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# WAGES IN THE UNITED STATES <br> 1914-1926 

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# WAGES IN THE UNITED STATES, 1914-1926 



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## FOREWORD

THE present volume is the fourteenth publication of the National Industrial Conference Board dealing with the trend of wages, hours of work and employmentin American industry. These studies have been progressively extended in scope until, in their present form, they afford a general picture of wage conditions and movements in all the more important occupational fields. To the basic results of its continuous investigation of wage conditions in the major branches of manufacturing industry there have been added the results of its studies of wages in gas and electric plants, railroad transportation, building construction and in agriculture. A survey of salaries of clerical workers in industrial and commercial occupations in the larger cities of the United States was made in 1926, but has been published in a separate volume. Chiefly because of the stability of wages in anthracite mining, under the agreement concluded early in 1926 as the result of a strike, it has not been thought necessary to include in the present volume the information on wages in that field, which appeared in the last preceding volume on wages and which remained practically unchanged during 1926.

In the text of the present volume somewhat more attention than heretofore has been given to the relation of the wage situation during 1926 to the business and industrial conditions in the various fields during that year. Despite the extraordinary stability of wage levels during 1926, the situation has by no means been devoid of interest and significance from the point of view of the business executive or the student of economic problems. In fact, the very stability and relatively high level of wages in face of declining prices and fluctuations in industrial activity has made the American wage situation a matter of extraordinary interest and speculation both among domestic and foreign observers. The year 1926 from this point of view may, in the course of time, be considered retrospectively as a year of especial moment in

American economic history, if it should be followed by wide changes in business and industrial conditions. For this reason it is believed that the trend of wages in recent years and the situation in 1926 will be found worthy of special study.

This volume is the result of an investigation conducted by Mr. H. F. Browne and assistants, of the Conference Board's Research Staff, under the supervision of the Board's Staff Economic Council.

In the preparation of its studies, the National Industrial Conference Board avails itself of the experience and judgment of the business executives who compose its membership and of recognized authorities in special fields, in addition to the scientific knowledge and equipment of its Research Staff. The publications of the Board thus finally represent the result of scientific investigation and broad business experience and the conclusions expressed therein are those of the Conference Board as a body.

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## WAGES IN THE UNITED STATES

## CHAPTER I

## GENERAL WAGE SITUATION IN 1926

THE relative stability of wage scales that has been evident since 1923 has undoubtedly been an important factor in the generally satisfactory business conditions which have obtained during the past two or more years. While experience has shown that wages have rarely maintained a uniform level for any considerable period, but have shown a persistent tendency to move upward "in the long run," there have been periods of longer or shorter duration in which the movement has been relatively insignificant, when wages, for all practical purposes, may be said to have been stabilized. This condition may exist in spite of maladjustments in certain fields which permit wages of certain groups to be out of line with the average, or to move contrary to the predominant tendency.

## Wage Stability

The effect of this wage stability during the past three years has been two-fold. On the one hand, the absence of drastic wage changes has permitted industry to carry on its production free from the unsettling influence of suddenly increased costs or labor controversies, while on the other hand the wage earner, with income made regular by sustained wage rates and steady employment, has provided a large and dependable market for manufactured goods. This combination of equable employment relations and sustained buying power has done much to keep American industry upon an even keel.

In consequence, apart from the more spectacular wage disagreements in the anthracite coal field and in certain building centers, wages have tended to drop into the background of
economic discussion, and comment upon them has been more common among foreign visitors, who marvel that profits can be maintained in the face of such high wages, than among local observers. The diminished prominence of the wage question does not, however, in any way detract from its importance as a fundamental factor both in the condition of business enterprise and as one of the two factors which determine the economic welfare of the vast wage-earning population.

## New Factors in the Wage Problem

The status of the wage question itself is undergoing a gradual evolution. Formerly the wage was looked upon as the sole source of income of the industrial worker. The amount in his pay envelope was assumed to measure his ability to meet the requirements of prevailing standards of living for himself and his family. The worker's wage and his income were taken to be synonymous. To a large extent this condition still exists, but it is not so universal as to be accepted without some qualification. How far it has been modified by developments in the field of industrial relations activities, which have provided indirect benefits for the wage earner, is a moot question, but some of these services to the employee appear to have relieved him of incidental expenses or enlarged his ability to get some of the good things of life, and by so much have, in reality, increased the value of his wage or supplemented it in inconspicuous but none the less tangible ways.

## Wage Supplements

For example, there is a growing prevalence of bonuses based upon production, quality, attendance, promptness, long service or other such standards which place within reach of the worker additional money compensation if he applies himself to qualify for it. Other sources of financial income are offered by many companies in such forms as profit sharing, stock subscription under favorable terms, pensions, or health, accident, life and, in some cases, unemployment insurance, which furnish the employee an opportunity to provide in a systematic way for the future of his family. Other indirect
benefits may take the form of cooperative purchasing plans, a notable example of which has recently been provided by the Ford Motor Company, which enabled the employees of that company and others to purchase at such reduced prices as seriously to menace the business of local dealers. In some sections, and particularly in certain industries, it is a common practice to provide housing, either free or at less than prevailing rentals, and special services, such as the supply of wholesome food at cost during lunch periods or medical and dental care free or at cost, are not uncommon. The actual financial value of any one of these benefits may be small in itself, but the cumulative effect of a number of them is likely to result in a saving which the wage earner himself may not realize, but which constitutes a substantial addition to his income.

## Regularity of Employment

The actual money wage may in another way fall short of reflecting the economic well being of the wage earner, particularly when comparisons are made between present wage levels and those of the past. Through careful analysis of product, process and markets, the seasonality of certain types of operations has been tempered, and in some instances almost eliminated. While the wage per unit of time or product may be unchanged, the position of the wage earner is much improved if he can look forward with reasonable certainty to fairly steady employment. After all, it is his earnings for the entire year, which determine whether he is waging a winning or a losing battle with the cost of living, and not his rate of pay. As some one has put it, the worker is sometimes out of a job, but his cost of living is never unemployed.

## Change in Employers' Attitude

Another factor in the changed character of the wage problem is the modified attitude of employers toward wage adjustments. A stubborn and unresponsive market, sharp competition or a declining price level have always been taken as an invitation to reduce costs, if possible. Until the last decade the wage cost seemed the most obvious point at which to effect substantial savings, and consequently a reduction in prices usually called for a reduction in wages. The depres-
sion of 1920-21 brought home to many employers the doub ful economic wisdom of cutting wages except as a last resor because the general wage deflation at that time paralyze the domestic market. Consequently, though wages were on the first point of attack upon high costs, they have becon practically the last, and savings have been effected inste: through the greater application of inventive genius and pow to the processes of manufacture, through standardizatic of product and simplification of distributive machinery. ] other words, better management has, where possible, take up the slack and effected necessary economies without inte fering with wage levels in any serious way. Of course, wa! adjustments become necessary or advisable from time to tim but industry appears to have departed from the practic prevalent during the chaotic war and post-war years, raising or lowering wage scales in establishments througho an entire industry almost simultaneously and in a drast way. Such departures from the accepted wage level as hav occurred during recent years, with few exceptions, have bee the result of individual plant action, dictated by circun stances obtaining in that particular establishment or localit: and have not reflected a general policy for the industry as whole.

## Wage Levels and Industrial Activity

The remarkable consistency with which wage levells hav been sustained over the past three years is strikingly brough out in Charts 1 to 6 , which trace the course of average hourl earnings, employment and productive activity for selecte manufacturing industries and Class I railroads over the seve year period, 1920 through 1926. For example, Chart 1, cove ing the automobile industry, illustrates the highly season: character of the industry, with the production of trucks an passenger cars mounting to heights in the spring and fall, an descending to depths in summer and winter. This instabilit is pronounced in each year, but is accelerated or retarded as cording to the condition of general business. From the clos of 1923 on, however, hourly earnings have held to the eve tenor of their way, only casually influenced by the variation in activity in the industry. Employment has shown itse
more responsive to business conditions, and yet an increase in per capita production is indicated by the fact that employment has not kept pace with production.

With certain modifications in individual cases, the same general situation is brought out in the charts covering other industries. Increased per capita productivity during recent years is particularly apparent in the paper and pulp, rubber,

Chart 1: Wages, Employment and Industrial Activity Average of $1923=100$


Automobile Production: Number of passenger cars and trucks; data from National Automobile Chamber of Commerce and United States Department of Commerce.
and silk industries. Iron and steel show a precipitous drop in production during 1924, and to a lesser extent in 1925, but without appreciable effect upon hourly wages. On the railroads, also, hourly earnings have remained quite constant in spite of fluctuations in the volume of traffic.
The most erratic wage curves are shown by boot and shoe, and silk manufacturing. The extensive application of the

Chart 2: VVages, Hmployment and Industrial Activity
Average of $1923=100$


Paper and Pulp Production: Short tons of mechanical and chemical wood pul] book paper, newspaper, wrapping paper and fine paper; data from Feder: Trade Commission to May, 1923; thereafter from American Paper and Pul Association, and for newspaper from Newsprint Service Bureau.


Iron and Steel Production: Long tons of pig iron and steel ingots produced. $\mathbf{P}$ iron production from Iron Age. Steel ingot production from American Irc and Steel Institute.

Chart 3: Wages, Emplomment and Industrial Activity Average of $1923=100$


Boot and Shoe Production: Thousands of pairs of shoes produced in over 1,000 firms, comprising almost entire industry; data from United States Department of Commerce.


Meat Packing Production: Thousands of pounds of meat from animals slaughtered under federal inspection, as reported by United States Department of Agriculture.

Chart 4: Wages, Employment and Industrial Activity Average of $1923=100$


Rubber Production: Number of pneumatic and solid tires and inner tubes, as reported by Rubber Association of America.


Silk Consumption: Bales of raw silk, deliveries from principal warehouses in New York City indicating approximate consumption by mills; data from Silk Association of America.

Chart 5: Wages, Employment and Industrial Activity Average of $1923=100$


Cotton Consumption: Total bales consumed by textile mills; data from United States Department of Commerce.


Wool Consumption: Thousands of pounds of wool in grease equivalent consumed by textile mills; data from United States Department of Commerce.
piece-rate method of wage payment to these industries is probably largely responsible for these fluctuations, since the operation of piece-work can cause variations in average hourly earnings without affecting the piece rates themselves. Only in cotton and wool manufacturing is a definite change in wage level apparent. This is due to a quite general wage reduction which occurred in the cotton industry in 1925 and in the wool industry in 1926.


Equated Traffic Units: Total of freight ton miles and passenger miles, each multiplied by a factor based upon revenue per ton mile and passenger mile; data from Interstate Commerce Commission and Bureau of Railway Economics.

The index of activity used in the several charts for various industries is not the same in all cases. The endeavor has been to employ the index generally accepted by the industry as the most reliable indicator of the extent to which the productive facilities of the industry are in operation. Thus, for the automobile, boot and shoe, iron and steel, meat packing, paper and wood pulp, and rubber industries, production has
been taken as the activity index, while in the cotton, silk and wool textiles, the consumption of raw materials has been chosen. In the case of railroads, productivity has been judged by "equated traffic units" which are derived by multiplying total freight ton miles and passenger miles by factors based upon revenue per ton mile and per passenger mile.

## Wages and Productive Erficiency

The question naturally suggests itself as to how long new efficiencies in operation can compensate for the maintenance of high wages in periods of depression or permit the increase of wages without a corresponding increase in prices. It may be that industry has so far accomplished only the most obvious improvements in process and shortening of operations; that this movement, only in its infancy, may be developed far beyond what can be imagined at the present time. On the other hand, it may be that, particularly in certain types of industries, the limit of possible improvement is already in sight, and that beyond this point the best scientific effort will be helpless before physical laws which can not be circumvented. The future alone will hold the answer, but it is certainly too soon to doubt that substantial increase in the effciency of operation in some fields is still to be made.

## Labor's Share in Increased Efficiency

Another aspect of this same question relates to the right of labor to share in the fruits of these economies. Labor's argument, briefly stated in general terms, holds that since, in the final analysis, it is labor which applies and makes effective the improved agencies of production, it is rightly entitled to share in the increased wealth created. While it is undoubtedly true that the most brilliantly conceived mechanical aid to production is worthless without human direction, it is still open to question whether this makes a case for labor's demand. That fatigue induced by the monotony of work has been increased by the further mechanization of industry, which has been an important feature of improved processes, is undoubtedly possible. On the other hand, physical exertion in many cases has been lightened through the greater
application of power, and the determination of relative nervous strain under former conditions, as compared with the present, is a question requiring further investigation by the physiologist or psychologist before final judgment is possible. In any case it is clear that the increase in output per worker in recent years is due altogether to the greater use of machinery and power and to better management, that is, to the use of more capital and managerial intelligence, and not to any greater effort or more efficient application on the part of labor itself. Production efficiencies have for the most part been evolved through careful research and experimentation on the part of highly skilled engineering staffs, and this work has been financed by the employer without any assurance that it would bring him a return. It seems reasonable, therefore, that when this investment has turned out profitably, the credit and the profits which result should accrue to the employer and to the investors who supplied the capital for the experiment, and who would not have been likely to undertake it except for the prospect of profit. If, however, the employer belongs to the school of economic thought which holds that mounting wages, by enlarging domestic markets, are the surest insurance against business depression, he may distribute any portion of the increased profits in the form of higher wages, but it is difficult to establish any moral obligation to do so. Without doubt, high wages are an important factor in sustaining consumer buying power, but it is still an unsettled question whether the proper use of business and private savings in extending our capital equipment may not be a more important factor in the consumer market than direct wage payments.

## Wages and Prices

In considering the general movement of wages over the past few years it may be of interest first to compare the trend of wages and prices. The interdependence of prices and wages has been emphasized by economists in many countries and, for the most part, events have borne out their contentions. That no pronounced or continued decline in prices can occur without its reflection in wage reductions is generally conceded, but the sensitivity of wages to price movements
differs considerably at different periods. As indicated earlier, despite a declining price level, wages in the recent past have resisted reduction more successfully than in the more distant past, partly because of the realization of the economic disadvantages of reducing consumer purchasing power, and there has arisen a question of how extensive a drop in prices will be necessary to force down wages. According to the United States Bureau of Labor Statistics, the index number of wholesale prices declined from 157 to 147 between December, 1924, and December, 1926, with prices in 1913 as 100. In other words, the advance in prices since the beginning of the war was reduced by $17.5 \%$ in this two-year period. Over the same two years, average wages remained unchanged or advanced. In four major economic fields-manufacturing, building construction and the gas and electric public utili-ties-wages increased, while railroad wages remained unchanged, although at the end of 1926 there were prospects of increases in the latter field as well. If general, unweighted composite wage figures for these four groups are compared over the two-year period, it is found that a $2.5 \%$ advance was registered. It is striking that a ten-point decline in wholesale commodity prices within a year has not been sufficient to undermine wage stability; but it would be rash to infer from this fact that wages have become independent of price levels. Much depends upon the reliability of wholesale commodity price indices as indicators of the general price level and trend. It has been pointed out that the commodities which make up these indices are largely raw materials or producers' goods and may be subject to different influences from those affecting prices of finished consumers' goods and the many forms of services which play so important a part in modern life. Consequently it is quite possible for the wholesale price index to be at variance with the movement of general prices which most closely affect a large part of the business world.

But if wages are less sensitive to wholesale price movements, they are likely to be more influenced by other economic factors. Thus, in manufacturing industries, progressively efficient operation and sustained market demand for consumers' goods have been the activating stimuli to the main-
tenance of productive activity, and consequently have contributed to the maintenance of wage levels. On the railroads, operating efficiency has been extensively increased through waste elimination, better coordination and improved equipment, which in turn have made possible and stimulated record-breaking traffic. But the steady increase in building construction wages, which have outstripped those in all other fields, is due to quite another cause. In this case close organization of labor, which in some building centers has accomplished virtual monopoly of labor resources, has been coincident with the most wide-spread and persistent demand for building construction which this country has ever experienced. This situation has permitted the organized building trades virtually to dictate wage terms, and the almost uninterrupted advance of construction wages has been the result.

On Chart 7 is shown the general movement of hourly wages in three occupational fields of major importance, manufacturing industries, railroads and building construction, from the middle of 1914 to the close of 1926. The pronounced stability of wages under competitive conditions is well demonstrated by the lines for railroads and manufacturing since 1923. Apart from minor fluctuations, these curves have maintained an even course throughout the three-year period, and at the close of 1926 the average hourly earnings were almost identical with thoseat the beginning of 1924. Railroad wages appear to be more sensitive to seasonal influences than the composite manufacturing average, since there is apparent in each of the past five years a well-defined tendency for hourly earnings to rise at the beginning of the year, decline during the summer and again advance toward the close of the year. In marked contrast with the even course of manufacturing and railroad wages, the steadily rising trend of building wages is emphasized by the chart. Since 1921 there have been very few periods in which construction wages were not obviously rising, and in 1923 this increase assumed considerable proportions. During the three-year period from 1924 through 1926, in which no perceptible change took place in manufacturing and railroad wages, an advance of $13 \%$ was registered by building wages for the country as a whole.

Chart 7: Average Hourly Wages, Manutacturing, Rallroads and Buildino Construction, 1914-1926



## WAGES IN THE UNITED STATES

## Wages and Industrial Relations

The general wage situation in 1926 may be described as quiet. Early in the year the Pennsylvania anthracite coal strike, a legacy from 1925, was settled on a basis which appeared to promise uninterrupted operation for a number of years. The strike, which lasted for nearly six months, resulted in a continuation of existing wage scales for a period of five years, with the provision that after the expiration of one year following the settlement, a conference might be called by either party to discuss changes in wages or working conditions. In the event of disagreement the matter was to be referred to impartial arbitrators. The wage scales, which were continued, resulted in average hourly earnings, throughout the industry, of 83 cents in December, 1924, with contract miners averaging as high as $\$ 1.20$ an hour. When operations were resumed following the settlement of the strike, production was pushed in order to accumulate adequate reserve stocks. The size of these reserves was such that, combined with a mild winter, the industry found itself over-produced, and at the close of 1926 considerable curtailment was in prospect.

Another industrial controversy begun in 1925 , which attracted wide-spread attention, the Passaic, New Jersey, mill strike, was also settled during 1926. With these two outstanding difficulties cleared up, comparative harmony reigned for the remainder of the year. Of course, the perennial disputes in the garment trades of New York City occurred as usual, and wage controversies in certain building centers required negotiations for settlement, but from the standpoint of general industrial harmony, 1926 takes high rank. During 1926 the railroad Board of Mediation, provided for in the Watson-Parker Law, functioned for the first time. So far as its decisions have been generally reported the Board has quite uniformly granted wage increases in the cases brought before it, although not in solarge amounts as were petitioned for.

## Foreign Wages

Comparisons of American with foreign wages are frequently sought, particularly for purposes of estimating the probable
dangers of foreign competition. Accurate comparisons are very difficult to obtain, since wage statistics have not been developed abroad to the extent which they have in the United States, and also because occupational nomenclature is likely to vary, and it is difficult to be certain that identical classifications are being compared. Any comparisons which may be made, however, must be confined to specific industrial classifications, since there are no foreign statistics comparable with those for the "all wage earner" group used in this country.

In Table 1 the attempt has been made to give a very
Table 1: Calculated Weekly Wages for Selected Occupations, United States and Foreign Countries, as of December, $1926^{1}$

| Indmery and Clame of Labor | United Seares | Berlin | Amecer- | London | Srockholm | Paris | Rome |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Building Industry ${ }^{\text {a }}$ |  |  |  |  |  |  |  |
| Bricklayer or Mason. | $\$ 77.66 \text { or }$ | \$14.38 | \$15.35 | \$20.61 | \$20.49 | 88.93 | 8. |
|  | 58. | 14. | 15.35 | 20 | 20.49 | 8.93 | 8. 18 |
| Joincrs |  |  | 15.35 | 20.61 | 20.49 | 8.48 | 7.36 |
| Plumbe | 63.60 | 15.41 | 15.35 | 20.61 | 17.67 | 8.93 | 7.16 |
| Painters (general) | 58.70 | 14.27 | 14.39 | 19.64 | 21.77 | 8.93 | 10.74 |
| Laborers (general) | 33.02 | 10.96 | 12.47 | 15.76 | 18.57 | 6.70 | 6.13 |
| Engincering Trades |  |  |  |  |  |  |  |
| Fitters............... | 33.02 |  | 12.86 | 15.07 |  | 8.39 | 7.36 |
| Ironmoulders (hand).... | 40.42 |  | 12.86 | 15.07 |  | 8.66 | 7.36 |
| attern | 40.52 |  | 12.86 | 16.21 |  | 10.71 |  |
| Turnery | 35.03 |  | 12.86 | 15.07 |  | 8.84 | 05 |
| Furniture Tradea |  |  |  |  |  |  |  |
| Cabinetmakers | 30.72 | 11.27 | 13.05 | 20.37 | 15.37 | 10.71 | 10.22 |
| Laborers. | 18.335 | 9.41 |  |  | 13.83 | 8.04 | 5.52 |
| Printing and Bookbinding Trades |  |  |  |  |  |  |  |
| Hand Compositors. . . |  | 11.41 | 14.01 | 21.58 | 16.15 | 10.71 | ${ }^{8.67}$ |
| Machine Compositors Machine Minders. | $43.61{ }^{6}$ | 13.70 11.41 | 15.74 | 21.28 21.58 | 17.72 16.15 | 11.38 | 10.95 8.67 |
| Bookbinders. |  | 10.50 | 14.01 | 19.40 | 14.73 |  | 8.09 |
| Laborers | 18.696 | 9.99 | 11.23 | 17.22 | 13.23 |  | 7.0 |

[^0]general comparison of wage levels in the United States with those in certain leading cities of Europe. Wage rates reported by the International Labor Office at Geneva have been multiplied on the basis of a standard 48-hour week and these amounts translated into American currency according to foreign exchange rates effective on December 1, 1926. The American equivalents for these weekly wages are thus more or less approximations and are intended only as a general comparison, but are sufficient to show the vastly higher level of earnings in the United States.

## "The Secret of High Wages"

The fact that wages in the United States are two, three and four times as high as similar wages in Europe has baffled many foreign observers who find it difficult to reconcile such high wage levels with the continued prosperity which they find in this country, and particularly with the ability of many American products to compete successfully abroad. The realization is spreading, however, that the absolute amount of the wage is immaterial: it is the labor return for the wage which determines its practicability, and through better processing and efficient labor application the American employer has been able to pay high wages and still hold his market position in many lines. In this connection the rather scathing arraignment of British manufacturing methods, as compared with American 'practice, made by two Englishmen after an extended tour of the industrial sections of the United States, and contained in their book, "The Secret of High Wages," ${ }^{1}$ is of interest. Briefly summarized, their conclusions may be stated as follows: (1) Promotion in the United States is by merit, and inefficients are eliminated. (2) A small margin of profit on quick returns and rapid turnover resulting in a vast volume of operations, spells large profits in the end. (3) In stimulating large scale production, standardization and simplification of product have been of immense assistance. (4) This simplification of output combined with rapid turnover means that less capital is tied up per unit of output. (5) America is

[^1]ceaselessly seeking time- and labor-saving devices, and machinery still in good working order is scrapped as obsolete to be superseded by more up-to-date productive units. British trade unionists misunderstand the real meaning of "labor saving." These devices reduce manual effort per unit, but by lowering the cost the demand for the manufactured goods is increased and consequently more jobs become available. High wages are not the secret of American prosperity, but American practice in other respects enables high wages to be paid. (6) The attitude of the American employer is broadgauged. He does not fear high wages but makes them increase his profits by enlarging his markets. In the United States in recent years wages have risen more than prices, while in Great Britain wages have fallen more than prices. (7) Instead of keeping to themselves lessons learned by experience, American employers freely exchange ideas and at the same time teach and learn. (8) The value of the high wages paid is increased by welfare activities on a scale unknown in Great Britain, which at a comparatively small actual cost pay dividends in contentment and harmonious relations with employees. (9) Immense sums are paid by American industry for highly skilled research staffs which constantly strive to improve methods and effect savings, and generally succeed in their efforts.

This analysis of the reason for high wage levels in the United States may or may not be generally accepted as an accurate explanation, but in substance it contains the factors which seem most frequently to impress foreign observers. The attitude of the American employer in being willing to pay high wages when they are justified and the willingness of the American wage earner to qualify for high wages without thought of restriction of output never fail of extended comment.

In the following chapters the wage situation in five of the leading economic fields in 1926 is considered, the trends of wages outlined and their present general levels shown. Since these five groups cover a substantial majority of the wageearning population of the country, these chapters in effect portray the prevailing wage situation in the United States.

## CHAPTER II

## WAGES IN MANUFACTURING INDUSTRIES

Methods and Scope of Investigation

THE United States has become primarily an industrial nation. Other economic fields have not been neglected, but in many cases they have come to be regarded as adjuncts to the great manufacturing activities of the country which have focused upon themselves the envious attention of the world because of their efficient operation and their harmonious utilization of highly specialized machinery, power and labor. Wages in manufacturing industries exert a strong influence on the general wage level-practically a determining influence-and consequently more attention is given to the analysis of current levels and tendencies of manufacturing wages than to those in any other field. For the past ten years the Conference Board has kept in constant touch with the wage situation, and through its monthly reports from manufacturing establishments in all sections of the country has built up a body of data the summary of which is given in this volume.
The accompanying data are based on an analysis of returns from approximately 1700 plants in 25 basic industries, covering one week or the payroll period in each month. Because of their fundamental importance in the industrial life of the country, these industries, it is believed, provide a dependable cross-section of American manufacturing conditions. The plants which have furnished information are also believed to form a representative group in each industry, since some of the largest as well as many smaller plants are included. In January, 1924, the total employment in all plants covered by the investigation was 743,227 , which is equivalent to approximately $20 \%$ of the wage earners reported by the 1919 Census of Manufactures for the twenty-five industries studied.

The data, in all except a few cases, include returns from
identical establishments throughout the period covered. The withdrawal of a few plants from participation in the study has made necessary a certain amount of substitution, but great care has been exercised in the substitution of data to assure 2 connected and comparable series of results. Furthermore, since the substitutions form only a small proportion of the total, the possible effect on the results is negligible.

The investigation includes returns from plants in every state except three, Arizona, Nevada and North Dakota. For those interested in the geographical location of the plants which have furnished material for the investigation, a table is given in Chapter VII showing, by state and by industry, the number of plants whose exact location is known. In some states the representation is confined to one or a few plants, but in the great manufacturing belt east of the Mississippi and north of the Ohio each state is well represented. The five states returning the largest number of reports are: New York, with 214 plants; Massachusetts, with 225; Pennsylvania, with 188; Ohio, with 197; and Illinois, with 100. This indicates that representation in the study is, in general, proportional to the relative importance of manufacturing activity in the states.

While the intention has been to present a general picture of wage trends in the United States, the statistical data given are designed primarily to indicate the movement of wages since the World War. Beginning in the second half of 1920, the general peak of industrial activity in the post-war inflation period, data have been compiled for each month with the exception of the first six months of 1922, a half year which unfortunately was not covered by an investigation. Lack of space prevents the inclusion in this report of detailed figures for each month, and, consequently, data have been compiled and presented by quarters. These figures are the average for the three months composing the quarter and not for any single month in the quarter.

In order to have a means of comparing present conditions with those preceding the war it was considered advisable to obtain data for a pre-war month to serve as a basis of comparison. For this purpose the month of July, 1914, was
chosen, because it was the last period unaffected by the outbreak of the war. It was impossible for all the plants furnishing data for the investigation to provide figures for this month, since in some cases the records were not available and in others the plants had not been in operation at that time. However, a large proportion of the plants supplied figures for this month. Careful test tabulations showed little divergence in wage data between the group of plants furnishing 1914-1925 data and the 1920-1925 group, for months common to both, and it is therefore deemed permissible to unite these two groups for the period 1920-1925, and to use the 1914 base supplied by the larger group as both the actual and the index base for the entire study. This base is not an ideal one, for a number of reasons, but it serves in general to show the changes brought about during and since the war, which is the object sought.

## Classification of Wage Earners

It is obvious that the more detailed the classification of wage earners the more practically valuable will be the results of a wage study. But the moment any classification is attempted, difficulties immediately present themselves. The two greatest obstacles to any detailed classification are the burden placed upon the clerical force of the reporting plant in segregating payroll data into the specified groups, and the fact that if data for a number of industries are to be combined so as to arrive at a total figure for separate labor groups, any classification must be applicable to all industries.

For the purposes of this investigation all wage earners were divided into three groups: male, "common and unskilled" labor; male, "semi-skilled and skilled" labor, and women. "Common and unskilled" labor is defined as the general group which performs the cruder tasks for which no previous training is required. "Semi-skilled and skilled" labor is composed of the remainder, ranging from those who rank just above common laborers to the most highly skilled wage earners. The dividing line between these two groups is sometimes difficult to determine, and in all cases its determination, as regards their own employees, has been left to the plants themselves.

The investigation did not include executives, office and sales forces, foremen or assistants, clerical workers or others paid on a salary basis.

## Treatment of Wage Data

In dealing with wages it is necessary to specify the sense in which the word is used, since much confusion may result from a misunderstanding. The term "wages" has been used indiscriminately to mean both wage rates and earnings, and it is quite obvious that the movement of these two variables may be quite different. For example, wage rates may be high but, on account of the rigid curtailment of operations, actual earnings may be comparatively low, and vice versa. This report deals with wages in the sense of "money earnings" as distinguished from wage rates. Since both the wage rate and the time worked enter into the computation of earnings, it is believed that the latter forms a more accurate index of industrial activity and labor welfare than would rates alone. Another advantage of the earnings figure is its inclusion of income from piece work as well as from production premiums and bonuses. In short, earnings represent actual income rather than the presumptive income based on rates of pay.

The wage data here given relate to cash payments only and do not take into consideration the value of such wage equivalents as reduced or free house rents, or other special services rendered by the companies to employees. Various forms of wage equivalents are in use in industrial establishments in many localities, and they are almost universal in the southern cotton mill districts, but the part which these play as compensation for work performed cannot be taken into account in a study of this character.

Average earnings are shown for manufacturing industries both by the hour and by the week. Hourly earnings are obtained by dividing the total weekly payroll in money for each group of wage earners by the total actual man hours worked by that group. Average hourly earnings are roughly comparable with average wage rates but, as explained above, they include payments other than on a strictly hourly basis. However, the trend of wage rates is, in general, well indicated by the trend of hourly earnings.

Weekly earnings are obtained by dividing the total weekly payroll for each group of wage earners by the number of persons in that group. Weekly earnings are a better index of labor welfare and purchasing power than hourly earnings, since they indicate what the wage earner finds in his pay envelope and what he must depend upon for the support of himself and family, unless he has other sources of income. Tables and charts giving the results of this investigation show average earnings both in actual dollars and cents and in index numbers. The latter, by giving to the base figures in each case the value of 100 , indicate by successive index numbers the percentage of increase or decrease over the base figures, and thus the comparison of relative gains or losses is facilitated.

Too much stress must not be placed upon the exact figures or absolute level of weekly earnings shown for a given month. On every large payroll there are a certain number who, on account of illness, voluntary absence, or because of being hired or discharged during the week, fail to work the entire period, and in addition there are some who work a larger number of hours during the week than do others. These differences are more truly reflected in the figures for average hourly earnings, but the total payroll divided by the number of workers listed on the payroll for that week will give a figure for average weekly earnings which is slightly greater or less than the true average. This is unavoidable, because it would be impossible to obtain data in sufficient detail to correct this tendency, and any attempt to obtain theoretical full-time earnings by multiplying the average hourly earnings by the hours of plant operation would yield a distorted figure of no significance. Since, however, the same method is used in determining the average weekly earnings for each month, the possible discrepancies involved in it recur month after month, and a comparison of the averages over a number of months fairly indicates the trend of weekly earnings, which is the object sought.

In combining figures for individual industries into totals for all industries, the problem of weighting, or of giving to each group of figures its proper importance in the total, is at once encountered. It cannot be evaded since, even if
averages are figured from the totals obtained by combining the data for individual plants, the results are automatically weighted according to the number of plants represented in the study for each industry. In this study, however, the number of establishments covered in each industry does not always accord with the relative importance of that industry in all manufacturing industry as a whole. To obtain figures for earnings more truly representative of industry as a whole it has been thought advisable to weight the averages for individual industries according to census representation. That is, in arriving at composite figures for the twenty-five industries combined, it was felt that there should be given to the average earnings, found in each industry, a weight proportionate to the relative importance of that industry, as measured by the number of wage earners employed. This result was obtained by multiplying for each month the average hourly and weekly earnings in each industry by the number of wage earners in that industry, as reported in the 1919 Census of Manufactures, and dividing the sum of these products by the sum of all the wage earners reported by the Census for the industries covered. In this way there is apportioned to the level of earnings in each industry the value or importance which it should exercise in determining an average for all the wage earners in the twenty-five industries covered. It is impossible to obtain similarly weighted figures for the classified labor groups, since the classification of wage earners in each industry in the Census of Manufactures does not correspond with that used in this study. This accounts for apparent discrepancies in the tables, where the composite figures do not seem to be the average of the figures for the classified groups.

## Treatment of Employment Data

Fluctuations in employment are shown by means of index numbers based upon figures for June, 1920. In the case of new plants added to the study, employment totals for these plants, as of June, 1920, have been incorporated into the base. Employment trends in individual industries are likewise indicated by means of index numbers based in each case upon figures for June, 1920.

## Treatment of Data on Hours of Work

For the composite sections treating as a unit all the industries covered, two kinds of data regarding hours of work have been compiled:
(1) The average work week per wage earner.
(2) The nominal or full-time work week.

The average work week per wage earner is the average man hours worked each week, and was obtained for each industry by dividing the total man hours by the total number of workers.

The averages for each industry thus obtained were multiplied by the number of wage earners in the industry, as reported by the 1919 Census of Manufactures, and the sum of these products was divided by the total number of wage earners reported by the census for all industries covered. Thus, in arriving at a total for all industries, a weight was given to the level of hours in each industry commensurate with the importance of that industry, as measured by the number of wage earners employed.

The average nominal or full-time week is the average number of hours the plants in the study were supposed normally to operate. In deriving these figures, the hours of each plant were multiplied by the total number of workers in the plant and the sum of these products divided by the total workers in all plants. This was done in deriving the average nominal week both for all industries and for each industry. In this way, it will be noted, the nominal week is weighted on the basis of the number of wage earners covered in the study and not according to the number shown in the census for the industry, as was done in the case of earnings and the average week per wage earner. In the tables for individual industries only the average week per wage earner is shown.

## General Results

## Nominal Earnings

In the manufacturing field there has been an absence of concerted wage readjustment since 1923, aside from two or three exceptions in the textile industries. Individual establishments have found it necessary or advisable to raise or

Table 2: Condensed Data on Wages, Hours and Employment, All Wage Earners, 25 Industries

| Year | Average <br> Hourly <br> Earninga |  | Average Weekly Earninge |  | Index Numbers "Real" Earninga |  | IndexNumbberm ofEmoploy-mentmune$1920=$100 | Aver- <br> age <br> Actual <br> Work <br> Wer <br> Earner | $\begin{aligned} & \text { Aver- } \\ & \text { Nom } \\ & \text { Nomi- } \\ & \text { meel } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ac zual | Index Nou. | Actual | $\left\lvert\, \begin{aligned} & \text { Index } \\ & \text { Non. } \end{aligned}\right.$ | Hourly | Weekly |  |  |  |
| 1914 |  |  |  |  |  |  |  |  |  |
| July..... | 5.245 | 100 | \$12.54 | 100 | 100 | 100 | . | 51.5 | 55.0 |
| Third Quart | . 606 | 247 | 30.09 | 240 | 122 | 119 | 95.6 | 49 | 50.0 |
| Fourth Quarter | . 607 | 248 | 28.64 | 228 | 128 | 118 | 83.9 | 47.1 | 50.0 |
| Firer 1921 |  |  |  |  |  |  |  |  |  |
| First Quarter | . 562 | 229 | 25.22 | 201 | 131 | 115 | 70.7 | 44.7 | 49.9 |
| Second Quarter | . 531 | 217 | 23.58 | 188 | 131 | 114 | 64.7 | 44.7 | 49.7 |
| Third Quarter | . 501 | 205 | 22.71 | 181 | 126 | 111 | 61.4 | 45.6 | 49.5 |
| Fourth Quarter. . . 1922 | . 499 | 204 | 22.90 | 183 | 125 | 112 | 64.3 | 46.2 | 49.7 |
| Third Quarter. | . 484 | 198 | 23.39 | 187 | 128 | 120 | 77.5 | 48.4 | 50.0 |
| Fourth Quarter 1923 | . 501 | 205 | 24.69 | 197 | 130 | 125 | 84.2 | 49.4 | 50.0 |
| First Quarter. | . 506 | 207 | 25.26 | 201 | 131 | 127 | 90.1 | 49.7 | 50.2 |
| Second Quarter | . 542 | 221 | 27.09 | 216 | 138 | 135 | 91.5 | 49.9 | 50.3 |
| Third Quarter. | . 551 | 225 | 26.79 | 214 | 139 | 132 | 88.7 | 48.6 | 49.6 |
| Fourth Quarter. 1924 | . 560 | 229 | 27.01 | 215 | 139 | 130 | 87.4 | 48.2 | 49.5 |
| First Quarter | . 561 | 229 | 26.97 | 215 | 140 | 131 | 84.2 | 48.0 | 49.8 |
| Second Quarter | . 560 | 229 | 26.04 | 208 | 142 | 129 | 77.5 | 46.3 | 49.7 |
| Third Quarter. | . 559 | 228 | 25.46 | 203 | 140 | 125 | 70.8 | 45.4 | 49.9 |
| Fourth Quarter... 1925 | . 562 | 229 | 26.65 | 213 | 138 | 129 | 74.0 | 47.4 | 49.6 |
| First Quarter | . 558 | 228 | 27.13 | 216 | 137 | 130 | 78.8 | 48.6 | 49.8 |
| Second Quarter | . 560 | 229 | 26.77 | 213 | 138 | 129 | 79.3 | 47.8 | 49.9 |
| Third Quarter. | . 556 | 227 | 26.55 | 212 | 135 | 126 | 78.2 | 47.7 | 50.0 |
| $\begin{aligned} & \text { Fourth Quarter. . } \\ & 1926 \end{aligned}$ | . 559 | 228 | 27.27 | 217 | 133 | 127 | 80.9 | 48.7 | 49.9 |
| First Quarter. | . 557 | 227 | 27.27 | 217 | 134 | 128 | 85.3 | 48.7 | 49.9 |
| Second Quarter. | . 563 | 230 | 27.08 | 216 | 137 | 129 | 85.1 | 48.0 | 49.9 |
| Third Quarter. . | . 563 | 230 | 27.01 | 215 | 139 | 130 | 83.5 | 47.9 | 49.7 |
| Fourth Quarter. | . 566 | 231 | 27.29 | 218 | 138 | 130 | 82.6 | 48.2 | 49.6 |

lower their wage scales, but that these individual readjustments have tended, for the most part, to cancel each other, with only a slight net tendency upward, is indicated by the fact that average hourly earnings of all wage earners in all the plants covered by the Conference Board's investigation have remained almost constant since the middle of 1923. During that period they have never dropped lower than 55.1 cents nor exceeded 56.6 cents. During 1926, for the first time, a fairly definite upward tendency is noted.

Chart 8: Average Actual Hourly Earnings, All Wage Earners and Classified


WAGES IN THE UNITED STATES

Table 3: Average Hourly Earnings, Composite and Classified Groups of Labor, 25 Industries


This condition of sustained and slightly rising wage scales reflects the generally satisfactory condition of manufacturing business during 1926. In 1924 a decided slump in activity failed to shake the newly established wage levels, and subsequent recovery also had no appreciable effect. For the first time wage levels manifested a decided resistance to change for superficial causes, and only when the trade recovery became prolonged and almost universal were wages gradually forced upward again. But this tendency has been of such conservative character as in no way to unsettle busi-

Table 4: Average Weekly Earnings, Composite and Classified Groups of Labor, 25 Industries

|  | Wage Earners |  | All Male |  | $\begin{gathered} \text { Male } \\ \text { Unskilled } \end{gathered}$ |  | MaleSkilled |  | Women |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actual | $\begin{array}{\|l\|} \hline \text { Int } \\ \text { dex } \\ \text { Nos. } \end{array}$ | Actual |  | Actual | $\left\|\begin{array}{c} \text { Ind } \\ \text { dos } \\ \text { Noos } \end{array}\right\|$ | Actual | $\begin{array}{\|c\|} \hline \text { In- } \\ \text { dex } \\ \text { Nose } \end{array}$ | Actal | $\begin{aligned} & \text { In } \\ & \text { der } \\ & \text { Noes } \end{aligned}$ |
| 1914 |  |  |  |  |  |  |  |  |  |  |
| July. | \$12.54 | 100 | \$13.30 | 100 | \$10.71 | 100 | \$14.16 | 100 | \$7.84 | 100 |
| Third Quar | 30.09 | 240 | 32.27 | 243 | 27.61 | 258 | 33.88 | 9 | 18.66 |  |
| Fourth Quarter | 28.64 | 228 | 31.04 | 233 | 26.56 | 248 | 32.58 | 230 | 17.65 | 225 |
| 1921 |  |  |  |  |  |  |  |  |  |  |
| First Quarter | 25.22 | 201 | 26.97 | 203 | 22.47 | 210 | 28.45 | 201 | 16.20 | 207 |
| Second Quarte | 23.58 | 188 | 24.99 | 188 | 20.70 | 193 | 26.40 | 186 | 16.19 | 207 |
| Third Quarter. | 22.71 | 181 | 24.18 | 182 | 19.37 | 181 | 25.73 | 182 | 15.92 | 203 |
| Fourth Quarter 1922 | 22.90 | 183 | 24.08 | 181 | 19.37 | 181 | 25.64 | 181 | 15.95 | 203 |
| Third Quarter | 23.39 | 187 | 25.05 | 188 | 19.99 | 187 | 26.74 | 189 | 15.51 | 198 |
| Fourth Quarter 1923 | 24.69 | 197 | 26.35 | 198 | 21.07 | 197 | 28.12 | 199 | 16.48 | 210 |
| First Quarter. | 25.26 | 201 | 26.94 | 203 | 21.26 | 199 | 28.83 | 204 | 16.88 | 215 |
| Second Quarter | 27.09 | 216 | 28.87 | 217 | 22.97 | 215 | 30.82 | 218 | 17.84 | 228 |
| Third Quarter. | 26.79 | 214 | 28.66 | 215 | 23.07 | 215 | 30.48 | 215 | 17.60 | 224 |
| $\begin{gathered} \text { Fourth Quarter. . . } \\ 1924 \end{gathered}$ | 27.01 | 215 | 29.10 | 219 | 23.05 | 215 | 30.57 | 216 | 17.50 | 223 |
| First Quarter | 26.97 | 215 | 29.14 | 219 | 23.75 | 222 | 30.80 | 218 | 17.35 | 221 |
| Second Quarte | 26.04 | 208 | 28.26 | 212 | 22.79 | 213 | 29.91 | 211 | 16.49 | 210 |
| Third Quarter | 25.46 | 203 | 27.49 | 207 | 22.20 | 207 | 29.04 | 205 | 16.28 | 208 |
| Fourth Quarter 1925 | 26.65 | 213 | 28.65 | 215 | 23.13 | 216 | 30.30 | 214 | 16.75 | 214 |
| First Quarter. | 27.13 | 216 | 29.55 | 222 | 24.56 | 229 | 30.96 | 219 | 17.70 | 226 |
| Second Quarter | 26.77 | 213 | 29.14 | 219 | 23.37 | 218 | 30.81 | 218 | 17.18 | 219 |
| Third Quarter. | 26.55 | 212 | 28.85 | 217 | 23.17 | 216 | 30.47 | 215 | 16.83 | 215 |
| Fourth Quarter 1926 | 27.27 | 217 | 29.63 | 223 | 23.86 | 223 | 31.30 | 214 | 17.14 | 219 |
| First Quarte | 27.27 | 217 | 29.92 | 224 | 24.21 | 226 | 31.55 | 223 | 17.35 | 221 |
| Second Quarter | 27.08 | 216 | 29.71 | 223 | 24.01 | 224 | 31.27 | 221 | 17.02 | 217 |
| Third Quarter. | 27.01 | 215 | 29.54 | 222 | 23.75 | 222 | 31.13 | 220 | 17.13 | 218 |
| Fourth Quarter. | 27.29 | 218 | 29.44 | 221 | 23.92 | 223 | 30.95 | 21 | 17.45 | 223 |

ness conditions. It is none the less significant, however, that the last quarter of 1926 showed average hourly earnings of all wage earners, as determined in the Conference Board's survey covering 25 manufacturing industries, higher than for any quarter since the peak period of 1920 . At 56.6 cents they were $1.3 \%$ higher than during the last quarter of 1925 , and $131 \%$ higher than at the pre-war base month of July, 1914. In 17 industries hourly earnings were higher in the last quarter of 1926 than in the corresponding period of 1925 , in 3 there was no change, and in 5 industries there was a decline.

Chart 9: Average Actual Weekly Earnings, All Wage Earners and Classified Groups, 25 Industries


Table 5: Index Numbers of Cost of Living and "Real" Hourly and Weekly Earnings, All Wage Earners and Classified Groups, 25 Industries

|  | $\left\lvert\, \begin{gathered} \text { Index } \\ \text { Cost } \\ \text { of } \\ \text { Living } \end{gathered}\right.$ | Index "Real" Hourly Earnings |  |  |  |  | Index "Real" Weekly Eamings |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Malle | $\begin{gathered} \text { Male } \\ \text { Min } \\ \text { skilled } \end{gathered}$ | Mailed | $\begin{aligned} & \text { Wo- } \\ & \text { men } \end{aligned}$ |  | Mall | $\begin{gathered} \text { Male } \\ \text { Une } \\ \text { skilled } \end{gathered}$ | Male | $\begin{aligned} & \text { Wo- } \\ & \text { men } \end{aligned}$ |
| $1914$ |  |  |  |  |  |  |  |  |  |  |  |
| 1920 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 10 |  |
| Third Quarter | 202.4 | 122 | 125 | 134 | 123 | 135 | 119 | 120 | 127 | 118 | 118 |
| Fourth Quarter. . 1921 | 193.5 | 128 | 130 | 138 | 127 | 142 | 118 | 120 | 128 | 119 | 116 |
| First Quarter | 175.4 | 131 | 133 | 140 | 131 | 143 | 115 | 116 | 120 | 115 | 118 |
| Second Quarter | 165.1 | 131 | 132 | 137 | 130 | 146 | 114 | 114 | 117 | 113 | 125 |
| Third Quarter. | 163.3 | 126 | 127 | 127 | 126 | 142 | 111 | 111 | 111 | 111 | 124 |
| $\begin{aligned} & \text { Fourth Quarter. } \\ & 1922 \end{aligned}$ | 163.1 | 125 | 121 | 122 | 121 | 141 | 112 | 111 | 111 | 111 | 124 |
| Third Quarter. | 155.2 | 128 | 128 | 128 | 128 | 146 | 120 | 121 | 120 | 122 | 128 |
| $\begin{aligned} & \text { Fourth Quarter. } \\ & 1923 \end{aligned}$ | 158.1 | 130 | 128 | 129 | 128 | 148 | 125 | 125 | 125 | 126 | 133 |
| First Quarter. | 158.3 | 131 | 131 | 130 | 131 | 152 | 127 | 128 | 126 | 129 | 136 |
| Second Quarter | 159.8 | 138 | 140 | 140 | 139 | 158 | 135 | 136 | 135 | 136 |  |
| Third Quarter. | 162.3 | 139 | 139 | 141 | 138 | 158 | 132 | 132 | 132 | 132 | 138 |
| Fourth Quarter. . 1924 | 164.8 | 139 | 140 | 140 | 138 | 157 | 130 | 133 | 130 | 131 | 135 |
| First Quarter. | 163.8 | 140 | 141 | 143 | 139 | 158 | 131 | 134 | 136 | 133 | 135 |
| Second Quarter | 161.6 | 142 | 142 | 144 | 141 | 158 | 129 | 131 | 132 | 131 | 130 |
| Third Quarter. | 162.7 | 140 | 141 | 143 | 140 | 155 | 125 | 127 | 127 | 126 | 128 |
| $\begin{aligned} & \text { Fourth Quarter. } 1925 \end{aligned}$ | 165.4 | 138 | 140 | 140 | 138 | 151 | 129 | 130 | 131 | 129 | 129 |
| First Quarter... | 165.9 | 137 | 139 | 139 | 137 | 154 | 130 | 134 | 138 | 132 | 136 |
| Second Quarter | 165.7 | 138 | 140 | 140 | 138 | 154 | 129 | 132 | 132 | 132 | 132 |
| Third Quarter.. | 168.5 | 135 | 136 | 137 | 137. | 148 | 126 | 129 | 128 | 128 | 128 |
| $\begin{aligned} & \text { Fourth Quarter. } \\ & 1926 \end{aligned}$ | 171.0 | 133 | 136 | 136 | 135 | 147 | 127 | 130 | 130 | 125 | 128. |
| First Quarter. | 169.4 | 134 | 137 | 138 | 135 | 151 | 128 | 132 | 133 | 132 | 130 |
| Second Quarter | 168.0 | 137 | 140 | 140 | 138 | 152 | 129 | 133 | 133 | 132 | 129 |
| Third Quarter. | 166.0 | 139 | 142 | 142 | 140 | 157 | 130 | 134 | 134 | 133 | 131 |
| Fourth Quarter. | 167.9 | 138 | 139 | 140 | 138 | 155 | 130 | 132 | 133 | 130 | 133 |

Average weekly earnings are influenced as much by the number of working hours as by the wage rate, since they are the product of both. Weekly earnings may follow quite closely the trend of hourly earnings or they may move quite independently. As a rule, weekly earnings tend to fall off during the summer months, on account of the general letdown in business, and rise again in the fall, but the extent of both decline and recovery is controlled by the general condition of business. At the close of 1926 average weekly

## Table 6: Average Hours of Work, 25 Industries

|  | Average Actual Week per Wage Earner |  |  |  |  | $\begin{aligned} & \text { Average } \\ & \text { Nominal } \\ & \text { Week } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classified |  |  | All Male | $\begin{aligned} & \text { All Wage } \\ & \text { Earners } \end{aligned}$ |  |
|  | $\begin{gathered} \text { Male } \\ \text { Unakilled } \end{gathered}$ | Male Skilled | Women |  |  |  |
| $1914$ | 52.7 | 50.7 |  |  |  |  |
| Juy.... 1920 | 52.7 | 50.7 | 50.8 | 51.2 | 51.5 | 55.0 |
| Third Quarter. | 50.1 | 48.8 | 44.4 | 49.1 | 49.4 | 50.0 |
| Fourth Quarter | 48.7 | 47.3 | 41.9 | 47.6 | 47.1 | 50.0 |
| First Quarter. . | 45.1 | 44.2 | 41.9 | 44.4 | 44.7 | 49.9 |
| Second Quarter | 44.9 | 43.9 | 43.7 | 44.1 | 44.7 | 49.7 |
| Third Quarter. | 45.9 | 44.7 | 44.4 | 45.0 | 45.6 | 49.5 |
| Fourth Quarter | 48.0 | 46.3 | 45.1 | 46.7 | 46.2 | 49,7 |
| Third Quarter. | 49.7 | 48.2 | 44.3 | 48.6 | 48.4 | 50.0 |
| Fourth Quarter | 50.8 | 49.4 | 45.8 | 49.8 | 49.4 | 50.0 |
| Firat Quarter. . | 50.8 | 49.7 | 45.8 | 50.0 | 49.7 | 50.2 |
| Second Quarter | 50.6 | 49.6 | 45.7 | 49.9 | 49.9 | 50.3 |
| Third Quarter | 49.7 | 48.5 | 44.6 | 48.8 | 48.6 | 49.6 |
| Fourth Quarter | 49.5 | 48.1 | 44.1 | 48.5 | 48.2 | 49.5 |
| First Quarter. | 49.9 | 48.2 | 43.5 | 48.6 | 48.0 | 49.8 |
| Second Quarter | 48.0 | 46.9 | 41.9 | 47.2 | 46.3 | 49.7 |
| Third Quarter. | 47.2 | 45.7 | 41.9 | 46.1 | 45.4 | 49.9 |
| Fourth Quarter | 49.2 | 47.3 | 43.7 | 47.7 | 47.4 | 49.6 |
| First Quarter. | 52.5 | 48.5 | 44.9 | 49.4 | 48.6 | 49.8 |
| Second Quarter | 49.7 | 48.0 | 43.5 | 48.4 | 47.8 | 49.9 |
| Third Quarter. | 49.4 | 47.8 | 43.9 | 48.2 | 47.7 | 50.0 |
| Fourth Quarter. | 50.8 | 48.5 | 44.4 | 49.0 | 48.7 | . 49.9 |
| First Quarter. . | 51.0 | 49.1 | 43.9 | 49.5 | 48.7 | 49.9 |
| Second Quarter. | 50.3 | 48.1 | 43.1 | 48.6 | 48.0 | 49.9 |
| Third Quarter. . | 49.8 | 48.0 | 42.8 | 48.4 | 47.9 | 49.7 |
| Fourth Quarter. | 50.0 | 47.9 | 43.5 | 48.3 | 48.2 | 49.6 |

earnings of all wage earners were at almost the same figure as at the end of $1925-\$ 27.29$ in 1926 and $\$ 27.27$ in 1925and $118 \%$ higher than in July, 1914.

## "Real" Earnings

A broad consideration of wage movements in the light of their economic and social significance makes it necessary to relate actual earnings to the prices of the goods and services which the wage earner buys and thus measure the value of earnings in terms of their purchasing power. Wages may be mounting rapidly, but if this movement is accompanied by a
proportionate increase in prices, the wage earner is only holding his own. Particularly at a time of such violent fluctuations in wages and prices as were experienced in the last ten years, the actual amount of money earned falls far short of being an adequate index of the wage earner's economic welfare. It should be remembered, however, that it is not only the retail price level that influences the purchasing power or the effectiveness of the worker's wage, but the kinds and quantity of the goods and services he buys, and these are partly dependent upon the standard upon which he has established his living. In measuring changes in the purchasing power of wages, however, it is necessary to confine attention to changes in the price level alone, since there is no practical way of taking into account the changes in the kinds, qualities and quantities of goods and services, which constitute the standard of living at any given time.
The importance of "real" earnings, or the purchasing value of money earnings, in any discussion of wages has become recognized with particular force since the war period brought about rapidly shifting money values. It became evident that money wages by themselves told only half the story, and that grave errors in appraising the wage earner's status were inevitable, unless wage movements were related to fluctuations in prices and living standards. For example, earnings may be declining, but if prices of consumers' goods and services are readjusted even more rapidly, it is obvious that the wage earner's situation may be improving. Likewise, if in a rising labor market the expenditures of the wage earner mount faster than earnings, because of rising prices, the purchasing value of the worker's earnings is constantly shrinking in spite of the fact that actually he is earning more money.
In using figures for "real" earnings, four important considerations must be borne in mind. In the first place, the cost of living index used represents the average level of retail prices for goods and services which entered into the standard of living of wage earners' families before the war. It does not represent expenditures of average wage earners' families today, when very different living standards prevail. Secondly, this index reflects average conditions in the country

Chart 10: Index Numbers of Hourly and Weekly "Money" and "Real" Earnings and Cost of Living, All Wage Earners, 25 Industries

as a whole, not primarily in industrial communities. It can not, therefore, be too strictly used to calculate trends of "real" earnings in individual industries, which are sometimes geographically localized.

Thirdly, earnings represent the average amount received by wage earners on the payrolls of reporting plants. If read in this sense, they furnish a dependable indication of wage trends. But if; during a period of depression, one undertakes to argue that the average wage earner is not so badly off, since "real" earnings are so much higher than in 1914, he is falling into grave error. He is ignoring the fact that large numbers are without employment and are consequently earning nothing. If it were possible to include in the tabulations these unemployed, the resulting figures for average earnings and "real" earnings would not be far from the fact. As it is, it must be understood that the figures given represent only the averages of those who were employed at that time.

And, finally, it can not be assumed that the average wage earner's family is absolutely dependent upon the income of one breadwinner. It has long been the custom in such families for the boy to go to work at a comparatively early age, but modern business organization, with its multiplication of clerical positions, has opened an immense field to young girls in addition to the mill and factory jobs for which their services are sought. The result has been that the years of dependency have been shortened, since, even though the young people live at home, it is a common practice to make a contribution to the family expenses, and by paying for their own clothes and incidentals they relieve the family head of considerable expense. This condition, in addition to the tendency toward smaller families, probably accounts for the high standard of living and perhaps the possession of such luxuries as automobiles and radios which are sometimes difficult to reconcile with a single wage earner's income. While these conditions may not as yet be sufficiently general to be accepted as the rule, they are at least frequently enough encountered to merit consideration in a discussion of the economic status of the wage earner.

The index numbers of "real" earnings, both hourly and weekly, tended to rise during 1926, although not so much
influenced by rising wages as by a declining cost of living. Retail prices of commodities which enter largely into the wage earner's budget declined almost as consistently during 1926 as they had risen in 1925. In both cases the movement was largely dominated by the action of retail food prices which, because of the large part they play in the wage earner's total expenditures, carry a heavy weighting. The index of the total cost of living, which had stood at 171.0 in the last quarter of 1925 , had dropped to 167.9 by the close of 1926, as compared with 100 in July, 1914. This change, combined with the firm or rising tendency of money wages, resulted during 1926 in an advance of the index number of "real" hourly earnings from 133 to 138 and of "real" weekly earnings from 128 to 130.

## Employment

In the last preceding publication on wages ${ }^{1}$ issued by the Conference Board attention was drawn to the failure of employment to keep pace with the increase in production since 1923, indicating the extent to which the increase in manufacturing efficiency had made possible a greater per capita production. A tendency at the beginning of 1926 for employment to advance practically in step with production was noted, and events during the remainder of the year.were in accord with the early indications. Figures for production, compiled by the United States Department of Commerce covering 64 manufactured commodities, show that average manufacturing production was $1.6 \%$ higher in 1926 than in 1925, but employment averaged around $4 \%$ above that in 1925. This leads to the conclusion that up to a certain point industry has made it possible, through greater operating efficiency, to increase production without a commensurate increase in man-power, but that when this point has been reached further production increases can be accomplished only by an increase in employment relatively greater than during the earlier stages of the expansion. This sequence is partly the outcome of the fact that an increase in productive capacity in time requires increased consumer purchasing

Chart 11: Index Numbers of Changes in Employment, by Industries
June, $1920=100$


Chart 11: Index Numbers of Changes in Employment, by Industries-(Continued)

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power, which is not created by rising wages alone but by wider gainful employment.
Manufacturing employment as a whole averaged high in 1926. A recession during the summer and again at the close of the year was compensated by high levels in the spring and fall. The fact that toward the close of the year the total man hours declined somewhat more rapidly than the employment indicated a certain amount of curtailed operating time, but not on an extensive scale. Comparing changes over the entire year of 1926 it is found that 13 of the 25 industries covered by the Conference Board's investigations showed a higher employment in December, 1926, than in December, 1925. This group included such standard industries as agricultural implements, automobiles, electrical apparatus, paper and wood pulp, printing and publishing, iron and steel, meat packing and some of the metal working groups. Among the 12 industries in which employment declined were most of the textiles, rubber, lumber and mill work, chemicals and furniture. At the highest point for the year, in March, total employment in the 25 industries was $5 \%$ higher than at the close of the year.

## Hours of Work

The trend of hours of work in American manufacturing industries has been generally downward for at least two decades. Although between 1921 and 1923, according to the Census of Manufactures, there appeared to be a slight reaction toward longer hours, it is doubtful whether this marks more than a temporary halting of the downward movement. It is questionable, however, if any such precipitous and wide-spread reduction as occurred during the war years is to be repeated. What further reduction occurs is likely to be very gradual and at times hardly perceptible.
As a result of the investigations of the New York State Industrial Survey Commission, conducted during 1926, New York has become the sixth state, in addition to the District of Columbia, to adopt a basic 48-hour law for women. According to the provisions of this law, which was enacted by the 1927 legislature to become effective January 1,1928 , 48 hours shall be the maximum hours per week which women
may be employed in manufacturing and mercantile establishments, except that those companies which make a practice of working 9 hours on five days and $41 / 2$ on Saturday in order

## Chart 12: Prevalling Hours of Work, Manufacturing Industries



Source: United States Census Bureau-Census of Manufactures
to grant a half-holiday may continue this schedule even though the total amounts to $491 / 2$ hours per week. In addition, a total of 78 hours of overtime per year is allowed on such a flexible basis that it may be taken when most needed.

Chart 13: Changes in the Average Nominal Week and the Average Actual Week per Wage Earner, 25 Industries


WAGES IN THE UNITED STATES

The average nominal or full-time work week in the plants covered by the Conference Board's survey has decreased from 55.0 hours in July, 1914 to 49.6 hours in the last quarter of 1926. This shows the radical change in prevailing hours since the pre-war period, but since 1920 the decline has been slight, as at that time the average nominal week was 50.0 hours. The average work week per wage earner moves in conformity with industrial activity and is a quite reliable indicator of business conditions. The closer this figure is to the average nominal week, the nearer general full-time operation is in effect. During 1926, the average hours per wage earner remained at a high level, although declining toward the close of the year. During the final quarter of $1926,48.2$ hours were the average hours per wage earner for the 25 industries covered, as compared with 48.7 hours in the corresponding period of 1925. Sixteen of the 25 industries showed a lower level of actual hours worked at the close of 1926 than at the end of 1925.

## CHAPTER III

## WAGES IN PUBLIC UTILITIES

THE rapid expansion of the public utility industries supplying light, heat and power continued unabated during 1926 and made them increasingly important as branches of our economic life and as barometers of general business conditions. The production of electricity, measured in kilowatt hours, was approximately $11.5 \%$ greater than in 1925 and almost $100 \%$ above the output in 1919. A marked increase of $8 \%$ in efficiency in the utilization of fuel in the production of electric power accompanied the augmented output. Within recent years there has been a large increase in the application of electric power in the home, in agriculture and also in manufacturing industries, where it has largely displaced steam equipment. "This transformation," writes Herbert Hoover, Secretary of Commerce, in his annual report for 1926, "has increased the productivity of our workmen beyond those of any other country; it contributes to our maintenance of high real wages and to the reduction of human sweat."

The present survey of wages in these utilities was conducted by the Conference Board in cooperation with 65 gas companies and 78 electric light and power concerns, controlling 129 gas plants and 288 electric power generating plants, as well as numerous substations. The number of employees for whom wage data were submitted represents approximately $47 \%$ of those shown by the Census of Manufactures for 1922 in the gas industry and $25 \%$ of those employed by electric light and power companies. Reports were received from companies serving large metropolitan centers, smaller localities and rural communities in all sections of the country. The companies which submitted wage information formed a representative group in respect of the number of employees.

The first of the recent studies of the Conference Board on earnings in public utilities was conducted in January, 1925,

Chart 14: Index Numbers of Average Hourly and Weerly Earnings



Chart 15: Index Numbers of Average Hourly and Weekly Earnings


and the data have been supplemented by further studies in July, 1925, January, 1926 and January, 1927. The aim in these surveys has been, not to show the average wage rates paid to specific types of labor, but rather to indicate the relative level of earnings for general classes of workers at certain periods and also to determine the trend of wages in the industry. The classification of employees utilized in this investigation was adopted after consultation with public utility executives, and includes the following: "Inside Production," "Inside Maintenance" and "Outside" labor, which were further subdivided into skilled and unskilled groups. Meter department employees as well as supervisors and clerical workers were excluded.
Average hourly and weekly earnings and average hours of work in the gas and electric industries in January, 1927 are shown in Table 7. The hourly earnings have been derived by dividing the total payroll by the total number of actual man-hours, and weekly earnings have been compiled by dividing the total payroll by the number employed. The average week per wage earner is computed by dividing the aggregate man-hours by the number of workers.

Table 7: Average Hourly and Weerly Earnings and Hours of Worr, in Gas and Electricity Plants, January, 1927

| Clasification of Wage Earmera | Gas |  |  | Electricity |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Hourly Earninga | Average Werkly Earninge | Average Hours of Work | $\begin{aligned} & \text { Average } \\ & \text { Hourfy } \\ & \text { Earning } \end{aligned}$ | $\left\|\begin{array}{c} \text { Average } \\ \text { Weekly } \\ \text { Earninga } \end{array}\right\|$ | Average Houre of Work |
| Inside Production. . \{ Skilled | \$0.614 | \$33.33 | 54.3 | \$0.689 | \$35.51 | 51.6 |
| Unskilled | . 476 | 22.95 | 48.3 | . 485 | 24.29 | 50.1 |
| Inside Maintenance Skilled | . 587 | 29.60 | 50.4 | . 685 | 34.90 | 50.9 |
| Unskilled | . 486 | 23.78 | 48.9 | . 493 | 23.07 | 46.8 |
| Outside. . . . . . . . . Skilled | . 627 | 29.66 | 47.3 | . 691 | 34.60 | 50.1 |
| Unskilled | . 497 | 20.19 | 40.6 | . 468 | 21.50 | 45.9 |
| All Classes. . . . . . . Skilled | . 614 | 31.10 | 50.7 | . 689 | 35.04 | 50.8 |
| Composite-All Wage Eamers | .488 .573 | 21.49 28.28 | 44.0 48.2 | . 478 | 22.50 32.04 | 47.1 49.8 |

This table indicates that earnings of employees in the electric light and power industry are relatively above those of workers in the gas-producing industry. This differential in wages is hardly noticeable for unskilled labor, which group
in January, 1927 , in the gas industry enjoyed a slight advantage of one cent per hour, but is more apparent in the case of skilled workers, for whom in the electric industry the hourly earnings were 7.5 cents per hour greater than in the gas industry. A comparison of hourly earnings of all wage earners in both groups shows that in the gas industry 57.3 cents was the average paid per hour, while in electricity plants the figure was 63.2 cents. Since the average hours of work in electricity companies were 1.6 hours greater than in gas companies, the differential in weekly earnings was somewhat greater than that of hourly earnings. While the hours of work for skilled employees were practically equal in both industries, the difference of 3.1 hours in the unskilled group brought the average for both skilled and unskilled groups to 49.8 hours for electricity, as compared with 48.2 hours for gas. In January, 1927, average weekly earnings of all wage earners in electric light and power plants were $\$ 32.04$, while the corresponding figure in gas plants was $\$ 28.28$.

In order to indicate the trend of wages in the public utilities, a comparison of earnings has been made on the basis of reports of the present investigation begun in January, 1925 and covering about one-third of the employees included in previous investigations which showed data as far back as 1914. The two series are therefore not strictly comparable, but in view of the fact that the companies in the present study were all included in the earlier investigation and that the averages in the more extensive survey are believed to be representative of the industry, figures for the earlier periods have been used as a basis for indicating the trend of recent wages. Wages, effective at three selected earlier periods, have been used for July, 1914 as representing pre-war conditions; June, 1920 as the peak of post-war activity; and December, 1921 as reflecting the low point in the 1920-1922 depression.

From Tables 8 and 9 it is evident that hourly earnings in both gas and electricity plants were practically equal in 1914. By June, 1920, there was an increase of $111 \%$ for gas and $97 \%$ for electricity workers. However, the advantage in favor of earnings of gas workers gradually fell off, so that by December, 1921 the increase over 1914 was $92 \%$, while that in electricity production was $96 \%$, placing the latter in a su-

Table 8: Changes in Hourly and Weekly Earnings, July, 1914-January, 1927, Manufacture and Distribution of Gas
Average Hourly Earnings-Composite and by Labor Groups

|  |  | Composite |  | Skilled |  | Unskilled |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual | Nudex | Actual | Index Numbers | Actual | $\begin{gathered} \text { Index } \\ \text { Numbers } \end{gathered}$ |
| July, | 1914. | \$0.270 | 100 | \$0.318 | 100 | \$0.208 | 100 |
| June, | 1920. | . 570 | 211 | . 606 | 191 | . 512 | 246 |
| December, | 1921. | . 518 | 192 | . 553 | 174 | . 458 | 220 |
| January, | 1925. | . 569 | 211 | . 618 | 194 | . 488 | 235 |
| July, | 1925. | . 552 | 204 | . 604 | 190 | . 474 | 228 |
| Jnuary, | 1926. | . 574 | 213 | . 616 | 194 | . 487 | 235 |
| January, | 1927. | . 573 | 212 | . 614 | 193 | . 488 | 235 |

Average Weekly Earnings-Composite and by Labor Groups

|  |  | Composite |  | Skilled |  | Unskilled |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual | Index Numbere | Actual | $\begin{gathered} \text { Index } \\ \text { Number: } \end{gathered}$ | Actual | $\begin{aligned} & \text { Inder } \\ & \text { Numbera } \end{aligned}$ |
| July, | 1914. | \$14.01 | 100 | \$16.58 | 100 | \$10.77 | 100 |
| June, | 1920. | 29.01 | 207 | 31.46 | 191 | 25.28 | 235 |
| December, | 1921 | 27.31 | 195 | 29.76 | 174 | 23.41 | 217 |
| January, | 1925. | 26.67 | 190 | 30.53 | 184 | 21.17 | 197 |
| \}uly, | 1925. | 26.12 | 186 | 29.40 | 177 | 21.03 | 195 |
| Sanuary, | 1926. | 28.06 | 200 | 30.59 | 184 | 21.75 | 202 |
| January, | 1927. | 28.28 | 202 | 31.10 | 188 | 21.49 | 200 |

Table 9: Changes in Hourly and Weekly Earnings, July, 1914-January, 1927, Generation and Distribution of Electricity
Average Hourly Earnings-Composite and by Labor Groups

|  |  | Componite |  | Skilled |  | Unskilled |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual | Inder Numbera | Actual | Index Numbers | Actual | Index Numbers |
| July, | 1914. | \$0.278 | 100 | \$0.287 | 100 | \$0.238 | 100 |
| \}une, | 1920. | . 545 | 197 | . 563 | 196 | . 482 | 203 |
| December, | 1921. | . 544 | 196 | . 574 | 200 | . 432 | 182 |
| January, | 1925. | . 615 | 221 | . 641 | 233 | . 474 | 199 |
| July, | 1925. | . 611 | 220 | . 667 | 232 | . 473 | 199 |
| January, | 1926. | . 626 | 225 | . 686 | 239 | . 487 | 205 |
| January, | 1927. | . 632 | 227 | . 689 | 240 | . 478 | 201 |

Average Weekly Earnings-Composite and by Labor Groups

|  |  | Composite |  | Skilled |  | Unskilled |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual | Index Number | Actual | $\begin{gathered} \text { Inder } \\ \text { Numbers } \end{gathered}$ | Actual | Index Numbert |
| July, | 1914. | \$14.68 | 100 | \$15.32 | 100 | \$12.10 | 100 |
| June, | 1920. | 26.75 | 182 | 28.16 | 184 | 22.12 | 183 |
| December, | 1921. | 27.54 | 188 | 30.67 | 200 | 18.26 | 151 |
| January, | 1925. | 31.41 | 214 | 32.51 | 212 | 22.23 | 184 |
| \}uly, | 1925. | 31.05 | 212 | 34.38 | 224 | 23.19 | 192 |
| \{nnuary, | 1926. | 31.29 | 213 | 34.55 | 226 | 23.71 | 196 |
| January, | 1927. | 32.04 | 218 | 35.04 | 229 | 22.50 | 186 |

perior position as related to pre-war earnings. From that point until early in 1925, earnings of employees in the gas industry recovered to a position where the hourly wages were approximately on the June, 1920 level. Hourly earnings in electric light and power plants, however, evidenced a rise which exceeded the level in any previous period. Between January, 1925 and January, 1927, there were slight increases in both fields of public utility operations, until at the latter period hourly earnings in gas plants were $112 \%$ higher than in 1914, while those in electricity plants were $127 \%$ greater than at the pre-war base. In June, 1920 and January, 1927, wages in the gas industry were almost equal, while between these points employees in electricity plants received an increase of approximately $11.5 \%$.

Table 10: Changes in Average Hours of Work Per
Wage Earner, July, 1914 January, 1927, Gas
and Electricity Plants

|  |  | Gas |  | Electricity |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual | Index Number: | Actual Hours | Inder Number |
| July, | 1914. | 52.0 | 100 | 52.8 | 100 |
| June, | 1920 | 50.9 | 98 | 49.1 | 93 |
| December, | 1921. | 52.8 | 102 | 50.6 | 96 |
| January, | 1925. | 46.9 | 90 | 49.6 | 94 |
| July, | 1925. | 47.3 | 91 | 50.8 | 96 |
| January, | 1926. | 47.7 | 92 | 49.1 | 93 |
| January, | 1927. | 48.2 | 93 | 49.8 | 94 |

In weekly earnings, as well as hourly earnings, employees in gas works received a greater advance between 1914 and 1920 -an increase of $107 \%$, as compared with $82 \%$ for electrical works employees. Between June, 1920 and January, 1925, there was a decline of about $8 \%$ for gas workers and a gain of approximately $12 \%$ for electrical workers. Since J anuary, 1925, weekly earnings of employees in gas companies have gone up about $6 \%$, while those of electrical workers have risen about 2\%. In January, 1927, wages of gas works employees stood at $\$ 28.28$, or $102 \%$ above the 1914 level, while those of workers in electricity plants were $\$ 32.04$, or $118 \%$ greater than the pre-war figure. Weekly earnings of common labor in gas works at the beginning of 1927 were
$100 \%$ higher than in 1914, and in electricity plants they were $86 \%$ greater; the corresponding figures for skilled labor were $88 \%$ and $129 \%$ in the respective public utility groups.

The figures which have been presented indicate that wages have increased considerably since the pre-war period, while the trend of hours of work has been generally downward. These data are important, but they do not adequately show the status of the wage earner in a period in which the purchasing value of the dollar fluctuates. In order to take into account the changes in the cost of the items which enter into the wage earner's family budget as they affect the buying power of money wages, it is necessary to compute "real" earnings by relating actual earnings at any selected period to the cost of living at that point. For this purpose, the index number of actual wages has been divided by the index number of the cost of living, as compiled by the Conference Board, both series being related to July, 1914 as the base. Table 11 shows the changes in the cost of living and in "real" hourly and weekly earnings.

Table 11: Index Numbers of Cost of Living and "Real" Hourly and Weekly Earnings, all Wage Earners, Gas and Electricity Plants

|  |  | Cont of | Gas |  | Electricity |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { "Real" } \\ & \text { Hourly } \\ & \text { Earning } \end{aligned}$ | $\begin{aligned} & \text { "Real" } \\ & \text { Waekly } \\ & \text { Eaning } \end{aligned}$ | "Real" <br> Hourly <br> Earning | "Real" Weekly Earaing |
| July, |  |  | 100.0 | 100 | 100 | 100 | 100 |
| \}une, | 1920. | 203.0 | 104 | 102 | 97 | 90 |
| December, | 1921. | 162.7 | 118 | 120 | 120 | 116 |
| January, | 1925. | 166.1 | 127 | 114 | 133 | 129 |
| \}uly, | 1925. | 168.7 | 121 | 110 | 130 | 125 |
| January, | 1926. | 170.4 | 125 | 117 | 132 | 125 |
| January, | 1927. | 166.9 | 127 | 121 | 136 | 131 |

Between July, 1914 and January, 1927, the cost of living increased $66.9 \%$, while hourly and weekly earnings increased more than $100 \%$. Therefore the worker's income in wages has increased more than the cost of the necessaries of his budget, so that his relative status at the beginning of 1927 evidenced a marked improvement over 1914. The drop of 3.5 points in the cost of living during 1926, coupled with a
slight rise in hourly earnings of electricity workers and a slight decline for gas workers, carried the "real" hourly earnings to a point $36 \%$ greater than in 1914 for the former group and $27 \%$ above the pre-war base for the latter. "Real" hourly earnings were higher than at any previous point in the selected periods for employees engaged in the generation and distribution of electricity, and for gas works employees they were above previous levels except for January, 1925, when they were on an equal footing. "Real" weekly earnings were $31 \%$ greater than in 1914 for electricity plant workers and $21 \%$ greater for gas plant workers, both figures being above those of any previous level shown in the periods for which data have been compiled.

## CHAPTER IV

## WAGES IN THE BUILDING TRADES

MOUNTING wage scales and an unprecedented volume of building construction have attracted widespread attention to the building situation. Even the general public has come to realize in a vague way that the pyramiding building wages affect them in the form of high rentals or costs of home construction or purchase. To the industrial employer, building wages are indirectly a cause of restlessness among his own employees, many of whom can not understand the justice of comparatively unskilled craftsmen's qualifying for wages so much higher than their own, and this perplexity is shared by many who are not directly affected.

Building Operations in $1926{ }^{1}$
Measured in terms of the dollar value of contracts awarded in 1926, building operations reached higher levels than in any previously recorded year. Except for the depression in 1920-1921, the volume of building expressed by the money value of awarded contracts has increased steadily since 1919. The volume of construction in 1926 was more than double that in 1919. In line with the relatively high levels of business activity which characterized the year, there was an increase over the preceding year in dollar value of contracts a warded for commercial and industrial building, as well as for public or semi-public buildings, works and utilities. Adecrease was noted in the value of contracts for educational buildings, and for the first time since 1920 a decline was registered in the volume of residential construction. Authoritative forecasts for 1927 point to a diminution of about $12 \%$ below 1926 in the value of contemplated construction, ${ }^{2}$ although the outlook is uncertain and the subject of much controversy.

[^2]While the dollar value of construction in 1926 was higher than in 1925, the volume of building in square feet was about

Chart 16: Wages, Costs and Activity in Building
Construction



Sources: National Industrial Conference Board, American Contractor, F. W. Dodge Corporation, United States Bureau of Labor Statistics
five per cent below that of the preceding year. This decline was caused by a recession during the last half of the year
which counterbalanced an increase during the first six months over the corresponding period in 1925. The volume of construction declined slightly for commercial, residential, educational, public and semi-public building and increased for industrial building.

The record of construction for the past two years indicates that there has been a slight reduction in seasonal peaks and that operations have been more evenly sustained than in previous years. The problem of seasonal employment has been recently subjected to close study by the building industry in an effort to lend stability to individual organizations and the industry generally by careful job planning and requisite changes in treatment and protection of materials so that construction may proceed with little if any set-back because of weather conditions. If seasonal fluctuations could be reduced, it would lessen the bargaining advantage which labor possesses during peak periods, would give the contractor an advantage in lower material prices and, with more sustained activity, would contribute toward an increased annual wage for the employees. In addition, it would enable management to select the most efficient workers from the available supply. There would thus be an incentive for employees to render competent service in the desire to be favorably considered in assignments to work when the industry is normally slack. Under efficient management, work carried on with such groups would be more productive, and corresponding intensive use of invested capital would more than compensate for the expense involved in proper protection of material and construction. ${ }^{1}$ A reduction in costs effected in this manner would benefit labor, contractors, transportation companies, trades dependent upon or serving the building industry, and the general public as well.

## Trend of Prices of Building Materials ${ }^{2}$

While the value of construction during 1926 reached unprecedented levels, the price of building materials was generally stable. Between December, 1925 and December, 1926,

[^3]there occurred a slight decline of four points in the index number relative to 1914. From July, 1914, prices increased steadily to 1919, then sharply during 1919 and the early part of 1920 , when they were $226 \%$ above the pre-war figure. During the depression which crippled the economic activities of the country in 1920-1921, prices fell and continued to do so until March, 1922 when a renewed upward movement was noticed. This advance persisted until the spring of 1923 when, after a slight fall, material prices reached a level which has been fairly well sustained from 1924 through 1926. After a period in which fluctuations were the rule, the firmness which material prices have evidenced during the past three years, in the face of increasing demand for products required in the great volume of building, is an indication that relative stabilization has been effected.

The downward tendency of rents for the past two and onehalf years points to the conclusion that the housing shortage arising from a lack of normal construction during the war has been largely, if not entirely, made up. Under these circumstances, the building industry may be on the threshold of a return to a competitive basis where material and labor costs largely determine the volume of building. The magnitude of present construction is in great measure the response to the need for larger commercial, industrial and residential units, a need which will continue to be an important factor in the building industry. Whether or not this growth of construction will endure and whether or not the field of small, well-constructed and moderately priced homes required at present and in the future will be developed, turns largely upon the subsequent course of prices of building materials and labor costs. With sustained or but slightly reduced material prices, it seems clear that the trend of wages will exert a most important influence in determining the magnitude of prospective building projects.

## Trend of Wages in the Building Trades

Under the present organization in the building trades, it is impossible to determine with any degree of accuracy the actual earnings of workers. The irregularity of employment
and the difficulty of securing data for typical periods preclude the compilation of data for weekly earnings which would be comparable with those in other fields of productivity. Whether high rates are justified or not in view of the limited period of employment could be determined only by deducing from comprehensive and authoritative data the actual earnings of a representative group of employees. Such information is not at present available, and it is consequently necessary to confine the discussion of wages in the building trades to data on wage rates.

The average rates and index numbers used in this survey are based upon monthly reports of the American Contractor since August, 1920. In order to construct an average wage rate which would indicate with considerable accuracy the trend of wage scales in the building industry, a method of weighting was applied to each of 17 selected crafts in 23 typical cities. For each trade, prevailing rates in the localities have been weighted by assigning to each rate a weight commensurate with the employment of the craft in the particular city. In compiling the composite rate for the industry as a whole, the average rate for each of the 17 trades was again weighted according to the relative employment in the entire 23 cities.

The cities for which wage rates were computed are: Atlanta, Ga.; Baltimore, Md.; Boston, Mass.; Buffalo, N. Y.; Chicago, Ill.; Cincinnati, O.; Cleveland, O.; Detroit, Mich.; Indianapolis, Ind.; Los Angeles, Cal.; Louisville, Ky.; Memphis, Tenn.; Milwaukee, Wis.; New York, N. Y.; Omaha, Neb.; Philadelphia, Pa.; Pittsburgh, Pa.; Richmond, Va.; Rochester, N. Y.; St. Louis, Mo.; San Francisco, Cal.; and Washington, D. C. The 17 selected trades are: bricklayers; carpenters; cement masons; electricians; hod carriers; hoisting engineers; laborers; marble setters; painters; plasterers; plasterers' helpers; plumbers; sheet metal workers; steam fitters' helpers; stone masons; structural iron workers; and tile setters.

The weighted average wage rates thus secured, together with percentages indicating the relative change since 1914, are shown in Tables 12 and 13. At the close of 1926, wage rates were 114.4 cents per hour, which was a rise of $5.3 \%$ for
the year and was the highest point reached since the beginning of this study. When compared with the trend of wages in other industries, the increase of $127.9 \%$, from July, 1914 to December, 1926 may appear relatively conservative. It should be recalled, however, that at the pre-war level the existing scale in the building trades of 50.2 cents was much higher than the average hourly earnings of 24.5 cents in manufacturing industries, 25.4 cents on Class I railroads and 28.4 cents in anthracite mining.

Table 12: Wages of Building Labor<br>Cents Per Hour-December, 1926

| Trades | Minimum | Average | Maximum |
| :---: | :---: | :---: | :---: |
| Plasterers. | \$1.250 | \$1.618 | \$1.750 |
| Bricklayers | 1.250 | 1.535 | 1.750 |
| Stone masons | 1.063 | 1.450 | 1.750 |
| Structural iron workers. | . 875 | 1.432 | 1.750 |
| Marble setters | 1.125 | 1.422 | 1.625 |
| Tile layers. | 1.000 | 1.386 | 1.500 |
| Electricians | . 813 | 1.325 | 1.500 |
| Plumbers. | :875 | 1.325 | 1.500 |
| Hoisting engineers | . 825 | 1.247 | 1.750 |
| Sheet metal workers. | . 875 | 1.233 | 1.500 |
| Carpenters. | . 700 | 1.227 | 1.500 |
| Painters. | . 700 | 1.223 | 1.500 |
| Cement finishers | . 350 | 1.177 | 1.500 |
| Plasterers' helpers. | . 375 | 1.005 | 1.250 |
| Hod carriers. | . 375 | . 966 | 1.125 |
| Steam fitters' helpers | . 250 | . 805 | 1.000 |
| Laborers............ | . 300 | . 688 | . 906 |

The increase in wage scales during 1926 exceeded that which occurred during 1925 and 1924 and thus served to undermine the belief which was prevalent a year ago that wages in the building trades had become stabilized and would show no further rise. The greatest increase during the year took place between April and May, when an advance of 2.3 cents per hour was indicated. This was preceded by a rise of 2.0 cents per hour between March and April, which was the next highest gain during the year. In general, a fairly consistent upward movement was maintained which carried wage rates from 108.9 cents per hour in January to 114.4 cents in December.

According to the record maintained by the American Contractor, wage increases were granted to 452 crafts and de-

Table 13: Composite Weighted Average Wage Rates per Hour, for 23 Cities, by Building Trades

| Tradea | 1926 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan. | Feb. | Mar. | April | May | Jung | July | Aus. | Sept. | Oct. | Nov. | Dec. |
| Bricklayers | \$1.405 | \$1.405 | \$1.408 | \$1.413 | \$1.486 | \$1.487 | \$1.507 | \$1.515 | \$1.520 | \$1.535 | \$1.535 | \$1.535 |
| Carpenters | 1.155 | 1.155 | 1.163 | 1.209 | 1.222 | 1.229 | 1.220 | 1.221 | 1.214 | 1.227 | 1.227 | 1.226 |
| Cement masons | 1.115 | 1.115 | 1.115 | 1.145 | 1.152 | 1.165 | 1.167 | 1.167 | 1.167 | 1.177 | 1.177 | 1.177 |
| Electricians | 1.258 | 1.258 | 1.267 | 1.322 | 1.294 | 1.294 | 1.302 | 1.304 | 1.304 | 1.325 | 1.325 | 1.325 |
| Hod carriers | . 920 | . 920 | . 920 | . 942 | . 966 | . 966 | . 966 | . 966 | . 966 | . 966 | . 966 | . 966 |
| Hoisting engineers | 1.182 | 1.182 | 1.192 | 1.227 | 1.221 | 1.237 | 1.237 | 1.237 | 1.237 | 1.247 | 1.247 | 1.247 |
| 1 Laborers . | . 678 | . 678 | . 680 | . 692 | . 709 | . 682 | . 682 | . 683 | . 683 | . 688 | . 688 | . 688 |
| Marble setters | 1.307 | 1.307 | 1.322 | 1.383 | 1.384 | 1.404 | 1.404 | 1.404 | 1.404 | 1.422 | 1.422 | 1.422 |
| Painters | 1.132 | 1.132 | 1.132 | 1.206 | 1.208 | 1.219 | 1.222 | 1.222 | 1.223 | 1.223 | 1.223 | 1.223 |
| Plasterers | 1.517 | 1.517 | 1.520 | 1.520 | 1.598 | 1.613 | 1.614 | 1.614 | 1.614 | 1.618 | 1.618 | 1.618 |
| Plasterers' helpers. | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | . 999 | 1.005 | 1.005 | 1.005 |
| Plumbers | 1.247 | 1.252 | 1.254 | 1.270 | 1.308 | 1.314 | 1.314 | 1.314 | 1.325 | 1.325 | 1.325 | 1.325 |
| Steam fitters' helpers | 1.138 | 1.139 | 1.144 | 1.191 | 1.200 | 1.201 | 1.207 | 1.208 | 1.208 | 1.231 | 1.233 | 1.233 |
| Stone masons. | . 804 | . 804 | . 804 | . 805 | . 805 | . 805 | . 805 | . 805 | . 805 | . 805 | . 805 | . 805 |
| Sheet metal workers. | 1.385 | 1.388 | 1.390 | 1.400 | 1.446 | 1.446 | 1.446 | 1.446 | 1.446 | 1.450 | 1.450 | 1.450 |
| Structural iron workers. | 1.313 | 1.313 | 1.313 | 1.319 | 1.324 | 1.344 | 1.344 | 1.345 | 1.345 | 1.363 | 1.363 | 1.432 |
| Tile setters | 1.312 | 1.313 | 1.313 | 1.377 | 1.383 | 1.383 | 1.383 | 1.386 | 1.386 | 1.386 | 1.386 | 1.386 |
| Average for 17 trades. | 1.089 | 1.089 | 1.091 | 1.111 | 1.134 | 1.132 | 1.132 | 1.133 | 1.132 | 1.141 | 1.141 | 1.144 |

creases to 25 crafts during 1926, or a net increase to 427 trades. During a five-year period there were net increases as follows: 1922, 133 crafts; 1923, 813 crafts; 1924, 427 crafts; 1925, 253 crafts. It is apparent, therefore, that during the five-year period only in 1923 was there a greater number of net increases awarded to building trades than in 1926. The mere fact that during any selected period there has been a larger number of increases does not indicate that the composite wage rate for the building industry will show a corresponding upward movement. For example, one increase to a large, highly paid group will far outweigh a number of decreases to smaller, lower paid crafts. To bear this point out, one need only compare the number of increases and decreases for 1924 and 1926, when a net advance was reported in 427 trades during both years, yet according to a compilation of actual rates there was a rise of 4.7 cents during 1924 and 5.5 cents during 1926.

Further evidence that the highly paid crafts have profited to a greater extent by recent increases is presented in a tabulation of wage rates for 17 trades during December of 1920, 1925 and 1926, as shown in Table 14. Between 1920 and

Table 14: Average Building Construction Wage Rates, 23 Cities, by Trades, December, 1920, December, 1925
and December, 1926

| Trade | Wage Rate December, 1920 | $\begin{aligned} & \text { Wage Rate } \\ & \text { Dacember, } \\ & 1925 \end{aligned}$ | $\begin{gathered} \text { Wage Rate } \\ \text { December, } \\ 1926 \end{gathered}$ | $\begin{gathered} \text { Percentage } \\ \text { Increase } \\ \text { December, } \\ 1920 \text { to } \\ \text { December, } \\ 1926 \end{gathered}$ | $\begin{gathered} \text { Percentage } \\ \text { Increase } \\ \text { December, } \\ 1920 \text { to } \\ \text { December, } \\ 1926 \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Plasterers. | \$1.207 | \$1.510 | \$1.618 | 34.1 | 7.2 |
| Bricklayers. | 1.243 | 1.389 | 1.535 | 23.5 | 10.5 |
| Stone masons | 1.202 | 1.385 | 1.450 | 20.6 | 4.7 |
| Structural iron worke | 1.162 | 1.311 | 1.432 | 23.2 | 9.2 |
| Marble setters | 1.127 | 1.307 | 1.422 | 26.2 | 8.8 |
| Tile layers | 1.111 | 1.308 | 1.386 | 24.8 | 6.0 |
| Plumbers. | 1.090 | 1.246 | 1.325 | 21.6 | 6.3 |
| Electricians. | 1.166 | 1.252 | 1.325 | 13.6 | 5.8 |
| Hoisting engineers | 1.128 | 1.182 | 1.247 | 10.5 | 5.5 |
| Sheet metal workers | 1.095 | 1.132 | 1.233 | 12.6 | 8.9 |
| Carpenters. | 1.085 | 1.155 | 1.227 | 13.1 | 6.2 |
| Painters. | 1.066 | 1.132 | 1.223 | 14.7 | 8.0 |
| Cement finishers. | 1.064 | 1.115 | 1.177 | 10.6 | 5.6 |
| Plasterers' helpers | . 896 | . 999 | 1.005 | 12.2 | . 6 |
| Hod carriers ... | . 869 | . 920 | . 966 | 11.2 | 5.0 |
| Steam fitters' helpers. | . 800 | . 804 | . 805 | . 6 | . 1 |
| Laborers. . . . . . . . . | . 716 | . 678 | . 688 | -3.9 | 1.5 |

1926, there were greater increases in actual rates to the highly paid plasterers, bricklayers, masons, structural iron workers, marble setters, tile layers and plumbers than to the relatively lower paid laborers, steam fitters' and plasterers' helpers and hod carriers. The differentials in wage scales in these groups were thus exaggerated by unequal accretions through wage increases which placed the highly paid group in a comparatively superior position in 1926. During 1926, the more remunerative crafts generally received proportionately larger advances, although in the group intermediate between the relatively high and low paid trades there were indications of the beginning of a tendency to equalize rates in the industry.

For the purpose of indicating the variation in wage scales in the twenty-three cities included in the survey, a compilation of rates in effect at the close of 1926 in each of the crafts was undertaken, the results of which are presented in Table 15. From these data it appears that composite wage rates were highest in New York, Pittsburgh, St. Louis and Chicago, each of which is an important building center, while the lowest scales were in effect in Atlanta, Richmond, Memphis and Los Angeles. Between 1920 and 1926, New York, Pittsburgh, St. Louis, Boston, Cincinnati, Louisville and Washington, D. C. acquired the greatest relative increments in wage scales in the cities covered, while Los Angeles, San Francisco and Omaha showed declines for the corresponding period.

## Material Prices, Wages and Volume of Building

There is general agreement that two main factors have induced the steadily increasing scale of wages in the building trades, namely, the close trade union organization of the craftsmen and the great volume of construction. A recent study ${ }^{1}$ shows that in 1920 a greater proportion of wage earners were organized in building crafts than in any other occupation except mining and transportation. In the industry as a whole, $25.5 \%$ of the wage earners were organized, but the influence which this number is able to exert under the con-

[^4]Table 15: Weighted Average Building Construction Wages, by Cities, December, 1926

| Cities | Brick- layers | $\left\lvert\, \begin{gathered} \text { Car- } \\ \text { penters } \end{gathered}\right.$ | Cement Masons | $\begin{array}{\|c\|} \text { Elec- } \\ \text { ericians } \end{array}$ | $\begin{aligned} & \text { Hod } \\ & \text { Car- } \\ & \text { riers } \end{aligned}$ | $\begin{array}{c}\text { Hoist } \\ \text { ing- } \\ \text { Engi- } \\ \text { neers }\end{array}$ | $\begin{array}{\|c} \text { Laborr } \\ \text { era } \end{array}$ | Marble Setters | $\left\|\begin{array}{c} \text { Paint- } \\ \text { ers } \end{array}\right\|$ | Plas- terers | $\begin{array}{\|c\|} \hline \text { Plas- } \\ \text { terers' } \\ \text { Helpp } \\ \text { ers } \\ \hline \end{array}$ | $\underset{\substack{\text { Plumb- } \\ \text { ers }}}{ }$ | Sheet Metal Work ers | $\begin{array}{\|c} \text { Steam } \\ \text { Fitters } \\ \text { Help- } \\ \text { ers } \\ \hline \end{array}$ | $\left\|\begin{array}{c} \text { Stone } \\ \text { Masons } \end{array}\right\|$ | $\begin{array}{\|c\|c\|} \text { Struc- } \\ \text { tural } \\ \text { Uron } \\ \text { Work } \\ \text { ers } \end{array}$ | $\left\lvert\, \begin{gathered} \text { Tile } \\ \text { Setters } \end{gathered}\right.$ | $\begin{array}{\|l\|l} \text { Averer } \\ \text { age, } 17 \\ \text { Tradee } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New England |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | \$1.400 | \$1.250 | 250 | 250 | 0.790 | 1.250 | \$0.740 | \$1.400 | \$1.250 | 1.500 | \$0.950 | 1.250 | \$1.250 | \$0.800 | \$1.400 | \$1.250 | \$1.400 | \$1.185 |
| Buffalo. | 1.500 | . 913 | . 938 | 1.250 | . 550 | 1.188 | . 550 | 1.250 | 1.000 | 1.500 |  | 1.375 | . 963 |  | 1.500 | 1.175 | 1.250 | 1.039 |
| New York | 1.750 | 1.500 | 1.500 | 1.500 | 1.125 | 1.750 | . 906 | 1.500 | 1.500 | 1.750 | 1.063 | 1.500 | 1.500 | 1.000 | 1.750 | 1.750 | 1.500 | 1.460 |
| Rocheste | 1.438 | 1.150 | 1.438 | 1.250 | . 700 | 1.150 | . 675 | 1.313 | 1.150 | 1.438 |  | 1.313 | 1.155 | . 250 | 1.438 | 1.250 | 1.313 | 1.147 |
| Philadelphi | 1.563 | 1.125 | 1.063 | 1.094 | . 850 | 1.114 | . 475 | 1.500 | 1.000 | 1.625 | 1.125 | 1.075 | 1.013 | . 525 | 1.400 | 1.438 | 1.500 | 1.056 |
| Pittsburgh. | 1.625 | 1.500 | 1.350 | 1.500 | 1.125 | 1.438 | . 800 | 1.375 | 1.500 | 1.663 | 1.098 | 1.500 | 1.500 | . 875 | 1.438 | 1.500 | 1.500 | 1.392 |
| South Atlantic Baltimore. | 1.625 | 1.050 | 1.250 | 1.438 | 1.000 | 1.188 | . 400 | 1.625 | . 950 | 1.750 |  | 1.250 | 1.250 | . 800 | 1.625 | 1.375 | 1.375 | 1.042 |
| Richmond, Va | 1.500 | . 800 | . 750 | . 813 | . 550 | . 825 | . 400 | 1.125 | . 725 | 1.375 |  | . 875 | . 875 | . 250 | 1.250 | 1.00 | 1.125 | . 805 |
| Washington, D. | 1.625 | 1.125 | 1.125 | 1.375 | . 625 | 1.375 | . 575 | 1.250 | 1.188 | 1.625 |  | 1.375 | 1.375 | . 650 | 1.25 | 1.50 | 1.250 | 1.138 |
| Atlanta. | 1.325 | . 700 | . 350 |  | . 375 |  | . 300 | 1.250 | . 700 | 1.250 | .375 | 1.250 | . 925 | . 375 | 1.125 | 1.250 | 1.250 | . 763 |
| East South Central Louisville. | 1.500 | 1.000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Memphis | 1.625 | . 800 | . 913 | . 900 | . 813 | 1.000 | . 300 | 1.250 | 1.000 | 1.563 | . 750 | 1.313 | 1.125 | . 625 | 1.625 | 1.250 1.000 | 1.250 | 1.024 |
| East North Central |  |  |  |  |  |  |  |  |  |  |  | 1.313 |  |  | 1.625 | 1.000 | 1.250 |  |
| Cincinnati | 1.625 | 1.313 | 1.238 | 1.313 | . 950 | 1.313 | . 580 |  | 1.250 | 1.500 | . 950 | 1.350 | 1.163 | . 788 | 1.250 | 1.313 | 1.250 | 1.199 |
| Cleveland | 1.500 | 1.250 | 1.250 | 1.500 | . 875 | 1.300 | . 875 | 1.500 | 1.250 | 1.625 | . 875 | 1.500 | 1.375 | . 750 | 1.500 | 1.500 | 1.500 | 1.286 |
| Detroit | 1.575 | 1.075 | . 900 | 1.250 | . 750 | 1.075 | . 575 | 1.350 | . 900 | 1.625 | 1.000 | 1.263 | . 950 | . 600 | 1.375 | 1.125 | 1.350 | 1.058 |
| Grand Rap | 1.500 | . 925 | . 900 | . 825 | . 750 | . 900 | . 475 | 1.263 | . 825 | 1.500 | . 550 | 1.000 | . 900 | . 550 | 1.350 | 1.188 | 1.150 | . 895 |
| Chicago | 1.625 | 1.300 | 1.300 | 1.500 |  | 1.250 | . 900 | 1.500 | 1.288 | 1.625 | . 944 | 1.375 | 1.325 |  | 1.238 | 1.500 | 1.300 | 1.289 |
| Indianapoli | 1.625 | 1.150 | 1.050 | 1.250 | . 825 | 1.250 | . 425 | 1.250 | 1.100 | 1.500 | . 875 | 1.350 | 1.100 | . 800 | 1.500 | 1.350 | 1.250 | 1.075 |
| West North | 1.250 | 1.000 | . 875 | 1.125 | . 850 | 1.000 | . 650 | 1.125 | 1.000 | 1.433 | . 900 | 1.188 | 1.000 | . 625 | 1.250 | 1.200 | 1.250 | 1.021 |
| St. Lo | 1.750 | 1.500 | 1.500 | 1.500 | 1.115 | 1.575 | . 813 | 1.375 | 1.375 | 1.750 | 1.250 | 1.500 | 1.500 | . 875 | 1.500 | 1.500 | 1.500 | 1.375 |
| Omaha | 1.375 | 1.000 | 1.250 | 1.125 | . 700 | 1.125 | . 500 | 1.125 | . 950 | 1.313 | . 700 | 1.125 | . 900 | . 750 | 1.125 | 1.125 | 1.000 | . 928 |
| Pacific |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| San Francisco. | 1.250 | 1.000 | 1.063 | 1.000 | . 813 | 1.000 | . 594 | 1.125 | 1.000 | 1.250 | . 875 | 1.125 | 1.063 | . 750 | 1.063 | 1.250 | 1.125 | . 969 |
| Los Angeles... | 1.375 | . 938 | . 938 | . 938 | . 875 | . 938 | . 500 | 1.375 | . 875 | 1.438 |  | 1.125 | . 875 | . 625 | 1.375 | . 875 | 1.375 | . 907 |
| Average-23 cities. | 1.535 | 1.227 | 1.177 | 1.325 | . 966 | 1.247 | . 688 | 1.422 | 1.223 | 1.618 | 1.005 | 1.325 | 1.233 | . 805 | 1.45 | 1.432 | 1.38 | 1.144 |

ditions of employment is greater than may at first be apparent. It is of interest to note from these data that there is a high degree of correlation between wage rates and the extent of trade union membership in specified crafts. For example, while the building industry as a whole was $25.5 \%$ organized, the highly paid brick and stone masons were $50 \%$ organized, plasterers $46.6 \%$, carpenters $40.5 \%$, plumbers $33.5 \%$ and painters 29.1\%.

The second factor which has influenced the upward movement of wages has been the unprecedented volume of construction during recent years. The continuing demand for building has thus far absorbed wage increases, since contractors, in order not to jeopardize contracts, hesitated to resist wage earners' demands in a definite and determined manner. The result has been reflected in sustained or enlarged construction costs despite recessions in the price of building materials.

As a result of a study of the relative proportion of labor and material costs of typical buildings, conducted by Barclay White, it was found that wages of skilled and unskilled labor contributed $36.99 \%$ of the total building cost, while material costs constituted $42.88 \%$ of the aggregate expense. Applying these figures to the index numbers of wage rates and material prices for 1920 and for other periods in accordance with changes in the trend of these items, a ratio was constructed showing the relative weight of wage rates and material prices from 1914 to 1926 as follows: ${ }^{1}$


These data show that after a gradual decline from 1914 to 1917, wage rates have almost constantly taken a greater proportion of combined costs until, at the close of 1926, out of every dollar expended for material and wages 60.1 cents went in wages to building labor.

[^5]Thus far high wages have not retarded the volume of construction to an appreciable extent because of the urgent requirement for buildings. However, declining rents in recent years and forecasts for 1927 of a decline below 1926 in value of construction indicate that the industry has made up much of the accumulated shortage of building. It seems probable that increased or sustained wage rates and material prices, in the face of an apparently declining demand for construction, will tend to retard any large scale of building projects.

## CHAPTER V

## WAGES IN AGRICULTURE

WHILE agriculture is predominantly a proprietary industry in that about three-fourths of farm labor is normally performed by the farmer and his family, the wages of hired labor are an important factor in successful farm operation. The influence which hired labor costs exert is indicated by the fact that they constitute about $12 \%$ of the farmer's cash expenditures and that they are earned by a group of laborers without tenure consisting of $40 \%$ of the persons engaged in agriculture: Wages of hired labor are generally sensitive and responsive to fluctuations in the farmer's burden of expenditures in that a rise of expenses tends to produce a reduction in wages.
The farm labor supply is affected by the industrial labor supply and demand, by restriction of immigration and by the differential in wages between other industries and agriculture. Thus if farm wages are low in comparison with other industries and there is a limited labor supply, labor tends to move from the farm to the city. The farmer's costs are thereby increased, and he may choose between working harder himself, using more family labor or applying machinery more extensively if he can afford to do so. The competitive labor influences and resultant high farm wages may finally benefit agriculture, although immediately the effect is a reduction of the supply of cheap farm workers, an increase in farming costs and added burdens of labor on the farmer and his family. The tendency in agriculture to reduce the employment of hired labor to a minimum and to substitute more family labor and machinery is reflected in the decline of about $8 \%$ in the proportion of hired labor to the total labor used in farming between 1880 and 1920, and a corresponding increase in the amount of machinery per worker, until it is now nearly ten times greater than in 1850.

Table 16: Wages of Farm Labor, 1914-19261

| Year |  | Wages Per Month |  | Wages Per Day |  | Weighted Average Wages ${ }^{\prime}$ | Index Nos. Wages |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | With Board | Without Board | With | Without Board |  | Monthly Without Board | Monthly <br> Weighted |
| 1914. |  | \$20.90 | \$29.72 | \$1.11 | \$1.44 | \$24.26 | 100 | 100 |
| 1915. |  | 21.08 | 29.97 | 1.12 | 1.45 | 24.46 | 101 | 101 |
| 1916. |  | 23.04 | 32.58 | 1.24 | 1.60 | 26.83 | 110 | 111 |
| 1917. |  | 28.64 | 40.19 | 1.56 | 2.00 | 33.42 | 135 | 138 |
| 1918. |  | 35.12 | 49.13 | 2.05 | 2.61 | 42.12 | 165 | 174 |
| 1919. |  | 40.14 | 56.77 | 2.44 | 3.10 | 49.11 | 191 | 202 |
| 1920. |  | 47.24 | 65.05 | 2.84 | 3.56 | 57.01 | 219 | 235 |
| 1921. |  | 30.25 | 43.58 | 1.66 | 2.17 | 35.77 | 147 | 147 |
| 1922. |  | 29.31 | 42.09 | 1.64 | 2.14 | 34.91 | 142 | 144 |
| 1923. |  | 33.09 | 46.74 | 1.91 | 2.45 | 39.64 | 157 | 163 |
| 1924. |  | 33.34 | 47.22 | 1.88 | 2.44 | 39.67 | 159 | 164 |
| 1925 | January | 31.07 | 45.04 | 1.74 | 2.31 | 37.24 | 152 | 154 |
|  | April. | 33.86 | 47.40 | 1.77 | 2.33 | 39.04 | 159 | 161 |
|  | July. | 34.94 | 48.55 | 1.89 | 2.44 | 40.62 | 163 | 167 |
|  | October | 34.91 | 48.99 | 1.95 | 2.53 | 41.28 | 165 | 170 |
| 1926 | January | 31.82 | 46.26 | 1.76 | 2.33 | 37.94 | 156 | 156 |
|  | April | 34.38 | 48.40 | 1.78 | 2.35 | 39.56 | 163 | 163 |
|  | July | 36.10 | 49.89 | 1.91 | 2.48 | 41.59 | 168 | 171 |
|  | October | 36.00 | 50.10 | 1.97 | 2.55 | 42.10 | 169 | 174 |

[^6]Farm wages are influenced also by agricultural prices and by factors peculiar to farm relationships. They tend, of course, to vary with industrial trends when farms are situated close to industrial centerṣ and when manufacturing plants are active. But in sections more remote from urban centers, they are influenced mainly by the ability of the farmer to afford the use and the payment for the requisite labor. In this case, farm prices and other costs which largely affect the income of the farmer will determine the advisability of utilizing hired labor under such circumstances. Moreover, since nearly half of the farm laborers are employed on the home farm, there is a special relationship between the laborer and the job which makes the worker more aware of the position of the employer and more willing to accept wage reductions and to remain in his employment. For the farm laborer, his employment is more than a gainful occupation; it is a system of living which tends to hold him to his job and to his employer to a greater extent than is evidenced in other industries. For these reasons farm wages are more responsive to
price changes than industrial wages, as may be noted on Chart 17.

Chart 17: Wages and Prices in Agriculture and Manufacturing Industries


Sources: National Industrial Conference Board, United States Department of Agriculture, United States Bureau of Labor Statistics

This chart shows that during the war period farm wages advanced less rapidly than prices and fell to a less extent thereafter. Since 1919, wages have maintained a level con-
siderably above prices, and between 1922 and 1925 tended to rise almost as rapidly as farm prices. During 1926 a continued increase of wages, coupled with a decline in farm prices for the first time since 1920, widened the gap between wages and prices so that, while for 1925 wages were $66 \%$ above 1914 levels and prices $44 \%$ above the pre-war figure, by 1926 wages were about $70 \%$ greater than in 1914, while prices were but $33 \%$ higher than at the base period. There are evidences, therefore, that the sustained high levels of industrial wages and activity and the restriction of immigration have served to keep farm wages high. To some degree the increased labor cost as a result of higher wages may have been compensated by a more extensive substitution of machinery for manual labor.

## CHAPTER VI

## WAGES ON CLASS I RAILROADS

## Railroad Operations in 1926

REFLECTING the industrial activity of the country, the railroads of the United States in 1926 reached higher traffic levels than ever before. More revenue freight was moved than in any preceding year, and high records of car loadings were established in the annual total of $53,309,644$ cars as against $51,224,152$ for 1925 and 48,534 ,433 for 1924. While the recession in aggregate passengermiles which has been evident in recent years continued, revenue ton-miles of freight showed substantial gains over 1925 and 1924 , rising $7.2 \%$ and $14.3 \%$ over the respective periods.

Not only was there an increase of freight traffic, but there is also clear evidence of increased efficiency in handling it. More cars per train and locomotive, greater tractive power of locomotives, decreased consumption of fuel, and increased speed of trains over corresponding records for 1925 go far toward explaining the ability of the railroads to transport record-breaking traffic with but a slight increase in man-power. More ton-miles of freight and more equated traffic units per man-hour were reported than for any year since 1920, as shown in Table 17. While freight revenue per mile declined, by economies of operation the railroads were able further to decrease the ratio of expenses to revenues and to show a higher rate of return on their investment. The return of $5.13 \%$ on the invested capital, while still below the $5.75 \%$ prescribed by the Interstate Commerce Commission as a "fair return," is above that of any year since 1920.
The United States Board of Mediation, established under provisions of the Watson-Parker Bill to settle disputes concerning wages and working conditions without interrupting transportation, awarded an increase of $7 \frac{1}{2} \%$ in wage rates to conductors, baggagemen, flagmen and brakemen employed on fifty railroads in the eastern part of the United States.

## Table 17: Significant Factors in Railroad Operations, 1920-1926

| Year | Revenue Car Coad ings (000) | $\begin{array}{\|l} \text { Revenue } \\ \text { Ton-Miles } \\ (000,000) \end{array}$ | Passenger- Milise <br> $(000,000)$ | Reve- nue Per Ton- Mile | Reve- nue Per Passen- ger-e Mile | Ton-Miles Employes ${ }^{4}$ | Equated <br> Traffic <br> Units <br> Per <br> Man- <br> Mour² | $\begin{gathered} \text { Operat- } \\ \text { ing } \\ \text { Ratio } \end{gathered}$ | Percent- <br> age <br> Race of <br> Return <br> on <br> on <br> ment- <br> ment |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920. | 45,118 | 410,306 | 46,849 | \$0.105 | \$0.275 | 243,419 | 116 | 94.29 | 0.09 |
| 1921. | 39,323 | 306,840 | 37,313 | . 128 | . 309 | 232,648 | 119 | 82.68 | 2.92 |
| 1922. | 43,207 | 339,285 | 35,470 | . 118 | . 303 | 260,619 | 126 | 79.39 | 3.61 |
| 1923. | 49,812 | 412,727 | 37,957 | . 112 | . 302 | 276,062 | 130 | 77.79 | 4.48 |
| 1924. | 48,534 | 388,415 | 36,091 | . 112 | . 298 | 284,206 | 137 | 76.08 | 4.33 |
| 19251. | 51,224 | 414,089 | 35,960 | . 110 | . 293 | 304,773 | 146 | 74.07 | 4.84 |
| $1926{ }^{1}$ | 53,310 | 444,039 | 35,487 | . 108 | . 294 | 319,497 | 149 | 73.12 | 5.13 |

[^7]This increase over the rates in force on November 30 took effect on December 1, 1926. Continued activity on the part of this Board indicates that its offices will be invoked in a number of controversies.

## Wages, Hours and Employment on Class I Railroads.

The data on wages, hours of work and employment presented in this survey have been compiled from the official reports of the Interstate Commerce Commission. Average weekly earnings and average hours per week have been computed by dividing the annual, quarterly or monthly figures by the number of weeks in the period. In order to avoid unnecessary detail and to facilitate the following of trends, the monthly data have been averaged by quarters since 1925.

Wages of employees on Class I railroads have been well sustained since 1921 without any pronounced fluctuations. During the last quarter of 1925 and the corresponding period in 1926, hourly and weekly earnings of all wage earners were practically at the same levels. Increased hours of work raised the weekly earnings slightly, and a decline in the cost of living

Chart 18: Average Hourly Earnings, All Wage Earners and Classified Groups, Class I Railroads


Chart 19: Average Weerly Earnings, All Wage Earners and Classified Groups, N Class I Railroads


Chart 20: Average Hourly and Weekly Earnings, Skilled Railroad Shop Labor and Skilled Foundry and Machine Shop Labor



Chart 20: Average Hourly and Weekly Earnings, Skilled Railroad Shop Labor and Skilled Foundry and Machine Shop Labor-(Continued)


Chart 21: Index Numbers of Hourly and Weerly "Money" and "Real" Earnings and the Cost of Living, All Wage Earners, Class I Railroads $1914=100$


Sources: National Industrial Conference Board and Interstate Commerce Commission
placed the wage earner in a slightly better position with respect to "real" earnings.

Hourly earnings of all train and engine service employees declined during the first half of the year, but a rising ten-

## Chart 22: Indices of Railroad Operating Efficiency and Activity


dency was evident during the latter half. An increase in the hours of work carried the weekly earnings to a higher point than in the preceding year. Wages of skilled shop labor increased gradually and were slightly higher than in 1925. Earnings of unskilled labor showed no pronounced change over the figures for the preceding year. Wage data for segregated groups of employees are indicated in the following tables:

Table 18: Employment, Wages and Hours, All Wage Earners, Class I Railroads

| Period | $\begin{gathered} \text { Avernee } \\ \text { Number } \\ \text { Eeppoyed } \end{gathered}$ | Average Hourty Earnings |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{\|l\|l\|} \hline \text { Actual } \\ \text { Centes } \end{array}$ | $\begin{array}{\|l\|} \hline \text { Inder } \\ \text { Actual } \end{array}$ | Index, | Actual Dollarm | Inder Acrual | Index <br> "Real" |  |
| Fiscal Year 1914-15. | 1,131,676 | 25.4 | 100 | 100 | \$15.17 | 100 | 100 | 59.7 |
| Fiscal Year 1915-16. | 1,329,055 | 26.2 | 103 | 102 | 15.68 | 103 | 102 | 59.8 |
| Calendar Year 1916. | 1,369,691 | 26.9 | 106 | 98 | 16.41 | 108 | 99 | 61.0 |
| Calendar Year 1917. | 1,432,662 | 30.9 | 122 | 93 | 18.76 | 124 | 94 | 60.6 |
| Calendar Year 1918. | 1,517,252 | 45.2 | 178 | 113 | 27.03 | 178 | 112 | 59.9 |
| Calendar Year 1919. | 1,571,738 | 54.3 | 214 | 125 | 27.93 | 184 | 107 | 51.4 |
| Calendar Year 1920. | 1,685,594 | 65.8 | 259 | 131 | 34.19 | 225 | 114 | 52.0 |
| Calendar Year 1921. | 1,318,900 | 63.8 | 251 | 152 | 30.97 | 204 | 124 | 48.6 |
| Calendar Year 1922. | 1,301,842 | 58.8 | 231 | 148 | 29.64 | 195 | 125 | 50.4 |
| Calendar Year 1923. | 1,495,053 | 58.6 | 231 | 143 | 29.66 | 196 | 121 | 50.6 |
| Calendar Year 1924. | 1,366,666 | 59.4 | 234 | 143 | 29.31 | 193 | 118 | 49.4 |
| First Quarter 1925. | 1,316,686 | 61.2 | 241 | 145 | 30.23 | 199 | 120 | 49.4 |
| Second Quarter 1925. | 1,355,131 | 59.9 | 236 | 142 | 29.49 | 194 | 117 | 49.2 |
| Third Quarter 1925. | 1,388,665 | 60.1 | 237 | 141 | 29.60 | 195 | 116 | 49.2 |
| Fourth Quarter 1925. | 1,374,241 | 61.3 | 241 | 141 | 30.35 | 200 | 117 | 49.5 |
| First Quarter 1926. | 1,311,819 | 60.9 | 240 | 142 | 30.48 | 201 | 119 | 50.1 |
| Second Quarter 1926. | 1,392,194 | 59.4 | 234 | 139 | 29.71 | 196 | 117 | 50.1 |
| Third Quarter 1926. | 1,429,564 | 59.6 | 235 | 142 | 29.93 | 197 | 119 | 50.2 50.1 |
| Fourth Quarter 1926. | 1,405,644 | 61.2 | 241 | 144 | 30.67 | 202 | 120 | 50.1 |

Table 19: Employment, Wages and Hours, All Train and Engine Service Labor, Class I Railroads

| Period | $\begin{aligned} & \text { Average } \\ & \text { Number } \\ & \text { Emploged } \end{aligned}$ | Average Howh Earming: |  |  | Average Weekly Earninge |  |  | AverageNumberHouraPerWeekPerEm-ployee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Acrual Centa | $\left\lvert\, \begin{aligned} & \text { Inder } \\ & \text { Actual } \end{aligned}\right.$ | $\begin{aligned} & \text { Inder } \\ & \text { "Real" } \end{aligned}$ | Actual Dollart | $\left\|\begin{array}{\|c\|} \text { Inder } \\ \text { Actual } \end{array}\right\|$ | $\begin{aligned} & \text { Index } \\ & \text { "Real" } \end{aligned}$ |  |
| Fircal Year 1914-15. | 229,562 | 42.8 | 100 | 100 | \$25.49 | 100 | 100 | 59.6 |
| Fiscal Year 1915-16. | 284,824 | 43.6 | 102 | 101 | 25.67 | 101 | 100 | 58.9 |
| Calendar Year 1916. | 299,243 | 43.4 | 101 | 93 | 25.88 | 102 | 94 | 59.7 |
| Calendar Year 1917. | 328,991 | 49.3 | 115 | 88 | 28.71 | 113 | 86 | 58.2 |
| Calendar Year 1918. | 343,087 | 63.1 | 147 | 93 | 35.84 | 141 | 89 | 56.8 |
| Calendar Year 1919. | 314,581 | 71.3 | 167 | 99 | 38.35 | 150 | 87 | 53.8 |
| Calendar Year 1920. | 346,652 | 86.4 | 202 | 102 | 48.46 | 190 | 96 | 56.1 |
| Calendar Year 1921. | 294,356 | 87.3 | 204 | 124 | 42.77 | 168 | 102 | 49.0 |
| Calendar Year 1922. | 301,912 | 83.5 | 195 | 125 | 42.65 | 167 | 107 | 51.1 |
| Calendar Year 1923. | 343,382 | 83.3 | 195 | 120 | 43.78 | 172 | 106 | 52.5 |
| Calendar Year 1924. | 321,274 | 86.8 | 203 | 124 | 43.87 | 172 | 105 | 50.6 |
| First Quarter 1925. | 323,602 | 87.9 | 205 | 124 | 44.05 | 175 | 105 | 50.8 |
| Second Quarter 1925. | 310,830 | 89.3 | 209 | 126 | 44.06 | 173 | 104 | 49.3 |
| Third Quarter 1925. | 321,524 | 90.0 | 210 | 125 | 45.74 | 179 | 106 | 50.8 |
| Fourth Quarter 1925... | 335,185 | 89.0 | 208 | 122 | 46.44 | 182 | 106 | 52.2 |
| First Quarter 1926... | 327,900 | 85.9 | 201 | 119 | 45.77 | 180 | 106 | 53.3 |
| Second Quarter 1926. | 323,852 | 85.7 | 200 | 119 | 44.53 | 175 | 104 | 51.9 |
| Thind Quarter 1926... | 331,789 | 86.0 | 201 | 121 | 45.79 | 180 | 108 | 53.2 |
| Fourth Quarter 1926. . . | 343,551 | 86.5 | 202 | 120 | 46.74 | 183 | 109 | 54.0 |

Table 20: Employment, Wages and Hours, Skilled Shop Labor, Class I Railroads

| Period | Average Employed | Average Hourly Earnings |  |  | Average Weekly Earnings |  |  | $\begin{array}{\|c} \hline \text { Average } \\ \text { Number } \\ \text { Hours } \\ \text { Per } \\ \text { Week } \\ \text { Per } \\ \text { Em- } \\ \text { ployee } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual | Index | Index " | $\begin{aligned} & \text { Actual } \\ & \text { Dollars } \end{aligned}$ | Index Actual | "Real" |  |
| Fiscal Year 1914-15. | 169,252 | 29.8 | 100 | 100 | \$16.88 | 100 | 100 | 56.6 |
| Fiscal Year 1915-16. | 199,163 | 30.5 | 102 | 101 | 17.65 | 105 | 104 | 57.8 |
| Calendar Year 1916. | 204,783 | 31.8 | 107 | 98 | 18.81 | 111 | 102 | 59.1 |
| Calendar Year 1917. | 216,807 | 36.6 | 123 | 94 | 21.92 | 130 | 99 | 59.9 |
| Calendar Year 1918. | 238,070 | 61.2 | 205 | 130 | 37.50 | 222 | 141 | 61.3 |
| Calendar Year 1919. | 271,651 | 71.0 | 238 | 139 | 34.78 | 206 | 120 | 49.0 |
| Calendar Year 1920. | 297,376 | 82.2 | 276 | 140 | 41.08 | 243 | 123 | 49.9 |
| Calendar Year 1921. | 227,731 | 80.0 | 268 | 163 | 37.41 | 222 | 135 | 46.8 |
| Calendar Year 1922. | 207,399 | 74.3 | 249 | 159 | 37.25 | 221 | 141 | 50.2 |
| Calendar Year 1923. | 271,337 | 71.3 | 239 | 147 | 34.83 | 206 | 127 | 48.8 |
| Calendar Year 1924. | 246,103 | 72.2 | 242 | 148 | 33.69 | 200 | 122 | 46.6 |
| First Quarter 1925. | 246,313 | 72.6 | 244 | 147 | 34.39 | 204 | 123 | 47.4 |
| Second Quarter 1925. | 241,422 | 72.5 | 243 | 147 | 34.17 | 202 | 122 | 47.1 |
| Third Quarter 1925. | 239,628 | 72.4 | 243 | 144 | 33.74 | 200 | 119 | 46.6 |
| Fourth Quarter 1925. | 242,671 | 72.9 | 245 | 143 | 34.27 | 203 | 119 | 47.0 |
| First Quarter 1926. | 240,970 | 72.3 | 243 | 143 | 34.29 | 203 | 120 | 47.5 |
| Second Quarter 1926. | 240,259 | 72.2 | 242 | 144 | 34.50 | 204 | 121 | 47.8 |
| Third Quarter 1926. | 240,768 | 73.4 | 246 | 148 | 34.77 | 206 | 124 | 47.4 |
| Fourth Quarter 1926. | 241,846 | 74 | 250 | 149 | 35.36 | 209 | 124 | 47.4 |

Table 21: Employment, Wages and Hours, Unskilled Labor, Class I Railroads

| Period | Average Employed | Average Hourly Earnings |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cents | Index Actual | $\begin{aligned} & \text { Index } \\ & \text { "Real" } \end{aligned}$ | Actual <br> Dollars | Index | "Real" |  |
| Fiscal Year 1914-15. | 331,283 | 16.1 | 100 | 100 | \$9.42 | 100 | 100 | 58.5 |
| Fiscal Year 1915-16. | 387,816 | 16.4 | 102 | 101 | 9.70 | 103 | 102 | 59.0 |
| Calendar Year 1916. . | 393,817 | 17.3 | 107 | 98 | 10.37 | 110 | 101 | 59.8 |
| Calendar Year 1917. | 385,758 | 20.2 | 125 | 95 | 12.11 | 129 | 98 | 59.9 |
| Calendar Year 1918. | 410,864 | 30.4 | 189 | 120 | 17.63 | 187 | 118 | 58.0 |
| Calendar Year 1919. | 431,531 | 39.7 | 247 | 144 | 18.95 | 201 | 117 | 47.7 |
| Calendar Year 1920. | 439,334 | 47.1 | 293 | 148 | 23.66 | 251 | 127 | 50.2 |
| Calendar Year 1921 | 341,365 | 42.3 | 263 | 159 | 19.83 | 211 | 128 | 46.9 |
| Calendar Year 1922. | 364,045 | 36.1 | 224 | 143 | 17.64 | 187 | 120 | 48.9 |
| Calendar Year 1923. | 413,683 | 36.7 | 228 | 141 | 18.32 | 194 | 120 | 49.9 |
| Calendar Year 1924. | 393,152 | 37.0 | 230 | 141 | 17.81 | 189 | 116 | 48.1 |
| First Quarter 1925 | 344,867 | 37.1 | 230 | 139 | 18.06 | 192 | 116 | 48.6 |
| Second Quarter 1925 | 403,052 | 37.1 | 230 | 139 | 18.06 | 192 | 116 | 48.7 |
| Third Quarter 1925. | 424,263 | 37.1 | 230 | 136 | 18.04 | 192 | 114 | 48.6 |
| Fourth Quarter 1925. | 388,907 | 37.2 | 231 | 135 | 17.75 | 188 | 110 | 47.7 |
| First Quarter 1926. | 357,976 | 37.0 | 230 | 136 | 17.82 | 189 | 112 | 48.2 |
| Second Quarter 1926. | 427,172 | 37.2 | 231 | 138 | 18.24 | 194 | 115 | 49.0 |
| Third Quarter 1926. . | 455,362 | 37.3 | 232 | 140 | 18.18 | 193 | 116 | 48.7 48.1 |
| Fourth Quarter 1926. | 411,677 | 37.4 | 232 | 138 | 17.96 | 191 | 114 | 48.1 |

Table 22: Employment, Wages and Hours, Road Freight
Engineers, Class I Railroads

| Period | AveraseNumberEmployed | Average Hourly Earninga |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cene | Index | $\begin{aligned} & \text { Index } \\ & \text { "Real" } \end{aligned}$ | Actual Dollars | Index Actual | $\left\lvert\, \begin{aligned} & \text { Index } \\ & \text { "Real" } \end{aligned}\right.$ |  |
| Fiscal Year 1914-15. | 22,966 | 59.8 | 100 | 100 | \$35.49 | 100 | 100 | 59.3 |
| Fiscal Year 1915-16. | 29,645 | 60.8 | 102 | 101 | 35.70 | 101 | 100 | 58.7 |
| Calendar Year 1916.... | 31,675 | 61.0 | 102 | 94 | 35.61 | 100 | 92 | 58.4 |
| Calendar Year 1917. | 34,155 | 69.1 | 116 | 88 | 40.55 | 114 | 87 | 58.7 |
| Calendar Year 1918. | 34,990 | 81.2 | 136 | 86 | 47.96 | 135 | 86 | 59.1 |
| Calendar Year 1919. | 30,907 | 92.2 | 154 | 90 | 51.12 | 144 | 84 | 55.4 |
| Calendar Year 1920. | 33,895 | 112.9 | 189 | 96 | 65.44 | 184 | 93 | 58.0 |
| Calendar Year 1921. | 28,331 | 109.4 | 183 | 111 | 54.74 | 154 | 93 | 50.0 |
| Calendar Year 1922. | 29,272 | 105.2 | 176 | 113 | 57.69 | 163 | 104 | 54.9 |
| Calendar Year 1923. | 34,136 | 105.2 | 176 | 109 | 59.14 | 167 | 103 | 56.2 |
| Calendar Year 1924. | 31,015 | 107.8 | 180 | 110 | 57.55 | 162 | 99 | 53.4 |
| Firse Quarter 1925. | 30,634 | 109.9 | 184 | 111 | 58.99 | 166 | 100 | 53.7 |
| Second Quarter 1925. | 29,192 | 111.5 | 186 | 112 | 58.33 | 164 | 99 | 52.3 |
| Third Quarter 1925. | 30,710 | 112.0 | 187 | 111 | 60.88 | 172 | 102 | 54.4 |
| Fourth Quarter 1925. | 32,080 | 111.8 | 187 | 109 | 62.86 | 177 | 104 | 56.2 |
| First Quarter 1926. | 30,727 | 103.6 | 173 | 102 | 62.01 | 175 | 103 | 59.9 |
| Second Quarter 1926. | 30,585 | 102.6 | 172 | 102 | 59.13 | 167 | 99 | 57.6 |
| Third Quarter 1926. | 31,883 | 103.4 | 173 | 104 | 61.16 | 172 | 104 | 59.1 |
| Fourth Quarter 1926. | 33,043 | 104.2 | 174 | 104 | 63.08 | 178 | 106 | 60.6 |

Table 23: Employment, Wages and Hours, Road Passenger Engineers, Class I Railroads

| Period | AveraseNumberEmployed | Average Hourly Earninga |  |  | $\begin{gathered} \hline \text { Average Weekly } \\ \text { Earningg } \end{gathered}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cence | Index Actual | "Reden | $\left\lvert\, \begin{aligned} & \text { Actual } \\ & \text { Dollars } \end{aligned}\right.$ | Inder Actual | "Index |  |
| Fiscal Year 1914-15. | 11,274 | 82.4 | 100 | 100 | \$41.53 | 100 | 100 | 50.4 |
| Fiscal Year 1915-16. | 13,318 | 90.4 | 110 | 109 | 40.45 | 97 | 97 | 44.7 |
| Calendar Year 1916. | 13,429 | 89.9 | 109 | 100 | 40.86 | 98 | 90 | 45.4 |
| Calendar Year 1917. | 13,297 | 91.4 | 111 | 85 | 42.94 | 103 | 78 | 47.0 |
| Calendar Year 1918. | 12,709 | 99.2 | 120 | 76 | 48.71 | 117 | 74 | 49.1 |
| Calendar Year 1919. | 12,442 | 116.4 | 141 | 82 | 57.67 | 139 | 81 | 49.5 |
| Calendar Year 1920. | 13,100 | 129.2 | 157 | 79 | 63.23 | 152 | 77 | 48.9 |
| Calendar Year 1921. | 12,926 | 133.6 | 162 | 98 | 60.45 | 146 | 89 | 45.2 |
| Calendar Year 1922. | 12,703 | 129.8 | 158 | 101 | 57.55 | 139 | 89 | 44.3 |
| Calendar Year 1923. | 13,042 | 130.4 | 158 | 97 | 58.39 | 141 | 87 | 44.8 |
| Calendar Year 1924. | 12,977 | 135.2 | 164 | 100 | 59.46 | 143 | 88 | 44.0 |
| First Quarter 1925. | 12,892 | 138.8 | 168 | 101 | 60.55 | 146 | 88 | 43.6 |
| Second Quarter 1925. | 12,811 | 141.5 | 172 | 104 | 61.45 | 148 | 89 | 43.4 |
| Third Quarter 1925. | 13,122 | 141.6 | 172 | 102 | 61.73 | 149 | 88 | 43.6 |
| Fourth Quarter 1925. | 12,894 | 141.4 | 172 | 101 | 61.47 | 148 | 87 | 43.5 |
| First Quarter 1926. . | 12,939 | 142.0 | 172 | 101 | 61.44 | 148 | 87 | 43.3 |
| Second Quarter 1926. | 12,961 | 143.7 | 174 | 104 | 61.54 | 148 | 88 | 42.9 |
| Third Quarter 1926. | 13,231 | 143.2 | 174 | 105 | 61.69 | 149 | 90 | 43.1 |
| Fourth Quarter 1926. . . | 12,968 | 142.6 | 173 | 103 | 61.64 | 148 | 88 | 43.2 |

Table 24: Employment, Wages and Hours, Yard Engineers, Class I Railroads

| Period | AverageNumberEmployed | Average Hourly Earnings |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cents | Index Actual | $\begin{aligned} & \text { Index } \\ & \text { "Real" } \end{aligned}$ | Actual Dollars | Index Actual | Index |  |
| Fiscal Year 1914-15. | 11,971 | 42.5 | 100 | 100 | \$29.39 | 100 | 100 | 69.2 |
| Fiscal Year 1915-16. | 14,921 | 43.1 | 101 | 100 | 30.46 | 104 | 103 | 70.7 |
| Calendar Year 1916. | 15,878 | 43.4 | 102 | 94 | 31.01 | 106 | 98 | 71.5 |
| Calendar Year 1917. | 18,933 | 53.5 | 126 | 96 | 34.44 | 117 | 89 | 64.4 |
| Calendar Year 1918. | 21,310 | 67.0 | 158 | 100 | 39.41 | 134 | 85 | 58.8 |
| Calendar Year 1919. | 19,625 | 74.4 | 175 | 102 | 40.55 | 138 | 81 | 54.5 |
| Calendar Year 1920 | 22,924 | 88.5 | 208 | 105 | 50.29 | 171 | 87 | 56.9 |
| Calendar Year 1921 | 17,896 | 89.6 | 211 | 128 | 45.59 | 155 | 94 | 50.9 |
| Calendar Year 1922. | 18,690 | 87.4 | 206 | 132 | 44.97 | 153 | 98 | 51.5 |
| Calendar Year 1923. | 22,142 | 88.0 | 207 | 128 | 46.26 | 157 | 97 | 52.6 |
| Calendar Year 1924. | 20,573 | 89.9 | 212 | 130 | 46.61 | 159 | 97 | 51.8 |
| First Quarter 1925. | 21,482 | 92.0 | 216 | 130 | 47.78 | 163 | 98 | 52.0 |
| Second Quarter 1925. | 20,746 | 92.0 | 216 | 130 | 45.42 | 155 | 94 | 49.4 |
| Third Quarter 1925. | 21,011 | 92.5 | 218 | 129 | 47.18 | 161 | 96 | 51.0 |
| Fourth Quarter 1925. | 22,516 | 92.9 | 219 | 128 | 48.94 | 167 | 98 | 52.7 |
| First Quarter 1926. | 22,239 | 92.9 | 219 | 129 | 48.66 | 166 | 98 | 52.4 |
| Second Quarter 1926. | 21,603 | 92.3 | 217 | 129 | 47.05 | 160 | 95 | 51.0 |
| Third Quarter 1926. | 21,928 | 92.6 | 218 | 131 | 47.97 | 163 | 98 | 51.8 |
| Fourth Quarter 1926. | 23,239 | 92.9 | 219 | 130 | 48.94 | 167 | 99 | 52.7 |

Table 25: Employment, Wages and Hours, Road Freight Conductors, Class I Rallroads

| Period | AverageNumberEmployed | Average Hourly Earnings |  |  | Average Weekly Earnings |  |  | Average <br> Number <br> Hours <br> Week <br> Per <br> $\underset{\text { ployee }}{\text { Em- }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cents | Index Actual | Index | Actual Dollare | Index <br> Actual | Index |  |
| Fiscal Year 1914-15. | 18,975 | 49.8 | 100 | 100 | \$30.57 | 100 | 100 | 61.4 |
| Fiscal Year 1915-16. | 24,099 | 50.2 | 101 | 100 | 30.81 | 101 | 100 | 61.4 |
| Calendar Year 1916. | 25,430 | 50.0 | 100 | 92 | 31.10 | 102 | 94 | 62.2 |
| Calendar Year 1917. | 27,152 | 56.4 | 113 | 86 | 35.67 | 117 | 89 | 63.2 |
| Calendar Year 1918. | 27,679 | 69.4 | 139 | 88 | 43.64 | 143 | 91 | 62.9 |
| Calendar Year 1919 | 25,181 | 76.3 | 153 | 89 | 44.50 | 146 | 85 | 58.3 |
| Calendar Year 1920. | 27,591 | 93.5 | 188 | 95 | 57.13 | 187 | 95 | 61.1 |
| Calendar Year 1921. | 22,602 | 92.5 | 186 | 113 | 49.49 | 162 | 98 | 53.5 |
| Calendar Year 1922 | 23,240 | 88.0 | 177 | 113 | 51.49 | 168 | 108 | 58.5 |
| Calendar Year 1923. | 26,901 | 87.6 | 176 | 109 | 52.56 | 172 | 106 | 60.0 |
| Calendar Year 1924. | 24,864 | 91.4 | 184 | 113 | 51.87 | 170 | 104 | 56.7 |
| First Quarter 1925. | 24,661 | 92.6 | 186 | 112 | 52.24 | 171 | 103 | 56.4 |
| Second Quarter 1925. | 23,916 | 93.6 | 188 | 113 | 51.06 | 167 | 101 | 54.6 |
| Third Quarter 1925. | 24,962 | 93.8 | 188 | 112 | 53.49 | 175 | 104 | 57.0 |
| Fourth Quarter 1925. | 26,136 | 93.5 | 188 | 110 | 54.86 | 179 | 105 | 58.7 |
| First Quarter 1926. | 25,034 | 80.0 | 173 | 102 | 53.46 | 175 | 103 | 62.2 |
| Second Quarter 1926.. | 25,037 | 85.4 | 171 | 102 | 51.59 53.31 | 169 174 | 105 |  |
| Third Quarter 1926. | 26,028 26,817 | 86.0 87.1 | 173 175 | 104 104 | 53.31 55.09 | 174 | 105 | 62.0 63.3 |

Table 26: Employment, Wages and Hours, Road Passenger Conductors, Class I Railroads

| Period | $\begin{gathered} \text { Average } \\ \text { Number } \\ \text { Employed } \end{gathered}$ | Average Hourly Earninge |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cente | Inder Actual | Index, | Actual Dollars | $\begin{array}{\|l\|} \hline \text { Index } \\ \text { Actua: } \end{array}$ | $\mid \text { "Rndex } \mid$ |  |
| Fiscal Year 1914-15. | 9,417 | 66.9 | 100 | 100 | \$35.37 | 100 | 100 | 53.2 |
| Fiscal Year 1915-16. | 10,676 | 71.5 | 107 | 106 | 35.46 | 100 | 100 | 49.6 |
| Calendar Year 1916. | 10,633 | 71.0 | 106 | 98 | 36.09 | 101 | 93 | 50.8 |
| Calendar Year 1917. | 10,655 | 73.7 | 110 | 84 | 37.81 | 106 | 81 | 51.3 |
| Calendar Year 1918. | 10,444 | 84.8 | 127 | 80 | 43.82 | 123 | 78 | 51.7 |
| Calendar Year 1919. | 10,382 | 96.6 | 144 | 84 | 50.93 | 143 | 83 | 52.7 |
| Calendar Year 1920 | 10,911 | 107.9 | 161 | 82 | 56.72 | 159 | 81 | 52.6 |
| Calendar Year 1921. | 10,548 | 112.8 | 169 | 102 | 55.80 | 157 | 95 | . 49.5 |
| Calendar Year 1922. | 10,291 | 110.6 | 165 | 106 | 53.12 | 149 | 95 | 48.0 |
| Calendar Year 1923. | 10,531 | 110.9 | 166 | 102 | 53.84 | 151 | 93 | 48.5 |
| Calendar Year 1924. | 10,498 | 115.8 | 173 | 106 | 55.60 | 156 | 96 | 48.0 |
| First Quarter 1925. | 10,499 | 118.1 | 177 | 107 | 56.09 | 158 | 95 | 47.5 |
| Second Quarter 1925. | 10,414 | 118.9 | 178 | 107 | 56.58 | 159 | 96 | 47.6 |
| Third Quarter 1925. | 10,634 | 118.9 | 178 | 106 | 56.92 | 160 | 95 | 47.9 |
| Fourth Quarter 1925. | 10,496 | 118.9 | 178 | 104 | 56.23 | 158 | 92 | 47.3 |
| First Quarter 1926. | 10,493 | 119.9 | 179 | 106 | 56.45 | 159 | 94 | 47.1 |
| Second Quarter 1926. | 10,415 | 120.4 | 180 | 107 | 56.88 | 160 | 95 | 47.2 |
| Third Quarter 1926. | 10,630 | 120.4 | 180 | 108 | 57.17 | 161 | 97 | 47.5 |
| Fourth Quarter 1926. | 10,383 | 121.6 | 182 | 108 | 57.56 | 172 | 96 | 47.3 |

Table 27: Employment, Wages and Hours, Yard Conductors, Class I Railroads

| Period | Average Number Employed | Average Hourly Earninge |  |  | Average Weekly Earning: |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Centa | Index Actual | $\mid \text { Index }$ | Actual Dollars | Index Actual | Index <br> "Real" |  |
| Fiscal Year 1914-15. | 11,535 | 38.6 | 100 | 100 | \$26.12 | 100 | 100 | 67.7 |
| Fiscal Year 1915-16. | 14,393 | 38.8 | 101 | 100 | 26.95 | 103 | 102 | 69.4 |
| Calendar Year 1916. .. | 15,362 | 38.5 | 100 | 92 | 27.37 | 105 | 97 | 71.1 |
| Calendar Year 1917 | 18,703 | 47.4 | 123 | 94 | 30.48 | 117 | 89 | 64.3 |
| Calendar Year 1918 | 30,823 | 62.8 | 163 | 103 | 36.76 | 141 | 89 | 58.5 |
| Calendar Year 1919. | 19,325 | 68.1 | 176 | 103 | 36.58 | 140 | 82 | 53.7 |
| Calendar Year 1920. | 21,940 | 83.1 | 215 | 109 | 47.13 | 180 | 91 | 56.7 |
| Calendar Year 1921. | 17,675 | 85.3 | 221 | 134 | 43.53 | 167 | 101 | 51.0 |
| Calendar Year 1922. | 18,584 | 83.3 | 216 | 138 | 43.16 | 165 | 106 | 51.8 |
| Calendar Year 1923 | 22,002 | 83.7 | 217 | 134 | 44.01 | 168 | 104 | 52.6 |
| Calendar Year 1924 | 20,524 | 86.5 | 224 | 137 | 44.97 | 172 | 105 | 52.0 |
| Firat Quarter 1925. | 21,225 | 87.8 | 227 | 137 | 45.92 | 176 | 106 | 52.3 |
| Second Quarter 1925. | 20,208 | 87.6 | 227 | 137 | 44.51 | 170 | 103 | 50.8 |
| Third Quarter 1925. | 20,896 | 88.0 | 228 | 135 | 45.48 | 174 | 103 | 51.7 |
| Fourth Quarter 1925. | 22,350 | 88.5 | 229 | 134 | 46.85 | 179 | 105 | 53.0 |
| Firat Quarter 1926. | 22,001 | 88.3 | 229 | 135 | 46.48 | 178 | 105 | 52.7 |
| Second Quarter 1926. . | 21,449 | 87.9 | 228 | 136 | 45.23 | 173 | 103 | 51.4 |
| Third Quarter 1926. | -21,830 | 88.1 | 228 | 137 | 46.19 | 177 | 107 | 52.4 |
| Fourth Quarter 1926... | 22,981 | 89.3 | 231 | 138 | 47.63 | 182 | 108 | 53.3 |

## Table 28: Employment, Wages and Hours, Road Freight Firemen, Class I Railroads

| Period | AverageNumberEmployed | Average Hourly Earnings |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cents | Index Actual | Index, | $\begin{array}{\|l} \text { Actual } \\ \text { Dollars } \end{array}$ | Index Actual | "Real" |  |
| Fiscal Year 1914-15. | 23,932 | 38.2 | 100 | 100 | \$21.85 | 100 | 100 | 57.2 |
| Fiscal Year 1915-16. | 31,499 | 39.0 | 102 | 101 | 21.68 | 99 | 99 | 55.6 |
| Calendar Year 1916. | 33,637 | 39.1 | 102 | 94 | 21.65 | 99 | 91 | 55.4 |
| Calendar Year 1917. | 36,828 | 44.7 | 117 | 89 | 24.52 | 112 | 85 | 54.8 |
| Calendar Year 1918. | 38,102 | 59.5 | 156 | 99 | 32.43 | 148 | 93 | 54.5 |
| Calendar Year 1919. | 32,938 | 67.7 | 177 | 103 | 35.39 | 162 | 95 | 52.2 |
| Calendar Year 1920. | 36,169 | 85.1 | 223 | 113 | 46.65 | 214 | 108 | 54.8 |
| Calendar Year 1921. | 30,348 | 82.4 | 216 | 131 | 38.59 | 177 | 107 | 46.9 |
| Calendar Year 1922. | 31,491 | 78.0 | 204 | 131 | 40.00 | 183 | 117 | 51.3 |
| Calendar Year 1923. | 36,505 | 78.0 | 204 | 126 | 41.14 | 188 | 116 | 52.7 |
| Calendar Year 1924. | 33,346 | 80.8 | 212 | 130 | 40.04 | 183 | 112 | 49.6 |
| First Quarter 1925. | 32,756 | 82.7 | 216 | 130 | 41.55 | 190 | 115 | 50.2 |
| Second Quarter 1925. | 31,237 | 84.1 | 220 | 133 | 41.05 | 188 | 113 | 48.8 |
| Third Quarter 1925. | 32,703 | 84.4 | 221 | 131 | 43.07 | 197 | 117 | 51.0 |
| Fourth Quarter 1925. | 34,159 | 84.3 | 221 | 129 | 44.50 | 204 | 119 | 52.8 |
| First Quarter 1926. | 32,904 | 77.9 | 204 | 120 | 43.59 | 199 | 117 | 55.9 |
| Second Quarter 1926. | 32,574 | 77.2 | 202 | 120 | 41.79 | 191 | 114 | 54.1 |
| Third Quarter 1926. | 33,752 | 77.9 | 204 | 123 | 43.57 | 199 | 120 | 55.9 |
| Fourth Quarter 1926. | 34,927 | 78.6 | 206 | 123 | 45.00 | 206 | 123 | 57.2 |

Table 29: Employment, Wages and Hours, Road Passenger Firemen, Class I Rallroads

| Period | Average Number <br> Employed | Average Hourly Earnings |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cents | Index Actua | $\left\lvert\, \begin{aligned} & \text { Index } \\ & \text { Real } \end{aligned}\right.$ | $\left\|\begin{array}{l} \text { Actual } \\ \text { Dollars } \end{array}\right\|$ | Index Actual | $\mid \text { "Real" }$ |  |
| Fiscal Year 1914-15. | 11,023 | 50.6 | 100 | 100 | \$24.75 | 100 | 100 | 48.9 |
| Fiscal Year 1915-16. | 13,082 | 56.1 | 111 | 110 | 24.57 | 99 | 99 | 43.8 |
| Calendar Year 1916. | 13,131 | 56.0 | 111 | 102 | 24.95 | 101 | 93 | 44.5 |
| Calendar Year 1917 | 13,105 | 56.9 | 112 | 85 | 26.04 | 105 | 80 | 45.8 |
| Calendar Year 1918. | 12,419 | 70.5 | 139 | 88 | 33.41 | 135 | 86 | 47.4 |
| Calendar Year 1919 | 12,112 | 85.5 | 169 | 99 | 41.43 | 167 | 98 | 48.5 |
| Calendar Year 1920 | 12,691 | 98.7 | 195 | 99 | 47.29 | 191 | 97 | 47.9 |
| Calendar Year 1921 | 12,770 | 102.0 | 202 | 122 | 44.67 | 180 | 109 | 43.8 |
| Calendar Year 1922 | 12,485 | 98.7 | 195 | 125 | 42.50 | 172 | 110 | 43.1 |
| Calendar Year 1923. | 12,754 | 99.4 | 196 | 121 | 43.24 | 175 | 108 | 43.5 |
| Calendar Year 1924. | 12,674 | 103.8 | 205 | 126 | 44.29 | 179 | 110 | 42.7 |
| First Quarter 1925. | 12,593 | 107.2 | 212 | 128 | 45.32 | 183 | 110 | 42.3 |
| Second Quarter 1925. | 12,460 | 109.7 | 217 | 131 | 46.08 | 186 | 112 | 42.0 |
| Third Quarter 1925. | 12,719 | 109.7 | 217 | 129 | 46.19 | 187 | 111 | 42.1 |
| Fourth Quarter 1925. | 12,471 | 109.7 | 217 | 127 | 46.18 | 187 | 109 | 42.1 |
| First Quarter 1926. | 12,470 | 110.3 | 218 | 129 | 46.18 | 187 | 110 | 41.9 |
| Second Quarter 1926. | 12,441 | 111.8 | 221 | 132 | 46.21 | 187 | 111 | 41.3 |
| Third Quarter 1926. | 12,669 | 111.9 | 221 | 133 | 46.20 | 187 | 113 | 41.3 |
| Fourth Quarter 1926. | 12,397 | 116.3 | 230 | 137 | 48.21 | 195 | 116 | 41.4 |

Table 30: Employment, Wages and Hours, Yard Firemen, Class I Railroads

| Period | AverageNumberEmployed | Average Hourly Earninge |  |  | Average Weekly Earning: |  |  | $\begin{gathered} \text { Average } \\ \text { Number } \\ \text { Houra } \\ \text { Per } \\ \text { Week } \\ \text { Per. } \\ \text { Em: } \\ \text { ployee } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Centa | Index | $\begin{aligned} & \text { Index } \\ & \text { Real } \end{aligned}$ | Actual Dollars | $\left\lvert\, \begin{aligned} & \text { Index } \\ & \text { Actual } \end{aligned}\right.$ | $\text { Index }^{\text {Indeal" }}$ |  |
| Fiscal Year 1914-15. | 12,203 | 26.1 | 100 | 100 | \$17.62 | 100 | 100 | 67.5 |
| Fiscal Year 1915-16. | 15,210 | 27.0 | 103 | 102 | 18.68 | 106 | 105 | 69.2 |
| Calendar Year 1916. | 16,190 | 27.2 | 104 | 96 | 18.99 | 108 | 99 | 69.8 |
| Calendar Year 1917. | 19,516 | 33.8 | 130 | 99 | 21.04 | 119 | 91 | 62.2 |
| Calendar Year 1918. | 21,979 | 46.2 | 177 | 112 | 26.31 | 149 | 94 | 56.9 |
| Calendar Year 1919. | 20,031 | 54.7 | 210 | 123 | 29.03 | 165 | 97 | 53.0 |
| Calendar Year 1920. | 23,191 | 68.0 | 261 | 132 | 37.88 | 215 | 109 | 55.7 |
| Calendar Year 1921. | 18,334 | 69.6 | 267 | 162 | 34.29 | 195 | 118 | 49.2 |
| Calendar Year 1922. | 19,236 | 67.3 | 258 | 165 | 33.32 | 189 | 121 | 49.5 |
| Calendar Year 1923. | 22,064 | 67.7 | 259 | 160 | 34.50 | 196 | 121 | 51.0 |
| Calendar Year 1924. | 21,084 | 69.6 | 267 | 164 | 34.93 | 198 | 121 | 50.2 |
| First Quarter 1925. | 21,958 | 71.4 | 274 | 165 | 36.08 | 205 | 124 | 50.5 |
| Second Quarter 1925. | 20,388 | 71.6 | 274 | 165 | 35.67 | 202 | 122 | 49.8 |
| Third Quarter 1925. | 21,438 | 72.0 | 276 | 164 | 35.72 | 203 | 120 | 49.6 |
| Fourth Quarter 1925. | 23,074 | 72.4 | 277 | 162 | 36.93 | 210 | 123 | 51.0 |
| First Quarter 1926. | 22,809 | 72.2 | 277 | 163 | 36.60 | 208 | 123 | 50.7 |
| Second Quarter 1926. | 22,032 | 71.8 | 275 | 164 | 35.62 | 202 | 120 | 49.6 |
| Third Quarter 1926. | 22,335 | 72.1 | 276 | 166 | 36.34 | 206 | 124 | 50.4 |
| Fourth Quarter 1926. | 23,730 | 72.4 | 277 | 165 | 36.98 | 210 | 125 | 51.1 |

Table 31: Employment, Wages and Hours, Road Freight Brakemen, Class I Railroads

| Period | AverageNumber Employed | Average Hourly Earning: |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual <br> Centa | $\left\lvert\, \begin{aligned} & \text { Index } \\ & \text { Actual } \end{aligned}\right.$ | ${ }^{\text {Index }} \text { "Real" }$ | Actual Dollara | $\left\|\begin{array}{\|l\|l} \text { Index } \\ \text { actual } \end{array}\right\|$ | $\left\lvert\, \begin{aligned} & \text { Index } \\ & \text { "Real } \end{aligned}\right.$ |  |
| Fiscal Year 1914-15. | 47,735 | 33.6 | 100 | 100 | \$19.92 | 100 | 100 | 59.3 |
| Fiscal Year 1915-16. | 60,019 | 33.7 | 100 | 100 | 20.07 | 101 | 100 | 59.6 |
| Calendar Year 1916. | 63,285 | 33.5 | 100 | 92 | 20.24 | 102 | 94 | 60.4 |
| Calendas Year 1917. | 67,818 | 38.1 | 113 | 86 | 23.12 | 116 | 88 | 60.7 |
| Calendar Year 1918. | 69,048 | 53.0 | 158 | 100 | 31.65 | 159 | 100 | 59.7 |
| Calendar Year 1919. | 61,989 | 58.4 | 174 | 101 | 33.22 | 167 | 98 | 56.9 |
| Calendar Year 1920. | 68,140 | 74.3 | 221 | 112 | 44.22 | 222 | 112 | 59.5 |
| Calendar Year 1921. | 56,625 | 73.1 | 218 | 132 | 36.85 | 185 | 112 | 50.4 |
| Calendar Year 1922. | 57,716 | 68.7 | 205 | 131 | 37.49 | 188 | 120 | 54.6 |
| Calendar Year 1923. | 65,750 | 68.4 | 204 | 126 | 38.86 | 195 | 120 | 56.8 |
| Calendar Year 1924. | 60,539 | 72.2 | 215 | 132 | 38.65 | 194 | 119 | 53.5 |
| First Quaster 1925. | 60,032 | 73.4 | 218 | 131 | 38.93 | 195 | 118 | 53.1 |
| Second Quarter 1925. | 57,525 | 74.2 | 221 | 133 | 38.40 | 193 | 116 | 51.8 |
| Third Quarter 1925. | 59,825 | 74.5 | 222 | 132 | 40.33 | 202 | 120 | 54.1 |
| Fourth Quarter 1925. | 62,541 | 74.2 | 221 | 129 | 41.19 | 207 | 121 | 55.5 |
| First Quarter 1926. | 60,225 | 68.4 | 204 | 120 | 39.98 | 201 | 119 | 58.5 |
| Second Quarter 1926. | 59,885 | 67.9 | 202 | 120 | 38.78 | 195 | 116 | 57.1 |
| Third Quarter 1926. | 61,836 | 68.4 | 204 | 123 | 40.32 | 202 | 122 | 58.9 |
| Fourth Quarter 1926. | 64,330 | 69.3 | 206 | 123 | 41.15 | 207 | 123 | 59.4 |

Table 32: Employment, Wages and Hours, Road Passenger Brakemen, Class I Railroads

| Period | Average Employed | Average Hourly Earnings |  |  | Average Weekly Earninga |  |  | Average <br> Number Per <br> Week $\underset{\text { Em- }}{\text { Per }}$ ployee |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cents | Index Actual | "Rndex, | $\left\|\begin{array}{l} \text { Actual } \\ \text { Dollars } \end{array}\right\|$ | Index Actual | Index |  |
| Fiscal Year 1914-15. | 13,135 | 38.1 | 100 | 100 | \$19.73 | 100 | 100 | 51.8 |
| Fiscal Year 1915-16. | 14,869 | 40.4 | 106 | 105 | 19.63 | 99 | 99 | 48.6 |
| Calendar Year 1916. | 14,800 | 40.1 | 105 | 97 | 19.83 | 101 | 93 | 49.5 |
| Calendar Year 1917. | 14,854 | 42.1 | 110 | 84 | 21.03 | 107 | 81 | 50.0 |
| Calendar Year 1918. | 14,423 | 56.4 | 148 | 94 | 29.07 | 147 | 94 | 51.6 |
| Calendar Year 1919 | 14,904 | 67.1 | 176 | 103 | 34.39 | 174 | 103 | 51.3 |
| Calendar Year 1920 | 15,976 | 78.1 | 205 | 104 | 39.78 | 202 | 102 | 50.9 |
| Calendar Year 1921 | 15,923 | 81.3 | 213 | 129 | 38.46 | 195 | 118 | 47.3 |
| Calendar Year 1922. | 15,466 | 78.0 | 205 | 131 | 35.97 | 182 | 117 | 46.1 |
| Calendar Year 1923. | 15,783 | 78.5 | 206 | 127 | 36.57 | 185 | 114 | 46.6 |
| Calendar Year 1924 | 15,601 | 83.1 | 218 | 133 | 38.35 | 194 | 119 | 46.1 |
| First Quarter 1925. | 15,473 | 85.2 | 224 | 135 | 38.64 | 196 | 118 | 45.4 |
| Second Quarter 1925. | 15,329 | 85.6 | 225 | 136 | 39.16 | 198 | 119 | 45.7 |
| Third Quarter 1925. | 15,735 | 85.7 | 225 | 134 | 39.49 | 200 | 119 | 46.0 |
| Fourth Quarter 1925. | 15,286 | 85.9 | 225 | 132 | 38.83 | 197 | 115 | 45.2 |
| First Quarter 1926. | 15,183 | 86.7 | 228 | 135 | 39.07 | 198 | 117 | 45.1 |
| Second Quarter 1926. | 15,230 | 87.1 | 229 | 136 | 39.18 | 199 | 118 | 45.0 |
| Third Quarter 1926. | 15,604 | 87.1 | 229 | 138 | 39.60 | 201 | 121 | 45.5 |
| Fourth Quarter 1926. | 15,186 | 87.7 | 230 | 137 | 39.75 | 201 | 120 | 45.3 |

Table 33: Employment, Wages and Hours, Yard Brakemen, Class I Railroads

| Period | Average Employed | Average Hourly Earnings |  |  | Average Weekly Earnings |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Actual Cents | Index Actual | Index | Actual Dollars | Index | $\text { Index }_{\text {Real }}$ |  |
| Fiscal Year 1914-15. | 30,072 | 34.9 | 100 | 100 | \$22.47 | 100 | 100 | 64.4 |
| Fiscal Year 1915-16. | 37,476 | 35.2 | 101 | 100 | 22.77 | 101 | 100 | 64.7 |
| Calendar Year 1916. | 46,175 | 35.3 | 101 | 93 | 23.03 | 102 | 94 | 65.2 |
| Calendar Year 1917 | 48,451 | 43.3 | 124 | 94 | 25.51 | 114 | 87 | 58.9 |
| Calendar Year 1918 | 53,790 | 58.4 | 167 | 106 | 32.17 | 143 | 91 | 55.1 |
| Calendar Year 1919 | 49,303 | 63.7 | 183 | 107 | 32.42 | 144 | 84 | 50.9 |
| Calendar Year 1920 | 54,383 | 78.0 | 223 | 113 | 42.51 | 189 | 96 | 54.5 |
| Calendar Year 1921. | 44,642 | 79.1 | 227 | 138 | 37.04 | 165 | 100 | 46.8 |
| Calendar Year 1922 | 46,930 | 76.5 | 219 | 140 | 36.09 | 161 | 103 | 47.1 |
| Calendar Year 1923 | 55,301 | 77.1 | 221 | 136 | 37.59 | 167 | 103 | 48.8 |
| Calendar Year 1924 | 51,733 | 79.7 | 228 | 140 | 38.00 | 169 | 103 | 47.7 |
| First Quarter 1925 | 53,544 | 80.9 | 232 | 140 | 38.78 | 173 | 104 | 47.9 |
| Second Quarter 1925. | 50,832 | 80.7 | 231 | 139 | 37.69 | 168 | 101 | 46.7 |
| Third Quarter 1925. | 51,996 | 81.1 | 233 | 138 | 38.87 | 173 | 103 | 47.9 |
| Fourth Quarter 1925. | 55,437 | 81.5 | 234 | 137 | 40.13 | 179 | 105 | 49.2 |
| First Quarter 1926. | 55,079 | 81.3 | 233 | 137 138 | 39.53 38.21 | 176 | 104 | 48.6 47.2 |
| Second Quarter 1926. | 53,944 54,509 | 880.9 | 232 | 138 | $\begin{aligned} & 38.21 \\ & 3978 \end{aligned}$ | 170 | 105 | 47.2 48.4 |
| Third Quarter 1926. | 54,509 57,798 | 81.1 82.4 | 232 | 141 | 39.28 40.64 | 181 | 108 | 48.4 49.4 |

## CHAPTER VII

## STATISTICAL DATA FOR SPECIFIC MANUFACTURING INDUSTRIES

## Introduction

THE purely statistical data showing the trend of wages, hours and employment in individual manufacturing industries, expressed in tables and charts, as well as a table showing the geographical distribution of the plants, have been concentrated in the following sections. For convenience in making comparisons the generally similar industries have been grouped.
Employment changes are shown in the tables by index numbers based upon June, 1920 as $100 ;{ }^{1}$ the average week per wage earner is given in actual hours, and average hourly and weekly earnings appear both in actual dollars and cents and in index numbers with July, 1914 as the base of 100. Both actual figures and index numbers for earnings are shown for all wage earners in the industry and for the classified labor groups.

The charts for each industry show the movement of hourly and weekly earnings and employment in index numbers. It will be noted that in the case of earnings the base is July, 1914, while for employment June, 1920 is used as the base. Since this base month for employment was practically the peak month of post-war industrial activity, the high level of employment during the base month has the effect of minimizing subsequent fluctuations, while those of earnings, based upon the pre-war month of July, 1914, appear to be exaggerated. This must be borne in mind when making comparisons from the charts. But while the amount of fluctuation as between earnings and employment is not comparable, the general trend is no less clearly indicated, which is the purpose of the charts.

[^8]Distribution of Plants

|  |  | Foun－ dries not nid Shine Shops Sho | $\begin{gathered} \text { Au- } \\ \text { toun } \\ \text { biles } \end{gathered}$ | $\left\|\begin{array}{c} \text { Agric. } \\ \text { Apl } \\ \text { mene } \\ \text { ments } \end{array}\right\|$ | $\left\|\begin{array}{l} \text { Elece } \\ \text { anif. } \\ \text { Mfg. } \end{array}\right\|$ | Iron steel Stel |  | $\begin{aligned} & \text { Cot } \\ & \text { cor } \\ & \text { Hor } \\ & \text { South } \end{aligned}$ | ${ }_{\text {Mfg }}{ }_{\text {Wool }}$ | Mig． | $\begin{aligned} & \mathrm{Ho} \\ & \text { Hiery } \\ & \text { sind } \\ & \text { Rnd } \\ & \text { Goods } \\ & \text { Good } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maine | 1 |  | $\cdots$ |  | $\cdots$ | 3 | $\cdots$ | 1 |  |  |
|  | New Hampshire．．． | 6 | $\because$ | $\because$ | 1 | $\because$ | 4 | $\because$ | 3 1 1 | $\cdots$ | $\because$ |
|  | Vermont．．．．．．．．． | 71 | 3 | $\cdots$ | 7 | 2 | 16 | $\because$ | 25 | 2 | $\ldots$ |
|  | Rhode Island．． | 10 | ．． | $\because$ | － | ． | 7 | $\cdots$ | 2 | 9 | $\ldots$ |
|  | Connecticut． | 48 | 14 | 4 | $\stackrel{4}{9}$ | 2 | 3 4 4 | $\because$ | 3 | ${ }_{9}^{6}$ | 6 |
|  | New Jersey | 28 | 2 |  | 3 | 1 | 1 | $\because$ | 3 | 9 |  |
|  | Pennsylvania | 71 | 5 | 1 | 9 | 21 | 2 |  |  | 35 | 4 |
|  | Ohio．．． | 59 | 4 | 3 | 45 | 19 |  | $\because$ | 10 | 1 | 1 |
|  | Indiana． | 38 | 4 | 15 | 9 | i | i | $\because$ | i | $\cdots$ | $\because$ |
|  | Michigan | 16 | 22 | 15 | 3 4 4 | ． | ． | $\cdots$ | $\cdots$ | $\cdots$ | $\because$ |
|  | Misconsin． | 6 | 5 | 5 | 4 | ．． | $\because$ | $\because$ | $\cdots$ | $\cdots$ | 1 |
|  | Iowa．． | 6 |  | 4 |  |  | $\cdots$ | $\ldots$ | ．． | ．． | ． |
|  | Missouri． | 15 | 1 | 1 | 1 | $\cdots$ | $\cdots$ | $\cdots$ |  | $\cdots$ |  |
|  | South Dakota |  | $\because$ | 1 | $\because$ | $\because$ |  | $\because$ | $\because$ | $\cdots$ |  |
|  | Kansas． | 3 | $\cdots$ | ． | $\ldots$ |  | ．． | $\cdots$ | $\ldots$ | ．． | $\cdots$ |
| 要号总 | Delaware | 1 | ． | $\cdots$ |  | 1 | ．． | ．． | ．． | ． | i |
|  | Maryland． | 4 | $\cdots$ | $\cdots$ | 1 | 4 | ． | 3 | $\cdots$ | 1 | 1 |
|  | West Virgini | 3 | $\because$ | $\cdots$ | i | i | $\because$ | ． | $\because$ | ．． | 2 |
|  | North Carolin | 1 | $\cdots$ | $\cdots$ | $\cdots$ | ． |  | $\stackrel{5}{5}$ | $\cdots$ | $\cdots$ | 2 |
|  | South Carol | 1 | $\because$ | i | $\because$ | $\because$ | $\because$ | 1 | $\cdots$ | $\because$ | $\because 3$ |
|  | Florida．． |  |  |  | $\because$ |  |  |  |  |  |  |
|  | Kentucky | 3 |  | 2 | 1 |  | $\cdots$ | 1 | $\cdots$ | ． | $\cdots$ |
|  | Tennessee | $\begin{array}{r}2 \\ 3 \\ \hline\end{array}$ | 2 | 1 | $\cdots$ | 1 | $\cdots$ | 1 | $\because$ | $\because$ | $\because$ |
|  | Mississippi |  | 1 | $\cdots$ | $\cdots$ | $\because$ | $\cdots$ | 1 |  | ． |  |
|  | Arkansas． | 1 | 1 | ． | ． | ．． | ． | ． | ．． | ．． |  |
|  | Louisiana | 2 | $\cdots$ | ．． | $\because$ | ． | $\because$ |  | $\because$ |  | $\because$ |
|  | Texas． | 2 | $\because$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\ldots$ | $\cdots$ | ．． | ． |
| $\begin{aligned} & \frac{2}{4} \\ & \frac{2}{2} \\ & \frac{0}{2} \end{aligned}$ | Montana | ．． | $\cdots$ | $\cdots$ | ． | $\cdots$ | $\cdots$ | $\cdots$ | ．． | $\cdots$ | $\cdots$ |
|  | Idaho． | 1 |  | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |  |
|  | Colorado． | 1 | $\cdots$ | $\because$ | $\cdots$ | $\cdots$ | $\because$ | $\because$ | $\cdots$ | $\cdots$ | $\because$ |
|  | New Mexic | 1 | $\ldots$ | ．． | $\because$ | $\cdots$ | ．． | ． | ． | ．． | $\cdots$ |
|  | Utah． |  |  |  | $\cdots$ | $\cdots$ |  | $\cdots$ | $\cdots$ | ． | $\because$ |
| 㤩品品 | Washingto Oregon．． | 1 |  |  |  |  |  | $\because$ | $\because$ | $\because$ | $\because$ |
|  | California． | 15 | 2 | 3 | 2 | 3 | ． | ． | ．． | ． | ． |
|  | Total．．．． | 534 | 74 | 47 | 106 | 56 | 41 | 12 | 54 | 63 | 25 |

Supplying Wage Data

| $\underset{\text { Rer }}{\text { Rub }}$ | $\left\lvert\, \begin{gathered} \text { Leath- } \\ \text { Tax } \\ \text { aing } \\ \text { ain } \end{gathered}\right.$ | $\begin{aligned} & \text { Boot } \\ & \text { and } \\ & \text { Shoo } \end{aligned}$ | $\begin{gathered} \text { Meaz } \\ \begin{array}{c} \text { Pact } \\ \text { ing } \end{array} \end{gathered}$ | Chensicals | $\begin{aligned} & \text { Paint } \\ & \text { and } \\ & \text { Vard } \\ & \text { nirh } \end{aligned}$ | $\begin{gathered} \text { Paper } \\ \text { 2nd } \\ \text { Puip } \end{gathered}$ | $\begin{aligned} & \text { Paper } \\ & \text { Prod } \\ & \text { ucts } \end{aligned}$ | Print- ink Rnd Pub. Book and Job | Printing paper paper | $\begin{gathered} \text { Lum- } \\ \text { berd } \\ \text { Mid } \\ \text { Mill- } \\ \text { work } \end{gathered}$ | Furni- ture | $\begin{gathered} \text { All } \\ \text { Indus } \\ \text { tries } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 3 | 1 |  |  | 10 | 1 | 1 |  | 1 |  | 22 |
| $\ldots$ | i | 11 | $\ldots$ | $\ldots$ | . | 3 | . | . | $\cdots$ | 1 | $\ldots$ | 25 |
| 16 | 7 | 12 | - | 3 | 2 | 3 26 | 9 | 8 | 2 | 7 | 6 | 225 |
| 2 |  |  |  |  |  |  |  | 1 |  |  |  | 22 |
| 3 | $\cdots$ | $\cdots$ | $\cdots$ | i |  | 2 | i | 1 | 1 | $\cdots$ | $\dot{3}$ | 76 |
| 4 | 1 | 27 | i | 8 | 3 | 19 | 2 | 26 | 5 | 7 | 3 | 214 |
| 5 | 2 | 1 | 1 | 18 | 3 | 1 |  | 2 |  | 2 | . | 82 |
| 3 | 3 | 1 | 3 | 2 | 4 | 4 | 2 | 4 | 2 | 4 | 5 | 188 |
| 10 |  | 9 | 1 | 3 | 4 | 1 | . | 10 | 4 | 7 | 1 | 197 |
|  | 3 |  |  |  |  |  |  | 2 |  | 4 | 2 | 49 |
|  |  | 6 | 7 | 1 | 3 | 1 | 2 | 7 | 4 | 1 | 3 | 100 |
| 1 | 6 | . | $\cdots$ |  | . | 4 | 1 | 1 | 1 | 2 | 10 | 69 |
| 1 | . | . | 1 | 3 | . | 4 | 2 | 5 | 2 | 6 |  | 72 |
|  | $\cdots$ | $\cdots$ | 1 |  |  | 1 | 1 | 6 | 2 | 3 | 2 | 26 |
| 1 | . | \% | 1 | 2 | 2 | .. | . |  | 1 | 2 |  | 15 |
| . | . | 7 | 1 | 2 | 2 | . | . | 6 | 1 | 1 | 1 | 39 |
| $\cdots$ | . | $\cdots$ | - | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 1 | . | $\cdots$ | . | 1 |
| $\cdots$ | $\cdots$ | $\cdots$ | 1 | i | $\cdots$ | . | $\cdots$ | 1 | . | i | $\ldots$ | 7 |
| 2 |  | $\ldots$ | . | 12 | i | $\ldots$ | $\ldots$ |  | $\cdots$ |  | $\ldots$ | 17 |
| 1 | 1 | $\cdots$ | . | $\cdots$ | . | $\cdots$ | . | 1 | . | 1 | , | 14 |
| . | . | 6 | $\because$ | $\square$ | $\cdots$ | 3 | $\cdots$ | 1 | . | 4 | 1 | 22 |
| - | . | $\cdots$ | 2 | 2 | $\cdots$ | $\cdots$ | $\cdots$ | . | $\cdots$ | . | 1 | 12 |
| - | . | $\cdots$ | . | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\because$ | $\because$ | 3 |
| $\cdots$ | $\cdots$ | . | - | . | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | . | $\cdots$ | 2 | 6 |
|  |  | . | . | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | 2 | $\cdots$ | 2 |
| $\ldots$ | $\ldots$ | - | -. | $\ldots$ | $\cdots$ | $\cdots$ | . | $\ldots$ | 1 | 2 | i | 9 |
| - | . | 1 | . | $i$ | . | . | $\cdots$ | $\cdots$ | . | 2 | 1 | 11 |
| $\cdots$ | . | . | . | 1 | $\cdots$ | $\cdots$ | . | $\cdots$ | . | . | . | 4 |
| $\cdots$ | $\cdots$ | $\because$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\because$ | $\cdots$ | $\cdots$ | i | $\cdots$ | 3 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 1 | $\cdots$ | 1 |
| .. | $\ldots$ | $\ldots$ | 1 | . | . | . | . | - | . | $\cdots$ | . . | 3 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 1 | 1 | . | $\cdots$ | . | - | 3 | $\cdots$ | 7 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | - | $\cdots$ | $\cdots$ | $\cdots$ | -i | $\because 2$ | 1 | 3 |
| . |  | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\cdots$ | . | $\cdots$ | . | 1 |
| $\cdots$ | $\ldots$ | $\ldots$ | 1 | 1 | $\cdots$ | $\cdots$ | . | 1 | . | 1 | . | 6 |
| $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | . | $\cdots$ | i | $\cdots$ | 1 |
| $\ldots$ | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ | 1 | $\ldots$ |  | . | 4 |
| i | - | $\cdots$ | - | $\cdots$ | . | . | - |  |  | 1 | 1 | 3 |
|  |  | $\cdots$ |  |  | . $\cdot$ | . | $\cdots$ |  |  | 2 | $\ldots$ | 34 |
| 50 | 26 | 84 | 29 | 61 | 23 | 82 | 21 | 89 | 28 | 71 | 44 | 1620 |

Composite and Classified Payroll Data-Agricultural Implement Manufacturing


Index Numbers or Average Hourly and Weekly Earnings and Employment, All Wage Earners, Agricultural Implement Manutacturing

For Earnings July, 1914-100; For Employment June, 1920-100


Composite and Classified Payroll Data-Automobile Manufacturing

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Wage Earners Index Nos. | Av. <br> Week Per Wage Earner | $\begin{aligned} & \text { Av. } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Earn- } \\ & \text { inge } \end{aligned}$ | Av. Week-Earning | Index Nos. Earning: |  | Av.Hour-lyEarn-ings | Av. Weekly Earning: | Index Nos. Earnings |  | $\begin{aligned} & \text { Av. } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Earn- } \\ & \text { ings } \end{aligned}$ | Av. Week Earn inga | Index Nos. Earnings |  | Av. Hourly Earning: | Week. ly Earning | Index Noa. Earningg |  |
|  |  |  |  |  | $\left\lvert\, \begin{gathered} \text { Howr- } \\ \text { ly } \end{gathered}\right.$ | $\left.\right\|_{\substack{\text { Weel } \\ \text { ly }}}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { Iy } \end{gathered}$ | Weekly |  |  | Hourly | Weekly |  |  | Hour | $\begin{gathered} \text { Week- } \\ \mathrm{ly} \end{gathered}$ |
| $\begin{gathered} 1914 \\ \text { July. } 1920 \end{gathered}$ |  | 51.4 | \$.293 | \$15.09 | 100 | 100 | \$. 204 | \$11.17 | 100 | 100 | \$.323 | \$16.30 | 100 | 100 | \$.164 | \$8.82 | 100 | 100 |
| Third Quarte | 85.1 | 47.7 | . 717 | 34.19 | 245 | 227 | . 569 | 28.28 | 279 | 253 | . 782 | 36.91 | 242 | 226 | . 418 | 18.48 | 255 | 210 |
| Fourth Quarter. 1921 | 39.0 | 44.0 | . 684 | 30.11 | 233 | 200 | . 594 | 31.92 | 291 | 286 | . 726 | 31.92 | 225 | 196 | . 405 | 14.10 | 247 | 160 |
| First Quarter. | 33.7 | 44.2 | . 632 | 27.9 | 216 | 185 | . 545 | 24.95 | 267 | 223 | . 668 | 29.22 | 207 | 179 | . 355 | 15.11 | 216 | 171 |
| Second Quarte | 48.3 | 44.6 | . 611 | 27.23 | 209 | 180 | . 510 | 22.94 | 250 | 205 | . 652 | 28.97 | 202 | 178 | . 368 | 16.62 | 224 | 188 |
| Third Quarter. . | 41.6 | 44.7 | . 600 | 26.82 | 205 | 178 | . 478 | 22.66 | 234 | 203 | . 644 | 28.36 | 199 | 174 | . 381 | 16.74 | 232 | 190 |
| Fourth Quarter. 1922 | 43.7 | 45.6 | . 599 | 27.31 | 204 | 181 | . 462 | 22.67 | 226 | 203 | . 642 | 28.91 | 199 | 177 | . 395 | 16.31 | 241 | 185 |
| Third Quarter... | 77.9 | 47.8 | . 589 | 28.15 | 201 | 187 | . 463 | 22.53 | 227 | 202 | . 623 | 29.68 | 193 | 182 | . 412 | 18.98 | 251 | 215 |
| Fourth Quarter. . 1923 | 73.2 | 48.5 | . 594 | 28.82 | 196 | 191 | . 469 | 23.11 | 230 | 207 | . 626 | 30.38 | 194 | 186 | . 414 | 19.03 | 252 | 216 |
| First Quarter. . | 82.1 | 49.5 | . 602 | 29.81 | 205 | 198 | . 472 | 23.59 | 231 | 211 | . 634 | 31.45 | 196 | 193 | . 424 | 19.06 | 259 | 216 |
| Second Quarter. | 85.6 | 48.3 | . 630 | 30.44 | 215 | 202 | . 491 | 24.04 | 241 | 215 | . 666 | 32.20 | 206 | 198 | . 426 | 19.06 | 260 | 216 |
| Third Quarter. | 79.8 | 46.2 | . 643 | 29.67 | 219 | 197 | . 512 | 24.13 | 251 | 216 | . 678 | 31.19 | 210 | 191 | . 418 | 18.96 | 255 | 215 |
| Fourth Quarter. . 1924 | 71.0 | 46.9 | . 653 | 30.65 | 223 | 203 | . 510 | 24.32 | 250 | 218 | . 692 | 32.44 | 214 | 199 | . 433 | 18.96 | 264 | 215 |
| First Quarter. | 77.6 | 48.2 | . 656 | 31.64 | 224 | 210 | . 560 | 28.40 | 275 | 254 | . 693 | 33.16 | 215 | 203 | . 425 | 18.25 | 259 | 207 |
| Second Quarter | 59.9 | 44.1 | . 658 | 29.07 | 225 | 193 | . 564 | 25.01 | 276 | 224 | . 693 | 30.70 | 215 | 188 | . 412 | 16.51 | 251 | 187 |
| Third Quarter... | 53.8 | 43.7 | . 646 | 28.22 | 220 | 187 | . 527 | 23.94 | 258 | 214 | . 687 | 29.88 | 213 | 183 | . 426 | 17.26 | 260 | 196 |
| Fourth Quarter. 1925 | 51.8 | 45.5 | . 658 | 29.96 | 225 | 199 | . 525 | 25.05 | 257 | 224 | . 699 | 31.71 | 216 | 195 | . 424 | 16.86 | 259 | 191 |
| First Quarter. | 64.2 | 47.1 | . 646 | 30.45 | 220 | 202 | . 524 | 25.04 | 257 | 224 | . 683 | 32.23 | 211 | 198 | . 422 | 18.13 | 257 | 206 |
| Second Quarter. | 73.8 | 47.4 | . 650 | 30.83 | 221 | 204 | . 531 | 26.00 | 260 | 233 | . 687 | 32.53 | 213 | 200 | . 423 | 17.70 | 258 | 201 |
| Third Quarter. . | 74.6 | 47.4 | . 651 | 30.89 | 222 | 205 | . 509 | 24.85 | 250 | 222 | . 687 | 32.54 | 213 | 200 | . 404 | 17.87 | 246 | 203 |
| Fourth Quarter. . 1926 | 76.8 | 47.5 | . 672 | 31.92 | 229 | 212 | . 515 | 25.79 | 252 | 231 | . 715 | 33.74 | 221 | 207 | . 410 | 18.31 | 250 | 208 |
| First Quarter. | 86.5 | 50.4 | . 652 | 32.87 | 223. | 218 | . 518 | 27.63 | 254 | 247 | . 692 | 34.81 | 214 | 214 | .429 | 18.71 | 262 | 212 |
| Second Quarter | 94.8 | 48.1 | . 663 | 31.92 | 226 | 212 | . 529 | 27.83 | 259 | 249 | . 705 | 33.41 | 218 | 205 | . 452 | 19.47 | 276 | 221 |
| Third Quarter. . | 90.3 | 47.2 | . 661 | 31.21 | 226 | 207 | . 527 | 25.93 | 258 | 232 | . 701 | 33.01 | 217 | 203 | . 452 | 19.69 | 276 | 223 |
| Fourth Ouarter. | 77.5 | 45.2 | . 661 | 29.90 | 226 | 198 | . 524 | 25.19 | 257 | 226 | . 700 | 31.49 | 217 | 193 | . 450 | 18.03 | 274 | 204 |

Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Automobile Manufacturing
For Earnings July, 1914 = 100; For Employment June, $1920=100$


Composite and Classified Payroll Data-Electrical Apparatus Manufacturing

|  | All Wage Earnera |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Wage Earners Index Nor. | Av. <br> Week Per Wage Earner | Av. <br> Hourly $\underset{\substack{\text { Earn- } \\ \text { inga }}}{\text { En }}$ | Av. <br> Weekly Earning: | Index Nos. Earnings |  | Av.Hour-lyEarn-inga | Av. <br> Weekly <br> Earn- <br> ings | Index Nos. Earnings |  | Av. <br> Hourly Earnings | Av. <br> Week ly Earning* | Index Nos. Earning: |  | Av. <br> Hour-Earningt | Av. Weekly. Earnings | Index Nof. Earnings |  |
|  |  |  |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | Weekly |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | Hourly | Weekly |  |  | $\underset{\substack{\text { Hour- } \\ \text { ly }}}{ }$ | $\underset{\text { Week- }}{\substack{\text { Wy }}}$ |
| $\begin{gathered} 1914 \\ \text { July. } 1920 \end{gathered}$ |  | 49.8 | \$.272 | \$13.52 | 100 | 100 | \$. 220 | \$11.47 | 100 | 100 | \$.300 | \$14.78 | 100 | 100 | \$.165 | \$8.32 | 100 | 100 |
| Third Quarter | 101.6 | 47.1 | . 621 | 29.21 | 228 | 216 | . 556 | 27.20 | 253 | 237 | . 691 | 32.87 | 230 | 222 | . 397 | 17.42 | 241 | 209. |
| Fourth Quarter. . 1921 | 101.9 | 47.3 | . 623 | 29.47 | 229 | 218 | . 560 | 27.26 | 255 | 238 | . 689 | 32.86 | 230 | 222 | . 403 | 18.04 | 244 | 217 |
| First Quarter.. | 84.8 | 45.7 | . 585 | 26.73 | 215 | 198 | . 523 | 24.37 | 238 | 212 | . 643 | 29.56 | 214 | 200 | . 371 | 16.38 | 225 | 197 |
| Second Quarter | 69.4 | 43.1 | . 553 | 23.84 | 203 | 176 | . 474 | 21.10 | 215 | 184 | . 609 | 26.35 | 203 | 178 | . 349 | 14.43 | 212 | 173 |
| Third Quarter... | 57.6 | 41.3 | . 533 | 22.00 | 196 | 163 | . 401 | 17.60 | 182 | 153 | . 588 | 24.27 | 196 | 164 | . 347 | 13.53 | 210 | 163 |
| Fourth Quarter. . 1922 | 58.6 | 42.6 | . 501 | 21.35 | 184 | 158 | . 379 | 16.85 | 172 | 147 | . 554 | 23.51 | 185 | 159 | . 331 | 13.98 | 201 | 168 |
| Third Quarter... | 78.7 | 44.2 | . 525 | 23.16 | 193 | 171 | . 364 | 17.37 | 165 | 151 | . 551 | 26.30 | 184 | 178 | . 329 | 13.89 | 199 | 167 |
| Fourth Quarter. . 1923 | 88.5 | 48.0 | . 509 | 24.43 | 187 | 181 | . 378 | 18.50 | 172 | 161 | . 566 | 27.68 | 189 | 187 | . 337 | 14.65 | 204 | 176 |
| First Quarter... | 95.3 | 47.9 | . 521 | 24.92 | 192 | 184 | . 387 | 18.82 | 176 | 164 | . 579 | 28.25 | 193 | 191 | . 344 | 14.88 | 208 | 179 |
| Second Quarter | 98.0 | 48.5 | . 565 | 27.38 | 208 | 203 | . 436 | 21.35 | 198 | 186 | . 627 | 31.11 | 203 | 210 | . 366 | 15.82 | 222 | 190 |
| Third Quarter... | 100.0 99.1 | 48.0 | . 584 | 28.07 | 215 | 208 | . 443 | 21.99 | 201 | 192 | . 647 | 31.67 | 216 | 214 | . 374 | 15.93 | 227 | 191 |
| Fourth Quarter. . 1924 | 99.1 | 46.6 | . 600 | 27.99 | 221 | 207 | . 447 | 21.19 | 203 | 185 | . 665 | 31.39 | 222 | 212 | . 392 | 16.83 | 238 | 202 |
| First Quarter.... | 95.5 | 46.7 | . 605 | 28.23 | 222 | 209 | . 450 | 21.36 | 205 | 186 | . 669 | 31.56 | 223 | 214 | . 395 | 17.21 | 239 | 207 |
| Second Quarter.. | 92.3 | 46.1 | . 602 | 27.75 | 221 | 205 | . 447 | 21.39 | 203 | 186 | . 667 | 30.93 | 222 | 209 | . 399 | 17.37 | 242 | 209 |
| Third Quarter. . . | 85.2 | 44.9 | . 601 | 26.95 | 221 | 199 | . 444 | 20.83 | 202 | 182 | . 665 | 30.00 | 222 | 203 | . 401 | 16.99 | 243 | 204 |
| Fourth Quarter. . 1925 | 82.7 | 44.7 | . 599 | 26.75 | 220 | 198 | . 444 | 20.83 | 202 | 182 | . 665 | 29.80 | 222 | 202 | .411 | 17.53 | 249 | 211 |
| First Quarter... | 85.1 | 45.9 | . 606 | 27.86 | 223 | 206 | . 459 | 22.04 | 209 | 192 | . 672 | 31.08 | 224 | 210 | . 420 | 18.22 | 255 | 219 |
| Second Quarter. . | 86.3 | 46.0 | . 611 | 28.10 | 225 | 208 | . 461 | 21.98 | 210 | 192 | . 678 | 31.54 | 226 | 213 | . 403 | 17.14 | 244 | 206 |
| Third Quarter... | 86.4 | 46.8 | . 597 | 27.95 | 219 | 207 | . 458 | 21.99 | 208 | 192 | . 666 | 31.52 | 222 | 213 | . 385 | 16.91 | 233 | 203 |
| Fourth Quarter. . 1926 | 95.4 | 47.3 | . 596 | 28.22 | 219 | 209 | . 456 | 21.84 | 207 | 190 | . 668 | 32.07 | 223 | 217 | . 396 | 17.74 | 240 | 213 |
| First Quarter . . . | 100.1 | 44.1 | . 584 | 27.55 | 215 | 204 | . 470 | 23.06 | 214 | 201 | . 657 | 31.71 | 219 | 215 | . 421 | 18.06 | 255 | 217 |
| Second Quarter.. | 96.6 | 46.8 | . 590 | 27.62 | 217 | 204 | . 473 | 22.81 | 215 | 199 | . 664 | 31.82 | 221 | 215 | . 407 | 17.19 | 247 | 207 |
| Third Quarter... | 95.2 | 46.0 45.0 | . 594 | 27.31 26.78 | 218 219 | 202 | . 477 | 22.39 | 217 | 195 | . 662 | 31.72 31.02 | 221 | 215 | . 424 | 16.41 | 257 | 197 |
| Fourth Quarter.. | 96.5 | 45.0 | . 595 | 26.78 | 219 | 198 | . 477 | 22.47 | 217 | 196 | . 662 | 31.02 | 221 | 210 | . 430 | 16.74 | 261 | 201 |

Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Electrical Apparatus Manufacturing

For Earnings July, 1914 - 100; For Employment June, $1920=100$


Composite and Classified Payroll Data-Foundry and Machine Shop Products


Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Foundry and Machine Shop Products

For Earnings July, 1914=100; For Employment June, $1920=100$


Composite and Classified Payroll Data-Foundries


Index Numbers of Averace Hourly and Weekly Earnings and Employment, All Wage Earners, Foundries
For Earnings July, $1914=100$; For Employment June, 1920-100


Composite and Classified Payroll Data-Machines and Machine Tools


Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Machine and Machine Tool Manufacturing

For Earnings July, 1914-100; For Employment June, 1920=100


Composite and Classified Payroll Data-Heavy Equipment


Index Numbers of Average Hourly and Weerly Earnings and Employment, All Wage
$\infty$
Earners, Heavy Equipment Manufacturing
For Earning July, 1914=100; For Employment June, $1920=100$


Composite and Classified Payroll Data-Hardware and Small Parts

|  | All Wago Earnera |  |  |  |  |  | Male-Unakilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Av. <br> Week Per Wage Earner | Av. Hourly Earninge | Av. <br> Week- <br> ly <br> Earn- <br> inge | Index Nos. Earnings |  |  | $\begin{array}{\|c\|} \hline \text { Avy } \\ \text { Week } \\ \text { ly } \\ \text { Earne } \\ \text { ings } \end{array}$ | Index Nos. Earnings |  | $\begin{aligned} & \text { Av. } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Earn- } \\ & \text { ings } \end{aligned}$ | Av. <br> Weekly Earning | Index Nos. Earnings |  | Av. Hourly Earninge | Av. Weekly Earninge | Index Nos. Earnings |  |
|  |  |  |  |  | Hour- ly | Weekly |  |  | Hourly | Weekly |  |  | Hourly | Weekly |  |  | Hourly | Weekly |
| 1914 <br> July. 1920 | . | 49.5 | \$.238 | \$11.78 | 100 | 100 | $\$ .200$ | \$9.97 | 100 | 100 | \$.265 | \$13.09 | 100 | 100 | \$.133 | \$6.53 | 100 | 100 |
| July............ | 102.0 | 49.1 | . 568 | 27.88 | 238 | 237 | . 508 | 25.78 | 254 | 259 | . 628 | 31.01 | 237 | 237 | . 382 | 17.05 | 287 | 261 |
| December...... | 91.1 | 44.1 | . 561 | 25.31 | 236 | 215 | . 468 | 22.86 | 234 | 229 | . 625 | 28.05 | 236 | 214 | . 369 | 14.82 | 277 | 227 |
| July. . . . . . . . . | 53.7 | 37.3 | . 512 | 19.07 | 215 | 162 | . 479 | 17.97 | 240 | 180 | . 552 | 20.70 | 208 | 158 | . 348 | 12.19 | 262 | 187 |
| December..... | 63.7 | 46.6 | . 441 | 20.56 | 185 | 175 | . 376 | 17.60 | 188 | 177 | . 502 | 23.48 | 189 | 179 | . 262 | 11.87 | 197 | 182 |
| July........... | 82.2 | 47.9 | . 448 | 21.46 | 186 | 182 | . 396 | 19.58 | 198 | 196 | . 501 | 24.25 | 189 | 185 | . 278 | 11.91 | 209 | 182 |
| December..... | 83.2 | 51.0 | . 467 | 23.84 | 196 | 202 | . 449 | 22.93 | 225 | 230 | . 514 | 26.57 | 194 | 203 | . 298 | 14.30 | 224 | 219 |
| July........... | 94.3 | 48.6 | . 519 | 25.21 | 218 | 214 | . 446 | 22.42 | 223 | 225 | . 586 | 28.52 | 221 | 218 | . 322 | 14.62 | 242 | 224 |
| December. . . . . $1924$ | 87.0 | 45.7 | . 529 | 24.19 | 222 | 205 | . 454 | 21.18 | 227 | 212 | . 588 | 27.33 | 222 | 209 | . 356 | 14.40 | 268 | 221 |
| July. .......... | 90.1 | 44.0 | . 524 | 23.04 | 220 | 196 | . 451 | 20.49 | 226 | 206 | . 586 | 25.84 | 221 | 194 | . 348 | 14.44 | 262 | 221 |
| $\begin{aligned} & \text { December. ...... } \\ & 1925 \end{aligned}$ | 98.0 | 47.3 | . 522 | 24.67 | 219 | 209 | . 452 | 21.83 | 226 | 219 | . 588 | 27.98 | 222 | 214 | . 355 | 15.87 | 267 | 243 |
| First Quarter. . . | 101.3 | 49.2 | . 518 | 25.47 | 218 | 216 | . 446 | 22.52 | 223 | 226 | . 586 | 28.86 | 221 | 220 | . 354 | 16.64 | 266 | 255 |
| Second Quarter. | 99.5 | 48.1 | . 524 | 25.22 | 220 | 214 | . 452 | 22.10 | 226 | 222 | . 590 | 28.66 | 223 | 219 | . 362 | 16.35 | 272 | 250 |
| Third Quarter... | 98.7 | 47.6 | . 524 | 24.93 | 220 | 212 | . 452 | 21.96 | 226 | 220 | . 592 | 28.34 | 223 | 216 | . 360 | 16.15 | 271 | 247 |
| Fourth Quarter. 1926 | 102.1 | 49.2 | . 527 | 25.92 | 221 | 220 | . 450 | 22.56 | 225 | 226 | . 598 | 29.59 | 226 | 226 | . 364 | 16.96 | 274 | 260 |
| First Quarter. . . | 107.0 | 48.9 | . 527 | 25.76 | 221 | 219 | .452 | 22.33 | 226 | 224 | . 588 | 29.20 | 222 | 223 | . 368 | 16.53 | 277 | 253 |
| Second Quarter. | 104.0 | 48.5 | . 534 | 25.92 | 224 | 220 | . 446 | 22.04 | 223 | 221 | . 598 | 29.42 | 226 | 225 | . 375 | 16.68 | 282 | 255 |
| Third Quarter... | 102.4 | 48.4 | . 537 | 25.97 | 226 | 220 | . 454 | 22.31 | 227 | 224 | . 599 | 29.45 | 226 | 225 | . 380 | 16.75 | 286 | 257 |
| Fourth Quarter.. | 101.3 | 49.0 | . 538 | 26.38 | 226 | 224 | . 459 | 22.86 | 230 | 229 | . 599 | 29.66 | 226 | 227 | . 375 | 17.16 | 282 | 263 |

## Index Numbers or Average Hourly and Weekly Earnings and Employment, All Wage Earners, Hardware and Small Parts Manuracturing

For Earnings July, 1914-100; For Employment June, 1920=100


Composite and Classified Payroll Data-Cotton Manufacturing-North

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Wage Earners Index Nos. | Av. Week Per Wage Earner | Av. Hour ly Earninge | Av. Weekly Earninge | Index Nof. Earning: |  | Av. <br> Hourly Earninga | Av. Weekly Earning: | Index Nos. Eatnings |  | $\begin{aligned} & \text { Av. } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Earn- } \\ & \text { ings } \end{aligned}$ | Av. Weekly Earnings | Index Nos. Earnings |  | Av. Hourly Earnings | ${ }^{A v}$ Weekly. Earninge | Index Nos. Earnings |  |
|  |  |  |  |  | Hourly | Weekly |  |  | Hourly | Weekly |  |  | Hourly | Week- |  |  | Hourly | Weekly |
| $\begin{gathered} 1914 \\ \text { July. } 1920 \end{gathered}$ |  | 51.9 | \$.176 | \$9.16 | 100 | 100 | \$.168 | \$8.89 | 100 | 100 | \$. 202 | \$10.69 | 100 | 100 | \$.153 | \$7.74 | 100 | 100 |
| Third Quarter... | 97.1 | 47.9 | . 524 | 25.09 | 298 | 274 | . 486 | 24.29 | 289 | 273 | . 602 | 29.19 | 298 | 273 | . 462 | 21.49 | 302 | 278 |
| Fourth Quarter. . 1921 | 75.7 | 38.5 | . 531 | 20.46 | 302 | 223 | . 497 | 23.64 | 296 | 266 | . 605 | 23.64 | 300 | 221 | . 470 | 17.24 | 307 | 223 |
| First Quarter.... | 78.3 | 38.1 | . 425 | 16.23 | 241 | 177 | . 389 | 16.91 | 232 | 190 | . 498 | 18.72 | 247 | 175 | . 369 | 13.64 | 241 | 176 |
| Second Quarter.. | 78.4 | 41.3 | . 420 | 17.34 | 239 | 189 | . 391 | 17.96 | 233 | 202 | . 494 | 20.09 | 245 | 188 | . 361 | 14.52 | 236 | 188 |
| Third Quarter... | 84.2 | 44.6 | . 407 | 18.14 | 231 | 198 | . 372 | 17.76 | 221 | 200 | . 477 | 21.41 | 236 | 200 | . 358 | 15.36 | 234 | 198 |
| Fourth Quarter. . 1922 | 90.8 | 45.5 | .406 | 18.48 | 231 | 202 | . 367 | 17.44 | 218 | 196 | . 478 | 22.17 | 237 | 207 | . 356 | 15.66 | 233 | 202 |
| Third Quarter. . | 73.3 | 45.3 | . 391 | 17.72 | 222 | 193 | . 381 | 17.82 | 227 | 200 | . 445 | 20.77 | 220 | 194 | . 342 | 14.86 | 224 | 192 |
| Fourth Quarter. . 1923 | 85.2 | 47.8 | . 405 | 19.37 | 230 | 211 | . 385 | 19.34 | 229 | 218 | . 464 | 22.67 | 230 | 212 | . 355 | 16.27 | 232 | 210 |
| First Quarter.... | 90.4 | 48.7 | . 407 | 19.83 | 231 | 216 | . 378 | 19.52 | 225 | 220 | . 466 | 23.25 | 231 | 217 | . 358 | 16.65 | 234 | 215 |
| Second Quarter. . | 88.4 | 48.6 | . 441 | 21.44 | 251 | 234 | . 402 | 19.92 | 239 | 224 | . 504 | 25.21 | 250 | 236 | . 392 | 18.35 | 256 | 237 |
| Third Quarter... | 76.1 | 47.3 | . 462 | 21.88 | 262 | 239 | . 410 | 19.44 | 244 | 219 | . 527 | 25.89 | 261 | 242 | . 411 | 18.69 | 269 | 241 |
| Fourth Quarter. . 1924 | 80.6 | 46.4 | . 470 | 21.81 | 267 | 238 | . 420 | 20.29 | 250 | 228 | . 540 | 25.82 | 267 | 242 | . 412 | 18.26 | 269 | 236 |
| First Quarter.... | 74.7 | 42.5 | . 467 | 19.87 | 265 | 219 | . 418 | 18.71 | 249 | 210 | . 532 | 24.53 | 263 | 229 | . 417 | 16.93 | 273 | 219 |
| Second Quarter. . | 60.1 | 42.0 41.6 | . 467 | 19.60 | 265 | 214 | . 420 | 19.03 | 250 | 214 | . 531 | 22.91 | 263 | 214 | . 411 | 16.09 | 269 | 208 |
| Third Quarter... | 54.1 | 41.6 | . 463 | 19.27 | 263 | 210 | . 423 | 18.56 | 252 | 209 | . 524 | 22.57 | 259 | 211 | . 406 | 15.62 | 265 | 202 |
| Fourth Quarter . 1925 | 60.5 | 44.6 | .452 | 20.18 | 257 | 220 | . 412 | 19.50 | 245 | 219 | . 511 | 23.52 | 253 | 220 | . 404 | 16.80 | 264 | 217 |
| First Quarter.... | 68.0 | 48.4 | .431 | 20.87 | 244 | 227 | . 394 | 20.08 | 234 | 226 | . 482 | 24.20 | 239 | 226 | .376 | 16.90 | 246 | 218 |
| Second Quarter.. | 70.2 | 47.2 | . 428 | 20.22 | 243 | 221 | . 391 | 19.96 | 233 | 224 | . 486 | 23.45 | 240 | 219 | . 381 | 16.73 | 249 | 216 |
| Third Quarter... | 61.2 | 46.0 | . 426 | 19.60 | 242 | 214 | . 394 | 19.48 | 234 | 219 | . 486 | 23.08 | 240 | 216 | . 372 | 15.63 | 243 | 202 |
| $\begin{aligned} & \text { Fourth Quarter. . } \\ & 1926 \end{aligned}$ | 66.3 | 46.4 | . 425 | 19.71 | 241 | 215 | . 393 | 20.24 | 234 | 228 | . 487 | 23.27 | 241 | 218 | . 370 | 15.87 | 242 | 205 |
| First Quarter... | 70.8 | 46.7 | . 420 | 19.61 | 239 | 214 | . 377 | 19.33 | 224 | 217 | . 489 | 23.34 | 242 | 218 | . 367 | 15.55 | 240 | 201 |
| Second Quarter.. | 70.2 | 46.6 | . 418 | 19.10 | 238 | 209 | . 376 | 19.04 | 224 | 214 | . 479 | 23.28 | 237 | 218 | . 368 | 15.70 | 241 | 203 |
| Third Quarter... | 60.7 650 | 44.3 47 n | . 425 | 18.85 1072 | 241 | 206 | . 384 | 19.48 10.69 | 229 | 219 710 | . 489 | $\left\lvert\, \begin{aligned} & 22.51 \\ & \rightarrow 2\end{aligned}\right.$ | 242 | 211 | . 374 | 14.80 <br> $1 \times \mathrm{Mn}$ | 244 | 191 3 |

Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage
Earners, Cotron Manutacturing-North
For Earnings July, 1914-100; For Employment June, 1920-100


Composite and Classified Payroll, Data-Cotton Manufacturing-South


Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Cotton Manufacturing-South
For Earnings July, $1914=100$; For Employment June, $1920=100$


Composite and Classified Payroll Data-Hosiery and Knit Goods Manufacturing


Index Numbers or Average Hourly and Weekly Earnings and Employment, All Wage Earners, Hosiery and Knit Goods Manufacturing

For Earninge July, 1914-100; For Employment June, 1920=100


Composite and Classified Payroll Data-Paper and Wood Pulp Manufacturing

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Ar. | $\stackrel{\mathrm{Av}_{\mathrm{W}}}{\text { Week- }}$ | ${ }^{\text {Inde }}$ | Nos. | Av. <br> Hour- <br> lyarn- <br> Eange <br> ing |  | Index Nos. Earning』 |  | $\begin{aligned} & \text { Av. } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Earn- } \\ & \text { ings } \\ & \hline \end{aligned}$ | AvWeek-lyEann-inga | Index Nos. Earnings |  | Av. <br> Hour- <br> Hent <br> Earn- <br> ings | Av. <br> Week- <br> Eann- <br> inga | Index Nos. Earning: |  |
|  | $\begin{gathered} \text { Earners } \\ \text { Index } \\ \text { Nos. } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Wer } \\ \text { Warner } \\ \text { Earner } \end{gathered}$ | $\begin{aligned} & \text { Eayn- } \\ & \text { Engal } \end{aligned}$ | Earn- <br> inga | $\begin{gathered} \text { Hour- } \\ \mathrm{ly}-1 \end{gathered}$ | $\begin{array}{\|c\|} \text { Week- } \\ \text { ly } \end{array}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\left\lvert\, \begin{gathered} \text { Week } \\ \text { ly } \end{gathered}\right.$ |  |  | $\begin{array}{\|c} \text { Hour- } \\ \text { ly } \end{array}$ | $\underset{\substack{\text { Week- } \\ l y}}{ }$ |  |  | $\underset{\substack{\text { Hour- } \\ \text { ly }}}{ }$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |
| $\begin{gathered} \hline 1914 \\ \text { July...... } \\ 1920 \end{gathered}$ |  | 53.9 | \$. 233 | \$12.56 | 100 | 100 | \$.220 | \$11.72 | 100 | 100 | \$. 266 | \$15.26 | 100 | 100 | \$. 144 | \$6.57 | 100 | 100 |
| Third Quarter. | 100.7 | 51.7 | . 596 | 30.77 | 267 | 245 | . 537 | 26.84 | 244 | 229 | . 644 | 34.45 | 242 | 226 | . 415 | 18.77 | 288 | 286 |
| $\begin{aligned} & \text { Fourth Quarter.. } \\ & -\quad 1921 \end{aligned}$ | 98.1 | 50.8 | . 600 | 30.51 | 269 | 243 | . 544 | 27.01 | 247 | 230 | . 648 | 33.95 | 244 | 222 | . 408 | 17.86 | 283 | 272 |
| First Quarter. | 82.8 | 46.4 | . 584 | 27.12 | 262 | 216 | . 529 | 23.56 | 240 | 201 | . 627 | 30.29 | 236 | 198 | . 382 | 14.45 | 265 | 220 |
| Second Quarter | 56.1 | 46.9 | . 526 | 24.64 | 236 | 196 | . 472 | 21.61 | 215 | 184 | . 573 | 28.00 | 215 | 183 | . 354 | 13.33 | 246 | 203 |
| Third Quarter. | 56.8 | 49.7 | . 484 | 24.03 | 217 | 191 | . 420 | 20.95 | 191 | 179 | . 543 | 27.91 | 204 | 183 | . 341 | 13.31 | 237 | 203 |
| Fourth Quarter.. 1922 | 71.0 | 53.9 | . 461 | 24.89 | 207 | 198 | . 394 | 20.96 | 179 | 179 | . 520 | 29.25 | 195 | 192 | . 314 | 13.75 | 218 | 209 |
| Third Quarter... | 86.8 | 52.8 | . 448 | 23.63 | 201 | 188 | . 397 | 21.17 | 180 | 181 | . 522 | 28.17 | 196 | 185 | . 299 | 13.46 | 208 | 205 |
| Fourth Quarter.. | 91.6 | 52,6 | . 461 | 24.27 | 207 | 193 | . 410 | 21.33 | 186 | 182 | . 540 | 29.68 | 203 | 194 | . 313 | 13.92 | 217 | 212 |
| First Quarter. | 94.0 | 52.9 | . 471 | 24.92 | 211 | 198 | . 419 | 21.73 | 190 | 185 | . 546 | 30.27 | 205 | 198 | . 331 | 14.99 | 230 | 228 |
| Second Quarter | 96.8 | 52.9 | . 507 | 26.85 | 227 | 214 | . 448 | 23.44 | 204 | 200 | . 592 | 32.66 | 223 | 214 | . 361 | 16.32 | 251 | 248 |
| Third Quarter... | 93.0 | 50.9 | . 518 | 26.36 | 222 | 210 | . 451 | 22.62 | 205 | 193 | . 586 | 30.73 | 220 | 201 | . 358 | 15.79 | 249 | 240 |
| Fourth Quarter. . 1924 | 91.0 | 50.4 | . 520 | 26.18 | 223 | 208 | . 451 | 22.60 | 205 | 193 | . 576 | 29.75 | 217 | 195 | . 380 | 16.25 | 264 | 247 |
| First Quarter.... | 90.6 | 50.5 | . 523 | 26.39 | 224 | 210 | . 439 | 22.11 | 200 | 189 | . 588 | 30.23 | 221 | 198 | . 352 | 15.78 | 244 | 240 |
| Second Quarter.. | 88.4 | 50.0 | . 524 | 26.23 | 225 | 209 | . 441 | 21.93 | 200 | 187 | . 591 | 30.32 | 222 | 199 | . 364 | 15.97 | 253 | 243 |
| Third Quarter... | 80.6 | 48.8 | . 529 | 25.80 | 227 | 205 | . 440 | 21.23 | 200 | 181 | . 601 | 30.18 | 226 | 198 | . 358 | 14.93 | 249 | 227 |
| $\begin{aligned} & \text { Fourth Quarter.. } \\ & \hline=1925 \end{aligned}$ | 79.3 | 50.3 | . 536 | 26.94 | 230 | 214 | . 451 | 22.22 | 205 | 190 | . 603 | 31.44 | 227 | 206 | . 361 | 15.35 | 251 | 234 |
| First Quarter... | 82.8 | 51.9 | . 528 | 27.43 | 227 | 218 | . 448 | 22.90 | 204 | 195 | . 594 | 31.81 | 223 | 208 | . 357 | 15.93 | 248 | 242 |
| Second Quarter. | 83.9 | 50.6 | . 5330 | 26.85 | 227 | 214 | . 448 | 22.45 | 204 | 192 | . 597 | 31.09 | 224 | 204 | ${ }^{.} 354$ | 15.44 | 246 | 235 |
| Third Quarter... | 82.8 | 50.2 | . 529 | 26.58 | 227 | 212 | . 448 | 22.30 | 204 | 190 | . 593 | 30.63 | 223 | 201 | . 357 | 15.34 | 248 | 233 |
| $\begin{aligned} & \text { Fourth Quarter. } \\ & 1926 \end{aligned}$ | 85.2 | 52.2 | . 529 | 27.65 27.18 | 227 | 220 | . 458 | 23.73 | 208 | 202 | . 593 | 31.90 | 223 | 209 | . 361 | 15.99 | 251 | 243 |
| First Quarter.... | 90.3 | 51.5 | . 527 | 27.18 | 226: | 216 | . 449 | 23.18 | 204 | 198 | . 605 | 31.93 | 227 | 209 | . 359 | 15.97 | 249 | 243 |
| Second Quarter.. | 91.0 | 52.1 | . 523 | 27.23 | 224 | 217 | . 447 | 22.93 | 203 | 196 | . 599 | 32.28 | 225 | 212 | . 360 | 16.23 | 250 | 247 |
| Third Quarter.. | ${ }_{011}^{91.8}$ | ${ }_{5 \%}^{51.9}$ | ${ }_{521} 528$ | $\left\lvert\, \begin{aligned} & 27.37 \\ & 785\end{aligned}\right.$ | 227 | 218 | . $414 \times$ | 23.31 | 204 | 199 100 | . 608 | 32.41 | 229 | 212 | .367 .80 | 16.04 | 255 | 20\% |

## Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Paper and Wood Pulp Manuracturing <br> For Earnings July, 1914 = 100; For Employment June, 1920=100



Composite and Classified Payroll Data-Silk Manufacturing

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Av. Week Per Wage Earner | Av. Hourly Earnings |  | Index Nos. Earnings: |  | Av. <br> Hourly Earnings | Av.Week-lyEarn-ings | Index Nos. Earnings |  | Av.Hour-lyEarn-ings | Av. <br> Weekly Earnings | Index Nos. Earnings |  | Av.Hour-lyEarn-ings | Av. <br> Weekly Earn- ings | Index Nos Earnings |  |
|  |  |  |  |  | $\begin{gathered} \text { Hour- } \\ 1 \mathrm{y} \end{gathered}$ | Weekly |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | Weekly |  |  | Hourly | Week1 y |  |  | $\begin{gathered} \text { Hour- } \\ \mathrm{ly} \end{gathered}$ | ${\underset{\text { Week- }}{\text { ly }}}^{\text {W }}$ |
| July. 1914. 1920 |  | 50.8 | \$.196 | \$9.94 | 100 | 100 | \$. 205 | \$12.60 | 100 | 100 | \$.237 | \$12.01 | 100 | 100 | \$.149 | \$7.40 | 100 | 100 |
| Third Quarter... | 94.8 | 41.7 | . 535 | 22.32 | 273 | 225 | . 522 | 23.45 | 255 | 186 | . 632 | 27.25 | 267 | 227 | . 434 | 16.99 | 291 | 230 |
| Fourth Quarter. 1921 | 85.5 | 41.3 | . 531 | 21.94 | 271 | 221 | . 516 | 23.31 | 252 | 185 | . 610 | 26.08 | 257 | 217 | . 448 | 17.20 | 301 | 232 |
| First Quarter. . | 85.1 | 44.1 | . 494 | 21.79 | 252 | 219 | . 472 | 22.50 | 230 | 179 | . 570 | 25.46 | 241 | 212 | . 420 | 17.64 | 282 | 238 |
| Second Quarte | 95.4 | 46.1 | . 481 | 22.18 | 245 | 223 | . 456 | 22.02 | 222 | 175 | . 559 | 26.19 | 236 | 218 | . 409 | 18.21 | 274 | 246 |
| Third Quarter... | 95.9 | 44.9 | . 474 | 21.26 | 242 | 214 | . 450 | 21.07 | 220 | 167 | . 557 | 25.71 | 235 | 214 | . 392 | 16.79 | 263 | 227 |
| Fourth Quarter.. 1922 | 93.5 | 44.6 | . 468 | 20.86 | 239 | 210 | . 446 | 21.21 | 218 | 168 | . 548 | 24.95 | 231 | 208 | . 390 | 16.49 | 262 | 223 |
| Third Quarter... | 89.5 | 44.5 | . 446 | 19.86 | 228 | 200 | . 404 | 20.40 | 197 | 162 | . 538 | 24.52 | 227 | 204 | . 362 | 14.64 | 243 | 198 |
| Fourth Quarter. . 1923 | 95.6 | 46.9 | . 449 | 21.05 | 229 | 212 | . 419 | 21.78 | 204 | 173 | . 549 | 25.72 | 232 | 214 | . 358 | 15.80 | 240 | 214 |
| First Quarter ... | 100.7 | 47.5 | .457 | 21.71 | 233 | 218 | . 429 | 22.53 | 209 | 179 | . 558 | 26.65 | 235 | 222 | . 371 | 16.54 | 249 | 224 |
| Second Quarte | 101.0 | 46.3 | . 497 | 23.01 | 254 | 231 | . 475 | 24.55 | 232 | 195 | . 613 | 28.26 | 259 | 235 | . 399 | 17.47 | 268 | 236 |
| Third Quarter... | 100.0 | 45.6 | . 511 | 23.33 | 261 | 235 | . 492 | 24.19 | 240 | 192 | . 626 | 29.32 | 264 | 244 | . 406 | 17.35 | 272 | 234 |
| Fourth Quarter. . 1924 | 98.2 | 46.6 | . 517 | 24.06 | 264 | 242 | . 492 | 25.16 | 240 | 200 | . 630 | 29.94 | 266 | 249 | . 417 | 18.07 | 280 | 244 |
| First Quarter. . | 90.0 | 47.8 | . 505 | 24.13 | 258 | 243 | . 484 | 26.45 | 236 | 210 | . 619 | 29.99 | 261 | 250 | . 417 | 18.58 | 280 | 251 |
| Second Quarter. . | 92.7 | 43.6 | . 496 | 21.64 | 253 | 218 | . 476 | 23.46 | 232 | 186 | . 603 | 27.05 | 254 | 225 | . 415 | 16.95 | 279 | 229 |
| Third Quarter. . . | 91.1 | 44.8 | . 487 | 21.81 | 248 | 219 | . 479 | 24.10 | 234 | 191 | . 597 | 26.94 | 252 | 224 | . 402 | 17.15 | 270 | 232 |
| Fourth Quarter. . 1925 | 99.6 | 45.5 | . 479 | 21.81 | 244 | 219 | . 464 | 24.20 | 226 | 192 | . 594 | 26.89 | 251 | 224 | . 398 | 17.38 | 267 | 235 |
| First Quarter... | 103.6 | 47.4 | . 477 | 22.27 | 240 | 224 | .455 | 24.48 | 222 | 194 | . 582 | 27.21 | 246 | 226 | . 400 | 17.91 | 268 | 242 |
| Second Quarter. : | 108.7 1129 | 46.8 | . 4775 | 22.22 | 242 | 224 | . 473 | 24.69 | 231 | 196 | . 579 | 27.30 | 244 | 227 | . 394 | 17.74 | 264 | 240 |
| Third Quarter... | 112.9 | 46.9 | . 473 | 22.14 | 241 | 223 | . 467 | 24.60 | 228 | 195 | . 572 | 26.93 | 241 | 224 | . 395 | 17.75 | 265 | 240 |
| Fourth Quarter.. 1926 | 114.5 | 47.3 | . 477 | 22.56 | 243 | 227 | . 462 | 24.77 | 225 | 196 | . 583 | 28.94 | 246 | 241 | . 398 | 17.43 | 267 | 236 |
| First Quarter. . | 114.8 | 46.2 | . 465 | 21.76 | 237 | 219 | .475 | 25.92 | 232 | 206 | . 595 | 27.89 | 251 | 232 | . 378 | 16.97 | 254 | 229 |
| Second Quarter. | 100.4 | 44.6 | . 497 | 22.16 | 254. | 223 | . 467 | 24.63 | 228 | 195 | . 616 | 27.88 | 260 | 232 | . 410 | 17.22 | 275 | 233 |
| Third Quarter... | 102.5 109.5 | 44.3 46.0 | . 487 | 21.61 22.59 | $248{ }^{\prime}$ | 217 | . 463 | 22.75 24.47 | 226 | 181 | . 599 | 26.65 | 253 | 222 | . 405 | 17.22 <br> 17.45 | 272 | 236 |
| Fourth Quarter. | 109.5 | 46.0 | . 491 | 22.59 | 251 | 227 | . 463 | 24.47 | 226 | 194 | . 599 | 27.67 | 253 | 230 | . 410 | 18.08 | 275 | 244 |

Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Silk Manupacturing
For Earnings July, 1914=100; For Employment June, 1920=100


Composite and Classified Payroll Data-Wool Manufacturing


Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Wool Manuracturing


Composite and Classified Payroll Data-Boot and Shoe Manufacturing



Composite and Classified Payroll Data-Printing and Publishing-Newspaper and Periodical

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Wreek PerWage Earner | $\begin{aligned} & \text { Avo } \\ & \text { Hour- } \\ & \text { Llann- } \\ & \text { Eangs } \end{aligned}$ | $\begin{aligned} & \text { Avi- } \\ & \text { Wey- } \\ & \text { Eaty- } \\ & \text { Eangs } \\ & \text { ings } \end{aligned}$ | Index Nos. Earnings |  | Av.Hour-lyEarn-ings | $\stackrel{\text { Av }}{\text { Week- }}$ $\underset{\substack{\text { Earn- } \\ \text { ings }}}{\text { ly }}$ | Index Nos. Earnings |  | $\begin{aligned} & \text { Av. } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Earn- } \\ & \text { inga } \end{aligned}$ |  | Index Nos. Earnings |  | $\begin{aligned} & \text { Avi } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Eann- } \\ & \text { ings } \end{aligned}$ | AvWeek-Fyn-Earn-ings | $\begin{gathered} \text { Index Nos, } \\ \text { Earnings } \end{gathered}$ |  |
|  |  |  |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\underset{\text { Week- }}{\substack{\text { ly }}}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\left\|\begin{array}{c} W_{\text {eek }} \\ \mathrm{ly} \end{array}\right\|$ |  |  | $\begin{gathered} \text { Hour- } \\ \mathrm{ly} \end{gathered}$ | $\begin{gathered} \text { Week } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |
| $\begin{gathered} 1914 \\ \text { July. } 1920 \end{gathered}$ |  | 46.2 | \$.378 | \$17.44 | 100 | 100 | \$.286 | \$8.89 | 100 | 100 | \$.425 | \$20.56 | 100 | 100 | \$.188 | \$8.68 | 100 | 100 |
| Third Quarter... | 101.4 | 44.2 | . 662 | 29.30 | 175 | 168 | . 598 | 19.69 | 209 | 221 | . 744 | 34.81 | 175 | 169 | . 403 | 17.07 | 214 | 197 |
| Fourth Quarter. 1921 | 107.8 | 45.1 | . 701 | 31.62 | 186 | 181 | . 619 | 20.72 | 216 | 233 | . 789 | 37.80 | 186 | 184 | . 436 | 18.64 | 232 | 215 |
| First Quarter. . | 106.7 | 44.1 | . 704 | 31.06 | 186 | 178 | . 616 | 20.61 | 215 | 232 | . 799 | 37.32 | 188 | 182 | . 435 | 18.35 | 231 | 211 |
| Second Quarter | 97.7 | 43.0 | . 706 | 30.33 | 187 | 174 | . 620 | 19.77 | 217 | 222 | . 794 | 36.20 | 187 | 176 | . 422 | 17.47 | 224 | 201 |
| Third Quarter.. | 100.2 | 44.9 | . 677 | 30.45 | 179 | 175 | . 542 | 20.07 | 189 | 226 | . 769 | 36.21 | 181 | 176 | . 427 | 18.33 | 227 | 211 |
| $\begin{gathered} \text { Fourth Quarter. } . \\ \hline 1922 \end{gathered}$ | 107.2 | 45.5 | . 663 | 30.18 | 175 | 173 | . 537 | 20.07 | 188 | 226 | . 761 | 36.18 | 179 | 176 | . 419 | 18.47 | 223 | 213 |
| Third Quarter. | 108.1 | 44.3 | . 683 | 30.28 | 181 | 174 | . 524 | 19.55 | 183 | 220 | . 785 | 36.46 | 185 | 177 | . 421 | 17.65 | 224 | 203 |
| $\begin{aligned} & \text { Fourth Quarter.. } \\ & \hline: \quad 1923 \end{aligned}$ | 118.9 | 45.5 | . 692 | 31.47 | 183 | 180 | . 513 | 19.76 | 179 | 222 | . 809 | 38.68 | 190 | 188 | . 435 | 18.63 | 231 | 215 |
| First Quarter.. | 122.6 | 45.3 | . 679 | 30.81 | 180 | 177 | . 525 | 21.46 | 184 | 241 | . 802 | 37.50 | 189 | 182 | . 429 | 18.80 | 228 | 217 |
| Second Quarter . | 121.8 | 45.0 | . 699 | 31.44 | 185 | 180 | . 551 | 21.83 | 193 | 246 | . 823 | 38.45 | 194 | 194 | . 411 | 17.62 | 219 | 203 |
| Third Quarter... | 115.0 | 44.4 | . 704 | 31.27 | 186 | 179 | . 537 | 21.67 | 188 | 244 | . 809 | 37.43 | 190 | 182 | . 462 | 19.12 | 246 | 220 |
| Fourth Quarter. 1924 | 129.3 | 45.4 | . 691 | 31.38 | 183 | 180 | . 548 | 21.89 | 192 | 246 | . 822 | 38.74 | 193 | 188 | . 420 | 18.33 | 223 | 211 |
| First Quarter. | 116.9 | 44.8 | . 811 | 36.35 | 215 | 208 | . 539 | 22.04 | 188 | 248 | . 924 | 41.84 | 217 | 204 | . 432 | 19.08 | 230 | 220 |
| Second Quarter. | 115.0 | 44.8 | . 818 | 36.65 | 216 | 210 | . 545 | 22.42 | 191 | 252 | . 917 | 41.83 | 216 | 203 | . 444 | 18.86 | 236 | 217 |
| Third Quarter... | 110.2 | 44.3 | . 822 | 36.75 | 219 | 211 | . 555 | 23.29 | 193 | 262 | . 918 | 41.40 | 216 | 201 | . 468 | 19.47 | 249 | 224 |
| Fourth Quarter.. 1925 | 115.1 | 45.8 | . 834 | 38.18 | 221 | 219 | . 556 | 25.16 | 194 | 283 | . 936 | 43.26 | 220 | 210 | . 436 | 19.05 | 232 | 219 |
| First Quarter. . | 115.7 | 44.8 | . 825 | 36.97 | 218 | 212 | . 568 | 25.21 | 199 | 284 | . 926 | 41.86 | 218 | 204 | . 447 | 19.40 | 238 | 224 |
| Second Quarter.. | 113.0 | 44.9 | . 834 | 37.46 | 221 | 215 | . 581 | 25.34 | 203 | 285 | . 934 | 42.21 | 220 | 205 | . 426 | 18.80 | 226 | 216 |
| Third Quarter... | 111.4 | 44.6 | . 830 | 37.00 | 220 | 212 | . 584 | 26.42 | 204 | 297 | . 928 | 41.60 | 218 | 202 | . 410 | 17.67 | 218 | 204 |
| $\begin{aligned} & \text { Fourth Quarter. } \\ & .1926 \end{aligned}$ | 116.9 | 46.1 | . 846 | 39.03 | 224 | 224 | . 593 | 27.22 | 207 | 306 | . 946 | 43.79 | 222 | 213 | . 447 | 20.36 | 238 | 234 |
| First Quarter. . . | 130.9 | 45.4 | . 845 | 38.30 | 224 | 219 | . 482 | 22.03 | $169{ }^{\circ}$ | 248 | . 956 | 43.61 | 225 | 212 | . 471 | 20.67 | 251 | 238 |
| Second Quarter.. | 124.2 | 45.1 | . 879 | 39.61 | 233 | 227 | . 479 | 21.71 | 167 | 244 | . 976 | 44.39 | 230 | 216 | . 478 | 21.05 | 254 | 243 |
| Third Quarter | 1271 | 44.8 | . 855 | $\underset{28}{38.28}$ | 226 | 219 | ${ }_{\text {4, }}^{172}$ | 21.43 | 167 | 241 | .953 | 43.01 | 224 | $\underset{n+c}{209}$ | . 477 | 20.62 | 254 | 238 |

Index Numbers or Average Hourly and Weerly Earnings and Employment, All Wage Earners, Printing and Publishing-Newspaper and Periodical

For Earnings July, 1914=100; For Employment June, 1920=100


Composite and Classified Payroll Data-Iron and Steel Manufacturing


Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Iron and Steel Manufacturing
For Earnings July, 1914 = 100; For Employment June, 1920-100


Composite and Classified Payroll Data-Printing and Publishing-Book and Job


Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Printing and Publishing-Book and Job

For Earnings July, 1914-100; For Employment June, 1920=100


Composite and Classified Payroll Data-Chemical Manufacturing


## Index Numbers of Average Hourly and Weerly Earnings and Employment, All Wage

 ©
## For Earnings July, 1914-100; For Employment June, 1920-100



Composite and Classified Payroll Data-Furniture Manufacturing

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. <br> Wage <br> Earners <br> Index <br> Nos. | Av.WeekPerWageEarner | $\qquad$ | $\qquad$ | Index Nos. Earnings |  | Av.Hour-lyEarn-ings |  | Index Nos. Earninga |  | Av. <br> Hour- <br> Earn- <br> Eanga <br> in | Av. <br> Week- <br> Iy <br> Earn- <br> ing: | Index Nos. Earninga |  | Av. <br> Hour- <br> ly <br> Earn- <br> ings | Av.Weck-lylyn-inga | Index Nos. Earninga |  |
|  |  |  |  |  | $\underset{\substack{\text { Hour- } \\ \hline}}{ }$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\underset{\substack{\text { Week } \\ \text { ly }}}{ }$ |
| 914 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| July. 1920 |  | 49.9 | \$. 232 | \$11.57 | 100 | 100 | \$.179 | \$7.80 | 100 | 100 | \$. 253 | \$12.76 | 100 | 100 | \$.149 | \$7.10 | 100. | 100 |
| Third Quarter. | 97.7 | 47.6 | . 557 | 26.52 | 240 | 229 | . 448 | 21.66 | 250 | 278 | . 616 | 29.34 | 243 | 230 | . 339 | 15.66 | 228 | 221 |
| Fourth Quarter. . $1921$ | 86.7 | 45.4 | . 569 | 25.83 | 245 | 223 | . 458 | 20.79 | 256 | 267 | . 616 | 28.44 | 243 | 223 | . 356 | 15.83 | 239 | 223 |
| First Quarter. | 70.2 | 41.9 | . 551 | 23.07 | 237 | 199 | . 431 | 18.50 | 240 | 237 | . 607 | 25.48 | 240 | 200 | . 337 | 13.35 | 226 | 188 |
| Second Quarter | 71.8 | 44.2 | . 515 | 22.78 | 222 | 197 | . 407 | 18.06 | 227 | 232 | . 570 | 25.43 | 225 | 199 | . 308 | 12.73 | 207 | 179 |
| Third Quarter. | 68.7 | 44.0 | . 512 | 22.57 | 221 | 195 | . 390 | 16.93 | 218 | 217 | . 564 | 25.22 | 223 | 198 | . 306 | 12.16 | 205 | 171 |
| Fourth Quarter. . 1922 | 76.8 | 47.3 | . 491 | 23.23 | 212 | 201 | . 373 | 17.87 | 208 | 229 | . 546 | 25.97 | 216 | 204 | . 285 | 12.37 | 191 | 174 |
| Third Quarter... | 83.9 | 47.6 | . 476 | 22.65 | 205 | 196 | . 359 | 17.42 | 201 | 223 | . 526 | 25.19 | 208 | 197 | . 313 | 13.25 | 210 | 187 |
| Fourth Quarter. 1923 | 93.8 | 49.2 | . 488 | 24.07 | 210 | 208 | . 369 | 18.80 | 206 | 241 | . 541 | 26.73 | 214 | 209 | . 332 | 14.43 | 223 | 203 |
| First Quarter | 100.6 | 48.3 | . 492 | 23.77 | 212 | 205 | . 359 | 17.71 | 201 | 227 | . 546 | 26.51 | 216 | 208 | . 341 | 14.80 | 229 | 208 |
| Second Quarter | 102.1 | 48.5 | . 516 | 25.02 | 222 | 216 | . 382 | 18.60 | 213 | 238 | . 573 | 28.01 | 226 | 220 | . 353 | 15.54 | 237 | 218 |
| Third Quarter... | 102.0 | 48.3 | . 527 | 25.43 | 227 | 220 | . 407 | 19.85 | 227 | 254 | . 593 | 28.82 | 234 | 226 | . 343 | 15.11 | 230 | 213 |
| Fourth Quarter. 1924 | 102.1 | 47.8 | . 534 | 25.54 | 230 | 221 | . 411 | 19.93 | 230 | 256 | . 604 | 29.01 | 239 | 227 | . 354 | 15.54 | 238 | 219 |
| First Quarter. . | 96.6 | 47.8 | . 528 | 25.26 | 228 | 218 | . 418 | 20.19 | 234 | 259 | . 587 | 28.74 | 232 | 225 | . 369 | 15.44 | 248 | 217 |
| Second Quarter.. | 93.5 | 47.0 | . 534 | 25.07 | 230 | 217 | . 394 | 18.99 | 220 | 243 | . 585 | 28.33 | 231 | 222 | . 359 | 15.01 | 241 | 211 |
| Third Quarter... | 86.1 | 45.7 | . 530 | 25.21 | 228 | 218 | . 423 | 19.80 | 236 | 254 | . 582 | 27.25 | 230 | 214 | . 362 | 14.36 | 243 | 202 |
| Fourth Quarter. . 1925 | 88.8 | 48.1 | . 539 | 25.90 | 232 | 224 | . 422 | 20.92 | 236 | 268 | . 602 | 29.35 | 238 | 230 | . 361 | 15.10 | 242 | 213 |
| First Quarter. | 93.1 | 47.7 | . 544 | 25.95 | 234 | 224 | . 428 | 21.19 | 239 | 272 | . 611 | 29.17 | 242 | 229 | . 366 | 15.95 | 246 | 225 |
| Second Quarter.. | 94.0 | 45.9 | . 539 | 24.77 | 232 | 214 | . 426 | 20.24 | 238 | 259 | . 602 | 28.37 | 238 | 222 | . 357 | 15.54 | 240 | 219 |
| Third Quarter... | 94.4 | 47.6 | . 544 | 25.89 | 234 | 224 | . 431 | 21.09 | 241 | 270 | . 613 | 29.92 | 242 | 234 | . 354 | 16.21 | 238 | 228 |
| Fourth Quarter. . 1926 | 97.6 | 48.7 | . 542 | 26.41 | 234 | 228 | . 427 | 21.34 | 238 | 274 | . 614 | 30.30 | 243 | 237 | . 365 | 16.75 | 245 | 236 |
| First Quarter. . | 94.1 | 48.3 | . 547 | 26.44 | 236 | 229 | . 435 | 21.52 | 243 | 276 | . 618 | 30.55 | 244 | 239 | . 396 | 17.45 | 266 | 246 |
| Second Quarter. | 88.7 | 47.4 | . 554 | 26.27 | 239 | 227 | . 444 | 21.25 | 246 | 272 | . 628 | 30.10 | 248 | 236 | . 400 | 17.59 | 268 | 248 |
| Third Quarter... | 87.3 | ${ }_{18}^{48.5}$ | . $56 \times 1$ | ${ }_{n \rightarrow 0} 27.22$ | 242 | 235 | . 440 | 22.24 | 251 | 285 | . 647 | 31.46 | 256 | 247 | . 403 | 17.87 | 270 | 252 |

Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage
Earners, Furniture Manuracturing
For Earninga July, 1914-100; For Employment June, 1920=100


Composite and Classified Payroll Data-Leather Tanning and Finishing

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. <br> Wage <br> Earners <br> Index <br> Nos. | Av. Week Per Wage Earner | Av. Hourly Earninga | $\begin{gathered} \text { Av } \\ \text { Week- } \\ \text { ly } \\ \text { Earn- } \\ \text { ings } \\ \hline \end{gathered}$ | Index Nos. Earninga |  |  <br> Av. <br> Hour- <br> ly <br> Earn- <br> ings | Av.Week-lyEarn-inge | Index Nos. Earnings |  |  <br> Av. <br> Hour- <br> ly <br> Earn- <br> inga | Av: <br> Weekly Earnings | Index Nos. Earning: |  |  <br> Av. <br> Hour- <br> Ily <br> Eang- <br> ings | Av. <br> Weekly Earninga | Index Nos. Earnings |  |
|  |  |  |  |  | Hourly | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | Week1 y |
| $\begin{gathered} \hline 1914 \\ \text { July. } 1920 \end{gathered}$ |  | 50.1 | \$.217 | \$10.88 | 100 | 100 | \$.206 | \$10.48 | 100 | 100 | \$.232 | \$11.67 | 100 | 100 | \$.149 | \$6.42 | 100 | 100 |
| Third Quarter... | 87.4 | 47.2 | . 578 | 27.28 | 266 | 251 | . 546 | $26.65{ }^{\circ}$ | 265 | 254 | . 627 | 29.66 | 270 | 254 | . 426 | 17.11 | 286 | 267 |
| Fourth Quarter.. 1921 | 73.4 | 45.0 | . 575 | 25.90 | 265 | 238 | . 528 | 25.63 | 256 | 245 | . 636 | 27.69 | 274 | 237 | . 400 | 15.86 | 268 | 247 |
| First Quarter.... | 64.2 | 43.5 | . 500 | 21.76 | 230 | 200 | . 458 | 21.48 | 222 | 205 | . 551 | 23.26 | 237 | 199 | . 317 | 11:78 | 213 | 183 |
| Second Quarter.. | 71.5 | 46.3 | . 460 | 21.31 | 212 | 196 | . 425 | 20.43 | 206 | 195 | . 506 | 23.13 | 218 | 198 | . 306 | 12.99 | 205 | 202 |
| Third Quarter. . | 79.0 | 48.3 | . 450 | 21.71 | 207 | 200 | . 404 | 19.32 | 196 | 184 | . 502 | 24.49 | 216 | 210 | . 294 | 13.84 | 197 | 216 |
| Fourth Quarter.. 1922 | 84.3 | 49.5 | . 462 | 22.84 | 213 | 210 | . 385 | 18.79 | 187 | 179 | . 537 | 26.94 | 231. | 231 | . 290 | 13.90 | 195 | 217 |
| Third Quarter. . | 89.4 | 47.1 | . 446 | 20.97 | 206 | 193 | . 405 | 18.99 | 197 | 181 | . 492 | 23.52 | 212 | 202 | . 313 | 13.29 | 210 | 207 |
| Fourth Quarter. . 1923 | 94.4 | 48.3 | . 449 | 21.68 | 207 | 199 | . 406 | 19.52 | 197 | 187 | . 497 | 24.33 | 214 | 208 | . 313 | 13.93 | 210 | 217 |
| First Quarter.... | 97.1 | 48.2 | . 453 | 21.84 | 209 | 201 | .401 | 19.43 | 195 | 186 | . 508 | 24.77 | 219 | 212 | . 316 | 13.71 | 212 | 214 |
| Second Quarter | 90.5 | 48.2 | . 484 | 23.39 | 223 | 215 | . 443 | 21.49 | 215 | 206 | . 537 | 26.34 | 231 | 226 | . 325 | 13.98 | 218 | 218 |
| Third Quarter... | 87.2 | 47.0 | . 498 | 23.42 | 229 | 215 | . 461 | 21.86 | 224 | 209 | .553 | 26.14 | 238 | 224 | . 335 | 14.50 | 225 | 226 |
| Fourth Quarter. 1924 | 88.0 | 47.1 | . 510 | 24.00 | 235 | 221 | . 464 | 22.27 | 225 | 212 | . 570 | 26.85 | 246 | 230 | . 352 | 14.91 | 236 | 232 |
| First Quarter... | 89.9 | 47.7 | . 510 | 24.31 | 235 | 223 | .474 | 22.37 | 230 | 213 | . 564 | 27.48 | 243 | 235 | . 348 | 15.40 | 234 | 240 |
| Second Quarter. | 82.5 | 46.5 | . 512 | 23.81 | 236 | 219 | . 475 | 21.77 | 231 | 208 | . 565 | 26.87 | 244 | 230 | . 338 | 14.45 | 227 | 225 |
| Third Quarter... | 79.7 | 44.4 | . 510 | 22.66 | 235 | 208 | . 4777 | 21.56 | 232 | 206 | . 569 | 25.14 | 245 | 215 | . 325 | 13.40 | 218 | 209 |
| Fourth Quarter.. 1925 | 81.0 | 46.5 | . 512 | 23.79 | 236 | 219 | . 478 | 22.06 | 232 | 210 | . 564 | 26.65 | 243 | 228 | . 340 | 14.72 | 228 | 229 |
| First Quarter.... | 84.0 | 48.9 | . 509 | 24.90 | 234 | 229 | . 472 | 23.20 | 229 | 221 | . 564 | 27.75 | 243 | 238 | . 320 | 14.62 | 215 | 228 |
| Second Quarter. . | 79.9 | 46.7 | . 512 | 23.91 | 236 | 220 | . 478 | 22.62 | 232 | 216 | . 563 | 26.46 | 243 | 227 | . 330 | 13.62 | 221 | 212 |
| Third Quarter... | 81.4 | 47.0 | . 515 | 24.20 | 237 | 222 | . 482 | 22.67 | 234 | 216 | . 566 | 26.99 | 244 | 231 | . 339 | 14.30 | 228 | 223 |
| Fourth Quarter. . 1926 | 86.8 | 47.4 | . 516 | 24.46 | 238 | 225 | . 492 | 23.50 | 239 | 224 | . 563 | 26.96 | 243 | 231 | . 332 | 14.48 | 223 | 226 |
| First Quarter... | 89.1 | 46.7 | . 518 | 24.23 | 239. | 223 | . 491 | 22.90 | 238 | 219 | . 566 | 26.81 | 244 | 230 | . 340 | 14.72 | 228 | 229 |
| Second Quarter. . | 81.9 | 45.8 | . 518 | 20.75 | $239{ }^{\prime}$ | 191 | . 483 | 22.31 | 234 | 213 | . 575 | 26.60 | 248 | 228 | . 331 | 13.83 | 222 | 215 |
| Third Quarter... | 82.7 81.1 | 46.6 46.9 | . 522 | 24.34 24.26 | 241 238 | 224 223 | . 489 | 23.32 23.05 | 237 235 | 213 220 | .578 .580 | 27.14 27.53 | 249 250 | 233 236 | .338 .321 | 14.22 13.41 | 227 215 | 221 |

Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Leather Tanning and Finishing
For Earnings July, 1914-100; For Employment June, $1920=100$


Composite and Classified Payroll Data-Lumber Manufacturing and Millwork


Index Numbers of Average Hourly and Weerly Earnings and Employment, All Wage Earners, Lumber Manufacturing and Millwork

For Earnings July, 1914 = 100; For Employment June, 1920=100


Composite and Classified Payroll Data-Meat Packing

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Men-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { No. } \\ \text { Wage } \end{gathered}$ | Avi | Av. Hour- | Av. Week | Index Nos. Earnings |  | Av.Hour-lyEarn-ings | Av. <br> Weekly Earn- ings | Index Nos. Earnings |  | Av. <br> Hour ly Earnings | ${ }^{\mathrm{A} v}$ <br> Week ly Earninga | Index Nos. Earnings |  | Av. <br> Hourly Earn ings | Av. <br> Week- <br> ly <br> $\underset{\substack{\text { Earn- } \\ \text { ings }}}{ }$ <br> ings | Index Noa. Earning: |  |
|  | Earner Index Nos. | Wage Earner | Earn- ings | $\begin{aligned} & \text { Earn- } \\ & \text { ings } \end{aligned}$ | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | Weekly |  |  | Hour$1 y$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |
| 1914 July. 1920 |  | 55.8 | \$.215 | \$12.01 | 100 | 100 | \$.183 | \$10.22 | 100 | 100 | \$. 269 | \$15.10 | 100 | 100 | \$.122 | \$6.66 | 100 | 100 |
| Third Quarter... | 99.0 | 48.5 | . 582 | 28.26 | 271 | 235 | . 544 | 26.28 | 297 | 257 | . 659 | 32.27 | 245 | 214 | . 429 | 20.47 | 352 | 307 |
| Fourth Quarter. . 1921 | 94.4 | 48.3 | . 576 | 27.81 | 268. | 232 | . 537 | 25.90 | 293 | 253 | . 644 | 31.36 | 239 | 208 | . 431 | 20.39 | 353 | 306 |
| First Quarter. . . | 82.1 | 46.9 | . 552 | 25.89 | 257 | 216 | . 509 | 23.81 | 278 | 233 | . 618 | 29.36 | 230 | 194 | . 408 | 18.42 | 334 | 277 |
| Second Quarter. . | 74.8 | 46.9 | . 501 | 23.51 | 233 | 196 | . 462 | 21.69 | 252 | 212 | . 569 | 26.79 | 212 | 177 | . 352 | 16.27 | 289 | 244 |
| Third Quarter... | 81.3 | 46.5 | . 484 | 22.53 | 225 | 188 | . 448 | 21.18 | 245 | 207 | . 543 | 25.04 | 202 | 166 | . 352 | 16.05 | 289 | 241 |
| Fourth Quarter. 1922 | 79.4 | 47.3 | . 471 | 22.29 | 219 | 186 | . 426 | 20.32 | 233 | 199 | . 538 | 25.47 | 200 | 169 | . 330 | 15.17 | 270 | 228 |
| Third Quarter.. . | 80.7 | 48.2 | . 441 | 21.24 | 205 | 177 | . 379 | 18.64 | 207 | 182 | . 516 | 24.63 | 192 | 163 | . 289 | 13.60 | 237 | 204 |
| Fourth Quarter. . 1923 | 89.9 | 50.2 | . 439 | 22.03 | 204 | 183 | . 384 | 19.45 | 210 | 190 | . 509 | 25.65 | 189 | 170 | . 292 | 14.04 | 239 | 211 |
| First Quarter ... | 87.1 | 48.3 | . 443 | 21.39 | 206 | 178 | . 389 | 18.83 | 213 | 184 | . 510 | 24.74 | 190 | 164 | . 296 | 13.91 | 243. | 209 |
| Second Quarter . | 88.6 | 50.3 | . 481 | 24.23 | 224 | 202 | . 426 | 21.38 | 233 | 209 | . 544 | 27.68 | 202 | 183 | . 340 | 16.48 | 279 | 248 |
| Third Quarter... | 93.4 | 50.1 | . 485 | 24.27 | 226 | 202 | . 445 | 22.07 | 243 | 216 | . 537 | 27.41 | 200 | 182 | . 354 | 16.67 | 290 | 250 |
| Fourth Quarter. . 1924 | 98.0 | 50.2 | . 483 | 24.25 | 225 | 202 | . 453 | 22.69 | 248 | 222 | . 526 | 26.72 | 196 | 177 | . 373 | 17.86 | 306 | 268 |
| First Quarter. . . | 91.5 | 48.4 | . 490 | 23.73 | 228 | 198 | .455 | 22.27 | 249 | 218 | . 533 | 25.85 | 198 | 171 | . 370 | 17.12 | 303 | 257 |
| Second Quarter.. | 80.1 | 48.9 | .493 | 24.07 24.79 | 229 | 200 | . 452 | 22.03 | 248 | 216 | . 537 | 26.53 | 200 | 176 | . 369 | 17.10 | 302 | 257 |
| Third Quarter... | 80.0 | 49.7 | . 499 | 24.79 | 232 | 206 | .456 | 22.49 | 249 | 220 | . 545 | 27.48 | 203 | 182 | . 377 | 17.67 | 309 | 265 |
| Fourth Quarter.. 1925 | 84.8 | 52.0 | . 506 | 26.30 | 235 | 219 | . 458 | 24.22 | 250 | 237 | . 556 | 29.23 | 207 | 194. | . 397 | 18.55 | 325 | 279 |
| First Quarter. . | 80.8 | 48.9 | . 507 | 24.80 | 236 | 206 | . 444 | 22.14 | 243 | 217 | . 562 | 27.60 | 209 | 183 | . 392 | 17.75 | 321 | 266 |
| Second Quarter. . | 74.2 | 49.4 | . 509 | 25.11 | 237 | 209 | . 439 | 22.16 | 240 | 217 | . 569 | 28.29 | 212 | 187 | . 384 | 17.01 | 315 | 255 |
| Third Quarter. . . | 76.4 | 49.3 | . 510 | 25.11 | 237 | 209 | .462 | 23.06 | 252 | 226 | . 558 | 27.75 | 207 | 184 | . 384 | 17.42 | 315 | 262 |
| Fourth Quarter.. 1926 | 79.7 | 50.8 | . 510 | 25.88 | 237 | 215 | . 459 | 23.44 | 251 | 229 | . 564 | 28.99 | 210 | 192 | . 383 | 18.02 | 314 | 270 |
| First Quarter... | 79.6 | 49.7 | . 503 | 25.01 | 234. | 208 | . 451 | 22.46 | 272 | 220 | . 558 | 28.04 | 207 | 186 | . 375 | 17.48 | 307 | 262 |
| SecondQuarter.. | 72.5 | 49.1 | . 513 | 25.22 | 239 | 210 | . 465 | 22.74 | 254 | 223 | . 562 | 27.94 | 209 | 185 | . 381 | 17.78 | 312 | 267 |
| Third Quarter... | 76.6 80.8 | 50.3 50.1 | . 509 | 25.58 25.62 | 237 238 | 213 213 | . 466 | 23.29 | 255 | 228 | . 5561 | 28.45 | 207 | 188 | . 372 | 17.57 | 305 | 264 |
|  | 80.8 | 50.1 | . 512 | 25.62 | 238 | 213 | . 473 | 23.00 | 258 | 225 | . 561 | 28.77 | 209 | 191 | . 376 | 18.17 | 308 | 273 |

Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Meat Packing
For Earnings July, 1914 = 100; For Employment June, 1920-100


Composite and Classified Payroll Data-Paint and Varnish Manufacturing


Index Numbers of Average Hourly and Weekly Earnings and Employment, All Wage Earners, Paint and Varnish Manufacturing
For Earnings July, $1914=100$; For Employment June, $1920=100$


Composite and Classified Payroll Data-Paper Products Manufacturing

|  | All Wage Earners |  |  |  |  |  | Male-Unskilled |  |  |  | Male-Skilled |  |  |  | Women |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Av. <br> Week Per Wage Earner | $\begin{aligned} & \text { Av. } \\ & \text { Hour- } \\ & \text { ly } \\ & \text { Earn- } \\ & \text { inga } \end{aligned}$ | $A v$. WeekEarn inga | Index Nos. Earnings |  | Av. <br> Hour- <br> ly <br> Earn- <br> ings | Av. Weekly Earnings | Index Nos. Earning: |  | Av. <br> Hourly <br> Earn- <br> ing | Av. <br> Week- <br> ly <br> Earn- <br> ings | Index Nos. Earnings |  | $\begin{array}{c\|} \hline \text { Av. } \\ \text { Hour- } \\ \text { ly } \\ \text { Earn- } \\ \text { ings } \\ \hline \end{array}$ | Av. Weekly Earnings | Index Nos. Earnings |  |
|  |  |  |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | Weekly |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | Weekly |  |  | $\begin{gathered} \text { Hour- } \\ \text { ly } \end{gathered}$ | $\begin{gathered} \text { Week- } \\ \text { ly } \end{gathered}$ |
| $\begin{gathered} 1914 \\ \text { July. } \\ 1920 \end{gathered}$ |  | 51.6 | $\$ .187$ | \$9.68 | 100 | 100 | \$.199 | \$11.00 | 100 | 100 | \$.237 | \$12.61 | 100 | 100 | \$.139 | \$6.80 | 100 | 100, |
| Third Quarter | 102.7 | 47.2 | . 479 | 22.60 | 256 | 233 | . 527 | 27.56 | 265 | 251 | . 628 | 30.51 | 265 | 242 | . 349 | 15.52 | 251 | 228 |
| Fourth Quarter.. 1921 | 88.8 | 42.5 | . 484 | 20.55 | 259 | 212 | . 508 | 23.43 | 255 | 213 | . 645 | 27.68 | 272 | 220 | . 359 | 14.80 | 258 | 218 |
| First Quarter.... | 73.7 | 36.7 | . 487 | 17.85 | 260 | 184 | . 476 | 21.67 | 239 | 197 | . 627 | 23.84 | 265 | 189 | . 351 | 11.42 | 253 | 168 |
| Second Quarter. | 74.0 | 40.0 | :465 | 18.61 | 249 | 192 | . 437 | 21.10 | 220 | 192 | . 601 | 25.07 | 254 | 199 | . 325 | 11.82 | 234 | 174 |
| Third Quarter... | 68.7 | 41.4 | . 461 | 19.08 | 247 | 197 | . 417 | 20.07 | 210 | 182 | . 618 | 25.85 | 261 | 205 | . 325 | 12.55 | 234 | 185 |
| Fourth Quarter. . 1922 | 74.5 | 43.3 | . 454 | 19.68 | 233 | 203 | . 420 | 19.23 | 211 | 175 | . 631 | 27.02 | 266 | 214 | . 319 | 13.48 | 229 | 198 |
| Third Quarter. . . | 77.4 | 45.9 | . 434 | 19.92 | 232 | 206 | . 407 | 21.01 | 205 | 191 | . 586 | 27.35 | 247 | 217 | . 321 | 13.47 | 231 | 198 |
| Fourth Quarter. . 1923 | 77.4 | 47.4 | . 431 | 20.44 | 230 | 211 | . 410 | 20.32 | 206 | 185 | . 594 | 28.38 | 251 | 225 | . 311 | 13.85 | 224 | 204 |
| First Quarter... | 78.1 | 47.2 | . 440 | 21.09 | 235 | 218 | . 416 | 21.90 | 209 | 199 | . 588 | 28.32 | 248 | 225 | . 328 | 14.80 | 236 | 218 |
| Second Quarter. . | 80.8 | 48.3 | . 456 | 22.04 | 244 | 228 | . 440 | 22.49 | 221 | 204 | . 610 | 29.73 | 257 | 236 | . 332 | 15.39 | 239 | 226 |
| Third Quarter... | 79.0 | 47.4 | . 464 | 22.02 | 248 | 227 | .440 | 22.32 | 221 | 203 | . 613 | 29.53 | 259 | 234 | . 336 | 15.09 | 242 | 222 |
| Fourth Quarter. . 1924 | 73.8 | 47.6 | . 462 | 21.98 | 247 | 227 | . 445 | 22.36 | 224 | 203 | . 609 | 29.08 | 257 | 231 | . 344 | 15.84 | 247 | 233 |
| First Quarter.. | 87.9 | 47.8 | . 509 | 24.32 | 272 | 251 | . 445 | 22.75 | 224 | 207 | . 619 | 30.09 | 261 | 239 | . 380 | 17.48 | 273 | 257 |
| Second Quarter. | 89.8 | 47.8 | . 506 | 24.17 | 271 | 250 | .453 | 23.64 | 228 | 215 | . 603 | 29.67 | 254 | 235 | . 389 | 17.53 | 280 | 258 |
| Third Quarter... | 87.6 | 47.1 | . 492 | 23.21 | 263 | 240 | . 454 | 23.73 | 228 | 216 | . 575 | 28.22 | 243 | 224 | . 387 | 16.90 | 278 | 249 |
| Fourth Quarter. . 1925 | 87.2 | 47.5 | . 505 | 24.02 | 271 | 248 | . 459 | 22.46 | 231 | 204 | . 600 | 29.37 | 253 | 233 | .390 | 17.69 | 281 | 250 |
| First Quarter... | 86.6 | 47.6 | . 506 | 24.12 | 271 | 249 | . 456 | 23.88 | 229 | 217 | . 600 | 29.37 | 253 | 233 | . 392 | 17.62 | 282 | 259 |
| Second Quarter. . | 86.4 | 47.5 | . 504 | 23.96 | 270 | 248 | . 464 | 23.94 | 233 | 218 | . 601 | 29.00 | 254 | 230 | . 386 | 17.59 | 278 | 259 |
| Third Quarter.. . | 85.4 | 46.9 | . 502 | 23.53 | 268 | 243 | . 457 | 23.31 | 230 | 212 | . 597 | 28.48 | 252 | 226 | . 386 | 17.27 | 278 | 254 |
| Fourth Quarter. . $1926$ | 84.7 | 47.3 | . 513 | 24.28 | 274 | 251 | . 455 | 23.14 | 229 | 210 | . 600 | 29.13 | 253 | 231 | . 398 | 17.86 | 286 | 263 |
| First Quarter. | 86.0 | 47.0 | . 515 | 24.22 | 275 | 250 | . 477 | 23.97 | 240 | 218 | . 609 | 28.95 | 257 | 230 | . 397 | 17.71 | 286 | 260. |
| SecondQuarter. . | 86.2 | 47.8 | . 507 | 24.26 | 271 | 251 | . 480 | 24.36 | 241 | 221. | . 598 | 28.60 | 252 | 227 | . 393 | 18.27 | 283 | 269 |
| Third Quarter... | 84.0 81.3 | 46.1 | . 513 | 23.65 | 274 | 244 | . 472 | 24.47 | 237 | 222 | .611 | 27.90 | 258 | 221 | . 399 | 17.38 | 287 | 256 |
| Fourth Ouarter. . | 81.3 | 47.3 | . 516 | 24.39 | 276 | 252 | . 472 | 23.50 | 237 | 214 | . 605 | 29.04 | 255 | 230 | 403 | 18.07 | 290 | 266 |

Index Numbers of Average Hourly and Weerly Earnings and Employment, All Wage Earners, Paper Products Manuracturing
For Earnings July, 1914-100; For Employment June, 1920=100 .


Composite and Classified Payroll Data-Rubber Manufacturing


Index Numbers of Average Hourly and Weexly Earnings and Employment, All Wage Earners, Rubber Manufacturino
For Earnings July, 1914-100; For Employment June, 1920-100



Name of borrower

## exii

## SERYANTS OF INDIA S POONA

1. Books taken from $t$ , be retained for $m$
2. Borrowers will be sible for any da while the books a

[^0]:    Wagen in foreign countries calculated on basis of 48 -hour week at ordinary time rates in effect December 1, 1926, at prevailing rate of exchange.
    ${ }^{2}$ Buildins Wages in United States calculated on basis of 48 -hour week at hourly rates in effect December, 1926, in 23 selected cities.
    *Wages in engineering trades in United States based on average full-time earnings per weck, make employees, 1925, from U. S. Bureau of Labor Statistics, Bulkern Na 422

    - Wages shown for United States are average full cime weekly earnings of machinisa
    - Average actual weekly earnings, December, 1926, National Industrial Conference Board.

[^1]:    ${ }^{1}$ Bertram Austin and W. Francis Lloyd: "The Secret of High Wages," T. Fisher Unwin, Ltd., London, 1926.

[^2]:    ${ }^{1}$ Based upon data compiled by F.W. Dodge Corporation from 36 states, covering about seven-eighths of the total contracts in the United States.
    "Based upon data collected by the "Architectural Forum" in an inquiry covering 1,678 architects having projects in process of planning for 1927.

[^3]:    ${ }^{2}$ See report and recommendations of a Committee of the President's Conference on unemployment entitled, "Seasonal Operation in the Construction Industries."
    ${ }^{2}$ Based upon data compiled by United States Bureau of Labor Statistics.

[^4]:    ${ }^{\mathbf{2}}$ National Bureau of Economic Research, "Growth of American Trade Unions, 1880-1923."

[^5]:    ${ }^{1}$ Material prices furnished by United States Bureau of Labor Statistics. For a similar compilation from 1914 to 1925, except that union wage scales were there used, ere United States Bureau of Labor Statistics, Monthly Labor Review, July, 1926, page 71.

[^6]:    ${ }^{1}$ Farm wages from U. S. Dept. of Agriculture, The Agricultural Situation, February, 1927.
    ${ }^{2}$ Weighted according to the prevalence of the various types of payment.

[^7]:    ${ }^{1}$ Freight data, except carloadings based on preliminary reports, include statistics of a few Class II and III railroads and Canadian lines, and are not strictly comparable with figures for previous years.
    ${ }^{2}$ Employment totals used are for classes of labor for which wage data are shown in report.
    ${ }^{8}$ Equated traffic units were obtained by assigning to ton-miles and passengermiles a weight corresponding to the revenue per mile from each source. Man-hours used are for classes of labor for which wage data are shown in report.

    * Based on property investment as valued by the carriers.

[^8]:    ${ }^{1}$ June, 1920, was selected as the base for index numbers of employment because the relatively amall number of planss which could furnish employment figures for July, 1914, were thought to provide an inadequate coverage.

