100.3 | 46.1 | 50.3 |
| February | 106.9 | 121.5 | 102.4 | 102.1 | 92.3 | 92.5 | 79.8 | 73.5 | 90.8 | 88.6 | 100.2 | 101.9 | 98.8 | 100.4 | 95.1 | 95.7 | 98.7 | 98.3 | 94.4 | 96.0 | 102.4 | 103.8 | 45.7 | 51.5 |
| March | 82.6 | 78.5 | 98.6 | 86.4 | 90.9 | 90.8 | 83.0 | 80.0 | 89.3 | 91.3 | 99.4 | 105.8 | 99.7 | 102.1 | 94.4 | 95.4 | 97.7 | 99.7 | 93.9 | 95.5 | 102.4 | 104.4 | 49.7 | 50.8 |
| April | 84.1 | 75.0 | 94.4 | 81.7 | 89.3 | 88.3 | 87.4 | 85.4 | 86.8 | 86.6 | 98.9 | 103.4 | 100.7 | 102.6 | 95.2 | 97.1 | 97.3 | 97.9 | 97.3 | 97.5 | 100.1 | 100.3 | 74.8 | 72.6 |
| May | 93.8 | 98.8 | 90.4 | 77.5 | 87.5 | 85.6 | 90.8 | 90.2 | 89.8 | 85.4 | 99.7 | 103.2 | 103.4 | 104.5 | 95.2 | 96.0 | 96.8 | 97.4 | 96.7 | 97.3 | 98.0 | 98.4 | 65.7 | 66.9 |
| June | 90.8 | 94.3 | 88.4 | 75.6 | 84.6 | 81.6 | 90.3 | 90.9 | 90.2 | 87.1 | 99.8 | 103.4 | 104.6 | 107.8 | 94.8 | 97.0 | 96.5 | 98.6 | 93.9 | 96.8 | 98.0 | 98.1 | 83.0 | 81.5 |
| July | 91.6 | 84.0 | 88.0 | 68.9 | 80.5 | 71.9 | 89.9 | 75.5 | 89.2 | 88.5 | 100.0 | 106.6 | 105.9 | 106.7 | 95.3 | 95.6 | 96.0 | 96.0 | 89.0 | 91.7 | 101.3 | 99.8 | 126.3 | 112.7 |
| August | 80.2 | 78.8 | 89.2 | 71.1 | 79.0 | 71.0 | 89.3 | 85.8 | 87.7 | 86.0 | 98.8 | 102.5 | 106.4 | 106.6 | 92.9 | 92.1 | 95.0 | 93.6 | 85.6 | 87.6 | 101.5 | 98.6 | 185.7 | 172.0 |
| September | 93.8 | 91.6 | 90.5 | 74.9 | 78.1 | 69.9 | 87.7 | 82.5 | 85.0 | 84.0 | 96.8 | 102.2 | 105.2 | 106.1 | 91.8 | 90.5 | 94.8 | 93.6 | 92.0 | 92.4 | 100.1 | 97.1 | 246.6 | 214.8 |
| October | 99.0 | 117.2 | 91.8 | 79.4 | 77.2 | 68.6 | 84.7 | 79.3 | 85.2 | 82.6 | 94.5 | 100.9 | 104.8 | 105.6 | 91.0 | 88.9 | 94.2 | 92.9 | 95.5 | 95.1 | 97.5 | 95.5 | 164.7 | 140.0 |
| November | 97.2 | 98.0 | 92.5 | 79.1 | 72.8 | 63.4 | 78.3 | 66.8 | 83.6 | 80.0 | 93.0 | 97.9 | 103.4 | 103.7 | 89.3 | 87.7 | 92.6 | 91.0 | 98.4 | 96.8 | 95.2 | 93.6 | 96.7 | 82.9 |
| December | 99.1 | 100.0 | 92.5 | 77.7 | 70.1 | 59.9 | 70.2 | 59.9 | 77.4 | 77.2 | 91.6 | 101.3 | 103.2 | 106.3 | 88.8 | 88.6 | 92.0 | 91.3 | 115.1 | 107.7 | 93.5 | 91.5 | 61.6 | 57.4 |
| Average | 93.4 | 95.3 | 93.4 | 81.3 | 83.2 | 78.0 | 84.3 | 79.3 | 87.4 | 85.9 | 97.9 | 102.9 | 103.0 | 104.3 | 93.4 | 93.5 | 96.0 | 95.9 | 95.9 | 96.2 | 99.2 | 98.5 | 103.9 | 96.1 |
| 1931 | | | | | | | | | | | | | | | | | | | | | | | | |
| January | 90.6 | 89.3 | 93.9 | 73.3 | 68.3 | 55.0 | 64.4 | 50.4 | 74.8 | 71.5 | 90.5 | 96.3 | 99.2 | 98.6 | 86.9 | 85.6 | 89.5 | 87.5 | 90.0 | 89.4 | 95.0 | 91.0 | 48.9 | 46.1 |
| February | ² 89.5 | ² 101.9 | 91.5 | 68.3 | 65.3 | 54.6 | 66.6 | 54.4 | 73.2 | 70.0 | 89.2 | 94.8 | 97.8 | 99.7 | 86.6 | 87.1 | 88.2 | 88.4 | 87.1 | 86.7 | 96.8 | 93.7 | 48.3 | 48.6 |
| March | ² 82.0 | ² 71.3 | 88.8 | 65.2 | 63.5 | 52.8 | 70.0 | 58.2 | 72.2 | 73.2 | 88.6 | 97.9 | 96.7 | 102.4 | 86.4 | 88.1 | 87.4 | 89.1 | 87.8 | 87.5 | 96.8 | 93.4 | 53.0 | 50.3 |
| April | 85.2 | 75.2 | 85.9 | 58.6 | 63.9 | 51.4 | 76.1 | 62.6 | 69.8 | 66.3 | 88.1 | 95.0 | 97.1 | 97.6 | 86.8 | 86.6 | 87.4 | 85.2 | 90.1 | 88.3 | 95.9 | 89.9 | 59.6 | 57.1 |

¹ Not including electric-railroad car building and repairing; see vehicles group, manufacturing industries, p. 167, et seq.

² Revised.

Employment in Building Construction in April, 1931

THE Bureau of Labor Statistics here presents reports as to employment and pay rolls from establishments engaged in building construction in Washington, Providence, St. Louis, Atlanta, Dallas, and their suburbs.

In addition, figures collected by the Maryland Commission of Labor and Statistics, Massachusetts Department of Labor and Industries, and the Industrial Commission of Wisconsin also are presented.

COMPARISON OF EMPLOYMENT AND PAY ROLL IN BUILDING CONSTRUCTION, MARCH AND APRIL, 1931, BY LOCALITY

| Locality | Number of establishments | Employees | | Per cent of change | Pay roll (1 week) | | Per cent of change |
|-----------------------|--------------------------|-------------|-------------|--------------------|-------------------|-------------|--------------------|
| | | March, 1931 | April, 1931 | | March, 1931 | April, 1931 | |
| Washington, D. C..... | 444 | 7, 224 | 7, 781 | +7. 7 | \$228, 269 | \$255, 036 | +11. 7 |
| Providence, R. I..... | 228 | 2, 289 | 2, 479 | +8. 3 | 63, 877 | 78, 600 | +23. 0 |
| St. Louis, Mo..... | 451 | 4, 146 | 4, 341 | +4. 7 | 146, 037 | 165, 756 | +13. 5 |
| Atlanta, Ga..... | 104 | 1, 442 | 1, 809 | +25. 5 | 27, 188 | 32, 677 | +20. 2 |
| Dallas, Tex..... | 95 | 1, 379 | 1, 506 | +9. 2 | 41, 161 | 45, 121 | +9. 6 |
| Baltimore, Md..... | 69 | 1, 409 | 1, 920 | +36. 3 | 36, 565 | 43, 801 | +19. 8 |
| Massachusetts..... | 634 | 9, 015 | 10, 185 | +13. 0 | 305, 086 | 338, 299 | +10. 9 |
| Wisconsin..... | 74 | 2, 246 | 2, 475 | +10. 2 | 59, 718 | 64, 181 | +7. 5 |
| Total..... | 2, 069 | 29, 150 | 32, 496 | +11. 5 | 907, 901 | 1, 023, 471 | +12. 7 |

The employees included in these reports are such a small part of the total number of employees engaged in building construction in the United States that building construction figures are not yet included in the summary tables.

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to March, 1931, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO MARCH, 1931

[Monthly average, 1926=100]

| Month | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 |
|----------------|--------|--------|--------|--------|--------|-------|-------|-------|---------|
| January..... | 98. 3 | 96. 9 | 95. 6 | 95. 8 | 95. 5 | 89. 3 | 88. 2 | 86. 3 | 73. 7 |
| February..... | 98. 6 | 97. 0 | 95. 4 | 96. 0 | 95. 3 | 89. 0 | 88. 9 | 85. 4 | 72. 7 |
| March..... | 100. 5 | 97. 4 | 95. 2 | 96. 7 | 95. 8 | 89. 9 | 90. 1 | 85. 5 | 72. 9 |
| April..... | 102. 0 | 98. 9 | 96. 6 | 98. 9 | 97. 4 | 91. 7 | 92. 2 | 87. 0 | ----- |
| May..... | 105. 0 | 99. 2 | 97. 8 | 100. 2 | 99. 4 | 94. 5 | 94. 9 | 88. 6 | ----- |
| June..... | 107. 1 | 98. 0 | 98. 6 | 101. 6 | 100. 9 | 95. 9 | 96. 1 | 86. 5 | ----- |
| July..... | 108. 2 | 98. 1 | 99. 4 | 102. 9 | 101. 0 | 95. 6 | 96. 6 | 84. 7 | ----- |
| August..... | 109. 4 | 99. 0 | 99. 7 | 102. 7 | 99. 5 | 95. 7 | 97. 4 | 83. 7 | ----- |
| September..... | 107. 8 | 99. 7 | 99. 9 | 102. 8 | 99. 1 | 95. 3 | 96. 8 | 82. 2 | ----- |
| October..... | 107. 3 | 100. 8 | 100. 7 | 103. 4 | 98. 9 | 95. 3 | 96. 9 | 80. 4 | ----- |
| November..... | 105. 2 | 99. 0 | 99. 1 | 101. 2 | 95. 7 | 92. 9 | 93. 0 | 77. 0 | ----- |
| December..... | 99. 4 | 96. 0 | 97. 1 | 98. 2 | 91. 9 | 89. 7 | 88. 8 | 74. 9 | ----- |
| Average..... | 104. 1 | 98. 3 | 97. 9 | 100. 0 | 97. 5 | 92. 9 | 93. 3 | 83. 5 | 1 73. 1 |

¹ Average for 3 months.

[1450]

Table 2 shows the total number of employees on the 15th day each of March, 1930, and February and March, 1931, and pay-roll totals for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—MARCH, 1930, AND FEBRUARY AND MARCH, 1931

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

| Occupation | Number of employees at middle of month | | | Total earnings | | |
|---|--|------------------|------------------|---------------------|---------------------|---------------------|
| | March, 1930 | February, 1931 | March, 1931 | March, 1930 | February, 1931 | March, 1931 |
| Professional, clerical, and general | 263,139 | 233,862 | 232,325 | \$38,968,399 | \$33,456,314 | \$34,512,272 |
| Clerks..... | 147,085 | 127,745 | 127,011 | 20,631,972 | 16,980,658 | 17,791,296 |
| Stenographers and typists..... | 24,364 | 21,911 | 21,703 | 3,226,286 | 2,815,371 | 2,867,003 |
| Maintenance of way and structures | 337,188 | 260,900 | 269,047 | 32,833,004 | 22,908,153 | 25,492,320 |
| Laborers, extra gang and work train..... | 43,547 | 22,064 | 24,708 | 3,275,144 | 1,403,660 | 1,754,802 |
| Laborers, track, and roadway section..... | 171,358 | 135,486 | 140,287 | 12,593,196 | 8,123,353 | 9,593,712 |
| Maintenance of equipment and stores | 429,624 | 370,633 | 367,593 | 59,902,372 | 43,819,898 | 47,455,024 |
| Carmen..... | 91,406 | 77,372 | 76,358 | 14,511,458 | 9,999,311 | 11,016,008 |
| Machinists..... | 52,809 | 48,023 | 47,988 | 8,869,790 | 6,639,547 | 7,286,742 |
| Skilled trades helpers..... | 94,914 | 81,220 | 80,763 | 11,346,380 | 7,981,869 | 8,754,144 |
| Laborers (shops, engine houses, power plants, and stores)..... | 35,834 | 30,536 | 30,170 | 3,516,694 | 2,628,247 | 2,843,957 |
| Common laborers (shops, engine houses, power plants, and stores)..... | 48,201 | 39,806 | 39,358 | 3,983,335 | 2,711,554 | 2,985,670 |
| Transportation, other than train, engine, and yard | 187,210 | 164,804 | 164,788 | 23,882,320 | 19,519,450 | 20,909,629 |
| Station agents..... | 28,907 | 28,015 | 27,960 | 4,649,059 | 4,185,344 | 4,452,211 |
| Telegraphers, telephoners, and towermen..... | 22,439 | 20,425 | 20,255 | 3,563,481 | 2,923,245 | 3,198,288 |
| Truckers (stations, warehouses, and platforms)..... | 31,065 | 24,261 | 24,744 | 2,991,309 | 2,015,963 | 2,288,523 |
| Crossing and bridge flagmen and gatemen..... | 20,070 | 19,110 | 19,063 | 1,565,680 | 1,469,880 | 1,480,658 |
| Transportation (yard masters, switch tenders, and hostlers) | 21,017 | 18,648 | 18,520 | 4,179,510 | 3,442,146 | 3,616,242 |
| Transportation, train and engine | 291,551 | 251,733 | 251,195 | 59,225,796 | 44,980,689 | 49,759,270 |
| Road conductors..... | 32,760 | 28,526 | 28,526 | 7,931,414 | 6,141,822 | 6,785,540 |
| Road brakemen and flagmen..... | 64,105 | 55,011 | 54,874 | 11,133,352 | 8,341,494 | 9,235,939 |
| Yard brakemen, and yard helpers..... | 49,423 | 42,800 | 42,592 | 8,697,068 | 6,501,887 | 7,177,387 |
| Road engineers and motormen..... | 39,070 | 33,839 | 33,719 | 10,611,708 | 8,139,147 | 9,035,912 |
| Road firemen and helpers..... | 39,740 | 34,684 | 34,652 | 7,752,833 | 5,901,375 | 6,540,947 |
| All employees | 1,529,729 | 1,300,580 | 1,303,468 | 218,991,401 | 168,126,650 | 181,744,757 |

Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

Monthly period

| State, and industry group | Per cent of change, March to April, 1931 | | State, and industry group | Per cent of change, February to March, 1931 | |
|--|--|------------------|---|---|----------|
| | Employment | Pay roll | | Employment | Pay roll |
| Arkansas | | | Illinois | | |
| Auto dealers, garages..... | +2.5 | +5.5 | Stone, clay, and glass products..... | +6.1 | +3.0 |
| Auto bodies, wood parts..... | +16.4 | +21.4 | Metals, machinery, and conveyances..... | +1.1 | +1.2 |
| Bakeries and cafés..... | +1.5 | +2.5 | Wood products..... | +3.4 | +6.0 |
| Beverages..... | (¹) | (¹) | Furs and leather goods..... | +7.9 | +8.8 |
| Brick and tile..... | +6.7 | +4.7 | Chemicals, oils, paints, etc..... | -3.3 | -4.4 |
| Candy and confections..... | -1.4 | +4.4 | Printing and paper goods..... | -5.4 | -5.2 |
| Cooperage, heading, veneer..... | -5.5 | -15.3 | Textiles..... | +5.5 | +10.6 |
| Cotton compresses, gins, and products..... | -27.0 | -46.4 | Clothing and millinery..... | +1.1 | -7.7 |
| Coal mines..... | -42.5 | -51.3 | Foods, beverages, and tobacco..... | -1.8 | -3.8 |
| Furniture manufacture..... | +1.3 | -20.8 | Miscellaneous..... | +2.0 | +5.9 |
| Flour, grain, feed, fertilizer..... | +6.9 | +1.7 | All manufacturing..... | +1.1 | +1.1 |
| Glass factories..... | -2.5 | -13.3 | Trade, wholesale and retail services..... | -1.8 | -5.7 |
| Handles, hubs, spokes..... | -7.4 | +18.9 | Public utilities..... | -0.0 | -5.1 |
| Hotels..... | -4.0 | -5.0 | Coal mining..... | -1.4 | +8.8 |
| Laundries..... | -1.4 | +8.9 | Building and contracting..... | -5.4 | -4.9 |
| Lumber mills..... | +1.0 | +5.2 | All nonmanufacturing..... | -6.6 | -3.5 |
| Machinery, foundries, parts, smelters..... | +5.0 | +2.2 | All industries..... | -1.1 | -1.4 |
| Newspapers and printers..... | +1.9 | +4.9 | March to April, 1931 | | |
| Packing houses..... | +2.2 | +3.2 | Iowa | | |
| Petroleum products..... | -7.7 | -21.0 | Food and kindred products..... | -1.2 | ----- |
| Sand, gravel, stone..... | +23.2 | +48.7 | Textiles..... | -2.0 | ----- |
| Textile mills, garments..... | -2.2 | +1.9 | Iron and steel works..... | -6.2 | ----- |
| Public utilities..... | (¹) | +4.4 | Lumber products..... | +2.1 | ----- |
| Wholesale and retail..... | +1.1 | -1.3 | Leather products..... | -8.5 | ----- |
| Miscellaneous..... | +5.0 | +1.9 | Paper products, printing and publishing..... | -1.0 | ----- |
| February to March, 1931 | | | Patent medicines, chemicals, and compounds..... | +7.5 | ----- |
| California | | | Stone and clay products..... | -1.6 | ----- |
| Stone, clay, and glass products..... | -1.1 | +3.1 | Tobacco and cigars..... | 0.0 | ----- |
| Metals, machinery, and conveyances..... | -3.1 | -3.7 | Railway-car shops..... | +14.6 | ----- |
| Wood manufactures..... | +8.8 | +1.8 | Various industries..... | -1.1 | ----- |
| Leather and rubber goods..... | +3.8 | -1.3 | All industries..... | -1.4 | ----- |
| Petroleum producing and refining..... | -9.9 | -1.8 | Maryland | | |
| Other miscellaneous chemical products..... | +2.2 | -1.1 | Food products..... | +1.5 | +2.7 |
| Printing and paper goods..... | +4.6 | +5.0 | Textiles..... | -6.6 | -1.3 |
| Textiles..... | -3.5 | -5.5 | Iron and steel and their products..... | -1.1 | +1.9 |
| Clothing, millinery, and laundering..... | +5.5 | +2.7 | Lumber and its products..... | -5.6 | -7.1 |
| Foods, beverages, and tobacco..... | +7.0 | -3.6 | Leather and its products..... | +2.4 | -8.8 |
| Motion pictures..... | +9.8 | +9.3 | Rubber tires..... | -1.1 | +23.8 |
| Miscellaneous..... | -2.5 | +1.3 | Paper and printing..... | +1.7 | +1.6 |
| All industries..... | +1.4 | -5.5 | | | |

¹ No change.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Monthly period—Continued

| State, and industry group | Per cent of change, March to April, 1931 | | State, and industry group | Per cent of change, February to March, 1931 | |
|--|--|-------------|---|---|----------|
| | Employment | Pay roll | | Employment | Pay roll |
| Maryland—Continued | | | Michigan | | |
| Chemicals and allied products..... | +16.0 | +17.1 | Paper and printing..... | -0.9 | -2.1 |
| Stone, clay, and glass products..... | -2.9 | +1.5 | Chemicals and allied products..... | -4.4 | -2.5 |
| Metal products, other than iron and steel..... | -1.3 | +2.1 | Stone, clay, and glass products..... | +3.8 | +4.4 |
| Tobacco products..... | (¹) | +3.5 | Metal products, not iron and steel..... | +3.4 | +3.1 |
| Transportation equipment..... | -7.5 | -18.1 | Iron and steel products..... | +6.2 | +6.9 |
| Car building and repairing..... | -1.2 | +1.5 | Lumber and its products..... | +1 | -4.5 |
| Miscellaneous..... | +8.6 | +1.8 | Leather and its products..... | +3.3 | +6.6 |
| All manufacturing..... | -.02 | +1.07 | Food and kindred products..... | -5.4 | -10.1 |
| Retail establishments..... | +6 | -6 | Textiles and their products..... | +5 | +6.5 |
| Wholesale establishments..... | +7 | -1 | Tobacco products..... | -1.2 | +4.7 |
| Public utilities..... | +1.3 | +7.3 | Vehicles for land transportation..... | +2.5 | +11.4 |
| Coal mines..... | -1.4 | -5.5 | Miscellaneous..... | +13.7 | +22.1 |
| Hotels..... | +14.3 | +9.5 | All industries..... | +2.5 | +9.3 |
| Quarries..... | +42.7 | +70.1 | New Jersey | | |
| Building construction..... | +32.9 | +17.9 | Food and kindred products..... | +3.3 | +2.7 |
| Laundries..... | +7 | -5 | Textiles and their products..... | +6.2 | +8 |
| Cleaning and dyeing establishments..... | +4.8 | +9.4 | Iron and steel and their products..... | -1.3 | -.6 |
| Employment—index numbers (1925=100) | | | Lumber and its products..... | -3.7 | +1.5 |
| February, 1931 | | March, 1931 | Leather and its products..... | +6 | +1.7 |
| | | | Tobacco products..... | +6 | +15.5 |
| Massachusetts | | | Paper and printing..... | +2.3 | -2.4 |
| Boot and shoe cut stock and findings..... | 87.7 | 88.3 | Chemicals and allied products..... | +1.5 | -3.1 |
| Boots and shoes..... | 72.1 | 76.1 | Stone, clay, and glass products..... | +1.0 | +1 |
| Bread and other bakery products..... | 100.9 | 99.0 | Metal products other than iron and steel..... | -2.8 | -4.1 |
| Clothing, men's..... | 60.8 | 62.2 | Vehicles for land transportation..... | -9.5 | -7.7 |
| Clothing, women's..... | 97.9 | 102.1 | Miscellaneous..... | -13.0 | -4.3 |
| Confectionery..... | 92.7 | 88.2 | All industries..... | -4 | -1.6 |
| Cotton goods..... | 50.7 | 53.8 | March to April, 1931 | | |
| Dyeing and finishing textiles..... | 92.7 | 95.7 | New York | | |
| Electrical machinery, apparatus, and supplies..... | 69.8 | 70.2 | Stone, clay, and glass..... | +6.1 | +6.6 |
| Foundry and machine-shop products..... | 85.7 | 86.0 | Miscellaneous stone and minerals..... | -1.0 | +1.4 |
| Furniture..... | 75.2 | 74.4 | Lime, cement, and plaster..... | +17.2 | +15.8 |
| Hosiery and knit goods..... | 66.0 | 67.1 | Brick, tile, and pottery..... | +13.3 | +14.8 |
| Leather, tanned, curried, and finished..... | 92.8 | 95.2 | Glass..... | -2.1 | -.8 |
| Paper and wood pulp..... | 82.5 | 83.6 | Metals and machinery..... | -1.2 | -1.7 |
| Printing and publishing..... | 99.6 | 97.6 | Silver and jewelry..... | +1.4 | +4.8 |
| Rubber footwear..... | 72.4 | 33.4 | Brass, copper, and aluminum..... | -3.2 | -2.4 |
| Rubber goods, tires, and tubes..... | 61.7 | 60.8 | Iron and steel..... | -4.9 | -4.2 |
| Silk goods..... | 80.5 | 81.7 | Structural and architectural iron..... | +1.0 | -4.1 |
| Textile machinery and parts..... | 65.5 | 64.0 | Sheet metal and hardware..... | -.3 | +1.3 |
| Woolen and worsted goods..... | 65.5 | 67.9 | Firearms, tools, and cutlery..... | -.9 | -3.8 |
| All industries..... | 71.2 | 71.9 | | | |

¹ No change.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Monthly period—Continued

| State, and industry group | Per cent of change, March to April, 1931 | | State, and industry group | Per cent of change, March to April, 1931 | |
|---|--|----------|--|--|----------|
| | Employment | Pay roll | | Employment | Pay roll |
| New York—Continued | | | New York—Continued | | |
| Metals and machinery— Continued. | | | Food and tobacco..... | -1.7 | -4.7 |
| Cooking, heating, and ventilating apparatus..... | -0.9 | -0.2 | Flour, feed, and cereal..... | +1.0 | -5.1 |
| Machinery, including electrical apparatus..... | -2.4 | -6.9 | Canning and preserv- ing..... | +8.3 | +4.8 |
| Automobiles, carriages, and airplanes..... | +4.6 | +7.3 | Other groceries..... | (2) | -2 |
| Railroad equipment and repair..... | -1.3 | +4 | Meat and dairy prod- ucts..... | -3.1 | -2.8 |
| Boat and ship building..... | +10.1 | +12.6 | Bakery products..... | -2.9 | -8.8 |
| Instruments and ap- pliances..... | -2.4 | -1.0 | Candy..... | -7.3 | -12.4 |
| Wood manufactures..... | -7 | -1.0 | Beverages..... | +2.2 | +3.2 |
| Saw and planing mills..... | -8 | -2.5 | Tobacco..... | +1.9 | -2.0 |
| Furniture and cabinet- work..... | -2.0 | -3.2 | Water, light, and power.... | -2.7 | -4.3 |
| Pianos and other musical instruments..... | -6 | +2.1 | All industries..... | -8 | -2.9 |
| Miscellaneous wood..... | +1.3 | +1.7 | Oklahoma | | |
| Furs, leather, and rubber goods..... | -1.7 | -2.2 | Cottonseed-oil mills..... | -7.4 | -4.3 |
| Leather..... | +1 | -6 | Food production: | | |
| Furs and fur goods..... | +14.0 | +5.6 | Bakeries..... | -2.2 | -5 |
| Shoes..... | -1.1 | -2 | Confections..... | +8.0 | -5.9 |
| Other leather and can- vas goods..... | -11.0 | -16.1 | Creameries and dairies..... | +8 | +2.1 |
| Rubber and gutta- percha..... | -2.0 | +1.8 | Flour mills..... | -3 | -3.0 |
| Pearl, horn, bone, etc..... | -4 | -2.4 | Ice and ice cream..... | +8.5 | +8.3 |
| Chemicals, oils, paints, etc..... | -4 | -1.4 | Meat and poultry..... | -1 | -4.3 |
| Drugs and chemicals..... | -6.4 | -8.1 | Lead and zinc: | | |
| Paints and colors..... | +1.3 | +2.3 | Mines and mills..... | +10.9 | +11.2 |
| Oil products..... | -1.2 | -2.2 | Smelters..... | +9.2 | +9.9 |
| Miscellaneous chemi- cals..... | +1.8 | +2.7 | Metals and machinery: | | |
| Paper..... | +1 | +3.7 | Auto repairs, etc..... | -1.5 | +5.4 |
| Printing and paper goods..... | -1.4 | -2.3 | Machine shops and foundries..... | -1.4 | +2.3 |
| Paper boxes and tubes..... | -4 | -4.1 | Tank construction and erection..... | -13.2 | -40.6 |
| Miscellaneous paper goods..... | -2.7 | -4.6 | Oil industry: | | |
| Printing and book- making..... | -1.3 | -1.9 | Producing and gaso- line manufacture..... | -3.8 | -4.0 |
| Textiles..... | +2.6 | +1.4 | Refineries..... | +3 | -1.4 |
| Silk and silk goods..... | +2.9 | -5.2 | Printing: Job work..... | -1.1 | -2.8 |
| Wool manufactures..... | +1.1 | +2.6 | Public utilities: | | |
| Cotton goods..... | +12.3 | +26.2 | Steam-railroad shops..... | +4.0 | +3.6 |
| Knit goods (excluding silk)..... | +1.6 | +1.5 | Street railways..... | -5.2 | -1.5 |
| Other textiles..... | +2.4 | -1.7 | Water, light, and power..... | +6.5 | +1.7 |
| Clothing and millinery..... | -1.8 | -10.8 | Stone, clay, and glass: | | |
| Men's clothing..... | -1.9 | -12.3 | Brick and tile..... | +8.1 | +8.1 |
| Men's furnishings..... | -1.5 | -7.1 | Cement and plaster..... | -4.1 | -13.2 |
| Women's clothing..... | -2.2 | -14.4 | Crushed stone..... | +48.0 | +6.2 |
| Women's underwear..... | -1.6 | -6.6 | Glass manufacture..... | +29.7 | +31.2 |
| Women's headwear..... | +7 | -9.4 | Textiles and cleaning: | | |
| Miscellaneous sewing..... | -17.7 | -16.2 | Textile manufacture..... | +3.2 | -2.5 |
| Laundering and clean- ing..... | +1.0 | +3.4 | Laundries, etc..... | +6 | +2.0 |
| | | | Woodworking: | | |
| | | | Sawmills..... | -6 | -3.6 |
| | | | Millwork, etc..... | 0 | +2.9 |
| | | | All industries..... | +3.7 | +5 |

² Change of less than one-tenth of 1 per cent.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Yearly period

| State, and industry group | Per cent of change, March, 1930, to March, 1931 | | State, and industry group | Employment—in- dex numbers (1925-1927=100) | |
|---|---|----------------|--|---|----------------|
| | Employ- ment | Pay roll | | March, 1930 | March, 1931 |
| California | | | Massachusetts—Con. | | |
| Stone, clay, and glass prod- ucts..... | -23.0 | -21.4 | Foundry and machine- shop products..... | 104.9 | 86.0 |
| Metals, machinery, and conveyances..... | -23.7 | -27.2 | Furniture..... | 94.1 | 74.4 |
| Wood manufactures..... | -18.2 | -26.3 | Hosiery and knit goods..... | 71.1 | 67.1 |
| Leather and rubber goods..... | -14.4 | -19.6 | Leather, tanned, curried, and finished..... | 100.8 | 95.2 |
| Chemicals, oils, paints, etc. | -28.3 | -30.9 | Paper and wood pulp..... | 93.7 | 83.6 |
| Printing and paper goods..... | -9.4 | -13.2 | Printing and publishing..... | 104.5 | 97.6 |
| Textiles..... | -7.8 | -10.5 | Rubber footwear..... | 87.0 | 33.4 |
| Clothing, millinery, and laundering..... | -6.4 | -10.9 | Rubber goods, tires, and tubes..... | 84.8 | 60.8 |
| Foods, beverages, and to- bacco..... | -4.4 | -6.3 | Silk goods..... | 92.1 | 81.7 |
| Miscellaneous †..... | -14.0 | -4.7 | Textile machinery and parts..... | 85.2 | 64.0 |
| All industries..... | -18.1 | -21.7 | Woolen and worsted goods..... | 68.0 | 67.9 |
| Public utilities..... | -9.9 | -12.0 | All industries..... | 85.0 | 71.9 |
| Wholesale and retail..... | -6.2 | -5.6 | | | |
| | Employment—in- dex numbers (1925-1927=100) | | | Per cent of change, March, 1930, to March, 1931 | |
| | March, 1930 | March, 1931 | | Employ- ment | Pay roll |
| Illinois | | | Michigan | | |
| Stone, clay, and glass products..... | 80.3 | 64.3 | Paper and printing..... | -10.6 | -13.0 |
| Metals, machinery, and conveyances..... | 107.9 | 77.1 | Chemicals and allied prod- ucts..... | -9.2 | -23.7 |
| Wood products..... | 65.5 | 54.0 | Stone, clay, and glass products..... | -32.1 | -42.5 |
| Furs and leather goods..... | 93.5 | 87.6 | Metal products, not iron and steel..... | -18.0 | -28.9 |
| Chemicals, oils, paints, etc. | 99.6 | 85.8 | Iron and steel products..... | -32.0 | -31.4 |
| Printing and paper goods..... | 99.0 | 90.5 | Lumber and its products..... | -31.5 | -44.4 |
| Textiles..... | 90.1 | 89.4 | Leather and its products..... | -7.2 | -16.4 |
| Clothing and millinery..... | 86.9 | 76.4 | Food and kindred prod- ucts..... | -12.6 | -25.1 |
| Foods, beverages, and to- bacco..... | 85.4 | 75.4 | Textiles and their prod- ucts..... | -7.8 | -1.0 |
| All manufacturing..... | 96.9 | 76.6 | Tobacco products..... | +11.1 | +14.9 |
| Trade, wholesale and retail..... | 73.3 | 64.3 | Vehicles for land transpor- tation..... | -20.0 | -32.5 |
| Public utilities..... | 102.5 | 95.3 | Miscellaneous..... | -29.0 | -18.5 |
| Coal mining..... | 76.2 | 87.5 | All industries..... | -20.9 | -31.3 |
| Building and contracting..... | 50.7 | 26.4 | | | |
| All industries..... | 95.0 | 79.4 | | April, 1930, to April, 1931 | |
| Massachusetts | | | New York | | |
| Boot and shoe cut stock and findings..... | 105.5 | 88.3 | Stone, clay, and glass..... | -10.3 | -16.4 |
| Boots and shoes..... | 91.1 | 76.1 | Miscellaneous stone and minerals..... | -16.3 | -21.1 |
| Bread and other bakery products..... | 106.7 | 99.0 | Lime, cement, and plaster..... | -3.2 | -8.3 |
| Clothing, men's..... | 69.5 | 62.2 | Brick, tile, and pot- tery..... | -7.1 | -14.8 |
| Clothing, women's..... | 102.4 | 102.1 | Glass..... | -13.2 | -18.3 |
| Confectionery..... | 89.0 | 88.2 | | | |
| Cotton goods..... | 68.5 | 53.8 | | | |
| Dyeing and finishing tex- tiles..... | 94.3 | 95.7 | | | |
| Electrical machinery, ap- paratus, and supplies..... | 80.2 | 70.2 | | | |

† Includes motion pictures.

TREND OF EMPLOYMENT

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PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Yearly period—Continued

| State, and industry group | Per cent of change, April, 1930, to April, 1931 | | State, and industry group | Per cent of change, April, 1930, to April, 1931 | |
|--|---|----------|--|---|----------|
| | Employment | Pay roll | | Employment | Pay roll |
| New York—Continued | | | New York—Continued | | |
| Metals and machinery..... | -22.0 | -31.3 | Clothing and millinery— Continued. | | |
| Silver and jewelry..... | -16.9 | -20.0 | Women's underwear..... | -5.3 | -14.4 |
| Brass, copper, and aluminum..... | -18.2 | -25.1 | Women's headwear..... | -2.4 | -18.1 |
| Iron and steel..... | -25.6 | -34.4 | Miscellaneous sewing..... | -32.8 | -33.3 |
| Structural and archi- tectural iron..... | -14.7 | -32.2 | Laundering and clean- ing..... | -9.9 | -2.4 |
| Sheet metal and hard- ware..... | -14.6 | -19.8 | Food and tobacco..... | -9.3 | -13.6 |
| Firearms, tools, and cutlery..... | -18.9 | -32.0 | Flour, feed, and cereals..... | -1.8 | -8.4 |
| Cooking, heating, and ventilating apparat- us..... | -19.0 | -32.9 | Canning and preserv- ing..... | +1.9 | -9.4 |
| Machinery, including electrical apparatus..... | -21.3 | -33.1 | Other groceries..... | -19.5 | -16.3 |
| Automobiles, carriages, and airplanes..... | -33.9 | -41.6 | Meat and dairy prod- ucts..... | -12.4 | -14.1 |
| Railroad equipment and repairs..... | -22.7 | -28.7 | Bakery products..... | -11.5 | -18.3 |
| Boat and ship building..... | -29.9 | -37.4 | Candy..... | +2.0 | -11.3 |
| Instruments and appli- ances..... | -17.2 | -25.2 | Beverages..... | -6.8 | -4.1 |
| Wood manufactures..... | -16.1 | -25.0 | Tobacco..... | -1.3 | -4.9 |
| Saw and planing mills..... | -20.6 | -28.7 | Water, light, and power..... | -4.9 | -3.1 |
| Furniture and cabinet- work..... | -21.1 | -29.3 | All industries..... | -14.1 | -20.2 |
| Pianos and other musical instruments..... | -6.8 | -20.2 | Oklahoma | | |
| Miscellaneous wood..... | -10.0 | -16.2 | Cottonseed-oil mills..... | +7.0 | -22.7 |
| Furs, leather, and rubber goods..... | -8.8 | -13.0 | Food production: | | |
| Leather..... | -18.9 | -25.3 | Bakeries..... | -13.9 | -22.2 |
| Furs and fur goods..... | +3.3 | -9.7 | Confections..... | +20.0 | -20.3 |
| Shoes..... | -5.6 | -6.4 | Creameries and dairies..... | -8.2 | -5.0 |
| Other leather and can- vas goods..... | -15.8 | -25.2 | Flour mills..... | -17.2 | -34.1 |
| Rubber and gutta per- cha..... | -15.6 | -23.8 | Ice and ice cream..... | -33.1 | -24.7 |
| Pearl, horn, bone, etc..... | -20.5 | -31.1 | Meat and poultry..... | -10.6 | -17.3 |
| Chemicals, oils, paints, etc..... | -8.2 | -12.2 | Lead and zinc: | | |
| Drugs and chemicals..... | -8.9 | -15.0 | Mines and mills..... | -25.7 | -46.3 |
| Paints and colors..... | -13.9 | -15.9 | Smelters..... | -3.7 | -33.0 |
| Oil products..... | -6.6 | -10.6 | Metals and machinery: | | |
| Miscellaneous chemi- cals..... | -8.0 | -11.0 | Auto repairs, etc..... | -29.8 | -43.2 |
| Paper..... | -12.4 | -19.6 | Machine shops and foundries..... | -34.2 | -50.1 |
| Printing and paper goods..... | -7.4 | -8.0 | Tank construction and erection..... | -27.3 | -43.1 |
| Paper boxes and tubes..... | -10.2 | -11.7 | Oil industry: | | |
| Miscellaneous paper goods..... | -11.4 | -12.2 | Producing and gaso- line manufacture..... | -28.5 | -26.2 |
| Printing and book- making..... | -6.5 | -7.3 | Refineries..... | -8.7 | -17.8 |
| Textiles..... | -16.9 | -19.4 | Printing: Job work..... | -6.0 | -13.3 |
| Silk and silk goods..... | -13.8 | -18.1 | Public utilities: | | |
| Wool manufactures..... | -16.9 | -17.0 | Steam-railroad shops..... | -19.1 | -22.8 |
| Cotton goods..... | -13.4 | -10.6 | Street railways..... | -36.6 | -29.6 |
| Knit goods (excluding silk)..... | -16.6 | -20.9 | Water, light, and power..... | -15.0 | -19.2 |
| Other textiles..... | -19.6 | -23.5 | Stone, clay, and glass: | | |
| Clothing and millinery..... | -5.5 | -10.1 | Brick and tile..... | -30.6 | -41.2 |
| Men's clothing..... | +2.7 | +3.2 | Cement and plaster..... | -21.2 | -45.9 |
| Men's furnishings..... | -16.6 | -16.9 | Crushed stone..... | -6 | -31.5 |
| Women's clothing..... | -6.5 | -12.8 | Glass manufacture..... | -25.2 | -27.1 |
| | | | Textiles and cleaning: | | |
| | | | Textile manufacture..... | +36.1 | +21.1 |
| | | | Laundries, etc..... | -4 | -14.6 |
| | | | Woodworking: | | |
| | | | Sawmills..... | -51.1 | -67.2 |
| | | | Millwork, etc..... | -22.0 | -38.0 |
| | | | All industries..... | -18.3 | -26.6 |

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Yearly period—Continued

| State, and industry group | Index numbers (1923-1925=100)—employment | | State, and industry group | Per cent of change, April, 1930, to April, 1931 | |
|--------------------------------------|--|-------------------|---|---|----------|
| | April, 1930 | April, 1931 | | Employment | Pay roll |
| Pennsylvania | | | Texas | | |
| Metal products..... | 95.3 | 74.9 | Auto and body works..... | -10.4 | ----- |
| Transportation equipment..... | | | Bakeries..... | -11.2 | ----- |
| Textile products..... | 85.2 | ³ 52.8 | Confectioneries..... | -28.2 | ----- |
| Foods and tobacco..... | 102.5 | 90.9 | Pure food products..... | -32.6 | ----- |
| Stone, clay, and glass products..... | 108.8 | 103.1 | Ice cream factories..... | -9.8 | ----- |
| Lumber products..... | 86.0 | 60.4 | Flour mills..... | -19.0 | ----- |
| Chemical products..... | 80.9 | 57.4 | Ice factories..... | -15.8 | ----- |
| Leather and rubber products..... | | | Meat packing and slaughtering..... | -13.1 | ----- |
| Paper and printing..... | 103.8 | 90.5 | Cotton-oil mills..... | -13.8 | ----- |
| | 97.4 | 94.4 | Cotton compresses..... | +20.4 | ----- |
| | 99.4 | 94.6 | Men's clothing manufacture..... | -14.2 | ----- |
| All manufacturing..... | 96.5 | 79.4 | Women's clothing manufacture..... | +27.9 | ----- |
| | Pay roll | | Brick, tile, and terra cotta foundries and machine shops..... | -42.0 | ----- |
| | | | Structural-iron works..... | -31.0 | ----- |
| Metal products..... | 99.2 | 64.4 | Railroad car shops..... | -8.9 | ----- |
| Transportation equipment..... | 88.6 | ³ 44.8 | Electric-railway car shops..... | -26.1 | ----- |
| Textile products..... | 99.9 | 80.9 | Petroleum refining..... | -5.6 | ----- |
| Foods and tobacco..... | 103.1 | 93.3 | Sawmills..... | -14.8 | ----- |
| Stone, clay, and glass products..... | 87.7 | 46.5 | Lumber mills..... | -34.0 | ----- |
| Lumber products..... | 78.9 | 50.6 | Furniture manufacture..... | -19.8 | ----- |
| Chemical products..... | 111.0 | 90.2 | Paper-box manufacture..... | -19.5 | ----- |
| Leather and rubber products..... | | | Cotton-textile mills..... | +13.3 | ----- |
| Paper and printing..... | 100.0 | 93.6 | Cement plants..... | -12.8 | ----- |
| | 111.7 | 97.8 | Commercial printing..... | -8 | ----- |
| All manufacturing..... | 99.0 | 63.5 | Newspaper publishing..... | -16.1 | ----- |
| | | | Quarrying..... | -5.9 | ----- |
| | | | Public utilities..... | -25.0 | ----- |
| | | | Retail stores..... | -6.8 | ----- |
| | | | Wholesale stores..... | -3.1 | ----- |
| | | | Hotels..... | -6.4 | ----- |
| | | | Miscellaneous..... | -5.2 | ----- |
| | | | | -3.4 | ----- |
| | | | All industries..... | -12.1 | ----- |

³ Preliminary figures.

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in April, 1931

THE following tables are compiled from simple averages of the actual selling prices¹ received monthly by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food April 15, 1930, and March 15 and April 15, 1931, as well as the percentage changes in the year and in the month. For example, the retail price per pound of coffee was 41.4 cents on April 15, 1930; 36.3 cents on March 15, 1931; and 34.6 cents on April 15, 1931. These figures show decreases of 16 per cent in the year and 5 per cent in the month.

The cost of various articles of food combined shows a decrease of 18.0 per cent April 15, 1931, as compared with April 15, 1930, and a decrease of 1.9 per cent April 15, 1931, as compared with March 15, 1931.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE APRIL 15, 1931, COMPARED WITH MARCH 15, 1931, AND APRIL 15, 1930

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

| Article | Unit | Average retail price on— | | | Per cent of increase (+) or decrease (-) Apr. 15, 1931, compared with— | |
|---|-----------------|--------------------------|---------------|---------------|--|---------------|
| | | Apr. 15, 1930 | Mar. 15, 1931 | Apr. 15, 1931 | Apr. 15, 1930 | Mar. 15, 1931 |
| | | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | | |
| Sirloin steak..... | Pound..... | 48.3 | 40.3 | 40.0 | -17 | -1 |
| Round steak..... | do..... | 43.1 | 35.2 | 34.9 | -19 | -1 |
| Rib roast..... | do..... | 35.9 | 30.3 | 29.7 | -17 | -2 |
| Chuck roast..... | do..... | 29.2 | 22.7 | 22.3 | -24 | -2 |
| Plate beef..... | do..... | 20.4 | 15.5 | 15.1 | -26 | -3 |
| Pork chops..... | do..... | 37.1 | 29.4 | 29.7 | -20 | +1 |
| Bacon, sliced..... | do..... | 42.5 | 38.6 | 38.1 | -10 | -1 |
| Ham, sliced..... | do..... | 53.9 | 48.0 | 47.2 | -12 | -2 |
| Lamb, leg of..... | do..... | 35.8 | 31.0 | 31.3 | -13 | +1 |
| Hens..... | do..... | 38.2 | 32.0 | 32.6 | -15 | +2 |
| Salmon, red, canned..... | do..... | 31.8 | 34.2 | 34.0 | +7 | -1 |
| Milk, fresh..... | Quart..... | 14.0 | 12.9 | 12.6 | -10 | -2 |
| Milk, evaporated..... | 16-oz. can..... | 10.3 | 9.5 | 9.4 | -9 | -1 |
| Butter..... | Pound..... | 48.1 | 37.3 | 35.2 | -27 | -6 |
| Oleomargarine (all butter substitutes)..... | do..... | 26.0 | 21.9 | 21.2 | -18 | -3 |
| Cheese..... | do..... | 36.0 | 30.3 | 29.3 | -19 | -3 |
| Lard..... | do..... | 16.8 | 14.2 | 14.2 | -15 | 0 |
| Vegetable lard substitute..... | do..... | 24.3 | 23.7 | 23.4 | -4 | -1 |
| Eggs, strictly fresh..... | Dozen..... | 34.5 | 28.5 | 27.4 | -21 | -4 |
| Bread..... | Pound..... | 8.8 | 7.9 | 7.7 | -13 | -3 |

¹ In addition to monthly retail prices of food and coal, the bureau publishes periodically the prices of gas and electricity for household use in each of 51 cities. At present this information is being collected in June and December of each year.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE APRIL 15, 1931, COMPARED WITH MARCH 15, 1931, AND APRIL 15, 1930—Continued

| Article | Unit | Average retail price on— | | | Per cent of increase (+) or decrease (-) Apr. 15, 1931, compared with— | |
|--------------------------|---------------------|--------------------------|---------------|---------------|--|---------------|
| | | Apr. 15, 1930 | Mar. 15, 1931 | Apr. 15, 1931 | Apr. 15, 1930 | Mar. 15, 1931 |
| | | <i>Cents</i> | <i>Cents</i> | <i>Cents</i> | | |
| Flour..... | Pound..... | 4.9 | 3.9 | 3.8 | -22 | -3 |
| Corn meal..... | do..... | 5.3 | 5.0 | 4.8 | -9 | -4 |
| Rolled oats..... | do..... | 8.7 | 8.3 | 8.2 | -6 | -1 |
| Corn flakes..... | 8-oz. package..... | 9.4 | 9.2 | 9.1 | -3 | -1 |
| Wheat cereal..... | 28-oz. package..... | 25.5 | 24.9 | 24.5 | -4 | -2 |
| Macaroni..... | do..... | 19.5 | 17.7 | 17.4 | -11 | -2 |
| Rice..... | do..... | 9.6 | 8.6 | 8.4 | -13 | -2 |
| Beans, navy..... | do..... | 11.8 | 8.7 | 8.4 | -29 | -3 |
| Potatoes..... | do..... | 4.1 | 2.7 | 2.8 | -32 | +4 |
| Onions..... | do..... | 5.6 | 3.5 | 3.6 | -36 | +3 |
| Cabbage..... | do..... | 9.8 | 4.1 | 4.1 | -58 | 0 |
| Pork and beans..... | No. 2 can..... | 11.1 | 10.0 | 9.7 | -13 | -3 |
| Corn, canned..... | do..... | 15.4 | 14.3 | 13.9 | -10 | -3 |
| Peas, canned..... | do..... | 16.4 | 15.0 | 14.6 | -11 | -3 |
| Tomatoes, canned..... | do..... | 12.6 | 10.8 | 10.5 | -17 | -3 |
| Sugar..... | Pound..... | 6.3 | 5.8 | 5.7 | -10 | -2 |
| Tea..... | do..... | 77.5 | 76.0 | 75.2 | -3 | -1 |
| Coffee..... | do..... | 41.4 | 36.3 | 34.6 | -16 | -5 |
| Prunes..... | do..... | 18.1 | 12.4 | 12.1 | -33 | -2 |
| Raisins..... | do..... | 12.1 | 11.3 | 11.2 | -7 | -1 |
| Bananas..... | Dozen..... | 30.6 | 28.7 | 27.8 | -9 | -3 |
| Oranges..... | do..... | 60.9 | 32.3 | 33.1 | -46 | +2 |
| Weighted food index..... | | | | | -18.0 | -1.9 |

Table 2 shows for the United States average retail prices of specified food articles on April 15, 1913, and on April 15 of each year from 1925 to 1931, together with percentage changes in April of each of these specified years compared with April, 1913. For example, the retail price per pound of sugar was 5.4 cents in April, 1913; 7.5 cents in April, 1925; 6.6 cents in April, 1926; 7.3 cents in April, 1927; 7.1 cents in April, 1928; 6.4 cents in April, 1929; 6.3 cents in April, 1930; and 5.7 cents in April, 1931.

As compared with April, 1913, these figures show increases of 39 per cent in April, 1925; 22 per cent in April, 1926; 35 per cent in April, 1927; 31 per cent in April, 1928; 19 per cent in April, 1929; 17 per cent in April, 1930; and 6 per cent in April, 1931.

The cost of the various articles of food combined showed an increase of 26.4 per cent in April, 1931, as compared with April, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE APRIL 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH APRIL 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

| Article | Average retail prices on Apr. 15— | | | | | | | | Per cent of increase Apr. 15 of each specified year compared with Apr. 15, 1913 | | | | | | | |
|--|-----------------------------------|------|------|------|------|------|------|------|---|------|------|------|------|------|------|--|
| | 1913 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | |
| Sirloin steak.....pound | 25.5 | 40.4 | 41.1 | 41.8 | 45.3 | 49.0 | 48.3 | 40.0 | 58 | 61 | 64 | 78 | 92 | 89 | 57 | |
| Round steak.....do | 22.2 | 34.6 | 35.2 | 36.4 | 39.6 | 43.4 | 43.1 | 34.9 | 56 | 59 | 64 | 78 | 95 | 94 | 57 | |
| Rib roast.....do | 20.0 | 29.7 | 30.2 | 30.9 | 33.4 | 36.4 | 35.9 | 29.7 | 49 | 51 | 55 | 67 | 82 | 80 | 49 | |
| Chuck roast.....do | 16.2 | 21.6 | 22.3 | 23.3 | 26.1 | 29.5 | 29.2 | 22.3 | 33 | 38 | 44 | 61 | 82 | 80 | 38 | |
| Plate beef.....do | 12.2 | 13.8 | 14.7 | 15.2 | 17.9 | 20.6 | 20.4 | 15.1 | 13 | 20 | 25 | 47 | 69 | 67 | 24 | |
| Pork chops.....do | 21.6 | 36.8 | 38.3 | 36.9 | 31.3 | 37.1 | 37.1 | 29.7 | 70 | 77 | 71 | 45 | 72 | 72 | 38 | |
| Bacon, sliced.....do | 26.8 | 46.6 | 48.5 | 48.1 | 42.9 | 43.3 | 42.5 | 38.1 | 74 | 81 | 79 | 60 | 62 | 59 | 42 | |
| Ham, sliced.....do | 26.5 | 53.5 | 54.5 | 56.7 | 50.6 | 54.7 | 53.9 | 47.2 | 102 | 106 | 114 | 91 | 106 | 103 | 78 | |
| Lamb, leg of.....do | 20.2 | 38.6 | 37.9 | 40.0 | 39.7 | 41.8 | 35.8 | 31.3 | 91 | 88 | 98 | 97 | 107 | 77 | 55 | |
| Hens.....do | 22.2 | 37.9 | 40.5 | 38.9 | 37.7 | 41.8 | 38.2 | 32.6 | 71 | 82 | 75 | 70 | 88 | 72 | 47 | |
| Salmon, red, canned | | | | | | | | | | | | | | | | |
|pound | | 31.2 | 37.8 | 32.7 | 35.0 | 31.5 | 31.8 | 34.0 | | | | | | | | |
| Milk, fresh.....quart | 8.9 | 13.8 | 13.9 | 14.0 | 14.1 | 14.2 | 14.0 | 12.6 | 55 | 56 | 57 | 58 | 60 | 57 | 42 | |
| Milk, evaporated | | | | | | | | | | | | | | | | |
|16-ounce can | | 11.2 | 11.5 | 11.4 | 11.1 | 11.1 | 10.3 | 9.4 | | | | | | | | |
| Butter.....pound | 40.4 | 53.3 | 50.9 | 58.4 | 55.1 | 55.8 | 48.1 | 35.2 | 32 | 26 | 45 | 36 | 38 | 19 | 113 | |
| Oleomargarine (all butter substitutes).....pound | | 30.1 | 30.5 | 28.6 | 27.2 | 27.4 | 26.0 | 21.2 | | | | | | | | |
| Cheese.....do | 22.0 | 36.5 | 26.5 | 37.1 | 38.2 | 38.1 | 36.0 | 29.3 | 66 | 66 | 69 | 74 | 73 | 64 | 33 | |
| Lard.....do | 15.8 | 23.2 | 21.5 | 19.1 | 17.8 | 18.5 | 16.8 | 14.2 | 47 | 36 | 21 | 13 | 17 | 6 | 110 | |
| Vegetable lard substitute.....pound | | 25.9 | 25.7 | 25.1 | 24.9 | 24.8 | 24.3 | 23.4 | | | | | | | | |
| Eggs, strictly fresh | | | | | | | | | | | | | | | | |
|dozen | 25.2 | 38.1 | 38.6 | 33.9 | 35.8 | 36.7 | 34.5 | 27.4 | 51 | 53 | 35 | 42 | 46 | 37 | 9 | |
| Bread.....pound | 5.6 | 9.4 | 9.4 | 9.4 | 9.1 | 9.0 | 8.8 | 7.7 | 68 | 68 | 68 | 63 | 61 | 57 | 38 | |
| Flour.....do | 3.3 | 6.1 | 6.1 | 5.5 | 5.4 | 5.1 | 4.9 | 3.8 | 85 | 85 | 67 | 64 | 55 | 48 | 15 | |
| Corn meal.....do | 2.9 | 5.5 | 5.1 | 5.1 | 5.3 | 5.3 | 5.3 | 4.8 | 90 | 76 | 76 | 83 | 83 | 83 | 66 | |
| Rolled oats.....do | | 9.3 | 9.1 | 9.0 | 8.9 | 8.9 | 8.7 | 8.2 | | | | | | | | |
| Corn flakes | | | | | | | | | | | | | | | | |
|8-ounce package | | 11.0 | 11.0 | 10.2 | 9.6 | 9.5 | 9.4 | 9.1 | | | | | | | | |
| Wheat cereal | | | | | | | | | | | | | | | | |
|28-ounce package | | 24.6 | 25.4 | 25.4 | 25.6 | 25.5 | 25.5 | 24.5 | | | | | | | | |
| Macaroni.....pound | | 20.4 | 20.2 | 20.0 | 19.8 | 19.6 | 19.5 | 17.4 | | | | | | | | |
| Rice.....do | 8.6 | 11.0 | 11.7 | 10.7 | 10.0 | 9.8 | 9.6 | 8.4 | 28 | 36 | 24 | 16 | 14 | 12 | 12 | |
| Beans, navy.....do | | 10.4 | 9.3 | 9.1 | 11.5 | 14.2 | 11.8 | 8.4 | | | | | | | | |
| Potatoes.....do | 1.5 | 2.4 | 6.7 | 3.7 | 3.5 | 2.3 | 4.1 | 2.8 | 60 | 347 | 147 | 133 | 53 | 173 | 87 | |
| Onions.....do | | 6.9 | 6.3 | 7.4 | 7.4 | 8.2 | 5.6 | 3.6 | | | | | | | | |
| Cabbage.....do | | 5.5 | 7.4 | 5.5 | 6.8 | 5.2 | 9.8 | 4.1 | | | | | | | | |
| Pork and beans | | | | | | | | | | | | | | | | |
|No. 2 can | | 12.6 | 12.0 | 11.6 | 11.4 | 11.9 | 11.1 | 9.7 | | | | | | | | |
| Corn, canned.....do | | 18.0 | 16.5 | 15.8 | 15.9 | 15.8 | 15.4 | 13.9 | | | | | | | | |
| Peas, canned.....do | | 18.5 | 17.6 | 17.0 | 16.7 | 16.7 | 16.4 | 14.6 | | | | | | | | |
| Tomatoes, canned | | | | | | | | | | | | | | | | |
|No. 2 can | | 13.9 | 12.0 | 12.1 | 11.7 | 13.1 | 12.6 | 10.5 | | | | | | | | |
| Sugar, granulated | | | | | | | | | | | | | | | | |
|pound | 5.4 | 7.5 | 6.6 | 7.3 | 7.1 | 6.4 | 6.3 | 5.7 | 39 | 22 | 35 | 31 | 19 | 17 | 6 | |
| Tea.....do | 54.3 | 75.5 | 76.3 | 77.6 | 77.2 | 77.6 | 77.5 | 75.2 | 39 | 41 | 43 | 42 | 43 | 43 | 38 | |
| Coffee.....do | 29.8 | 52.1 | 51.1 | 48.8 | 48.9 | 49.6 | 41.4 | 34.6 | 75 | 71 | 64 | 64 | 66 | 39 | 16 | |
| Prunes.....do | | 17.4 | 17.1 | 15.5 | 13.6 | 14.3 | 18.1 | 12.1 | | | | | | | | |
| Raisins.....do | | 14.5 | 14.6 | 14.3 | 13.6 | 11.5 | 12.1 | 11.2 | | | | | | | | |
| Bananas.....dozen | | 37.4 | 35.5 | 34.0 | 33.0 | 31.8 | 30.6 | 27.8 | | | | | | | | |
| Oranges.....do | | 51.8 | 52.6 | 48.3 | 55.2 | 39.8 | 60.9 | 33.1 | | | | | | | | |
| All articles combined ² | | | | | | | | | 53.8 | 65.6 | 56.6 | 55.1 | 54.6 | 54.2 | 26.4 | |

¹ Decrease.

² Beginning with January, 1921, index numbers showing the trend of the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1930, and by months for 1929, 1930, and 1931. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913, TO APRIL, 1931

[Average cost in 1913=100.0]

| Year and month | Cereals | Meats | Dairy products | Year and month | Cereals | Meats | Dairy products |
|-----------------------------|---------|-------|----------------|-----------------------------|---------|-------|----------------|
| 1913: Average for year..... | 100.0 | 100.0 | 100.0 | 1929—Continued. | | | |
| 1914: Average for year..... | 106.7 | 103.4 | 97.1 | August..... | 164.7 | 196.0 | 147.1 |
| 1915: Average for year..... | 121.6 | 99.6 | 96.1 | September..... | 165.2 | 194.2 | 148.1 |
| 1916: Average for year..... | 126.8 | 108.2 | 103.2 | October..... | 163.5 | 189.2 | 149.3 |
| 1917: Average for year..... | 186.5 | 137.0 | 127.6 | November..... | 163.6 | 184.1 | 147.0 |
| 1918: Average for year..... | 194.3 | 172.8 | 153.4 | December..... | 162.9 | 181.8 | 144.9 |
| 1919: Average for year..... | 198.0 | 184.2 | 176.6 | 1930: Average for year..... | 158.0 | 175.8 | 136.5 |
| 1920: Average for year..... | 232.1 | 185.7 | 185.1 | January..... | 162.9 | 183.6 | 138.9 |
| 1921: Average for year..... | 179.8 | 158.1 | 149.5 | February..... | 161.6 | 183.1 | 138.5 |
| 1922: Average for year..... | 159.3 | 150.3 | 135.9 | March..... | 160.9 | 183.0 | 137.6 |
| 1923: Average for year..... | 156.9 | 149.0 | 147.6 | April..... | 160.3 | 183.3 | 138.9 |
| 1924: Average for year..... | 160.4 | 150.2 | 142.8 | May..... | 159.8 | 181.5 | 137.0 |
| 1925: Average for year..... | 176.2 | 163.0 | 147.1 | June..... | 160.1 | 179.9 | 133.7 |
| 1926: Average for year..... | 175.5 | 171.3 | 145.5 | July..... | 158.6 | 175.2 | 133.9 |
| 1927: Average for year..... | 170.7 | 169.9 | 148.7 | August..... | 156.9 | 169.9 | 137.4 |
| 1928: Average for year..... | 167.2 | 179.2 | 150.0 | September..... | 156.4 | 173.3 | 138.8 |
| 1929: Average for year..... | 164.1 | 188.4 | 148.6 | October..... | 154.4 | 171.1 | 137.8 |
| January..... | 164.1 | 180.9 | 151.9 | November..... | 152.4 | 164.0 | 135.3 |
| February..... | 164.1 | 180.3 | 152.6 | December..... | 151.6 | 161.6 | 129.8 |
| March..... | 164.1 | 182.8 | 152.4 | 1931: | | | |
| April..... | 164.1 | 187.5 | 148.9 | January..... | 147.1 | 159.5 | 123.6 |
| May..... | 163.5 | 191.2 | 147.5 | February..... | 144.6 | 153.4 | 120.2 |
| June..... | 163.0 | 192.4 | 146.8 | March..... | 142.4 | 152.5 | 120.5 |
| July..... | 163.5 | 195.9 | 146.8 | April..... | 138.9 | 151.4 | 116.5 |

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1930,² by months for 1930 and 1931. These index numbers, or relative prices, are based on the year 1913 as 100, and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1930 was 182.7, which means that the average money price for the year 1930 was 82.7 per cent higher than the average money price for the year 1913. As compared with the relative price, 196.9 in 1929, the figures for 1930 show a decrease of 14.2 points, but a decrease of 7.2 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted

² For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 495, pp. 32 to 45. Index numbers for 1929 are published in each Labor Review, February, 1930, to February, 1931.

according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 126.4 for March, 1931, and 124.0 for April, 1931.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920, TO 1930, AND BY MONTHS FOR 1930 AND 1931

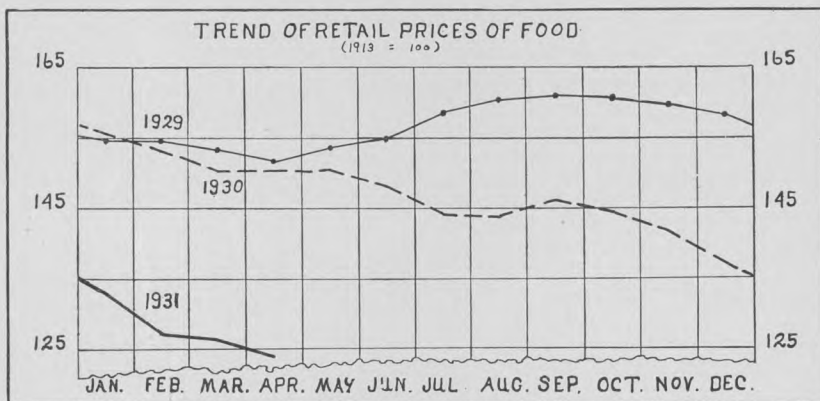
[Average for year 1913=100.0]

| Year and month | Sirloin steak | Round steak | Rib roast | Chuck roast | Plate beef | Pork chops | Bacon | Ham | Hens | Milk | Butter | Cheese |
|----------------|---------------|-------------|-----------|-------------|------------|------------|-------|-------|-------|-------|--------|--------|
| 1913..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1920..... | 172.1 | 177.1 | 167.7 | 163.8 | 151.2 | 201.4 | 193.7 | 206.3 | 209.9 | 187.6 | 183.0 | 188.2 |
| 1921..... | 152.8 | 154.3 | 147.0 | 132.5 | 118.2 | 166.2 | 158.2 | 181.4 | 186.4 | 164.0 | 135.0 | 153.9 |
| 1922..... | 147.2 | 144.8 | 139.4 | 123.1 | 105.8 | 157.1 | 147.4 | 181.4 | 169.0 | 147.2 | 125.1 | 148.9 |
| 1923..... | 153.9 | 150.2 | 143.4 | 126.3 | 106.6 | 144.8 | 144.8 | 169.1 | 164.3 | 155.1 | 144.7 | 167.0 |
| 1924..... | 155.9 | 151.6 | 145.5 | 130.0 | 109.1 | 146.7 | 139.6 | 168.4 | 165.7 | 155.1 | 135.0 | 159.7 |
| 1925..... | 159.8 | 155.6 | 149.5 | 135.0 | 114.1 | 174.3 | 173.0 | 195.5 | 171.8 | 157.3 | 143.1 | 166.1 |
| 1926..... | 162.6 | 159.6 | 153.0 | 140.6 | 120.7 | 188.1 | 186.3 | 213.4 | 182.2 | 157.3 | 138.6 | 165.6 |
| 1927..... | 167.7 | 166.4 | 158.1 | 148.1 | 127.3 | 175.2 | 174.8 | 204.5 | 173.2 | 158.4 | 145.2 | 170.1 |
| 1928..... | 188.2 | 188.3 | 176.8 | 174.4 | 157.0 | 165.7 | 163.0 | 196.7 | 175.6 | 159.6 | 147.5 | 174.2 |
| 1929..... | 196.9 | 199.1 | 185.4 | 186.9 | 172.7 | 175.7 | 161.1 | 204.1 | 186.4 | 160.7 | 143.9 | 171.9 |
| 1930..... | 182.7 | 184.8 | 172.7 | 170.0 | 155.4 | 171.0 | 156.7 | 198.5 | 166.7 | 157.3 | 120.4 | 158.8 |
| January..... | 192.9 | 195.5 | 183.3 | 184.4 | 172.7 | 168.1 | 157.0 | 199.3 | 178.4 | 159.6 | 121.9 | 169.2 |
| February..... | 191.3 | 194.2 | 181.8 | 184.4 | 171.9 | 167.6 | 157.8 | 200.7 | 179.3 | 158.4 | 122.7 | 167.0 |
| March..... | 190.6 | 192.8 | 181.3 | 182.5 | 170.2 | 171.9 | 157.8 | 201.1 | 179.8 | 157.3 | 121.9 | 164.7 |
| April..... | 190.2 | 193.3 | 181.3 | 182.5 | 168.6 | 176.7 | 157.4 | 200.4 | 179.3 | 157.3 | 125.6 | 162.9 |
| May..... | 190.2 | 192.8 | 179.8 | 179.4 | 164.5 | 171.9 | 156.7 | 200.7 | 175.6 | 157.3 | 120.9 | 162.0 |
| June..... | 188.6 | 191.5 | 177.3 | 175.6 | 160.3 | 174.3 | 156.7 | 200.7 | 167.6 | 157.3 | 113.1 | 157.9 |
| July..... | 182.3 | 184.3 | 171.7 | 166.3 | 149.6 | 173.8 | 156.7 | 200.0 | 161.5 | 157.3 | 114.1 | 155.2 |
| August..... | 175.6 | 176.7 | 163.1 | 155.6 | 138.8 | 174.8 | 155.6 | 198.1 | 158.7 | 157.3 | 123.8 | 153.4 |
| September..... | 177.2 | 178.0 | 166.7 | 160.0 | 142.1 | 186.2 | 158.1 | 198.9 | 159.6 | 157.3 | 127.2 | 154.8 |
| October..... | 175.2 | 176.2 | 164.1 | 158.7 | 142.1 | 180.5 | 157.8 | 197.4 | 158.7 | 157.3 | 124.8 | 154.8 |
| November..... | 170.5 | 170.9 | 160.6 | 154.4 | 139.7 | 156.2 | 155.9 | 193.7 | 153.1 | 157.3 | 118.5 | 152.9 |
| December..... | 168.9 | 169.1 | 159.6 | 153.8 | 139.7 | 149.5 | 153.0 | 191.4 | 150.2 | 151.7 | 111.0 | 150.2 |
| 1931: | | | | | | | | | | | | |
| January..... | 167.3 | 168.2 | 159.1 | 152.5 | 138.0 | 141.9 | 148.9 | 188.1 | 153.5 | 149.4 | 98.4 | 145.2 |
| February..... | 161.4 | 161.0 | 154.0 | 145.6 | 131.4 | 131.4 | 145.2 | 183.3 | 148.8 | 146.1 | 94.8 | 141.2 |
| March..... | 158.7 | 157.8 | 153.0 | 141.9 | 128.1 | 140.0 | 143.0 | 178.4 | 150.2 | 144.9 | 97.4 | 137.1 |
| April..... | 157.5 | 156.5 | 150.0 | 139.4 | 124.8 | 141.4 | 141.1 | 175.5 | 153.1 | 141.6 | 91.9 | 132.6 |

| Year and month | Lard | Eggs | Bread | Flour | Corn meal | Rice | Pota-toes | Sugar | Tea | Coffee | All ar-ticles 1 |
|----------------|-------|-------|-------|-------|-----------|-------|-----------|-------|-------|--------|-----------------|
| 1913..... | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1920..... | 186.7 | 197.4 | 205.4 | 245.5 | 216.7 | 200.0 | 370.6 | 352.7 | 134.7 | 157.7 | 203.4 |
| 1921..... | 113.9 | 147.5 | 176.8 | 175.8 | 150.0 | 109.2 | 182.4 | 145.5 | 128.1 | 121.8 | 153.3 |
| 1922..... | 107.6 | 128.7 | 155.4 | 154.5 | 130.0 | 109.2 | 164.7 | 132.7 | 125.2 | 121.1 | 141.6 |
| 1923..... | 112.0 | 134.8 | 155.4 | 142.4 | 136.7 | 109.2 | 170.6 | 183.6 | 127.8 | 126.5 | 146.2 |
| 1924..... | 120.3 | 138.6 | 157.1 | 148.5 | 156.7 | 116.1 | 158.8 | 167.3 | 131.4 | 145.3 | 145.9 |
| 1925..... | 147.5 | 151.0 | 167.9 | 184.8 | 180.0 | 127.6 | 211.8 | 130.9 | 138.8 | 172.8 | 157.4 |
| 1926..... | 138.6 | 140.6 | 167.9 | 181.8 | 170.0 | 133.3 | 288.2 | 125.5 | 141.0 | 171.1 | 160.6 |
| 1927..... | 122.2 | 131.0 | 166.1 | 166.7 | 173.3 | 123.0 | 223.5 | 132.7 | 142.5 | 162.1 | 155.4 |
| 1928..... | 117.7 | 134.5 | 162.5 | 163.6 | 176.7 | 114.9 | 158.8 | 129.1 | 142.3 | 165.1 | 154.3 |
| 1929..... | 115.8 | 142.0 | 160.7 | 154.5 | 176.7 | 111.5 | 188.2 | 120.0 | 142.6 | 164.8 | 156.7 |
| 1930..... | 107.6 | 118.8 | 155.4 | 142.4 | 176.7 | 109.2 | 211.8 | 112.7 | 142.5 | 136.2 | 147.1 |
| January..... | 108.9 | 160.6 | 158.9 | 154.5 | 180.0 | 110.3 | 229.4 | 120.0 | 143.4 | 147.0 | 155.4 |
| February..... | 108.2 | 136.8 | 157.1 | 154.5 | 176.7 | 110.3 | 229.4 | 118.2 | 143.2 | 143.3 | 153.0 |
| March..... | 107.0 | 102.3 | 157.1 | 151.5 | 176.7 | 109.2 | 229.4 | 116.4 | 142.8 | 140.6 | 150.1 |
| April..... | 106.3 | 100.0 | 157.1 | 148.5 | 176.7 | 110.3 | 241.2 | 114.5 | 142.5 | 138.9 | 151.2 |
| May..... | 105.7 | 97.7 | 157.1 | 145.5 | 176.7 | 109.2 | 252.9 | 114.5 | 142.5 | 137.2 | 150.1 |
| June..... | 105.1 | 97.4 | 157.1 | 145.5 | 176.7 | 109.2 | 247.1 | 110.9 | 143.0 | 136.2 | 147.9 |
| July..... | 103.2 | 101.7 | 157.1 | 139.4 | 176.7 | 109.2 | 194.1 | 110.9 | 142.6 | 135.6 | 144.0 |
| August..... | 104.4 | 112.5 | 155.4 | 136.4 | 176.7 | 109.2 | 182.4 | 110.9 | 142.3 | 134.6 | 143.7 |
| September..... | 110.8 | 124.9 | 155.4 | 133.3 | 176.7 | 110.3 | 188.2 | 107.3 | 142.1 | 132.6 | 145.6 |
| October..... | 112.0 | 129.9 | 153.6 | 130.3 | 176.7 | 109.2 | 182.4 | 105.5 | 141.9 | 131.2 | 144.4 |
| November..... | 110.8 | 140.3 | 151.8 | 127.3 | 173.3 | 106.9 | 170.6 | 107.3 | 141.4 | 129.9 | 141.4 |
| December..... | 105.7 | 120.6 | 151.8 | 124.2 | 173.3 | 105.8 | 170.6 | 107.3 | 141.4 | 129.2 | 137.2 |
| 1931: | | | | | | | | | | | |
| January..... | 99.4 | 104.6 | 146.4 | 121.2 | 170.0 | 102.3 | 170.6 | 107.3 | 141.0 | 126.8 | 132.8 |
| February..... | 91.8 | 78.8 | 142.9 | 121.2 | 166.7 | 102.3 | 158.8 | 107.3 | 140.6 | 125.2 | 127.0 |
| March..... | 89.9 | 82.6 | 141.1 | 118.2 | 166.7 | 98.9 | 158.8 | 105.5 | 139.7 | 121.8 | 126.4 |
| April..... | 89.9 | 79.4 | 137.5 | 115.2 | 163.3 | 96.6 | 164.7 | 103.6 | 138.2 | 116.1 | 124.0 |

1 22 articles in 1913-1920; 42 articles in 1921-1931.

The curve shown in the chart below pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.



Comparison of Retail Food Costs in 51 Cities

TABLE 5 shows for 39 cities the percentage of increase or decrease in the retail cost of food³ April, 1931, compared with the average cost in the year 1913, in April, 1930, and March, 1931. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average consumption of these articles in each city.⁴

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of April, 99.2 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 39 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Baltimore, Birmingham, Bridgeport, Butte, Charleston (S. C.), Cincinnati, Cleveland, Columbus, Dallas, Denver, Detroit, Fall River, Houston, Indianapolis, Jacksonville, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New Orleans, Norfolk, Omaha, Peoria, Pittsburgh, Portland (Me.), Portland (Oreg.), Providence, Richmond, Rochester, St. Louis, St. Paul, Savannah, Scranton, and Springfield (Ill.).

³ For list of articles see note 2, p. 195.

⁴ The consumption figures used for January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

TABLE 5.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN APRIL, 1931, COMPARED WITH THE COST IN MARCH, 1931, APRIL, 1930, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

| City | Percent- age in- crease April, 1931, com- pared with 1913 | Percentage decrease April, 1931, com- pared with— | | City | Percent- age in- crease April, 1931, com- pared with 1913 | Percentage decrease April, 1931, com- pared with— | |
|-----------------------|---|---|----------------|-----------------------|---|---|---------------|
| | | April, 1930 | March, 1931 | | | April 1930 | March 1931 |
| Atlanta..... | 25.6 | 16.3 | 0.6 | Minneapolis..... | 23.8 | 18.9 | 2.7 |
| Baltimore..... | 29.5 | 16.3 | 2.0 | Mobile..... | | 18.6 | 0.4 |
| Birmingham..... | 22.2 | 20.5 | 3.3 | Newark..... | 24.8 | 14.2 | 1.0 |
| Boston..... | 25.0 | 18.5 | 2.3 | New Haven..... | 28.7 | 14.4 | 2.0 |
| Bridgeport..... | | 14.5 | 0.9 | New Orleans..... | 20.5 | 20.3 | 2.7 |
| Buffalo..... | 26.1 | 18.5 | 1.1 | New York..... | 28.8 | 15.8 | 1.6 |
| Butte..... | | 18.3 | 0.9 | Norfolk..... | | 15.7 | 0.9 |
| Charleston, S. C..... | 30.0 | 15.9 | 1.5 | Omaha..... | 17.4 | 20.0 | 1.6 |
| Chicago..... | 34.5 | 18.2 | 1.7 | Peoria..... | | 19.2 | 0.7 |
| Cincinnati..... | 31.2 | 18.6 | 1.7 | Philadelphia..... | 29.5 | 14.9 | 0.3 |
| Cleveland..... | 18.7 | 19.9 | 3.7 | Pittsburgh..... | 25.2 | 16.4 | 1.6 |
| Columbus..... | | 19.0 | 0.4 | Portland, Me..... | | 16.3 | 1.1 |
| Dallas..... | 19.8 | 20.0 | 4.7 | Portland, Oreg..... | 8.4 | 22.7 | 2.4 |
| Denver..... | 11.6 | 17.7 | 0.5 | Providence..... | 23.0 | 19.2 | 1.5 |
| Detroit..... | 25.5 | 19.7 | 1.3 | Richmond..... | 27.3 | 18.8 | 3.5 |
| Fall River..... | 21.5 | 17.2 | 0.6 | Rochester..... | | 16.9 | 0.5 |
| Houston..... | | 19.9 | 0.8 | St. Louis..... | 27.6 | 19.3 | 1.7 |
| Indianapolis..... | 18.7 | 21.6 | 3.0 | St. Paul..... | | 19.4 | 2.5 |
| Jacksonville..... | 15.4 | 16.4 | 3.9 | Salt Lake City..... | 6.5 | 19.3 | 2.0 |
| Kansas City..... | 26.1 | 16.9 | 0.6 | San Francisco..... | 23.3 | 18.7 | 2.7 |
| Little Rock..... | 17.5 | 19.6 | 1.7 | Savannah..... | | 17.2 | 0.7 |
| Los Angeles..... | 11.1 | 20.8 | 3.0 | Scranton..... | 30.1 | 17.4 | 0.7 |
| Louisville..... | 15.6 | 22.6 | 2.5 | Seattle..... | 19.0 | 19.3 | 0.9 |
| Manchester..... | 22.1 | 17.3 | 0.9 | Springfield, Ill..... | | 23.2 | 4.6 |
| Memphis..... | 15.1 | 21.4 | 0.5 | Washington, D. C..... | 34.1 | 14.7 | 1.4 |
| Milwaukee..... | 25.1 | 19.9 | 1.5 | | | | |

Retail Prices of Coal in the United States ¹

THE following table shows the average retail prices of coal on April 15, 1930, and March 15 and April 15, 1931, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON APRIL 15, 1930, AND MARCH 15 AND APRIL 15, 1931

| City, and kind of coal | 1930 | | 1931 | | City, and kind of coal | 1930 | | 1931 | |
|-----------------------------|---------|---------|---------|---------|-----------------------------|---------|---------|---------|--|
| | Apr. 15 | Mar. 15 | Apr. 15 | Mar. 15 | | Apr. 15 | Mar. 15 | Apr. 15 | |
| United States: | | | | | Cincinnati, Ohio: | | | | |
| Pennsylvania anthracite— | | | | | Bituminous— | | | | |
| Stove— | | | | | Prepared sizes— | | | | |
| Average price | \$15.32 | \$15.09 | \$14.45 | | High volatile..... | \$5.55 | \$6.30 | \$5.05 | |
| Index (1913=100)..... | 198.3 | 195.4 | 187.0 | | Low volatile..... | 7.53 | 8.53 | 7.03 | |
| Chestnut— | | | | | Cleveland, Ohio: | | | | |
| Average price | \$14.99 | \$14.85 | \$14.39 | | Pennsylvania anthracite— | | | | |
| Index (1913=100)..... | 189.4 | 187.7 | 181.8 | | Stove | 15.24 | 14.56 | 14.56 | |
| Bituminous— | | | | | Chestnut..... | 14.85 | 14.38 | 14.44 | |
| Average price | \$8.84 | \$8.71 | \$8.46 | | Bituminous— | | | | |
| Index (1923=100)..... | 162.7 | 160.3 | 155.8 | | Prepared sizes— | | | | |
| Atlanta, Ga.: | | | | | High volatile..... | 7.18 | 6.83 | 6.67 | |
| Bituminous, prepared sizes. | \$7.28 | \$7.42 | \$6.66 | | Low volatile..... | 10.03 | 9.96 | 9.25 | |
| Baltimore, Md.: | | | | | Columbus, Ohio: | | | | |
| Pennsylvania anthracite— | | | | | Bituminous— | | | | |
| Stove | 14.25 | 14.25 | 14.00 | | Prepared sizes— | | | | |
| Chestnut | 13.75 | 13.75 | 13.50 | | High volatile..... | 5.93 | 5.68 | 5.43 | |
| Bituminous, run of mine— | | | | | Low volatile..... | 8.25 | 7.88 | 7.17 | |
| High volatile..... | 7.89 | 7.82 | 7.82 | | Dallas, Tex.: | | | | |
| Birmingham, Ala.: | | | | | Arkansas anthracite—Egg... | 14.25 | 15.00 | 15.00 | |
| Bituminous, prepared sizes. | 7.11 | 7.23 | 6.54 | | Bituminous, prepared sizes. | 11.92 | 12.58 | 12.58 | |
| Boston, Mass.: | | | | | Denver, Colo.: | | | | |
| Pennsylvania anthracite— | | | | | Colorado anthracite— | | | | |
| Stove | 16.25 | 16.25 | 14.75 | | Furnace, 1 and 2 mixed... | 14.75 | 15.25 | 15.25 | |
| Chestnut | 15.75 | 15.75 | 14.75 | | Stove, 3 and 5 mixed... | 14.75 | 15.25 | 15.25 | |
| Bridgeport, Conn.: | | | | | Bituminous, prepared sizes. | 10.41 | 9.55 | 9.57 | |
| Pennsylvania anthracite— | | | | | Detroit, Mich.: | | | | |
| Stove | 15.25 | 14.50 | 14.00 | | Pennsylvania anthracite— | | | | |
| Chestnut | 15.25 | 14.50 | 14.00 | | Stove | 16.00 | 14.58 | 14.50 | |
| Buffalo, N. Y.: | | | | | Chestnut | 15.50 | 14.58 | 14.50 | |
| Pennsylvania anthracite— | | | | | Bituminous— | | | | |
| Stove | 13.77 | 13.79 | 12.40 | | Prepared sizes— | | | | |
| Chestnut | 13.32 | 13.29 | 12.40 | | High volatile..... | 8.05 | 6.93 | 6.94 | |
| Butte, Mont.: | | | | | Low volatile..... | 9.46 | 8.33 | 8.16 | |
| Bituminous, prepared sizes. | 11.07 | 10.49 | 10.49 | | Run of mine— | | | | |
| Charleston, S. C.: | | | | | Low volatile..... | 7.67 | 7.25 | 7.13 | |
| Bituminous, prepared sizes. | 9.67 | 9.67 | 9.67 | | Fall River, Mass.: | | | | |
| Chicago, Ill.: | | | | | Pennsylvania anthracite— | | | | |
| Pennsylvania anthracite— | | | | | Stove | 16.50 | 16.50 | 15.00 | |
| Stove | 16.85 | 16.40 | 16.40 | | Chestnut | 16.25 | 16.25 | 15.00 | |
| Chestnut | 16.40 | 16.30 | 16.30 | | Houston, Tex.: | | | | |
| Bituminous— | | | | | Bituminous, prepared sizes. | 12.00 | 12.00 | 11.40 | |
| Prepared sizes— | | | | | Indianapolis, Ind.: | | | | |
| High volatile..... | 8.52 | 7.93 | 7.93 | | Bituminous— | | | | |
| Low volatile..... | 12.18 | 11.45 | 11.46 | | Prepared sizes— | | | | |
| Run of mine— | | | | | High volatile..... | 5.94 | 5.93 | 5.93 | |
| Low volatile..... | 8.25 | 7.75 | 7.75 | | Low volatile..... | 8.44 | 9.17 | 9.17 | |
| | | | | | Run of mine— | | | | |
| | | | | | Low volatile..... | 6.96 | 6.95 | 7.00 | |

¹ Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON APRIL 15, 1930, AND MARCH 15 AND APRIL 15, 1931—Continued

| City, and kind of coal | 1930 | | | 1931 | | | |
|-----------------------------|---------|---------|---------|-----------------------------|----------|----------|---------|
| | Apr. 15 | Mar. 15 | Apr. 15 | City, and kind of coal | 1930 | 1931 | |
| | | | | | Apr. 15 | Mar. 15 | Apr. 15 |
| Jacksonville, Fla.: | | | | Pittsburgh, Pa.: | | | |
| Bituminous, prepared sizes. | \$14.00 | \$10.00 | \$10.00 | Pennsylvania anthracite— | | | |
| Kansas City, Mo.: | | | | Chestnut | \$15.00 | \$14.50 | \$14.50 |
| Arkansas anthracite— | | | | Bituminous, prepared sizes. | 5.29 | 4.73 | 4.73 |
| Furnace | 12.55 | 12.44 | 12.44 | Portland, Me.: | | | |
| Stove No. 4 | 13.67 | 13.50 | 13.50 | Pennsylvania anthracite— | | | |
| Bituminous, prepared sizes. | 7.15 | 6.77 | 6.71 | Stove | 16.80 | 16.80 | 15.84 |
| Little Rock, Ark.: | | | | Chestnut | 16.50 | 16.80 | 16.80 |
| Arkansas anthracite—Egg. | 13.50 | 13.50 | 13.00 | Portland, Oreg.: | | | |
| Bituminous, prepared sizes. | 9.75 | 9.90 | 9.90 | Bituminous, prepared sizes. | 13.26 | 13.15 | 13.21 |
| Los Angeles, Calif.: | | | | Providence, R. I.: | | | |
| Bituminous, prepared sizes. | 16.50 | 16.50 | 16.50 | Pennsylvania anthracite— | | | |
| Louisville, Ky.: | | | | Stove | 216.00 | 216.00 | 214.75 |
| Bituminous— | | | | Chestnut | 216.00 | 216.00 | 214.75 |
| Prepared sizes— | | | | Richmond, Va.: | | | |
| High volatile | 5.83 | 6.34 | 4.93 | Pennsylvania anthracite— | | | |
| Low volatile | 8.10 | 8.75 | 7.50 | Stove | 15.00 | 15.00 | 15.00 |
| Manchester, N. H.: | | | | Chestnut | 15.00 | 15.00 | 15.00 |
| Pennsylvania anthracite— | | | | Bituminous— | | | |
| Stove | 17.00 | 16.83 | 15.50 | Prepared sizes— | | | |
| Chestnut | 17.00 | 16.83 | 15.50 | High volatile | 8.38 | 8.75 | 8.75 |
| Memphis, Tenn.: | | | | Low volatile | 9.09 | 9.88 | 9.83 |
| Bituminous, prepared sizes. | 7.69 | 7.52 | 7.66 | Run of mine— | | | |
| Milwaukee, Wis.: | | | | Low volatile | 7.25 | 7.50 | 7.50 |
| Pennsylvania anthracite— | | | | Rochester, N. Y.: | | | |
| Stove | 16.30 | 15.75 | 15.75 | Pennsylvania anthracite— | | | |
| Chestnut | 15.85 | 15.50 | 15.50 | Stove | 14.63 | 14.75 | 13.38 |
| Bituminous— | | | | Chestnut | 14.13 | 14.25 | 13.38 |
| Prepared sizes— | | | | St. Louis, Mo.: | | | |
| High volatile | 7.68 | 7.70 | 7.70 | Pennsylvania anthracite— | | | |
| Low volatile | 10.99 | 10.60 | 10.60 | Stove | 16.70 | 16.20 | 16.20 |
| Minneapolis, Minn.: | | | | Chestnut | 16.45 | 15.95 | 15.95 |
| Pennsylvania anthracite— | | | | Bituminous, prepared sizes. | 6.75 | 5.87 | 5.86 |
| Stove | 18.30 | 16.90 | 16.90 | St. Paul, Minn.: | | | |
| Chestnut | 17.85 | 16.90 | 16.90 | Pennsylvania anthracite— | | | |
| Bituminous— | | | | Stove | 18.28 | 16.90 | 16.90 |
| Prepared sizes— | | | | Chestnut | 17.85 | 16.90 | 16.90 |
| High volatile | 10.56 | 9.65 | 9.61 | Bituminous— | | | |
| Low volatile | 12.39 | 12.63 | 12.63 | Prepared sizes— | | | |
| Mobile, Ala.: | | | | High volatile | 10.27 | 9.58 | 9.70 |
| Bituminous, prepared sizes. | 8.70 | 9.38 | 8.38 | Low volatile | 12.63 | 12.66 | 12.80 |
| Newark, N. J.: | | | | Salt Lake City, Utah: | | | |
| Pennsylvania anthracite— | | | | Bituminous, prepared sizes. | 8.38 | 7.99 | 7.58 |
| Stove | 13.96 | 13.90 | 12.70 | San Francisco, Calif.: | | | |
| Chestnut | 13.46 | 13.40 | 12.70 | New Mexico anthracite— | | | |
| New Haven, Conn.: | | | | Cerrillos egg | 26.00 | 26.00 | 26.00 |
| Pennsylvania anthracite— | | | | Colorado anthracite— | | | |
| Stove | 15.17 | 14.90 | 14.90 | Egg | 25.50 | 25.50 | 25.50 |
| Chestnut | 15.17 | 14.90 | 14.90 | Bituminous, prepared sizes. | 16.88 | 17.00 | 17.00 |
| New Orleans, La.: | | | | Savannah, Ga.: | | | |
| Bituminous, prepared sizes. | 10.96 | 10.93 | 8.07 | Bituminous, prepared sizes. | 3 9.84 | 3 10.45 | 3 9.62 |
| New York, N. Y.: | | | | Seranton, Pa.: | | | |
| Pennsylvania anthracite— | | | | Pennsylvania anthracite— | | | |
| Stove | 14.58 | 14.17 | 12.92 | Stove | 10.28 | 10.18 | 9.30 |
| Chestnut | 14.08 | 13.67 | 12.92 | Chestnut | 9.92 | 9.88 | 9.28 |
| Norfolk, Va.: | | | | Seattle, Wash.: | | | |
| Pennsylvania anthracite— | | | | Bituminous, prepared sizes. | 10.75 | 10.79 | 10.88 |
| Stove | 14.00 | 15.00 | 15.00 | Springfield, Ill.: | | | |
| Chestnut | 14.00 | 15.00 | 15.00 | Bituminous, prepared sizes. | 4.34 | 4.34 | 4.34 |
| Bituminous— | | | | Washington, D. C.: | | | |
| Prepared sizes— | | | | Pennsylvania anthracite— | | | |
| High volatile | 7.25 | 7.38 | 7.38 | Stove | 115.73 | 115.73 | 12.76 |
| Low volatile | 8.50 | 9.00 | 9.00 | Chestnut | 115.23 | 115.23 | 12.76 |
| Run of mine— | | | | Bituminous— | | | |
| Low volatile | 6.50 | 7.00 | 7.00 | Prepared sizes— | | | |
| Omaha, Nebr.: | | | | High volatile | 1 8.63 | 1 8.61 | 7.39 |
| Bituminous, prepared sizes. | 9.64 | 9.66 | 9.45 | Low volatile | 11 11.43 | 11 11.43 | 9.32 |
| Peoria, Ill.: | | | | Run of mine— | | | |
| Bituminous, prepared sizes. | 6.52 | 6.39 | 6.33 | Mixed | 1 7.75 | 1 7.81 | 6.98 |
| Philadelphia, Pa.: | | | | | | | |
| Pennsylvania anthracite— | | | | | | | |
| Stove | 115.00 | 14.00 | 12.25 | | | | |
| Chestnut | 114.50 | 13.50 | 12.25 | | | | |

¹ Per ton of 2,240 pounds.

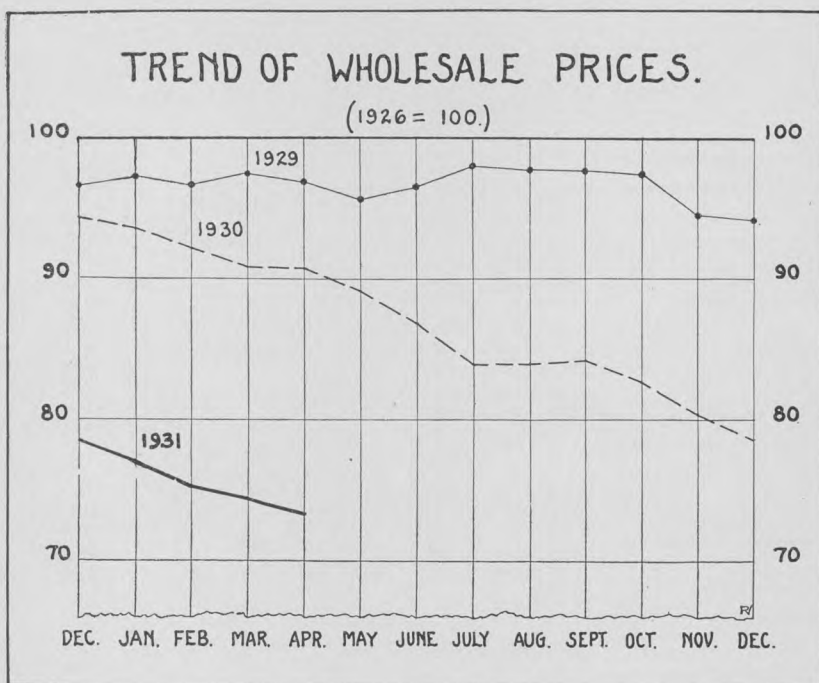
² The average price of coal delivered in bins is 50 cents higher than here shown. Practically all coal is delivered in bin.

³ All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

Index Numbers of Wholesale Prices in April, 1931

THE index number of wholesale prices computed by the Bureau of Labor Statistics of the United States Department of Labor shows a decline for April. This index number, which includes 550 commodities or price quotations weighted according to the importance of each article and based on prices in 1926 as 100.0, declined from 74.5 in March to 73.3 in April, a decrease of more than 1½ per cent. The purchasing power of the 1926 dollar in April was \$1.364.

Farm products as a group averaged three-fourths of 1 per cent below March prices, due to decreases for corn, oats, rye, beef steers, hogs, sheep, cotton, eggs, and wool. Wheat, lambs, and hay, on the other hand, were higher than in the month before.



Among foods price decreases were reported for butter, cheese, fresh and cured meats, lard, rye flour, and corn meal, resulting in a net decrease of nearly 1½ per cent for the group. Wheat flour and dressed poultry averaged higher than in March.

Hides and leather products showed little change in the price level from the month before, the trend being upward for packers' hides and country calfskins and downward for country cowhides and imported goatskins. Boots and shoes showed a negligible decrease, while no change was reported for leather.

In the group of textile products appreciable decreases are shown for cotton goods, silk and rayon, woolen and worsted goods, and other textiles. The decrease in the group as a whole was over 2 per cent.

Anthracite and bituminous coal showed customary April price reductions, while coke was stationary. Petroleum products again declined sharply with lower prices for crude petroleum, fuel oil, and gasoline.

Among metals and metal products there were price declines in iron and steel and nonferrous metals, causing a small decrease in the group total.

In the building materials group slight declines are shown for lumber, brick, cement, and paint materials. The group as a whole showed a decrease.

Chemicals and drugs, including fertilizer materials and mixed fertilizers, moved downward in the month.

No change in the price level was shown for furniture and furnishings in the group of house-furnishing goods.

In the group of miscellaneous commodities, cattle feed, paper and pulp, and crude rubber declined, while automobile tires were unchanged in price.

Raw materials as a whole averaged lower than in March, as did also semimanufactured articles and finished products.

In the large group of nonagricultural commodities, including all articles other than farm products, and among all commodities other than farm products and foods, April prices averaged lower than those of the month before.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES

[1926=100.0]

| Groups and subgroups | April, 1930 | March, 1931 | April, 1931 | Purchasing power of the dollar April, 1931 |
|----------------------------------|----------------|----------------|----------------|---|
| All commodities..... | 90.7 | 74.5 | 73.3 | \$1.364 |
| Farm products..... | 95.8 | 70.6 | 70.1 | 1.427 |
| Grains..... | 84.1 | 59.3 | 59.5 | 1.681 |
| Livestock and poultry..... | 96.9 | 70.7 | 70.3 | 1.422 |
| Other farm products..... | 99.0 | 74.2 | 73.4 | 1.362 |
| Foods..... | 94.6 | 76.7 | 75.6 | 1.323 |
| Butter, cheese, and milk..... | 99.3 | 83.7 | 80.9 | 1.236 |
| Meats..... | 103.2 | 82.0 | 79.9 | 1.252 |
| Other foods..... | 87.7 | 70.8 | 70.9 | 1.410 |
| Hides and leather products..... | 102.7 | 87.4 | 87.3 | 1.145 |
| Hides and skins..... | 95.8 | 62.1 | 62.0 | 1.613 |
| Leather..... | 105.3 | 88.4 | 88.4 | 1.131 |
| Boots and shoes..... | 103.8 | 94.9 | 94.8 | 1.055 |
| Other leather products..... | 105.3 | 102.0 | 101.6 | .984 |
| Textile products..... | 85.5 | 69.2 | 67.6 | 1.479 |
| Cotton goods..... | 91.4 | 76.5 | 75.7 | 1.321 |
| Silk and rayon..... | 72.0 | 47.0 | 45.2 | 2.212 |
| Woolen and worsted goods..... | 89.6 | 79.7 | 77.3 | 1.294 |
| Other textile products..... | 72.3 | 57.4 | 55.6 | 1.799 |
| Fuel and lighting materials..... | 77.9 | 64.5 | 61.6 | 1.623 |
| Anthracite coal..... | 90.2 | 88.2 | 86.6 | 1.155 |
| Bituminous coal..... | 88.4 | 85.8 | 84.4 | 1.185 |
| Coke..... | 84.2 | 83.7 | 83.7 | 1.195 |
| Gas..... | 94.9 | 94.6 | (1) | |
| Petroleum products..... | 65.6 | 41.8 | 37.4 | 2.674 |
| Metals and metal products..... | 98.8 | 89.0 | 88.7 | 1.127 |
| Iron and steel..... | 93.8 | 88.1 | 87.5 | 1.143 |
| Nonferrous metals..... | 90.5 | 67.1 | 65.1 | 1.536 |
| Agricultural implements..... | 95.0 | 94.7 | 94.7 | 1.056 |
| Automobiles..... | 106.8 | 98.0 | 98.6 | 1.014 |
| Other metal products..... | 98.4 | 95.0 | 95.0 | 1.053 |

¹ Data not yet available.

[1469]

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES—Continued

| Groups and subgroups | April, 1930 | March, 1931 | April, 1931 | Purchasing power of the dollar April, 1931 |
|---|----------------|----------------|----------------|---|
| Building materials | 94.7 | 81.9 | 80.9 | \$1.236 |
| Lumber..... | 91.8 | 74.2 | 73.3 | 1.364 |
| Brick..... | 88.4 | 81.5 | 81.0 | 1.235 |
| Cement..... | 92.7 | 84.1 | 81.0 | 1.235 |
| Structural steel..... | 91.9 | 84.3 | 84.3 | 1.186 |
| Paint materials..... | 91.4 | 73.0 | 72.5 | 1.379 |
| Other building materials..... | 104.0 | 95.4 | 94.2 | 1.062 |
| Chemicals and drugs..... | 91.0 | 81.9 | 80.1 | 1.248 |
| Chemicals..... | 96.6 | 84.8 | 83.3 | 1.200 |
| Drugs and pharmaceuticals..... | 68.0 | 64.6 | 63.0 | 1.587 |
| Fertilizer materials..... | 88.1 | 80.8 | 80.6 | 1.241 |
| Mixed fertilizers..... | 94.4 | 88.3 | 83.5 | 1.198 |
| Housefurnishing goods..... | 96.2 | 90.8 | 90.8 | 1.101 |
| Furniture..... | 96.6 | 95.5 | 95.5 | 1.047 |
| Furnishings..... | 95.8 | 86.7 | 86.7 | 1.153 |
| Miscellaneous..... | 78.5 | 64.7 | 63.9 | 1.565 |
| Cattle feed..... | 117.1 | 82.1 | 81.2 | 1.232 |
| Paper and pulp..... | 86.0 | 82.3 | 81.4 | 1.229 |
| Rubber..... | 30.9 | 16.0 | 13.3 | 7.519 |
| Automobile tires..... | 54.7 | 45.7 | 45.7 | 2.188 |
| Other miscellaneous..... | 108.3 | 86.3 | 85.9 | 1.164 |
| Raw materials..... | 89.8 | 69.4 | 68.3 | 1.464 |
| Semimanufactured articles..... | 87.9 | 72.2 | 71.1 | 1.406 |
| Finished products..... | 91.9 | 78.4 | 77.1 | 1.297 |
| Nonagricultural commodities..... | 89.4 | 75.7 | 74.3 | 1.346 |
| All commodities less farm products and foods..... | 88.3 | 75.6 | 74.2 | 1.348 |

Wholesale Prices in the United States and in Foreign Countries, 1923 to March, 1931

IN THE following table the more important index numbers of wholesale prices in foreign countries and those of the United States Bureau of Labor Statistics have been brought together in order that the trend of prices in the several countries may be compared. The base periods here shown are those appearing in the sources from which the information has been drawn, in most cases being the year 1913 or some other pre-war period. Only general comparisons can be made from these figures, since, in addition to differences in the base periods, there are important differences in the composition of the index numbers themselves.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES

| Country | United States | Canada | Austria | Belgium | Czecho-slovakia | Denmark | Finland | France | Germany | Italy |
|------------------|----------------------------|-------------------------------|----------------------------|--------------------------------|------------------------------|------------------------|------------------------------|----------------------------|----------------------------|----------------|
| Computing agency | Bureau of Labor Statistics | Dominion Bureau of Statistics | Federal Statistical Bureau | Ministry of Industry and Labor | Central Bureau of Statistics | Statistical Department | Central Bureau of Statistics | General Statistical Bureau | Federal Statistical Bureau | Riccardo Bachi |
| Base period | 1926 | 1926 | January-June, 1914 | April, 1914 | July, 1914 | 1913 | 1926 | 1913 | 1913 | 1913 |
| Commodities | 550 | 502 | 47 | 132 | 69 | 118 | 139 | 45 | 400 | 138 |
| Year and month | | | | | | | | | | |
| 1923 | 100.6 | 98.0 | 124 | 497 | 977 | | | 419 | | 503.9 |
| 1924 | 98.1 | 99.4 | 136 | 573 | 997 | | | 488 | 137.3 | 497.4 |
| 1925 | 103.5 | 102.6 | 136 | 558 | 1008 | 210 | | 551 | 141.8 | 612.0 |
| 1926 | 100.0 | 100.0 | 123 | 744 | 955 | 163 | 100 | 703 | 134.4 | 618.2 |
| 1927 | 95.4 | 97.7 | 133 | 847 | 979 | 153 | 101 | 617 | 137.6 | 466.7 |
| 1928 | 97.7 | 96.4 | 130 | 843 | 979 | 153 | 102 | 620 | 140.0 | 453.1 |
| 1929 | 96.5 | 95.6 | 130 | 851 | 924 | 150 | 98 | 611 | 137.2 | 439.7 |
| 1923 | | | | | | | | | | |
| January | 102.0 | | | 434 | 991 | | | 387 | | 516.1 |
| April | 103.9 | | | 480 | 1012 | | | 415 | | 525.7 |
| July | 98.4 | | | 504 | 949 | | | 407 | | 503.9 |
| October | 99.4 | | | 515 | 960 | | | 421 | | 499.6 |
| 1924 | | | | | | | | | | |
| January | 99.6 | | | 580 | 974 | | | 494 | | 504.4 |
| April | 97.3 | | | 555 | 1008 | | | 450 | | 510.3 |
| July | 95.6 | | | 566 | 953 | | | 481 | | 497.4 |
| October | 98.2 | | | 555 | 999 | | | 497 | | 522.0 |
| 1925 | | | | | | | | | | |
| January | 102.9 | | | 559 | 1045 | 243 | | 514 | | 568.2 |
| February | 104.0 | | | 551 | 1048 | 240 | | 515 | | 571.1 |
| March | 104.2 | | | 546 | 1034 | 236 | | 514 | | 571.2 |
| April | 101.9 | | | 538 | 1020 | 230 | | 513 | | 570.1 |
| May | 101.6 | | | 537 | 1006 | 227 | | 520 | | 571.2 |
| June | 103.0 | | | 532 | 998 | 223 | | 543 | | 590.9 |
| July | 104.3 | | | 559 | 1009 | 212 | | 557 | | 612.0 |
| August | 103.9 | | | 567 | 993 | 197 | | 557 | | 630.6 |
| September | 103.4 | | | 577 | 996 | 186 | | 556 | | 621.5 |
| October | 103.6 | | | 575 | 989 | 179 | | 572 | | 617.1 |
| November | 104.5 | | | 569 | 977 | 176 | | 605 | | 612.3 |
| December | 103.4 | | | 565 | 977 | 176 | | 633 | | 613.8 |
| 1926 | | | | | | | | | | |
| January | 103.6 | 103.0 | 122 | 560 | 966 | 172 | | 634 | 135.8 | 608.0 |
| February | 102.1 | 102.1 | 120 | 556 | 950 | 165 | | 636 | 134.3 | 603.5 |
| March | 100.4 | 101.3 | 119 | 583 | 938 | 158 | | 632 | 133.1 | 592.3 |
| April | 100.1 | 101.2 | 119 | 621 | 923 | 157 | | 650 | 132.7 | 590.0 |
| May | 100.5 | 100.2 | 118 | 692 | 928 | 158 | | 688 | 132.3 | 595.8 |
| June | 103.5 | 100.2 | 124 | 761 | 926 | 157 | | 738 | 131.9 | 604.9 |
| July | 99.5 | 100.2 | 126 | 876 | 948 | 158 | | 826 | 133.1 | 618.2 |
| August | 99.0 | 99.1 | 126 | 836 | 963 | 162 | | 769 | 134.0 | 632.5 |
| September | 99.7 | 98.5 | 123 | 859 | 973 | 162 | | 787 | 134.9 | 622.0 |
| October | 99.4 | 98.1 | 125 | 856 | 972 | 178 | | 751 | 136.2 | 596.7 |
| November | 98.4 | 97.6 | 128 | 865 | 978 | 170 | | 684 | 137.1 | 594.2 |
| December | 97.9 | 97.9 | 127 | 860 | 978 | 158 | | 627 | 137.1 | 573.6 |

¹ July.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

| Country---- | United States | Canada | Austria | Belgium | Czechoslovakia | Denmark | Finland | France | Germany | Italy |
|------------------|----------------------------|-------------------------------|----------------------------|--------------------------------|------------------------------|------------------------|------------------------------|----------------------------|----------------------------|----------------|
| Computing agency | Bureau of Labor Statistics | Dominion Bureau of Statistics | Federal Statistical Bureau | Ministry of Industry and Labor | Central Bureau of Statistics | Statistical Department | Central Bureau of Statistics | General Statistical Bureau | Federal Statistical Bureau | Riccardo Bachi |
| Base period | 1926 | 1926 | January-June, 1914 | April, 1914 | July, 1914 | 1913 | 1926 | 1913 | 1913 | 1913 |
| Commodities----- | 550 | 502 | 47 | 132 | 69 | 118 | 139 | 45 | 400 | 138 |
| 1927 | | | | | | | | | | |
| January----- | 96.6 | 97.8 | 130 | 856 | 979 | 157 | 100 | 622 | 135.9 | 558.2 |
| February----- | 95.9 | 97.6 | 130 | 854 | 975 | 156 | 101 | 632 | 135.6 | 555.8 |
| March----- | 94.5 | 97.3 | 133 | 858 | 976 | 153 | 101 | 641 | 135.0 | 544.7 |
| April----- | 93.7 | 97.5 | 135 | 846 | 979 | 152 | 100 | 636 | 134.8 | 521.3 |
| May----- | 93.7 | 98.5 | 137 | 848 | 988 | 152 | 100 | 628 | 137.1 | 496.2 |
| June----- | 93.8 | 98.9 | 142 | 851 | 990 | 152 | 101 | 622 | 137.9 | 473.4 |
| July----- | 94.1 | 98.6 | 140 | 845 | 992 | 152 | 101 | 621 | 137.6 | 466.7 |
| August----- | 95.2 | 98.3 | 133 | 850 | 983 | 153 | 102 | 618 | 137.9 | 465.4 |
| September----- | 96.5 | 97.1 | 130 | 837 | 975 | 153 | 101 | 600 | 139.7 | 465.4 |
| October----- | 97.0 | 97.2 | 129 | 839 | 966 | 154 | 10. | 587 | 139.8 | 467.5 |
| November----- | 96.7 | 96.9 | 127 | 838 | 967 | 154 | 103 | 594 | 140.1 | 466.0 |
| December----- | 96.8 | 97.3 | 127 | 841 | 975 | 154 | 103 | 604 | 139.6 | 462.9 |
| 1928 | | | | | | | | | | |
| January----- | 96.3 | 96.9 | 129 | 851 | 982 | 153 | 102 | 607 | 138.7 | 463.5 |
| February----- | 96.4 | 96.8 | 128 | 848 | 985 | 152 | 102 | 609 | 137.9 | 461.3 |
| March----- | 96.0 | 97.7 | 129 | 848 | 978 | 153 | 103 | 623 | 138.5 | 463.9 |
| April----- | 97.4 | 98.3 | 131 | 847 | 984 | 154 | 103 | 624 | 139.5 | 464.4 |
| May----- | 98.6 | 97.7 | 131 | 844 | 987 | 155 | 103 | 632 | 141.2 | 464.9 |
| June----- | 97.6 | 97.1 | 133 | 844 | 986 | 155 | 103 | 626 | 141.3 | 461.7 |
| July----- | 98.3 | 96.2 | 133 | 841 | 979 | 155 | 103 | 624 | 141.6 | 453.1 |
| August----- | 98.9 | 95.4 | 133 | 831 | 996 | 154 | 103 | 617 | 141.5 | 456.2 |
| September----- | 100.1 | 95.5 | 131 | 830 | 986 | 151 | 101 | 620 | 139.9 | 457.8 |
| October----- | 97.8 | 95.4 | 129 | 835 | 971 | 150 | 101 | 617 | 140.1 | 463.3 |
| November----- | 96.7 | 94.9 | 128 | 847 | 957 | 151 | 101 | 626 | 140.3 | 465.6 |
| December----- | 96.7 | 94.5 | 127 | 855 | 955 | 151 | 101 | 624 | 139.9 | 464.4 |
| 1929 | | | | | | | | | | |
| January----- | 97.2 | 93.7 | 128 | 867 | 953 | 151 | 100 | 630 | 138.9 | 461.2 |
| February----- | 96.7 | 94.9 | 130 | 865 | 950 | 159 | 100 | 638 | 139.2 | 462.7 |
| March----- | 97.5 | 95.5 | 133 | 869 | 964 | 154 | 100 | 640 | 139.6 | 461.1 |
| April----- | 96.8 | 94.1 | 134 | 862 | 963 | 150 | 99 | 627 | 137.1 | 455.0 |
| May----- | 95.8 | 92.4 | 135 | 851 | 940 | 148 | 98 | 623 | 135.5 | 451.6 |
| June----- | 96.4 | 92.6 | 134 | 848 | 917 | 146 | 98 | 611 | 135.1 | 446.6 |
| July----- | 98.0 | 96.0 | 132 | 858 | 922 | 149 | 97 | 613 | 137.8 | 439.7 |
| August----- | 97.7 | 98.1 | 132 | 850 | 916 | 150 | 97 | 597 | 138.1 | 437.4 |
| September----- | 97.5 | 97.3 | 128 | 846 | 902 | 150 | 96 | 597 | 138.1 | 437.0 |
| October----- | 96.3 | 96.7 | 127 | 838 | 895 | 149 | 96 | 590 | 137.2 | 435.8 |
| November----- | 94.4 | 95.8 | 125 | 834 | 888 | 147 | 95 | 584 | 135.5 | 430.8 |
| December----- | 94.2 | 96.2 | 123 | 823 | 876 | 146 | 95 | 576 | 134.3 | 424.5 |
| 1930 | | | | | | | | | | |
| January----- | 93.4 | 95.6 | 125 | 808 | ² 126.1 | 143 | 94 | 564 | 132.3 | 417.4 |
| February----- | 92.1 | 95.0 | 123 | 791 | ² 124.2 | 140 | 93 | 564 | 129.3 | 408.0 |
| March----- | 90.8 | 91.9 | 121 | 774 | ² 121.5 | 136 | 92 | 553 | 126.4 | 399.7 |
| April----- | 90.7 | 91.7 | 119 | 777 | ² 121.0 | 135 | 92 | 548 | 126.7 | 396.1 |
| May----- | 89.1 | 89.9 | 118 | 774 | ² 120.2 | 132 | 90 | 542 | 125.7 | 390.3 |
| June----- | 86.8 | 88.0 | 121 | 750 | ² 119.1 | 130 | 90 | 533 | 124.5 | 380.6 |
| July----- | 84.0 | 85.8 | 119 | 739 | ² 119.7 | 129 | 89 | 538 | 125.1 | 374.9 |
| August----- | 84.0 | 84.1 | 118 | 729 | ² 118.1 | 128 | 89 | 532 | 124.7 | 379.4 |
| September----- | 84.2 | 82.5 | 115 | 712 | ² 115.1 | 126 | 88 | 524 | 122.8 | 374.6 |
| October----- | 82.6 | 81.4 | 112 | 705 | ² 113.3 | 123 | 86 | 508 | 120.2 | 364.4 |
| November----- | 80.4 | 79.8 | 110 | 693 | ² 112.7 | 122 | 87 | 494 | 120.1 | 360.6 |
| December----- | 78.4 | 77.8 | 107 | 679 | ² 111.1 | 120 | 86 | 488 | 117.8 | 349.6 |
| 1931 | | | | | | | | | | |
| January----- | 77.0 | 76.7 | 105 | 661 | ² 110.0 | 118 | 86 | 484 | 115.2 | 341.7 |
| February----- | 75.5 | 76.0 | 107 | 658 | ² 108.9 | 117 | 86 | 482 | 114.0 | 338.1 |
| March----- | 74.5 | 75.1 | 107 | 660 | ² 108.8 | 116 | 86 | 482 | 113.9 | ----- |

² In gold.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

| Country | Netherlands | Norway | Spain | Sweden | Switzerland | United Kingdom | Australia | New Zealand | South Africa | Japan | China | India |
|------------------|------------------------------|------------------------------|---------------------------------------|---------------------|--------------------------|----------------|---------------------------------|------------------------------|---------------------------------|----------------------|--------------------------------------|----------------------|
| Computing agency | Central Bureau of Statistics | Central Bureau of Statistics | Institute of Geography and Statistics | Chamber of Commerce | Federal Labor Department | Board of Trade | Bureau of Census and Statistics | Census and Statistics Office | Office of Census and Statistics | Bank of Japan, Tokyo | National Tariff Commission, Shanghai | Labor Office, Bombay |
| Base period | 1913 | 1913 | 1913 | 1913 | July, 1914 | 1913 | July, 1914 | 1913 | 1913 | 1913 | 1913 | July, 1914 |
| Commodities | 48 | 95 | 74 | 160 | 118 | 150 | 92 | 180 | 188 | 56 | ³ 117 | 44 |
| Year and month | | | | | | | | | | | | |
| 1923 | 151 | 232 | 172 | 163 | 181 | 158.9 | 170 | 158 | 127 | 199 | 156.4 | 181 |
| 1924 | 156 | 268 | 183 | 162 | 175 | 166.2 | 165 | 165 | 129 | 206 | 153.9 | 182 |
| 1925 | 155 | 253 | 188 | 161 | 162 | 159.1 | 162 | 161 | 128 | 202 | 159.4 | 163 |
| 1926 | 145 | 198 | 181 | 149 | 145 | 148.1 | 161 | 154 | 123 | 179 | 164.1 | 149 |
| 1927 | 148 | 167 | 172 | 146 | 142 | 141.4 | 159 | 146 | 124 | 170 | 170.4 | 147 |
| 1928 | 149 | 161 | 168 | 148 | 145 | 140.3 | 157 | 147 | 121 | 171 | 160.7 | 146 |
| 1929 | 142 | 153 | 171 | 140 | 141 | 136.5 | ----- | 147 | 116 | 166 | 163.7 | 145 |
| 1923 | | | | | | | | | | | | |
| January | 157 | 223 | 170 | 163 | ----- | 157.0 | 163 | ----- | 131 | 184 | 152.7 | 187 |
| April | 156 | 229 | 174 | 168 | ----- | 162.0 | 167 | ----- | 126 | 196 | 157.7 | 180 |
| July | 145 | 231 | 170 | 162 | ----- | 156.5 | 180 | ----- | 124 | 192 | 155.4 | 178 |
| October | 148 | 235 | 171 | 161 | ----- | 158.1 | 171 | ----- | 125 | 212 | 156.1 | 181 |
| 1924 | | | | | | | | | | | | |
| January | 156 | 251 | 178 | 161 | ----- | 165.4 | 174 | ----- | 131 | 211 | 155.8 | 188 |
| April | 154 | 263 | 184 | 161 | ----- | 164.7 | 166 | ----- | 126 | 207 | 153.7 | 184 |
| July | 151 | 265 | 182 | 157 | ----- | 162.6 | 163 | ----- | 125 | 195 | 151.5 | 184 |
| October | 161 | 273 | 186 | 167 | ----- | 170.0 | 163 | ----- | 133 | 213 | 152.8 | 181 |
| 1925 | | | | | | | | | | | | |
| January | 160 | 279 | 191 | 169 | ----- | 171.1 | 163 | 166 | 130 | 214 | 159.9 | 173 |
| February | 158 | 281 | 192 | 169 | ----- | 168.9 | 162 | 162 | ----- | 210 | 159.2 | 173 |
| March | 155 | 279 | 193 | 168 | ----- | 166.3 | 160 | 162 | ----- | 204 | 160.3 | 171 |
| April | 151 | 273 | 190 | 163 | ----- | 161.9 | 158 | 162 | 130 | 202 | 159.3 | 165 |
| May | 151 | 262 | 191 | 162 | ----- | 158.6 | 159 | 162 | ----- | 199 | 157.8 | 164 |
| June | 153 | 260 | 187 | 161 | ----- | 157.2 | 162 | 162 | ----- | 200 | 157.3 | 160 |
| July | 155 | 254 | 188 | 161 | ----- | 156.9 | 162 | 161 | 127 | 198 | 162.8 | 158 |
| August | 155 | 249 | 184 | 159 | ----- | 156.2 | 162 | 161 | ----- | 200 | 160.3 | 160 |
| September | 155 | 237 | 185 | 157 | ----- | 155.1 | 162 | 160 | ----- | 201 | 160.2 | 157 |
| October | 154 | 223 | 187 | 154 | ----- | 153.9 | 163 | 162 | 124 | 200 | 159.0 | 158 |
| November | 154 | 220 | 186 | 155 | ----- | 152.7 | 165 | 161 | ----- | 198 | 158.4 | 160 |
| December | 155 | 220 | 187 | 156 | ----- | 152.1 | 160 | 160 | ----- | 194 | 158.1 | 154 |
| 1926 | | | | | | | | | | | | |
| January | 153 | 214 | 186 | 153 | 153 | 151.3 | 161 | 159 | 124 | 192 | 164.0 | 154 |
| February | 149 | 211 | 186 | 152 | 147 | 148.8 | 160 | 159 | ----- | 188 | 163.0 | 151 |
| March | 145 | 205 | 183 | 149 | 146 | 144.4 | 163 | 157 | ----- | 184 | 164.4 | 150 |
| April | 143 | 199 | 179 | 150 | 145 | 143.6 | 168 | 156 | 120 | 181 | 162.8 | 151 |
| May | 143 | 197 | 179 | 151 | 143 | 144.9 | 167 | 156 | ----- | 177 | 159.7 | 151 |
| June | 144 | 194 | 177 | 150 | 143 | 146.4 | 163 | 155 | ----- | 177 | 155.8 | 150 |
| July | 141 | 192 | 178 | 148 | 145 | 148.7 | 162 | 156 | 122 | 179 | 156.9 | 149 |
| August | 139 | 193 | 180 | 147 | 142 | 149.1 | 162 | 154 | ----- | 177 | 160.5 | 148 |
| September | 140 | 193 | 178 | 146 | 142 | 150.0 | 158 | 153 | ----- | 176 | 164.2 | 149 |
| October | 143 | 198 | 179 | 148 | 144 | 152.1 | 164 | 153 | 127 | 174 | 171.1 | 147 |
| November | 147 | 199 | 185 | 148 | 142 | 152.4 | 155 | 151 | ----- | 171 | 174.4 | 146 |
| December | 147 | 184 | 186 | 150 | 142 | 146.1 | 155 | 153 | ----- | 170 | 172.0 | 146 |
| 1927 | | | | | | | | | | | | |
| January | 145 | 174 | 184 | 146 | 141 | 143.6 | 154 | 151 | 128 | 170 | 172.8 | 146 |
| February | 146 | 172 | 180 | 146 | 141 | 142.6 | 153 | 147 | ----- | 171 | 172.0 | 148 |
| March | 144 | 167 | 179 | 145 | 141 | 140.6 | 150 | 147 | ----- | 171 | 174.7 | 146 |
| April | 143 | 164 | 177 | 143 | 140 | 139.8 | 151 | 147 | 126 | 170 | 173.1 | 145 |
| May | 145 | 162 | 172 | 145 | 141 | 141.1 | 152 | 145 | ----- | 171 | 171.3 | 146 |
| June | 149 | 166 | 171 | 146 | 140 | 141.8 | 155 | 146 | ----- | 172 | 169.3 | 147 |
| July | 151 | 165 | 168 | 146 | 140 | 141.1 | 161 | 146 | 120 | 170 | 171.0 | 147 |
| August | 149 | 167 | 168 | 146 | 142 | 140.9 | 165 | 146 | ----- | 167 | 170.8 | 148 |
| September | 150 | 167 | 169 | 148 | 144 | 142.1 | 170 | 146 | ----- | 169 | 171.8 | 148 |
| October | 150 | 165 | 169 | 147 | 145 | 141.4 | 173 | 146 | 122 | 170 | 168.7 | 146 |
| November | 151 | 166 | 168 | 148 | 147 | 141.1 | 166 | 147 | ----- | 168 | 165.7 | 144 |
| December | 151 | 166 | 169 | 148 | 146 | 140.4 | 162 | 148 | ----- | 168 | 163.5 | 143 |

³ 147 items.

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES AND IN CERTAIN FOREIGN COUNTRIES—Continued

| Country | Netherlands | Norway | Spain | Sweden | Switzerland | United Kingdom | Australia | New Zealand | South Africa | Japan | China | India |
|------------------|------------------------------|------------------------------|---------------------------------------|---------------------|--------------------------|----------------|---------------------------------|------------------------------|---------------------------------|----------------------|--------------------------------------|----------------------|
| Computing agency | Central Bureau of Statistics | Central Bureau of Statistics | Institute of Geography and Statistics | Chamber of Commerce | Federal Labor Department | Board of Trade | Bureau of Census and Statistics | Census and Statistics Office | Office of Census and Statistics | Bank of Japan, Tokyo | National Tariff Commission, Shanghai | Labor Office, Bombay |
| Base period | 1913 | 1913 | 1913 | 1913 | July, 1914 | 1913 | July, 1914 | 1913 | 1913 | 1913 | 1913 | July, 1914 |
| Commodities | 48 | 95 | 74 | 160 | 118 | 150 | 92 | 180 | 188 | 56 | 117 | 44 |
| 1928 | | | | | | | | | | | | |
| January | 153 | 164 | 166 | 148 | 145 | 141.1 | 163 | 150 | 123 | 169 | 163.1 | 141 |
| February | 150 | 163 | 166 | 147 | 144 | 140.3 | 160 | 147 | ----- | 169 | 164.3 | 142 |
| March | 152 | 164 | 165 | 149 | 145 | 140.8 | 160 | 147 | ----- | 169 | 163.4 | 140 |
| April | 153 | 162 | 166 | 151 | 146 | 142.9 | 162 | 147 | 121 | 170 | 163.1 | 142 |
| May | 152 | 162 | 164 | 152 | 145 | 143.6 | 159 | 148 | ----- | 171 | 164.5 | 145 |
| June | 153 | 161 | 164 | 151 | 145 | 142.6 | 158 | 148 | ----- | 169 | 160.0 | 149 |
| July | 148 | 162 | 164 | 150 | 144 | 141.1 | 157 | 148 | 119 | 169 | 159.2 | 147 |
| August | 144 | 162 | 166 | 149 | 144 | 139.3 | 154 | 147 | ----- | 170 | 157.2 | 146 |
| September | 145 | 158 | 168 | 146 | 144 | 137.6 | 153 | 148 | ----- | 174 | 156.2 | 148 |
| October | 146 | 157 | 174 | 145 | 145 | 137.9 | 152 | 149 | 120 | 174 | 158.8 | 150 |
| November | 148 | 157 | 176 | 145 | 145 | 137.9 | 152 | 150 | ----- | 173 | 159.2 | 149 |
| December | 148 | 157 | 175 | 145 | 144 | 138.3 | 154 | 149 | ----- | 174 | 159.9 | 145 |
| 1929 | | | | | | | | | | | | |
| January | 146 | 154 | 171 | 144 | 143 | 138.3 | 157 | 147 | 120 | 172 | 160.1 | 148 |
| February | 146 | 155 | 175 | 145 | 143 | 138.4 | 156 | 146 | ----- | 171 | 162.4 | 150 |
| March | 147 | 155 | 174 | 144 | 142 | 140.1 | 157 | 146 | ----- | 171 | 164.2 | 147 |
| April | 144 | 154 | 174 | 141 | 140 | 138.8 | 158 | 146 | 117 | 170 | 161.2 | 144 |
| May | 142 | 152 | 171 | 140 | 139 | 135.8 | 156 | 147 | ----- | 169 | 161.7 | 141 |
| June | 141 | 151 | 170 | 139 | 139 | 135.6 | 158 | 147 | ----- | 168 | 162.6 | 143 |
| July | 141 | 152 | 169 | 140 | 143 | 137.4 | 159 | 147 | 115 | 166 | 162.7 | 145 |
| August | 142 | 154 | 170 | 141 | 143 | 135.8 | 160 | 148 | ----- | 165 | 164.7 | 146 |
| September | 141 | 154 | 171 | 140 | 142 | 135.8 | 162 | 148 | ----- | 164 | 167.1 | 147 |
| October | 140 | 154 | 172 | 138 | 142 | 136.1 | 161 | 148 | 113 | 163 | 168.0 | 146 |
| November | 137 | 152 | 171 | 135 | 140 | 134.0 | 158 | 147 | ----- | 160 | 164.7 | 143 |
| December | 135 | 152 | 172 | 134 | 139 | 132.5 | 154 | 146 | ----- | 155 | 164.7 | 141 |
| 1930 | | | | | | | | | | | | |
| January | 131 | 150 | 172 | 131 | 136 | 131.0 | 151 | 147 | 107 | 152 | 169.6 | 139 |
| February | 126 | 147 | 173 | 128 | 133 | 127.8 | 147 | 146 | ----- | 151 | 174.7 | 137 |
| March | 122 | 146 | 173 | 125 | 131 | 124.5 | 144 | 146 | ----- | 148 | 173.9 | 137 |
| April | 122 | 145 | 172 | 124 | 129 | 123.7 | 146 | 146 | 104 | 147 | 174.2 | 134 |
| May | 118 | 144 | 168 | 123 | 128 | 122.0 | 148 | 146 | ----- | 143 | 173.4 | 130 |
| June | 118 | 143 | 166 | 123 | 126 | 120.7 | 145 | 145 | ----- | 138 | 185.9 | 127 |
| July | 115 | 142 | 170 | 121 | 126 | 119.2 | 144 | 144 | 100 | 134 | 190.1 | 124 |
| August | 114 | 141 | 173 | 121 | 126 | 117.8 | 142 | 146 | ----- | 133 | 189.4 | 124 |
| September | 112 | 141 | 174 | 119 | 123 | 115.5 | 134 | 144 | ----- | 130 | 187.5 | 120 |
| October | 111 | 140 | 175 | 118 | 122 | 113.0 | 130 | 142 | 99 | 124 | 182.3 | 117 |
| November | 110 | 139 | 175 | 117 | 120 | 112.0 | 126 | 141 | ----- | 123 | 177.7 | 112 |
| December | 107 | 136 | 175 | 117 | 117 | 108.9 | 123 | 141 | ----- | 122 | 177.7 | 110 |
| 1931 | | | | | | | | | | | | |
| January | 105 | 135 | 173 | 115 | 115 | 106.9 | 124 | 140 | 102 | 120 | ----- | 111 |
| February | 104 | 133 | 175 | 114 | 115 | 106.2 | ----- | 137 | ----- | 119 | ----- | 112 |
| March | ----- | 131 | ----- | 113 | 114 | 105.9 | ----- | ----- | ----- | ----- | ----- | ----- |

Wholesale and Retail Prices in the Philippines, 1927 and 1928

TABLE 1 gives the average retail prices of foodstuffs in the markets of the city of Manila in 1927 and 1928, and Table 2 the average prices of the most important articles of food for sale in the public markets of Philippine municipalities.¹

TABLE 1.—AVERAGE RETAIL PRICES OF FOODSTUFFS IN MANILA, 1927 AND 1928

[One peso=about 50 cents in United States currency]

| Article | Unit | 1927 | 1928 | Article | Unit | 1927 | 1928 |
|---------------------|-----------------------|--------------|--------------|----------------|----------|--------------|--------------|
| Cereals and grains: | | <i>Pesos</i> | <i>Pesos</i> | Vegetables: | | <i>Pesos</i> | <i>Pesos</i> |
| Coffee | Liter ¹ | 0.78 | 0.87 | Amargosa | One | 0.02 | 0.03 |
| Mongo | do | .21 | .16 | Beans, native | Bunch | .05 | .05 |
| Rice | Ganta ² | .36 | .36 | Eggplants | 100 | 2.00 | 1.71 |
| Sea food: | | | | Onions, Bombay | Kilogram | .24 | .38 |
| Bañgus | One | .31 | .37 | Potatoes | do | .17 | .12 |
| Candole | do | .35 | .38 | Squash, red | One | .27 | .25 |
| Crabs | do | .22 | .22 | Squash, white | do | .27 | .24 |
| Shrimps | 100 | 3.91 | 2.90 | Sweet potatoes | Sack | 1.20 | 1.04 |
| Fowls: | | | | Tomatoes | 100 | 1.37 | 1.00 |
| Chicken | One | .57 | .62 | Miscellaneous: | | | |
| Hens | do | 1.06 | 1.09 | Condensed milk | Can | .36 | .34 |
| Roosters | do | 1.12 | .06 | Eggs— | | | |
| Fruits: | | | | Chinese | 100 | 4.00 | 4.00 |
| Bananas, latundan | 100 | .92 | .75 | Duck | do | 5.00 | 4.00 |
| Cocoanuts | One | .07 | .08 | Native | do | 5.00 | 6.00 |
| Lemons | 100 | .81 | .60 | Salt, white | Liter | .06 | .05 |
| Papayas | One | .16 | .12 | Sugar— | | | |
| Meat: | | | | Brown | Kilogram | .32 | .31 |
| Beef, fresh | Kilogram ³ | .82 | .99 | Refined | do | .35 | .35 |
| Pork | do | 1.00 | .78 | Vinegar | Liter | .02 | .06 |

¹ Liter=0.908 dry quart.² Ganta=2.71 quarts.³ Kilogram=2.2046 pounds.⁴ Per 100.

TABLE 2.—AVERAGE PRICES OF FOOD IN PHILIPPINE MUNICIPALITIES, 1927 AND 1928

| Article | Unit | 1927 | 1928 | Article | Unit | 1927 | 1928 |
|--------------|-----------------------|--------------|--------------|-------------------|-------|--------------|--------------|
| | | <i>Pesos</i> | <i>Pesos</i> | | | <i>Pesos</i> | <i>Pesos</i> |
| Rice | Liter ¹ | 0.14 | 0.13 | Coffee | Liter | 0.44 | 0.60 |
| Corn | do | .13 | .11 | Garlic | 100 | 1.11 | 1.25 |
| Mongo | do | .17 | .20 | Tomatoes | Dozen | .13 | .19 |
| Beef | Kilogram ² | .85 | .83 | Native onions | 100 | .51 | .89 |
| Pork | do | .83 | .77 | Peppers | Dozen | .05 | .06 |
| Chicken | One | .29 | .37 | Ginger | do | .15 | .13 |
| Eggs, hen's | do | .04 | .03 | Amargosa | 100 | 1.04 | 1.16 |
| Eggs, duck's | do | .04 | .05 | Eggplants | do | .71 | .63 |
| Bañgus | do | .42 | .59 | Squash, red | One | .14 | .14 |
| Dalag | do | .38 | .34 | Patola | do | .04 | .04 |
| Hito | do | .15 | .09 | Radishes | Dozen | .12 | .11 |
| Sapsap | 100 | .60 | .71 | Sweet potatoes | 100 | .93 | 1.08 |
| Sardines | do | .90 | 1.22 | Gabe | do | 1.68 | 1.56 |
| White salt | Liter | .07 | .10 | Bananas, Buñgulan | Dozen | .11 | .13 |
| Vinegar | do | .12 | .10 | Bananas, Lacatan | do | .14 | .12 |
| Sugar | Kilogram | .36 | .36 | Bananas, Latundan | do | .11 | .09 |

¹ Liter=0.908 dry quart.² Kilogram=2.2046 pounds.

In Table 3 are reported the average wholesale prices of staple products, for 1913 and for 1925 to 1929, by years.²

¹ Philippine Islands. Department of Commerce and Communications. Bureau of Labor. The activities of the Bureau of Labor. Manila, 1930, pp. 144, 145, and 148.

² Philippine Islands. Department of Commerce and Communications. Bureau of Commerce and Industry. Statistical Bulletin, 1929. Manila, 1930, p. 185.

TABLE 3.—AVERAGE WHOLESALE PRICES OF SPECIFIED PRODUCTS IN THE PHILIPPINES, 1925-1929

| Year | Rice (per cavan) ¹ | Manila hemp (per picul) ² | Sugar (per picul) | Coconut oil (per kilogram) ³ | Copra (per picul) | Tobacco (per quintal) ⁴ | Maguey (per picul) |
|------|-------------------------------|--------------------------------------|-------------------|---|-------------------|------------------------------------|--------------------|
| | <i>Pesos</i> | <i>Pesos</i> | <i>Pesos</i> | <i>Pesos</i> | <i>Pesos</i> | <i>Pesos</i> | <i>Pesos</i> |
| 1913 | 5.34 | 16.02 | 4.79 | 0.03 | 14.31 | 15.90 | 9.13 |
| 1925 | 9.40 | 33.90 | 6.85 | .41 | 13.21 | 18.04 | 16.35 |
| 1926 | 9.32 | 28.56 | 6.46 | .40 | 12.39 | 16.67 | 16.42 |
| 1927 | 7.56 | 28.14 | 7.06 | .35 | 11.37 | 14.83 | 14.05 |
| 1928 | 7.86 | 21.78 | 7.13 | .34 | 11.23 | 12.87 | 12.29 |
| 1929 | 8.90 | 18.37 | 6.25 | .31 | 9.45 | 14.24 | 12.16 |

¹ Cavan=2.13 bushels.² Picul=140 pounds.³ Kilogram=2.2046 pounds.⁴ Quintal=100.

Retail Prices of Clothing in England, 1914 to 1931

IN ITS issue for April, 1931, the English Ministry of Labor Gazette gives some details as to the relative cost of clothing at present compared with prices prevailing in 1914. The cost-of-living figure for working-class families, published monthly, is based on statistics concerning four groups of commodities—food, rents, clothing, and fuel and light. The data as to clothing are secured by sending out forms of inquiry each month to a large number of dealers in the principal towns asking for retail prices of articles of the same general style and quality as were covered by earlier returns. The goods specified are those most generally bought by the working classes, including suits and overcoats (both ready made and made to order), woolen and cotton materials, underclothing, and boots and shoes. When the replies come in, a calculation is made, for each article separately, of the percentage change in price as compared with the returns for the previous month. These percentages are averaged, and the average percentage increase since July, 1914, is calculated by linking up these figures with those obtained for earlier dates. At April 1 the average percentage increases in price for the articles covered since July, 1914, were as follows:

| Article | Per cent of increase |
|---|----------------------|
| 1. Men's suits and overcoats | 70-75 |
| 2. Woolen material for women's outer garments | 125 |
| 3. Woolen underclothing and hosiery | 115 |
| 4. Cotton material for women's outer garments | 155 |
| 5. Cotton underclothing material and hosiery | 105 |
| 6. Boots | 95 |

The final percentage, representing the general increase in the retail prices of clothing, is then computed by averaging the figures for these six groups, those in Groups 2 and 4 being first modified on account of the cost of making up materials (which inquiries have shown to be less than one and a half times as much as in 1914) and the relatively greater importance of Group 1 and the smaller importance of Group 4 being recognized by giving a weight of $1\frac{1}{2}$ to Group 1 and $\frac{1}{2}$ to Group 4, compared with 1 to each of the other four groups. The result of this final averaging shows that the average increase in the retail prices of working-class clothing at April 1, 1931, as compared with July, 1914, was approximately 100 per cent. This increase of 100 per cent corresponds with an increase of 110 per cent at the end of the summer of 1930.

The per cent of increase on April 1, 1931, for the cost of living as a whole and for the separate groups of items entering into it, as compared with 1914, is given as follows:

| | Per cent of increase |
|---------------------|----------------------|
| Rent..... | 54 |
| Clothing..... | 100 |
| Fuel and light..... | 75 |
| Food..... | 29 |
| All items..... | 47 |

No explanation is given of the higher level of clothing prices than of those of the other necessities included in the calculation of the cost of living, but it appears that since the conclusion of the war clothing prices have been consistently high.

Comparison with the level of retail prices of clothing in earlier years is afforded by the figures given below, which represent the average of the percentage increases as compared with July, 1914, at the beginning of each of the 12 months of the respective years:

| | Increase (per cent) | | Increase (per cent) |
|-----------|------------------------|------------------|------------------------|
| 1919..... | 261 | 1926..... | 121 |
| 1920..... | 316 | 1927..... | 114 |
| 1921..... | 203 | 1928..... | 119 |
| 1922..... | 138 | 1929..... | 118 |
| 1923..... | 122.5 | 1930..... | 111 |
| 1924..... | 125 | April, 1931..... | 100 |
| 1925..... | 129 | | |

The percentages given in this article are necessarily only of the nature of approximations, since, owing to the wide range of quotations, both now and before the war, to changes in qualities and in stocks held by retailers, and to the variations in the extent to which different articles and qualities have been affected by price changes, it is not possible to make exact calculations of the average percentage changes in the prices of clothing. Subject, however, to this general qualification, the results of the investigations may be taken to be broadly representative of the general course of prices of the cheaper grades of clothing.

COST OF LIVING

Incomes and Expenditures of Street-Car Men's Families

THE study of the budgets of 98 street-car men's families was undertaken by the University of California Heller committee for research in social economics, in order to ascertain the "spending ways" of a group of semiskilled workers and their dependents.¹ In the judgment of the committee, street-railway men represent workers who stand between the highly skilled topographers of a preceding study² and casual laborers. The detailed estimates of the incomes and expenditures of these 98 San Francisco (East Bay Region) families were secured for the 12 months ending with June, 1925, with the collaboration of the Oakland division of the Amalgamated Association of Street and Electrical Railway Employees.

Attention is called to the fact that street-car employees in general have the advantage of the ordinary low-skilled workers in the matter of steady employment throughout the year. In the families included in the study a majority of the men and their wives were American born. Most of the foreigners were from English-speaking countries, and all of them had been in this country long enough to have families. Their standard of living, therefore, the report declares, may be safely considered as American. The average man and wife in the group covered were between 30 and 40 years of age. The typical family included no adult dependents (other than the wife), no gainfully employed children, and no boarders or lodgers. The average man earned between \$1,600 and \$1,800 per annum, the mean earnings for the group being \$1,658.25, as shown in the following table:

TABLE 1.—INCOME OF FAMILIES OF STREET-CAR MEN

| Source of income | Number of families reporting | Average amount for families reporting | | Average per family for group of 98 | |
|------------------------------|------------------------------|---------------------------------------|------------|------------------------------------|-------------------|
| | | Mean | Median | Mean amount | Per cent of total |
| Man's regular earnings | 98 | \$1,658.25 | \$1,705.12 | \$1,658.25 | 87.9 |
| Other income | 71 | 314.72 | 165.58 | 228.01 | 12.1 |
| Man's supplementary earnings | 14 | 93.17 | 22.80 | 13.31 | .7 |
| Wife's earnings | 16 | 302.34 | 90.00 | 49.36 | 2.6 |
| Children's earnings | 14 | 172.71 | 51.00 | 24.67 | 1.3 |
| Boarders and lodgers | 22 | 295.54 | 280.50 | 66.35 | 3.5 |
| Property | 19 | 183.73 | 84.00 | 35.62 | 1.9 |
| Money gifts | 17 | 29.74 | 15.00 | 5.16 | .3 |
| Sick benefits | 12 | 112.20 | 36.00 | 13.74 | .8 |
| Other | 14 | 138.61 | 42.50 | 19.80 | 1.0 |
| Total | 98 | 1,886.26 | 1,789.55 | 1,886.26 | 100.00 |

As will be noted, in 71 of the 98 families the regular earnings of the husband were increased by income from some other source. These supplements, however, were ordinarily not large. In the typical household the earnings of the husband constituted 90 per cent or more of the total income, and the additional income from all sources was

¹ University of California. Cost of Living Studies IV: Spending Ways of a Semiskilled Group. Berkeley, 1931. (Publication in Economics, vol. 5, No. 5.)

² Peixotto, J. B.: How Workers Spend a Living Wage, University of California Publications in Economics, vol. 5, No. 3, pp. 161-245, Berkeley, 1929. Summarized in Monthly Labor Review, Washington, March, 1930, pp. 204-205.

under \$200. Two-thirds of the wives were reported as earning nothing during the year, and only 15 per cent of the children made contributions to the family exchequer. Moreover, the additions made by two-thirds of these children were less than \$100 each per child. Only one family in five owned income-producing property, and the returns therefrom were generally small.

The accompanying tabulation shows the average expenditures for the various items in the 98 family budgets:

TABLE 2.—AVERAGE EXPENDITURE FOR SPECIFIED ITEMS OF FAMILY BUDGETS, JUNE, 1924, TO JUNE, 1925

| Items of expenditure | Number of families reporting | Expenditure | | | |
|--------------------------------|------------------------------|-------------|----------|----------|--------|
| | | Amount | | Per cent | |
| | | Mean | Median | Mean | Median |
| Food..... | 98 | \$789.80 | \$780.00 | 38.0 | 38.0 |
| Clothing..... | 98 | 239.32 | 215.85 | 11.2 | 10.6 |
| Shelter..... | 98 | 373.19 | 337.60 | 17.9 | 17.6 |
| House operation..... | 98 | 145.35 | 136.65 | 7.0 | 6.7 |
| Furniture and furnishings..... | 96 | 75.87 | 50.05 | 3.6 | 2.4 |
| Miscellaneous..... | 98 | 487.42 | 426.68 | 22.4 | 21.1 |
| Automobiles..... | 29 | 188.73 | 88.09 | 8.0 | 4.5 |
| Investment and savings..... | 95 | 113.95 | 74.28 | 5.2 | 3.4 |
| Medical care..... | 93 | 91.56 | 67.00 | 4.3 | 3.2 |
| Recreation..... | 94 | 67.15 | 32.87 | 3.0 | 1.6 |
| Dependents..... | 6 | 67.00 | 58.00 | 3.0 | 2.4 |
| Incidentals..... | 98 | 56.86 | 33.85 | 2.6 | 1.8 |
| Associations..... | 98 | 32.88 | 26.10 | 1.6 | 1.2 |
| Gifts..... | 89 | 28.69 | 21.00 | 1.4 | 1.0 |
| Tobacco..... | 62 | 27.80 | 26.00 | 1.4 | 1.1 |
| Education..... | 91 | 25.20 | 13.00 | 1.2 | .6 |
| Church..... | 55 | 11.80 | 10.40 | .6 | .5 |
| Bicycles..... | 4 | 8.66 | 9.75 | .4 | .4 |
| Charity..... | 83 | 2.29 | 1.00 | .1 | .1 |
| Total..... | 98 | 2,109.40 | 2,059.79 | 100.0 | 100.0 |

The expenditures reported for the average family during the year exceeded the average income. In at least 40 per cent of the households there was a deficit met by recourse to savings or occasionally by borrowing. The remaining discrepancy may be accounted for by the ordinary tendency to overestimate expenses in a study of this kind.

The heaviest expense in budgets of wage earners with incomes similar to those of the street-car men is food. In these families it averaged 38 per cent of the total expenditures and sometimes was more than 50 per cent. The average expenditure of 69 cents a day per equivalent adult male is reported as an indication that the families were well fed. Indeed, 90 per cent of the families were found to be above standard on food allowances.

On the other hand, clothing showed the results of compulsory economies. The average amount spent for this item of the budget by these families was found to be always less than the estimated necessary expenditures in 1925 for San Francisco families of various sizes living at a standard of health and comfort.

Housing conditions on the whole were good, thanks to the suburban conditions of the East Bay region—no tenements and an abundance of cheap, modern cottages for sale on "easy payment" plans. Half of the families owned their homes; 70 per cent of these were still paying off mortgages. Ninety-seven of the 98 families had modern bathrooms. All but one-sixth of the families lived in separate dwellings. Two-thirds of them met or exceeded the standard requirement of one room per person. Housing costs varied widely according to whether

the family owned its house clear, was paying installments, or was renting. The most common rentals were between \$20 and \$30 a month.

The principal house-operation expense was light and fuel, which averaged approximately \$6 per month. Expenditure for telephones was reported by only 34 families and a number of these shared this convenience with another family. In the year under review ice was purchased by only 12 families out of the 98 and this was done only in cases of illness.

The entire burden of the housework was borne by the wives. In 40 families there was no laundry given out for the 12 months covered, and only 15 of the 98 families expended enough in this connection to pay laundry charges for the regular weekly heavy flat work of the household. Only 7 of the 98 families reported anything for service even in childbirth cases. The chief reliance in times of sickness was on relatives and neighbors.

The heavy proportion of the income spent for bare necessities brought down to about 22 per cent of the income, the amount available for the miscellaneous group of expenses. Automobiles cost more than any other item in the miscellaneous group, but only 26 families owned such machines. Investments, medical care, and recreation taken together constituted a mean expenditure of 12.5 per cent of the family budget. The usual investments were a life-insurance policy of \$2,500 or less, savings of some kind, one share of company stock, union sickness insurance, or insurance in a mutual benefit association which included premiums in the dues. The wages of these men did not allow of actual provision for the future, but each man hoped to leave his family a house, a small savings account, and sufficient insurance to bury him and tide his dependents over a year or two.

The average expense for medical care was between \$65 and \$100 a year—not enough to provide adequately for dental and preventive attention. Few families had recourse to free clinics and hospitals. The monthly expenditure of the average family on commercial amusement, ordinarily the movies, was from \$2 to \$3. Under their wage agreement the carmen were entitled to take a vacation of two weeks without pay, but only 24 families could afford to go out of town. Every man, of course, paid his monthly union dues, which amounted to \$1.50. Membership in other organizations, principally mutual benefit associations, was reported by 59 families. Carfare and barbers' fees, which were listed under incidentals, averaged respectively about \$1.50 and \$1 per month. The usual contribution to charity was \$1 a year, while the contributions to church, although constituting a slightly higher percentage of the family budget, were reported by fewer families. Only six families stated that they made allowances to outside dependents, but the amounts were quite substantial. Occasional budgets included expenditures for moving, legal fees, and funerals.

Briefly, the "average" street-car man's family had enough to eat and was comfortably housed. It could not be described as suffering from want. On the other hand, the income was not sufficient to provide for the rising standard of dress, especially for children in school, to free the wife from the heaviest house-keeping burdens, to pay for adequate medical care, or to make adequate provision for old age or for the husband's death. Such a generalization, of course, applies only to the "average" family. In the group of 98 there were cases of undernourishment, overcrowding, overwork, a burden of debt, and—surest sign

of poverty—the removal of children from high school to go to work. To be comfortable, the family must be small and healthy, and the wife must be a good manager. One man summed up the situation by the comment that “if Mrs. B. was not such a good mother, cook, seamstress, doctor, barber, and laundress, we could never make ends meet.”

At the close of each visit the investigator asked the family how it would use an increase in income. Among the wants cited were medical attention, payments on a home, savings, more insurance, a vacation for the overworked father or for sickly children, furniture for greater comfort or because it was necessary, enough cash to obviate buying on the installment plan with its high interest rates, and money to settle old bills. Occasionally a desire was expressed for a higher living standard involving more clothes, more recreation, an automobile, music lessons for the children, and an opportunity to raise them into another class.

Aside from the inability to make provision against old age and death, the outstanding hardship of these families, according to the report, was inadequate medical care. Their income and possibly their pride barred them from attending free clinics, but at least 50 per cent of these families needed medical attention for which they were unable to raise the money. It was necessary for children to have their tonsils and adenoids removed, for wives to undergo operations, for a tubercular child to be sent to the mountains, for a wife to have major dental work done, and for a husband's teeth to be extracted, but the family purse could not stand the strain. A birth, as a rule, used up the savings of a year, and a slight illness, particularly of the breadwinner, resulted in debt for years.

Cost of Living in the Philippines, 1929

THE cost of living for skilled and unskilled workers in Manila and six other towns in the Philippines in 1929 is shown in the following table, compiled from the report of the Governor General of the islands for that year:

AVERAGE COST OF LIVING PER DAY IN SPECIFIED CITIES AND TOWNS IN THE PHILIPPINES, 1929¹

[One peso=about 50 cents in U. S. currency]

| City or town | Skilled | | Common | |
|------------------------|--------------|--------------|--------------|--------------|
| | Single | Married | Single | Married |
| | <i>Pesos</i> | <i>Pesos</i> | <i>Pesos</i> | <i>Pesos</i> |
| Cebu..... | 1.31 | 2.82 | 0.85 | 2.11 |
| Cotabato..... | 1.34 | 2.69 | .94 | 2.35 |
| Iloilo..... | 1.23 | 2.37 | 1.07 | 2.25 |
| La Union..... | 1.23 | 2.53 | .94 | 2.01 |
| Legaspi..... | 1.40 | 2.53 | 1.10 | 2.16 |
| Manila, city of..... | 1.57 | 2.84 | 1.50 | 2.17 |
| Mindoro..... | 1.28 | 2.51 | 1.08 | 1.92 |
| Occidental Negros..... | 1.29 | 2.88 | .96 | 2.13 |
| Oriental Negros..... | 1.04 | 2.39 | .97 | 1.82 |
| Average, 1929..... | 1.30 | 2.62 | 1.05 | 2.10 |
| Average, 1928..... | 1.14 | 2.32 | .92 | 1.79 |

¹ Estimated by deputies of the Philippine Bureau of Labor.

It will be noted that the average cost of living was considerably higher in 1929 than in the preceding year. This is reported as due principally to generally higher prices of rice. Other items of the family budget showed slight changes.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for March, 1931

By J. J. KUNNA, CHIEF STATISTICIAN UNITED STATES BUREAU OF IMMIGRATION

THE monthly statistics for March, 1931, show an increase in the inward movement of both aliens and citizens as compared with the previous month. In March, 16,344 aliens were admitted to the United States and 34,861 American citizens returned, as against 12,212 and 27,508, respectively, for February.

During March, 597 aliens were refused admission to the United States, 509 having been turned back at points along the Canadian and the Mexican borders and 88 at the seaports of entry. Of the latter number only 48 were rejected at New York, at which port nearly four-fifths of the aliens from overseas landed. About 5 out of every 1,000 alien applicants for admission at New York this month were denied admission.

Undesirable aliens deported from the United States numbered 1,726 for the month of March, 1931. The average number of deportations for the nine months ended March 31, 1931, was 1,440, compared with 1,354 for the same months a year ago. Of the 1,726 aliens deported during March last, 674 were sent to Mexico, 172 to Canada, 790 to European countries, principally Great Britain, Scandinavia, Germany, Yugoslavia, Poland, and Italy; 32 to China and other Asiatic countries; and 58 to other countries. Over one-third of these March deportees came from Mexico, 678 having entered the United States via the southern land border, while 493 crossed via the Canadian border; 438 landed at Atlantic seaports, 78 at Gulf of Mexico ports, and 39 at Pacific ports. Nearly three-fourths of the deportees who entered the country at Atlantic ports came in via New York, 327 landing at that port. The same port saw the departure of 712 of the March deportees; and of the remainder, 86 left from other points along the Atlantic, 77 departed from Gulf of Mexico ports, 149 from Pacific ports, and 702 departed to Canada or Mexico over the international land borders.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1930, TO MARCH 31, 1931

| Period | Inward | | | | | Aliens de- barred from enter- ing ¹ | Outward | | | | | Aliens de- ported after land- ing ² |
|----------------|-----------------|---------------|---------|--------------------------------|---------|---|-----------------|--------------|---------|--------------------------------------|---------|---|
| | Aliens admitted | | | United States citizens arrived | Total | | Aliens departed | | | United States citizens de- parted | Total | |
| | Immigrant | Non-immigrant | Total | | | | Emigrant | Non-emigrant | Total | | | |
| 1930 | | | | | | | | | | | | |
| July..... | 13,323 | 16,466 | 29,789 | 38,822 | 68,611 | 881 | 4,818 | 22,588 | 27,406 | 55,366 | 82,772 | 1,440 |
| August..... | 14,816 | 19,724 | 34,540 | 69,957 | 104,497 | 837 | 5,245 | 29,166 | 34,411 | 88,372 | 122,783 | 1,208 |
| September..... | 17,792 | 29,359 | 47,151 | 80,900 | 128,051 | 929 | 5,100 | 24,604 | 29,704 | 56,526 | 86,230 | 1,552 |
| October..... | 13,942 | 23,304 | 37,246 | 40,702 | 77,948 | 854 | 5,352 | 22,938 | 28,290 | 32,988 | 61,278 | 1,526 |
| November..... | 9,209 | 13,032 | 22,241 | 22,381 | 44,622 | 734 | 4,951 | 19,285 | 24,236 | 24,420 | 48,656 | 1,405 |
| December..... | 6,439 | 9,939 | 16,378 | 28,535 | 44,913 | 806 | 5,450 | 17,603 | 23,053 | 21,140 | 44,193 | 1,377 |
| 1931 | | | | | | | | | | | | |
| January..... | 4,091 | 8,724 | 12,815 | 19,844 | 32,659 | 693 | 4,397 | 17,169 | 21,566 | 24,885 | 46,451 | 1,517 |
| February..... | 3,147 | 9,065 | 12,212 | 27,508 | 39,720 | 689 | 4,720 | 16,170 | 20,890 | 33,172 | 54,062 | 1,210 |
| March..... | 3,577 | 12,767 | 16,344 | 34,861 | 51,205 | 597 | 4,693 | 12,751 | 17,444 | 32,278 | 49,722 | 1,726 |
| Total... | 86,336 | 142,380 | 228,716 | 363,510 | 592,226 | 7,020 | 44,726 | 182,274 | 227,000 | 369,147 | 596,147 | 12,961 |

¹ These aliens are not included among arrivals, as they were not permitted to enter the United States.

² These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

Migration of Philippine Labor to Hawaii, 1925 to 1929

THE accompanying table shows the migration of Filipinos to and from Hawaii for five years, 1925 to 1929.¹

FILIPINO EMIGRANTS GOING TO AND RETURNING FROM HAWAII, 1925 TO 1929

| Year | Going to Hawaii | | | | Returning from Hawaii | | | |
|------------|-----------------|-------|--------|--------|-----------------------|-------|--------|--------|
| | Men | Women | Minors | Total | Men | Women | Minors | Total |
| 1925..... | 6,104 | 256 | 159 | 6,519 | 2,183 | 264 | 307 | 2,754 |
| 1926..... | 2,977 | 160 | 219 | 3,356 | 2,562 | 348 | 480 | 3,390 |
| 1927..... | 9,784 | 120 | 170 | 10,074 | 2,410 | 510 | 645 | 3,565 |
| 1928..... | 9,026 | 153 | 143 | 9,322 | 3,968 | 379 | 492 | 4,839 |
| 1929..... | 8,189 | 134 | 46 | 8,369 | 3,402 | 241 | 348 | 3,991 |
| Total..... | 36,080 | 823 | 737 | 37,640 | 14,525 | 1,742 | 2,272 | 18,539 |

¹ Philippine Islands. Department of Commerce and Communications. Bureau of Commerce and Industry. Statistical bulletin, 1929. Manila, 1930, p. 78.

PUBLICATIONS RELATING TO LABOR

Official—United States

COLORADO.—Coal Mine Inspection Department. *Eighteenth annual report, 1930. Denver, 1931. 56 pp.; folder.*

Includes data on fatal and nonfatal accidents, number of employees, and production, and a directory of the coal mines of the State showing type of mine, ventilation, etc.

MARYLAND.—Industrial Accident Commission. *Sixteenth annual report, for the year November 1, 1929, to October 31, 1930. Baltimore, [1931?]. 44 pp.*

Data taken from this report, showing the operations of the State workmen's compensation act, are given in this issue.

MISSOURI.—Board for Vocational Education. *Bulletin No. 22: Report [for the period] beginning July 1, 1928, and ending June 30, 1930. Jefferson City, 1930. 81 pp.; folders, maps, charts, illus.*

Evening schools for adult farmers are reported as an outstanding feature in the vocational education program of Missouri, the classes "last year" having a total enrollment of 4,381, of whom 2,933 were men and 1,448, women.

NEVADA.—Commissioner of Labor. *Biennial report, 1929-1930. Carson City, 1931. 38 pp.*

Data from this report, relating to wages in mining camps and activities of fee-charging employment agencies, are given in this issue.

NEW JERSEY.—Commission to Investigate the Employment of Migratory Children in the State of New Jersey. *Report. Trenton, 1931. 131 pp.; maps, illus.*

Reviewed in this issue.

NEW YORK.—Committee on Stabilization of Industry for the Prevention of Unemployment. *Less unemployment through stabilization of operations: Report to Governor, November, 1930. Albany, [1931?]. 96 pp., charts.*

Part I of this report was summarized in the January, 1931, issue of the Labor Review. Part II gives in some detail the experience of various firms in grappling with seasonal fluctuations in employment.

OREGON.—Emergency Employment Commission. *Unemployment in Oregon. Salem, 1931. 31 pp.*

PENNSYLVANIA.—Department of Labor and Industry. *Special Bulletin No. 5: Laws administered by the Department of Labor and Industry. Harrisburg, 1930. 174 pp.*

A revision of the pamphlet entitled "Labor Laws" issued by the Pennsylvania department in 1925. The present bulletin contains all amendments and new legislation passed by the State legislature in 1927 and 1929.

— — — *Special Bulletin No. 32: Union scale of wages and hours of labor, 1928-1929. Issued by the Bureau of Statistics. Harrisburg, 1931. 126 pp.*

PHILIPPINE ISLANDS.—Department of Commerce and Communications. Bureau of Commerce and Industry. *Statistical Bulletin of the Philippine Islands, 1929. Manila, 1930. 239 pp., charts.*

Data from this report, relating to accidents, labor disputes, hours of labor in Manila, salaries in the civil service, and migration of Philippine labor to Hawaii, are given in this issue.

PHILIPPINE ISLANDS.—Governor General. *Annual report, 1929*. Washington, 1931. 257 pp. (House Doc. No. 665, 71st U. S. Cong., 3d sess.)

Includes the reports of the heads of departments of the Philippine government for the calendar year 1929. Data from the report of the Philippine Bureau of Labor relating to cost of living, factory inspection, and woman and child labor, are given in this issue of the review.

TEXAS.—Industrial Accident Board. *Report, from September 1, 1928, to August 31, 1930*. [Austin, 1930?] 7 pp., mimeographed.

Reviewed in this issue.

UTAH.—Industrial Commission. [Biennial report, July 1, 1928, to June 30, 1930.] *Bulletin No. 4: Reports of the mine, factory, and labor inspectors and of the wage collection department*. [Salt Lake City, 1930?] 171 pp.

Data relating to wages of miners and wage collections, taken from this publication, are given in this issue.

WISCONSIN.—Industrial Commission. *Biennial report, 1928–1930*. Madison, 1931. 55 pp.

The commission reports that the legislature has taken note of the fact that certain types of agricultural work, such as the harvesting of sugar beets, cherries, and cranberries, have become specialized in form, taking on many of the characteristics of factory work. Accordingly, the industrialized agriculture law was passed, empowering the commission to regulate conditions under which children may be employed in such work. Under the terms of this law the commission has passed orders regulating the employment of children in sugar-beet fields.

The State-controlled apprenticeship system has been carried on along its usual lines. On August 1, 1930, there were 3,350 live apprenticeship contracts on file. During the two years covered by the report, 1,420 new indentures were entered into and 654 apprentices received diplomas, indicating the accomplishment of an apprenticeship averaging four years.

"Since 1915, when the present apprenticeship law was adopted, a total of 2,567 indentured apprentices completed their terms of training."

WYOMING.—Workmen's Compensation Department. *Fourteenth report, January 1 to December 31, 1929*. *Fourth report, Coal Mine Catastrophe Insurance Premium Fund*; *Seventh report, Wyoming Peace Officers' Indemnity Fund*. Sheridan, 1930. 156 pp.

Reviewed in this issue.

UNITED STATES.—Congress. Senate. *Document No. 309 (71st Cong., 3d sess.): Vocational education in the United States. The program of cooperation of the Federal Government with the States in vocational education and vocational rehabilitation of the disabled*. Washington, 1931. 30 pp.

This report is based upon the researches of the Federal Board for Vocational Education and the President's Emergency Committee for Employment.

— — — — *Report No. 1264 (71st Cong., 3d sess.): Drought relief and unemployment—LaFollette resolution*. Washington, 1931. 152 pp.

— — — — *Report No. 1519 (71st Cong., 3d sess.): Incorporation of credit unions in the District of Columbia*. Washington, 1931. 9 pp.

— — — — *Committee on Education and Labor. Vocational education. Hearing on S. 3969 (71st Cong., 3d sess.), January 7, 1931*. Washington, 1931. 52 pp.

— — — — *Committee on the District of Columbia. Credit unions and small loans. Hearings on S. 4775 and S. 5629. (71st Cong., 3d sess.), January 23, 1931*. Washington, 1931. 74 pp.

— — — — *Department of Agriculture. Circular No. 159: Extension work in cooperative marketing, by B. B. Derrick*. Washington, 1931. 39 pp.

- UNITED STATES.—Department of Commerce. *Institutional construction—an avenue to employment. A series of radio addresses by national leaders on the construction, repair, and improvement of churches, schools, colleges, universities, hospitals, and similar institutions, given under the auspices of the President's Emergency Committee for Employment.* Washington, 1931. 20 pp.
- — — *Policies and practices for the stabilization of employment in retail establishments. Prepared for the President's Emergency Committee for Employment.* Washington, 1931. 6 pp.
- Reproduced in this issue.
- Department of Labor. Bureau of Labor Statistics. *Bulletin No. 534: Labor conditions in the Territory of Hawaii, 1929-1930.* Washington, 1931. 129 pp.
- — — Women's Bureau. *Bulletin No. 83: Fluctuation of employment in the radio industry, by Caroline Manning.* Washington, 1931. 63 pp., charts.
- Reviewed in this issue.
- Federal Board for Vocational Education. *Directory of trade and industrial schools.* Washington, 1930. 370 pp.
- Includes all trade and industrial schools in the United States which were federally aided in the year ending June 30, 1929.
- Federal Farm Board. *Bulletin No. 6: Cooperation in Agriculture—a selected and annotated bibliography with special reference to marketing, purchasing, and credit.* Washington, 1931. 113 pp.

Official—Foreign Countries

- AUSTRALIA.—Bureau of Census and Statistics. *Official yearbook of the Commonwealth of Australia, No. 23, 1930.* Melbourne, [1931?]. xxxii, 805 pp.; maps, charts.
- Includes statistics on retail and wholesale prices, wages, hours of labor, production, employment, industrial disputes, workers' and employers' organizations, and child labor.
- CANADA.—Department of Labor. *Twentieth annual report on labor organization in Canada (for the calendar year 1930).* Ottawa, 1931. 254 pp.
- Data from this publication, relating to membership of labor organizations, trade-union benefits, and labor journals, are given in this issue.
- GREAT BRITAIN.—Ministry of Labor. *Twentieth abstract of labor statistics of the United Kingdom.* London, 1931. 205 pp. (Cmd. 3831.)
- Includes statistics on employment, unemployment, and unemployment insurance; wages and hours of labor; profit sharing and copartnership; wholesale and retail prices and cost of living; strikes and lockouts; trade-unions and federations; cooperative societies, friendly societies, and building societies; national health insurance; old-age pensions; industrial accidents and diseases, and workmen's compensation; poor-law relief; migration; and cost of buildings.
- GREATER SHANGHAI.—Bureau of Social Affairs. *Industrial disputes (not including strikes and lockouts), Greater Shanghai, 1929.* Greater Shanghai [1930?]. Various paging. (In Chinese and English.)
- The chief matters in dispute in the 372 cases covered in this report were, in order of importance, hiring and dismissal, collective agreement, suspension of business and closing down of establishments, and wages.
- INTERNATIONAL LABOR OFFICE.—*Studies and Reports, Series D (wages and hours of work), No. 19: Wages and regulation of conditions of labor in the U. S. S. R., by S. Zagorsky.* Geneva, 1930. 212 pp.
- OSLO (NORWAY).—Statistiske Kontor. *Statistisk årbok for Oslo by., 1930.* Oslo, 1931. 109 pp.
- Contains statistics relating to various conditions and affairs of the city of Oslo during 1930, including public health, occupations, cost of living, wages, employment, and unemployment.

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SWEDEN.—Kommerskollegium. *Industri berättelse för år 1929*. Stockholm, 1931. 102 pp.

Contains a summary review of the industrial developments in Sweden during 1929, including employment in various industries and their branches.

— [Socialdepartementet.] Socialstyrelsen. *Kooperativ verksamhet i Sverige, år 1928*. Stockholm, 1930. [Various paging.]

Detailed statistics of the consumers', milk distribution, restaurant, and workers' productive societies. There is a résumé in French, as well as an explanation, in that language, of the tabular matter.

Unofficial

AMERICAN LABOR YEAR BOOK, 1931. *By the Labor Research Department of the Rand School of Social Science*. Vol. XII. New York, Rand School Press, 1931. 337 pp.

AMERICAN MANAGEMENT ASSOCIATION. *Personnel Series 12: Methods of minimizing the effect of business depression on the working forces*, by Ernest G. Draper and Eleanor H. Park. New York, 20 Vesey Street, 1931. 30 pp.

CALIFORNIA, UNIVERSITY OF. Heller Committee for Research in Social Economics. *Cost of Living Studies, IV: Spending ways of a semiskilled group. A study of the incomes of 98 street-car men's families in the San Francisco Bay region*. Berkeley, Calif., 1931. (University of California Publications in Economics, vol. 5, No. 5, pp. 295-366.)

Reviewed in this issue.

CALLCOTT, MARY STEVENSON. *Child labor legislation in New York: The historical development and the administrative practices of child labor laws in the State of New York, 1905-1930*. New York, Macmillan Co., 1931. 267 pp. (American Social Progress Series.)

CARMAN, HARRY J. *Social and economic history of the United States. I. From handicraft to factory, 1500 to 1820*. Boston, New York, etc., D. C. Heath & Co., 1930. 616 pp.; maps, charts, illus.

COLLMAN, CHARLES ALBERT. *Our mysterious panics, 1830-1930: A story of events and the men involved*. New York, William Morrow & Co., 1931. 310 pp.

DE MICHELIS, GIUSEPPE. *La disoccupazione operaia: Una migliore distribuzione della popolazione della terra e dei capitali*. Rome, Carlo Columbo, 1931. 28 pp.

Remarks on unemployment by the author at the meeting of the International Labor Office, at Geneva, January 27 and 31, 1931.

FAMILY WELFARE ASSOCIATION OF AMERICA. *The administration of relief in unemployment emergencies, compiled by Margaret E. Rich*. New York, 130 East Twenty-second Street, 1931. 28 pp.

— *Care of the homeless in unemployment emergencies: Suggestions for a community program, compiled by Harriet E. Anderson and Margaret E. Rich*. New York, 130 East Twenty-second Street [1931?]. 29 pp.

GENEVA RESEARCH INFORMATION COMMITTEE. *Geneva Special Studies, Vol. II, No. 3, March, 1931: Unemployment as an international problem*. Geneva, 4 Rue de Monthoux, 1931. 30 pp.

GOVERNMENTAL RESEARCH ASSOCIATION. *Proceedings, nineteenth annual meeting, Cleveland, Ohio, November 10-12, 1930*. New York City, 261 Broadway, [1931?]. 102 pp.

The subjects of the addresses included the Cincinnati plan for relieving unemployment, pensions and retirement systems, and personnel administration.

HEINRICH, H. W. *Industrial accident prevention—a scientific approach*. New York and London, McGraw-Hill Book Co., 1931. 366 pp.

Reviewed in this issue.

JOHNSON, ALBERT A. *Past, present, future progress in the Soviet Union [the former Russian Empire]*. Springfield, Mass., 1931. 52 charts.

The subjects covered in this volume, composed entirely of charts, include wages, employment, unemployment relief, and production in various industries.

NATIONAL CONFERENCE ON CITY PLANNING. *Planning problems of town, city, and region. Papers and discussions at the twenty-second national conference on city planning, held at Denver, Colo., June 23-26, 1930*. Philadelphia, Wm. F. Fell Co., 1930. 239 pp.

NATIONAL INDUSTRIAL CONFERENCE BOARD (INC.). *A picture of world economic conditions at the beginning of 1931*. New York, 247 Park Avenue, 1931. 350 pp.

Contains a general review of the recent economic conditions and tendencies, including those pertaining to labor, in various countries at the beginning of 1931.

NATIONAL SAFETY COUNCIL. *Industrial accident statistics, 1930 edition*. Chicago, 1930. 91 pp., charts.

Data on the accident experience of establishments reporting to the National Safety Council, taken from this publication, are given in this issue of the Labor Review.

NATIONAL URBAN LEAGUE. Department of Industrial Relations. *How unemployment affects negroes. A statement covering principal cities in the Nation and based upon information supplied by persons in daily contact with employment problems*. New York, 1133 Broadway, 1931. 41 pp., mimeographed.

Reviewed in this issue.

PAGE, KIRBY. *A new economic order*. New York, Harcourt, Brace & Co., 1930. 387 pp.

RUSSELL SAGE FOUNDATION. *Salaries and vacations in family case work in 1929, by Ralph G. Hurlin*. New York, 1930. 24 pp.

Reviewed in this issue.

THOMAS, NORMAN. *America's way out—a program for democracy*. New York, Macmillan Co., 1931. 324 pp.

VERBAND SCHWEIZ. KONSUMVEREINE (V. S. K.), BASEL. *Rapports et comptes sur l'activité des organes de l'union en 1930*. Basel, 1931. 108 pp.

Detailed report of the 1930 activities of the Swiss Cooperative Union and its constituent societies.

VITELES, MORRIS S. *Psychology in industry*. New York, Personnel Research Federation, 29 West Thirty-Ninth Street, Reprint and Circular Series No. 22. (Reprinted from *The Psychological Bulletin*, vol. 27, No. 8, October, 1930, pp. 567-635.)

Reviews publications in the specified field appearing from January 1, 1927, to June 30, 1930, inclusive. An extended bibliography is appended.

VOCATIONAL SERVICE FOR JUNIORS. *Opportunities for vocational training in New York City*. New York, 122 East Twenty-fifth Street, September, 1930. 96 pp.

As this directory (fifth edition) was compiled primarily for the use of young persons over 14 years of age, vocational courses in junior high schools have not been included.

YALE UNIVERSITY. *Bulletin, Twenty-seventh Series, No. 14: Institute of Human Relations*. New Haven, April 1, 1931. 59 pp.

According to this report on the research activities of the institute, its industrial studies for some years to come are to be concentrated around a "total science" investigation of the human problems resulting from the introduction of labor-saving methods or machinery.

