

UNITED STATES DEPARTMENT OF LABOR

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## This Issue in Brief

*The international cost-of-living survey* just completed by the International Labor Office indicates that the cost of living of workers' families in several European cities is not very much less than in the United States, and in one city, Stockholm, it is estimated as being substantially the same as in Detroit. This inquiry, while subject to many limitations as to complete accuracy, represents the most comprehensive study of the kind ever undertaken. Page 1.

*Average output per man-hour in the sheet department of the iron and steel industry* showed a steady gain from 1925 to 1929, except in the annealing operations, according to a productivity study made by the Bureau of Labor Statistics. Page 19.

*Vocational guidance should be extended to boys and girls in all parts of the country*, according to the committee on vocational guidance and child labor of the White House Conference on Child Health and Protection, 1930. Such guidance, the committee holds, is necessary in order to reduce the human and financial losses resulting from the failure to aid pupils to make educational adjustments which will prepare them properly for vocations harmonizing with their interests and abilities. Page 80.

*The working week in foundries and machine shops in 1931* was shorter than in any other year for which the United States Bureau of Labor Statistics has collected data, averaging 50.3 hours in foundries and 49.8 hours in machine shops, according to the latest survey by the bureau of wages and hours in such industries. The highest full-time hours per week were worked in 1923, when they averaged 52.4 in foundries and 50.8 in machine shops. The hourly wage rate of 60 cents in foundries in 1931 was less than in any other year since 1923, when it was 55.8 cents, but in machine shops the rate in 1931 (63.3 cents) was higher than in any preceding year except 1929, when it was 63.8 cents. The low point in full-time weekly earnings in foundries and machine shops occurred in 1923, being \$29.24 and \$28.40, respectively. In 1931 full-time weekly earnings averaged \$30.18 in foundries and \$31.52 in machine shops. Page 134.

*A marked preference among employers for the payment of wages by check* was found by the Department of Labor of Illinois in a survey of methods and frequency of wage payment in that State. Of the 1,173 reporting establishments represented in the survey, 86.1 per cent paid their employees by check. The firms included in this 86.1 per cent had 89.3 per cent of the total number of wage earners represented, and disbursed 90.5 per cent of the combined wages bill of the reporting firms. A weekly pay period was the rule in 68.3 per cent of the establishments and of these over three-fourths paid by check; 25.3 per cent of the firms paid semimonthly, all but about 1 per cent paying by check. Page 153.

*Fewer immigrants are now being admitted to the United States than at any time during the past 100 years*, only one immigrant being admitted now where five were admitted a year ago, the Secretary of Labor states in his annual report for the 12 months ended June 30,

1931. Only 3,534 immigrants were admitted in June, 1931, as compared to virtually fifty times as many in June, 1913, under the open-door policy. Furthermore, in 1930-31 over 18,000 aliens were formally deported, while many thousands of others who might have been expelled were permitted to depart voluntarily. Page 34.

*The average expenditure per job filled by the California State employment agencies was 61 cents during the biennium 1928-1930.* If each of the 295,385 jobs filled at this rate, and secured free of charge by the workers through the public employment offices, had been obtained at the rate of \$4.17, the reported average cost to the workers per job received through a private employment agency, the total cost to the clients would have been \$1,231,755. Page 27.

*The Employment Stabilization Research Institute of the University of Minnesota is undertaking a study of unemployment* by means of three separate projects. The first of these projects will be devoted to the economic aspects of unemployment, the second to individual diagnosis of cases and retraining, and the third to development of public employment agencies. The announcement of the plans of the institute states that the work will be carried on as a part of the university's work, use being made of the various research facilities of the university. Page 28.

*Housing costs and allied information on housing conditions in Buffalo, N. Y.,* for a group of families with incomes not exceeding \$3,000 form the subject of a special study submitted to the President's Conference on Home Building and Home Ownership. The study showed that 59 per cent of the home owners were carrying both first and second mortgages in 1930, 48 per cent of the breadwinners were in skilled occupations, and average earnings of the breadwinners amounted to \$2,057. Page 130.

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**International Cost-of-Living Inquiry**

**T**HE results of the international cost-of-living inquiry, which has been carried on during the past two years by the International Labor Office, have just been made public in a report entitled "International working-class living costs." This inquiry was originally undertaken by the International Labor Office at the request of the Ford Motor Co., which desired information regarding the extent to which cost of living varied in certain European cities, where it had established or contemplated establishing plants, in relation to the city of Detroit, in order that it might consider the possibility of fixing its minimum wage rates in its European factories at levels which would secure for the employees in such plants living standards equivalent to those of its Detroit employees.

There were two steps necessary to such an inquiry as that proposed. The first was to ascertain just how the Detroit employees lived. The United States Bureau of Labor Statistics undertook this part of the inquiry, in a survey made in the early part of 1930. It covered a group of 100 families, in which the husband was employed by the Ford Motor Co. at, or approximately at, the minimum of \$7 per day established by that company, and during the preceding year had worked approximately 250 days. Each of these families consisted of a husband, wife, and two or three children. The 100 families were thus quite homogeneous both as regards composition and income. The average expenditure of these families was \$1,720 during the year 1929. A report giving the full results of this survey was published in the Monthly Labor Review for June, 1930. This report showed, in very considerable detail, how the total annual expenditure of \$1,720 was distributed, giving for each item of food, clothing, etc., the average amount of money spent and also (with a few unavoidable exceptions) the exact quantity of goods or services obtained for the money spent.

The next step was to ascertain what the Detroit standard of living, i. e., the quantities of goods and services consumed by the Detroit employees, would cost in the European cities. This phase of the inquiry was carried on by the International Labor Office, which enlisted the cooperation of the national statistical organizations in the several countries. Many difficulties were encountered. In some cases, articles purchased by the Detroit families could not be duplicated exactly in the foreign city being studied. Again, as in the case of housing, there was difficulty in meeting the Detroit standard. A full discussion of these difficulties and the methods attempted to meet



them is given in the report of the International Labor Office. In general, however, there was involved only one problem of a seriously controversial character. This had to do with the question of substituting items, especially certain food items, for those in the Detroit budget in order to meet possible differences in national or racial habits of consumption. To the extent that such differences exist, they should, of course, be taken into account, in such an inquiry as the present one, since the object of the inquiry was to find the cost of a standard of living in the foreign cities equivalent to but not necessarily identical with the Detroit or American standard. The difficulty, however, is in determining whether existing differences in consumption habits are due to real differences in taste or merely to differences in income. To cite a concrete case, various studies show that in the United States wheat is the customary cereal food of workers as well as of other classes of the population, whereas similar studies in Europe show that in certain European countries rye bread is the customary cereal food of the working class. The question then arises whether the use of rye bread by the workers in these countries represents a real preference or whether it is merely the result of a traditional lower living standard, rye bread being cheaper than wheat. If the choice represents a bona fide difference in taste, then the inquiry into living costs should recognize the difference, and make the proper substitution of rye for wheat in pricing the Detroit budget. If, however, the choice of rye is due merely to its cheapness, then to substitute rye for wheat would be to perpetuate the traditionally low living standard and thereby miss one of the essential purposes of the inquiry.

The International Labor Office, in the report giving the results of its European inquiries, states that this problem of "consumption habits" was thoroughly examined, and that, while local standards were taken into account, this was done in such a way as to obviate the objection that such procedure would bias the results. As regards food, for instance, it is pointed out that in certain countries budget studies showed that the weights used for workers' families and for high official families produced the same results. Nevertheless the point raised is one of such importance that it deserves further critical analysis, and the International Labor Office promises a more detailed examination of it in a subsequent report.

The results of the inquiry by the International Labor Office are shown in Table 1. In it the cost of living in Detroit is taken as a base of 100, and the relative cost of living in each of 14 European cities is shown as percentages of the Detroit base. For certain cities no single figure could be agreed upon, and for these minimum and maximum figures are given. Further, it is to be noted that while the inquiries in the various cities were necessarily made at various periods during 1930 and 1931, the attempt has been made to bring all the figures to a uniform time base (January, 1931) by utilizing the available information as to changes in the cost of living in the several cities, including Detroit.

Because of the difficulties involved, the International Labor Office, in submitting the results of its inquiry, emphasizes its limitations and the possibility of error.

\* \* \* The office is aware that the information obtained is not of equal value, and it will be evident to students of the report that the "margin of error" is greater for some cities than for others; and although, as explained in the fol-

lowing chapters, careful attempts have been made to reduce this margin as much as possible, it has not always been possible to obtain strictly comparable data. It is primarily as a study of methods that this report is published. As far as the office is aware, no similar inquiry of this nature has been undertaken before, and while it is limited to a particular category of employee and to certain cities in a limited number of European countries, it is thought that a full account of the methods adopted, the difficulties encountered, and the problems raised in the course of the inquiry will be of special interest to all students of social questions. The experience gained in the course of the inquiry has been extremely valuable, and it is hoped that if an inquiry of a similar nature is repeated (whether by the International Labor Office or by others), this account of methods and results will be of service.

TABLE 1.—RELATIVE COST OF LIVING IN DETROIT AND CERTAIN EUROPEAN CITIES, JANUARY, 1931<sup>1</sup>

City	Index of cost of living	City	Index of cost of living	City	Index of cost of living
Detroit, Mich.....	100	Berlin, Germany.....	83-90	Rotterdam, Netherlands	65-68
Stockholm, Sweden.....	99-104	Helsinki, Finland.....	83	Antwerp, Belgium.....	61-65
Frankfort, Germany.....	85-93	Paris, France.....	80-87	Warsaw, Poland.....	67
Cork, Irish Free State.....	85	Marseilles, France.....	75-81	Istanbul, Turkey.....	65
Copenhagen, Denmark.....	83-91	Manchester, England.....	70-74	Barcelona, Spain.....	58

<sup>1</sup> The International Labor Office states that the figures in this table are subject to revision.

#### Minimum Wage Rates of Ford Motor Co. in Detroit and in European Cities

AS HAS already been noted, the international cost-of-living inquiry here reviewed was undertaken at the request of the Ford Motor Co. in order to secure information which would permit that company to consider the factor of relative living costs in establishing wage scales in its foreign plants. It is thus of interest, now that the results of the international inquiry are available, to compare the wage rates actually being paid by the Ford Co. in European cities with the rates as they would be if they were fixed solely on the basis of relative cost of living, with the Detroit rate as the basis.

For the purpose of such comparison, the Ford Motor Co. furnished the Bureau of Labor Statistics the actual hourly rates being paid on August 1, 1931, to unskilled labor in its European plants then in operation. The accompanying table shows these actual wage rates and also shows what the wage rates would be in the several foreign cities if established solely on the basis of relative living costs as computed in the report of the International Labor Office. To the extent that these computed living-cost relatives are accurate, the adjusted wage rates would give the workers in each of the European cities the same general standard of living as that obtained by the Detroit employees who in August, 1931, averaged 86 cents per hour, or \$6.88 per day of 8 hours.

Owing to changes in the plans of the Ford Co., the cities in which branches are now established are not, in all cases, the same as those in which it was contemplated establishing branches at the time the cost-of-living inquiry was undertaken. For convenience of reference, however, the table includes all cities for which either cost-of-living data or wage rates, or both, are available.

TABLE 2.—COMPARATIVE COST OF LIVING AND WAGES PER DAY AND PER HOUR OF UNSKILLED WORKERS IN FORD PLANTS IN SPECIFIED CITIES

City	Index of relative cost of living	Wage per hour		Wage per 8-hour day	
		Aug. 1, 1931	Adjusted to cost of living	Aug. 1, 1931	Adjusted to cost of living
Detroit.....	100	\$0.86	\$0.86	\$6.88	\$6.88
Antwerp.....	61-65	.26	.52-.56	2.08	4.16-4.48
Barcelona.....	58	.33	.50	2.64	4.00
Berlin.....	83-90	.....	.71-.77	.....	5.68-6.16
Cologne.....	.....	.45	.....	3.60	.....
Copenhagen.....	83-91	.69	.71-.78	5.52	5.68-6.24
Cork.....	85	.44	.73	3.52	5.84
Frankfort.....	85-93	.....	.73-.80	.....	5.84-6.40
Genoa.....	.....	.27	.....	2.16	.....
Helsinki.....	83	.38	.71	3.04	5.68
Istanbul.....	65	.32	.56	2.56	4.48
Manchester.....	70-74	.53	.60-.64	4.24	4.80-5.12
Marseilles.....	75-81	.....	.65-.70	.....	5.20-5.60
Paris <sup>1</sup> .....	80-87	.29	.69-.75	2.32	5.52-6.00
Rotterdam.....	65-68	.41	.56-.58	3.28	4.48-4.64
Stockholm.....	99-104	.43	.85-.89	3.44	6.80-7.12
Warsaw.....	67	.....	.58	.....	4.64

<sup>1</sup> The Ford Co. plant is located at Asnieres, near Paris.

## The International Labor Office

By PRENTISS B. GILBERT, AMERICAN CONSUL, GENEVA, SWITZERLAND

THE International Labor Office may, for all practical purposes, be regarded as the vehicle established to carry out the provisions of Part XIII (arts. 387 to 437) of the treaty of Versailles. Like the secretariat of the League of Nations, it is continuously in operation and has a direct relationship with Governments.

To understand its status and character, it must be kept in view, however, that the "office" forms a part of what is known as the International Labor Organization, the other part being the "General Conference," and that it is controlled by the "Governing Body." A glance at the nature of these other bodies and the relationship of the labor office to them is, therefore, essential to an understanding of its legal position.

### International Labor Organization

THE constitution of the International Labor Organization is incorporated in Part XIII of the treaty of Versailles. It was drafted in Paris by the Commission on International Labor Legislation, composed of delegates from the following countries: Belgium, the British Empire, Cuba, Czechoslovakia, France, Italy, Japan, Poland, and the United States of America. The objects for which the International Labor Organization was called into being are set forth in the preamble to Part XIII of that treaty. The text of this preamble is as follows:

Whereas the League of Nations has for its object the establishment of universal peace, and such a peace can be established only if it is based upon social justice;

And whereas conditions of labor exist involving such injustice, hardship, and privation to large numbers of people as to produce unrest so great that the peace and harmony of the work are imperiled; and an improvement of those conditions is urgently required; as, for example, by the regulation of the hours of work, including the establishment of a maximum working day and week, the regulation of the labor supply, the prevention of unemployment, the provision of an adequate



living wage, the protection of the worker against sickness, disease, and injury arising out of his employment, the protection of children, young persons, and women, provision for old age and injury, protection of the interests of workers when employed in countries other than their own, recognition of the principle of freedom of association, the organization of vocational and technical education, and other measures;

Whereas also the failure of any nation to adopt humane conditions of labor is an obstacle in the way of other nations which desire to improve the conditions in their own countries:

The high contracting parties, moved by sentiments of justice and humanity as well as by the desire to secure the permanent peace of the world, agree to the following:

[Here follow the detailed provisions for the establishment of the International Labor Organization.]

It will be noted that in Part XIII of the treaty of Versailles it is provided that the original States, members of the League of Nations, should be the original members of this organization. The number of member States has been increased since the establishment of the organization by new accessions, and the total number of member States is now 55. These States are as follows:

Albania, Argentina, Australia, Austria, Belgium, Bolivia, Brazil, British Empire, Bulgaria, Canada, Chile, China, Colombia, Cuba, Czechoslovakia, Denmark, Dominican Republic, Ethiopia, Estonia, Finland, France, Guatemala, Germany, Greece, Haiti, Honduras, Hungary, India, Irish Free State, Italy, Japan, Latvia, Liberia, Lithuania, Luxemburg, Netherlands, New Zealand, Nicaragua, Norway, Panama, Paraguay, Persia, Peru, Poland, Portugal, Rumania, Salvador, Siam, South Africa, Spain, Sweden, Switzerland, Uruguay, Venezuela, and Yugoslavia.

The permanent organization, as has been stated above, consists of the General Conference of representatives of the members and the International Labor Office, controlled by the Governing Body. The functions of the conference are legislative in character, those of the office are administrative and executive.

### General Conference

THE meetings of the General Conference of representatives of the member States may, by article 389 of the treaty of Versailles,<sup>1</sup> be held from time to time as occasion may require, and must be held at least once in every year.

The conference is composed of four representatives of each of the member States, of whom two are Government delegates and two are delegates representing, respectively, the employers and the workers of each of the member States. Each delegate may be accompanied by advisers, who may not exceed two in number for each item on the agenda of the meeting. When questions especially affecting women are to be considered by the conference, it is provided that at least one of the advisers should be a woman. These advisers may, under certain conditions, replace the delegates at the conference and exercise the full rights of membership. They may also act for the delegates on commissions and committees set up by the conference.

The member States undertake to nominate non-Government delegates and advisers chosen in agreement with the industrial organiza-

<sup>1</sup> All future references to "articles" refer to the treaty of Versailles.

tions (if such organizations exist), which are most representative of employers or workers, as the case may be, in their respective countries.

The decisions of the conference take the form either of draft conventions or of recommendations. Both require for final adoption a majority of two-thirds of the votes cast. On any matter a valid vote requires the participation of at least half of the delegates attending the conference.

By article 405 of the treaty—

Each of the members undertakes that it will, within the period of one year at most from the closing of the session of the conference, or if it is impossible owing to exceptional circumstances to do so within the period of one year, then at the earliest practicable moment and in no case later than 18 months from the closing of the session of the conference, bring the recommendation or draft convention before the authority or authorities within whose competence the matter lies, for the enactment of legislation or other action.

It is also provided in article 405 that in the case of a draft convention the member shall, if it obtains the consent of the authority or authorities within whose competence the matter lies, communicate the formal ratification of the convention to the secretary general of the League of Nations, and shall take such action as may be necessary to make effective the provisions of such convention. In the case of a recommendation, the members shall inform the secretary general of the action taken. If no legislative or other action is taken to make a recommendation effective, or if the draft convention fails to obtain the consent of the authority or authorities within whose competence the matter lies, no further obligation rests upon the member.

It is specifically provided that in the case of a Federal State, the power of which to enter into conventions on labor matters is subject to limitations, it shall be in the discretion of that Government to treat a draft convention to which such limitations apply as a recommendation only, and the provisions of article 405 with respect to recommendations shall apply in such case.

It is further laid down in that article that the provisions of article 405 shall be interpreted in accordance with the following principle:

In no case shall any member be asked or required, as a result of the adoption of any recommendation or draft convention by the conference, to lessen the protection afforded by its existing legislation to the workers concerned.

Article 406 provides that any convention ratified shall be registered by the secretary general of the League of Nations but shall be binding only upon the member States which ratify it.

When a State ratifies a convention it undertakes a series of obligations. It must take the necessary legislative and administrative action to bring the provisions of the convention into operation within its country. Furthermore, each of the members agrees to make an annual report to the International Labor Office on the measures which it has taken to give effect to the provisions of conventions to which it is a party.

The responsibility for securing the effective observance of the convention by all parties within its jurisdiction rests upon the Government concerned. The due fulfillment by each Government of this responsibility is intended to be secured by a system of sanctions. The procedure to be followed in connection with this system of sanctions is laid down in detail in articles 409 to 420 of the treaty.

## Special Obligations of Member States

It is perhaps of interest, because of the rather peculiar nature of these obligations from the viewpoint of international law, to survey the considerations which apparently led the Commission on International Labor Legislation to reach its decisions with regard to the obligations imposed upon member States, and in particular to the modification of these obligations in the case of countries with a federal form of government.

The original draft proposed that any draft convention adopted by the conference by a two-thirds majority must be ratified by every State participating, unless within one year the national legislature should have expressed its disapproval of the draft convention. This implied an obligation on every State to submit any draft convention approved by the conference to its national legislature within one year, whether its own Government representatives had voted in favor of its adoption or not. This provision was, it would seem, inspired by the belief that, although the time had not yet come when anything in the nature of an international legislature, whose decisions should be binding on the different States, was possible, yet it was essential for the progress of international labor legislation to require the Governments to give their national legislatures the opportunity of expressing their opinion on the measures favored by a two-thirds majority of the labor conference.

The records of the proceedings indicate that the French and Italian delegations went so far as to contend that States should be under an obligation to ratify conventions so adopted, whether their legislative authorities approved them or not, subject to a right of appeal to the Executive Council of the League of Nations. The council might invite the conference to reconsider its decision, and in the event of its being reaffirmed there would be no further right of appeal.

Other delegations, although expressing themselves as not unsympathetic to the hope that in course of time the labor conference might, through the growth of an international spirit, acquire the powers of a truly legislative international assembly, felt that the time for such a development was not yet ripe. They took the position that if an attempt were made to deprive States of a large measure of their sovereignty in regard to labor legislation, the result would be that a number of States would probably resign their membership in the League of Nations rather than jeopardize their national economic position by being obliged to carry out the decisions of the International Labor Conference. The majority of the commission therefore decided in favor of making ratification of a convention subject to the approval of the national legislatures or other competent authorities.

It is understood that the American delegation, however, found themselves unable to accept the obligations suggested by the foregoing, on account of the limitations imposed on the central executive and legislative powers by the constitutions of certain States and particularly by the Constitution of the United States. They pointed out in particular that the United States Government could not accept an obligation to ratify conventions dealing with matters within the competence of the various States of the Union, with which the power of labor legislation for the most part lay. Further, the United States Government could not guarantee that the various States, even if they

passed the necessary legislation to give effect to a convention, would put it into operation, nor could it provide against the possibility of such legislation being declared unconstitutional by the American judicial authorities. The Government could not therefore engage to do something which was not within its power to perform, and the nonperformance of which would render it liable to complaint.

The commission at this juncture appeared to feel that it was faced by a serious dilemma, which threatened to make the establishment of any effective system of international labor legislation relatively impossible. On the one hand, its range and effectiveness would be seriously limited if a country of such industrial importance as the United States did not participate. On the other hand, if the scheme were so weakened as to impose no obligation on States to give effect to, or even to bring before their legislative authorities, the decisions of the labor conference, it was clear that the work of the conference would tend to be confined to the mere passage of resolutions instead of resulting in the promotion of social reforms with the sanction of law behind them.

The commission spent a considerable amount of time in attempting to devise a way out of this dilemma, and ultimately arrived at a compromise solution. Article 405, as finally drafted, represents a plan formulated by a subcommittee consisting of representatives of the American, British, and Belgian delegations specially appointed to consider the question. It provides that the decisions of the labor conference may take the form either of recommendations or draft conventions. Either must be deposited with the secretary general of the League of Nations, and each State undertakes to bring it within one year before its competent authorities for the enactment of legislation or for other action. If no legislation or other action to make a recommendation effective follows, or if a draft convention fails to obtain the consent of the competent authorities concerned, no further obligation rests on the State in question. In the case of a Federal State, however, whose power to enter into conventions on labor matters is subject to limitations, its Government may treat a draft convention to which such limitations apply as a recommendation only.

### The Governing Body

THE Governing Body controls the International Labor Office, appoints its director, determines its expenditure, compiles the agenda of the General Conference, and exercises certain duties in connection with alleged nonobservance of conventions. It meets, as a rule, four times a year.

It is composed of 24 members—12 representing Governments, 6 employers, and 6 workers. Its members are appointed for a period of three years.

The employers and workers are elected by the delegates, respectively, of the employers and of the workers present at the session of the conference at which the election is made.

The scheme under which Government representatives are appointed is somewhat complicated. It is felt, however, that at least a summary explanation is essential to an understanding of the relationship of the various powers to the entire matter.

Article 303 of the treaty provides that, of the 12 members who sit on the Governing Body as representatives of Governments, 1 shall be nominated by each of the "8 States of chief industrial importance," while the other shall be nominated by 4 States especially chosen for this purpose by all the Government delegates present at the session of the conference at which the election takes place, except the delegates of the 8 States of chief industrial importance.

The question which were the 8 States of chief industrial importance was first examined in 1919 by the "organizing committee" of the Washington Conference. Certain standards on which to base their decision were adopted by this committee, but these were not accepted by all the States. The records of these proceedings indicate that India, in particular, presented a formal complaint, upon which the Council of the League of Nations was called to give its decision. The council decided, August, 1920, to undertake a careful examination of the proper sense to be attached to the expression "industrial importance" and of the relative value to be attributed to the various standards adopted at Washington. The secretary general was consequently instructed to study the whole question in collaboration with the International Labor Office, and to present a report to the council in time for the next election.

In conformity with the council's decision, a mixed committee was constituted, including four members of the Governing Body and experts nominated by the secretary general of the League of Nations. The committee's report of May 31, 1922, is a careful examination of the criteria which had been employed, based upon statistics. The result of this report was that the Council of the League in September, 1922, passed a resolution deciding that the eight members of the International Labor Organization of chief industrial importance at that time were: Belgium, Canada, France, Germany, Great Britain, India, Italy, and Japan. The International Labor Conference in October, 1922, gave effect to this decision.

#### The International Labor Office

ARTICLE 396 provides that the functions of the International Labor Office shall include—

The collection and distribution of information on all subjects relating to the international adjustment of conditions of industrial life and labor, and particularly the examination of subjects which it is proposed to bring before the conference with a view to the conclusion of international conventions, and the conduct of such special investigations as may be ordered by the conference.

It will prepare the agenda for the meetings of the conference.

It will carry out the duties required of it by the provisions of this part of the present treaty in connection with international disputes.

It will edit and publish in French and English, and in such other languages as the Governing Body may think desirable, a periodical paper dealing with problems of industry and employment of international interest.

Generally, in addition to the functions set out in this article, it shall have such powers and duties as may be assigned to it by the conference.

From the foregoing the functions of the office are construed as falling into four main groups:

1. It prepares the agenda of the Governing Body and the conference, and attends to the execution of their decisions.
2. It conducts research into a wide field of industrial and economic problems.



3. It issues a series of periodical and other publications containing information on social and industrial affairs, including international comparative studies on various questions.

4. It maintains relations with associations and institutions concerned with industrial and social affairs, collects information with regard to current events and movements in the world of labor, and supplies such information to inquirers.

The International Labor Office is administered by a directorate consisting of a director and a deputy director with their respective staffs. Its work is carried on by four divisions corresponding roughly to the four functions listed under (1), above. These divisions are named, respectively, "Administrative," "Research," "Diplomatic," and "Intelligence and Liaison." These are in turn divided into "sections," "services," "groups," etc.

#### External Organization

In order to maintain direct and continuous contact with various countries, the International Labor Office has established "national correspondence offices" in the following countries: China, France, Germany, Great Britain, India, Italy, Japan, and the United States.

There are also "official correspondents" in the capitals of eight other countries where no office is maintained: Brussels, Budapest, Bucharest, Madrid, Prague, Rio de Janeiro, Vienna, and Warsaw.

Special reference may be made to the fact that, by an agreement made in 1927 between the International Labor Office and the Industrial Relations Counselors (Inc.), of New York, the latter organization maintains a member of its staff at the labor office in a technical and advisory capacity in connection with subjects falling within the field of industrial relations.

#### International Committees

The Governing Body has from time to time set up various committees and commissions which, though responsible in theory to the Governing Body, are in their purposes and functions so closely allied to the International Labor Office that they may, in effect, be regarded as part of that organization. A "finance committee" and a "standing orders committee," consisting of members of the Governing Body, were established very early, and the Governing Body also created the "joint maritime commission" to study questions relating to the maritime transport industry.

Other committees have been established from time to time. In general these committees have been created in response to a desire to obtain, and to coordinate, the services of experts to study special aspects of various economic and social questions. These committees are of various types. Apart from the committees which form part of the regular machinery of the Governing Body, e. g., the finance committee and the standing orders committee, which have been mentioned, there are committees consisting of members of the Governing Body, assisted, when necessary, by experts, which are intended to prepare the decisions of the Governing Body either as regards the fixing of the agenda of the conference or the carrying out of inquiries, e. g., committee on conditions of work in the textile industry, committee on conditions of work in coal mines. There are other committees which provide an opportunity for the interests of employers and workers to be represented, and to explore the possi-

bilities of reaching an agreement even before a decision has been taken by the Governing Body or the conference, e. g., joint maritime commission, committee on automatic coupling. Other committees, again, exist to provide information on certain questions concerning classes of workers about whose collective activities little is yet known, for example, professional workers and salaried employees. Another type of committee is that composed solely of experts selected for their technical competence.

#### Technical Conference

The Governing Body also has the power to call special technical conferences, whose work is also closely allied to that of the International Labor Office, e. g., the silicosis conference, the conference of labor statisticians, the preparatory technical conference on maritime questions, and the preparatory technical conference on the coal-mining industry.

#### Relations with the League of Nations

THE constitution of the International Labor Organization provides for close association with the League of Nations.

The records of its proceedings indicate that the majority opinion of the members of the Commission on International Labor Legislation was to the effect that association with the league was essential not only to the existence of the International Labor Organization, but also to the success of the league itself. The main idea underlying the scheme embodied in Part XIII of the treaty of Versailles is that "the constitution of the League of Nations will not provide a real solution of the troubles that have beset the world in the past and will not even be able to eliminate the seeds of international strife unless it provides a remedy for the industrial evils and injustices which mar the present state of society. In proposing, therefore, to establish a permanent organization in order to adjust labor conditions by international action, the commission felt that it was taking an indispensable step toward the achievement of the objects of the League of Nations."

In detail, the constitution of the organization provides that the International Labor Office shall be established at the seat of the league, as part of the organization of the league (see art. 392); that the meetings of the conference shall be held at the seat of the league (see art. 391); that the office shall be entitled to the assistance of the secretary general of the league in any matter in which it can be given (see art. 393); and that the expenses of the office shall be paid to the director by the secretary general of the league out of the general funds of the league.

It is further laid down that a duly authenticated copy of all draft conventions and recommendations of the conference shall be deposited with the secretary general of the league, who shall furnish a certified copy to each of the member States (see art. 405); and that any convention ratified by a member State shall be registered by the secretary general of the league (see art. 406).

The assistance of the League of Nations is also specifically provided for in the determination of the "eight States of chief industrial importance" (see art. 393), and in connection with the procedure of sanctions in cases of nonobservance of ratified conventions (see art. 412, 415, 420).

It is understood, moreover, that in order to act in accordance with the spirit of the constitution of the International Labor Organization, an effort is made to establish direct relations between the office and the league in all aspects of their work in which cooperation seems useful. Arrangements are made that a copy of the agenda of each meeting of the council of the league should be communicated to the director at the same time as it is communicated to the members of the council, and that the director should inform the secretary general as to the questions which might concern the office. The council invites the director to attend the meeting, and he thus has an opportunity of explaining the point of view of the office on the particular question.

Furthermore, the office is represented on all commissions and conferences of the league whose work is in any way connected with questions with which the office deals. For example, the office cooperates with the league's committee on intellectual cooperation, advisory committee for the protection and welfare of children and young persons, communications and transit committees, mandates commission, preparatory commission for the disarmament conference, health committee, and the economic and financial committees. The office was closely associated with the preparation of the World Economic Conference of 1927 and participated in its proceedings. In certain fields mixed committees have been set up. For example, the joint commission of experts on health insurance and public health administration consists of members representing public health services selected by the health committee of the league and members representing health insurance organizations selected by the Governing Body of the International Labor Office.

#### Financial Relations with the League, and Budget

As this is a matter concerning which there exists certain popular confusion, it may be useful to give some further explanation of the financial relations between the International Labor Organization and the league.

In accordance with the general principles laid down in the treaty of Versailles, a somewhat complex financial organization has been built up to insure unity among the institutions of the league, and at the same time to respect the administrative autonomy of the International Labor Office. The essential characteristics of this system are as follows: The budget of the International Labor Organization is prepared in draft form by the director. The finance committee examines this draft and submits its proposals to the Governing Body. The draft budget, as drawn up by the Governing Body, is submitted to the supervisory committee, which acts for all the institutions of the league. The supervisory committee makes its recommendations and, according as circumstances require, proposes reductions or increases. The Governing Body meets again and gives its opinion on the recommendations thus made. The budget is presented to the member States by the secretary general of the League of Nations, who centralizes all budgetary proposals, and finally it is the assembly which votes the budget, after having referred it to its fourth commission for examination.

The budget of the International Labor Organization amounted in 1930 to a net total of 8,558,011 Swiss francs (\$1,651,696).



## German Trade-Unions and Their 1931 Congress

By FRITZ KUMMER, BERLIN

### General Economic Situation in Germany

OF THE large industrial States, Germany has been hit very hard, perhaps the hardest of all, by the economic depression. Various facts, especially the extent of unemployment, may be mentioned as proof of this. In Germany the unemployed are registered and officially counted every two weeks, so that the state of trade can be determined continually, and to some extent exactly. The table following shows the number of unemployed in each quarter of each year since 1927.

TABLE 1.—NUMBER OF UNEMPLOYED IN GERMANY IN EACH QUARTER, 1927 TO 1931

Month	1927	1928	1929	1930	1931
January .....	2,536,000	2,012,000	2,850,000	3,218,000	4,887,000
April .....	1,643,000	1,387,000	1,712,000	2,787,000	4,389,000
July .....	1,041,000	1,155,000	1,251,000	2,765,000	3,956,000
October .....	884,000	1,308,000	1,557,000	3,252,000	4,622,000

High as the unemployment figures were from 1927 to 1929, they can not be regarded as proof of an economic crisis in the real sense of the word. Assuming that a crisis shows itself in decreased production, there was no crisis during the three years mentioned, because production was high and new masses of workers (between 150,000 and 200,000 during 1929 alone) found employment. The decrease of production really set in during 1930, and to a greater extent than the increase in the number of unemployed would indicate. In that year there was also a considerable increase in the number of part-time workers who are not included in the official figure of unemployed. Evidence of this increase is furnished by the trade-union data on part-time workers; these figures, although limited to the members of the unions, may be taken as indicative of the extent of all part-time work without being far from reality.

The per cent of trade-union members working part time was, at specified dates, as follows: 1927 (October), 4.6; 1928 (June), 6.2; 1929 (June), 8.6; 1930 (May), 19.8; and 1931 (September), 22.2.

If the part-time workers are converted into an equivalent number of wholly unemployed and if this number is added to the officially registered unemployed, one can truly say that there were about 6,000,000 unemployed in Germany during the summer of 1931.

### Effect Upon German Trade-Unions

Of course, unemployment of such extraordinary severity and duration affects the trade-unions strongly. If hundreds of thousands of members are out of work for a long period, it means that they are exempted from paying dues and that they must get relief from their organization. The consequence is that the income of the organization decreases, while at the same time the expenditure shows an increase, and if the unemployed members have exhausted their benefit their interest in the organization diminishes and often they give up their membership altogether.

However, this bad result of extensive unemployment has as yet affected the German trade-unions comparatively little. Although they have sustained a loss in membership which is easy to understand, this loss has been far less than would be expected, considering the extent and duration of the depression. The 31 national trade-unions which form the German Federation of Labor (*Allgemeiner Deutscher Gewerkschaftsbund*) had a membership of 4,948,209 at the end of 1929, and the year following a membership of 4,717,569. This is a decrease of 230,640, or 4.7 per cent. The loss was chiefly in members who had only recently joined the union and who, on account of this, were entitled either to no benefit or to only a limited benefit.

The small loss in membership is all the more remarkable, as the German trade-unions have also been subjected to severe pressure from the communists and fascists. An indication of the inherent strength of the trade-union movement in Germany is shown by the results of the last elections of the industrial councils. Members of these councils are elected every year. Every group nominates its candidates in each establishment or workshop, and there is proportional representation according to the number of votes cast. The number of representatives shows therefore almost exactly the strength of each group. In the metal industry, for example, of 27,617 industrial councillors elected, 22,714, or 82.25 per cent, represented the trade-unions affiliated to the German Federation of Labor, 1,458, or 5.28 per cent, represented the communists, and 373, or 1.34 per cent, the fascists. The remaining places were divided among the other trade-union groups.

The remarkable resistance shown by the German trade-unions during this crisis is due mainly to the long training of the members, the capability and trade-union faith of the officers (numbering several tens of thousands), and finally to the system of benefits.

*Trade-union benefits paid.*—A considerable amount of money has been paid to the members out of the funds of the unions during these times of distress. From 1929 to 1930 the income of the 31 national trade-unions affiliated to the German Federation of Labor fell from 251,381,000 to 231,655,000 marks (\$59,828,678 to \$55,133,890), a decrease of 19,726,000 marks (\$4,694,788). During the same period expenditures rose from 202,944,000 to 241,182,000 marks (\$48,300,672 to \$57,401,316), an increase of 38,238,000 marks (\$9,100,644). The decrease in income and the increase in expenditure in 1930 as compared with 1929 show the effect of the economic situation upon the German trade-unions. This becomes more evident when the figures for benefits are analyzed.

The 31 national trade-unions of the German Federation of Labor paid out in benefits during 1929 the sum of 100,097,000 marks (\$23,823,086), and during 1930 the sum of 133,409,000 marks (\$31,751,342). The expenditure for the 7 most important classes of benefits was as follows:

TABLE 2.—AMOUNTS DISBURSED FOR EACH TYPE OF BENEFITS BY GERMAN TRADE-UNIONS, IN 1929 AND 1930

[Conversions into United States currency on basis of mark=23.8 cents]

Type of benefit	1929		1930	
	German currency	United States currency	German currency	United States currency
	<i>Marks</i>		<i>Marks</i>	
Unemployment.....	45,231,000	\$10,764,978	77,730,000	\$18,499,740
Sickness.....	27,274,000	6,491,212	22,847,000	5,437,586
Strikes, etc.....	13,304,000	3,166,352	9,887,000	2,353,106
Death.....	4,309,000	1,025,542	4,276,000	1,017,688
Disability.....	4,278,000	1,018,164	8,001,000	1,904,238
Emergency.....	3,132,000	745,416	5,189,000	1,234,842
Traveling.....	879,000	209,202	1,153,000	274,414

This table shows that in 1930, when conditions were bad, 34,800,000 marks (\$8,282,400) more were expended for unemployment, emergency, and traveling benefits than during the preceding year, which was by no means a time of prosperity. This increased expenditure is evidence of the financial sacrifice of the German trade-unions. A higher expenditure for disability benefits became necessary because old members who were discharged were compelled to claim the trade-union benefit to which they were entitled.

*Educational work of trade-unions.*—The German trade-unions have always paid great attention to the education of their members, and spend much money for this purpose. The opportunities for trade-union education in Germany are manifold and adapted to the various aims of the movement. The main institution is the trade-union college of the German Federation of Labor at Bernau near Berlin. There the officers receive instruction on labor legislation, social politics, political economy, etc., and also on their duties in the organization. Some large unions also have their own schools for their particular purposes. In addition, many members are sent by their organizations to colleges, public schools, and similar institutions, sometimes with a special grant of public funds. But these opportunities for education are designed more especially for the officers. Far more varied and extensive is the system of education for the rank and file of the members. Each year courses of study for adults and youths, of both sexes, are arranged in all parts of the country by the local trade councils of the federation, by the national unions, and by their locals. Extensive libraries are available to all trade-union members, who get also a trade-union paper once a week. Lately, the educational courses have been made available to the unemployed members, and in many instances separate courses are being arranged for them. Those who participate are brought together in special homes, in order to draw them away from their gloomy surroundings and their home troubles, and to insure that they shall begin their study under favorable conditions. The amount expended gives an approximate idea of the extent of the educational work of the federation. The 31 member unions spent for education and literature during 1929 the sum of 13,200,000 marks (\$3,141,600), and during 1930 the sum of 13,900,000 marks (\$3,308,200).

A great part of the trade-union work devolves upon the 1,228 local councils of the federation. These councils include all members of

the unions of the German Federation of Labor in a certain locality or district. The local councils take care of all tasks of the members of their district, such as the preparing of elections for social institutions, the care for the young workers and the unemployed, and the representation of the workers before the law courts and boards which settle disputes as to wages, State insurance, and benefits. Of the local councils, 82 have permanent offices; 123 labor offices advise and assist the workers in all cases of emergency, write appeals to courts of law, etc. The local councils conduct the libraries, control the protective measures for the building workers, arrange meetings for general objects, theater performances, educational courses, play nights, and excursions for the young members. The local councils have 167 trade-union halls, including meeting halls, offices, restaurants, and sometimes sleeping quarters for traveling members.

### 1931 Congress of German Federation of Labor

THE deliberations of the congress, held at Frankfort-on-the-Main from August 31 to September 4, 1931, were naturally shadowed by the economic situation. The general situation also received considerable attention in the speeches of the fraternal delegates, of whom 14 came from foreign countries, and in the speeches of the representatives of governments and cities who were present. The majority of the 55 propositions before the congress which came from the rank and file of the unions related to the prevailing depression or ameliorative measures. For the consideration of the three most important points on the agenda, the executive board of the federation had appointed recognized experts, in order to afford a proper basis for the discussion and for decision.

Every year the executive board makes an extensive report on its activity. As this was also the case this year, it was necessary only to supplement the printed report, and this was done by the president of the federation, Theodor Leipart, who spoke at length on the question of wages.

In 1928 the German trade-unions succeeded in gaining an increase in wages for 11,000,000 workers; wage rates were raised 8 per cent, while the cost of living increased only 2 per cent. During 1929 the rates of wages were again increased by from 4 to 5 per cent. During 1930 the unions were able to maintain the rates of wages generally, but those paid in excess of the agreement rate they were not able to maintain against the onslaughts of the employers and official arbitrators. In the autumn of 1930 the employers started an extensive attack on the rates of wages that had been established by agreement. They began with the metal industry of Berlin, and the official arbitrators made awards amounting to a reduction of 6 per cent on the average. Repeated wage reductions have, generally speaking, reduced the rates of wages in Germany to the level of 1928. But the weekly earnings have decreased still more on account of part-time work. The most obvious result of the systematic reduction of wages may be seen in the increasing severity of the economic crisis and in the increasing unemployment figures.

In the discussion of the report of the president of the federation, much stress was laid on the danger to the social-political institutions. The congress finally adopted a resolution on this subject, as follows:

The congress repudiates decidedly the attempt made to take advantage of the crisis to outlaw the workers. The trade-unions stand up as always for the maintenance and development of social legislation. They consider State insurance against unemployment, sickness, accident, old age, and disability, to-day as heretofore, a decisive factor in the working conditions. At a time when the workers suffer the most under the transgression of irresponsible captains of industry, they demand a warranty for a stronger influence of the trade-unions in all social and economic institutions.

The revolutionary changes in the economic system and the 40-hour week formed the subject receiving the most attention at the congress. The opinion of the congress on this most important question of the present time was given in a resolution of which we quote the essential points:

The development of the economic crisis has shown in an impressive manner that the political organization of the world has not achieved the degree of perfection required by the economy. The world has the choice either to remove all political tension by a sincere renunciation of war, i. e., by general disarmament, and thereby to realize the preliminaries for a world economy, or to abandon the world-wide economic cooperation and to put up with the fatal consequences deriving therefrom. \* \* \* Realizing that it can not be expected that the existing productive power will be in full operation very soon, even under favorable developments, the congress emphasizes the urgent necessity to reduce unemployment by a systematic reduction of the hours of labor. This measure is possible, and imperative for social and political reasons.

Public and private economy, with which the congress was dealing, has thus become a question of actuality because of the economic depression. Public ownership has reached a position of considerable importance in Germany. Of the 18,000,000 industrial workers, 2,250,000 are employed by public authorities, and 1,000,000 of these in industrial production. The orders for goods, services, etc., given by public institutions to private firms amount to from 8 to 9 billion marks a year.

Private employers have never favored public ownership. Their objection is expensive operation and high wages. They now demand the return, to private enterprise, of the public establishments, at least those which yield profits; the other public services, however, like the building and cleaning of streets and canals, fire fighting, carting away dust, school kitchens, homes for the aged, hospitals, theaters, and cemeteries, may remain in the hands of the public authorities.

The trade-unions oppose the transfer of public institutions and public services into the hands of private capitalists, on the grounds that public institutions work more cheaply than capitalistic firms, that the consumers must not be left to the mercy of private monopolists, that in public institutions the workers share in decisions on administration and the rates of wages paid, that if public housing, for instance, were to be transferred to private enterprise poor people could no longer expect to get rooms and houses at reasonable rates, and that under private ownership the workers would have to rest content with lower wages and worse working conditions.

The opinion of the congress on this matter was summarized in a lengthy resolution whose main point was as follows: "Common welfare demands the maintenance of all public institutions and their further development on account of the increasing distress of the population. The main object of all public economic institutions can not be the desire for profits, but the desire to serve the community."



The last important subject on the agenda of the congress was the development of the labor laws. The collective labor rights in Germany are very extensive and varied; they comprise quite a number of laws. The practical application of these laws has revealed their flaws and deficiencies, and these flaws the German trade-unions try constantly to remove. The congress of Frankfort has done its share in this respect. The objections raised and suggestions for corrections made are, however, too many to be dealt with in detail here.

# PRODUCTIVITY OF LABOR

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## Productivity of Labor in the Sheet Department of the Iron and Steel Industry

**T**HIS article presents the results of a study made during 1930 of productivity in the sheet department of the iron and steel industry. The data were obtained through personal visits to the offices of the steel companies and cover the principal operations in standard sheet mills for the years 1925 to 1929. Figures for earlier years were not available.

The lack of uniform practice and the arbitrary treatment of accounting items made the classification of the data difficult. It was necessary to be content with data from the companies that could furnish satisfactory statistics. In many plants the records from which labor hours may be derived were not available for the earlier years, while in other plants the available data could not be compiled to show a proper distribution of all labor hours. The data for 1929 cover about 10 per cent of the entire production in the United States for that year, and for the years 1925 to 1928 the number of plants studied is considered to be a fair sample of the industry.

The information available would not permit the combination of labor hours and output for all departments combined, as the operations of cold rolling, sheet annealing, and sheet pickling vary in number and sequence, depending on the kind or grade of sheet produced.

The departments covered in this report are those of bar shearing, hot rolling, cold rolling, sheet annealing, and sheet pickling.

The unit of output is the net ton and the unit of labor time, the man-hour. A man-hour is an hour's work by one employee.

The labor hours charged against the output of each department include those of all plant labor engaged on the particular process, except the hours spent in repair and maintenance. The hours of plant labor here used include the time of superintendents, foremen, timekeepers, checkers, weighers, cranemen, motor operators, engineers, electricians, machinists, and other direct labor engaged on the particular process, but do not include the time of accountants, clerks, salesmen, and other employees connected with the general office.

Among the factors affecting average productivity are the substitution of machinery for labor, improvement in management, introduction of special piecework and bonus systems, installation of continuous pair and sheet furnaces in the hot mills, more efficient cooling of rolls, better-constructed motors, better-designed machinery, improved lighting systems, improved conveyor systems, serialization of machinery, and improved working conditions. It is impossible to measure separately the effect of these and other factors that influence productivity. While these factors have influenced productivity during the period studied, they have been operative in the industry for several years.

## Summary

THE study shows a steady gain in average output per man-hour of labor time during the period covered, except in the annealing operations. The bar-shearing department shows the largest gain in output per man-hour, the increase from 1925 to 1929, inclusive, being 16 per cent. The cold-rolling and sheet-pickling operations show an increase of 12 per cent each, while the hot rolling shows a gain of about 10 per cent. In the annealing department the gain in output per man-hour was more than offset by the increased labor time required to meet the increasing demand for full-finished sheets of deep drawing quality.

In general the real gain in the industry in labor productivity due to improvement in technology and management was obscured by the increase in labor time required to produce full-finished sheets. The output of loose-rolled sheets of auto-body grade alone increased about 100 per cent from 1927 to 1929, the period for which census data are available. There was also a large increase in the production of high-grade sheets for use in the manufacture of electric refrigerators and metal furniture.

Table 1 contains summary data of average labor productivity for all plants, by departments.

TABLE 1.—SUMMARY OF AVERAGE LABOR PRODUCTIVITY IN STANDARD SHEET MILLS, BY YEARS, 1925 TO 1929

Year	Average output (net tons) per man-hour						Man-hours per net ton of output					
	Bar shearing	Hot rolling	Cold rolling	Sheet annealing	Sheet pickling	Average gauge of sheets	Bar shearing	Hot rolling	Cold rolling	Sheet annealing	Sheet pickling	Average gauge of sheets
1929 .....	2.200	0.077	1.480	1.346	0.857	23	0.455	12.961	0.675	0.743	1.167	23
1928 .....	2.155	.078	1.566	1.335	.853	23	.464	12.805	.639	.749	1.173	23
1927 .....	2.123	.076	1.397	1.336	.659	24	.471	13.235	.716	.748	1.516	24
1926 .....	1.956	.076	1.199	1.394	.681	24	.511	13.138	.834	.718	1.469	24
1925 .....	1.893	.072	1.159	1.415	.702	24	.528	13.817	.863	.707	1.424	24

## Processes of Manufacture

THE sheet industry is a part of the rolling-mill branch of the iron and steel industry. The sequence of processes from ore to finished product in the form of sheets is as follows: From the blast furnace to the mixer, to the steel works, to the blooming mills, to the sheet mills.

One net ton (2,000 pounds) of ore will produce about 1,100 pounds of pig iron. When melted and teemed into ingot molds this amount of pig iron will yield about 1,000 pounds of ingots. In the further reduction of this quantity of ingots to sheet bars the output of the latter will weigh slightly more than 900 pounds. This amount of sheet bars will produce about 650 pounds of finished sheets.

The process of making sheets in standard sheet mills may be divided into several distinct operations, depending on the grade of sheet desired. For the purpose of this study the following operations have been studied: (1) Shearing the sheet bars; (2) hot rolling, including roughing, finishing, opening, and shearing; (3) cold rolling; (4) annealing; and (5) sheet pickling.



Hot rolling is the most important of these operations, and requires more labor time than all of the other operations combined. While the sheets are physically complete at the end of the hot-rolling operation, they are still unfit for the many uses to which they are to be put. To obtain the desired grade and quality of sheet, some of the operations referred to may be varied in number and sequence. If a high-grade sheet is desired, the sheet bars are pickled before being rolled in order to remove the scale and prevent its being rolled into the sheet. This gives a smoother surface for painting and enameling.

In standard sheet mills, sheets are made from sheet bars. As the long sheet bars leave the sheet-bar mill, they are usually about 30 feet long, 6 to 12 inches wide, and less than 2 inches thick. The bar-shearing operation consists in cutting these long, thin bars into the desired lengths for the sheet mills. They are fed into the bar shears three, four, or five at one time. As the steel is never rolled with the grain, the small sheet bars are therefore fed into the sheet mill crosswise. The thickness of the sheet when finished is determined by the width and the gage of the sheet bar.

A single mill consists of two stands of 2-high rolls. After being heated in the pair furnace the bars are broken down on one stand (known as the roughing mill) and finished on the other (known as the finishing mill). It is the practice to "rough down" several bars before putting the "rough downs" through the finishing rolls. After being heated in the pair furnace for about one hour or until the bars are red, they are removed by the pair heater, who drags them in pairs to the roughing rolls and delivers them to the rougher. The rougher passes the hot bars separately between the rolls to the catcher, who returns the flattened piece. After four or five passes the sheets are ready for the finishing mill. After each pass the space between the rolls of the roughing mill is reduced by turning down the screws at the side of the rolls. The screws are operated by the doubler, who is assisted in some plants by the pair heater. In some plants mechanical conveyors carry the sheet bars to the roughing mills.

The "rough-down" sheets, as they are now called, are sometimes pickled before being put through the finishing rolls. This is done to remove the scale that has formed during the previous hot rolling.

Before the sheets are delivered to the finishing mills the "rough-down" pieces are placed together in pairs, with the longest on the bottom. This is known as matching, and the work is done by the matcher. The partially rolled sheets are passed through the rolls to hold them together; they are then delivered to the finishing floor and the pair heater's helper places them in the sheet furnace. When reheated to the desired temperature they are removed from the sheet furnace by the sheet heater and delivered to the roller. The sheets are passed two or three times between the rolls to obtain the length and thickness desired.

All common grades of standard hot-mill black sheets are produced under "tight-rolled" practice, i. e., the pack of from two to eight sheets is rolled and the sheets are separated after rolling. To secure a smooth, flat surface suitable for sheets of high grade, it is necessary to roll the sheets separately. These are known as loose-rolled sheets. This practice permits the surface of the sheet to be kept clean.

For commercial uses sheets are classified according to the number and kind of treatments.

The commercial grades of tight-rolled sheets from standard mills are known as follows:

1. One pass, cold-rolled, box annealed. The treatments are given in the order named. Sheets of this grade are rolled in packs of from two to eight sheets, depending on the gage. When cool, they are opened, given a flattening cold-roll pass, and box annealed.

2. Hot-rolled, pickled, and box annealed. The sheets in this grade are given the same treatments as in the preceding grade, and in addition they are pickled and dried or oiled and limed.

3. Single pickled, full cold-rolled, reannealed. In this grade the treatments are the same as in grade 1, with the extra treatments of pickling, cold rolling (two or three passes), and annealing. This grade is widely used.

4. Full pickled, full cold-rolled, reannealed. Same as grade 3, except that the bars are pickled to remove scale and oxide. This improves the surface of the sheet.

In the class of loose-rolled sheets are included:

1. Auto-body sheets. The bars are pickled to remove oxide scale and cinders. The sheets are loose rolled, the "rough downs" are pickled, box annealed, pickled, given one or two cold passes, reannealed, and stretcher leveled. For a sheet of extra deep drawing quality the heat treatment is given in a normalizing-annealing furnace instead of box-annealing furnace. Normalizing restores the grain structure required for satisfactory working under certain conditions. The other treatments for this grade of sheet are the same as for the preceding grade. For hood and fender stock the bars are pickled. Sheets are hot rolled, and the "rough downs" pickled, annealed, pickled, full cold rolled, reannealed, and stretcher leveled.

2. Steel-furniture sheets. These receive practically the same treatments as auto-body sheets.

Other commercial grades, mostly heavy-gage sheets, are produced on the jobbing mill or the continuous mill.

*Classification of sheets.*—With respect to size, sheets are classified according to weight per square foot and thickness in fractions of an inch. The weight and thickness of sheets of specified gage are shown below. As a rule sheet mills do not roll thinner than No. 30 gage. Sheets thicker than one-eighth inch seldom are rolled on a sheet mill but are reduced on a jobbing mill.

TABLE 2.—CLASSIFICATION OF SHEETS

Number of gage	Weight per square foot, in pounds	Weight per square foot, in ounces	Thick-ness, in fraction of an inch	Thickness, in inches
000000	20.00	320	1/2	0.5
0	12.50	200	5/16	.3125
9	6.25	100	5/32	.15625
14	3.125	50	5/64	.078125
20	1.50	24	3/80	.0375
26	.75	12	3/160	.01875
33	.375	6	3/320	.009375
38	.25	4	1/160	.00625
44	.1875	3	3/640	.0046875

Analysis of Productivity, by Departments

TABLE 3 gives the detailed data from which the labor productivity averages are derived. The significance of these figures is commented on in the text statements separately for each department.

TABLE 3.—AVERAGE LABOR PRODUCTIVITY, TOTAL HOURS OF LABOR, AND TOTAL PRODUCTION IN STANDARD SHEET MILLS, BY DEPARTMENTS, 1925 TO 1929

Year	Bar shearing					Hot rolling				
	Number of plants	Total production (net tons)	Total man-hours	Average labor productivity		Number of plants	Total production (net tons)	Total man-hours	Average labor productivity	
				Output per man-hour (net tons)	Man-hours per net ton				Output per man-hour (net tons)	Man-hours per net ton
1929	6	436,166	196,877	2.200	0.455	9	665,465	8,624,744	0.077	12.961
1928	5	291,128	135,073	2.155	.464	8	529,548	6,806,061	.078	12.805
1927	3	150,188	70,735	2.123	.471	6	325,139	4,303,305	.076	13.235
1926	3	145,326	74,310	1.956	.511	5	298,704	3,924,340	.076	13.138
1925	5	233,430	123,312	1.893	.528	6	350,284	4,839,721	.072	13.817

Year	Cold rolling					Sheet annealing				
	Number of plants	Total production on basis of one rolling (net tons)	Total man-hours	Average labor productivity on basis of one rolling		Number of plants	Total production on basis of one annealing (net tons)	Total man-hours	Average labor productivity on basis of one annealing	
				Output per man-hour (net tons)	Man-hours per net ton				Output per man-hour (net tons)	Man-hours per net ton
1929	8	1,435,851	969,875	1.480	0.675	7	777,045	577,165	1.346	0.743
1928	8	1,073,402	685,634	1.566	.639	6	614,337	460,134	1.335	.749
1927	4	366,648	262,540	1.397	.716	4	288,711	216,058	1.336	.748
1926	4	402,968	336,104	1.199	.834	4	332,856	238,862	1.394	.718
1925	4	471,239	406,744	1.159	.863	5	371,907	262,849	1.415	.707

Year	Sheet pickling <sup>1</sup>				
	Number of plants	Total production on basis of one pickling (net tons)	Total man-hours	Average labor productivity, on basis of one pickling	
				Output per man-hour (net tons)	Man-hours per net ton
1929	7	687,103	802,164	0.857	1.167
1928	5	547,496	641,982	.853	1.173
1927	2	166,208	252,031	.659	1.516
1926	2	192,653	283,021	.681	1.469
1925	3	215,863	303,412	.702	1.424

<sup>1</sup> Including rough and finished sheets.

*Bar shearing.*—In standard sheet mills sheets are made from sheet bars having a thickness less than 2 inches and a width of from 6 to 12 inches. The bars are sheared from long thin sections, the length of the bar corresponding to the width of the sheet.

In cutting the bars into the desired lengths for the hot mills the bars are taken to the bar shears on rolls and fed into the bar shears, three, four, or five at one time.

The working crew consists of the foreman, bar unloaders, shearmen, pushers, catchers, crane operators, and cranemen.

The data in Table 3 show that for 1929 the average output of sheet bars per man-hour of labor was 2.200 net tons. This compares with 2.155 net tons for 1928, 2.123 net tons for 1927, 1.956 net tons for 1926, and 1.893 net tons for 1925. Expressed in another way, this means that for 1929 the labor time required to cut a net ton of bars was 0.455 man-hour, as against 0.464 man-hour for 1928, 0.471 man-hour for 1927, 0.511 man-hour for 1926, and 0.528 man-hour for 1925.

While some improvements were made in bar-shearing equipment during the period, the increase of 16 per cent in average labor productivity was due largely to better management.

*Hot rolling.*—The hot rolling of sheets is still done largely by hand, and this has prevented the increase in productivity so characteristic of many industries. The development of the continuous process in 1923 made possible a reduction of the ingots to sheets approximately 0.06 inch thick without the metal being manipulated by hand. Since the use of this method is confined to a few plants only, figures for companies using this process are not included in the present study.

The following figures refer to operations in standard sheet mills for the years 1925 to 1929. Statistics for earlier years were not available.

The figures in Table 3 show that for the year 1929 the average output per man-hour of labor time was 0.077 net ton, as against 0.078 net ton for 1928, 0.076 net ton for 1927, 0.076 net ton for 1926, and 0.072 net ton for 1925. Expressed differently, this means that for the year 1929 the time required to produce 1 net ton of output was 12.961 man-hours. This compares with 12.805 man-hours for 1928, 13.235 man-hours for 1927, 13.138 man-hours for 1926 and 13.817 man-hours for 1925. The gain in output per man-hour from 1925 to 1929 was about 10 per cent.

The output for 1929 and 1928 was of an average of 23 gauge, while the output for 1927, 1926, and 1925 was of an average of 24 gauge. The data available were such as to make impossible the separation of data to show production by kind and grade of sheet. The figures for each plant were compiled to show the average gauge for the entire year. The average output for individual plants was combined to show the average gauge for all plants.

The labor time charged against the hot-rolling process includes the total hours of all plant labor, except that of repair and maintenance labor. The labor time of clerks, accountants, and salesmen connected with the general office is not included.

The total hours of plant labor include the labor time of the following groups: (1) Hot-mill rolling—rollers, roller helpers, heaters, heater helpers, roughers, catchers, pair heaters, matchers, second roughers,

shearmen, leaders, and spell hands (this group is usually paid on a tonnage basis); (2) superintendents, assistant superintendents, foremen, checkers, and weighers; (3) engineers and motor operators; (4) ashmen, furnacemen, firemen, and general labor; (5) scrap labor; (6) mechanical labor; (7) electrical labor; (8) Cranemen and crane followers; (9) other miscellaneous labor.

*Cold rolling.*—In order to smooth out the sheets after they come from the hot mills, they are cold-rolled. In the case of 1-pass box-annealed sheets this is done principally for the purpose of removing the kinks and other uneven places, preparatory to annealing. This process also permits the sheets to be packed more closely in the annealing box. To reduce stiffness and give the sheet a better surface finish, this kind of sheet is again cold-rolled.

Sheets receive one or more "passes," depending on the kind or grade of sheet desired. The total output includes the tonnage for all "passes," on the unit basis of one "pass" or rolling.

Labor hours include all plant labor engaged on the process, except repair and maintenance labor. The labor time of all employees in the general office has not been included.

The average output per man-hour for those plants covered in the report shows a gain of 12 per cent in average productivity, from 1925 to 1929.

The output per man-hour for 1929 was 1.480 net tons, while for 1928 it was 1.566 net tons; for 1927, 1.397 net tons; for 1926, 1.199 net tons; and for 1925, 1.159 net tons. The production of 1 net ton required 0.675 man-hour in 1929, 0.639 man-hour in 1928, 0.716 man-hour in 1927, 0.834 man-hour in 1926, and 0.863 man-hour in 1925.

*Annealing.*—The sheets are annealed to remove the strains incident to hot rolling and to permit the grain structure to readjust itself. This is done in suitable furnaces, where the sheets are subjected to different degrees of temperature in different parts of the furnace.

The sheets are given one or more annealings, depending on the grade of sheet desired. The total output of the plants in Table 2 is reported on a unit basis of one annealing.

The period from 1925 to 1929 was characterized by an increasing demand for loose-rolled, full-finished sheets of deep-drawing quality, which require more labor time per unit of product in the annealing process.

The averages of labor productivity in Table 3 show that for 1929 the average output per man-hour was 1.346 net tons, which compares with 1.335 net tons for 1928, 1.336 net tons for 1927, 1.394 net tons for 1926, and 1.415 net tons for 1925. Expressed in labor time per unit of output, for 1929 it required 0.743 man-hour to anneal 1 net ton. This compares with 0.749 man-hour for 1928, 0.748 man-hour for 1927, 0.718 man-hour for 1926, and 0.707 man-hour for 1925.

The labor time charged against the output included that of foremen, firemen, sandmen, ashmen, checkers, floormen, crane operators, and crane followers, but not that of maintenance and repair men in the plant, or of clerks, accountants, salesmen and other labor connected with the general office.

Despite the increase in efficiency during the period, the average labor output per man-hour shows a decrease of about 10 per cent.

This was due to the extra labor time required to meet the increasing demand for full-finished sheets of special quality and grade.

*Sheet pickling.*—To remove the scale or oxide that results from the hot-mill operations, the sheets are given a bath in a dilute solution of sulphuric acid. This is done by an automatic pickling machine, which immerses the sheets in the bath. The sheets are then dipped in water and thoroughly cleaned.

The figures in Table 3 include the output for both loose-rolled and tight-rolled sheets. The former class includes furniture, auto-body, and special-quality sheets requiring a smooth finish. The total production is given on a unit basis of one pickling.

The labor time includes that of all plant labor, except repair and maintenance labor. None of the time of general office employees has been charged against the production.

The data in Table 3 show that for 1929 the output per man-hour was 0.857 net ton. This compares with 0.853 net ton for 1928, 0.659 net ton for 1927, 0.681 net ton for 1926, and 0.702 net ton for 1925. The labor time required to produce 1 net ton of output for 1929 was 1.167 man-hours, as against 1.173 man-hours for 1928, 1.516 man-hours for 1927, 1.469 man-hours for 1926, and 1.424 man-hours for 1925.



# EMPLOYMENT CONDITIONS AND UNEMPLOYMENT RELIEF

## Cost of Filling Jobs by California State Employment Agencies

THE expenditure of the California Division of State Free Employment Agencies totaled \$180,067.76 in the biennial period ending June 30, 1930. The number of jobs filled by these offices in the two years was 295,385, the average cost per job filled being 61 cents.<sup>1</sup>

The cost per job filled during the last five biennial periods beginning with 1920-21 and 1921-22 was, for the respective periods, 54 cents, 36 cents, 46 cents, 54 cents, and 61 cents.

According to the biennial report of the California Division of Labor Statistics and Law Enforcement for the fiscal years 1928-29 and 1929-30, the average cost to the workers per job received through a private employment office was \$4.17. If the 295,385 jobs secured free of charge through State employment agencies had been obtained through private employment bureaus at the above average rate, the cost to the clients would have been \$1,231,755. This sum may, therefore, be considered, the report states, as representing the savings to California workers as an outcome of the operation of the free employment agencies of the State.

## Stabilization Measures in Hartford County, Conn.

A SURVEY recently completed by the Manufacturers' Association of Hartford County, Conn., and summarized in a press release of November 11, 1931, shows what measures have been taken by member firms to stabilize employment and lessen the harmful effects of unemployment. For 81 factories, both large and small, employing a total of 36,250 persons and thus regarded as a representative sample, it is stated an employment decrease of 27 per cent occurred between January, 1929, and the date of the survey. Had the firms in question not employed 8,871 more persons than the number actually needed for production needs on a full-time basis, the decrease would have amounted to 45 per cent. In order to keep on these extra workers, factories representing 93 per cent of the total workers resorted to some plan for spreading work.

It is stated that unemployment has affected skilled labor less than either semiskilled or unskilled labor.

## Devices for Creating Extra Work

IN ORDER that work might be further stabilized resort has been had to increases in manufacturing for stock. While this has not been practicable for factories manufacturing goods subject to style changes, on direct order, etc., it is stated that only 6 firms reported reduced

<sup>1</sup> California. Department of Industrial Relations. First biennial report, 1927-1930. Sacramento, 1931, p. 116.

inventories and 23 produced inventories far in excess of their needs. Replacement of equipment has also taken place in a number of factories, and the use of workers on jobs other than their regular jobs has been reported. At the same time research activities have been maintained, only 2 firms reporting a curtailment of research work, while 29 had greater expenditures for this purpose. In all, one-half of the plants reported the development of new products.

### Investigation of Home Conditions

THE summary under review indicates that attempts to alleviate and mitigate actual and probable distress due to unemployment are more far-reaching than was at first anticipated. Factories to the number of 64 and employing 90 per cent of the workers covered by the survey had developed some plan of assisting persons in the greatest need of work.

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### Minnesota Unemployment Research Project

THROUGH the medium of the Employment Stabilization Research Institute of the University of Minnesota a series of studies of the various aspects of unemployment is being undertaken. In a foreword to a pamphlet describing the unemployment program of this institution <sup>1</sup> it is stated that a university is well adapted to carrying through this kind of study, that the various research facilities of the University of Minnesota will be made use of in carrying the work forward, and that necessary funds supplementing the resources of the university will be made available from grants made by three foundations.

It is proposed to develop three projects, the first of which will be devoted to the economic aspects of unemployment, the second to individual diagnosis of cases and retraining, and the third to development of public employment agencies. Preliminary to undertaking these studies, the report states, such industrial surveys as were in process of being made by different members of the university staff were coordinated in 1930 into one project. Among these studies was one of employment indexes for the cities of St. Paul, Minneapolis, and Duluth. The indexes were completed in the summer of 1930.

### Machinery for Carrying on Work

A COMMITTEE designated as the Tri-City Employment Stabilization Committee has made use of the findings mentioned and it is this body that has been intrusted with the duty of coordinating the activities of the various State and local groups dealing with employment conditions and unemployment. It is this committee, also, that serves as a contacting agency between the research staff of the Employment Stabilization Research Institute and the business community.

The Employment Stabilization Research Institute carries on its research work as a university function. A separate administrative unit has been set up by the board of regents for the institute. The function of the institute is to conduct studies and experiments.

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<sup>1</sup>University of Minnesota. Employment Stabilization Research Institute. Bulletin, Vol. I, No. 1: The Minnesota Unemployment Research Project, by Russell A. Stevenson. Minneapolis, The University of Minnesota Press, November, 1931.



### The Three Projects

EACH of the three projects undertaken is headed by a project chairman and is being carried on largely with an independent staff.

Project I, dealing with the economic aspects of unemployment, has as its objectives finding out how industrial changes are affecting the volume and character of employment in the region, revealing the types of vocational training and guidance that are needed under modern conditions, and determining what business changes would help to stabilize conditions of employment. To attain these ends, the staff for Project I is at present engaged primarily with four major surveys, as follows: (1) The individual case histories of 4,000 unemployed, (2) the industrial survey, (3) the job analysis survey, and (4) the survey of business migrations.

Project II, dealing with individual diagnosis and retraining, is testing the various methods of diagnosing the vocational aptitudes of unemployed workers, providing a cross section of the basic reeducation problems of the unemployed, and demonstrating methods of reeducation and industrial rehabilitation of workers unemployed because of technological changes.

Under Project III the development of public employment agencies is being studied. It is stated that this project constitutes a type of laboratory or testing ground for certain of the technics developed in the first two projects. At present, public employment offices are maintained jointly by the State and city governments in Minneapolis, St. Paul, and Duluth. The funds for the support of these offices are supplemented by the Spelman fund, "with the proviso that for a 2-year period the responsibility for the supervision and development of these public employment agencies be assumed by the Tri-City Employment Stabilization Committee." By turning over to the committee the advisory control over the public employment agencies the governor and the industrial commission have sought to make more effective the development of the agencies in cooperation with the employment stabilization committee. The chief objectives sought are four in number, as follows:

1. To establish a unified system of labor clearance. This means coordinating the activities of all placement agencies that seem to be serving a useful community function and clearing job information through the public exchanges. It further involves the minimizing of the number of units engaged in employment work.
2. To establish in the public offices adequate statistical indexes of occupational and industrial trends and conditions in each city, as a background for effective vocational guidance and placement.
3. To introduce scientific technics for the individual diagnosis of the aptitudes and special qualifications of all applicants for jobs.
4. To provide adequate personnel and equipment in order to maintain effective contact with employers of labor and to administer scientific selection and placement procedures.

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### Unemployment in Foreign Countries

THE following table gives detailed monthly statistics of unemployment in foreign countries, as shown in official reports, from January, 1930, to the latest available date.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES<sup>1</sup>

Date (end of month)	Australia		Austria	Belgium				Canada
	Trade-unionists unemployed		Compulsory insurance, number unemployed in receipt of benefit	Unemployment insurance societies				Per cent of trade-unionists unemployed
	Number	Per cent		Wholly unemployed		Partially unemployed		
				Number	Per cent	Number	Per cent	
1930								
January	(2)		273,197	22,542	3.5	25,782	4.0	10.8
February	(2)		284,543	16,085	2.6	31,222	4.9	11.5
March	63,144	14.6	239,094	14,030	2.2	28,469	4.5	10.8
April	(2)		192,477	13,715	2.2	36,605	5.8	9.0
May	(2)		162,678	12,119	1.9	38,761	6.1	10.3
June	80,595	18.5	150,075	12,226	1.9	41,336	6.5	10.6
July	(2)		153,188	15,302	2.4	48,580	7.7	9.2
August	(2)		156,145	17,747	2.8	51,649	8.2	9.3
September	90,379	20.5	163,894	23,693	3.8	61,623	9.9	9.4
October	(2)		192,778	27,322	4.3	54,804	8.5	10.8
November	(2)		237,745	38,973	6.1	76,043	12.0	13.8
December	104,951	23.4	294,845	63,585	9.3	117,167	17.0	17.0
1931								
January	(2)		331,239	77,181	11.1	112,734	16.2	16.0
February	(2)		334,041	81,750	11.7	121,906	19.4	15.6
March	113,614	25.8	304,084	81,305	11.3	125,972	17.7	15.5
April	(2)		246,845	70,377	10.0	110,139	15.6	14.9
May	(2)		208,852	56,250	7.9	97,755	13.8	16.2
June	118,424	27.6	191,150	62,642	8.9	101,616	14.4	16.3
July	(2)		194,364	64,644	9.1	116,747	16.3	16.2
August	(2)		196,321	70,893	9.9	120,669	16.8	15.8
September	120,694	28.3	202,130	74,175	10.3	119,433	16.6	18.1
October	(2)		228,101	82,811	11.3	122,773	16.8	18.3
November	(2)		273,658					
1932								
Date (end of month)	Czechoslovakia			Danzig (Free City of)	Denmark		Estonia	Finland
	Number of unemployed on live register	Trade-union insurance funds—unemployed in receipt of benefit		Number of unemployed registered	Trade-union unemployment funds—unemployed		Number unemployed remaining on live register	Number of unemployed registered
		Number	Per cent		Number	Per cent		
1930								
January	73,891	39,199	3.6	19,282	55,876	20.3	5,608	12,696
February	86,156	40,550	3.6	21,153	59,363	21.0	4,580	11,545
March	88,005	45,567	4.0	20,376	47,109	15.6	3,575	10,062
April	79,721	42,664	3.7	18,371	33,471	11.8	2,227	7,274
May	77,069	41,098	3.8	16,232	27,966	9.4	2,065	4,666
June	73,464	37,853	3.4	14,975	24,807	8.7	910	3,553
July	77,809	46,800	4.1	15,330	26,200	9.3	762	4,026
August	88,005	52,694	4.7	15,687	26,232	9.0	1,039	5,288
September	104,534	57,542	5.3	16,073	27,700	9.0	1,414	7,157
October	122,379	61,213	5.5	17,307	32,880	11.4	3,282	10,279
November	155,203	65,904	5.9	20,272	44,200	15.3	5,675	10,740
December	239,564	93,476	8.3	24,429	71,100	24.6	6,163	9,336
1931								
January	313,511	104,580	9.5	27,081	70,961	24.2	5,364	11,706
February	343,972	117,450	10.0	28,192	73,427	26.0	4,070	11,557
March	339,505	119,350	10.0	27,070	67,725	22.1	2,765	11,491
April	296,756	107,238	8.9	24,186	45,698	15.3	2,424	12,663
May	249,686	93,941	7.6	20,686	37,856	12.3	1,368	7,342
June	220,038	82,534	6.6	19,855	34,030	11.3	931	6,320
July	209,233	82,759	6.6	20,420	36,369	11.8	634	6,790
August	214,520	86,261	6.9	21,509	35,060	11.8	933	9,160
September	228,383	84,671	6.8	22,922	35,871	12.1	2,096	12,176
October	253,518			24,932	47,196	16.0	5,425	14,824
November	336,874			28,966	66,526	22.3		

See footnotes at end of table.

STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	France		Germany				
	Number unem- ployed in receipt of benefit	Number of unem- ployed registered	Trade-unionists				
			Wholly unem- ployed		Partially unem- ployed		Number unem- ployed in receipt of benefit
			Number	Per cent	Number	Per cent	
1930							
January	1,484	3,217,608	1,004,787	22.0	501,950	11.0	2,482,648
February	1,683	3,365,811	1,076,441	23.5	593,380	13.0	2,655,723
March	1,630	3,040,797	995,972	21.7	576,153	12.6	2,347,102
April	1,203	2,786,912	926,831	20.3	553,098	12.1	2,081,068
May	859	2,634,718	895,542	19.5	552,318	12.0	1,889,240
June	1,019	2,640,681	896,465	19.6	573,116	12.6	1,834,662
July	856	2,765,258	930,777	20.5	631,903	13.9	1,900,961
August	964	2,883,000	984,384	21.7	670,466	14.8	1,947,811
September	988	3,004,000	1,011,820	22.5	677,627	15.1	1,965,348
October	1,663	3,252,000	1,061,570	23.6	693,379	15.4	2,071,730
November	4,893	3,683,000	1,167,930	26.0	721,658	16.1	2,353,980
December	11,952	4,384,000	(?)	31.7	(?)	16.9	2,822,598
1931							
January	23,536	4,887,000	(?)	34.2	(?)	19.2	3,364,770
February	40,766	4,972,000	(?)	34.5	(?)	19.5	3,496,979
March	50,815	4,756,000	(?)	33.6	(?)	18.9	3,240,523
April	49,958	4,358,000	(?)	31.2	(?)	18.0	2,789,627
May	41,339	4,053,000	(?)	29.9	(?)	17.4	2,507,732
June	36,237	3,954,000	(?)	29.7	(?)	17.7	2,353,657
July	35,916	3,976,000	(?)	31.0	(?)	19.1	2,231,513
August	37,673	4,215,000	(?)	33.6	(?)	21.4	2,376,589
September	38,524	4,355,000	(?)	35.1	(?)	22.2	2,483,364
October	51,654	4,622,000	(?)	36.6	(?)	22.0	2,534,952
November	92,157	5,057,000					
December	147,009						

Date (end of month)	Great Britain and Northern Ireland				Great Britain	Hungary		
	Compulsory insurance				Number of persons registered with employment exchanges	Trade-unionists un- employed		
	Wholly unem- ployed		Temporary stop- pages			Chris- tian (Buda- pest)	Social-Demo- cratic	
	Number	Per cent	Number	Per cent			Number	Per cent
1930								
January	1,183,974	9.8	336,474	2.8	1,491,519	1,161	21,533	14.5
February	1,211,262	10.0	371,840	3.1	1,539,265	1,120	21,309	14.8
March	1,284,231	10.6	409,785	3.4	1,677,473	983	21,016	14.6
April	1,309,014	10.8	451,506	3.8	1,698,386	906	20,139	13.7
May	1,339,595	11.1	516,303	4.2	1,770,051	875	19,875	13.6
June	1,341,818	11.1	569,931	4.7	1,890,575	829	18,960	13.0
July	1,405,981	11.6	664,107	5.5	2,011,467	920	19,081	13.2
August	1,500,990	12.4	618,658	5.1	2,039,702	847	21,013	14.5
September	1,579,708	13.1	608,692	5.0	2,114,955	874	22,252	16.0
October	1,725,731	13.9	593,223	4.8	2,200,413	999	22,914	16.7
November	1,836,280	14.8	532,518	4.3	2,274,338	975	23,333	17.0
December	1,853,575	14.9	646,205	5.3	2,392,738	935	24,648	17.9
1931								
January	2,044,209	16.5	618,633	5.0	2,613,749	953	26,191	19.1
February	2,073,578	16.7	623,844	5.0	2,627,559	965	27,089	19.8
March	2,052,826	16.5	612,821	5.0	2,581,030	996	27,092	(?)
April	2,027,896	16.3	564,884	4.6	2,531,674	1,042	27,129	(?)
May	2,019,533	16.3	558,383	4.5	2,596,431	843	26,131	(?)
June	2,037,480	16.4	669,315	5.4	2,629,215	751	23,660	(?)
July	2,073,892	16.7	732,583	5.9	2,662,765	876	26,329	(?)
August	2,142,821	17.3	670,342	5.4	2,732,434	941	28,471	(?)
September	2,217,080	17.9	663,466	5.3	2,879,466	932	28,716	
October	2,305,388	18.1	487,591	3.8	2,755,559			
November	2,294,902	18.0	439,952	3.4	2,656,088			

See footnotes at end of table.

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Irish Free State		Italy		Latvia	Netherlands	
	Compulsory insurance—unemployed		Number of unemployed registered		Number unemployed remaining on live register	Unemployment insurance societies—unemployed	
	Number	Per cent	Wholly unemployed	Partially unemployed		Number	Per cent
1930							
January	31,592	11.1	466,231	23,185	9,263	56,535	13.9
February	( <sup>2</sup> )		456,628	26,674	8,825	50,957	12.5
March	( <sup>2</sup> )		385,432	28,026	6,494	34,996	8.6
April	26,027	9.2	372,236	24,305	3,683	28,421	6.9
May	( <sup>2</sup> )		367,183	22,825	1,421	26,211	6.3
June	( <sup>2</sup> )		322,291	21,887	779	23,678	5.5
July	23,393	8.2	342,061	24,209	607	29,075	6.7
August	( <sup>2</sup> )		375,548	24,056	573	32,755	7.6
September	( <sup>2</sup> )		394,630	22,734	1,470	35,532	8.2
October	20,775	( <sup>2</sup> )	446,496	19,081	6,058	41,088	9.6
November	22,990	( <sup>2</sup> )	534,356	22,125	8,608	46,807	11.8
December	25,622	( <sup>2</sup> )	642,169	21,788	10,022	72,191	16.5
1931							
January	26,167	( <sup>2</sup> )	722,612	27,924	9,207	103,728	23.4
February	28,681	( <sup>2</sup> )	765,325	27,110	8,303	99,753	22.2
March	26,825	( <sup>2</sup> )	707,486	27,545	8,450	80,525	17.7
April	25,413	( <sup>2</sup> )	670,353	28,780	6,390	68,860	14.3
May	23,970	( <sup>2</sup> )	635,183	26,059	1,871	60,189	12.2
June	23,016	( <sup>2</sup> )	573,593	24,206	1,584	59,573	11.7
July	21,427	( <sup>2</sup> )	637,531	25,821	2,169	69,026	13.3
August	21,647	( <sup>2</sup> )	693,273	30,636	4,827	70,479	15.3
September	21,897	( <sup>2</sup> )	747,764	29,822	7,470	<sup>3</sup> 69,458	15.4
October	23,427	( <sup>2</sup> )	799,744	32,828	13,605		
November			878,267				

Date (end of month)	New Zealand		Norway		Poland	Rumania
	Trade-unionists unemployed		Trade-unionists (10 unions) unemployed		Number unemployed registered with employment offices	Number unemployed remaining on live register
	Number	Per cent	Number	Per cent		
1930						
January	( <sup>2</sup> )		7,786	19.0	22,549	241,974
February	4,348	8.5	7,851	18.9	22,974	274,708
March	( <sup>2</sup> )		7,503	17.8	22,533	289,469
April	( <sup>2</sup> )		6,701	15.8	19,829	271,225
May	5,884	10.9	5,239	12.2	16,376	224,914
June	( <sup>2</sup> )		4,700	10.8	13,939	204,982
July	( <sup>2</sup> )		4,723	10.8	11,997	193,687
August	7,197	13.5	5,897	13.4	12,923	173,627
September	( <sup>2</sup> )		7,010	15.7	17,053	170,467
October	( <sup>2</sup> )		8,031	18.0	20,363	165,154
November	8,119	15.5	9,396	21.4	24,544	209,912
December	( <sup>2</sup> )		11,265	25.5	27,157	299,797
1931						
January	( <sup>2</sup> )		11,692	26.3	28,596	340,718
February	( <sup>2</sup> )		29,107		358,925	43,270
March	<sup>4</sup> 29,434		11,213	24.9	29,095	372,536
April	<sup>4</sup> 37,598		( <sup>2</sup> )		28,477	351,679
May	<sup>4</sup> 36,921				25,206	313,104
June	<sup>4</sup> 42,523				22,736	274,942
July	<sup>4</sup> 46,359				20,869	255,179
August	<sup>4</sup> 48,396				22,431	246,380
September	<sup>4</sup> 51,018				27,012	246,426
October			<sup>5</sup> 8,415	<sup>5</sup> 19.2	29,340	253,355
November					32,078	259,676

See footnotes at end of table.

## STATEMENT OF UNEMPLOYMENT IN FOREIGN COUNTRIES—Continued

Date (end of month)	Saar Territory	Sweden		Switzerland				Yugoslavia
	Number unemployed registered	Trade-unionists unemployed		Unemployment funds				Number of unemployed registered
				Wholly unemployed		Partially unemployed		
		Number	Per cent	Number	Per cent	Number	Per cent	
1930								
January	11,307	45,636	14.2	10,523	4.4	10,710	4.4	8,508
February	11,949	45,460	13.2	9,971	4.1	11,445	4.7	9,437
March	8,882	42,278	12.5	7,882	2.6	12,642	4.2	9,739
April	7,522	38,347	11.1	5,203	2.1	12,755	5.3	12,052
May	7,362	28,112	8.3	5,356	2.2	13,129	5.4	8,794
June	6,330	28,956	8.1	5,368	1.7	17,688	5.7	6,991
July	7,095	27,170	7.8	4,751	1.9	15,112	6.2	7,236
August	7,099	28,539	8.1	5,703	2.3	19,441	7.9	6,111
September	7,527	34,963	9.8	7,792	2.5	26,111	8.3	5,973
October	9,013	43,927	12.2	7,399	3.0	23,309	9.4	6,609
November	12,110	57,070	15.3	11,666	4.7	25,793	10.5	7,219
December	15,245	86,042	22.9	21,400	6.6	33,483	10.4	9,989
1931								
January	18,921	69,437	19.8	20,551	8.3	30,977	12.5	11,903
February	20,139	66,923	18.4	20,081	7.9	30,879	12.2	14,424
March	18,292	72,944	19.3	18,991	5.4	41,880	12.4	12,029
April	18,102	64,534	17.5	10,389	4.0	27,726	10.6	11,391
May	14,886	49,807	13.2	9,174	3.5	26,058	9.9	6,929
June	15,413	45,839	12.1	12,577	3.6	34,266	9.7	4,431
July	17,685	46,180	12.4	12,200	3.3	39,000	11.5	6,672
August	20,205	48,590	12.7	9,754	3.6	33,346	12.4	7,466
September	21,741	54,405	13.7	15,188	4.0	42,968	11.2	7,753
October	24,685	65,469	16.4	18,000	4.8	47,200	13.2	10,070

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

<sup>2</sup> Not reported.

<sup>3</sup> Provisional figure.

<sup>4</sup> New series of statistics showing unemployed registered by the employment exchanges. Includes not only workers wholly unemployed but also those intermittently employed.

<sup>5</sup> Strike ended. Provisional figure.



# INDUSTRIAL AND LABOR CONDITIONS

## Annual Report of the Secretary of Labor, 1930-31

THE Nineteenth Annual Report of the Secretary of Labor, for the fiscal year ending June 30, 1931, includes reviews of the work of the various bureaus and other offices of the United States Department of Labor. A brief résumé of some of these activities is given below:

### United States Employment Service

THE last Congress appropriated the sum of \$883,780 for the United States Employment Service, and this has made it possible to effect a reorganization and greatly to widen the scope and effectiveness of its activities. To-day, in addition to the cooperative offices, there is a Federal Employment Service in each State in the Union and in the District of Columbia. The aim also is to make available quickly to every kind of employer the specific type of worker that he needs. The secretary states that with the present Employment Service organization there no longer exists any reason why an employer or employee need apply to a private fee-charging agency.

*Veterans' employment service.*—The Department of Labor, in connection with this service, recently has instituted an intensive campaign to assist in the relief of unemployment conditions obtaining among veterans of our wars.

### Bureau of Immigration

FEWER immigrants are now being admitted than at any time during the past hundred years. Only one immigrant is admitted now where five were admitted a year ago. Still more striking is the comparison of June, 1931, with June of 1913, when under the open-door policy then prevailing, 176,262 immigrants were admitted, as against 3,534 for June, 1931. Virtually fifty times as many were given entry for June, 1913, as for June, 1931. In the Secretary's opinion there is no more important work before the Government and the people to-day than the administration of the immigration laws. These laws have a twofold purpose: (1) To protect the social and political structure of American civilization from persons who seek to come here with strange, new doctrines of government which threaten the institutions and practices that we in this country regard as essential to the onward progress of our people, whether native born or naturalized; and (2) to give economic protection, particularly as to available employment, to those who for both legal and moral reasons should receive first consideration in the blessings of the workaday life.

There are in this country many aliens who have come here illegally. No reasonable estimate of this number can be made, but the number of illegal entrants has been materially checked through the activities of the immigration border patrol.

During the fiscal year ending June 30, 1931, more than 18,000 aliens were formally deported. Many thousands of others who might have been expelled were permitted to depart voluntarily.

#### Bureau of Naturalization

THE combined declarations of intention and petitions for citizenship filed during the past fiscal year showed an increase over the number of these papers filed during the preceding year, which was the first year under the amendatory act of March 2, 1929. There were 106,272 declarations of intention made, comprising 83,474 by men and 22,798 by women; 145,474 petitions for citizenship were submitted to the courts, of which 108,642 were made by men and 36,832 by women; certificates of citizenship were issued to the number of 143,495, of which 106,715 were issued to men and 36,780 to women. Included in these are 3,224 veterans of the World War who acquired citizenship up to March 4, 1931, at which time the amendatory legislation expired that had exempted veterans of the World War in the American forces from compliance with many of the general statutory provisions leading to naturalization. There were 7,514 applicants for citizenship denied admission by the courts. During the preceding fiscal year 62,138 declarations of intention and 113,151 petitions for citizenship were filed, and 169,377 certificates of citizenship were issued.

The 2,904 new certificates of citizenship and 4,834 new declarations of intention issued made a total of 7,738 new naturalization papers issued by the bureau in lieu of those declared by their owners to be lost or destroyed.

There were 2,427 applications received from persons who believed themselves to have derived citizenship through the naturalization of their parents or through marriage, and of this number 226 certificates of citizenship of the derivative character were issued.

Reports received by the department of violations of the naturalization and immigration laws in and around New York City caused an intensive investigation to be undertaken in the latter half of the year. Startling disclosures of illegal and fraudulent naturalizations were the immediate results of these investigations. In certain quarters of New York City it appeared to have become settled in the minds of ignorant and unsuspecting aliens that naturalization could be obtained only through intervention of those posing as political leaders and claiming influence with the administrative and judicial authorities. Sums varying from \$5 to \$150 were shown to have been paid to such imposters, grafters, fixers, runners, and other unscrupulous individuals by their dupes. Naturalization would have been conferred and could have been secured by many of these aliens without the payment of more than the statutory fees. The admission of many would have been deferred because of ignorance until they had become qualified according to the standards of the courts in New York City. At the close of the fiscal year these investigations were being prosecuted with vigor.

## Conciliation Service

DURING the fiscal year under review 582 specific cases of trade disputes, strikes, threatened strikes, and lockouts were handled by the Conciliation Service.

Those cases came from 37 States of the Union and involved 379,585 workers directly and indirectly.

There has been a gradual change in the relationship between management and men in American industry since the first case was submitted to the Department of Labor in 1913. Since that date the service has handled 10,187 labor disputes, involving directly and indirectly 13,418,903 workers.

In the earlier days of the work of conciliation in labor disputes the service was continually confronted with the long-existing and pretty generally accepted belief that the interest of employers and employed were opposed, and that any movement designed to benefit employees was bound to be detrimental to the interest of the management. So it was that the many efforts put forward by the employers were looked upon with suspicion by the employees.

But the day of distrust on the part of the workers and of casual treatment of labor relations as a business factor in industry is gradually passing in this country.

Management and men now perceive the invisible, though none the less important, economic losses that follow in the train of misunderstandings and strife. Labor now approaches its problems with a much broader and more practical sense of responsibility to the real interests of the workers than was the case even a few years ago. We find now on both sides of the industrial relations table an earnest desire for industrial peace and uninterrupted employment.

Since April 3, 1931, the effective date of the Davis-Bacon prevailing rate law, which was approved by President Hoover on March 3, 1931, the Conciliation Service of the Department of Labor, in cooperation with other services and bureaus of the Federal Government, has been particularly active in assisting in bringing about the application of this law. This law specifically provides that the rate of wages for laborers and mechanics employed on public buildings of the United States and the District of Columbia shall not be less than the prevailing rate of wages for work of a similar nature in the State, town, village, or other civil division of the State or Territory in which the public buildings are located.

## Bureau of Labor Statistics

THE disturbed industrial conditions of the past several months have greatly stimulated the interest in and the use made of labor statistics. This interest has been directed primarily to matters of employment and unemployment, but by no means exclusively so, as consideration of employment problems leads ultimately to questions of wage rates, short-time work, prices, cost of living, technological changes in industry, old-age pensions, labor productivity, and similar subjects. The problem confronting the Bureau of Labor Statistics, therefore, was to expand very considerably its work in the immediate field of employment statistics without too seriously curtailing its activities in other directions. Necessary financial assistance was obtained in the form of a special appropriation by Congress. This additional appropriation permitted the bureau to make plans for extending its work in the field of employment. This extension of work has been mainly along two lines: First, the expansion of the bureau's monthly statistics on volume of employment, and, second,

more comprehensive studies than had previously been possible of the effects of technological changes in industry upon employment.

In addition to building construction the following industries were added to the list covered by the bureau's monthly employment reports: Beet sugar, beverages, cash registers, typewriters, laundries, and cleaning and dyeing. With these additions the total number of establishments covered in June, 1931, had passed 50,000, the number of employees was close to 5,000,000, and the weekly pay roll more than \$110,000,000. For most of the industrial groups it is felt that the coverage is now sufficient, and attention is being directed primarily to the inclusion of new groups.

Next to securing the facts regarding the trend of employment on as comprehensive a scale as possible, the most important work which the bureau can undertake at this time undoubtedly lies in the field of so-called technological unemployment. Certain aspects of this subject have been covered in the bureau's reports on labor productivity in the glass, printing, merchant blast furnaces, cargo handling, and other industries. Other studies, dealing specifically with technological unemployment, are now under way for the telephone and telegraph industry, cigar manufacture, and professional musicians, and still others are planned for the immediate future.<sup>1</sup>

Also bearing on the subject of employment was an important although brief survey made by the Bureau of Labor Statistics as to the practicability of winter work in the construction industry.

In connection with the subject of unemployment there should also be noted a study by the Bureau of Labor Statistics of unemployment benefit plans in the United States.

A study of the operation of State old-age pension systems in the United States, made early in 1931, gives a fairly complete picture of the present status of this important subject in this country.

#### Children's Bureau

DURING the fiscal year 1931, 19 new and revised publications were issued and 4 were in press at the close of the fiscal year. The most important of those issued are as follows:

*Maternity and infant hygiene.*—No. 203, The Promotion of the Welfare and Hygiene of Maternity and Infancy—The Administration of the Act of Congress of November 23, 1921, for fiscal year ended June 30, 1929; No. 4, Prenatal Care (revised July, 1930); The Federal Government in Relation to Maternity and Infancy; Present Status of Maternity and Infancy Legislation; The Seven Years of the Maternity and Infancy Act.

*Child hygiene.*—No. 202, Are You Training Your Child To Be Happy? No. 205, Posture and Physical Fitness; Folder No. 9, Keeping the Well Baby Well (revised July, 1930).

*Child labor.*—No. 199, Child Labor in New Jersey—Part 3, The Working Children of Newark and Paterson; No. 204, Children of Working Mothers in Philadelphia—Part 1, The Working Mothers; First Regular Employment Certificates Issued to Working Children in 1929.

<sup>1</sup> Since the period covered by this report, the results of the studies of musicians and the cigar industry have been published in the Monthly Labor Review (issues of November, 1931, pp. 1-15, and December, 1931, pp. 11-17).

*Delinquency and dependency.*—Collection of Social Statistics by United States Children's Bureau; Cost of Family Relief in 100 Cities, 1929 and 1930.

*Child Welfare News Summary.*—The Child Welfare News Summary was issued 28 times and sent to a mailing list of approximately 1,000 persons actively engaged in child-welfare work and child-welfare agencies and publications.

*General increase in the work of the bureau.*—Demands on the bureau have greatly increased during recent years, especially the past year, because of the cumulative effect of the bureau's nearly 20 years of service, the depression, and the White House Conference on Child Health and Protection.

*Child welfare in Porto Rico.*—At the request of Gov. Theodore Roosevelt the bureau sent a specialist in child care to Porto Rico in January to study dependency and neglect of children in the island and advise with him on the organization of such additional or special services as seem called for on the part of the Government to meet the needs of Porto Rico. The bureau's assistance was requested in working out plans for more adequate administrative organizations for service to children. An advisory committee was organized, consisting of the commissioners of health and education, the attorney general, and the members of the board of child welfare. The governor was of the greatest assistance to this committee. A preliminary study of the two public asilos was made, and plans were developed for the reorganization of the work of the board of child welfare and for the administration of the boys' asilo. The governor has requested the continuation of the consultation and advisory service by the bureau for the coming year.

#### Women's Bureau

THE bureau has recently completed several studies that should prove useful in the Nation's concerted effort to learn the causes, alleviate the consequences, and prevent a recurrence of the existing stagnation of business. One of these reports is on fluctuation of employment in the radio industry and the other two studies, still in manuscript form, are: Wage-Earning Women and the Industrial Conditions of 1930, a survey of South Bend, and The Effects on Women of Changing Conditions in the Cigar and Cigarette Industry. The radio report shows clearly that this new industry is itself so seasonal that it can not be looked to for the permanent absorption of labor displaced in other lines of manufacture. The second presents the findings of a house-to-house canvass of certain industrial wards in South Bend and Mishawaka, Ind., in the late summer of 1930, when 3,245 women contrasted their employment status earlier in the year and at time of interview. In some 2,700 cases the other wage earners in the family also were reported upon. Corroborative figures were secured from employers' pay rolls. For a week in September, 1929, and one in September, 1930, average hours and earnings are contrasted, and for a smaller number of women the fluctuation from month to month during the 12-month period is shown. The third report deals with the effects on women of the substitution of machine for hand labor in the cigar and cigarette industries.

The bureau has a number of important projects in hand, notably its many-sided study of human waste in industry, involving changes



in processes which cause displacement and unemployment, the effects on women of migrations and consolidations of industries, the preventable causes of physical deterioration. A report on women's employment in the spray enameling of stoves will shortly be ready for the press.

Approved standards, State laws, and actual conditions in industry are being studied in the cases of drinking facilities (available as Bulletin 87), toilet facilities, lighting, heating and ventilation, the prevention of fire hazards, and other employment conditions.

### Housing Corporation

ON FEBRUARY 23, 1931, Congress passed an act relating to the United States Housing Corporation, providing as follows:

That the directors of the United States Housing Corporation of New York and the United States Housing Corporation of Pennsylvania may, with the approval of the Secretary of Labor, appoint the chief clerk, or other officer of the Department of Labor, to act as their president, or as their immediate representative in charge of administrative work, such departmental officer to serve without compensation in addition to the salary of his official position, and the directors of these corporations may in like manner designate the disbursing clerk for the Department of Labor to act in a similar capacity for the corporations, and after such designation has been made all funds coming into the hands of said disbursing clerk shall be treated as funds of the United States to be accounted for under his official bond.

The Secretary of Labor proceeded to carry out all of the provisions of this act by effecting the reorganization of the corporation. He approved the selection made by the board of directors of the United States Housing Corporation of New York and the United States Housing Corporation of Pennsylvania of the Solicitor of the Department of Labor to serve as president and the disbursing clerk of the department to act in a similar capacity for the corporations. By consolidating positions, by centralizing in the Washington office the major portion of the work previously performed in the field, by curtailing office space and utilizing existing facilities of the Department of Labor in connection with the work of the corporation, he was able to set up an efficient organization at a cost of approximately 3 per cent of the annual collections of the outstanding balances of purchase moneys due the Government, and thereby effected a reduction of \$33,950 in the operating expenses of the corporation for the coming fiscal year.

The collections made by the corporation on account of sales of properties in 25 widely scattered housing projects for the last six months of the past fiscal year totaled the sum of \$206,216.89, which was covered into the Treasury of the United States, without deduction, as miscellaneous receipts of the Government.

### Conclusion

IN CLOSING his report the Secretary said, in part:

We have ample resources, but the question is how to apply the same to meet these changing evolutions in our economic and social life. At the same time we feel sympathetic with the world, and in these days of depression it is our belief that improvement in our own country will make for improvement in other countries which are our neighbors and who feel the effects of many of the same circumstances which affect us here.

As Secretary of Labor it shall be my aim to strive to cope with these problems in a broad, liberal way, feeling, as a representative of our Government, that it is the will of our people to steadfastly cling to our code of peace and prosperity for all, and tolerance and good will for the peoples of the world.

### Handbook of Labor Statistics, 1931 Edition

**T**HE third handbook of labor statistics prepared by the Bureau of Labor Statistics was issued recently as Bulletin No. 541 of the bureau. This 1931 edition follows the same general lines as the former handbooks and supplements them by presenting a digest of the material published during the two years since the 1929 volume was prepared.

References to the former handbooks are given where the earlier material seemed still to be of particular value, but no attempt was made to compile a complete series of cross references, and a reader who is interested in a particular topic should consult all three handbooks. Thus used, the three volumes constitute, it is believed, a convenient abbreviation of most of the published work of the Bureau of Labor Statistics.

The material published in the present volume, as in the earlier handbooks, represents in large part the original work of the Bureau of Labor Statistics, but this is not entirely the case, as the bureau does not attempt to cover certain fields of interest to labor which already are covered adequately by other official agencies. The bureau does, however, endeavor to follow in the Monthly Labor Review such of the activities of other agencies, both official and nonofficial, as have a labor interest, and in the preparation of the 1931 handbook has drawn upon their work.

The scope of, and the limitations upon, the labor statistics available for the United States are indicated quite clearly by the contents of these handbooks. Certain subjects of primary importance are covered with reasonable adequacy by various official agencies, but other subjects of possibly equal interest are covered very inadequately. These deficiencies are due principally to the insufficiency of resources on the part of the Bureau of Labor Statistics and other agencies. The collection of satisfactory labor statistics is a difficult and costly matter in a territory as large as the United States and one with such divergent characteristics. Nevertheless, in recent years there has been a marked improvement in all phases of this work, largely due to increased cooperation on the part of employers, employees, and the various public and private organizations.

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### 1931 Meeting of Personnel Research Federation

**T**HE Personnel Research Federation held its tenth annual meeting in New York City on November 12 and 13, 1931. The federation is composed of business and manufacturing firms, national associations, labor organizations, Government bureaus, research and social agencies, and educational institutions, for the furtherance of research activities in the personnel field.

Employment problems and plans for occupational readjustment of those whose jobs are apparently permanently lost occupied most of the sessions. The effort of New York State to establish a model employment office was outlined by officials of the experimental office in Rochester, who set forth the purpose, plan, and methods of that office.

Experiments under way in Minnesota, through the University of Minnesota Employment Stabilization Research Institute, were reported upon, showing particularly what the institute is trying to do in the way of guidance and readjustment for unemployed individuals. While this is a measure of emergency relief, it is primarily a psychological approach to a determination of the basis of selection which operates when workers must be let out. To that end the institute is attempting a similar concurrent psychological study of the workers retained in employment.

Papers presented included an interesting report on the experiment which a large industrial establishment is making to rehabilitate and reassign its own employees injured in industrial or public accidents and to retain them within the plant. Comparative records of work, attendance, efficiency, and accidents of the physically fit and the physically impaired, working in teams, were presented, which tended to show that within the fields open to them, handicapped workers make as good work records as their normal colleagues.

The director of the Vocational Survey Commission of the New York Board of Education gave a report of progress on the work of adapting vocational training methods to modern processes and manufacturing conditions.

# HEALTH AND INDUSTRIAL HYGIENE

## Work Environment as a Factor in the General Health of Workers<sup>1</sup>

By BERNARD J. NEWMAN, DIRECTOR, PHILADELPHIA HOUSING ASSOCIATION

**I**N DISCUSSING the influence of work environment on the health of industrial workers, we are concerned primarily with the predisposing causes of disease; not with the exciting causes. Adverse work environment, including bad housing, is not, of course, a disease in itself. One can not subject it to microscopic examination and isolate a pathogenic bacillus to which a name may be given. It can not be subjected to laboratory analysis to determine its chemical constituency, nor can one so label it in the nomenclature of causes of death that the physician may incorporate it on his death certificate. Nevertheless, this does not minimize the importance of the problem since the predisposing causes of which it is one are often as great a menace as the organisms of disease, or the industrial poisons that destroy cell life and inhibit the normal functioning of the body organs.

To the industrial hygienist this may seem trite. Gifted with an inquisitive mind, he seeks and finds causes for industrial diseases not only in the chemical and physical properties of the elements and compounds handled in industrial processes but also in the faulty hygiene of the worker and of the work place. That he can reduce the frequency and severity of industrial diseases through improved plant practices demonstrates that often the serious aspects of such operations are not the materials themselves so much as the way they are handled. Some processes are always potential hazards, but by means of plant or personal hygiene the danger from them may be reduced or eliminated.

If the hygienist limited his research to the demonstration of a specific compound as the exciting cause of an industrial disease, very little progress in the maintenance of industrial health would be made. Because health research in industry recognizes the part played by working conditions and the work habits of the industrial worker, and institutes plant improvement programs directed against them, progress in industrial health has been rapid.

Out of such recognition of working conditions as causal factors in industrial sickness have come definite programs to eliminate defects in plant sanitation, faulty illumination, excessive temperatures, insufficient or excessive humidity, excessive noise, monotonous or heavy labor responsible for excessive fatigue, overcrowding of workrooms, and faulty employment practices that create irritating human relationships and wrong mental attitudes among workers toward plant management.

Thus, from the known hazard attendant on the use in the plant of poisonous compounds, designated here as the exciting causes, and the known influence of adverse plant conditions, designated here as contributing causes, the hygienist is able to develop a preventive program which reduces the incidence of industrial diseases. The question here is, Does he go far enough in determining all the factors that affect the health of the worker and so influence his efficiency as a producer?

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<sup>1</sup> Reprinted from *American Journal of Public Health*, December, 1931.

The primary function of the hygienist, whether in research or counsel to the plant management, is to evaluate every major factor that has a bearing on the health of the worker or that increases his susceptibility to disease whether of a communicable, degenerative, or industrial nature. Only as his analysis is comprehensive can he state specifically the responsibility of any set of causes. This is not an academic judgment, since the comprehensiveness of his knowledge and the programs based upon it affect alike the practicality of the measures he recommends to the plant and the thoroughness of the protection he gives to the worker. Moreover, in so far as he tries to approach his problem as a scientist, he must include in his research every major field influencing the health of the workers. The line of demarcation of his analysis can not scientifically be the plant boundary; it must necessarily be advanced beyond this to include the home environment of the worker and the factors there which have a tendency to lower body resistance or increase susceptibility to any disease.

This is conspicuously exemplified in the study of fatigue. The predisposing causes recognized by the hygienist as being associated with certain plant processes or conditions which induce excessive fatigue are not always of plant origin. Indeed, much of the so-called "industrial fatigue" does not arise within the plant, though often so credited, but is a compound of plant activities and home or other environmental conditions which deny to the worker adequate rest. Thus, overcrowded neighborhoods, congested sleeping quarters, poor ventilation with excessive temperatures, all tend to prevent normal rest and deny the recuperation which should follow a day's toil. There is thus produced a cumulative effect from industrial fatigue and disturbed rest which leaves the worker more susceptible to adverse working conditions and processes.

Other nonhygienic home conditions produce results similar to those associated with adverse plant conditions. Moreover, the deenergizing effect of depressive environment has many physical and mental complications which can not be overlooked. Needless to say, any program for the maintenance of industrial health which concentrates on environment within the plant, and disregards the homes of workers outside, renders the employer a restricted and oftentimes misleading service. It can not but dub the hygienist as a pseudoscientist.

To anyone with only a casual knowledge of the housing field these comments may seem unwarranted strictures. It may be alleged that the industrial worker's home is the same type as the average home of the community, and thus its defects should be the concern of the public health department. It may be claimed that lack of a pure water supply, of sanitary equipment or of sanitary sewage and waste disposal, overcrowding, abnormal or subnormal temperatures in certain types of homes, caches of filth and vermin, are the community's obligation, with industry absolved from all responsibility except as its managers are citizens. The industrial hygienist may likewise believe his responsibility is only social and not professional—although his greater knowledge of the consequences of insanitary conditions should make this interest somewhat keener—and that his sphere of research is restricted to the determination of plant health hazards.

To one who has specialized in both housing and industrial hygiene this attitude seems grossly unscientific. The scientific mind is the



searching mind. It is looking for causes. It does not limit its field of research, if by so doing it stays its search short of knowing all the factors that may affect the results. This does not mean that in research into lead poisoning one must initiate a housing program. It does mean that if we ignore the influences of the homes we may mistakenly conclude that certain processes are nonhazardous because we may have a large percentage of employees who live under conditions that help to maintain their physical condition and are therefore less susceptible to special hazards.

The reverse may be true. There is a tendency to blame the plant when the substandard home is equally at fault. The high incidence of special diseases in some industrial plants may be due to the low physical resistance of the workers because they are exposed during nonworking hours to slum living conditions. Personal hygiene and certain habits that we associate with predisposing causes are included in our schedules of physical examinations; plant conditions are considered, but living conditions have received only cursory attention. This seems absurd, but it is true. Consequently, the effect of the work environment outside the plant is not emphasized and any interest displayed in the workers' living conditions is on an emotional basis rather than because the managers consider it good business to assist their employees to attain wholesome homes. Unfortunately, this is the least satisfactory basis for sustained, constructive interest. Yet to-day in the United States the health hazards to industrial workers which arise from home environment constitute a major problem. The worker is heavily handicapped, his earning capacity reduced, and the employer unnecessarily burdened with added production costs. There is a trend in our cities toward decentralization, in part induced by tax burdens but largely because the labor supply is substandard. Factories are moving to the country where they can find relief from these cost-increasing factors. Any brief survey of urban conditions is sufficient to demonstrate the prevalence of substandard housing in areas where wage earners live.

The characteristic defects of such areas are conspicuous: Congested buildings, often of the multiple type of occupancy; room overcrowding; a high percentage of families occupying apartments of one and two rooms and often living in basements, cellars, and back-lot houses; insufficient natural light and substandard artificial light; excessive temperatures; inadequate sanitary equipment; insanitary drainage; widespread prevalence of filth both within and without the dwellings; unsafe structures; insufficient play space for children; street hazards; widespread nuisances in the form of defective plumbing, flooded cellars, and damp rooms; general drabness and deterioration of whole neighborhoods which exerts a depressing effect upon the population. Ten per cent of the workers of the country are exposed to some or all of these conditions, nor are they limited to large urban centers although they are more conspicuous there due to segregation. Even the smaller cities and villages have their areas of substandard dwellings and subnormal living.

It is not true, as some imagine, that the slums house only the day laborer. They provide quarters for the so-called skilled-trades workers as well. Throughout the country, these blighted areas are inducing an irregular manner of living; they are furnishing a large percent-

age of the causes for the spread of communicable diseases; are undermining public health; and in a measure are responsible for the accelerated fatality of the degenerative diseases.

The criticism of the existence of such areas can not be refuted on the grounds that the inhabitants are content with their homes. There is no justification for inactivity in the belief that such persons, if given good housing, would continue in the manner of living from which they had been removed. Even if this statement, which is false in 90 per cent of the cases, were true, it would be no answer to the problem presented by these individuals and their homes. Their threat to society alone would justify any amount of attention to housing betterment; but our interest is not in the general menace of existing conditions but rather in their specific handicap to efficient labor, because industry is frequently falsely accused of maintaining hazardous working conditions producing disease and ill-health, when actually the situation is complicated and accentuated by the insanitary state of the homes the workers occupy.

The statistical records prove that occupants of substandard houses and areas show abnormally high morbidity and mortality rates, high percentages of physically unfit workers, many lacking the right mental attitude or intelligence to accomplish the work assigned to them in the plant or to stabilize their employment by continuing their jobs under normal conditions. In times of slack employment, the workers with poor environmental conditions are the first to be laid off, but in times of normal business they must be employed because they constitute the only extra labor supply available. When employed, they contribute a high rate of absenteeism on account of sickness, and cause a costly labor turnover which affects production costs.

Because of the prevalence of adverse living conditions and their reaction upon the physical and mental health of workers, the industrial hygienist must, if he is to do scientific research, carry his studies beyond the plant boundaries, and furthermore if he is to advise the plant management wisely, he must emphasize the disadvantage of such adverse living conditions to industrial workers. Housing specialists do not characterize bad housing as an exciting cause of disease, but they do emphatically believe that it is a predisposing cause, which is relatively as important in the final physical breakdown as many exciting causes more frequently emphasized.

The object of this analysis of the health of industrial workers is to assure due valuation of the contributing part played by environmental factors on the one hand, and on the other, to call the attention of plant managers to an aspect of their problem which has been generally neglected. Industry is not to be encouraged to finance housing schemes, but it should formulate a program which will assure the elimination of bad environmental conditions for employees.

Industry does not need to build towns or model dwellings for its workers in order to insure adequate standards of living. It can exert its influence on safe, wholesome living conditions by establishing and giving adequate publicity to an employment policy which gives preference to those workers who have shown, or will show, an intelligent self-interest in avoiding the occupancy of substandard dwellings or areas.

Where the supply of sanitary houses is adequate but the business judgment of the worker poor, industry can promote thrift associations such

as building and loan societies to facilitate home ownership; where the supply within the buying or renting ability of its employees is insufficient, industry can, by means well within its sphere of interest, encourage builders to erect new houses, and urge owners to recondition those old houses which are within a reasonable distance from the plant. If the situation is chronic, as it is in large urban centers, plants can be moved to suburban areas or to smaller towns where more normal living conditions will be assured.

It is not our purpose here to outline and define industry's program for adequate housing of employees so much as to indicate that a reasonably selfish interest dictates a recognition of the part played in economic organization by insanitary housing. Good judgment necessitates the inclusion of housing data in analyses of the hazard of industry, and, in the event that a causal relationship is found between environmental conditions and the diseases they are studying, these findings should be emphasized so that plant managers will feel it incumbent upon them to develop a program adequate to meet the situation.

# INDUSTRIAL ACCIDENTS AND SAFETY

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## Safety Code for Transportation in Coal Mines

**A** SAFETY code for coal-mine transportation has been developed under the sponsorship of the American Mining Congress by representatives of 11 national organizations and interested bodies, and approved by the American Standards Association. The code has been in preparation since 1924, and during this period five complete drafts were prepared before a code was obtained which was satisfactory to all interests.

Specifications and suggestions are presented covering all phases of coal-mine transportation, underground, above ground at the mine, and on slope or incline into the mine; motor haulage, animal haulage, mechanical haulage, haulage by hand; signals and provisions for safety in construction, trucks, cars, clearances, and loads; and operating rules.

It is recommended that coal-mine operators post in conspicuous places the rules and regulations, schedules of running, warning, signal codes, and safety requirements, so that locomotive drivers, trip riders, hoistmen, and others, may know them, and that every man connected with haulage shall be required to be familiar with the contents of the code.

Many references are made throughout the text to other safety codes and rules for the coal-mining industry, which contain further details on some of the subjects covered. These are: Coal-mine tracks, signals, and switches, American tentative standard; safety rules for installing and using electrical equipment in coal mines, American standard; coal-mine ventilation, American Mining Congress recommended practice; wire rope for mines, American tentative standard; rock dusting of coal mines, American recommended practice; and use of explosives in bituminous coal mines, American recommended practice.

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## Safety Code for Mechanical Refrigeration

**A** NATIONAL safety code for mechanical refrigeration, both commercial and domestic, has been prepared by a technical committee under the direction of the American Society of Refrigerating Engineers and has been approved by the American Standards Association. The technical committee, which has been working on the project since 1920, consisted of representatives from 28 national organizations.

The regulations cover the installation, operation, and inspection of refrigerating apparatus used in the manufacture or processing of materials, such as ice-making plants, cold-storage warehouses, ice-cream plants, dairy plants, packing houses, and chemical plants; apparatus used in commercial plants, such as meat markets, florist shops, and restaurants; apparatus used in multiple residence buildings; and cooling or air-conditioning systems of theaters and other buildings.

Refrigerating systems are divided into five classes, according to the amount of refrigerant required for operation, class A consisting of systems containing 1,000 pounds or more, and class E of systems containing 6 pounds or less.

The code applies to direct methods of refrigeration, in which the refrigerant is circulated through the system, and to indirect methods, in which brine or water cooled by the refrigerant is circulated through the system.

Several sections are devoted to safety devices, which must be provided in all types of refrigerating devices, and one of the provisions, which permits the installation of multiple systems in apartment houses with adequate safeguards to eliminate possible hazards, ends a controversy of long standing on the subject. A multiple system is a refrigerating system employing the direct method in which the refrigerant is delivered by a pressure-imposing element to two or more separate refrigerators or refrigerated spaces located in rooms of separate tenants.

According to information from the American Standards Association, the code has been adopted in its entirety by several cities, and others are considering its adoption.



# LABOR LAWS AND COURT DECISIONS

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## Decisions of Courts and Opinions Affecting Labor, 1929 and 1930

THE fifteenth bulletin in a series devoted to the presentation of decisions of courts and opinions of the Attorney General construing and applying labor laws of the United States has been published by the United States Bureau of Labor Statistics and is now in press. This bulletin (No. 548) covers the decisions of courts and opinions during the years 1929 and 1930.

In selecting the decisions to be published, cases were taken which were of special interest and importance not only to labor in general but also to students interested in the relation of employer and employee. Despite the very general enactment of workmen's compensation laws, a considerable number of cases still come before the courts, even in compensation States, involving suits for damages, under either the common law or its statutory modifications. Cases of this nature will be found in the bulletin under the general heading, "employers' liability."

The phrase "injury arising out of and in course of the employment," found in most of the compensation laws of the United States, apparently causes the greatest amount of controversy and the most frequent appeals to the courts. A number of the cases listed under workmen's compensation involved this question. Various phases of child labor legislation are also involved in cases under employers' liability and workmen's compensation as incidental to the redress of accidental injuries.

Other cases involving legislation and rules of law as applying to seamen, wages, and contracts of employment are included. Many cases involving the status and power of labor organizations in their different aspects and activities and the constitutionality of a number of statutes relating to labor are also included in the publication.

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### Arizona Prevailing-Wage Law Declared Unconstitutional

IN A recent decision the Supreme Court of Arizona declared unconstitutional the Arizona statute requiring the payment of the current daily wage in the locality where the work is performed, because the statute is indefinite and uncertain. (*State v. Jay J. Garfield Bldg. Co.*, 3 Pac. (2d) 983.)

The Jay J. Garfield Building Co. was charged with violating section 1350 of the Arizona Revised Code, 1928, in failing to pay one of its employees the current rate of wage for work on the construction of a school building in Pima County, Ariz. It was contended that if the statute were enforced the employer would be deprived of liberty and property without due process of law, in violation of the fourteenth amendment to the United States Constitution and section 4 of the Arizona constitution because the statute was too indefinite and uncertain and because of the fact that whether an act was lawful or unlawful under the statute was left to conjecture, guess, and reasonably different constructions.

In determining the question involved in the case the court said:

It is the validity of the current wage feature of the statute that is in question. The right of the State to limit the hours of labor upon public works for itself or its political subdivisions has long been settled law (*Atkin v. Kansas*, 191 U. S. 207), and it seems the prevailing rule so declared for a like reason is that the State and its political subdivisions may establish a minimum rate of wages for laborers upon public works (16 R. C. L. 497, sec. 68).

It is not, then, a question of the power of the legislature to prescribe a current rate of wages for manual and mechanical labor on public works, but whether that phrase in its context is sufficiently clear and definite to inform the employer of the per diem he should pay to satisfy the law. If the employer, supposing him to be a person of ordinary intelligence, is not able, as between two or more alternative wages that are open to him, to determine which would be a compliance with the statute, it can not be said the statute is definite and certain, for in such case the court might conclude the alternative adopted by the employer was the wrong one.

The court, after reviewing the cases involving criminal statutes of vague and uncertain meaning, adopted and approved a statement of the rule as found in the United States *v. Capital Traction Co.* (34 App. D. C. 592), as follows:

The dividing line between what is lawful and unlawful can not be left to conjecture. The citizen can not be held to answer charges based upon penal statutes whose mandates are so uncertain that they will reasonably admit of different constructions. A criminal statute can not rest upon an uncertain foundation. The crime, and the elements constituting it, must be so clearly expressed that the ordinary person can intelligently choose, in advance, what course it is lawful for him to pursue. Penal statutes prohibiting the doing of certain things, and providing a punishment for their violation, should not admit of such a double meaning that the citizen may act upon the one conception of its requirements and the courts upon another.

Applying this rule to the statute in question, the court held that the terms, "current rate of wage" and "locality" were indefinite and uncertain and fatal to the validity of the statute. In conclusion the court cited the case of *Connally v. General Construction Co.* (269 U. S. 385) and said that "as it was the last and only direct affirmative expression" of the United States Supreme Court that statutes requiring the employer to pay the current wage were invalid, this court was bound to follow it.

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### Employment Agency Failing to Investigate Applicant Held Liable for Damage Caused by Her Dishonesty

**T**HE Court of Appeals of the District of Columbia has held that a licensed employment agency which has registered an applicant without investigating the address or references of such applicant as required by law, is liable in damages for any loss occasioned by the dishonesty of the hired employee (*Janof v. Newsom*, trading as The Eureka Employment Exchange, 59 Washington Law Reporter, 794).

From the facts in the case it appears that one Bertha Janof telephoned to an employment agency for a servant. The employment agency thereupon sent one in response to the call and the servant was at once hired. On the following day the servant disappeared, together with property valued at approximately \$1,000. The employer brought an action against the agency, alleging failure on the part of the agency to perform a duty as required by the statute. The statute involved is the employment agency act of June 19, 1906 (34 Stat. 304, ch. 3438, D. C. Code 1929, title 20, part 9, secs. 941-951). The statute pro-

vides among other things that it shall be the duty of the licensed agent to make a permanent record of "the name and address of the applicant to whom employment is promised or offered, the amount of the fee received, and, whenever possible, the name and addresses of former employers or persons to whom such applicant is known." The statute further requires that wherever possible the licensed agent must orally communicate with, or write, to at least one of the references in the case of work in fiduciary capacities. The employer relied upon the statement of the agency that the servant was a recommended one and accepted her because of such recommendation.

The agency defended on the ground of the statements of two former employers of the servant that her services were satisfactory in every respect. The Court of Appeals, however, to which the case was appealed after a judgment by the Municipal Court of the District of Columbia in favor of the agency, stated that no matter how the statements of the former employers were initiated—

The result of these alleged communications was not recorded and filed in the agency, as the statute required, and consequently was not available to the officers in their search, nor was it mentioned to them by the defendant when she could give no information about the servant except her wrong address. In this connection, the defendant testified that while she knew the law required her to investigate references, she did not know it required her to record the results thereof.

The court held that a mere perfunctory compliance with the law was insufficient and that—

If injury results from a failure to do the things which it is the obvious purpose of the statute to require, or from a failure to make a reasonable effort in good faith to do them the licensed agent is answerable in damages.

When the statute requires the agent to register the address of an applicant for work, the true address must be registered, so far as reasonable investigation can reveal it. And the giving of a false address should put the agent on notice and inquiry. But here a false address was accepted, and carried in the register for more than a year, when the slightest effort at verification would have revealed its falsity.

The Court of Appeals reversed the lower court and concluded the opinion by stating that—

The mere recording of any address offered by any applicant with no verification thereof, with no demand for or investigation of references, does not comply with the statute. If a servant so registered is sent to an employer by a licensed agent, and damage thereby results to the employer, the very injury has occurred which the statute intended to prevent, and consequently the violation of the statute is the proximate cause of the injury. (20 R. C. L. 43; *Norman v. Coal Co.*, 68 W. Va. 405; *Leonard v. Doherty*, 174 Mass. 565.)

We consider that the requirements of the statute include a reasonable effort in good faith to verify statements made by applicants and to investigate and record their references in return for the monopoly conferred by the licenses of the statute.

If this license is of so little value when obtained as not to compensate the agent for the labor and expense of performing such statutory obligations—as the defendant contends—it need not be applied for, and it can always be surrendered.

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### Newspaper Distribution Held not Violation of Kansas Sunday Labor Law

THE Supreme Court of Kansas held, in the case of *State v. Needham* (4 Pac. (2d) 464), that the work of distributing the metropolitan Sunday newspaper was "work of necessity" and therefore does not violate the provisions of the Kansas Sunday labor law.

It was alleged that on a certain Sunday Berle Needham exposed for sale and sold the Sunday Kansas City Star, and furthermore, that on the same Sunday he compelled certain persons under his charge and control to work in distributing the papers. This conduct on the part of Needham was alleged to have violated section 21-952 of the Kansas Revised Statutes for 1923, which reads as follows:

Every person who shall either labor himself or compel his apprentice, servant, or any other person under his charge or control to labor or perform any work other than the household offices of daily necessity, or other works of necessity or charity, on the first day of the week, commonly called Sunday, shall be deemed guilty of a misdemeanor, and fined not exceeding \$25.

The district court, Dickinson County, Kans., sustained the position of the company on the theory that metropolitan newspapers are a necessity. Thereupon the case was appealed to the Supreme Court of Kansas. In affirming the decision of the lower court, the supreme court said:

At this stage of the world's progress, with the means of gathering news that are available, we have grown to expect far more expeditious service on the part of the newspapers of the State than was received during the days when the statute in question was passed. \* \* \* This court will take judicial notice of the fact that these demands are met by the Sunday papers of our larger cities. From the small boy whose first thought on arising Sunday morning is the comic section, to the son grown older who turns eagerly to the sport page, the young daughter who peruses the society columns, and father and mother who turn their attention to the more serious pages, the Sunday paper is looked upon and has grown to be a necessity, and this court so holds.

### Rate of Pay for Scrub Women Employed by State of Massachusetts

**T**HE Legislature of Massachusetts during the 1931 session fixed the rate of pay for scrub women employed by the Commonwealth at \$18 for 33 hours' work. Chapter 372 of the Session Laws of 1931 amended section 5 of chapter 8 of the General Laws, 1921 (as subsequently amended) so as to read as follows:

The pay of scrub women employed by the Commonwealth shall be based upon a regular weekly rate of \$18 for 33 hours' work. When time is lost or a greater number of hours are worked by them than the aforesaid 33 hours, the resulting reductions or additions shall be based upon an hourly rate of 55 cents, and they shall be allowed for time off on legal holidays at the regular weekly rate. Scrub women or cleaners regularly employed by the superintendent of buildings shall be paid weekly, and when so employed for a period of at least six months shall be entitled to a vacation each year of two weeks' duration with pay. Such pay shall be based upon the average weekly compensation received by them for the preceding six months' period of employment.

### Works Councils and Working Hours in Estonia<sup>1</sup>

**O**N JULY 10, 1931, the Estonian State Assembly adopted two labor laws, one relating to the establishment and status of works councils and the other to the working hours in the industrial establishments in Estonia.

*Works councils.*—The law in effect replaces the Government regulations of 1919, under which no action could be brought against a manu-

<sup>1</sup> From report by Edward Hunt, clerk of the United States consulate, Tallinn, Estonia, dated Sept. 11, 1931.

facturer who might have been opposed to the so-called "shop elders." The new law provides a legal basis both for the election of members of works councils and for the functions of the "shop elders." It is believed that the new law will have several advantages over the old regulations of 1919. Thus after the enactment of the new law it will be the duty of works councils to assist manufacturers in the rationalization of the methods of production, in settling disputes with workers, in protecting the interests of workers, etc. All these functions, as outlined in the new law, are expected to be of considerable importance in the operation of different industrial enterprises. The manufacturer, under this law, is required to submit to the "shop elder" quarterly statements descriptive of the status of his industrial enterprise. The former must not undertake any mass discharges or engagement of workers without having first consulted the "shop elder."

*Hours of labor.*—The law respecting the working hours in industrial enterprises introduces the 8-hour working-day in Estonian industries. It also places the limit of overtime working hours at 75 hours per year for each worker, which limit may be supplemented by an additional 100 hours a year, under special authorization from the Minister of Labor. Overtime work, however, is not to exceed 2 hours per day, a 10-hour working-day being the cumulative limit. Workers are scheduled to receive at least 50 per cent additional pay for overtime.

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### Law Providing for Vacations with Pay, in Basel, Switzerland

**A**REPORT from Vice Consul Albert W. Scott, Basel, Switzerland, dated September 22, states that, as the result of a favorable referendum vote, a law has been put into effect in Basel which provides that all wage earners must be given annual vacations with pay, the duration of the vacation depending upon the length of service of the individual. The law was passed by the cantonal legislature of Basel City in June but with the provision that it should be submitted to a popular vote before it should become effective.

The new law will benefit a relatively small number of persons, as factory workers whose hours are regulated by Federal legislation are excepted from its provisions. However, all other employees, including domestic servants, are entitled to vacations if they have worked for the same employer at least one year. During the first four years following the first year of employment a vacation of 6 working-days must be given; from the sixth to the tenth years the employee is entitled to 9 days, and after the tenth year to a vacation of 12 days, not including holidays and Sundays. Vacations may be given at any period of the year but it is recommended that the wishes of employees shall be given as much consideration as possible. The regular wages must be paid and if board and lodging form part of the pay, as in the case of domestic servants, an additional sum varying from 2 to 5 francs (38.6 cents to 96.5 cents) per day must be paid, depending upon the nature of the employment. Office employees, the sales force in mercantile establishments, and workers in several other classes were already receiving vacations with pay, so that the new legislation will benefit chiefly domestic servants and workers in the smaller industrial establishments.



# WORKMEN'S COMPENSATION

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## Workmen's Compensation Legislation of 1931

OF THE 44 States having workmen's compensation laws, the legislatures of all met in regular session during 1931 with the exception of three (Kentucky, Louisiana, and Virginia). Of the 41 States whose legislatures so met, 33 acted on the subject of workmen's compensation either directly or indirectly. Of the 4 States (Arkansas, Florida, Mississippi, and South Carolina) still without the benefits of workmen's compensation, the legislatures of all but Mississippi met in regular session but took no definite action toward adopting a State workmen's compensation law. Extra sessions were also held in approximately 20 States, but in none of these special sessions was the subject of compensation acted upon.

The third session of the Seventy-first Congress of the United States was also held during the spring of 1931, but made no change in the basic compensation laws applicable to Federal employees, long-shoremen and harbor workers, and private employees in the District of Columbia.

Four Territorial legislatures met in regular legislative session in 1931. Alaska made no change in its workmen's compensation law, while Hawaii, Porto Rico, and the 1930 legislature of the Philippine Islands made several changes, mainly of minor importance.

Of the eight Canadian Provinces, five (British Columbia, Nova Scotia, Ontario, Quebec, and Saskatchewan) acted on the subject during the legislative year of 1931. A new law was enacted in Quebec similar in many respects to the Ontario law; thus, the law provides for a system of collective insurance in a provincial fund and for administration by the workmen's compensation commission. The Nova Scotia compensation act amended the definition of a "workman" to include a person who has entered into or works under a contract of service. The workmen's compensation board was authorized to extend compensation for spinal injuries, and the benefit of a doubt existing in any injured employee's case has been granted the employee. In Ontario, liberalization of compensation to blind workmen was effected, so that the act now provides that \$50 of the compensation shall be paid by the industry and the entire remaining cost shall be paid from the provincial public fund; jurisdiction is vested exclusively in the Canadian National Institute for the Blind. The Ontario act was also amended by the removal of miner's phthisis from the schedule of industrial diseases.

A résumé of the amendments to the workmen's compensation laws made by the 1931 legislatures in the 33 States of the United States which acted upon the subject follows:

### Alabama

THE only legislation in Alabama relating to the workmen's compensation law was Act No. 357, providing a penalty of double compensation for all minors illegally employed at the time of the injury.

## California

SEVERAL amendments were made to the workmen's compensation law of California by the legislature of 1931. The coverage of the act was amended by chapter 1021, so as to exclude any person engaged in selling, delivering, etc., newspapers, magazines, or periodicals where the title to such article has passed to the person engaged in such enterprise. The compensation act by the provisions of chapter 955 no longer applies to agricultural work, etc., if the pay roll of the employer has not exceeded \$500 for the preceding calendar year. By chapter 1120, the failure to give to an employer 30 days' notice of an injury is no longer a bar to recovery if the employer was not in fact misled or prejudiced by such failure; formerly it was necessary to show that there was no intention to mislead the employer. To meet a court objection in third-party suits, section 26 of the compensation law was amended by chapter 1119, and now a release against a third party is valid only with the consent of both the employer and employee; several other changes, mainly of a procedural nature, were also made by this chapter. To recover against an employer for his misconduct a claim must be filed within 12 months under chapter 1121. Chapter 944 extends the time for the filing of proceedings for compensation where a release or a compromise agreement has not been approved by the industrial commission. Chapter 945 provides that the burden of proof shall be upon the employer to show compliance with the provisions of the compensation act; formerly the commission was required to furnish proof of noncompliance, but this method proved unsatisfactory. Licensed contractors in the future are required (by ch. 771) to report to the registrar of contractors, within 10 days, the name and address of the insurance carrier, and penalties are provided for failure to do so. Under chapter 139, the State, as a political entity, must hereafter insure in the State insurance fund.

## Colorado

THE coverage of the Colorado workmen's compensation law was enlarged, by chapter 175, so as to include sheriffs and their deputies regularly employed and any person called to serve upon any posse; the rate of compensation of possemen is based upon \$125 a month, or upon the average earnings in their regular employment, whichever rate is higher. Under chapter 174, a grandchild is now considered an actual dependent under the act, grandsons, however, must prove incapacity or actual disability. Several changes were also made in procedure. Thus, a petition for a review of referee's order must be made within 15 days instead of 10 days (ch. 177), while the court record of a case must be transmitted to the commission within 25 days instead of 20 days (ch. 178).

In cases of benefits increased because of the failure of an employer to comply with the provisions of the act, it is now provided (by ch. 176) that a copy of such award may be filed at any time after the order of the referee, but upon a reversal the judgment must be vacated and any execution thereon must be recalled.

## Connecticut

THE only changes affecting in any way the workmen's compensation law of Connecticut were of a minor and supplementary nature. To remove any doubt as to whom satisfactory proof must be furnished of an employer's ability to pay directly to an injured employee, the act now specifies (ch. 9, p. 253) that such must be made to the compensation commissioner. A supplemental law (ch. 132, p. 254) places the liability on the employer for compensation when an employee is lent to or employed by another. Another supplemental law (ch. 145 p. 173) provides that information obtained by the State department of health in the investigation of occupational disease cases can not be used as evidence in any action at law or under the workmen's compensation law.

## Delaware

THE Legislature of Delaware, at the 1931 session, made several changes in the compensation law, the most important of which may be said to be the reduction made (by ch. 239) in the waiting period from two weeks to one week and the paying of compensation on the eighth day after incapacity, instead of on the fifteenth day as formerly. This chapter also increases the medical benefits, etc., from \$100 to \$150 and provides that compensation shall be paid for a subsequent injury only where the injury proves to be permanent, but if injuries occur under the same employer and in the same work classification as the first injury, compensation shall then be payable as though "both such injuries were the result of one accident, less an amount equal to the compensation fixed in this act for the previous injury." Finally, chapter 239 provides that in addition to requiring a security from a self-insurer for the payment of compensation, the industrial board may require such under any or all cases. The coverage of the act was enlarged by chapters 100 and 240, giving the city of New Castle and Levy Court of Sussex County the power to place certain officers and employees (nonelective) under the act. The salaries of the members of the industrial board were increased (by ch. 241) to \$3,000.

## Georgia

THE only act affecting the workmen's compensation law of Georgia was that (No. 298) abolishing the industrial commission, and transferring its powers, duties, etc., to the directors of the newly created department of industrial relations.

## Hawaii

BY THE provisions of Act No. 93, an employee is no longer required to make a report of an injury if the employer has already reported the same to the board or insurance carrier, within the specified period, namely, three months after the injury or death. Another act (No. 16) was passed providing that a dependent may no longer maintain an action against the employer under the "death by wrongful act" statute, if such dependent has a remedy under the compensation act.

## Idaho

SEVERAL amendments to the Idaho act were made by chapter 222. Employments excluded under the act are enlarged so as to include those not carried on by the employer for pecuniary gain. The periods of compensation are also extended for many of the injuries in the specific indemnity schedule. Hearings may now be held by the full board as well as by a single member, and application for modification of any awards on the ground of change in conditions must be made within four years from the date of the accident causing the injury. Provisions for accident prevention are enlarged and the powers of the industrial board for the extension of safety measures are increased. For violation of any order of the industrial board, penalties of \$1 a day for each employee are provided; and for failure to comply with an order for 10 days or more, an injunction may be issued against the employer.

## Illinois

ONE act (pp. 576-596) was adopted by the 1931 Illinois Legislature amending the workmen's compensation law in several respects. Employers are given the privilege of electing to cover any employees other than those engaged in the usual course of the business. An illegally employed minor may file a rejection of his right to compensation within six months of injury and may sue for damages; however, upon approval by the commission of any payment of compensation, the right to reject is barred. The maximum amount in death cases is increased from \$3,750 to \$4,000, and the minimum from \$1,650 to \$2,500. The minimum and maximum amounts, in the case of a widow with one or more children under 16 years of age, are increased to the following amounts: One child, minimum \$3,000, maximum \$4,450; two children, minimum \$3,100, maximum \$4,800; three or more children, minimum \$3,200, maximum \$5,500. Benefits to a nonresident alien dependent (not including a Canadian) are now limited to 50 per cent of the compensation. Lump-sum payments may be determined by any member of the industrial commission as well as by the whole commission. Any member of the commission may also grant an extension of time for a review of an arbitrator's decision. In the prosecution of an employer who fails to secure compensation, jurisdiction is given to the attorney general; this right was formerly vested in the State's attorneys of the several counties.

By senate joint resolution (No. 20, p. 920) the Illinois Department of Labor and the Industrial Commission were delegated by the legislature to investigate the subject of occupational diseases, and submit a report to the next session of the legislature.

## Iowa

CHAPTER 22 provides for the payment of the unpaid part of any compensation to a trustee for the benefit of the dependent offspring in cases in which the surviving spouse remarries, provided the offspring were dependent at the time of the injury. The taking of depositions is authorized by chapter 24, which provides that either party to a case may take the testimony of a witness living within 100 miles of the place of hearing, provided such testimony shows the physical condition of the injured party or the cause of the injury.

## Kansas

THE two most important changes made in the workmen's compensation law of Kansas (by ch. 217) were the increase in the amount of medical, surgical, and hospital treatment in extreme cases to \$500, and the limitation of compensation for the permanent partial loss of the use of a member to an amount not to exceed that payable for the total loss of the member, exclusive of the healing period. Reduced death benefits (limited to \$750) are now made applicable only to dependents who are neither citizens nor residents of the United States.

## Maine

THE Maine workmen's compensation law was amended by chapter 160. The computation of the "average wage" for seasonal occupations is no longer specially provided, but is to be based presumably upon the methods provided for other part-time labor. Compensation in death cases is now clearly defined to extend from the date of death for a period of 300 weeks from the date of the accident. Hereafter, compensation payable to a dependent child ceases upon reaching the age of 18 years or upon marriage, unless such child is incapacitated. The time limit for the filing of any petition is extended from 7 to 10 years after an accident. The typographical or clerical error inadvertently made in the first sentence of section 4, chapter 55 (1930 Revised Statutes) has been corrected by chapter 225, section 4 (p. 242) and reads as follows: "The provisions of section 3 shall not apply to employers who employ five or less workmen or operatives regularly in the same business."

## Maryland

THE workmen's compensation law of Maryland was amended in several respects. By chapter 363 the maximum weekly compensation for permanent total, temporary total, and temporary partial disability was increased from \$18 to \$20; an injured employee may now, in the event of a second injury, waive any right to compensation to which he would be entitled because of a preexisting disability; where a disability is due in part to the injury and in part to a preexisting disease, the industrial commission must determine the proportion attributable to each, and compensation is payable only for the disability caused by the injury; compensation for hernia is now allowed only upon proof satisfactory to the commission. A claim for compensation must now be filed by an employee within one year after disability. (Ch. 339.) Upon approval by the State industrial accident commission a claimant or a dependent may agree to compromise and settle any and all claims. (Ch. 364.) All questions concerning legal services may now be heard by the commission, and an attorney may be ordered to refund any portion of an excessive charge. (Ch. 404.) Application to modify a final award must be made within one year following such award. (Ch. 342.) In appeal cases the law now provides that the appeal shall be based on the record made before the commission, or upon an agreed stipulation of facts by the parties, and questions of fact submitted to a jury are limited to those disclosed by such record or stipulation. (Ch. 406.) The authority



of the industrial commission was enlarged in the administration of the State accident fund by chapters 340 and 341. The maximum assessment levied upon insurers for administrative expenses has been increased from \$100,000 to \$110,000, by the provisions of chapter 213.

#### Massachusetts

THE Massachusetts workmen's compensation act was amended by two chapters (143 and 170). Chapter 143 provides that in cases of controversy, as which of two or more insurers is liable to pay the compensation, the compensation shall be paid by one insurer pending the decision of the industrial board.

A person engaged in the usual course of his trade, etc., who is ordered to perform work outside of such trade and is injured thereby, is nevertheless an employee under the act, according to chapter 170.

#### Michigan

THE only change made in the Michigan act was by chapter 58, which extends the coverage of the act to include volunteer firemen. The average wage computation is fixed at \$27 per week.

#### Minnesota

CHAPTERS 352, 353, and 392 relate to the insurance features of the Minnesota workmen's compensation act. The definition of "insurance" and the applicability of such is enlarged to include the partial insurance liability of an employer exempted from insuring his liability for compensation under the act. (Chs. 352 and 353.) Before such may become effective, approval by the compensation insurance board must be obtained. (Ch. 392.)

#### Missouri

AN EMPLOYER must now furnish medical, etc., aid to an injured employee for a period of 90 days after the injury instead of 60, with the maximum limit increased from \$250 to \$750. The commission may order additional treatment at any time, instead of being limited to the 1-year period as heretofore (p. 381). An employer may elect to be covered under the act with respect to occupational diseases, provided he has filed notice with the commission and posted notice to that effect. A new employee and an employee remaining in the service 30 days after such posting of notice is conclusively presumed to have elected to accept this coverage unless a written notice to reject has been filed with the commission and the employer (p. 382).

#### Montana

ONE act (ch. 139) was passed in Montana amending the compensation law in several respects. Casual employments and those not in the usual course of the employer's business are brought under the act, provided the employer has elected to be bound by the workmen's compensation provisions. Other treatment may be furnished an injured employee in addition to reasonable services by a physician,

surgeon, or hospital, when such service is approved by the board. Costs, etc., arising out of plan No. 3 under the act may now be paid from the industrial accident fund. The Montana Industrial Accident Board now has the power to fix the amount of attorney's fees. For proofs of insolvency a filing fee of \$5 is required to be paid into the industrial administrative fund, and a \$3 fee to be credited to the same fund must be paid for all insurance policies, or renewals, filed with the board.

#### Nevada

Two acts (chs. 151 and 213) amend the workmen's compensation law of Nevada. Instead of paying 15 per cent of the wages of a deceased employee to the offspring upon the death of a surviving parent, compensation paid to the surviving child, or children, is increased to the amount theretofore paid to such parent. (Ch. 151.) The State insurance fund may now invest in bonds of Nevada irrigation or drainage districts, and the industrial commission is authorized to provide for such reinsurance as will protect the State insurance fund in case of a catastrophe. In addition to the above-mentioned acts a new law was enacted making original contractors liable for the fulfillment by subcontractors of the requirements of the Nevada industrial insurance act and providing a penalty for any violations. (Ch. 213.)

#### New Hampshire

ONE act (ch. 131) was enacted in New Hampshire amending the compensation law by increasing the maximum amount in death cases from \$3,000 to \$4,500 and the maximum amount for medical attendance and burial expenses in the case of no dependents was increased from \$100 to \$200.

#### New Jersey

THE New Jersey workmen's compensation law was amended by several chapters during the legislative session. The term "radium necrosis" in the list of occupational diseases has been changed to "radium poisoning," by chapter 33. The act now excludes from the coverage provision any public employee retired on a pension by reason of disability. (Ch. 355.) This chapter also permits coverage of public employees receiving more than \$1,200 a year. Chapter 279 provides that in computing the 24-hour period during which time notice of a hernia must be made known to an employer, all days are excluded in which the business is not in operation. This chapter also amends the compensation act by limiting to two years the time within which an award may be reviewed on the ground of increased disability; by extending to the employer the right to proceed against a third party, when the injured employee or dependent fails, within six months of the accident, to take legal action against a third party or accepts a settlement for less than the employer's obligation; and by providing that five days shall constitute a minimum week for the purposes of compensation. By chapter 280, the statute of limitations within which time a claim must be filed has been extended from one year to two years. Perhaps the most important change in the workmen's compensation law in this State was that of procedure in appeal cases. Appeals from the awards of the commission are hereafter,

by the provisions of chapter 388, to be taken directly to the State supreme court, and not, as formerly, by appeal first to the court of common pleas; this chapter states that "any judgment of the workmen's compensation bureau shall be reviewable by certiorari only." By chapter 172, the securing of compensation for volunteer firemen is now mandatory upon municipalities and fire districts, and for such firemen not otherwise employed at the time of injury compensation is based upon the weekly earnings received in the last employment. By the extension of the period for filing a petition, by chapter 278, from one year to two years, the former provision depriving an employer of certain defenses is now necessarily omitted from paragraph 6, chapter 187, Acts of 1924. Chapter 192 deals with the insurance features of the compensation act, permitting an employer who is exempted from insuring under the act to insure his liability for the payment of any loss in excess of \$5,000 by reason of any single accident and occupational diseases scheduled in the workmen's compensation act, and empowering the commissioner of banking and insurance to prescribe the form of the notice of compliance. By a supplemental act (ch. 108), the tax of 1 per cent exacted for rehabilitation purposes must now be paid directly to the State tax commissioner instead of to the commissioner of labor as heretofore.

#### New York

APPROXIMATELY seven acts were passed in New York amending the workmen's compensation law. The coverage of the act was enlarged (by ch. 510) so as to include private chauffeurs employed in cities of 2,000,000 or more (i. e., New York City). The law is novel, in addition to its local application, in that employers are exempted from the penalty of the law. In lumbering operations an exception is made in the coverage provision of the act by permitting a farmer to produce on his farm logs cut to dimension lengths and to transport them to market or point of shipment without taking out workmen's compensation insurance, provided not more than four persons are engaged by a single employer. (Ch. 385.) Chapter 344 provides that the 12-month time limit between the contraction of an occupational disease and the disablement by it is not to apply if both contraction and disablement occurred while the employee was engaged in the same employment with the same employer. The industrial board is, by chapter 292, given three years instead of one to reclassify a disability on account of change in condition or error. Chapter 291 provides that a dependent blind or crippled child must be totally incapacitated in order to partake of any death benefits. Unpaid premiums and judgments are, by chapter 508, given preference over other claims against employers except wages in bankruptcy, etc., proceedings. The boards of supervisors of counties which have adopted mutual self-insurance are now empowered, by chapter 199, either to appropriate the necessary moneys to pay the awards or to authorize the county treasurer to borrow for such purpose instead of the former method in which the county treasurer borrowed upon an order of the committee.

## North Carolina

Two acts (chs. 164 and 274) amended the North Carolina workmen's compensation law. The first of these specifies that disfigurement shall also include any bodily injury not covered in the schedule of specific injuries, and the second makes several changes in the basic law. Thus any county or school district or sheriff and his deputies may now be exempted from the act, but notice of such action must be made to the industrial commission; the commission may also order a change of treatment upon the request of an injured employee; instead of paying compensation to the personal representative of a deceased employee in the case of no dependents, the law as amended specifies that such shall be paid to the next of kin; a second-injury fund is also established; hereafter no review of an award may be considered after 12 months from the date of the last payment; the commission may, in order to protect the interests of minors or incompetents, change the terms of any award with respect to whom compensation shall be paid; in the review of cases instituted by an insurer, the commission may now order the cost of such review, entailed by the employee, to be paid by the insurer; power is extended to the commission to collect any fines, etc., and the same shall be a part of the maintenance fund; the employer and not the State must hereafter pay all medical examination fees and expenses; the salaries of the industrial commissioners, instead of being fixed by the terms of the act, are hereafter to be fixed by the governor, and the offices of the commission are no longer specifically required to be in the capitol building or other building in Raleigh, and hence may be established at any point within the State. Two supplemental acts (chs. 279 and 312) were also enacted; chapter 279 creates a compensation rating and inspection bureau, and chapter 312 provides for the establishment of a department of labor, and a separate and distinct agency to be known as the division of workmen's compensation.

## North Dakota

SEVERAL changes were made by chapters 312, 313, 314, and 315 of the Acts of 1931. In the aggravation of a preexisting disease, compensation is allowable only for the proportion of the disability due to the aggravation of such disease as may be attributed to the injury. (Ch. 312.) Extraterritorial effect of the act is given to appointive county peace officers, and the act is made retroactive by chapter 313 to July 1, 1930. Chapter 314 provides for the reorganization of the workmen's compensation bureau, so that hereafter the bureau is to consist of three members only, serving for six years each; several minor changes in the administration of the act were also made. The penalty for failure to comply with a safety regulation is increased to \$25 and in addition the premium rating of an employer may be penalized. As to the payment of premiums, chapter 315 allows public employers to pay in two equal semiannual installments when in excess of \$100; no bond is required, but interest at 5 per cent is assessed upon deferred payments. Other employers have an option of paying in two equal semiannual installments or four equal quarterly installments; a bond is required to be filed in such cases covering a period of from one to five years, and a surety bond for periods of

more than one year's duration. For defaults in payment of premiums the penalties are changed, and suits for the collection of same must be instituted within 20 days instead of the former limitation period of 10 days.

### Ohio

FOUR acts were passed by the 1931 legislative session in Ohio. The first act (pp. 26-39) amended several chapters of the law. The occupational disease law was amended by adding potassium cyanide and sulphur dioxide poisoning, and chrome ulceration of the skin or nasal passages. The maximum amount of compensation in partial disability cases is increased from \$3,750 to \$4,000. The periods of compensation in the schedule for specific injuries have also been increased in certain cases—for the loss of a hand, 165 weeks; arm, 215 weeks; foot, 140 weeks; leg, 190 weeks; sight of an eye, 125 weeks. Funeral benefits are increased from \$150 to \$200. The coverage of the act is liberalized in the case of police and firemen already provided for under a pension fund. Several changes were made in respect to the adoption of rules, etc., for the collection, maintenance, and disbursement of the State insurance fund; the requiring of additional bond by the State treasurer as the custodian of such fund; and a provision for the segregation of the State insurance fund into a public and a private fund. An additional penalty of 90 days' imprisonment, together with costs of prosecution, is provided for an employer willfully failing to insure. The act also provides assurance of immediate payment of compensation to a claimant from the surplus fund upon recovery of a final judgment against an employer. No modification of an award may be made after 10 years of an injury or last payment of compensation.

The second act (pp. 111, 112) merely authorizes Ohio insurance corporations to write compensation insurance outside the State, while the third act (pp. 147-150) relates principally to procedure in the computation of and rates to be paid into the public insurance fund, etc.

The fourth act (pp. 789-791), among other things, extends the penalty to employees of the department of industrial relations convicted of divulging confidential information; authorizes the commission to inquire into the amount of fees charged and to settle disputes relating thereto, and gives it the power to suspend for cause, anyone fraudulently practicing before the commission; a penalty is also imposed upon anyone falsely claiming the right to represent a claimant before the commission or even soliciting authority to appear.

### Oklahoma

THE only change in the workmen's compensation law of Oklahoma was that relating to the appointments, qualifications, etc., of the industrial commissioners, and the employment of administrative assistants. (Ch. 72.) In order to qualify for appointment a commissioner must be a resident of the State for over two years, a qualified voter, and not less than 30 years of age. The salary of two members of the commission is increased from \$3,000 to \$3,900, and the chairman hereafter will receive \$4,200.



## Oregon

THE list of hazardous occupations to which the workmen's compensation act of Oregon is applicable was extended, by chapter 340, so as to include county surveyors, their deputies and assistants engaged in field work.

## Pennsylvania

DOUBLE compensation is provided by the Legislature of Pennsylvania (Act No. 29) in the case of injured children illegally employed, the extra compensation being paid by the employer as a penalty; any provision in an insurance policy undertaking to relieve an employer from such liability is void. Act No. 205 specifies that in appeal cases the court must, within five days after a judgment has been rendered, give notice of such by registered mail to each attorney appearing in the case or to the parties themselves if not represented by counsel. Act No. 151 merely provides for insurance in the State fund on the basis of a year and not on the basis of a given calendar year.

## Philippine Islands

THE amendments to the compensation law of the Philippine Islands were made by the legislature during the year of 1930. The annual legislative year begins in the summer and continues for 100 days. Information as to whether any changes were made by the 1931 legislature was not available at the time the present article was compiled.

The Philippine compensation act was amended in 1930, by Act No. 3812, and became effective on December 8, 1930. The coverage of the act was extended to mounted messengers in the service of the insular government, and employees engaged in coastwise trade. Employees operating mechanical agricultural implements and public employees receiving annually 2,000 pesos or less are also covered. An injury to be compensable now must "arise out of and in the course of the employment." For the loss of an eye the period of compensation is increased from 84 to 100 weeks. The law specifies that any compensation paid is for the use or benefit of the widow or widower and the dependent children, and the bureau of labor may adjust the compensation between them in the most suitable manner possible.

In lump-sum cases the reduction must not be more than 20 per cent of the amount fixed by the law. Attorney's fees are now fixed for the prosecution of a claim at 5 per cent of the award, and 10 per cent if court action is necessary.

## Porto Rico

SEVERAL amendments were made to the workmen's compensation law by Act No. 78, of the regular session of the 1931 Porto Rico Legislature. The principal changes were as follows:

Weekly compensation is (under sec. 3) to be paid the injured laborer from the date he presents himself to the physician for treatment and not from the date of the accident.

The industrial commission is to have the initiative in entering into contracts with physicians, hospitals, etc., subject to approval by the commissioner of health; laborers who fail to present themselves to

a physician within a reasonable time after the accident may be deprived of their right to receive compensation; insurers are obliged to bring before the commission, at their own expense, injured laborers affected with any partial permanent or total disability in order that the degree of disability may be established, and the insurer shall pay for this medical service. (Sec. 5.)

The fee for attending as a witness before the industrial commission has been reduced from \$2 to \$1, and traveling expenses by the most economical route are permitted. (Sec. 9.)

When agreements entered into between insurers and laborers are not approved by the industrial commission, because in its judgment their terms do not conform to the law, the commission shall decide the matter without further hearing, in accordance with the evidence in the case. (Sec. 10.)

The time in which to file with the district court a petition for review from a decision of the commission has been changed by section 15 from 10 to 15 days.

Agreements entered into between laborers and employers who, in violation of law, have not insured in any of the forms provided by law, are excluded from the provisions of section 21.

Employers unduly reporting any labor accident shall be liable for all the expenses incurred by the commission on account of said report. Any employer reporting as his own an accident sustained by a laborer working for an employer who, in violation of law, is uninsured, shall be punished by the industrial commission (under sec. 22) by a fine not exceeding \$200.

The tax levied on insurance companies to help to support the industrial commission has been raised (sec. 52) from 3 to 5 per cent.

### South Dakota

IN SOUTH DAKOTA the coverage of the workmen's compensation act was extended by chapter 269, to include the operation of threshing machines, grain combines, corn shellers, corn huskers, shredders, silage cutters, and seed hullers. Chapters 270 and 271 authorize and regulate associations for exchanging reciprocal or interinsurance contracts.

### Texas

THE Texas compensation law was amended in 1931, by some 13 acts. The following changes warrant special mention: The placing of illegally employed minors under the act (ch. 154); the increase in funeral benefits from \$100 to \$250 (ch. 178); the barring of compensation under the Texas law of an employee injured outside the State who elects to pursue his remedy and recovers in such other State (ch. 90); the provision that refusal to submit to "other remedial treatment recognized by the State" may be a cause for a reduction or suspension of compensation by the board, and the empowering of such board to punish for contempt and to bar anyone guilty of unethical conduct from practicing before it (ch. 102); the provision that an order of the industrial board attested to by any member is admissible as evidence in all courts of the State (ch. 89); and that an application to review an order denying the payment of compensation must be

made to the board within 12 months (ch. 155). Chapter 179 imposes upon the board the duty of hearing an employee's case within a reasonable time, but the hearing may be delayed if such employee is receiving medical care or compensation; the decision by the board in the latter case is final. As to the right of appeal the compensation law was amended in several instances: The clerk of the court must within 20 days after an appeal is filed, or a judgment rendered, notify the board of such action by mailing a certified copy of such record, and for failure to do so a penalty of \$250 is provided (ch. 182); hereafter upon the filing of a case for review in a county court other than the county in which the injury occurred, such court must transfer it to the court having jurisdiction (ch. 208); in a pending court claim the industrial accident board must, upon request of any interested party, furnish a copy of the employer's notice of becoming a subscriber under the act (ch. 224); in appeals from an award the district court is limited to the subject matter of the appeal, and may not adjudicate any right as to exemplary damages; and payments of compensation made before due must be discounted at 6 per cent compounded annually (ch. 248).

By the provisions of chapter 170, an employer of labor under the Federal longshoremen's and harbor workers' compensation act may become a subscriber to the Texas employers' insurance association; and by chapter 171 the industrial commission is given power to establish and promulgate classifications of hazards and rates of premium applicable to the act.

#### Vermont

THE only compensation legislation passed in Vermont in 1931 was an act (ch. 114) changing the time in which the commissioner must make his award from 6 months to 60 days.

#### Washington

IN WASHINGTON several changes were made in the compensation act. By the provisions of chapter 79 a master or member of a crew of any vessel is now excepted from the coverage provisions of the act. A material and detailed change was made in the method of determining the amounts payable into the State fund by chapter 104. Thus, the department of labor and industries must each year make an estimate of the pay-roll percentages to be paid into the fund, based on the average experience cost of each employer per \$100 of pay roll in each class during the 2-year period immediately preceding September 1. The actual rate is fixed at 25 per cent of the basic rate plus 75 per cent of the employer's cost per \$100 of pay roll over the 2-year period next preceding the then last September 1, limited, however, to 175 per cent of the basic rate. Coal mines are not affected by the new amendment. Chapter 116 provides that the costs and expenses in appeal cases shall hereafter be paid from the medical and accident funds, each bearing one-half of the expense.

#### Wisconsin

THE Wisconsin compensation law was amended in many respects. The principal changes are as follows: The waiting period was reduced from 7 to 3 days, with no waiting period if the disability extends

beyond 10 days. (Ch. 66.) Compensation for permanent disability to a person under 30 years of age is to be based on the probable wages earned at the age of 27. (Ch. 42.) Compensation for partial disability is increased (by ch. 101) from 65 per cent to 70 per cent of the average weekly wages. The act now compulsorily applies to private employers usually employing three or more employees, with the exception of farmers or farm labor. (Ch. 87.) Chapter 14 liberalizes the death benefit provisions in the case of surviving children of a divorced parent. Chapter 132 provides that, in third-party cases, acceptance of compensation no longer operates as an assignment of a claim against the third party, nor does a settlement with a third party operate as a waiver of a claim for compensation. The principal change made by the provisions of chapter 210 is that the number of weeks now varies according to the severity of the disability, whereas under the former provision the weekly amount of compensation varied, but the number of weeks remained the same for a given age. The industrial commission is empowered by chapter 413 to direct an injured employee in cases of dispute to be examined by an impartial physician at the expense of the employer. An award may be set aside by the commission within three years, whenever it appears that a mistake has been made in an award of compensation for an injury, when in fact the employee was suffering an occupational disease. (Ch. 414.) Chapter 433 gives the commission the power to divide death benefits among dependents, and also to redistribute the same. An insurance company's license may be revoked, under chapter 244 whenever it fails to pay claims promptly or fails to submit reports; this may be done by the commissioner of insurance, upon complaint of the industrial commission. By chapter 327 the Wisconsin Rating and Inspection Bureau has the right to assign rejected risks to a member company. Chapters 403 and 469 were laws enacted at the request of the reviser of statutes, and merely simplified the language and form of the acts, without changing the substantive provisions of the law.

### Wyoming

CHAPTER 94 made several changes in the Wyoming workmen's compensation law. The list of extrahazardous occupations is enlarged to include gasoline filling and bulk oil stations, ditch riders of irrigation districts, and "dude ranching." The monthly service and policing charge has been greatly reduced and the amount required to be paid by nonresident employers has been doubled. The schedule for specific injuries in permanent partial disability cases has been substantially increased in all cases except toe injuries. The balance of an award, after the payment of \$270 upon the remarriage of a surviving spouse, now reverts to any dependent children instead of to the general fund as heretofore. The dependent children also receive the unpaid balance in the case of the death of the surviving spouse. Only in the case of no dependent children, or upon the death of the last surviving child, does the unpaid balance revert to the general fund. The Commission on Revision of the Wyoming Statutes, by the provisions of chapter 73 (secs. 59, 60, and 61) made several changes in sections 4328, 4330, and 4336 of the workmen's compensation act. The principal change was the extension of time from 30 to 70 days in

the filing of appeal cases in the supreme court. The plaintiff must now file a brief within 15 days and the defendant must do likewise within the same time thereafter, instead of the former period of 30 days allowed both parties. (Sec. 4328.) Sections 4330 and 4336 are merely changed in form.

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### Report on Study of Oregon Workmen's Compensation Law

**T**HE governor's interim committee on the Oregon workmen's compensation law, appointed under authority of a joint legislative resolution, has submitted a majority report signed by the 15 members, dated January, 1931. To the report is appended a minority report by one of the members, dated February, 1931; reports to the committee from an actuary employed to examine the financial condition of the accident funds, premium rate levels, and contemplated administrative changes in the law; and a report and recommendations from the State Industrial Accident Commission.

The majority report of the committee points out that the actuarial investigation shows that the reserve for pension awards—the segregated accident fund—is being computed according to the requirements of the law, and is in balance. The examination of the industrial accident fund shows that the fund is solvent; but in the opinion of the actuary, whose estimate of unsettled claims differs from that of the industrial accident commission, the surplus is too small for the safety of the fund against contingency factors. The actuary advocates an increase of not less than 10 per cent in average premium rates, as well as the establishment of a statistical bureau to develop actuarial statistics.

As the committee does not believe it was charged with the duty of suggesting rates, it merely recommends that it be made obligatory for the industrial accident commission to promulgate adequate rates each year, but it also recommends that the statutory limit on the surplus, \$300,000, be increased to \$500,000, and that the surplus be gradually increased to this amount. The immediate establishment of a statistical department is further recommended.

Other principal recommendations by the committee for administrative changes are: Right of appeal by an injured worker on both law and fact; elimination of jury trials in appeals, and of contingent fees for attorneys in appeals; penalizing employers who make workers contribute more than the statutory 1 cent per day to the fund; refusing benefits of act to employers in default of payments to the fund; reduction of 5 per cent of premium for satisfactory accident-prevention work; distribution of statistical and accident-prevention information to employers, employees, and the public; reduction of benefits to alien dependents, and limiting of alien dependency; changing compensation payments from a monthly to a semimonthly basis; authorizing the commission to determine, after a hearing, if any occupation is hazardous under the act; abolition of the automatic feature of coverage under the law, requiring application and fee for coverage, and excluding employers with less than four employees; establishing a 5-day waiting period; increase in compensation benefits for permanent disabilities; and resumption of State contributions, at a rate of not less than 5 per cent of total receipts of the fund in each preceding biennium.



The minority report concurs in part, but advocates establishment of compulsory and exclusive State compensation insurance, increase in all compensation benefits, and retention of right to jury trials in appeals. Opposition is expressed to the establishment of any waiting period.

The committee was unable to agree with some of the recommendations presented by the actuary and the industrial accident commission. Among these were: Establishment of an exclusive State fund; compulsory coverage under act; coverage of nonhazardous employments; coverage of occupational diseases; restrictions of appeals to questions of law only; provision for safety engineering and accident-prevention work; and increases in funeral benefits, remarriage allowance, and all compensation benefits.

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### Recent Compensation Reports

#### Arizona

THE fifth annual report of the Industrial Commission of Arizona consists principally of a study by a consulting actuary of the conditions and affairs of the State compensation fund.

As a result of the examination the fund is declared to be in excellent financial condition, showing a net surplus of \$768,265.12, as of December 31, 1930. It is stated that, in the opinion of the actuary, this surplus is not excessive, considering the volume of business transacted, the high scale of benefits under the law, and the statutory provision that the fund shall be administered by the commission without liability to the State.

The commission is commended for prompt and fair settlements of claims against the State fund; for reasonable and adequate insurance premium rates (90 per cent of the rates approved for other compensation insurance carriers, with a dividend distribution of surplus based on merit rating); for adequate records, kept well and accurately; and for economy and efficiency of management.

It is, however, pointed out that, in spite of the fact that 20 per cent of all premiums are credited to the medical and hospital fund (designated the accident benefit fund), this portion is not sufficient to cover the liability for estimated future service. It is advised that efforts be made to reduce the high and constantly increasing cost of medical and hospital benefits, without impairment of services to the injured, in order to avoid diverting a larger portion of the total premiums to this fund and reducing the dividends to the policyholders correspondingly.

The commission explains that it is issuing dividends amounting to more than \$150,000 to policyholders whose cost of accidents was less than their premium payments. It is stated that the overhead is still maintained at less than 7 per cent of the income. Over 12,500 new cases were handled during the calendar year by the commission, which adjudicates all cases of industrial injury, whether the liability is carried by the State fund or by private insurance carriers.

The financial statement for the fund shows that the total earned premiums for the year ending December 31, 1930, were \$1,395,782.32 for the compensation fund and \$213,945.56 for the medical and hospital fund. Current compensation benefits amounting to \$389,-

557.72 were paid on cases occurring in 1930, and medical and hospital benefits amounting to \$216,779.83 were paid or provided during the year, while \$1,381,752.30 was transferred to the various reserves.

### California

PART of the report of the Department of Industrial Relations of California for the period 1927 to 1930 is devoted to the activities of the industrial accident commission, the governing body of the division of industrial accidents and safety.

Attention is called to the various amendments to the workmen's compensation, insurance, and safety laws, enacted by the 1928-29 session of the State legislature. Among the prominent changes are the establishment of a "subsequent injury" fund, for the payment of special additional compensation in second-injury cases, through contributions from employers or insurance carriers of \$300 in each fatal injury case where there are no dependents; an increase from \$20.83 to \$25 in the maximum weekly compensation; and a 10 per cent increase in maximum compensation payments in case of failure of the employer to secure compensation under the act.

Summary reports from the various subdivisions of the industrial commission include a report from the State compensation insurance fund, showing that on June 30, 1930, approximately 30,000 employers were insured by the fund, representing one-third of the insurance written by the 60 compensation insurance carriers in the State. An explanation is given of the methods of the fund in furnishing insurance at cost to its policyholders. Workmen's compensation insurance rates are under the control and supervision of the State insurance commissioner, and the rates promulgated by him must be used by all insurance carriers operating in the State. These rates are so made that 59.4 per cent of the premiums cover the compensation and medical losses, while the balance of 40.6 per cent is intended for payment of expenses of operation. As the operating expenses of the fund have averaged less than 15 per cent of its premium income, the difference between that amount and the 40.6 per cent in the rates, plus interest earnings on reserves and catastrophe surplus, is distributed to the policyholders as dividends. The following table, taken from the report, shows the total premiums written by the fund, dividends declared, and total assets, 1914 to 1929, by calendar years.

TABLE 1.—EXPERIENCE OF CALIFORNIA COMPENSATION INSURANCE FUND, 1914 TO 1929

Year	Premiums written	Dividends declared	Total assets	Year	Premiums written	Dividends declared	Total assets
1914.....	\$547,161		\$520,596	1922.....	\$4,635,014	\$1,683,626	\$6,060,881
1915.....	655,677	\$74,476	849,980	1923.....	5,470,100	1,784,237	6,168,026
1916.....	928,286	89,146	1,299,565	1924.....	5,807,777	1,649,260	6,517,543
1917.....	1,373,793	146,734	1,839,988	1925.....	5,811,317	1,664,214	6,779,638
1918.....	2,459,086	340,878	2,917,571	1926.....	6,012,443	1,694,172	6,900,494
1919.....	3,251,974	489,691	4,135,856	1927.....	6,471,635	1,821,278	6,911,830
1920.....	4,417,761	919,367	5,324,603	1928.....	7,003,820	1,764,272	7,382,739
1921.....	5,004,881	1,278,950	6,038,704	1929.....	7,654,803	1,794,126	7,979,306

Considerable stress is laid on safety prevention, both by the compensation insurance fund to its policyholders and by the safety department of the commission to all employers in the State. Joint

committees of employers, employees, engineering societies, and others interested have for some time been engaged in revising the safety rules and safety orders adopted by the commission as minimum standards for the principal hazardous industries of the State.

Records compiled by the statistical department show the tabulatable injuries, consisting of fatalities, permanent disabilities, and temporary disabilities lasting longer than the day of injury, by industry, cause, nature of injury, or location of injury, each by extent of disability and year, for the three fiscal years ending June 30, 1930. In the following table, prepared from data in the report, are shown the total injuries, including no-disability cases requiring medical aid, reported to the commission, by extent of disability and by fiscal year, for the 3-year period.

TABLE 2.—NUMBER OF INDUSTRIAL INJURIES REPORTED IN CALIFORNIA, EACH YEAR 1928 TO 1930, BY EXTENT OF DISABILITY

Extent of disability	Number of cases reported in fiscal year ending June 30—		
	1928	1929	1930
Tabulatable accidents:			
Fatal.....	682	625	713
Permanent.....	1, 107	1, 028	941
Temporary.....	90, 809	95, 095	88, 295
Total.....	92, 598	96, 748	89, 949
Medical-aid accidents involving no loss of time.....	178, 883	192, 374	203, 872
Grand total.....	271, 481	289, 122	293, 821

### Kansas

THE annual report of the workmen's compensation department of the Commission of Labor and Industry of Kansas for the year ending June 30, 1931, calls attention to the experience under the compensation act during the four years that it has been administered by a commission.

It is estimated in the report that an average of 175,000 workers was covered by the act during that time, while the records show a toll of 352 deaths, 1,744 total or partial permanent injuries, and 41,952 temporary injuries for the four years. The total compensation paid in cases where final and complete settlements have been made amounts to approximately \$2,500,000, while reported medical, hospital, and funeral expenses amount to an additional \$750,000. Considering that further compensation payments have been made in other cases, not closed at the date of the report, that all medical and hospital expenses are not reported, and that other factors are not included, such as prevention cost and expense resulting from temporary inefficient operation in the loss of a trained worker, the commission assumes that the actual expense to the industry is double the amount reported, and urges the employers to control the cost by greater prevention of accidents and proper care of injuries when sustained.

The table following shows the number of injuries reported to the commission, all accidental injuries disabling the worker for more than the day of occurrence, by years, for the four fiscal years, and by industries for the year of the report, all by extent of disability.

TABLE 3.—NUMBER OF INDUSTRIAL ACCIDENTS REPORTED IN KANSAS, JULY 1, 1927, TO JUNE 30, 1931, BY EXTENT OF DISABILITY

Fiscal year and industry	Number of accidents			
	Fatal	Permanent disability	Temporary disability	Total
1927-28	73	324	9,313	9,710
1928-29	79	540	11,574	12,193
1929-30	114	396	11,797	12,307
1930-31	86	484	9,288	9,858
* Clerical and professional service	3	7	163	173
Construction	17	97	2,678	2,792
County and municipal	2	2	63	67
Manufacturing:				
Food and kindred products	9	73	1,741	1,823
Metal goods, vehicles	5	73	1,115	1,193
Paper and paper products, printing	2	8	111	121
Smelters and oil refineries	1	9	125	135
Textiles, leather, laundry	0	3	88	91
Wood and other building materials	4	26	298	328
Mining, metallurgy and quarrying:				
Coal mining	7	18	344	369
Metal mining—lead and zinc	6	25	232	263
Drilling oil and gas wells	10	78	1,057	1,145
Quarrying, stone crushing	0	5	140	145
Trade	2	23	395	420
Transportation and public utilities:				
Steam, interurban and street railways	3	13	165	181
Motor transportation	1	9	159	169
Light, power, and gas companies	13	15	379	407
Express companies	1	0	15	16

During the year of the report 4,709 compensation cases were closed and final releases filed with the department. The average compensation payment was \$135.54 per case. For the year 1929-30 the average was \$124.54 in 5,726 cases closed, for the year 1928-29 it was \$105.48 in 5,531 cases closed, and for the year 1927-28 it was \$98.17 in 4,426 cases closed, showing a constant increase in cost.

The average medical expense, however, remained fairly constant. The average amount paid per case was \$49.26 in 3,667 cases reported for 1930-31, \$49.37 in 4,127 cases reported for 1929-30, and \$47.18 in 3,628 cases reported for 1928-29.

#### New York

ACCORDING to the October, 1931, issue of the Industrial Bulletin, published by the industrial commissioner of New York State, the State Department of Labor made closing awards of compensation during the year ending June 30, 1931, amounting to over \$36,000,000, for accidental injuries to workers in the course of their employment. This is the highest amount awarded in any one year and nearly \$800,000 more than awarded during the previous year.

The number of cases closed during the year was 103,046, or 6,800 less than in the year ending June 30, 1930, but greater than in any other preceding year. It is explained that many of these accidents occurred in earlier years, so the figures do not show how much the decrease in employment has reduced the number of compensable accidents, but that a considerable decrease had taken place in both the number of accidents reported and the number of claims filed.

The following table shows the number of cases closed, the number of weeks' compensation awarded in permanent partial and temporary disability cases, and the amount of compensation awarded.

TABLE 4.—NUMBER OF COMPENSABLE CASES CLOSED IN NEW YORK AND COMPENSATION AWARDED, BY EXTENT OF DISABILITY, YEAR ENDING JUNE 30, 1931

Extent of disability	Number of cases	Number of weeks' compensation awarded	Amount of compensation
Death.....	1,241		\$7,768,024
Permanent total.....	61		854,168
Permanent partial.....	21,761	956,139	17,506,744
Temporary.....	79,983	547,168	9,883,852
Total.....	103,046	1,503,307	36,012,788

A large number of other cases were disallowed because the injuries did not cause disability extending beyond seven days or because they did not otherwise come under the provisions of the workmen's compensation law. Compensable cases which were closed in previous years but reopened for further consideration in 1930-31 are also not included.

In Table 5 is presented a comparison for the current year and the previous year of the number of compensable cases closed, distributed according to the industry in which they occurred. A decided reduction is shown for manufacturing industries, attributed to employment conditions. It is pointed out that practically the same number of accidents occurred in construction work each year, in spite of the widespread decrease in employment during the current year, and that a large increase had taken place in the service industries, presumably caused by increase in employment.

TABLE 5.—NUMBER OF COMPENSABLE CASES CLOSED IN NEW YORK, BY INDUSTRY, 1929-30 AND 1930-31

Industry	Number of cases, year ending June 30—		Per cent of change, 1930-31, compared with 1929-30
	1930	1931	
Manufacturing.....	40,823	32,641	-20
Construction.....	24,576	24,310	-1
Transportation and public utilities.....	16,941	16,137	-5
Service.....	14,124	16,050	+14
Trade.....	11,172	11,794	+6
Other.....	2,212	2,114	-4
Total.....	109,848	103,046	-6

### Porto Rico

THE annual report of the Industrial Commission of Porto Rico, for the year ended June 30, 1931, refers briefly to the different methods which have been applied to the problems of workmen's compensation in the island since the first act became effective in 1916: Optional State insurance for the first two years, followed by compulsory and exclusive State insurance, which was replaced in 1928 by a competitive insurance system, requiring coverage by the State workmen's insurance fund or by private carriers, or self-insurance.

In 1928 an industrial commission replaced the workmen's relief commission, which formerly administered the settlement of claims



under the compensation act. The commission was attached to the department of agriculture and labor until 1931, when this was changed to the department of agriculture and commerce and the commission was placed under the newly created department of labor.

The commission is charged with the settlement of claims and the supervision of medical and hospital services for injured workers, regardless of the class of insurance, but collection and disbursement of moneys under the act are statutory duties of the treasurer of Porto Rico, while the fixing of premium rates and determining questions of coverage for employers are statutory duties of the superintendent of insurance of Porto Rico.

During 1930-31 there were 40,595 claims filed, of which 40,021 were for injuries occurring during the year; 20,593 cases were decided by the commission. The latter consisted of 55 fatal cases, 5 permanent total disability cases, 1,254 permanent partial disability cases, 17,965 temporary disability cases, and 1,314 cases in which the claim for compensation was denied.

An independent liquidating board was created in 1928 to adjust obligations contracted previously by the workmen's relief commission under the act, but in 1930 these duties were transferred to the industrial commission. The report states that from January 1, 1930, to June 30, 1931, the commission has discharged pending obligations amounting to \$768,418, including discounts of \$189,046, and that a total of \$360,066 still remains unpaid. It is, however, believed that adjustments can be made, so that the liquidation can be finished with a sum of \$250,000, whenever the money is available for that purpose.

The commission emphasizes that the problem of workmen's compensation in the island is a serious one and, summing up the situation, explains that the country is relatively poor, the average wages paid to laborers are low, the principal industry is agriculture, and most of the employers are of the small type. Consequently the pay roll on which compensation insurance premiums are assessed is not very large, and the volume of workmen's insurance business is limited to a little over \$1,000,000. The State fund handles 50.9 per cent of this, and the private insurance companies 24.7 per cent, while the self-insurers cover 24.4 per cent. Against this volume of business it is found that 9,424 employers are insured in the State fund, 766 with private insurance companies, and 18 employers are self-insurers. The commission thinks it doubtful if the field of workmen's insurance in Porto Rico is broad enough to admit such competition, and believes the State fund is placed at a disadvantage. It is pointed out that the difficulty lies in the fact that the large employers are permitted self-insurance, and the private insurance companies select only the large, desirable risks, while the host of small employers with meager pay rolls are gathered into the State fund. The commission believes that the only solution, based on its experience of the past three years, is either to give the entire business to the insurance companies, under the control and supervision of the industrial commission, or to establish an exclusive State insurance fund.

## California Court Holds Injury to Wooden Leg Is Not Compensable

**T**HE Supreme Court of California, on October 30, 1931, rendered an opinion holding that the provision of the California workmen's compensation law allowing compensation for an injury to an artificial member was unconstitutional. (*Pacific Indemnity Co. v. Industrial Accident Commission of California et al.*, 5 Pac. (2d) 1.)

Several months prior to the decision of the supreme court the Industrial Accident Commission of California handed down a decision in favor of one John Driscoll, who while working as a teamster lost his balance when the team he was driving shied and an artificial leg which he was wearing broke between the footboard and seat of the vehicle. Driscoll was otherwise uninjured but was unable to continue his work without an artificial leg, and he had no funds to purchase another one. The effect of the industrial commission's order was to compel the insurer either to buy a new artificial leg or to make indefinite weekly disability payments.

The decision of the industrial accident commission was at first upheld by the California Supreme Court by its refusal to review the decision upon appeal by the insurance carrier. Later, by a vote of four to three, the judges of the California Supreme Court reversed its original holding in the case and upon appeal ruled against the claim. The majority of the judges in the first instance considered, in view of their refusal to hear the case upon appeal, that the wooden leg should be mended or a new one purchased by the insurer. In the final appeal the four judges held that compensation could not be allowed for an injury to personal property and that there was no constitutional or other legal provision for such payment, and that a man's artificial leg is not a part of his natural living organic body. If any other position than this was taken the court would have to consider injuries to eyeglasses, false teeth, crutches, trusses, etc.

The appeal to the Supreme Court of California therefore challenged the constitutionality of that provision of the workmen's compensation law which permitted recovery for injury to artificial members.

Section 3, subdivision 4, of the California workmen's compensation act (Acts of 1917, ch. 586) was amended by chapter 471 in 1919 and reads as follows: "The term 'injury' as used in this act shall include any injury or disease arising out of employment, including injury to artificial members." The main question presented to the high court of California for consideration was whether the commission had jurisdiction to make an award for an injury to an artificial limb of an employee. The only source of authority in the legislature to confer judicial power upon the industrial accident commission, the court said, was derived from section 21 of Article XX of the constitution as amended in 1918. The principal parts of this section are as follows:

The legislature is hereby expressly vested with plenary power \* \* \* to create and enforce a complete system of workmen's compensation \* \* \* and in that behalf to create and enforce a liability on the part of any or all persons to compensate any or all their workmen for injury or disability \* \* \* incurred or sustained by said workmen.

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Regarding the power of the legislature to confer such authority, the court said that—

It is plain from the above provision that the limitation of power under the act and its sole purpose is to compensate workmen for injury or disability incurred or sustained by them—not for injury sustained by their personal property. The words “injury or disability” are both used in the sense of injury to or disability of the person or natural body, that is, the living body of the workman (see *City and County of San Francisco v. I. A. C.*, 183 Calif 273), due to sustaining or incurring industrial accident or disease. This is clearly indicated by the history of the legislation and authorities bearing upon the subject, an extended review of which is not essential here. An intent that power be granted to compensate workmen for injuries to their personal property is nowhere to be found.

The jurisdiction of the commission would be enlarged to an unwarranted extent, the court said, “if under the above provisions of the constitution power were conceded to compensate workmen under the act for injuries to or loss of such property.” So to widen the scope of the act would be a direct violation of said power conferred by the constitution.

While section 9 (a) of the compensation act imposes a liability upon the employer to provide such medical and surgical treatment, “including artificial members as may be reasonably required to cure and relieve from the effects of the injury,” the court said that this is a different matter, for—

It is one thing to furnish an artificial member in order to cure and relieve from the effects of an injury to a man's natural body and another thing to furnish an artificial member to replace an injured artificial member damaged beyond repair, no personal or bodily injury to the employee being involved. The former liability is proper (*County of Los Angeles v. I. A. C.*, 202 Calif. 439); the latter, for the reasons above set forth, can not be imposed under the present constitutional provisions.

Referring to the industrial commission's contention that the legislature is vested with plenary power to create and enforce a complete system of workmen's compensation, and the plea that to deny relief in this case would render the system of workmen's compensation incomplete, the court said:

The fact is, however, that the word “complete” as used in the provision in question, is fully defined as including only a complete system for compensating workmen for injury sustained by them (not by their property).

In conclusion the court said that—

We believe that the above holding is in harmony with the prevailing rule on this subject. We know of no jurisdiction wherein provision is made to compensate workmen for injuries to artificial members. In the State of Colorado (*London Guaranty, etc., v. Ind. Com.*, 249 Pac. 642), the issue was directly presented by an award to a claimant for accidental injury to his wooden leg. By the following brief but positive statements the court made quick disposition of the case: “Compensation can be awarded for personal injuries only \* \* \*” which means injury to the person (citing numerous cases). A wooden leg is a man's property, not part of his person, and no compensation can be awarded for its injury.

It follows that in attempting to confer upon the commission authority to entertain this proceeding, said phrase of section 3, subdivision 4, to wit, “including injuries to artificial members,” is void as beyond the power of the legislature to enact it, although its unconstitutionality does not affect the validity of any of the remaining portions of the act; therefore, in so taking jurisdiction over an injury to an artificial member, the commission exceeded its judicial power as limited by the constitution, and its award in favor of said respondent must be and it is hereby annulled.

In the dissenting opinion three judges stated that it was the court's duty to accept a legislative enactment if it can be brought within a possible meaning of the constitution, but that it is no small matter for one branch of the Government to annul the formal exercise by another and coordinate branch of the power committed to the latter. By the provisions of the State constitution plenary power is given to create and enforce the workmen's compensation system fully and completely so as to cover both injury and disability, and for "other remedial treatment" to cure and relieve from the effects of the injury. That a wooden leg is, therefore, an essential part of the body, could be construed as applying to other remedial treatment, as specified in the workmen's compensation act.

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### Operation of Turpentine Business Held Not "Farming" Under Georgia Compensation Law

THE Court of Appeals of Georgia in a recent decision (*Pridgen v. Murphy*, 160 S. E. 701) held that a person employed as a woods rider in the turpentine business was not a "farm laborer" as that term is generally used in the compensation law, and was therefore covered under the Georgia workmen's compensation act.

The court held that this was true even though the person engaged in such business is sometimes referred to as running a "turpentine farm" and the trees may be worked in groups described as "crops."

The facts in the case for which the cause of action arose show that an employee engaged as a woods rider in a turpentine business was injured while trying out or testing a horse which he was subsequently to use in the business. The Industrial Commission of Georgia made an award to the dependent of the deceased employee. Upon appeal to the State Superior Court of Colquitt County the award was set aside upon the grounds that a woods rider in a turpentine business was a "farm laborer," and therefore excluded from the Georgia compensation act. The State court of appeals, to which court an appeal was taken by the dependent widow, at first agreed with the findings of the lower court, but later a rehearing was granted and the court said that—

After continued and painstaking research and deliberation, we have now reached a contrary conclusion, and will hold that the decedent was not a farm laborer within the meaning of the statute. Many decisions and statutes have been examined, but this opinion will be limited to a discussion of the very few authorities that we deem to be directly in point.

A Florida case (*Griffith v. Hulin*, 107 So. 354) which provided for a lien "in favor of any person performing any labor in, or managing or overseeing, the cultivation or harvesting of crops" was cited as to be directly in point and authoritatively expressive of the principles involved. The court in that case held that—

The chipping, scoring, or streaking of pine trees, by which the bark is torn away and the fiber of the tree exposed, so as to induce the flow therefrom of the sap or crude turpentine, rather than being a process of cultivation, is a process destructive in its nature, however beneficial in its results to mankind the lesion thus produced on the tree may be. There is no tilling of the ground or fertilizing of the soil around the tree, but a destruction of a portion of the tree in order to obtain the annual flow of the valuable sap which nature has already produced in its body.

The Georgia Appeals Court was of the opinion that the expression in the Florida case was one of authority, "since the turpentine business is perhaps more common in the State of Florida than in any other part of the country."

There was no reason, therefore, the court said, for disagreeing with that decision and it would therefore follow the reasoning in the case "as an authoritative expression as to the essential character of the turpentine business." The court said:

In principle, the Griffith case answers in the negative the question of whether a person employed as a woods rider in a turpentine business is a "farm laborer" within the meaning of this language as used in the compensation act.

The court also referred to two Federal court cases (*United States v. Waters-Pierce Oil Co.* (C. C. A.), 196 Fed. 767, and *Union Naval Stores Co. v. United States*, 240 U. S. 284), which have held that the turpentine business is not "agriculture."

The judgment of the lower court was therefore reversed.

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### Economic Conditions can not Change Employee's Compensation Status

**A**N EMPLOYEE, receiving compensation for partial disability, who ceased work when the plant shut down, and on account of economic conditions was unable to find other work, could not, according to the Georgia Court of Appeals, recover compensation for "total incapacity." (*General Accident Fire & Life Assurance Corp. et al. v. McDaniel*, 160 S. E. 554.)

The facts in the case show that the employee had a hernia and underwent an operation for its cure. Before he was able to return to work the hernia recurred and a second operation was not advised. He was awarded compensation for temporary total disability, and later when he secured selected employment for himself the award was changed to compensation for partial disability. He continued in this employment until April, 1930, when the plant shut down, and since that date has been unable to find work suitable to his impaired physical condition. He therefore applied for an increase in compensation due to a change in conditions and the industrial commission allowed compensation for temporary total incapacity. The Superior Court, Chatham County, Ga., affirmed the award, but upon appeal to the Court of Appeals of Georgia the decision was reversed, "there being no finding of fact by the commission that the claimant was unable to do any work, or that he was unable, by reason of his injury, to resume his former occupation, or that he was unable, by reason of his injury, to procure remunerative employment at a different occupation suitable to his impaired physical condition." In denying a motion for rehearing, the court said:

The fact that an employee may be partially disabled, and thereafter is able to find and does find remunerative employment suitable to his impaired physical condition, which he continues to perform until the work itself is shut down, for reasons in nowise connected with his previous injury, and that on account of economic or other conditions he is unable to find other work suitable to his impaired physical condition, does not authorize a finding that the original injury rendered him totally incapacitated to perform physical labor.

\* \* \* The injured employee, after successfully working at other and different employment suitable to his impaired physical condition, became idle on



account of economic or other causes entirely disconnected with his injuries, and we therefore think that the only compensation he is entitled to under the findings of fact as made by the commission is the compensation originally allowed as compensation for his partial impairment.

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### Death by Lightning Held Compensable in Oklahoma

**D**EATH by lightning constitutes an "accidental injury" arising out of and in the course of the employment, if the nature of the employment exposes the workman to risk of such injury, according to the rule laid down by the Supreme Court of Oklahoma in the case of *Consolidated Pipe Line Co. v. Mahon* (3 Pac. (2d) 844).

Mahon was employed by the Consolidated Pipe Line Co., engaged in taking up a pipe line some 8 miles north of Wewoka, Okla. Shortly before noon a rainstorm came up, and Mahon, together with some of his associates, took refuge in an old, dilapidated frame house which had no doors or windows. Mahon was struck by lightning while in the house, resulting in an injury for which compensation was awarded him by the State industrial commission.

A petition was later filed in the Supreme Court of Oklahoma to review the award of the industrial commission. The principal question involved was whether the injury sustained by Mahon by reason of the lightning stroke "arose out of his employment."

The court reviewed the facts and cited a number of cases on the subject, some of which allowed compensation and others held such an accident did not arise out of the employment. The general rule laid down by the court as the test was whether the causative danger was peculiar to the work or common to the neighborhood. Under the facts and circumstances of this case the court held the causative danger was peculiar to the work. The court said:

Would it be contended that his employment in removing a pipe line would not necessarily accentuate the natural hazard from lightning? If the claimant was exposed to injury from lightning by reason of his employment, something more than others in the same locality are exposed, if his employment necessarily accentuated the natural hazard from lightning, and the accident was natural to the employment, though unexpected or unusual, then a finding is sustained that the accident from lightning was one "arising out of the employment."

The court also said that obtaining shelter was not only necessary to the preservation of his health, but was incident to his work and was an act promoting the business of his master, for the master would have been liable for medical expenses had Mahon remained at work and become ill from the exposure to the elements.

In holding that the employment exposed Mahon more than the public in general, the court said:

We think it is a matter of common knowledge that, when a sudden and unexpected rainstorm occurs in the locality or neighborhood 8 miles north of Wewoka, the persons living and laboring in that locality, in seeking refuge from such a storm, are not required to enter an old, dilapidated house without windows or doors which no one has occupied for quite awhile, but, on the contrary, such persons may under such circumstances seek shelter in houses with doors and windows and constructed so as to minimize danger from the elements. It is generally known that an old house in the condition of the one in which Mahon sought shelter is much more liable to be struck by lightning or blown down by the wind than the average house in the same locality which is habitable and inhabited. So we think the State industrial commission was justified in holding that the employment of Mahon exposed him more to the elements than the public generally in the neighborhood are so exposed.

# WORKERS' EDUCATION AND TRAINING

## Vocational Guidance Recommendations of White House Conference on Child Health and Protection

THE subject of vocational guidance was taken up by the White House Conference on Child Health and Protection, held in Washington, D. C., November 19-22, 1930, through its committee on vocational guidance and child labor, of which Anne S. Davis, director, vocational guidance bureau, Chicago Board of Education, was chairman. The vocational-guidance section of this committee, of which Edith Campbell, director of the vocation bureau of the Cincinnati public schools, was chairman, was divided into four subcommittees: (1) Subcommittee on study of the individual; counseling; scholarships; and curriculum: work in educational and vocational guidance (Edith Campbell, chairman); (2) subcommittee on individualized opportunities for training for an occupation (Dr. Edwin A. Lee, director division of vocational education, University of California, chairman); (3) subcommittee on occupational studies and placement (Dr. Mary Holmes Stevens Hayes, director vocational service for juniors, chairman); and (4) subcommittee on special problems (Dr. W. Carson Ryan, jr., Director of Education, Office of Indian Affairs, United States Department of the Interior, chairman). Following are the recommendations of this section of the committee.<sup>1</sup> Its detailed report, which, under the title "Vocational Guidance," is to be a part of the complete reports of the White House conference, is now in the hands of the printer, and is scheduled for publication in February, 1932.

### Recommendations of Vocational Guidance Committee

#### Organizing the Educational Program for Guidance

A MODERN vocational guidance program should include—

1. Careful study of the individual, through mental and other tests, and adequate records.
2. A counseling service, staffed by qualified vocational counselors.
3. A curriculum provision in which vocational and educational guidance is emphasized.
4. Adequate opportunities for vocational training, including try-out courses.
5. Publication and distribution of suitable occupational and educational pamphlets.
6. Placement machinery for obtaining positions and supervising employment for young workers.
7. Scholarships and similar aids for retaining boys and girls in school.
8. Cooperation with other agencies in vocational guidance.

<sup>1</sup> A summary of these recommendations was published in the July, 1931, issue of the Monthly Labor Review.

### Study of the Individual

1. FOR purposes of vocational guidance, knowledge of both the past and present experience and accomplishments of an individual is necessary, and to this end cumulative reports which provide a running record of an individual's progress through school and into industrial or higher educational institutions should be installed in every school system which attempts a vocational-guidance program. It is felt that such records have value not only for the guidance of the child, but are of great assistance to the teacher or other supervisor in his dealings with the child. It is further felt that such records should not be attempted unless use is to be made of them.

2. Information obtained from the study of the individual should so far as possible be expressed in terms of uniform and objective measures which are understandable when the pupil moves from one educational or industrial institution to another.

3. The use of psychological tests, as a measure of both mental capacity and educational achievement, is one of the most valuable instruments for educational and vocational guidance. They constitute, however, only one factor in the study of the individual.

4. For assistance in the giving of vocational guidance there is need for the further development of objective tests of personality characteristics.

5. The giving of psychological tests and other measures of personality and accomplishment should, where the size of the school system permits, be a function of a centralized bureau under the leadership of a trained psychologist; and an adequate staff of psychological assistants should be attached thereto and charged with the responsibility of supervising all the testing done by teachers or other school officials in that they should approve the material used, select the persons assigned to such work, and examine and assist in interpreting the results obtained.

6. The giving of psychological tests by untrained persons without this supervision should be discouraged.

### Counseling

1. COUNSELING procedures should be established in all school systems, in order to reduce the human and financial losses that result from failure of individual children to adjust to the school curriculum, and also to assist pupils to make the educational adjustments which will equip them for a vocation in harmony with their abilities and interests.

2. Counseling should be made available to all pupils in those grades in elementary and secondary schools where educational choices and vocational information are important; it should include pupils of varying abilities and ambitions, from the most gifted to the most retarded child, and both the adjusted and the maladjusted pupils.

3. The counselor, if not allowed full time for counseling and related activities, should be given the necessary freedom from subject teaching and other duties necessary to conduct an effective counseling program. The pupil-load should be limited to that number which makes possible well-organized counseling plans and thorough procedures.

4. The counselors' functions should emphasize—
  - (a) Individual counseling and individual case study, which recognize individual differences and needs, and are supplemented where necessary by group counseling. This counseling should involve the closest cooperation with the various school departments, with parents, and with the social agencies of the community.
  - (b) Fundamental rather than superficial problems, utilizing the services of other specialists where necessary.
  - (c) Broad and flexible plans which will grow to meet the pupil's needs in later years.
  - (d) Assisting the child to find, develop, and carry a program that shall reflect his own choice and his own method of thinking.
5. Adequate supervision and methods for coordinating the activities of counselors within a community and for improving technics should be established.
6. An effort should be made to standardize the terms relating to counseling and thus make possible a more satisfactory method of studying and comparing procedures in various school systems.
7. Counselors should be chosen because of their special personal qualifications, experience, and training, which should include—
  - (a) College training in the fields of economics, education, psychology, sociology, and vocational guidance.
  - (b) Practical experience in business or industry, personnel work, social case work, and industrial or social research, as well as teaching.

#### Scholarships

1. PROVISION should be made in every community for the giving of scholarships to children who, through necessity, would have to leave school for work as soon as the child labor law permits.
2. At the present time scholarships can be most effectively administered by a private or semipublic office working in close connection with the vocational-guidance bureau and the local board of education.
3. Scholarships might best be administered by a central office to insure against waste and inefficiency in the dispensing of funds by small offices or individual schools of uneven standards.
4. Scholarship work should be directed by one who has an understanding of educational theory and practice, of industrial situations, and of social case work theory and technic.
5. The investigation and supervision of scholarship cases should be based on accepted case-work principles and approved case-work methods, and each case should be treated as an individual matter. The study of each individual should include not only a study of the social and school situations but a physical and psychological examination of the child. Supervision should include study and treatment of social interrelations, health, and recreational and vocational adjustments.
6. The amount of scholarship grant should be determined on the basis of the accepted minimum budget used by the social agencies in the community. Children whose families maintain a standard of living slightly higher than that allowed by the accepted minimum budget should be considered, if indications are that the child is being forced to go to work.
7. Follow-up work should be a definite part of a scholarship program.

### Curriculum: Work in Educational and Vocational Guidance

1. As a measure actuated by child protection and welfare, curriculum study of occupational information is required.

2. Classes for such a study should be carefully organized, with approved textbooks and methods, and should be placed at strategic points where educational and vocational decisions are about to be made.

3. Such classes should have less emphasis placed on the learning of facts than on teaching pupils methods of occupational analysis and self-analysis that may develop in them the confirmed habit of analyzing occupational problems as they arise in their lives.

4. Such classes should also aim to equip pupils with vocational enlightenment usable for solving the larger economic and social problems connected with occupational life.

5. Guidance for success in the educational career is likewise required—learning how to study, information on opportunities ahead, guidance on choice of studies, curriculum, school, and college.

6. Preview courses are needed for the purpose of enabling the pupil to sample the various studies and to try out his interests and abilities.

7. Try-out courses in occupational samplings are needed for the discovery of ability and interest leading to choice of vocation and vocational preparation. These courses should provide for each pupil the opportunity to explore elementary exercises in the tools, materials, and processes of agriculture, industry, business, and home making, and contacts with professional callings should be provided.

8. Clubs, student government, and student activities generally should be utilized for the discovery and exploration of abilities.

9. Studies of local opportunities and specialties in occupations should be made and published; such studies should be coordinated and collated by a central agency like the National Vocational Guidance Association or the U. S. Children's Bureau, in order to avoid duplication and to make material available for smaller communities.

10. Those who teach curriculum work in guidance, whether teachers or counselors, should have had special preparation for the work and should possess experience in occupations other than teaching.

11. Curriculum work in guidance should be adequately sponsored and supervised, and should be coordinated with other features of the guidance program, such as counseling, testing, placement, and follow-up.

#### Occupational Studies

OCCUPATIONAL studies are a necessary tool of vocational guidance and serve the following purposes:

A. To give information to young people regarding the duties, conditions of work, and the preparation necessary for the occupations which they eventually may enter.

B. To provide a background of adequate industrial knowledge for vocational counselors, placement workers, teachers of occupations, and all others who serve in an advisory capacity to young people.

Occupational studies are of varying value, according to the standards which have been employed in their preparation.



The committee therefore makes the following recommendations:

1. Occupational research should be made a part of every vocational-guidance program.
2. Occupational studies should be general in so far as the information is nationally applicable, and specific in regard to the local community where, presumably, the majority of young workers will find occupation.
3. The preparation of these studies should be carefully controlled and criticized in order that the result may present a picture of the occupation which shall be accurate, adequate, unprejudiced, and comprehensible to the group for whom it is intended.
4. The direction and final editing of such studies should be in the hands of persons trained in the methods of industrial research, but, because of the educational value contained therein, all counselors, placement workers, social-studies teachers, and others who have occasion to advise with the child in relation to his occupational and educational plans, should be given some practical first-hand experience in the preparation of such studies.
5. A national clearing house for occupational information might well be established in order to—
  - A. Avoid duplication.
  - B. Set up adequate standards for the preparation of such studies.
  - C. Bring out the national similarities and local differences inherent in a given occupation.
  - D. Provide assistance and stimulus for new groups to develop such studies.
6. Occupational studies should be prepared from the educational viewpoint and with the hope that the results of such studies may have an influence on curriculum planning, in that instruction may be more closely related to the problems of the community.

### Individualized Opportunities for Training

#### Needs and Recommendations

THE most pressing problem of vocational education is recognition of the universal need of all boys and girls for vocational preparation.

Acknowledgment that this need is as urgent for those who occupy minor positions and render humble service as for those who direct or control large enterprises or serve in high places is the next step in the development of adequate vocational education for all young people. Every individual needs preparation for his vocation as a means of service, a method of exercising his creative abilities, a way of sharing responsibility, and a means of securing income for himself and dependents. Work, a place of one's own, is a badge of citizenship and service to the State. The committee recommends that the public or society as a whole assume the responsibility for seeing that adequate vocational preparation is provided for all young people and that society's established agency—the public-school system—be given the leadership in discharging this obligation.

*Scope of vocational training.*—The need for vocational preparation exists in every community. It is to be expected, therefore, that provisions will be made in all school systems for this essential feature of preparation for living.

In assuming the leadership in vocational education it is necessary that administrators of public education take into account the fact that some vocational preparation can best be given in the school before employment begins, some partly in school and partly in employment, some wholly in employment, and that plans will provide for training suited to the individual's needs and the occupation he expects to enter.

Vocational education is interpreted to include the adjustment of the worker to the social and economic conditions surrounding the occupation for which preparation is provided, as well as the acquisition of manipulative skills and technical knowledge required in the occupation.

Plans for vocational education should take into account such important matters as—

A. The growing mechanization of processes long established in industrial lines of work and now rapidly invading business and professional occupations as it affects the manner in which work is to be done as well as product to be made or service rendered.

B. The effects of new inventions and discoveries on established occupations and on the development of new occupations.

C. The changes in legislation delaying entrance to employment and lengthening the period of compulsory school attendance and the obligations for a type of education which will compensate for the deferred wage earning which many young people keenly desire.

D. The relationship of employers and of labor organizations to the problem of preparation for entrance into occupations and satisfactory pursuit of them after employment begins.

E. The demand for labor in the occupations for which the schools are offering vocational courses so as to guard against overcrowding occupations for which a full supply of workers is available.

*Provisions for pupils' needs.*—Recognition of individual differences already well established in general education should be made a basic principle in plans for vocational instruction by providing for—

A. All levels of ability and, within the group usually designated as average, provisions to be made for at least three levels, viz, low average, middle average, and high average.

B. Different types of aptitudes and varying vocational interests.

C. Maintenance of health standards in occupational activities and attention to such matters as stature, physical development, eyesight, etc., which often affect employment.

D. Due consideration of the many occupations from which individuals of given aptitudes and abilities may select and for which they may be trained either in the school or in the place of employment.

Adequate vocational guidance should be given before vocational preparation begins in order that waste involved in preparation for occupations unsuited to individual capacities and needs may be avoided.

Plans for vocational preparation should include adequate provision for experiences closely comparable to those which the individual will have as an employed worker or actual experience in the occupation under supervision.

Proper follow up after employment is essential in order that the young person may obtain the best training possible from his working

environment and from evening classes and correspondence courses in which he continues his education after entering full-time employment.

In training young people for and directing them into occupations for which they are best suited, teachers and counselors should encourage them to assume their responsibilities with a sense of pride in the mastery of skills to be used and the service to be rendered in order that they may be assured of their rightful heritage of joy in work and pride in good workmanship.

*Extension of courses.*—Agricultural courses should be extended for boys and girls in rural areas who expect to enter agricultural pursuits; and adequate vocational information and training also, when possible, should be provided for those who are interested in and ultimately enter types of work not connected with farm life.

Attention should be given to the occupational and social needs of the young people entering the highly mechanized occupations in the industries, by additional education and vocational preparation which will assist them to advance when they find themselves in types of work that do not provide for advancement in occupational status or give security in earning power.

Instruction in the responsibilities of the home should be included in the vocational training of boys and girls as preparation for the important vocation of adult life and a contribution to citizenship.

Courses in commercial subjects, industrial subjects, agricultural subjects, and home-making subjects now established in the public schools should be definitely differentiated as to general-education aims and vocational-preparation aims, in order that parents and their children may know the results that should accrue from courses planned specifically for vocational preparation and those intended to supplement the general-education courses.

Women and girls are entering wage-earning occupations in increasing numbers and finding employment in many more occupations than in former years. More adequate provision should be made in the schools for vocational courses which will fit them for the many wage-earning callings in which they render substantial economic service.

Wherever possible and practicable, apprenticeship for boys entering the skilled trades should be organized, and adequate working relationships between apprentices, employers, and the schools maintained for the purpose of encouraging the spirit of craftsmanship among young workers and retaining skilled trades for which there is demand.

*Additional types of schools.*—It is taken for granted that the types of vocational education already provided in the colleges, technical schools, high schools, and vocational schools will be enlarged and strengthened as study of the problems of vocational education points the way to improvement and that the vocational offerings in these schools will be materially extended as time goes on. There is need, apparently, for more flexible secondary curriculums and more generous recognition of the educative values to be obtained from vocational studies and working experience if these schools are to provide any appreciable amount of vocational preparation for their pupils.

There is urgent need for schools for slow and retarded children not completing a secondary-school course. The absence of training which will prepare these young people for the simple types of work in which they will ultimately find employment and safeguard them

from exploitation, dependency, or delinquency is a dark spot in the program at the present time. Schools for these children should forego the eighth-grade entrance requirement and provide many types of occupational activities in the schools. The more able of these pupils, even though one to two years over age, may be promoted to a trade or technical school if they qualify. Others should be coached for the types of work they can do and placed in occupations in which they can render acceptable service.

A suitable organization for the continuation schools, to take the place of the traditional organization to which many continuation schools have resorted, is greatly needed. Instruction should take into account the vocational responsibilities and aspirations of the pupils and definitely aim to make the continuation schools serve the immediate needs of the young workers who attend them and establish relations.

Evening schools are patronized increasingly by young men and women seeking advancement in their vocations and additional general education. Provisions should be made for articulating instruction in the day vocational and continuation schools with the courses offered in the evening schools, in order that young people may continue their studies without interruption, when they so desire.

Attention should be given to adult education, for the contributions which the increased earnings of the breadwinner and greater efficiency of the home maker make to child health and protection.

State and Federal aid for vocational schools throughout the States has done much to increase the number of vocational schools, extend the scope of their work, and improve the quality of vocational instruction. During the early years the larger cities having a vocational program and smaller communities ready to undertake such a program, but lacking adequate funds, were immediately benefited by this financial aid. These funds should increasingly serve the more remote and scattered communities and individual pupils when necessary, and thus equalize the opportunities for vocational preparation.

*Administration problems.*—An organization and administration of public education which sees vocational education in proper perspective and provides for all phases of it without prejudice should be established in each community.

Provisions should be made for research in all types of vocational education. Communities which are evidencing high accomplishment in vocational education are continually surveying the occupations, discovering vocational needs and requirements, analyzing specific fields of occupational endeavor, interpreting trends of growth and deterioration, and anticipating new occupations in order that the vocational training offered may be as nearly consonant with facts and tendencies as possible.

A more adequate program for the selection and professional training of those who teach and administer vocational education is needed. Since real accomplishment in all levels of vocational education rests largely upon the quality of the instruction, the States should improve their training programs so as to insure a vocational staff fully qualified by richness of personality, breadth of experience, and completeness of professional preparation.

Supervisors for each of the four types of vocational education—agricultural, commercial, home making, industrial—should be provided in the States in order to develop adequately the training offered in each field and continue the work of making vocational preparation available to young people in remote areas.

The contributions of nonpublic agencies as philanthropic schools, corporation schools, correspondence schools, and certain private commercial and trade schools to the solution of the problem of vocational education should be recognized and utilized when they can best serve the needs of young people.

State supervision of nonpublic vocational schools should be provided in order to prevent exploitation of youth by unscrupulous private vocational schools and to protect schools which are performing a real service to vocational education.

## Placement

### Recommendations

1. MORE adequate facilities should be provided for free junior placement.

A. Provision should be made for separate and distinct junior placement departments under the public schools or labor departments in all communities where there is need.

B. Junior employment departments should be provided with private offices for interviewing applicants. Where this is impossible, separate waiting halls should be provided for juniors, and special placement workers should be assigned to junior placement.

C. Such bureaus should be adequately staffed, definite space provided, and definite hours kept.

2. Junior placement offices should place the interest and welfare of the children before all other interests.

A. They should aim not merely to fill jobs, but to place young people in suitable positions, with intelligent appreciation of opportunities ahead, taking into account so far as possible their abilities, education, and physical condition. Psychological tests may often be used to advantage.

B. They should aim to encourage boys and girls to remain in school and to encourage further education if they must work. Available scholarship funds should be made use of where necessary.

C. They should interview applicants every time they apply.

D. They should refer junior applicants only to those places of employment which have first been investigated.

E. They should follow up and supervise boys and girls whom they place, giving them the benefit of advice when needed.

F. They should serve all young people regardless of race or creed.

G. Special provision should be made for the placement of mentally, physically, or socially handicapped applicants by those familiar with their special problems in cases where this handicap is so marked that it can not be handled through normal employment channels.

3. Junior employment agencies should use all available community resources for their more complete service to boys and girls.

A. There should be the closest cooperation with the schools, especially in the use of school reports, including reports on scholarship,



home conditions, birth and health records, and information from the employment-certification office.

B. Social agencies of all types should be used by the junior placement office for the best possible adjustment of the boy or girl, including the use of the social-service exchange.

4. Adequate records should be kept by all junior employment bureaus.

A. The information secured should conform to certain minimum and uniform standards drawn up by public bureaus in cooperation with national organizations or State and Federal departments.

B. Every interview should be recorded on the individual record of the applicant and a report be kept of the data secured from each industrial investigation.

C. Report information should be collected, at monthly intervals, to include, as a minimum, record of applicants served, number of applications, positions available, persons placed, and total placements made.

D. Provision should be made for centralized comparable employment information in a community through such devices as uniform monthly reporting, the clearance of labor calls, an information service regarding employment facilities, and a central file of industrial investigations.

5. Junior placement should be done only by those specifically engaged for this work, and training requirements should include at least a high-school education, though a college education is more desirable, with special training in economics, sociology, and case work.

It is desirable that at least one member of the staff shall have had training in the fundamentals of statistics.

It is essential that the placement worker be familiar with labor and education laws and have a knowledge of industrial conditions and opportunities in various fields of work, through visits to industrial and business establishments.

#### Other Vocational Guidance Agencies

THE vocational-guidance program in a community should involve every effort to cooperate with existing nonpublic organizations interested in guidance.

In order to further this cooperation, private organizations working in the field of guidance should keep informed of modern developments and modify their program of vocational guidance as need arises.

# INDUSTRIAL DISPUTES

## Strikes and Lockouts in the United States in November, 1931

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

Table 1 shows the number of disputes beginning in 1927, 1928, 1929, and 1930, the number of workers involved and man-days lost for these years and for each of the months, January, 1930, to November, 1931, inclusive, as well as the number of disputes in effect at the end of each month and the number of workers involved. The number of man-days lost, as given in the last column of the table, refers to the estimated number of working days lost by workers involved in disputes which were in progress during the month or year specified.

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

Month and year	Number of disputes		Number of workers involved in disputes		Number of man-days lost in disputes existing in month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total.....	734		349,434		37,799,394
1928: Total.....	629		357,145		31,556,947
1929: Total.....	903		230,463		9,975,213
1930: Total.....	653		158,114		2,730,368
<i>1930</i>					
January.....	45	21	9,240	5,316	184,730
February.....	52	40	37,480	6,683	438,570
March.....	49	38	15,017	5,957	291,127
April.....	64	41	6,379	5,840	189,828
May.....	66	29	9,329	4,386	185,448
June.....	59	34	14,011	8,311	144,117
July.....	78	30	14,308	4,815	141,647
August.....	51	33	15,902	7,131	142,738
September.....	72	44	16,337	13,778	208,184
October.....	47	36	10,858	16,007	335,916
November.....	44	29	4,390	7,759	273,608
December.....	26	7	4,863	5,144	194,455
<i>1931</i>					
January.....	56	20	10,147	2,927	181,031
February.....	52	34	19,984	12,512	228,329
March.....	45	27	26,121	28,139	422,545
April.....	60	39	26,442	22,604	769,720
May.....	106	49	27,588	15,735	402,437
June.....	81	51	18,437	17,071	506,097
July.....	67	54	49,574	58,995	666,309
August.....	76	43	10,977	17,003	1,213,120
September.....	110	59	35,859	37,164	491,024
October <sup>1</sup> .....	65	43	34,376	30,075	1,041,917
November <sup>1</sup> .....	42	46	13,475	16,295	393,884

<sup>1</sup> Preliminary figures subject to change.

## Occurrence of Industrial Disputes, by Industries

TABLE 2 gives, by industry, the number of strikes beginning in September, October, and November, 1931, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN SEPTEMBER, OCTOBER, AND NOVEMBER, 1931

Industrial group	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	September	October	November	September	October	November
Bakers.....	2	1	1	1,009	6	7
Barbers.....		2	1		535	32
Broom and brush workers.....		2			22	
Building trades.....	18	14	9	839	416	1,382
Chauffeurs and teamsters.....	4	4	1	840	122	25
Clothing.....	19	13	8	1,519	1,596	356
Food workers.....	3	1		725	20	
Furniture.....	5		1	180		20
Glass workers.....		2	1		1,025	36
Hotel and restaurant workers.....		1	1		8	38
Jewelry workers.....	3	2		60	26	
Leather.....	2			305		
Longshoremen and freight handlers.....	1	3		150	5,712	
Lumber, timber, and millwork.....	1		1	146		50
Metal trades.....	3	2	1	785	35	21
Miners.....	12	7	7	22,030	1,612	2,654
Motion-picture operators, actors, and theatrical workers.....	8	1	1	356	6	6
Paper and paper goods workers.....		1			14	
Printing and publishing.....		3			50	
Steamboatmen.....		1			42	
Stone.....	1			200		
Telegraph and telephone workers.....			1			40
Textiles.....	26	4	5	6,610	23,122	746
Tobacco.....			3			8,062
Other occupations.....	2	1		105	7	
Total.....	110	65	42	35,859	34,376	13,475

## Size and Duration of Industrial Disputes, by Industries

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

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

Industrial group	Number of disputes beginning in November, 1931, involving—					
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers	5,000 and under 10,000 workers
Bakers.....	1					
Barbers.....		1				
Building trades.....	1	6	1		1	
Chauffeurs and teamsters.....		1				
Clothing.....	5	2	1			
Furniture.....		1				
Glass workers.....		1				
Hotel and restaurant workers.....		1				
Lumber, timber, and mill work.....		1				
Metal trades.....		1				
Miners.....		2	3	2		
Motion-picture operators, actors, and theatrical workers.....	1					
Telegraph and telephone workers.....		1				
Textiles.....	1	1	3			
Tobacco.....			1	1		1
Total.....	9	19	9	3	1	1

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

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

Industrial group	Classified duration of strikes ending in November, 1931				
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months
Bakers.....	1				
Barbers.....	1				
Building trades.....	5	1			
Clothing.....	4	2	2	1	
Food workers.....		1			
Hotel and restaurant workers.....	1				1
Lumber, timber, and millwork.....		1			
Metal trades.....	1				
Miners.....	2	3			
Motion-picture operators, actors, and theatrical workers.....		1	1		
Paper and paper goods workers.....	1				
Printing and publishing.....	1				
Telegraph and telephone workers.....	1				
Textiles.....	5		1		
Tobacco.....	1				
Total.....	24	9	4	1	1

### Conciliation Work of the Department of Labor in November, 1931

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 55 labor disputes during November, 1931. These disputes affected a known total of 34,679 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the craft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On December 1, 1931, there were 40 strikes before the department for settlement and in addition 33 controversies which had not reached the strike stage. The total number of cases pending was 73.

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

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Erie Electric Sales & Service Co., Erie, Pa.	Strike.....	Laborers and electricians.	Alleged violation of working conditions by contractor on pumping station.	Adjusted. Agreed to employ all union men	1931 Oct. 28	1931 Nov. 7	8	140
Boehm Bros. (Inc.), Buffalo, N. Y.	.....do.....	Building.....	Wage cut.....	Unclassified. Nonunion workers employed.	Oct. 30	Nov. 5	20	20
E. & W. Upholstering Co., Philadelphia, Pa.	.....do.....	Upholsterers.....	Asked 25 per cent increase, 40-hour week and union recognition.	Adjusted. Strike called off, no change in conditions.	Oct. 15	Dec. 5	20	-----
Glass cutters, Arkansas, Oklahoma, and Ohio.	.....do.....	Glass cutters.....	Wages and discussion of new agreement, including wage cut.	Adjusted. Wages cut 17 per cent. No other change.	Nov. 1	Nov. 12	12,000	15,000
Fulton Opera House, Lancaster, Pa.	Lockout.....	Operators.....	Nonunion workers employed.	Pending.....	.....do.....	.....do.....	5	-----
Tide Water Oil Co., Bayonne, N. J.	Threatened strike.	Oil workers.....	Wages, hours, and discharge of 125 men.	Adjusted. No discharges; 44-hour week.	Oct. 19	Nov. 2	1,350	1,650
French Leather and Felt Slippers (Inc.), New York City.	Strike.....	Slipper workers.....	Shop conditions and recognition of Leather Workers International Union.	Pending.....	Oct. 27	.....do.....	40	5
All America Cables (Inc.), New York City.	.....do.....	Cable operators.....	Wages cut 10 per cent; refusal to meet committee of operators.	Adjusted. Accepted cut and returned.	Nov. 2	Nov. 9	40	-----
Post-office building, Millersburg, Ohio.	Controversy.	Bricklayers and masons.	Discussion of prevailing wage.....	Pending.....	.....do.....	.....do.....	( <sup>1</sup> )	-----
Post-office building, Milford, Conn.	.....do.....	Sheet-metal workers; roofers.	Jurisdiction of metal work and prevailing wage discussion.	Adjusted. Prevailing wages paid; job finished; jurisdiction settled.	Oct. 28	Nov. 5	8	34
Brass Bros. & Feinroth Shoe Co., New York City.	Strike.....	Shoe and leather workers.	Asked reemployment of discharged workers.	Adjusted. Reemployed workers previously laid off; agreed on piecework prices.	Nov. 2	Nov. 6	13	67
Bleyco Paper Co., New York City.	.....do.....	Paper workers.....	Asked reemployment of 2 girls and recognition of P. W. I. L.	Adjusted. Recognition not allowed; all reemployed; \$2 per week increase; conditions improved.	Oct. 23	Nov. 4	14	8
Kingston Slipper Shop, New York City.	.....do.....	Slipper workers.....	Asked guaranty against future wage cuts.	Adjusted. Agreed not to cut wages this season.	Oct. 27	Oct. 31	25	5
Restful Slipper Co. (Inc.), New York City.	.....do.....	.....do.....	.....do.....	Adjusted. Allowed as asked.....	Oct. 24	Oct. 26	30	-----
Brilliant Silk Hosiery Co., Bloomfield, N. J.	.....do.....	Hosiery workers.....	Working conditions; wages.....	Pending.....	Nov. 5	.....do.....	400	-----
March Field, Riverside, Calif....	Controversy.	Electrical workers...	Prevailing wage discussion.....	Adjusted. Settled by Army officers of the field.	Sept. 15	Oct. 30	6	-----
Happy Hollow and Block Ridge mines, Des Moines, Iowa.	Strike.....	Miners.....	Wage scale and union recognition.	Adjusted. Union agreement concluded fixing wages and conditions.	Nov. 3	Nov. 22	26	-----

<sup>1</sup> Not reported.

INDUSTRIAL DISPUTES

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

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Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Begin-ning	Ending	Di-rectly	Indi-rectly
James O'Meara, stoneyard, Baltimore, Md.	Controversy.	Stoneyard workers.	Hours of labor.....	Adjusted. Contractor agreed on 8-hour day.	1931 Nov. 5	1931 Nov. 5	30	10
Thatcher Furnace Co., Newark, N. J.	Strike.....	Stove mounters.....	Wage cut 25 per cent.....	Pending.....	Nov. 6		8	48
Goldberg Bros., Philadelphia Pa.	.....do.....	Upholsterers.....	Asked 40-hour week, 25 per cent increase, and union recognition.	Adjusted. Strike called off.....	Oct. 15	Dec. 5	14	
McCarter Iron Works, Mocanqua, Pa.	Controversy.	Coal and iron workers.	Dispute between unions.....	Adjusted. Men reached an agreement with union.	Nov. 18	Nov. 18	9	
Wrecking contractor, Bridgeport, Conn.	.....do.....	Laborers.....	Alleged laborers receiving 30 cents per hour.	Adjusted. Increased to 35 cents, 8-hour day, and conditions improved.	Nov. 10	Nov. 16	20	
Art Chair Co., Philadelphia Pa.	Strike.....	Upholsterers.....	Asked 40-hour week, 25 per cent increase and union recognition.	Adjusted. Strike called off.....	Oct. 15	Dec. 5	10	
Glass cutters, Fairchance, Pa.	Controversy.	Glass cutters.....	Wages, etc.....	Adjusted. Agreed to pay old scale pending final settlement.	Nov. 7	Nov. 8	40	149
Atlantic Upholstering & Furniture Co., Philadelphia, Pa.	Strike.....	Upholsterers.....	Asked 40-hour week, 25 per cent increase, and union recognition.	Adjusted. Strike called off.....	Oct. 20	Dec. 5	10	
Litt, Chintx & Co., New York City.	Lockout....	Clothing workers.....	Alleged violation of agreement....	Unclassified. Business discontinued.	Nov. 9	Nov. 11	190	
Indian Valley Coal Co., Shick-shinny, Pa.	Strike.....	Miners.....	Company refused to sign agree-ment.	Adjusted. Returned.....	Nov. 12	Nov. 13	140	
Post-office building Altoona, Pa.	Controversy.	Building crafts.....	Prevailing rate discussion.....	Adjusted. Carpenters increased from 60 to 90 cents per hour; laborers from 25 to 40 cents.	Nov. 13	Dec. 3	25	
B. Axel, New York City.....	Strike.....	Fur workers.....	Asked increase.....	Pending.....	Nov. 12		25	
Laborers, Lackawanna, New York.	Controversy.	Laborers.....	Alleged discharges without cause.....	Unclassified. Conditions im-proved; some reemployed before commissioner's arrival.	.....do.....	Nov. 17	500	
Veterans' Hospital, Indianapolis, Ind.	Strike.....	Electricians.....	Objection to electrical work being done by maintenance men.	Adjusted. Compromise agreement.	Nov. 6	Nov. 9	5	20
Merhige Silk Mill, Brooklyn, N. Y.	.....do.....	Weavers.....	Wage cut and working conditions.....	Pending.....	Oct. 3		45	62
Steven-Adamson Manufacturing Co., South Bend, Ind.	Threatened strike.	Ironworkers.....	Objection to nonunion workers.....	.....do.....	Nov. 16		11	60
Laclede Stoker Co., South Bend, Ind.	.....do.....	.....do.....	.....do.....	.....do.....	Nov. 18		5	66
Stevens-Adamson Manufacturing Co., South Bend, Ind.	.....do.....	Carpenters.....	.....do.....	.....do.....	.....do.....		8	25
Fox & Weissman, New York	Strike.....	Fur workers.....	Wage cuts and working conditions.....	.....do.....	Nov. 19		(1)	

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Shell Oil Co., Long Beach, Calif.	Controversy	Truck drivers	Lay-offs	Adjusted. Company claimed lay-offs necessary.	Sept. 1	Nov. 14	4	27
Shell Oil Co., Wilmington, Calif.	do	do	Demotion of workers	Pending	Nov. 5		5	
Federal building, Wichita Falls, Tex.	do	Building	Prevailing wage discussion	do	Nov. 10		(1)	
H. & M. Knitting Mills, Brooklyn, N. Y.	Strike	Knit-goods workers	Asked equal division of work, union recognition, and reinstatement of discharged workers.	Adjusted. Conditions allowed as asked; reemployed as many as practicable at the time.	Oct. 29	Nov. 16	70	8
Public-school buildings, Greater New York.	do	Building	Prevailing wage discussion	Adjusted. Returned; negotiations continued.	Nov. 16	Nov. 25	1,000	600
Fox Weiss Fur Shop, Philadelphia, Pa.	do	Fur workers	Asked increase, shorter hours, and union recognition.	Pending	Nov. 19		16	
Tredegar Iron Co., Richmond, Va.	Controversy	Ironworkers	Discussion of bonus and conditions	do	Oct. 1		67	
Veterans' Hospital, Augusta, Ga.	do	Carpenters	Working conditions	do	Nov. 14	Nov. 23	15	
Veterans' Hospital, F. & Y. Co., Chillicothe, Ohio.	do	Bricklayers	Not paying prevailing wage	Adjusted. Satisfactory settlement.	Nov. 1	Nov. 25	15	
Veterans' Hospital, Chrisman Co., Chillicothe, Ohio.	do	do	do	Adjusted. Rate fixed at \$1.50 per hour for ensuing brickwork.	Nov. 25	Nov. 27	48	
Nussbaum Plumbing Co., Erie, Pa.	do	Plumbers	Alleged violation of working conditions by employment of non-union men.	Pending	Nov. 24		3	50
Freedman Bros., New York City.	Strike	Leather-coat makers	Wage cut of 20 per cent; asked reinstatement of discharged workers.	do	do		(1)	
Carol Shoe, New York City	Lockout	Shoe workers	Working conditions	do	do		100	
Tudor Theater, Evanston, Ill.	Controversy	Janitors	Dispute relative to union or non-union working conditions.	Adjusted. Amicably adjusted.	Nov. 16	Nov. 24	2	
Berwick Lumber Co., Allentown, Pa.	Strike	Carpenters	Refused to pay prevailing rate—90 cents per hour.	Adjusted. Company agreed to pay prevailing rate.	Nov. 28	Dec. 1	10	
Bricklayers, Boston Mass.	Controversy	Bricklayers	Jurisdiction	Adjusted. Agreed on jurisdiction.	Nov. 1	Dec. 4	65	30
Curtis Hotel, Minneapolis, Minn.	Threatened strike.	Cooks	Wage cut	Adjusted. Allowed union hours, wages, and conditions.	Nov. 23	Nov. 25	7	
Peal, Peacock & Kerr, Cambria County, Pa.	Controversy	Miners	Working conditions	Adjusted. Agreed on conditions.	Nov. 21	Dec. 5	(1)	
Ames & Brown, Battle Creek, Mich.	do	Plumbers	Prevailing wage discussion	Pending	Nov. 30		8	60
Total							16,535	18,144

<sup>1</sup> Not reported.

### Work of United States Board of Mediation, 1930-31

**T**HE United States Board of Mediation was constituted under the terms of the railroad labor act of 1926, to handle cases of dispute which the carriers and their employees have been unable to settle in conference. When disputes between carriers and their employees can not be settled through mediation proceedings, the law directs that the Board of Mediation shall endeavor to induce the parties to submit their controversy to arbitration. The arbitration board shall be composed of three or of six members, as the parties may determine, one-third of whom shall represent the carriers, one-third the employees, and one-third shall be neutral. If the representatives of the carriers and of the employees fail to name the neutral member or members of the board, it becomes the duty of the Board of Mediation to appoint such member or members.

As shown by the annual report of the board for the year 1930-31, it began operations in July, 1926, since which time 618 cases involving changes in rates of pay, rules, or working conditions have been submitted to the board. Of these 618 cases, 504 had been disposed of by June 30, 1931; 54 of these were acted upon during the fiscal year covered by this report. Of these 54 cases, 24 were settled through mediation, 4 were submitted to arbitration, 12 were withdrawn through mediation, 6 were withdrawn during process of investigation, 2 were withdrawn without mediation consideration, and 6 were retired without mediation proceedings by action of the board. At the end of the year one of the four cases submitted to arbitration during the year July 1, 1930, to July 1, 1931, had been concluded, and one case was withdrawn before the award was rendered. In the remaining two cases the interested parties had not met in an effort to agree upon the appointment of the remaining arbitrator or arbitrators.

Since July, 1926, the board has also received 596 cases involving grievances or differences arising out of the interpretation or application of existing agreements concerning rates of pay, rules, or working conditions which had not been decided by an appropriate adjustment board by which they had been considered. Of these 596 cases, 413 had been disposed of by June 30, 1931; 248 of these were acted upon during the fiscal year covered by this report. Of these 248 cases, 74 were settled through mediation, 113 were submitted to arbitration, 58 were withdrawn through mediation, 1 was withdrawn without mediation consideration, and 2 were closed without mediation proceedings by action of the board. At the end of the year, 10 of the 113 cases submitted to arbitration during the year July 1, 1930, to July 1, 1931, had been concluded with 3 arbitration proceedings. In the remaining 103 cases which involve 3 arbitration proceedings, the interested parties had not met in an effort to agree upon the appointment of the remaining arbitrator or arbitrators, or were making effort to otherwise dispose of their differences.

Of the total of 1,214 cases of all characters thus far received and accepted for mediation, 917 cases have been disposed of as follows: By mediation 376 cases, by arbitration 183, by withdrawal through mediation 265, by voluntary withdrawal 32, and by board action 61. Of the 297 unsettled cases, 276 have been assigned for mediation, and practically all of these assigned cases have had the attention of mediators in initial conferences. There remain 21 cases unassigned to mediators.

During the year covered by this report the board rendered two interpretations of mediation agreements, making a total of three interpretations rendered in the 376 cases disposed of through mediation agreements during the 5-year period.

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### Industrial Disputes in Porto Rico, 1930-31

**I**N THE fiscal year 1930-31 there were 41 industrial disputes in Porto Rico, including strikes and other controversies, according to a typewritten summary prepared by the mediation and conciliation commission of that island. Approximately 12,000 employees were involved in these disputes. The largest strike in the year under review was on the sugar plantation of the United Porto Rican Sugar Co. The conflict involved thousands of laborers in seven towns. The demand of the strikers was for better labor conditions. At the request of the parties to the controversy the commission visited the towns affected by the strike and on March 9, 1931, the dispute was terminated with the signing of an agreement before that body.

Another strike against the United Porto Rican Sugar Co. was begun on February 5, 1931, on the Island of Vieques. Over 1,300 agricultural laborers were involved. On February 12 the commission went to the island and the controversy was satisfactorily adjusted on February 16.

The strike against the Yabucoa Sugar Co., which started on January 10, 1931, involved about 3,000 laborers. Some 10 days later, after the commission had an interview with the company and the workers' representative, an agreement was signed.

The number taking part in the conflicts in the tobacco industry ranged from 50 in the cigar makers' strike at Gurabo on August 23, 1930, to 400 in the tobacco strippers' strike at Vega Baja in the middle of July, 1930.

Among the other industries in which strikes occurred in the year covered in the commission's report are: Baking, dock work, hat manufacturing, municipal work, newspaper work, bookbinding, fruit packing, coffee selection, iron-foundry work, and needle work. The most outstanding strike in these industries, as far as numbers of strikers are concerned, was that on January 19, 1931, of 250 fruit packers at Bayamon. The demand was for higher wages and a reduction in working hours. After the commission had gone twice to the place of the controversy the employers, the Porto Rican Consolidated Co., made a proposal which met the favor of the employees, and work was resumed.

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### Strikes in Greater Shanghai, 1931

**I**N 1930 in Greater Shanghai there were 82 strikes and 5 lockouts which involved 64,130 workers and affected 672 establishments. A report on these industrial conflicts has been compiled by the bureau of social affairs of the above-mentioned municipality. The following data are taken from that publication.

Of the 87 disputes, 78 or nearly 90 per cent were concerned with collective bargaining. The question of wages constituted the main cause of conflict, 36 controversies having to do with this matter. Other questions in dispute were, in the order of their importance: Engagement or dismissal, 13 cases; collective agreement, 12 cases; and treatment which was the cause of friction, 9 cases. The remaining causes of dispute were comparatively insignificant.

The results of the disputes were as follows: Workers' demands entirely accepted in 21 cases, partially accepted in 38 cases, and rejected in 22 cases. Employers' demands were partially accepted in 4 cases and rejected in 1 case. The outcome of the controversy was not known in 1 case.

In the 87 strikes and lockouts occurring in 1930 the total number of man-days lost was 810,102, and the total wage loss, Mexican dollars, was \$469,477 (United States currency \$141,782).<sup>1</sup>

The strikes and lockouts are classified in the following table by industrial groups, by nationality of management, by number of workers involved, and by number of man-days lost.

CLASSIFICATION OF STRIKES AND LOCKOUTS IN GREATER SHANGHAI, 1929 AND 1930, BY INDUSTRY GROUP, NATIONALITY OF MANAGEMENT, WORKERS INVOLVED AND TIME LOST

Item	Number of strikes and lockouts		Item	Number of strikes and lockouts	
	1929	1930		1929	1930
<b>Manufacturing industries:</b>			<b>Nationality of management:</b>		
Woodworking.....	3	2	Chinese.....	80	58
Furniture manufacture.....	2	1	Japanese.....	13	7
Machinery, etc.....	2	10	British.....	11	11
Vehicles for transportation.....	3	5	American.....	2	5
Bricks, glass, etc.....	1	---	French.....	4	6
House and road building.....	---	1	Italian.....	1	---
Gas, water, and electricity.....	2	5	<b>Total.....</b>	<b>111</b>	<b>87</b>
Chemicals, etc.....	11	4	<b>Number of workers involved:</b>		
Textile industry.....	36	24	Less than 10.....	3	3
Wearing apparel.....	3	---	10 to 100.....	43	28
Leather, rubber, etc.....	1	3	101 to 1,000.....	50	36
Food and drinks.....	8	7	1001 to 10,000.....	14	19
Paper and printing.....	13	7	Over 10,000.....	1	1
Clocks, scientific instruments, etc.....	4	2	<b>Total.....</b>	<b>111</b>	<b>87</b>
Transportation and communication.....	1	6	<b>Number of man-days lost:</b>		
<b>Commerce and finance:</b>			Less than 20.....	3	2
General trades.....	15	6	20 to 1,000.....	60	43
Money and banking.....	1	1	1,001 to 50,000.....	44	39
Hotels, resorts, etc.....	1	---	50,001 to 1,000,000.....	4	3
Domestic and personal services.....	4	3	<b>Total.....</b>	<b>111</b>	<b>87</b>
<b>Total.....</b>	<b>111</b>	<b>87</b>			

<sup>1</sup> Conversion into United States currency on basis of Mexican dollar at par=30.2 cents.



# LABOR AGREEMENTS, AWARDS, AND DECISIONS

## Agreements

### National Agreement in the Full-Fashioned Hosiery Industry

THE third national agreement between the Full-Fashioned Hosiery Manufacturers of America and the American Federation of Full-Fashioned Hosiery Workers, effective September 21, 1931, to August 31, 1932, contains a number of interesting changes.

The committees of the union and the association at conferences held preceding the adoption and signing of this agreement agreed in principle that owing to the present economic conditions existing in the hosiery industry it was necessary for the mutual benefit of the members of the union and the members of the association to effect a reduction in labor rates during the period of this agreement. The wage rates agreed to are from 25 per cent to 45 per cent lower than the rates paid prior to the negotiation of this agreement. A minimum rate of \$14 for a 48-hour week was established for week workers. For piecework operators a minimum rate for a full 48-hour week for knitters is \$20, for boarders \$16, and for other piecework operators \$12. It is provided that the operator shall receive the difference between the amount earned and the minimum specified for each classification. If, during any week, less than 48 hours' work is performed a pro rata of the minimum rate shall apply.

In the expectation that with the stabilization and improvement in the present economic conditions the labor rates may be raised, the following provision was incorporated in the agreement.

A commission composed of five to be mutually agreed upon shall be created to have submitted to it a certified statement of earnings from such firms as are listed on a stock exchange whenever such firms, by the rules or agreement with stock exchange, will furnish such statements, and from such firms who are not so listed the commission shall accept a statement of a certified public accountant of the operations of the business of such firm for each 6-month period of the calendar or fiscal year of such firm's business, showing the profits or losses of the business operations during such period. Dividends on the common stock shall be included in profits earned whenever such dividends are paid out of earnings for that period. This commission shall treat and keep such statements and information as confidential, excepting that it shall report its findings as to the profits or losses of the operations of the members of the association during said fiscal period, which shall be considered on the basis of the group result as a whole and not on the operations of any individual mill or member and make recommendations to a committee to be known as the joint negotiating committee and which shall consist of 11 nominees of the association and 11 nominees of the union, which committee shall, by a vote of 16 of its members, determine the increase or reduction in rates to go into effect during the period of this agreement.

This agreement also provides that all legging machines shall be operated as single jobs until such time as the present unemployed members of the union are employed. Helpers on leggers and on 18, 20, and 22 section type footers are eliminated. No apprentices are to be given jobs as knitters during the first six months of this agreement. During the remainder of the agreement those apprentices who shall

have completed their 4-year apprenticeship may be given jobs as knitters at the regular knitters' pay.

The check-off system for the collection of union dues is provided for as follows:

The union agrees that it will deliver to each member of the association a list showing the amount in dollars and cents (not in percentage) to be payable by union members in the employ of the mill to be deducted from the wages of each class of workers, it being understood that the union dues payable by each class of workers shall be uniform; such list shall be furnished by the union at least five days before each pay day. The union also agrees to deliver to each member of the association a written order from each employee of the mill, a member of the union, whose wages shall be subject to deductions under this dues-collecting system, authorizing the employer, the member of the association, to deduct from his wages and pay over to the union the specific amount which the union will require to be so deducted by the employer and paid to it. Each member of the association upon receipt of said list and such authorizations will deduct from the wages due each pay day to each union employee the amount of dues payable by such employee to the union and will pay over to the union or its designee such amounts on each pay day. The union shall have the right at any time to an examination of the detailed pay rolls of any and all manufacturers, members of the association.

The agreement made August 1, 1930, established an unemployment fund to which each member of the association contributed 1 per cent of the weekly wages paid the members of the union employed in the factory of such member. Contributions of the employing member of the association began August 1, 1930. The agreement provided for a contribution of a like sum from the members of the union beginning September 1, 1931. The present agreement provides for the payment of unemployment insurance from the accumulated fund as follows:

The unemployment fund, accumulated under the agreement which went into effect August 1, 1930, and such arrears thereof as are now payable and as will be collected, shall be turned over by the impartial chairman to the extent of the amount thereof now in his hands to the trustees of the fund, and such arrears thereof as are now unpaid shall be collected by the trustees of the fund. The trustees shall allocate to each mill which has contributed to the unemployment fund the amount so contributed and the same, that is to say, each part allocated to each mill, shall be applied upon the recommendation of the shop committee of each mill with the approval of the employer and a designated official of the union, to the alleviation of distress caused by unemployment from which any employee of such mill may have suffered. The application and disposition of the funds shall be solely with such trustees and neither the union nor the association nor any member thereof shall have title or claim thereto. The entire fund shall be fully distributed before September 1, 1932.

The powers of the impartial chairman, Dr. George W. Taylor of Philadelphia, who is designated to act throughout the term and continuance of this agreement, is as follows:

The impartial chairman shall have the duty and power to decide and adjudicate all matters in dispute between the union and the association and/or members involved arising under the terms and conditions of this agreement; and the union and the association and/or members agree to be bound by and abide by the decisions of the impartial chairman.

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### Awards and Decisions

#### Railroad Brotherhoods—Central of Georgia Railway

**T**HE Central of Georgia Railway Co. and representatives of the Brotherhood of Locomotive Engineers, Brotherhood of Locomotive Firemen and Engineman, Brotherhood of Railway Trainmen,

and Order of Railway Conductors agreed on March 26, 1931, to submit an unsettled dispute to a board of arbitration composed of three members.

The board of arbitration was composed of C. E. Weaver, representing the carrier, G. W. Laughlin, representing the employees, and Arthur M. Millard, selected by the United States Board of Mediation as the neutral member.

The following joint statement of facts outlines the issues of the dispute submitted to the board.

Since 1919, the Central of Georgia Railway Co. has maintained a service between Columbus and Fort Benning, Ga., and has operated both freight and passenger service in mixed trains. The number of crews assigned has been regulated to correspond with the conditions and has varied from assignment of from five to one crew at different times. At all times at least one crew has been assigned, and in all instances road engineers, firemen, conductors, and trainmen have manned said services. On April 9, 1929, the regular assigned road crews were eliminated and the service placed in the hands of yard engineers, firemen, conductors, and yard switchmen. This was protested by the road engine and trainmen, the management taking the position that they were within their rights in converting such service to yardmen and eliminating entirely the road crew, due to the fact that the passenger service heretofore maintained had been eliminated, while the freight, mail, and express service remained unchanged, except that the yard crews are not required to load or unload less-than-carload freight.

On November 13, 1931, the majority of the board made the following award:

(a) Sustain the contention of the brotherhoods that the service maintained by the carrier between Columbus, Ga., and Fort Benning, Ga., does not constitute a switching service as defined by paragraph B of article 41 of the existing agreement between the carrier and the brotherhoods, and does hereby award

(b) The employees coming under this agreement to arbitrate, and who are assigned to service between Columbus, Ga., and Fort Benning, Ga., shall be restored to road service at the governing rates for such service, and yardmen shall not be used in road service when road crews are available, except in case of emergency. Where yard crews are used in road service between Columbus, Ga., and Fort Benning, Ga., under conditions referred to, they shall be paid at the rate of miles or hours, whichever is greater, with a minimum of one hour, for the class of service performed, in addition to the regular yard pay and without any deduction therefrom for the time consumed in said service.

(c) The employees coming under this agreement to arbitrate and who, commencing with April 9, 1929, or thereafter, were regularly assigned to service and actually employed in service between Columbus, Ga., and Fort Benning, Ga., shall be paid in accordance with the requirements of paragraph B, article 41, of the existing agreements between the carrier and the brotherhoods, from and including April 9, 1929, up to the effective date of the award.

(d) The provisions of this award shall become effective on the date of the award, except for those employees regularly assigned to service and actually employed in service between Columbus, Ga., and Fort Benning, Ga., and who shall be paid as noted in section C of the award, and shall continue in force for a period of one year from the effective date thereof and thereafter be subject to 30 days' notice by either party to the other.

C. E. Weaver, representing the carrier, dissented from the above award.

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#### Street-Railway Employees—St. Louis, Mo.

THE wages of motormen, conductors, bus operators, and shopmen in St. Louis, Mo., were cut 10 per cent by the decision, October 8, 1931, of a board of arbitration in the wage controversy between the St. Louis Public Service Co. and Division No. 788 of the Amalgamated Association of Street and Electric Railway Employees.

The company notified the employees that, effective May 19, 1931, it proposed to make a 10 per cent wage cut, contingent upon the ability of the company to meet its expenses and interest charges. Under the plan proposed by the company, accountants would be employed to determine how much of the proposed 10 per cent would be deducted monthly. The union rejected the proposal of any wage cut, and a strike vote was ordered.

On May 16, 1931, an agreement was signed by the parties to the wage controversy to arbitrate the question and also whether the differential in the hourly rate of pay of 2-man and 1-man car operators should be greater than 7 cents an hour.

A board of arbitration was created composed of Edward J. Miller, representing the company, former Mayor Henry W. Kiel, representing the employees, and former Circuit Judge Harry E. Sprague, as the neutral member.

The board disposed of the second question by agreeing that the differential of 7 cents in favor of the operators of 1-man cars and busses is adequate.

At the hearings which began August 10, 1931, the company based its request for a 10 per cent decrease in the wages of its employees on a decrease in the number of revenue-paying passengers, an increase in the cost of operation, and the inadequacy of the present earnings of the company to meet the requirements for operation, taxes, interest on indebtedness, and depreciation.

Using the 8-year period, 1923 to 1930, inclusive, as agreed upon by the economists on both sides of the controversy as the usual and proper period for the contracts and comparisons which each relied on to prove their respective points, the company presented exhibits to show the necessity for the 10 per cent cut in wages.

The union urged that the financial condition of the company was immaterial unless it were shown that the wages now paid are more than would be necessary to meet the reasonable minimum living requirements, and contended that even if the financial condition of the company were material, the actual condition shown by the evidence did not warrant a wage reduction.

The majority of the board, Judge Harry E. Sprague and Edward J. Miller, granted the 10 per cent reduction in the wages of the employees and justified its award by the financial condition of the company and the necessity for maintaining an uninterrupted transportation service. In the decision the arbitrators called attention to the sharp decline in the number of revenue-paying passengers during the past eight years—from 295,894,000 in 1923 to 215,685,000 in 1930. The gross revenue fell off during the 8-year period from \$20,661,000 to \$18,705,000. The increase in fares during the same 8-year period was from an average of 6.9 cents per passenger in 1923 to 8.64 cents in 1930, an increase of about 25 per cent. While revenue-paying passengers declined about 27¼ per cent, passenger revenue declined only 9½ per cent.

The majority opinion declared that it is in "hearty sympathy with the principle of sustaining high wages for American workingmen," but added that "aims and ideals must sometimes yield to compelling necessity," and further, that "no necessity is greater or more compelling than lack of funds and with the company facing the deficit

\* \* \* the majority arbitrators who join in this report believe that there in no other solution but the one they have chosen."

The minority member of the board filed a minority opinion from which the following extracts are taken:

Admitting there has been a gradual decline in street-car passengers since 1923 due to bus and jitney competition and the increase of private automobiles, and admitting there has been a sharp decline in passengers in 1931 due to the economic depression and consequent unemployment, these facts are no sufficient excuse, for an industry which has been granted a virtual monopoly by the public, to pay less than a living wage.

The company has now acquired the competing busses and the bus and street-car income for 1930 exceeded that of the street-car company during its peak year of 1923 before it had the bus competition. Fares have increased so that they are now higher than the general average of street-car fares in the United States.

The majority of the board of arbitrators state in their opinion that "if a minimum wage means the sum necessary to keep a wage earner and his family from want, from becoming, through inadequate housing and sustenance, charges on society, the majority of this board heartily agree with that principle." Contrast this standard adopted by the majority with the following view of the Industrial Commission of Colorado. "By a living wage we mean a wage sufficient to supply a decent living for himself and family; enough to educate his children in the manner in which every American child should be educated; enough to secure a little pleasure in living, and something left to set aside when old age comes and he can toil no longer." The wages that the men in this case receive are still below that standard of living wage.

If there is to be a reduction it should begin at the top where the bracket contains the enormous expenditure for administrative expense of \$1,280,850, one that has steadily increased to in excess of over \$400,000 per annum more than in 1923 (the company's peak year in income) with no satisfactory reason therefor shown so far as I understand the proof.

The men are receiving a bare minimum living wage and the company is in better financial condition than ever with greatly increased reserves and a very substantial sum of ready cash on hand. With all due respect for my brother arbitrators and their more lengthy opinion which I have carefully analyzed in the light of all the evidence, I hold that a wage cut can not be logically justified at this time.

#### Decisions of Industrial Commission of Colorado

##### Carpenters—Denver, Colo.

THE Industrial Commission of Colorado received notice from Hallack & Howard Lumber Co., October 19, 1931, that at the expiration of 30 days a reduction would be made in the wages of its employees. A protest was filed by the secretary of the Millmen's Local Union No. 1583, Brotherhood of Carpenters and Joiners, on November 5, 1931.

At the hearing held on November 16, 1931, the employer contended that owing to the present conditions in the business world it was necessary for him to make this reduction in the wages of his employees. The union protested that other firms engaged in the same business were not reducing wages.

The decision of the industrial commission, rendered November 18, 1931, disapproved the proposed reduction in wages at this time.

##### Painters—Pueblo, Colo.

THE Industrial Commission of Colorado received notice on October 31, 1931, from eight firms of Pueblo, Colo., of a proposed reduction in the wages of their employees, members of the Brotherhood of Painters,



Decorators, and Paperhangers' Local No. 302, from \$1.12½ per hour to a minimum of 75 cents per hour. Later, a protest against the proposed reduction in wages was filed by the local union.

At a hearing held November 23, 1931, the employers contended that it was necessary to make this reduction in wages owing to the present business conditions. The union contended that its members are receiving \$9 a day and that a reduction at this time is not justified.

The decision of the industrial commission, rendered November 28, 1931, approved a reduction to \$8 a day, or a scale of \$1 an hour.

#### Carpenters' District Council—Denver, Colo.

THE Denver General Contractors' Association and the Denver Building Trades Council held several meetings at which the two organizations agreed upon a 12½ per cent reduction in the wages of all the crafts connected with the Denver Building Trades Council. At that time an arbitration agreement was signed between the parties for a period of three years.

At a hearing held between the Denver General Contractors' Association and the carpenters and joiners' union on November 25, 1931, the carpenters agreed to accept the same reduction as the other trades connected with the Denver Building Trades Council, but contended that it would be impossible for them to sign the same agreement as the Denver Building Trades Council for the reason that they had a rule in their international organization which prevented their doing so.

The decision and award of the industrial commission, under date of November 28, 1931, was to the effect that the carpenters should accept a 12½ per cent reduction in their wage scale the same as the other building crafts in Denver.

# LABOR TURNOVER

## Labor Turnover in American Factories, November, 1931

THE Bureau of Labor Statistics presents herewith November labor turnover indexes for manufacturing as a whole and for 10 separate manufacturing industries. The form used for compiling turnover rates by the Bureau of Labor Statistics is the weighted arithmetic mean. The indexes for manufacturing as a whole were compiled from reports made to the bureau from representative establishments in over 75 industries, employing approximately 1,250,000 people. In the 10 industries for which separate indexes are presented, reports were received from representative plants employing approximately 25 per cent of the employees as shown for such industries by the Census of Manufactures of 1927. In the automobile industry schedules were received from firms employing nearly 250,000 people; plants reporting for boots and shoes employed nearly 100,000 people; for brick, nearly 18,000 people; for cotton, over 150,000 people; for furniture, nearly 30,000 people; for iron and steel, over 200,000 people; for men's clothing, about 40,000 people; for sawmills, about 40,000 people; and for slaughtering and meat packing, approximately 75,000 people.

In addition to the quit, discharge, lay-off, total separation, and accession rates, the bureau presents the net turnover rate. Net turnover means the rate of replacement. It is the number of jobs that are vacated and filled per 100 employees. In a plant that is increasing its force the net turnover rate is the same as the separation rate, because while more people are hired than are separated from their jobs the number hired above those leaving is due to expansion and can not be justly charged to turnover. On the other hand, in a plant that is reducing its number of employees the net turnover rate is the same as the accession rate, for while more people are separated from the pay roll than hired the excess of separations over accessions is due to a reduction of force, and therefore can not be logically charged as a turnover expense.

Previous to September, 1931, the bureau had been presenting turnover rates on both a monthly and an equivalent annual basis. Beginning with September, 1931, however, monthly rates only will be shown. To determine the equivalent annual rate multiply the monthly rate by the number of times that the days of the current month are contained in the 365 days of the year. That is, in a 31-day month to obtain the equivalent annual rate multiply the monthly rate by 11.77; in a 30-day month multiply the monthly rate by 12.17; and in a 28-day month multiply the monthly rate by 13.04. To obtain the equivalent annual rate for November multiply the monthly rates as shown in Tables 1 and 2 by 12.17.

Table 1 shows for all industries the total separation rate, subdivided into the quit, discharge, and lay-off rates, together with the accession rate and the net turnover rate.

TABLE 1.—AVERAGE LABOR TURNOVER RATES IN SELECTED FACTORIES IN 75 INDUSTRIES

Month	Separation rates								Accession rate		Net turnover rate	
	Quit		Lay-off		Discharge		Total		1930	1931	1930	1931
	1930	1931	1930	1931	1930	1931	1930	1931				
January.....	1.85	0.74	2.70	1.95	0.54	0.19	5.09	2.88	3.95	2.97	3.95	2.88
February.....	1.60	.74	2.50	1.75	.62	.20	4.72	2.69	3.94	2.82	3.94	2.69
March.....	1.94	.94	2.83	1.75	.60	.26	5.37	2.95	4.15	3.67	4.15	2.95
April.....	2.11	1.14	2.57	1.96	.53	.31	5.21	3.41	3.55	3.06	3.55	3.06
May.....	2.01	1.12	2.68	2.43	.48	.28	5.17	3.83	3.28	2.79	3.28	2.79
June.....	1.85	1.02	3.00	3.84	.46	.23	5.31	5.09	2.92	2.41	2.92	2.41
July.....	1.35	1.10	4.17	3.32	.32	.25	5.84	4.67	2.51	3.02	2.51	3.02
August.....	1.40	1.05	3.99	2.40	.36	.22	5.75	3.67	2.71	2.60	2.71	2.60
September.....	1.50	1.16	3.14	4.22	.36	.24	5.00	5.62	3.27	3.58	3.27	3.58
October.....	1.29	1.00	2.88	5.01	.32	.21	4.49	6.22	2.56	2.75	2.56	2.75
November.....	.90	.72	2.77	3.03	.24	.17	3.91	3.92	2.05	3.63	2.05	3.63
December.....	.84	-----	2.74	-----	.21	-----	3.79	-----	2.13	-----	2.13	-----
<b>Average..</b>	<b>1.55</b>	-----	<b>3.00</b>	-----	<b>.42</b>	-----	<b>4.97</b>	-----	<b>3.08</b>	-----	<b>3.08</b>	-----

Comparing rates for November, 1931, with those of October, 1931, there was a decrease in the quit, discharge, and lay-off rates. The accession rate, however, showed an increase. The accession rate for November, 1931, was higher than for any month since March, 1931.

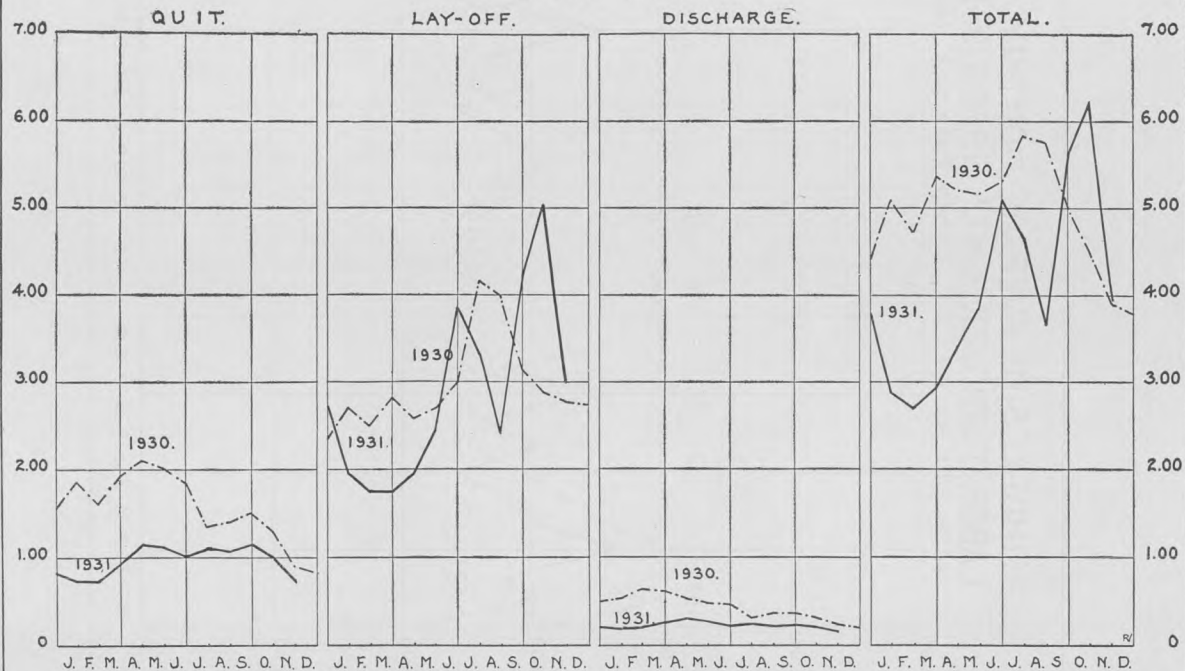
Comparing November, 1931, rates with the rates for November, 1930, there was a decrease in the quit and discharge rates, but the lay-off rate was slightly higher than for November, 1930. There was an increase in the accession rate, the accession rate for November, 1931, being more than 50 per cent higher than for November, 1930.

The charts following show in graphic form the data presented in Table 1.

Table 2 shows the quit, discharge, lay-off, accession, and net turnover rates for automobiles, boots and shoes, cotton, iron and steel, foundries and machine shops, furniture, sawmills, and slaughtering and meat packing for the months of November, 1930, October, 1931, and November, 1931; and for brick and men's clothing for the months of October, 1931, and November, 1931.

# INDEXES OF AVERAGE MONTHLY LABOR TURNOVER RATES, 1930 & 1931.

## SEPARATION RATES.



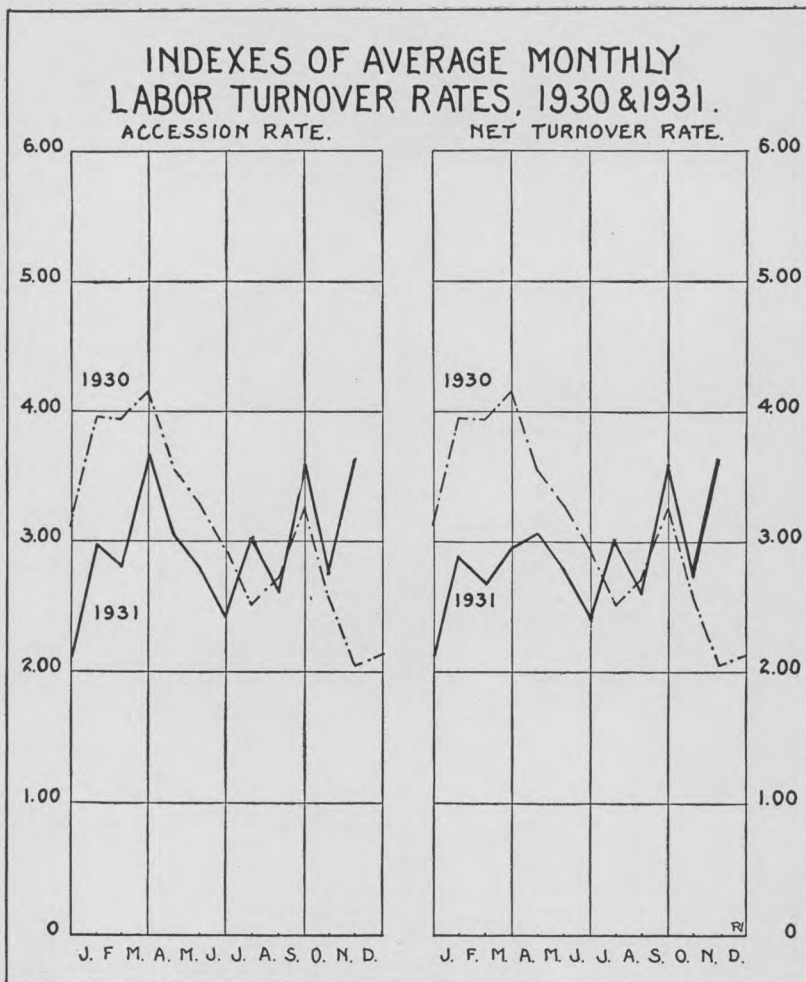




TABLE 2.—AVERAGE MONTHLY TURNOVER RATES IN SPECIFIED INDUSTRIES

Class of turnover rates	November, 1930	October, 1931	November, 1931	November, 1930	October, 1931	November, 1931	November, 1930	October, 1931	November, 1931
	Automobiles			Boots and shoes			Brick <sup>1</sup>		
Quit.....	0.81	0.85	0.85	1.00	1.20	0.87	-----	0.49	0.50
Discharge.....	.16	.29	.27	.27	.22	.15	-----	.14	.55
Lay off.....	3.80	19.47	6.36	4.38	6.02	4.13	-----	10.04	10.17
Total separations.....	4.77	20.61	7.48	5.65	7.44	5.15	-----	10.67	11.22
Accession.....	5.95	4.23	16.51	2.41	1.01	2.62	-----	5.06	6.70
Net turnover.....	4.77	4.23	7.48	2.41	1.01	2.62	-----	5.06	6.70
	Cotton manufacturing			Foundries and machine shops			Furniture		
Quit.....	1.22	1.42	1.19	0.66	0.56	0.39	0.99	0.96	0.49
Discharge.....	.35	.35	.34	.22	.16	.19	.29	.29	.38
Lay off.....	2.18	3.70	3.67	2.87	4.45	3.82	5.92	3.88	5.17
Total separations.....	3.75	5.47	5.20	3.75	5.17	4.40	7.20	5.13	6.04
Accession.....	2.93	3.84	4.15	1.85	2.36	1.89	2.48	4.36	2.91
Net turnover.....	2.93	3.84	4.15	1.85	2.36	1.89	2.48	4.36	2.91
	Iron and steel			Men's clothing <sup>1</sup>			Sawmills		
Quit.....	1.11	0.78	0.64	-----	0.95	0.66	1.93	1.23	0.93
Discharge.....	.13	.06	.06	-----	.13	.07	.83	.51	.27
Lay off.....	1.95	1.41	1.80	-----	1.50	5.38	7.23	7.69	8.65
Total separations.....	3.19	2.25	2.50	-----	2.58	6.11	9.99	9.43	9.85
Accession.....	1.31	1.51	1.78	-----	2.10	1.62	4.96	7.43	6.39
Net turnover.....	1.31	1.51	1.78	-----	2.10	1.62	4.96	7.43	6.39
	Slaughtering and meat packing								
Quit.....	1.21	1.06	1.24						
Discharge.....	.56	.37	.36						
Lay off.....	4.80	4.43	4.72						
Total separations.....	6.48	5.86	6.32						
Accession.....	7.30	7.39	8.10						
Net turnover.....	6.48	5.86	6.32						

<sup>1</sup> Data not collected in 1930.

Of the 10 industries for which separate figures are shown, automobiles had the highest accession rate, 16.51. The lowest accession rate (1.62) was shown by the men's clothing industry. (This large increase in hiring in the automobile industry occurred after the 15th of the month. This is the largest hiring rate shown for the automobile industry for any month, either in 1930 or 1931.)

The highest quit rate (1.24) occurred in the slaughtering and meat-packing industry and the lowest (0.39) in the foundry and machine-shop industry. Brick registered the highest discharge rate (0.55); the lowest (0.06) occurred in the iron and steel industry. The highest lay-off rate (10.17) was registered by the brick industry and the lowest (1.80) by the iron and steel industry.

# HOUSING

## Building Permits in Principal Cities of the United States, November, 1931

REPORTS of building operations were received by the Bureau of Labor Statistics of the United States Department of Labor from 342 identical cities having a population of 25,000 or over for the months of October, 1931, and November, 1931, and from 294 identical cities for the months of November, 1930, and November, 1931.

The cost figures as shown in the following tables apply to the cost of the buildings as estimated by the prospective builder on applying for his permit to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are shown. The States of Illinois, Massachusetts, New York, New Jersey, and Pennsylvania, through their departments of labor, are cooperating with the United States Bureau of Labor Statistics in the collection of these data.

Table 1 shows the estimated cost of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 342 identical cities of the United States, by geographic divisions.

TABLE 1.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 342 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN OCTOBER AND NOVEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings						New nonresidential buildings, estimated cost		
	Estimated cost			Families provided for in new dwellings			October, 1931	November, 1931	Per cent of change
	October, 1931	November, 1931	Per cent of change	October, 1931	November, 1931	Per cent of change			
New England.....	\$2, 838, 300	\$2, 449, 850	-13. 7	645	467	-27. 6	\$3, 033, 962	\$3, 098, 105	+2. 1
Middle Atlantic.....	16, 203, 545	10, 562, 657	-34. 8	3, 823	2, 392	-37. 4	18, 114, 951	9, 827, 591	-45. 7
East North Central.....	3, 067, 369	2, 263, 117	-26. 2	695	503	-27. 6	4, 015, 448	4, 819, 242	+20. 0
West North Central.....	1, 732, 350	1, 461, 827	-15. 6	491	389	-20. 8	1, 533, 172	2, 138, 149	+39. 5
South Atlantic.....	2, 173, 639	1, 826, 312	-16. 0	506	492	-2. 8	4, 533, 866	10, 717, 794	+136. 4
South Central.....	1, 340, 469	1, 681, 767	+25. 5	528	588	+11. 4	4, 299, 135	2, 833, 498	-34. 1
Mountain and Pacific.....	4, 427, 312	3, 479, 795	-21. 4	1, 332	995	-25. 3	3, 545, 482	3, 237, 375	-8. 7
Total.....	31, 782, 984	23, 725, 325	-25. 4	8, 020	5, 826	-27. 4	39, 076, 016	36, 671, 754	-6. 2

Geographic division	Additions, alterations, and repairs, estimated cost			Total construction, estimated cost			Number of cities
	October, 1931	November, 1931	Per cent of change	October, 1931	November, 1931	Per cent of change	
	New England.....	\$1, 105, 582	\$1, 084, 482	-1. 9	\$6, 977, 844	\$6, 632, 437	
Middle Atlantic.....	5, 900, 155	5, 442, 989	-7. 7	40, 218, 651	25, 833, 237	-35. 8	69
East North Central.....	2, 638, 197	1, 760, 204	-33. 3	9, 721, 014	8, 842, 563	-9. 0	92
West North Central.....	697, 082	534, 513	-23. 3	3, 962, 604	4, 134, 489	+4. 3	24
South Atlantic.....	1, 581, 246	1, 503, 048	-4. 9	8, 288, 751	14, 047, 154	+69. 5	37
South Central.....	1, 039, 101	864, 049	-16. 8	6, 678, 705	5, 379, 314	-19. 5	33
Mountain and Pacific.....	1, 666, 728	1, 156, 271	-30. 6	9, 639, 522	7, 873, 441	-18. 3	36
Total.....	14, 628, 091	12, 345, 556	-15. 6	85, 487, 091	72, 742, 635	-14. 9	342

Reports received from these 342 cities indicate that there was a decrease of 14.9 per cent in the indicated expenditures for total building operations, comparing permits issued during November with those issued during October. The cost of buildings for which permits were issued during November was \$72,742,635.

Expenditures for residential buildings decreased 25.4 per cent comparing November with October. All geographic divisions with the exception of the South Central States showed decreases in this class of building. The decreases ranged from 13.7 per cent in the New England States to 34.8 per cent in the Middle Atlantic States.

There was a decrease of 6.2 per cent in indicated expenditures for new nonresidential buildings. However, four geographic divisions showed increases for this class of structure, while only three showed decreases. The increases ranged from 2.1 per cent in the New England States to 136.4 per cent in the South Atlantic States. The decreases extended from a low of 8.7 per cent in the Mountain and Pacific States to a high of 45.7 in the Middle Atlantic States.

Projected expenditures for additions, alterations, and repairs decreased 15.6, comparing November permits with October permits. All geographic divisions showed decreases in this class of building operation. The lowest decrease, 1.9 per cent, occurred in the New England States and the highest, 33.3 per cent, in the East North Central States.

Two of the seven geographic divisions, the West North Central and the South Atlantic, showed increases in total building operations. The other five divisions registered decreases. The smallest decrease, 5.0 per cent, occurred in the New England States, and the largest, 35.8 per cent, in the Middle Atlantic States.

The new residential buildings for which permits were issued during November were to provide for 5,826 families. This is 27.4 per cent fewer family dwelling units than were provided during the month of October. The South Central was the only geographic division showing an increase in family dwelling units provided. Of the six geographic divisions showing decreases in family dwelling units, the South Atlantic States had the smallest decrease, 2.8 per cent, and the Middle Atlantic States had the largest, 37.4 per cent.

Table 2 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 342 identical cities of the United States, by geographic divisions.

TABLE 2.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 342 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN OCTOBER, 1931, AND NOVEMBER, 1931, BY GEOGRAPHIC DIVISION

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	October, 1931	November, 1931	October, 1931	November, 1931	October, 1931	November, 1931	October, 1931	November, 1931
New England.....	406	406	1,142	923	2,365	1,783	3,913	3,112
Middle Atlantic.....	1,455	867	2,691	1,736	5,161	3,827	9,307	6,430
East North Central.....	565	442	2,678	1,898	3,652	2,311	6,895	4,651
West North Central.....	432	341	1,225	747	1,237	898	2,894	1,986
South Atlantic.....	436	363	884	702	3,275	2,573	4,595	3,638
South Central.....	448	395	603	500	1,903	1,580	2,954	2,475
Mountain and Pacific.....	1,036	832	1,809	1,323	4,324	3,174	7,169	5,329
Total.....	4,778	3,646	11,032	7,829	21,917	16,146	37,727	27,621
Per cent of change.....	-----	-23.7	-----	-29.0	-----	-26.3	-----	-26.8

Permits were issued during November, 1931, for 27,621 building projects. This was a decrease of 26.8 per cent as compared with the building projects for which permits were issued in these cities during October. The number of new residential buildings decreased 23.7 per cent; the number of new nonresidential buildings, 29.0 per cent; and the number of additions, alterations, and repairs, 23.6 per cent, comparing November with October.

Table 3 shows the index number of families provided for and the index numbers of indicated expenditures for new residential buildings, for new nonresidential buildings, for additions, alterations, and repairs, and for total building operations. These indexes are worked on the chain system with the monthly average of 1929 equaling 100.

TABLE 3.—INDEX NUMBERS OF FAMILIES PROVIDED FOR AND OF THE ESTIMATED COST OF BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN PRINCIPAL CITIES OF THE UNITED STATES, JANUARY, 1930, TO NOVEMBER, 1931, INCLUSIVE

[Monthly average, 1929=100]

Month	Families provided for	Estimated cost of—			
		New residential buildings	New non-residential buildings	Additions, alterations, and repairs	Total building operations
1930					
January.....	34.2	29.4	64.3	55.1	46.1
February.....	43.0	34.7	51.8	57.5	44.1
March.....	57.1	47.2	87.1	77.5	66.4
April.....	62.0	51.0	100.1	81.8	73.8
May.....	59.6	48.5	90.7	84.5	69.3
June.....	54.4	45.1	82.5	74.6	63.3
July.....	49.9	44.1	86.7	77.4	64.8
August.....	48.7	43.4	67.2	58.6	54.4
September.....	51.3	44.4	73.8	64.2	58.2
October.....	58.3	44.9	53.5	58.1	49.7
November.....	52.9	42.5	54.4	37.8	46.3
December.....	45.0	37.6	64.3	53.5	50.1
1931					
January.....	39.1	30.8	43.4	55.5	38.9
February.....	40.3	30.3	43.8	48.6	37.9
March.....	53.4	40.7	76.4	58.0	57.1
April.....	64.6	48.6	73.9	65.2	60.6
May.....	51.7	39.8	58.5	53.0	48.8
June.....	43.4	33.4	41.7	56.5	39.4
July.....	35.8	27.6	53.7	57.8	41.7
August.....	36.6	33.5	63.9	48.3	47.3
September.....	30.1	24.8	41.8	41.0	33.5
October.....	33.7	25.4	34.8	39.8	30.8
November.....	24.5	19.0	32.7	33.6	26.2

The index number of families provided for and the index numbers of all classes of building construction reached a low point for the 2-year period in November, 1931.

The charts on pages 115 and 116 show in graphic form the information contained in this table.

Table 4 shows the number and value of contracts awarded for public buildings by the different agencies of the United States Government during the months of October, 1931, and November, 1931, by geographic divisions.

TABLE 4.—CONTRACTS LET FOR PUBLIC BUILDINGS BY DIFFERENT AGENCIES OF THE UNITED STATES GOVERNMENT DURING OCTOBER AND NOVEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	October, 1931		November, 1931	
	Number	Cost	Number	Cost
New England.....	5	\$429, 782	4	\$84, 648
Middle Atlantic.....	15	1, 102, 127	14	564, 399
East North Central.....	13	690, 056	12	1, 076, 727
West North Central.....	7	210, 218	4	183, 895
South Atlantic.....	28	4, 401, 280	31	10, 864, 710
South Central.....	22	878, 501	15	932, 965
Mountain and Pacific.....	30	2, 637, 534	28	730, 193
Total.....	120	10, 349, 498	108	14, 437, 537

During November, 1931, the agencies of the Federal Government from which reports were received awarded contracts for 108 building operations to cost \$14,437,537. This is \$4,000,000 more than the total value of contracts awarded during October. The contracts were issued by the following Federal agencies: United States Capitol Architect; Office of the Quartermaster General, War Department; Bureau of Yards and Docks, Navy Department; Supervising Architect Treasury Department; United States Veterans' Bureau; and the Office of Public Parks and Public Buildings.

Table 5 shows the value of contracts awarded by the different State governments for public buildings during the months of October, 1931, and November, 1931, by geographic divisions.

TABLE 5.—CONTRACTS AWARDED FOR PUBLIC BUILDINGS BY THE DIFFERENT STATE GOVERNMENTS DURING OCTOBER AND NOVEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	October, 1931	November, 1931
New England.....	\$725, 409	\$131, 093
Middle Atlantic.....	2, 226, 771	2, 957, 380
East North Central.....	281, 599	1, 121, 920
West North Central.....	760, 849	1, 752, 842
South Atlantic.....	418, 352	203, 000
South Central.....	419, 585	810, 779
Mountain and Pacific.....	434, 605	508, 225
Total.....	5, 270, 170	7, 485, 239

Contracts awarded by the various State governments during November, 1931, totaled \$7,485,239, an increase of over \$2,000,000 over the contracts awarded by the various States during October, 1931. Whenever a contract is awarded by the Federal Government or by a State government for buildings in cities having a population of 25,000 or over the number or cost of such buildings is included in the number and cost as shown in the several tables presented herewith.

Table 6 shows the estimated cost of new residential buildings; of new nonresidential buildings; of additions, alterations, and repairs; and of total building operations in 294 identical cities having a population of 25,000 or over for the months of November, 1930, and November, 1931, by geographic divisions.



TABLE 6.—ESTIMATED COST OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 294 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN NOVEMBER, 1930, AND NOVEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings						New nonresidential buildings, estimated cost		
	Estimated cost			Families provided for in new dwellings			November, 1930	November, 1931	Per cent of change
	November, 1930	November, 1931	Per cent of change	November, 1930	November, 1931	Per cent of change			
New England.....	\$3,064,750	\$2,398,400	-21.7	572	456	-20.3	\$7,193,253	\$3,088,245	-57.1
Middle Atlantic.....	27,999,790	10,503,457	-62.5	5,796	2,383	-58.9	22,800,908	9,810,172	-57.0
East North Central.....	7,227,703	1,966,567	-72.8	1,020	438	-57.1	10,175,937	4,732,722	-53.5
West North Central.....	2,774,810	1,461,827	-47.3	504	389	-22.8	1,326,755	2,138,149	+61.2
South Atlantic.....	1,926,415	1,805,712	-6.3	452	476	+5.3	3,327,581	11,435,903	+243.7
South Central.....	2,928,310	1,637,097	-44.1	813	561	-31.0	3,973,337	2,789,338	-29.8
Mountain and Pacific.....	6,097,414	3,131,185	-48.6	1,849	896	-51.5	5,973,686	2,933,169	-50.9
Total.....	52,019,192	22,904,245	-56.0	11,006	5,599	-49.1	54,771,457	36,927,698	-32.6

Geographic division	Additions, alterations, and repairs, estimated cost			Total construction, estimated cost			Number of cities
	November, 1930	November, 1931	Per cent of change	November, 1930	November, 1931	Per cent of change	
New England.....	\$1,173,823	\$1,070,696	-8.8	\$11,431,826	\$6,557,341	-42.6	47
Middle Atlantic.....	4,728,893	5,372,937	+13.6	55,529,591	25,686,566	-53.7	65
East North Central.....	2,323,917	1,706,638	-26.6	19,727,557	8,405,927	-57.4	73
West North Central.....	755,026	534,513	-29.2	4,856,591	4,134,489	-14.9	24
South Atlantic.....	1,300,683	1,585,404	+21.9	6,554,679	14,827,019	+126.2	32
South Central.....	716,172	713,019	-0.4	7,617,819	5,139,454	-32.5	25
Mountain and Pacific.....	1,691,013	1,110,690	-34.3	13,762,113	7,175,044	-47.9	28
Total.....	12,689,527	12,093,897	-4.7	119,480,176	71,925,840	-39.8	294

Indicated expenditures for total construction in these 294 cities were 39.8 per cent less in November, 1931, than in November, 1930. Six of the seven geographic divisions registered decreases in expenditures, comparing these two periods. There was, however, an increase of 126.2 per cent in the South Atlantic States. The decreases extended from a low of 14.9 per cent in the West North Central States to 57.4 per cent in the East North Central States.

Indicated expenditures for new residential buildings decreased 56.0 per cent, comparing November, 1931, with November, 1930. All geographic divisions registered decreases in this class of expenditures, ranging from 6.3 per cent in the South Atlantic States to 72.8 per cent in the East North Central States.

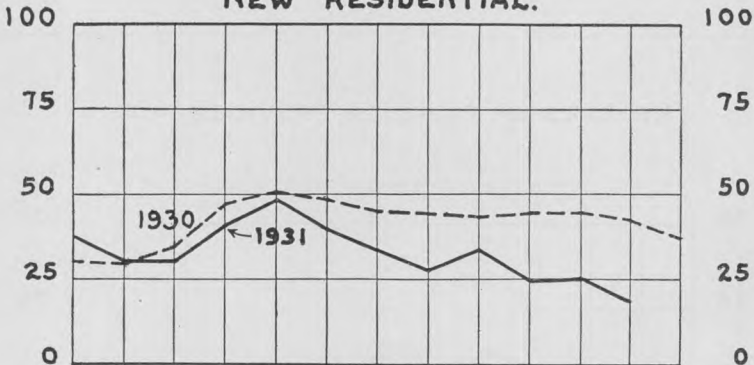
There was a decrease of 32.6 per cent in the estimated cost of new nonresidential buildings comparing November of this year with November of last year. Two geographic divisions showed increases in this class of buildings and five divisions showed decreases.

The decrease in indicated expenditures for additions, alterations, and repairs was 4.7 per cent. Two of the geographic divisions showed increases in indicated expenditures for repairs and five showed decreases.

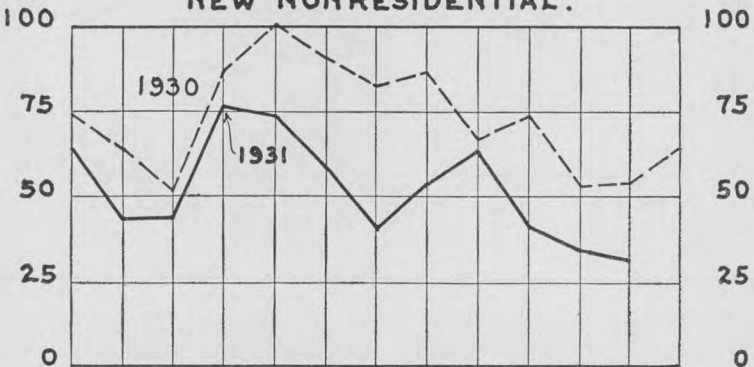
**INDEXES OF COST OF BUILDING OPERATIONS.**

MONTHLY AVERAGE 1929 = 100.

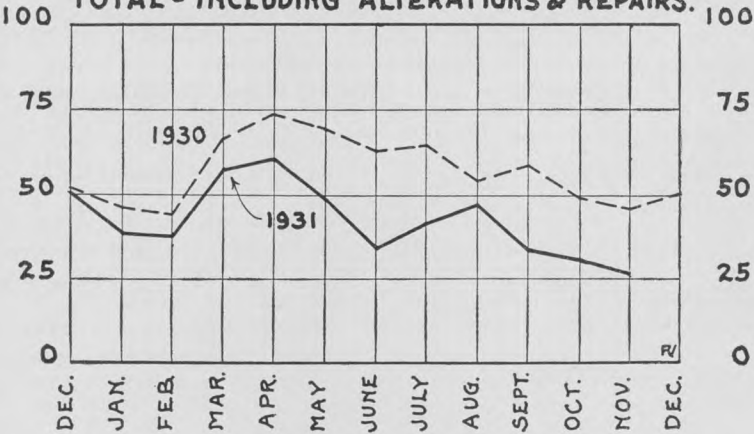
**NEW RESIDENTIAL.**



**NEW NONRESIDENTIAL.**



**TOTAL - INCLUDING ALTERATIONS & REPAIRS.**



The number of family-dwelling units provided decreased 49.1 per cent in this period. Six of the seven geographic divisions showed decreases in the number of dwelling units provided.

Table 7 shows the number of new residential buildings, of new nonresidential buildings, of additions, alterations, and repairs, and of total building operations in 294 identical cities having a population of 25,000 or over for November, 1930, and November, 1931.

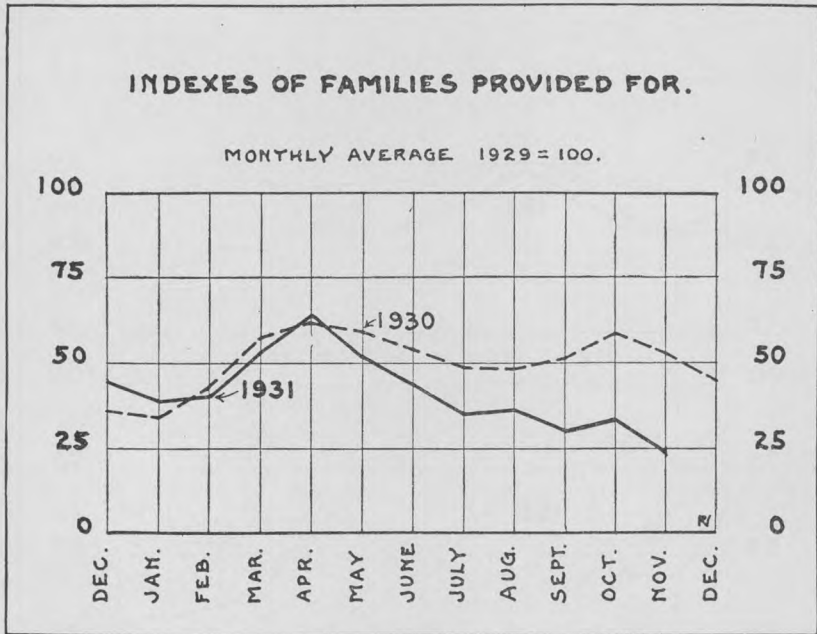


TABLE 7.—NUMBER OF NEW BUILDINGS, OF ADDITIONS, ALTERATIONS, AND REPAIRS, AND OF TOTAL BUILDING CONSTRUCTION IN 294 IDENTICAL CITIES, AS SHOWN BY PERMITS ISSUED IN NOVEMBER, 1930, AND NOVEMBER, 1931, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings		New nonresidential buildings		Additions, alterations, and repairs		Total construction	
	November, 1930	November, 1931	November, 1930	November, 1931	November, 1930	November, 1931	November, 1930	November, 1931
New England.....	404	397	866	891	1,611	1,744	2,881	3,032
Middle Atlantic.....	1,238	859	2,311	1,695	3,737	3,733	7,286	6,287
East North Central.....	784	378	2,698	1,746	2,795	2,210	6,277	4,334
West North Central.....	385	341	719	747	906	898	2,010	1,986
South Atlantic.....	274	347	768	677	2,265	2,512	3,307	3,536
South Central.....	590	369	558	441	1,411	1,401	2,559	2,211
Mountain and Pacific.....	955	743	1,643	1,196	3,275	3,037	5,873	4,976
Total.....	4,630	3,434	9,563	7,393	16,000	15,535	30,193	26,362
Per cent of change.....		-25.8		-22.7		-2.9		-12.7

Total construction, new residential buildings, new nonresidential buildings, and additions, alterations, and repairs, all showed decreases in the number of buildings for which permits were issued during November, 1931, as compared with November, 1930.

Table 8 shows the estimated cost of new residential buildings, of new nonresidential buildings, of total building operations, together with the number of family-dwelling units provided in new buildings in each of the 342 cities from which reports were received for both October, 1931, and November, 1931.

Reports were received from 51 cities in the New England States, 69 cities in the Middle Atlantic States, 92 cities in the East North Central States, 24 cities in the West North Central States, 37 cities in the South Atlantic States, 33 cities in the South Central States, and from 36 cities in the Mountain and Pacific States.

Permits were issued for the following important building projects during the month of November, 1931: In Brookline, Mass., for a public-school building to cost over \$350,000; in Cambridge, Mass., for an additional building for Radcliffe College to cost \$400,000; in Providence, R. I., for a school building to cost \$551,000; in the Borough of the Bronx, for apartment houses to cost over \$1,600,000 and for a school building to cost \$4,400,000; in Brooklyn, for a school building to cost \$750,000; in the Borough of Queens, for a State hospital to cost nearly \$600,000 and for two school buildings to cost \$650,000; in Philadelphia, for an apartment house to cost \$500,000; in Milwaukee, for a school building to cost over \$750,000; in Indianapolis, for the completion of the World War memorial to cost over \$1,000,000; and in St. Paul, Minn., for a State office building to cost \$1,500,000.

Contracts were awarded by the Supervising Architect of the Treasury Department for the United States Supreme Court Building in Washington, D. C., to cost over \$8,000,000, and for a post office and Federal courthouse in Greensboro, N. C., to cost nearly \$600,000. Contracts were awarded by the Veterans' Bureau for a hospital in Columbia, S. C., to cost nearly \$1,000,000, and for an addition to the veterans' hospital in West Los Angeles, Calif., to cost nearly \$350,000.

No reports were received from New London (Conn.), Bangor (Me.), Nanticoke (Pa.), Anderson (Ind.), Port Huron (Mich.), Zanesville (Ohio), Fargo (N. Dak.), Pensacola and West Palm Beach (Fla.), Savannah (Ga.), Lynchburg (Va.), Fort Smith (Ark.), Lexington (Ky.), Enid and Muskogee (Okla.), Corpus Christi, Galveston and Laredo (Tex.), and Riverside (Calif.).

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER AND NOVEMBER, 1931

## New England States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		October, 1931	November, 1931	October, 1931	November, 1931
	October, 1931	November, 1931	October, 1931	November, 1931				
<b>Connecticut:</b>								
Bridgeport.....	\$114,200	\$121,700	29	34	\$83,978	\$16,100	\$215,133	\$170,335
Bristol.....	14,000	4,000	4	1	110,532	2,810	130,359	12,896
Greenwich.....	21,000	133,000	5	13	21,500	6,600	96,950	166,700
Hartford.....	29,000	80,000	6	14	94,605	40,909	221,421	159,222
Meriden.....	16,700	21,400	4	6	138,370	71,149	161,440	94,359
New Britain.....	28,200	12,000	6	2	5,175	41,005	48,958	58,912
New Haven.....	89,800	68,000	17	12	97,576	176,470	208,226	312,840
Norwalk.....	96,600	92,200	15	17	9,600	12,950	122,280	114,430
Stamford.....	53,000	32,000	10	5	38,000	5,680	105,800	44,655
Torrington.....	11,500	3,000	4	1	925	1,750	13,435	7,300
Waterbury.....	16,000	30,000	4	6	436,792	19,990	458,642	52,240
<b>Maine:</b>								
Lewiston.....	3,000	26,000	1	6	0	0	4,050	30,000
Portland.....	40,600	26,300	9	8	15,935	5,065	74,358	51,095
<b>Massachusetts:</b>								
Beverly.....	47,300	44,450	10	9	4,755	1,300	97,605	50,650
Boston <sup>1</sup> .....	977,000	471,000	264	79	400,477	513,335	1,605,355	1,277,072
Brockton.....	16,250	47,000	5	11	4,215	59,930	31,500	133,710
Brookline.....	97,000	93,500	6	9	7,280	368,520	111,765	465,090
Cambridge.....	0	19,700	0	4	443,625	415,670	462,576	473,117
Chelsea.....	5,000	9,000	1	2	2,060	925	17,945	20,959
Chicopee.....	0	2,000	0	1	5,550	2,900	14,950	5,375
Everett.....	6,000	14,000	2	4	21,800	40,550	29,525	55,400
Fall River.....	3,500	0	1	0	23,554	2,305	47,275	19,640
Fitchburg.....	6,500	6,500	2	2	1,806	850	10,816	8,600
Haverhill.....	8,300	0	3	0	3,585	154,125	19,357	165,410
Holyoke.....	17,500	0	2	0	7,750	10,750	41,250	40,550
Lawrence.....	0	7,000	0	1	45,850	11,975	63,000	27,260
Lowell.....	45,050	15,300	2	5	3,885	685	56,615	28,045
Lynn.....	22,300	24,300	5	5	15,545	4,405	57,315	40,735
Malden.....	33,500	19,300	8	4	7,080	12,500	51,420	49,370
Medford.....	84,100	101,800	23	24	82,120	86,635	173,160	192,810
New Bedford.....	4,500	0	1	0	5,550	4,450	26,700	16,975
Newton.....	141,500	205,000	16	23	21,010	12,985	177,572	238,591
Pittsfield.....	77,700	92,700	18	20	37,300	29,389	125,950	136,796
Quincy.....	95,000	80,100	28	16	31,060	17,840	171,091	159,399
Revere.....	1,000	11,800	1	3	200	1,950	9,825	24,700
Salem.....	41,000	73,000	8	12	13,135	4,300	68,039	105,730
Somerville.....	12,000	11,000	2	2	111,440	5,325	139,699	33,875
Springfield.....	44,600	71,450	14	19	61,200	22,490	116,425	100,215
Taunton.....	5,700	0	3	0	1,530	3,598	15,228	15,393
Waltham.....	17,700	50,350	3	10	4,035	15,590	24,235	70,015
Watertown.....	29,500	48,300	5	9	35,500	8,250	89,250	67,575
Worcester.....	77,800	67,300	12	15	387,125	19,225	490,100	107,628
<b>New Hampshire:</b>								
Concord.....	10,500	0	3	0	4,000	4,000	14,500	4,250
Manchester.....	17,300	6,500	5	2	4,105	5,175	52,556	23,540
<b>Rhode Island:</b>								
Central Falls.....	5,000	0	2	0	3,790	280	10,555	1,720
Cranston.....	120,450	108,200	28	25	17,625	14,910	143,590	125,235
East Providence.....	31,200	23,900	6	5	35,472	14,925	78,330	49,738
Newport.....	26,350	26,000	5	5	9,050	4,300	40,550	33,210
Pawtucket.....	12,700	2,200	3	1	5,710	3,000	25,410	27,430
Providence.....	163,900	44,600	34	14	104,860	815,535	396,978	953,960
Woonsocket.....	0	3,000	0	1	6,290	2,750	8,720	7,685
Total.....	2,838,300	2,449,850	645	467	3,033,962	3,098,105	6,977,844	6,632,437
Per cent of change.....		-13.7		-27.6		+2.1		-5.0

## Middle Atlantic States

<b>New Jersey:</b>								
Atlantic City.....	0	0	0	0	\$6,150	\$6,400	\$45,278	\$39,637
Bayonne.....	\$5,500	0	2	0	725	27,300	23,155	37,615
Belleville.....	4,000	\$35,000	1	4	5,100	2,350	15,150	38,415
Bloomfield.....	70,000	109,000	14	26	5,000	4,000	81,000	113,000
Camden.....	0	8,000	0	2	9,275	52,285	21,130	93,320
Clifton.....	115,000	23,000	29	7	13,590	15,400	134,990	42,050
East Orange.....	8,500	14,500	1	2	50,426	146,405	89,453	171,645
Elizabeth.....	35,000	26,000	7	5	79,000	17,500	114,000	63,500

<sup>1</sup> Applications filed.



TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED  
IN PRINCIPAL CITIES, OCTOBER AND NOVEMBER, 1931—Continued  
*Middle Atlantic States—Continued*

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction <sup>1</sup> including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		October, 1931	November, 1931	October, 1931	November, 1931
	October, 1931	November, 1931	October, 1931	November, 1931				
<b>New Jersey—Contd.</b>								
Garfield.....	0	\$4,200	0	1	\$2,385	\$9,700	\$5,785	\$24,050
Hoboken.....	0	0	0	0	5,500	0	13,860	13,510
Irvington.....	\$42,000	28,600	11	8	8,525	7,475	56,245	42,640
Jersey City.....	160,400	62,000	48	32	13,025	9,790	257,325	95,715
Kearny.....	34,000	22,300	8	10	10,425	2,400	45,500	25,675
Montclair.....	53,500	41,000	5	5	4,550	5,506	74,018	53,876
Newark.....	53,000	199,200	14	40	419,460	63,900	597,962	408,025
New Brunswick.....	0	0	0	0	4,160	5,877	13,994	18,422
Orange.....	12,000	0	2	0	3,920	5,322	26,635	10,080
Passaic.....	0	9,200	0	2	45,335	7,950	75,050	40,714
Paterson.....	38,575	51,700	11	14	32,427	13,941	115,615	90,626
Perth Amboy.....	0	12,400	0	1	7,484	1,075	10,264	14,475
Plainfield.....	47,000	56,200	7	7	22,914	23,550	80,589	83,098
Trenton.....	28,500	125,000	4	16	189,815	10,070	241,763	194,584
Union City.....	0	0	0	0	2,900	0	32,700	10,885
West New York.....	30,000	0	13	0	12,200	1,000	56,390	10,230
<b>New York:</b>								
Albany.....	241,600	245,400	20	24	2,141,650	17,900	2,440,446	326,279
Amsterdam.....	4,000	0	1	0	1,700	500	6,300	3,000
Auburn.....	25,600	32,100	5	3	3,335	1,500	39,755	37,085
Binghamton.....	22,100	24,225	6	11	10,121	6,984	61,792	57,789
Buffalo.....	242,025	69,800	95	26	465,802	220,175	801,437	321,489
Elmira.....	7,250	22,467	2	7	6,257	3,325	20,178	29,493
Jamestown.....	25,700	14,000	7	4	20,975	3,600	49,692	28,980
Kingston.....	21,200	34,000	6	8	236,080	8,800	272,579	49,463
Lockport.....	4,000	0	2	0	1,690	519	10,845	1,769
Mount Vernon.....	59,800	39,800	9	6	12,545	57,500	96,555	131,530
Newburgh.....	6,000	0	1	0	4,000	3,800	10,900	22,650
New Rochelle.....	213,300	41,000	14	3	209,899	36,917	436,224	89,637
<b>New York City—</b>								
The Bronx <sup>1</sup> .....	3,140,000	2,026,300	731	479	1,896,800	4,643,850	5,287,645	6,828,310
Brooklyn <sup>1</sup> .....	4,147,300	1,510,900	1,023	399	373,371	1,184,230	5,612,731	3,874,982
Manhattan <sup>1</sup> .....	4,410,000	1,215,000	141	202	4,918,500	286,100	7,178,740	2,666,864
Queens <sup>1</sup> .....	4,904,000	2,257,200	1,182	595	800,165	1,692,303	6,190,885	4,863,793
Richmond <sup>1</sup> .....	302,450	297,600	87	89	208,200	12,655	603,925	422,539
Niagara Falls.....	68,850	70,540	12	22	15,512	7,525	136,315	97,419
Poughkeepsie.....	28,000	53,500	4	9	6,850	11,925	49,125	74,105
Rochester.....	72,050	114,000	17	20	43,955	45,369	159,688	241,124
Schenectady.....	61,900	30,000	11	6	37,600	8,500	128,050	48,650
Syracuse.....	112,800	109,700	23	22	847,869	38,700	1,040,795	159,600
Troy.....	54,390	59,600	10	16	48,395	421,210	120,300	496,832
Utica.....	53,000	39,500	9	7	30,350	13,000	83,950	54,000
Watertown.....	6,000	23,800	2	4	14,425	1,775	27,115	26,905
White Plains.....	86,000	46,500	8	5	10,200	16,650	108,340	69,090
Yonkers.....	411,100	353,450	62	48	42,670	155,165	486,510	550,995
<b>Pennsylvania:</b>								
Allentown.....	26,000	0	4	0	15,580	9,850	55,370	54,052
Altoona.....	11,150	3,100	3	2	349,497	2,302	367,657	10,654
Bethlehem.....	4,500	33,000	1	2	3,910	2,200	9,460	39,500
Butler.....	0	5,000	0	1	3,750	200	6,550	5,200
Chester.....	0	5,000	0	1	17,025	4,100	18,825	209,100
Easton.....	6,000	2,900	1	1	6,415	1,275	17,009	6,089
Erie.....	75,200	60,100	24	15	19,165	27,250	325,615	97,865
Harrisburg.....	21,958	18,000	5	3	221,006	201,800	451,064	240,515
Hazleton.....	11,181	0	3	0	7,433	5,698	25,530	8,300
Johnstown.....	4,950	2,000	1	1	11,670	5,720	22,573	22,495
Lancaster.....	2,800	12,000	1	3	7,650	3,500	16,810	20,890
McKeesport.....	27,500	23,500	6	3	3,300	1,875	44,242	30,440
New Castle.....	4,000	11,200	1	2	2,065	3,225	11,340	14,995
Norristown.....	12,000	0	1	0	9,376	5,175	23,536	7,731
Philadelphia.....	212,500	574,900	45	117	2,489,630	145,990	2,963,900	951,385
Pittsburgh.....	257,700	165,500	52	25	1,515,190	28,325	1,911,577	572,041
Reading.....	0	20,000	0	4	11,590	4,850	29,972	82,437
Scranton.....	28,516	29,200	2	9	15,340	4,435	59,550	52,175
Wilkes-Barre.....	6,700	3,575	2	1	7,745	14,425	32,804	28,971
Wilkesburg.....	0	9,000	0	2	3,100	3,750	31,360	15,200
Williamsport.....	5,000	0	2	0	26,242	7,303	37,238	14,140
York.....	18,000	25,000	2	3	5,065	3,770	48,001	61,847
Total.....	16,203,545	10,562,657	3,823	2,392	18,114,951	9,827,591	40,218,651	25,833,237
Per cent of change.....		-34.8		-37.4		-45.7		-35.8

<sup>1</sup> Applications filed.

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER AND NOVEMBER, 1931—Continued

## East North Central States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		October, 1931	November, 1931	October, 1931	November, 1931
	October, 1931	November, 1931	October, 1931	November, 1931				
<b>Illinois:</b>								
Alton	0	0	0	0	\$1,000	\$7,000	\$15,317	\$13,873
Aurora	\$7,865	\$14,675	3	4	8,615	318,437	22,094	334,784
Belleville	9,300	11,470	2	5	615	75,365	12,115	87,560
Berwyn	11,000	10,000	2	2	3,360	2,880	16,190	12,880
Bloomington	12,000	7,000	2	2	0	0	12,000	7,000
Chicago	225,100	187,550	32	31	485,768	595,715	1,235,967	1,398,189
Cicero	8,500	5,800	1	1	8,300	250	19,300	12,925
Danville	2,100	0	1	0	15,300	24,400	64,650	27,588
Deatur	0	3,500	0	1	48,650	8,425	49,700	27,575
East St. Louis	16,700	28,450	7	10	11,835	8,475	34,635	39,425
Elgin	13,100	3,500	2	1	158,250	1,215	181,000	15,735
Evanston	8,000	24,000	1	2	109,750	20,500	142,250	62,000
Granite City	3,000	0	1	0	0	0	3,000	0
Joliet	18,000	7,000	3	2	2,225	6,900	43,858	86,959
Maywood	0	0	0	0	26,639	1,045	29,100	2,695
Moline	30,000	3,400	8	1	2,840	2,170	39,587	7,280
Oak Park	10,500	0	1	0	43,995	10,170	69,970	18,965
Peoria	85,900	86,930	19	14	7,815	23,630	158,930	140,548
Quincy	15,300	3,250	4	2	2,640	1,730	18,040	7,440
Rockford	13,000	10,000	3	2	2,475	12,250	25,370	29,000
Rock Island	14,300	13,500	6	6	1,815	1,587	25,173	21,906
Springfield	36,700	25,000	11	6	22,798	8,530	84,207	105,502
Waukegan	9,000	38,000	2	9	28,027	3,545	42,742	47,705
<b>Indiana:</b>								
East Chicago	2,200	0	1	0	980	920	5,630	1,470
Elkhart	17,000	6,500	2	2	9,550	63,450	31,172	70,952
Evansville	11,910	6,700	5	2	16,600	5,225	48,754	83,737
Fort Wayne	44,200	37,160	11	9	10,698	18,235	99,527	68,439
Gary	1,000	16,200	1	3	4,830	7,035	15,115	27,985
Hammond	0	5,600	0	2	2,371	72,489	10,090	84,104
Indianapolis	120,750	102,350	26	22	125,304	1,132,234	310,223	1,275,513
Kokomo	0	500	0	1	3,400	2,420	5,835	3,095
Lafayette	3,300	0	2	0	0	3,000	6,400	4,200
Marion	1,780	0	1	0	15,098	18,757	22,138	26,156
Michigan City	14,500	3,500	4	1	250	1,350	16,875	5,100
Mishawaka	2,000	3,000	1	2	1,480	225	4,180	3,375
Muncie	5,000	0	1	0	4,277	40,575	21,070	43,502
Richmond	7,000	8,250	2	2	7,650	800	22,000	10,150
Terre Haute	3,000	6,600	1	2	1,675	2,125	31,281	11,800
<b>Michigan:</b>								
Ann Arbor	48,700	10,700	7	3	1,960	2,325	75,860	23,775
Battle Creek	2,000	10,300	1	3	18,470	16,900	25,795	33,565
Bay City	9,700	10,500	3	3	8,550	1,425	26,250	17,815
Dearborn	126,300	45,900	36	10	3,635	1,300	132,760	49,000
Detroit	488,088	304,350	130	56	564,378	319,195	1,360,750	773,423
Flint	19,476	14,182	4	3	53,043	12,727	84,514	36,649
Grand Rapids	38,700	28,200	11	7	34,730	8,940	97,500	46,410
Hamtramck	4,500	0	1	0	9,260	150	15,325	1,220
Highland Park	0	0	0	0	550	260	2,075	5,380
Jackson	0	0	0	0	820	51,115	4,516	57,225
Kalamazoo	1,800	11,800	1	4	11,920	1,170	25,497	18,744
Lansing	12,500	0	4	0	11,970	46,385	36,545	65,620
Muskegon	0	0	0	0	2,630	8,025	8,350	10,365
Pontiac	0	0	0	0	4,140	5,220	6,670	14,545
Saginaw	0	8,900	0	5	8,160	2,215	14,124	14,963
Wyandotte	12,100	11,400	3	2	3,437	1,005	24,552	18,335
<b>Ohio:</b>								
Akron	48,350	18,050	8	3	114,678	17,603	208,368	41,368
Ashtabula	3,600	13,850	2	5	1,790	1,705	13,268	16,380
Canton	0	0	0	0	3,360	2,655	11,625	4,405
Cincinnati	359,400	338,700	76	71	818,930	113,605	1,244,555	547,665
Cleveland	245,000	103,500	50	33	93,325	336,800	548,000	554,900
Cleveland Heights	36,800	90,800	14	13	3,790	5,160	95,950	99,600
Columbus	33,400	34,100	16	6	35,250	13,450	177,500	63,450
Dayton	6,000	40,000	3	10	293,343	23,206	325,023	69,704
East Cleveland	0	0	0	0	1,115	130	3,144	1,430
Elyria	6,500	2,250	2	1	6,745	2,360	15,755	6,845
Hamilton	0	4,000	0	1	2,125	4,355	12,630	10,790
Lakewood	27,500	4,500	2	1	6,140	1,315	38,740	10,640
Lima	0	0	0	0	365	1,350	5,865	1,735
Lorain	3,000	5,400	1	2	1,606	5,300	5,586	11,125
Mansfield	29,500	7,500	7	1	3,470	6,165	33,463	15,175

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER AND NOVEMBER, 1931—Continued

## East North Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		October, 1931	November, 1931	October, 1931	November, 1931
	October, 1931	November, 1931	October, 1931	November, 1931				
Ohio—Continued.								
Marion.....	0	0	0	0	\$250	\$465	\$1,850	\$465
Massillon.....	\$1,500	0	1	0	1,450	250	4,513	750
Middletown.....	0	0	0	0	2,470	270	8,670	1,020
Newark.....	1,500	\$5,000	2	1	60,625	760	62,125	5,760
Norwood.....	0	26,000	0	5	8,825	13,570	12,965	41,445
Portsmouth.....	0	0	0	0	200	5,230	3,020	7,296
Springfield.....	0	10,300	0	2	1,550	885	7,460	12,410
Steubenville.....	0	3,000	0	1	890	500	1,590	5,700
Toledo.....	2,000	4,000	1	1	51,887	11,585	121,807	24,168
Warren.....	0	11,500	0	2	1,435	16,820	8,785	39,390
Youngstown.....	11,100	14,400	4	4	2,430	3,245	19,661	54,065
Wisconsin:								
Appleton.....	26,400	17,200	6	6	2,510	22,370	124,320	45,595
Eau Claire.....	23,000	18,400	7	6	1,600	3,000	33,558	23,500
Fond du Lac.....	7,000	19,500	2	7	2,075	4,600	11,525	27,262
Green Bay.....	45,200	11,100	15	3	52,580	4,570	109,447	20,030
Kenosha.....	3,600	15,000	1	1	3,095	1,950	29,454	44,140
Madison.....	98,900	29,700	18	7	16,131	22,170	154,071	59,668
Milwaukee.....	313,150	225,350	67	53	371,245	935,577	1,073,433	1,229,578
Oshkosh.....	14,200	0	5	0	8,200	235,050	28,726	236,155
Racine.....	12,500	0	3	0	66,170	10,745	83,770	13,315
Sheboygan.....	34,100	42,300	7	9	32,250	1,375	88,959	58,717
Superior.....	0	3,000	0	1	2,925	1,715	8,425	5,525
West Allis.....	27,300	9,100	5	2	4,095	5,965	36,840	17,251
Total.....	3,067,369	2,263,117	695	503	4,015,448	4,819,242	9,721,014	8,842,563
Per cent of change.....		-26.2		-27.6		+20.0		-9.0

## West North Central States

Iowa:								
Burlington.....	\$12,000	\$5,000	3	1	\$8,000	\$5,350	\$23,550	\$11,250
Cedar Rapids.....	27,050	44,150	9	6	19,458	6,685	71,626	77,430
Council Bluffs.....	23,000	3,500	7	2	3,600	3,800	36,600	12,300
Davenport.....	18,500	29,400	8	8	4,332	13,245	43,324	74,098
Des Moines.....	42,950	58,050	17	13	18,965	34,090	70,635	112,555
Dubuque.....	32,700	46,900	10	10	5,624	3,450	50,924	58,448
Ottumwa.....	4,500	11,500	2	3	4,000	300	8,900	11,800
Sioux City.....	56,350	36,500	19	11	10,705	90,465	77,705	163,415
Waterloo.....	18,200	9,600	6	4	14,890	7,325	37,230	21,850
Kansas:								
Hutchinson.....	13,600	0	7	0	7,575	1,975	22,125	4,105
Kansas City.....	19,600	9,900	11	4	9,545	0	35,155	9,900
Topeka.....	15,700	22,000	9	6	953,835	3,430	975,655	31,585
Wichita.....	80,300	44,000	20	8	12,785	11,255	137,745	65,212
Minnesota:								
Duluth.....	46,500	17,300	15	6	18,380	6,035	92,622	61,945
Minneapolis.....	468,825	474,850	128	131	63,715	41,960	638,154	589,945
St. Paul.....	191,040	190,740	31	35	69,511	1,563,900	324,447	1,799,160
Missouri:								
Joplin.....	8,400	0	2	0	2,200	900	21,630	6,525
Kansas City.....	81,500	70,000	24	26	97,000	62,200	297,200	182,900
Springfield.....	20,000	13,600	4	5	5,125	2,160	34,010	20,780
St. Joseph.....	14,500	7,100	8	3	4,655	6,530	24,040	18,705
St. Louis.....	376,350	246,500	114	78	86,975	63,038	580,055	454,868
Nebraska:								
Lincoln.....	27,050	25,800	7	5	9,360	44,510	60,445	72,360
Omaha.....	99,250	53,000	22	15	18,497	54,232	158,052	118,747
South Dakota:								
Sioux Falls.....	34,185	42,437	8	9	104,440	111,314	140,875	154,626
Total.....	1,732,350	1,461,827	491	389	1,533,172	2,138,149	3,962,604	4,134,489
Per cent of change.....		-15.6		-20.8		+39.5		+4.3

TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER AND NOVEMBER, 1931—Continued

## South Atlantic States

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		October, 1931	November, 1931	October, 1931	November, 1931
	October, 1931	November, 1931	October, 1931	November, 1931				
Delaware:								
Wilmington.....	\$167, 200	\$69, 200	44	15	\$39, 531	\$24, 875	\$260, 142	\$320, 732
District of Columbia:								
Washington.....	883, 700	747, 350	176	149	3, 229, 201	8, 825, 657	4, 441, 614	9, 905, 058
Florida:								
Jacksonville.....	57, 350	38, 650	14	12	405, 165	34, 565	489, 940	136, 640
Miami.....	48, 700	43, 550	15	16	61, 810	79, 815	188, 919	206, 814
Orlando.....	3, 060	500	4	1	845	565	15, 025	9, 070
St. Petersburg.....	7, 500	12, 700	2	6	3, 300	8, 500	31, 500	37, 100
Tampa.....	5, 550	7, 650	4	8	4, 475	4, 525	36, 972	31, 324
Georgia:								
Atlanta.....	109, 850	58, 700	32	25	23, 087	28, 923	200, 776	198, 609
Augusta.....	10, 552	23, 292	8	8	25, 000	15, 363	64, 891	48, 994
Columbus.....	13, 000	2, 800	2	2	300	2, 059	17, 980	12, 329
Macon.....	1, 800	16, 500	2	1	24, 150	850	57, 143	37, 765
Maryland:								
Baltimore.....	458, 000	426, 000	63	109	225, 400	595, 600	1, 332, 700	1, 476, 700
Cumberland.....	4, 000	0	1	0	3, 635	915	8, 735	3, 370
Hagerstown.....	5, 000	0	2	0	755	1, 155	6, 005	6, 155
North Carolina:								
Asheville.....	1, 400	0	1	0	24, 780	220	34, 350	6, 515
Charlotte.....	58, 418	31, 530	14	13	3, 335	72, 475	75, 878	115, 383
Durham.....	22, 450	19, 200	17	5	13, 200	0	51, 475	21, 675
Greensboro.....	1, 000	3, 500	1	2	10, 135	662, 078	27, 390	672, 028
High Point.....	33, 050	16, 400	16	12	0	590	35, 500	17, 490
Raleigh.....	1, 200	2, 200	2	2	1, 925	234, 540	10, 075	240, 624
Wilmington.....	9, 800	13, 800	4	6	200	600	16, 600	18, 800
Winston-Salem.....	6, 900	6, 500	6	3	39, 285	8, 310	68, 072	21, 353
South Carolina:								
Charleston.....	16, 250	5, 500	3	3	4, 973	0	26, 290	16, 689
Columbia.....	30, 998	56, 400	16	18	49, 794	953, 443	92, 707	1, 022, 610
Greenville.....	25, 500	16, 000	4	4	125	0	36, 265	18, 665
Spartanburg.....	0	1, 500	0	1	4, 345	2, 350	22, 305	5, 425
Virginia:								
Newport News.....	19, 700	23, 700	7	12	4, 000	2, 607	36, 609	98, 855
Norfolk.....	62, 100	67, 800	17	24	22, 640	18, 250	105, 985	104, 695
Petersburg.....	0	400	0	1	0	30, 568	2, 400	31, 253
Portsmouth.....	10, 500	9, 600	3	5	8, 330	390	30, 142	23, 445
Richmond.....	35, 011	60, 790	8	12	170, 236	27, 177	240, 466	115, 485
Roanoke.....	15, 000	8, 500	5	2	3, 848	19, 855	22, 666	37, 990
West Virginia:								
Charleston.....	19, 800	14, 800	6	6	5, 250	3, 475	31, 836	33, 875
Clarksburg.....	4, 000	3, 000	2	1	5, 745	3, 378	11, 585	6, 378
Huntington.....	3, 500	8, 100	2	4	53, 750	3, 325	59, 700	19, 830
Parkersburg.....	0	0	0	0	51, 623	1, 425	59, 633	3, 870
Wheeling.....	21, 800	10, 200	3	4	9, 693	6, 950	38, 480	20, 505
Total.....	2, 173, 639	1, 826, 312	506	492	4, 533, 866	10, 717, 794	8, 288, 751	14, 047, 154
Per cent of change.....		-16. 0		-2. 8		+136. 4		+69. 5

## South Central States

Alabama:								
Birmingham.....	\$5, 000	\$8, 260	3	9	\$10, 025	\$18, 300	\$53, 248	\$120, 903
Mobile.....	14, 700	24, 300	9	11	14, 000	11, 550	40, 015	43, 648
Montgomery.....	19, 300	20, 200	6	17	5, 600	10, 825	43, 915	40, 721
Arkansas:								
Little Rock.....	0	17, 000	0	4	1, 830	263, 553	10, 967	288, 929
Kentucky:								
Ashland.....	0	0	0	0	7, 400	744	12, 950	744
Covington.....	11, 500	7, 000	3	2	80, 035	670	104, 910	13, 831
Louisville.....	50, 000	12, 000	9	3	260, 485	40, 470	490, 935	101, 420
Newport.....	0	0	0	0	800	700	24, 000	700
Paducah.....	2, 200	0	2	0	750	2, 100	2, 950	2, 100
Louisiana:								
Baton Rouge.....	13, 983	25, 160	8	5	3, 695	835	23, 493	31, 303
New Orleans.....	69, 900	49, 400	32	17	2, 415	44, 775	118, 580	124, 633
Shreveport.....	3, 400	9, 250	7	9	4, 732	13, 621	35, 579	51, 268

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TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER AND NOVEMBER, 1931—Continued

## South Central States—Continued

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		October, 1931	November, 1931	October, 1931	November, 1931
	October, 1931	November, 1931	October, 1931	November, 1931				
Mississippi:								
Jackson.....	\$12,630	\$11,910	8	9	\$750	0	\$26,402	\$49,004
Oklahoma:								
Oklahoma City....	126,700	89,500	44	24	726,195	\$1,039,715	1,001,464	1,141,025
Okmulgee.....	0	0	0	0	150	400	150	400
Tulsa.....	35,925	57,790	13	17	124,999	57,405	187,269	127,503
Tennessee:								
Chattanooga.....	15,600	20,700	6	8	50,200	19,770	147,970	100,986
Johnson City....	1,000	0	1	0	223,181	1,650	224,581	1,650
Knoxville.....	24,120	6,300	11	5	121,409	6,420	156,040	25,274
Memphis.....	20,150	27,900	9	13	540,800	26,520	681,330	151,840
Nashville.....	57,725	87,600	18	14	279,535	409,225	364,134	529,619
Texas:								
Amarillo.....	24,850	5,500	20	2	66,673	18,500	92,733	29,539
Austin.....	69,646	68,665	44	39	67,721	256,206	155,154	402,021
Beaumont.....	2,700	7,250	3	7	20,154	5,192	35,275	21,871
Dallas.....	107,975	128,775	71	52	62,852	7,580	245,178	310,200
El Paso.....	10,600	12,000	3	5	11,515	2,646	31,926	20,004
Fort Worth.....	86,100	200,550	29	28	1,201,950	110,185	1,328,580	353,036
Houston.....	445,400	696,350	117	241	253,405	148,588	740,108	854,623
Port Arthur.....	0	0	0	0	16,835	3,710	25,000	11,422
San Angelo.....	2,000	0	1	0	10,540	1,650	12,790	4,185
San Antonio.....	92,965	77,722	42	39	137,414	218,794	250,888	312,103
Waco.....	13,900	10,725	8	8	7,325	41,750	32,350	57,335
Wichita Falls....	500	0	1	0	600	49,449	2,841	55,424
Total.....	1,340,469	1,681,767	528	588	4,299,135	2,833,498	6,678,705	5,379,314
Per cent of change....		+25.5		+11.4		-34.1		-19.5

## Mountain and Pacific States

Arizona:									
Phoenix.....	\$32,650	\$52,700	9	10	\$3,235	\$250	\$44,900	\$55,346	
Tucson.....	50,450	46,415	15	24	62,091	67,685	127,766	122,959	
California:									
Alameda.....	7,500	19,500	3	5	2,460	5,510	26,650	33,002	
Alhambra.....	37,600	77,300	14	24	22,100	6,250	62,300	88,150	
Bakersfield.....	6,400	16,200	2	4	910	106,680	19,737	125,965	
Berkeley.....	39,250	59,959	11	12	216,605	109,659	274,259	203,308	
Fresno.....	24,450	34,857	7	9	4,551	10,640	69,488	70,905	
Glendale.....	172,550	125,050	41	27	21,850	37,440	206,950	170,920	
Long Beach.....	233,950	147,200	92	46	89,130	29,200	379,835	210,715	
Long Angeles....	1,541,200	1,276,064	506	394	1,353,718	1,178,306	3,459,905	2,879,858	
Oakland.....	170,650	171,575	42	44	57,157	181,159	340,217	386,404	
Pasadena.....	80,424	32,050	21	8	147,330	10,833	297,006	71,948	
Sacramento.....	90,450	95,250	19	21	29,130	180,630	156,769	293,232	
San Bernardino..	23,500	29,900	9	10	3,825	3,275	30,905	36,500	
San Diego.....	191,140	84,100	41	24	33,430	37,910	313,015	201,112	
San Francisco....	741,077	505,950	199	129	456,924	592,516	1,339,438	1,206,534	
San Jose.....	92,400	35,050	26	9	168,495	188,475	282,220	249,100	
Santa Ana.....	20,600	40,300	6	13	25,924	51,544	47,737	91,844	
Santa Barbara....		<sup>2</sup> 36,700		<sup>2</sup> 10		<sup>2</sup> 3,110		<sup>2</sup> 57,720	
Santa Monica....	54,600	30,385	14	12	8,272	73,340	68,147	106,363	
Stockton.....	53,583	24,750	8	5	30,094	2,450	120,476	38,055	
Vallejo.....	5,150	10,400	2	2	300	3,150	9,225	16,945	
Colorado:									
Colorado Springs..	4,600	8,325	2	3	76,245	1,550	85,753	20,985	
Denver.....	235,000	152,800	55	37	424,116	139,250	733,691	342,115	
Pueblo.....	900	3,500	1	3	81,065	2,550	93,080	8,695	
Montana:									
Butte.....	0	0	0	0	3,025	3,020	3,400	3,720	
Great Falls.....	19,500	10,250	7	3	1,205	575	25,170	16,052	
New Mexico:									
Albuquerque.....	21,500	24,755	8	8	10,650	10,335	41,853	52,883	

<sup>2</sup> Not included in total.

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TABLE 8.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, OCTOBER AND NOVEMBER, 1931—Continued

*Mountain and Pacific States—Continued*

State and city	New residential buildings				New nonresidential buildings (estimated cost)		Total construction, including alterations and repairs (estimated cost)	
	Estimated cost		Families provided for in new dwellings		October, 1931	November, 1931	October, 1931	November, 1931
	October, 1931	November, 1931	October, 1931	November, 1931				
Oregon:								
Portland.....	\$96,200	\$79,440	22	21	\$94,090	\$41,770	\$276,320	\$176,740
Salem.....	14,175	4,720	3	1	2,290	15,342	21,780	25,772
Utah:								
Ogden.....	9,000	2,400	4	2	1,000	0	17,100	2,500
Salt Lake City.....	122,973	43,800	54	8	11,960	6,301	152,375	67,546
Washington:								
Bellingham.....	0	7,500	0	3	20,275	3,475	23,010	14,525
Everett.....	0	0	0	0	780	895	18,790	2,450
Seattle.....	165,340	136,300	66	45	60,925	112,770	343,120	336,580
Spokane.....	40,550	57,550	13	15	18,020	16,500	74,795	89,555
Tacoma.....	28,000	33,500	10	14	2,305	6,140	52,340	54,185
Total.....	4,427,312	3,479,795	1,332	995	3,545,482	3,237,375	9,639,522	7,873,441
Per cent of change.....		-21.4		-25.3		-8.7		-18.3

*Hawaii*

Honolulu.....	\$160,925	\$112,821	68	65	\$137,006	\$8,915	\$329,066	\$146,745
Per cent of change.....		-29.9		-4.4		-93.5		-55.4

**Experiments in Negro Housing in New York and Cincinnati****Paul Laurence Dunbar Apartments**

THE Labor Review for September, 1929 (p. 107), contained a description of the Paul Laurence Dunbar Apartments, one of the first experiments in cooperative housing for Negroes on a large scale. Situated in Harlem, it was intended both to help in relieving the immediate overcrowding and to serve an educational end for tenants and management alike. The buildings were to be occupied, managed, and eventually owned exclusively by Negroes. It was a venture into an entirely new field, and while its backers were confident of success, they admitted that there were problems before them. The Negro in Harlem found himself too often compelled to live in the midst of noise, dirt, overcrowding, ugliness, and delinquency. The Dunbar project offered an escape from such conditions, but those taking it must inevitably give up some of their own liberty of action and submit to unaccustomed regulation; in fact, as the management put it, they must make a sort of self-denying ordinance, and accept a degree of supervision which was needed only by the minority but which inured to the advantage of all. In addition to this, the rents, while low as compared with those of the neighborhood, are high for the income of many of the tenants; taking lodgers as a means of meeting this difficulty is either forbidden or regulated strictly according to the size of the apartment. Also, the Negroes have been harder hit than

the white citizens by the industrial depression which has prevailed for a considerable part of the time since the houses were put up. Thus it is evident that there were very real hindrances in the way of success. At present, however, approximately four years after the apartments were opened for occupancy, the difficulties seem to have been surmounted, and the experiment has so far proved its value that plans are under way for a similar attempt in a neighboring city.

#### The Buildings

The Dunbar group, with six independent buildings, occupies the block bounded by One hundred forty-ninth and One hundred fiftieth Streets and Seventh and Eighth Avenues, New York City. Along these streets the fronts are broken by formal doorways and by arched entrances into the inner courts, through which appear singularly attractive glimpses of the trees, shrubbery, gardens, and playgrounds to which a full half of the area of the block is devoted. Beauty has been kept in mind in designing the buildings, in laying out the grounds, and in arranging that necessary activities may be carried on without interference with the general effect. The fire escapes are inconspicuously located, clothes are dried on the roof where they are hidden from public view by a parapet which forms part of the design of the whole structure, a basement room, "the kiddies' garage," provides storage space for baby carriages, scooters, velocipedes, and the like when not in use, and the usual arrangements for the disposal of trash and garbage are carried out with unusual attention to detail and effectiveness.

The Dunbar contains, in addition to 10 stores on the ground floor, 513 apartments, ranging in size from 3 rooms (with a dining bay) to 7, bathrooms not being counted as rooms. Each room in a suite is substantially like the same type of room in all the other suites, and each apartment is provided with hot and cold water, electricity, set tubs, and gas ranges, refrigerators, and dumb waiters. The buildings are only two rooms deep, so that each apartment has direct sunlight and abundant ventilation. There are playgrounds and playrooms for the children, a nursery where for a small fee mothers may leave their babies under the care of an experienced nurse, and a clubroom for the larger boys and young men, with provisions for athletic events, boxing, and the like, as well as for quieter amusements.

#### Terms of Occupancy

Only stockholders may occupy apartments, and only occupants may be stockholders. A would-be participator buys an amount of stock proportioned to the size of the apartment he selects, by making a down payment of \$50 per room, and thereafter by successive monthly payments which cover the upkeep of the apartment, as well as interest and amortization payments on the cost. On making the down payment he receives a 3-year lease of his apartment, and at the end of this period he has the option of renewing the lease or of requesting the corporation to resell his stock at par. The management has the right to terminate the lease at any time if the tenant should prove objectionable, a right which it has rarely been necessary to exercise.

The monthly payments range, according to the location of the apartment, from \$11.50 up to \$17.50 a room, the average rate being \$14.50 a room. Rather more than half of this amount—\$7.69, on the average—goes toward payment of principal and interest, the remainder being devoted to upkeep and taxes, for an interesting feature of the experiment is that no application has been made for the tax exemption which the New York law permits to low-cost housing. On this point the cooperators indulge in a little excusable self-congratulation:

With \$3,939,000,000 worth of real property in the State of New York exempt from State and local taxation, the Dunbar cooperative community rejoices that it has not been called upon to sacrifice its own civic self-respect by foisting upon others its due proportion of the burden of taxation. In this matter we pull our own weight in the boat.

#### Management and Tenants

The management is in every respect in the hands of Negroes. A resident Negro superintendent and assistant superintendent are responsible for the conduct of the whole enterprise, five Negro policemen guard the premises, a force of Negro painters, plumbers, decorators, etc., keep the buildings in good repair, and Negro janitors, firemen, and watchmen are on duty day and night. The tenants range from unskilled laborers to wealthy and prominent members of the race. There has been a distinct effort to include some of the latter, as an encouragement and inspiration to the less successful, but in the main the desire is to reach those who can not be considered persons of means. An occupational grouping of the tenant owners, excluding pursuits in which fewer than 10 are engaged, showed the following results:

Chauffeurs.....	22
Clerks.....	100
In private offices.....	28
In post office.....	72
Domestic service.....	58
Household management.....	15
Cooks and stewards.....	15
Other.....	28
Dressmakers, etc.....	15
Laborers, unskilled.....	10
Letter carriers, post office.....	12
Messengers.....	14
Porters.....	53
Office buildings.....	27
Pullman.....	26
Stenographers, typists, etc.....	18
Superintendents, apartment houses.....	11
Teachers.....	13
Waiters, dining car.....	10
Total.....	336

Of 465 tenant owners who reported the exact amount they were earning at the time of applying for apartments, one-half received less and one-half more than \$149 per month. The lowest quartile received \$122 or less per month, and the highest quartile \$177 or more. In view of these figures the management is satisfied that the apartments are serving the class of persons for whom they were designed.

No requirement is made concerning children, except that there must be no crowding a large family into a small apartment. Since,

however, the Dunbar community numbers around 2,000 individuals, it is probable that most tenants have children.

Tenant turnover is small, and there is usually a waiting list of would-be tenant owners. Most apartment houses have suffered in the present depression, and tenants have been doubling up, moving into cheaper quarters, going to live with relatives, or otherwise seeking to cut housing expenses. Yet in October, 1931, there were only 15 vacancies among the 513 apartments in the Dunbar group.

#### Other Activities

The health work and the placement bureau are important community activities, and the Dunbar National Bank, while not strictly a community enterprise, is closely connected with the whole plan. The health work is carried on in a wholly informal manner by the management, which places in the hands of all the adults the literature of the Life Extension Institute, sees that expectant mothers are supplied with the publications, suited to their condition, issued by the Federal bureaus, the Metropolitan Life Insurance Co., arranges radio addresses on health questions, etc. The assistant resident manager, herself both a mother and a professional woman, is ready at all times to confer with the mothers over problems of the health and management of the children, and the day nursery, in the charge of a practical nurse, gives exceptional opportunities for bringing about such consultations naturally.

The placement bureau was a logical development. Tenant owners unfortunately lose their positions from time to time, and it seemed to the management far better to assist them in finding new ones than to dispossess them for failure to keep up their payments. Also, boys and girls are growing up and seeking employment, and for these vocational guidance, as well as help in finding work, is needed. The service began in September, 1928, and has proved itself a community interest as well as a community service.

The first placements that we made came directly through the cooperation of tenant owners who reported such vocational opportunities for persons of color as they personally knew of. And this has continued. Every week we are able to make placements because members of our own community who hear of jobs immediately relay the information to us. \* \* \* Not only have individuals we have been instrumental in placing given satisfaction, but despite the exceedingly low wages in many cases they stick to their jobs. Of course, the employers are very enthusiastic. \* \* \* We charge no fees of any kind, direct or indirect. \* \* \* While we give every preference to persons living in the Dunbar Apartments, we refer occupational opportunities which we can not fill ourselves to other social agencies which are concerned with placements.

The Dunbar National Bank, located on the Eighth Avenue side of the apartments, opened under the direction of a white president, vice president, and cashier, with a board of directors predominantly white and an operating staff composed wholly of colored persons. The purpose of this combination, it is explained, was to enable the Dunbar to start upon a footing of cordial and helpful relations with other banks and financial institutions, and to give the colored operating staff a chance to receive the best possible training in the exacting technique of banking under New York City conditions, a training which they would find difficulty in obtaining elsewhere.

## Finances

On the business side, also, the enterprise seems to be carrying itself satisfactorily. The plan originated with John D. Rockefeller, jr., who advanced the money needed, and gave his aid in developing the whole project. The apartments were erected at a cost of \$3,330,000; this included the actual cost of land and building, including architect's fees, insurance and taxes during construction, together with interest on the money advanced. The project as a whole was offered to Negro Harlem at cost, with interest at 5½ per cent, and no brokerage. It is calculated that in a period of about 22 years the tenants will have paid for the entire enterprise, including the land. The net operating profits of the project for the three years ending January 31, 1929, 1930, and 1931 were, respectively, \$41,104, \$40,416, and \$17,023. The marked falling off in the latest year is due to an increase in operating expenses, which in turn was "due principally to the fact that last year the management deemed it advisable to do considerable redecorating, thus not only giving employment to very worthy men but at the same time putting the house in the best possible condition so that when the cost of such work increases, as it undoubtedly will with the return of prosperity, the corporation will not need to do so much of this work. The management is convinced that this is sound policy." Of course the success of the experiment depends largely upon good management, and careful measures have been taken to insure this.

An efficient management for the apartments is practically guaranteed by the provisions of the lease and subscription agreement for a period of more than 20 years. During this time the preferred stock, which alone has any voting power, will remain in the hands of Mr. Rockefeller. Our community of approximately 2,000 souls will become so habituated to the advantages of good management that thereafter, we believe, it will tolerate nothing less.

## Cincinnati Model Homes

A VERY different experiment was tried in Cincinnati by Jacob Schmidlapp, founder of the Model Homes Co. Anxious to see how the negro would respond to a chance to secure decent housing at a reasonable rent, he started out with a group of flats of the greatest simplicity of construction and design.

This group has no cellars, the sinks were of iron with a wood frame; instead of a bathtub there was a laundry tray with a cold shower overhead and no hot-water system. Simple enough! But these flats rented at \$9.75 a month for a 4-room flat and \$7.60 for a 3-room flat, a rate low enough even in 1912, when the group was completed.

These were rented before they were completed, and the demand for them proved so keen that other groups were added, until by the end of 1917 accommodations had been provided for 240 colored families. The curtailment of private building which accompanied and followed the war affected the activities of the Model Homes Co. for colored and whites alike. In 1930, however, the company found that while the hard times were causing numerous vacancies in the houses occupied by white tenants, the colored people seemed as eager as ever for decent accommodations. Owing to vacancies the company lost heavily on some of the projects built for whites, but there was only one colored unit which made a poor showing, and in its case the losses were directly attributable to the fact that the houses were in an undesirable location.



Considering the whole situation, the company decided to turn over for colored tenants three groups which up to that time had been occupied by whites, and which contained a total of seventy-five 3 and 4 room apartments. "There was a rush for them, and within two days 95 per cent of the accommodations were taken." The company is now providing housing for 300 colored families, and is considering taking advantage of the present situation to enter again on a construction program "for Negroes of course," as the report puts it.

#### Rents

It is the policy of the company to keep rents within the reach of the lower-paid worker.

A 3-room flat with bath rents for from \$15 to \$17 per month, and 4-room flats from \$17.50 to \$22 per month in the Negro groups. The average rent per room in the negro groups is \$4.96 per month, and in the white groups \$6.32 per month. The above-quoted 3-room flat \* \* \* that used to rent at \$7.60 per month before the war, rents at \$15. However, the group has been wired for electricity in 1920 for which additional convenience the rent was advanced \$1 a month. In 1926 the old sinks and laundry trays were replaced by 1-piece sinks and enamel bathtubs and hot-water systems were installed, for which another dollar a month was advanced. Subtracting these two advances in rent because of added conveniences from the present rate of \$15, we have \$13 per month for the same 3-room flat which rented in the pre-war period for \$7.60, an increase of \$5.40, or 70 per cent. This group stood the largest increase, because the original rates were the lowest of all our holdings, and was necessitated by the increased taxes, labor, and material that go into the maintenance and repairs and overhead.

#### Economic Status of Negro Tenants

In 1930 the company collected some statistical data concerning the tenants of four groups of buildings, choosing the groups of long standing on the ground that these tenants would be less likely to be suspicious of inquiries than those with less experience of the company. The groups contained 188 families, with a total of 626 men, women, and children, or an average of  $3\frac{1}{2}$  persons to a family. There were 142 normal families, 28 widows, and 8 deserted wives; retired and pensioned persons made up the remainder. The working heads of families were mainly laborers, chauffeurs, domestic servants, and skilled and semiskilled artisans, with four post-office employees, four clergymen, and a sprinkling of miscellaneous workers. The average earnings of these were \$24.17 a week, the average for occupational groups ranging from \$18.33 for gardeners to \$47 for hod carriers and bricklayers. In only three groups—the cooks, the post-office employees, and the bricklayers—did the average earnings reach or pass \$30 a week. In 41 per cent of the families the wives worked, earning on an average \$10 a week, and in 16 per cent adult children were at work, earning on an average \$12 a week.

At the time of the inquiry—the latter part of April—only 15 heads of families were wholly or partly unemployed, but 66 individuals in 63 families had lost during 1929 a total of  $883\frac{1}{2}$  weeks through unemployment, representing a loss in wages of \$16,969, or \$269.32 per family, or \$5.30 per week per family affected.

#### Comparison Between Negro and White Tenants

In regard to losses through vacancies and failure to pay rent due the company finds that its colored tenants have a good record.

From 1924 to 1928, inclusive, a period of five years, we lost through vacancies in the colored groups \$607.53 and in the white groups, \$1,844.11, excluding vacancies in groups of postwar construction; and the losses through default were \$505 in the colored groups as against \$853 in the white groups.

A part of the favorable showing in regard to defaults, it is suggested, is due to the lesser mobility of the colored tenant. There is always a temptation to leave all or part of the last month's rent unpaid when moving, and since proportionately three times as many white as colored tenants move, it is not surprising that they yield to this temptation more often.

The charge is sometimes made that the Negro is a wasteful and expensive tenant. On this subject the secretary of the company, speaking before a woman's organization of Cincinnati, says "A survey of disbursements, covering a period of nine years, from 1920 to 1928, inclusive, gives the following answer:"

DISBURSEMENTS COVERING PERIOD, 1920 TO 1928, BY ITEM OF EXPENDITURE

Item	Per white family	Per colored family
Water cost, per annum.....	\$8.27	\$7.73
Water cost, per month.....	.69	.64
Plumbing repair, per annum.....	3.46	3.31
Carpenter work, interior and exterior.....	4.04	2.96
Interior decorating.....	7.00	3.64
Plastering cost.....	.91	2.00
Electrical repairs.....	.16	.29

The cost of water is the one item on the list, it is pointed out, which is absolutely within the control of the tenant, and here it appears that the colored tenant is accountable for somewhat less expense than the white, possibly, it is suggested, because the colored housewife oftener works away from home, and consequently uses less water. The plumbers' bills show a difference to the credit of the colored family. Other items are perhaps not fairly comparable. The greater cost for carpenter work among the white tenants, for instance, is due to a difference in the character of the houses, the houses for whites more often having porches, which require frequent repair, while the plasterers' bills are larger among the colored tenants because of inferior materials and workmanship in their houses. The higher cost for interior decoration in houses for the whites has several causes:

We spend on interior decorations \$7 per annum among the white and \$3.64 among the colored. This is necessitated by the greater turnover in the white groups, the ratio being 3 to 1 as compared with the number of colored families moving. We are also in duty bound to allow more for interior decoration in the white group because of the higher rates of rent prevailing.

### Home Ownership Among 789 Families in Buffalo

A STUDY of housing costs and allied information on housing conditions<sup>1</sup> that was recently made in Buffalo, N. Y., shows in detail what is involved in house purchase and house maintenance among a group of 789 families with incomes not exceeding \$3,000 a year. In choosing the families to be covered by the survey certain restrictions were set up, as follows:

<sup>1</sup> The Buffalo Home Ownership Study, by Martin A. Brumbaugh, issued as a mimeographed appendix by the President's Conference on Home Building and Home Ownership, Committee on the Relationship of Income and the Home, and in summary form in the tentative report of the committee.

1. Only families having total income not exceeding \$3,000 in 1930 were included.
2. Only families composed of husband, wife, and at least one dependent child were included.
3. Only families in which both parents were born in the United States were included.
4. Only families who owned their homes in 1930 were included. All renting families were excluded.
5. Only families who were in process of paying for their homes in 1930 were included.
6. No families were included in which there were more than two roomers or boarders.
7. Only families living in 1 and 2 family dwellings were included. No apartments were included.
8. No cases were included in which two or more families were occupying quarters clearly intended for one family. Such cases were considered as overcrowding and were tabulated on a separate schedule.

The apportionment of families by areas of the city was facilitated by a study of vacant houses made by the Buffalo post office in 1930, which was used as a guide. It is believed by the author of the study that the sample finally chosen, within the limitations here set forth, is a representative cross section for Buffalo and perhaps other northern urban sections.

As developed, the study describes the properties purchased, the financing plans of the present owners, their occupations, earnings, family composition, and consequences of home purchase. A brief summary of the findings follows.

#### Description of Property

TABULATION of the returns discloses that 82 per cent of the houses bought are of the single type and 18 per cent are double, or 2-family. This ratio, it is brought out, is quite different from that shown in the Buffalo post office study that has been mentioned, the latter study showing that 57 per cent of the vacant houses in 1930 were single and 43 per cent double. With the exception of three houses, all were of frame construction. The typical size of lot is 35 feet wide and 115 feet deep. Garages were found on 69 per cent of the properties and 27 per cent were found to be without garage facilities. In all, these house owners have space for 924 automobiles, the surplus space bringing in extra income, as garages rent for from \$5 to \$8 per month. The predominating size of houses is 6, 7, and 8 rooms, 83 per cent of the total being of this size. The range in size is from 4 to 11 rooms with one 3-room house included. In addition, all have bathrooms in contrast with the condition obtaining in 1918, when the Bureau of Labor Statistics found in its study of Buffalo that 34 houses had 23 bathrooms and 163 flats or apartments had 113 bathrooms.

#### History and Cost of Property

THE houses purchased are not old, 76 per cent having been built since 1921 and only 2 per cent prior to 1900. It is stated that these home owners bought very largely in the building boom which started in 1921 and reached its peak in 1923-24. Tabulating single and 2-family houses separately, the average cost prices are \$6,131 and \$8,530, respectively. Price is concentrated within narrower limits for the single houses than for 2-family houses. Single houses costing \$12,000 and over represented 1 per cent of the total, while 2-family houses at \$12,000 and over equaled 13 per cent of the total.

## Financing

It is stated that the nominal interest rate in Buffalo is 6 per cent. Some agencies write mortgages at 5 and 5½ per cent interest. However, the costs of financing and refinancing must be added to the nominal rate, and the cost of renewal is as high as 6 per cent every three years in some instances. Analysis of the financing plans for the properties studied shows that 59 per cent of the home owners were carrying both first and second mortgages in 1930 and that the remaining 41 per cent were carrying first mortgages only. In a majority of the latter cases second mortgages had been discharged prior to 1930. It was further found to be customary for these home owners to amortize one mortgage, usually the second, and pay only the interest on the other. Conditions with respect to amortization and the average monthly payments on mortgages are shown in Table 1.

TABLE 1.—CONDITIONS WITH RESPECT TO AMORTIZATION OF PRINCIPAL OF MORTGAGES ON PROPERTIES OWNED AND AVERAGE MONTHLY PAYMENTS

Mortgage conditions	Number of properties	Per cent of total	Average monthly payments
First not amortized, second not amortized.....	90	11	\$26.61
First not amortized, second amortized.....	331	42	44.36
First amortized, second amortized.....	27	3	52.78
First amortized, second not amortized.....	9	1	48.33
First amortized, no second.....	97	12	33.76
First not amortized, no second.....	225	29	17.27
No first mortgage.....	5	1	-----
Unknown.....	5	1	-----
Total.....	789	100	-----

The greater number of the mortgages, both first and second, are held by private individuals. Savings banks and finance companies are also important holders of first mortgages. Few mortgages, either first or second, are held by savings and loan associations, because these institutions usually require amortization of loans.

## Occupation, Earnings, and Family Make-Up

THERE has been very little change in the occupations of the 789 breadwinners covered by the study as between the year of house purchase and 1930. In the year prior to house purchase 48 per cent of the breadwinners were in skilled occupations, and in 1930 the percentage was 46. The next most important group was that of clerical workers, representing 15 per cent of the total the year before home purchase and 14 per cent in 1930. Semiskilled and unskilled represented 9 and 7 per cent of the total, respectively, in both years.

The arithmetic-average earnings of breadwinners at the time of house purchase were \$2,057 and the median \$2,000. In 1930 the average was \$1,902 and the median \$1,970. Light is thrown on the drop in average earnings by the fact that at the time of home purchase 81 per cent of the breadwinners were employed full time and 90 per cent, 40 weeks or more, while in 1930 full-time employment was had by only 64 per cent of the breadwinners and 40 weeks or more of employment by 75 per cent of the total. It was also found that

47 breadwinners were unemployed during 1930, contrasted with 10 at the time of home purchase.

The statement below shows the income for year prior to house purchase of principal breadwinner in 518 families which own single houses purchased in 1922 or later:

	Number of families
No income.....	3
\$250 to \$749.....	3
\$750 to \$1,249.....	32
\$1,250 to \$1,749.....	93
\$1,750 to \$2,249.....	183
\$2,250 to \$2,749.....	114
\$2,750 to \$3,249.....	52
\$3,250 to \$3,749.....	23
\$3,750 to \$6,749.....	15
Total.....	518

Another reflection of the economic position of the families surveyed is size of family. The average number of dependents increased from 1.6 in the year prior to home purchase to 2.2 in 1930. The age at which the principal breadwinners bought houses was commonly 28 to 32.

#### Consequences of House Purchase

It is stated that only a few of the consequences of house purchase were tabulated. However, the study showed general satisfaction in having the kind of house desired, being required to save for payments, etc. At the same time it was realized by the vast majority that house ownership interfered with moving to another community to take work.

The down payments on property were derived from a number of sources, of which the principal sources were previous savings (78 per cent); insurance, gifts, and borrowed money (7 per cent); and inherited money (4 per cent). For the houses purchased in 1922 and thereafter, representing 619 properties out of the 789 covered by the study, it was found that the down payment amounted to, roughly, 25 per cent of the total cost; first mortgages, 50 per cent; and second mortgages, 25 per cent.

It is apparent that in many cases the average mortgage costs represent a high percentage of the breadwinner's income. It is further brought out in the study under review that only 39 families of a total of 789 had any income in addition to that of the principal breadwinner in the year prior to house purchase. In 20 cases the additional income amounted to less than \$500. During 1930 of the total 789 families there were 119 in which the principal breadwinners' incomes were augmented by other members of the family. In 52 cases the added income was more than \$500. In explaining this change the author of the study states that necessity is an important factor as is the fact that more children have reached an age when they are able to secure at least part-time employment.

The average amount of income added in the families with auxiliary wage earners was \$833 in the year prior to house purchase and \$891 in 1930. Prorating this added income for all 789 families the average additions were \$42 and \$134 in these two years, respectively.



# WAGES AND HOURS OF LABOR

## Hours and Earnings in Foundries and Machine Shops, 1931

A STUDY of wages and hours of labor in 1931 was made by the United States Bureau of Labor Statistics in 388 representative foundries and 512 machine shops employing 28,699 and 65,919 wage earners, respectively. Except for a very few plants, the data were taken directly from the records of the plants, for a representative pay period in June, July, or August, 1931.

This study revealed that the wage earners in foundries earned an average of 60 cents per hour in 1931; this was 2.4 cents per hour, or 3.8 per cent, less than was earned in 1929. Those in machine shops earned an average of 63.3 cents per hour in 1931 as compared with 63.8 cents in 1929.

In foundries the average full-time week in 1931 was 50.3 hours, as against 51 hours in 1929; in machine shops the figures were 49.8 and 50.3, respectively.

Full-time earnings per week in foundries averaged \$30.18 in 1931, which was \$1.64 less than in 1929, and in machine shops averaged \$31.52, or 57 cents less than in 1929.

### Trend of Hours and Earnings Since 1923

SUMMARY data showing average full-time hours per week, earnings per hour, and full-time earnings per week are given in Table 1, for the odd years beginning with 1923. Data were not collected for the even years.

The average full-time hours per week were less in 1931 in both foundries (50.3) and machine shops (49.8) than in any year in which the bureau has collected data. The highest full-time hours were in 1923, being 52.4 in foundries and 50.8 in machine shops.

The average hourly earning (60 cents) in foundries was less in 1931 than in any year since 1923 (when it was 55.8 cents). In machine shops, although the 1931 average was lower than that of 1929, it still was higher than in any of the preceding years.

As for average full-time earnings per week, the low point in both foundries and machine shops occurred in 1923, being in that year \$29.24 and \$28.40, respectively. In foundries full-time weekly earnings rose from 1923 to 1927, then fell slightly in 1929 and still more in 1931. In machine shops, a steady increase took place from 1923 to 1929, but a slight drop occurred in 1931 as compared with 1929.

Table 1 also gives index numbers of the averages, with the 1923 average as the base or 100 per cent. The index of average earnings per hour, of average full-time hours per week, or of average full-time earnings per week for any of the years in the table is the per cent that the average for the year is of the 1923 average. Example: The 1927 and 1929 average of 62.4 cents per hour for foundries is 111.8, or 11.8 per cent more than the 1923 average of 55.8 cents per hour.

TABLE 1.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS THEREOF, FOR ALL EMPLOYEES, BY INDUSTRY AND YEAR

Industry and year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers (1923=100) of—		
						Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
<b>Foundries:</b>								
1923.....	351	32,166	52.4	\$0.558	\$29.24	100.0	100.0	100.0
1925.....	413	40,393	51.5	.610	31.42	98.3	109.3	107.5
1927.....	417	38,943	51.1	.624	31.89	97.5	111.8	109.1
1929.....	399	40,391	51.0	.624	31.82	97.3	111.8	108.8
1931.....	388	28,699	50.3	.600	30.18	96.0	107.5	103.2
<b>Machine shops:</b>								
1923.....	429	58,914	50.8	.559	23.40	100.0	100.0	100.0
1925.....	511	86,274	50.4	.602	30.34	99.2	107.7	106.8
1927.....	526	86,779	50.1	.625	31.31	98.6	111.8	110.2
1929.....	508	91,491	50.3	.638	32.09	99.0	114.1	113.0
1931.....	512	65,919	49.8	.633	31.52	98.0	113.2	111.0

## Hours and Earnings, 1929 and 1931, by Occupation and Sex

AVERAGE hours and earnings are shown in Table 2 for 1929 and 1931 for each sex in each of the numerically important occupations in foundries and in machine shops, and also for the group designated in the table under each industry as "other employees." The group includes wage earners in occupations in which there was not a sufficient number of wage earners to warrant separate presentation.

Averages are shown in the table for males in all, and for females in 3, of the 12 important occupations in foundries and for males in all, and for females in 17, of the 27 important occupations in machine shops, and also for "other employees" of each sex in each industry.

*Foundries.*—Average earnings per hour of males in foundries were higher in one occupation (patternmakers, 83.4 cents in 1929 and 83.5 cents in 1931) and lower in 11 occupations in 1931 than in 1929. The range by occupation in 1929 was from 49.0 cents for laborers to 83.4 cents for patternmakers, and in 1931 from 46.0 to 83.5 cents, respectively, for the same occupations. Averages of females were 49.6 cents in 1931 for chippers and rough grinders; 46.9 cents in 1929 and 43.0 in 1931 for coremakers; 38.6 cents in 1929 and 37.7 cents in 1931 for laborers. "Other employees," males, earned an average of 59.2 cents per hour in 1929 and 60.0 cents in 1931, and females, 49.2 cents in 1929 and 34.5 cents in 1931.

*Machine shops.*—Average earnings per hour of males in machine shops were more in 4 and less in 23 occupations in 1931 than in 1929. They ranged by occupation in 1929 from 46.9 cents for laborers to 88.8 cents for hammersmith and in 1931 from 45.5 cents for laborers to 81.2 cents for patternmakers. Hammersmiths earned an average of 77.6 cents per hour in 1931 and patternmakers an average of 84.6 cents in 1929. Averages for females were more in 5 and less in 8 occupations in 1931 than in 1929 and ranged by occupation in 1929 from 34.3 cents per hour for grinding-machine operators to 50.4 cents for milling-machine operators and in 1931 from 32.6 cents for semi-automatic screw-machine operators to 52.7 cents for turret-lathe operators. "Other employees," males, earned an average of 48.8 cents per hour in 1929 and 50.5 cents in 1931 and females earned an average of 34.5 cents in 1929 and 47.5 cents in 1931.

TABLE 2.—AVERAGE HOURS AND EARNINGS IN FOUNDRIES AND MACHINE SHOPS, 1929 AND 1931, BY OCCUPATION AND SEX

*Foundries*

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Chippers and rough grinders.....	Male....	1929	367	4, 233	51.4	\$0.538	\$27.65
.....	do.....	1931	367	3, 048	50.6	.509	25.76
.....	Female..	1931	1	12	50.0	.496	24.80
Coremakers.....	Male....	1929	387	3, 370	49.9	.744	37.13
.....	do.....	1931	374	2, 253	50.0	.706	35.30
.....	Female..	1929	38	280	49.1	.469	23.03
.....	do.....	1931	34	179	48.6	.430	20.90
Crane operators.....	Male....	1929	237	927	52.2	.582	30.38
.....	do.....	1931	217	768	50.8	.552	28.04
Cupola tenders.....	do.....	1929	364	500	51.0	.634	32.33
.....	do.....	1931	344	430	50.8	.597	30.33
Laborers.....	do.....	1929	384	10, 980	52.1	.490	25.53
.....	do.....	1931	366	6, 907	50.8	.460	23.37
.....	Female..	1929	7	74	51.6	.386	19.92
.....	do.....	1931	5	10	47.8	.377	18.02
Molders, hand, bench.....	Male....	1929	321	2, 098	49.6	.783	38.84
.....	do.....	1931	300	1, 593	50.2	.727	36.50
Molders, hand, floor.....	do.....	1929	385	5, 453	50.0	.828	41.40
.....	do.....	1931	376	3, 752	50.0	.782	39.10
Molders, machine.....	do.....	1929	249	3, 854	50.4	.734	36.99
.....	do.....	1931	215	2, 538	50.0	.661	33.05
Molders' helpers, floor.....	do.....	1929	251	1, 919	51.1	.502	25.65
.....	do.....	1931	231	1, 234	50.0	.492	24.60
Patternmakers.....	do.....	1929	191	1, 127	50.1	.834	41.73
.....	do.....	1931	194	1, 107	49.3	.835	41.17
Rough carpenters.....	do.....	1929	270	509	50.7	.622	31.54
.....	do.....	1931	237	424	50.3	.599	30.13
Sand blasters.....	do.....	1929	183	337	51.9	.592	30.72
.....	do.....	1931	157	266	50.3	.559	28.12
Other employees.....	do.....	1929	360	4, 725	51.2	.592	30.31
.....	do.....	1931	358	4, 149	50.5	.600	30.30
.....	Female..	1929	5	5	50.5	.492	24.85
.....	do.....	1931	6	29	49.6	.345	17.11
All occupations.....	Male....	1929	399	40, 032	51.0	.625	31.88
.....	do.....	1931	388	28, 469	50.3	.601	30.23
.....	Female..	1929	41	359	49.7	.451	22.41
.....	do.....	1931	34	230	48.7	.422	20.55
All occupations, male and female.....	do.....	1929	399	40, 391	51.0	.624	31.82
.....	do.....	1931	388	28, 699	50.3	.600	30.18

*Machine shops*

Assemblers.....	Male....	1929	335	7, 670	50.1	\$0.657	\$32.92
.....	do.....	1931	360	5, 446	49.9	.656	32.73
.....	Female..	1929	20	190	49.8	.441	21.96
.....	do.....	1931	19	145	50.7	.426	21.60
Blacksmiths.....	Male....	1929	397	857	50.1	.742	37.17
.....	do.....	1931	373	698	50.5	.728	36.76
Blacksmiths' helpers.....	do.....	1929	285	800	49.9	.534	26.65
.....	do.....	1931	228	481	49.8	.533	26.54
Boring-mill operators.....	do.....	1929	372	2, 333	51.1	.750	38.33
.....	do.....	1931	337	1, 722	50.0	.733	36.65
Crane operators.....	do.....	1929	233	980	50.7	.555	28.14
.....	do.....	1931	221	778	50.6	.537	27.17
.....	Female..	1929	2	7	50.7	.425	21.55
.....	do.....	1931	2	2	47.5	.422	20.05
Craters and packers.....	Male....	1929	239	1, 455	50.0	.547	27.35
.....	do.....	1931	253	1, 218	50.1	.540	27.05
.....	Female..	1929	15	50	49.0	.371	18.18
.....	do.....	1931	9	32	49.7	.343	17.05
Drill-press operators.....	Male....	1929	440	5, 291	50.3	.628	31.59
.....	do.....	1931	415	3, 139	49.8	.612	30.48
.....	Female..	1929	17	77	49.2	.410	20.17
.....	do.....	1931	14	47	49.3	.446	21.99
Fitters and bench hands.....	Male....	1929	367	7, 715	49.8	.677	33.71
.....	do.....	1931	341	5, 528	48.7	.666	32.43
.....	Female..	1929	14	175	48.6	.450	21.87
.....	do.....	1931	10	46	49.3	.411	20.26

TABLE 2.—AVERAGE HOURS AND EARNINGS IN FOUNDRIES AND MACHINE SHOPS, 1929 AND 1931, BY OCCUPATION AND SEX—Continued

## Machine shops—Continued

Occupation	Sex	Year	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
Grinding-machine operators	Male	1929	313	2,888	51.0	\$.701	\$35.75
	do	1931	290	2,088	50.2	.669	33.58
do	Female	1929	7	19	50.6	.343	17.36
	do	1931	3	3	48.0	.443	21.26
Hammersmiths	Male	1929	52	226	50.3	.888	44.67
	do	1931	50	134	49.4	.776	38.33
Helpers not otherwise specified	Male	1929	322	3,433	50.2	.514	25.80
	do	1931	278	2,262	50.6	.481	24.34
Laborers	Female	1929	1	(1)	(1)	(1)	(1)
	Male	1929	452	8,506	50.5	.469	23.68
do	do	1931	426	5,173	50.3	.455	22.89
	Female	1929	3	9	51.0	.370	18.87
do	do	1931	1	4	49.5	.391	19.35
	Male	1929	421	5,640	50.3	.717	36.07
Lathe operators, engine	do	1931	407	3,550	50.2	.706	35.37
	Female	1929	1	3	50.0	.516	25.80
Lathe operators, turret	Male	1929	359	3,855	50.5	.700	35.35
	do	1931	333	2,467	49.8	.672	33.47
do	Female	1929	3	13	48.9	.432	21.12
	do	1931	2	3	50.0	.527	26.35
Machinists	Male	1929	379	3,036	49.8	.739	36.80
	do	1931	374	2,574	49.1	.733	35.99
Machinists and toolmakers' helpers	do	1929	229	1,006	50.3	.504	25.35
	do	1931	210	797	49.3	.513	25.29
Milling-machine operators	do	1929	358	3,440	50.2	.697	34.99
	do	1931	331	2,246	47.9	.685	32.81
do	Female	1929	5	15	47.6	.504	23.99
	do	1931	8	18	48.9	.492	24.06
Patternmakers	Male	1929	288	1,652	49.9	.846	42.22
	do	1931	282	1,431	50.1	.812	40.68
Planer operators	do	1929	344	1,963	50.7	.754	38.23
	do	1931	315	1,165	50.1	.738	36.97
Polishers and buffers	do	1929	115	587	50.1	.674	33.77
	do	1931	101	379	49.4	.656	32.41
do	Female	1929	1	(1)	(1)	(1)	(1)
	do	1931	4	6	50.1	.377	18.89
Screw-machine operators (hand)	Male	1929	155	966	50.2	.676	33.94
	do	1931	128	640	43.9	.654	32.63
do	Female	1929	2	18	49.5	.426	21.09
	do	1931	2	37	49.5	.356	17.62
Screw-machine operators (semiautomatic)	Male	1929	41	171	51.5	.644	33.17
	do	1931	37	108	48.5	.705	34.19
do	Female	1931	2	9	49.5	.326	16.14
	Male	1929	144	762	51.4	.758	38.96
Screw-machine operators (automatic)	do	1931	122	486	49.5	.694	34.35
	do	1929	149	1,136	49.4	.630	31.12
Sheet-metal-machine operators	do	1931	164	1,072	50.2	.619	31.07
	Female	1929	9	63	48.9	.440	21.52
do	do	1931	8	35	49.0	.386	18.91
	Male	1929	350	2,850	50.0	.780	39.00
Toolmakers	do	1931	355	2,386	49.4	.758	37.45
	do	1929	301	1,813	51.0	.655	33.41
Other precision-machine operators	do	1931	308	1,490	50.0	.657	32.85
	Female	1929	10	210	48.8	.427	20.84
do	do	1931	6	77	48.5	.399	19.35
	Male	1929	470	10,786	50.3	.686	34.51
Other skilled employees	do	1931	478	9,275	50.0	.695	34.75
	Female	1929	25	407	50.0	.375	18.75
do	do	1931	26	345	49.3	.391	19.28
	Male	1929	467	8,108	50.3	.488	24.55
Other employees	do	1931	465	6,195	50.1	.505	25.30
	Female	1929	18	298	49.0	.345	16.91
do	do	1931	25	261	47.8	.475	22.71
	All occupations	Male	1929	508	89,935	50.3	.641
do		1931	512	64,846	49.9	.637	31.79
Female		1929	56	1,556	49.3	.399	19.67
do		1931	49	1,073	49.1	.419	20.57
All occupations, male and female		1929	508	91,491	50.3	.638	32.09
		1931	512	65,919	49.8	.633	31.52

1 Data included in total in 1929.

## Hours and Earnings, 1929 and 1931, by Sex and State

TABLE 3 presents average hours and earnings for all wage earners that were included in the studies of foundries and of machine shops in each State in 1929 and 1931. The averages are for each sex separately and also for both sexes combined in each State and industry.

The averages for wage earners in foundries are for 40,032 males and 359 females in 1929 and for 28,469 males and 230 females in 1931, and in machine shops are for 89,935 males and 1,556 females in 1929 and 64,846 males and 1,073 females in 1931. The 1929 wage figures in the table are for 399 foundries and 508 machine shops and those for 1931 are for 388 foundries and 512 machine shops.

*Foundries.*—Average full-time hours per week for males in foundries in the various States included in the study ranged in 1931 from 45.4 for the State with the lowest, to 56.0 for the one with the highest average, and in 1929 ranged from 45.9 to 56.4. Those for females ranged in 1931 from 44.5 to 51.4 and in 1929 from 45.7 to 53.0. Averages for males in all States combined, or the industry, decreased from 51.0 in 1929 to 50.3 in 1931 and for females decreased from 49.7 in 1929 to 48.7 in 1931.

Average earnings per hour for males in foundries in the various States covered in the report ranged in 1931 from 40.1 to 74.3 cents, and in 1929 from 39.6 to 74.5 cents. Averages for females ranged in 1931 from 31.8 to 47.2 cents and in 1929 from 36.6 to 52.4 cents. Averages for males in all States combined, or the industry, decreased from 62.5 per hour in 1929 to 60.1 cents in 1931 and for females decreased from 45.1 in 1929 to 42.2 in 1931.

Average full-time earnings per week for males in foundries in the different States ranged in 1931 from \$20.51 to \$33.73 and in 1929 ranged from \$20.95 to \$35.11, and for females ranged in 1931 from \$15.90 to \$23.46 and in 1929 ranged from \$17.75 to \$23.95. Averages for males in all States combined, or the industry, decreased from \$31.88 in 1929 to \$30.23 in 1931 and for females decreased from \$22.41 in 1929 to \$20.55 in 1931.

*Machine shops.*—Average full-time hours per week for males in machine shops, all States combined, or the industry, decreased from 50.3 in 1929 to 49.9 in 1931, and for females decreased from 49.3 in 1929 to 49.1 in 1931. Average earnings per hour for all males included in the study of this industry in all States decreased from 64.1 cents in 1929 to 63.7 cents in 1931, and for females increased from 39.9 cents in 1929 to 41.9 cents in 1931. And average full-time earnings per week for males, all States combined, decreased from \$32.24 in 1929 to \$31.79 in 1931, and for females increased from \$19.67 in 1929 to \$20.57 in 1931.



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TABLE 3.—NUMBER OF ESTABLISHMENTS AND OF WAGE EARNERS, AND AVERAGE HOURS AND EARNINGS IN FOUNDRIES AND MACHINE SHOPS, 1929 AND 1931, BY SEX AND STATE

Foundries

Sex and State	Number of establishments		Number of employees		Average full-time hours per week		Average earnings per hour		Average full-time weekly earnings	
	1929	1931	1929	1931	1929	1931	1929	1931	1929	1931
<i>Males</i>										
Alabama	4	4	190	177	53.5	53.8	\$0.456	\$0.423	\$24.40	\$22.76
California	18	19	1,185	728	45.9	45.4	.745	.743	34.20	33.73
Colorado	3	3	307	177	49.2	48.0	.596	.600	29.32	28.80
Connecticut	16	18	1,629	1,154	50.8	50.7	.611	.589	31.04	29.86
Georgia	8	9	429	305	52.9	50.9	.396	.403	20.95	20.51
Illinois	28	30	3,636	3,097	50.5	49.6	.665	.647	33.58	32.09
Indiana	16	17	2,446	1,538	52.6	51.1	.590	.559	31.03	28.56
Iowa	9	9	959	561	52.9	53.6	.614	.600	32.48	32.16
Kansas	9	10	260	276	55.1	56.0	.480	.455	26.45	25.48
Kentucky	7	5	204	120	50.6	51.2	.512	.521	25.91	26.68
Louisiana	4	5	246	178	56.4	52.4	.436	.401	24.59	21.01
Maine	4	4	248	239	50.7	48.3	.555	.558	28.14	26.95
Maryland	7	7	421	397	50.9	49.9	.558	.543	28.40	27.10
Massachusetts	28	21	2,408	1,320	48.7	47.2	.681	.690	33.16	32.57
Michigan	37	33	4,334	1,916	51.9	52.1	.644	.582	33.42	30.32
Minnesota	6	6	457	466	52.0	51.2	.555	.589	28.86	30.16
Missouri	15	14	764	460	52.1	51.9	.610	.577	31.78	29.95
New Hampshire	6	5	143	127	50.9	50.7	.509	.567	30.49	28.75
New Jersey	16	16	2,353	1,668	50.6	48.9	.636	.608	32.18	29.73
New York	28	26	3,392	2,828	50.1	49.2	.647	.599	32.41	29.47
Ohio	44	44	4,323	3,506	51.8	51.0	.625	.610	32.38	31.11
Oregon	5	6	208	163	46.1	47.2	.677	.675	31.21	31.86
Pennsylvania	39	39	5,285	3,619	51.6	51.1	.608	.606	31.37	30.97
Rhode Island	9	7	1,066	692	51.5	50.4	.612	.597	31.52	30.03
Tennessee	7	6	382	253	49.2	49.0	.461	.471	22.68	23.08
Texas	6	6	278	151	49.8	49.0	.488	.515	24.30	25.24
Washington	7	6	313	235	48.3	47.9	.727	.698	35.11	33.43
Wisconsin	13	13	2,165	2,118	51.2	51.5	.644	.584	32.97	30.08
Total	399	388	40,032	28,469	51.0	50.3	.625	.601	31.88	30.23
<i>Females</i>										
Connecticut		(1)		(1)		(1)		(1)		(1)
Georgia	1		(2)		(2)		(2)		(2)	
Illinois	5	4	29	16	49.0	50.3	.447	.409	21.90	20.57
Indiana	2	2	39	46	50.0	49.7	.434	.472	21.70	23.46
Kentucky	2	(1)	3		50.0	(1)	.412	(1)	20.60	(1)
Massachusetts	1		(2)		(2)		(2)		(2)	
Michigan	10	5	105	20	51.5	51.4	.427	.448	21.99	23.03
New Jersey	4	5	50	31	49.8	48.2	.466	.380	23.21	18.32
New York	5	6	54	54	48.8	46.9	.489	.403	23.86	18.90
Ohio	1	1	(2)	12	(2)	44.5	(2)	.438	(2)	19.49
Pennsylvania	2	2	19	24	48.5	50.3	.366	.447	17.75	22.48
Rhode Island	3	3	11	4	53.0	50.9	.408	.460	21.62	23.41
Tennessee		1		3		50.0		.318		15.90
Wisconsin	5	3	37	16	45.7	48.7	.524	.430	23.95	20.94
Total	41	34	359	230	49.7	48.7	.451	.422	22.41	20.55
<i>Males and females</i>										
Alabama	4	4	190	177	53.5	53.8	.456	.423	24.40	22.76
California	18	19	1,185	728	45.9	45.4	.745	.743	34.20	33.73
Colorado	3	3	307	177	49.2	48.0	.596	.600	29.32	28.80
Connecticut	16	18	1,629	1,156	50.8	50.6	.611	.589	31.04	29.80
Georgia	8	9	429	305	52.9	50.9	.395	.403	20.90	20.51
Illinois	28	30	3,665	3,113	50.5	49.6	.663	.646	33.48	32.04
Indiana	16	17	2,485	1,584	52.5	51.1	.587	.557	30.82	28.46
Iowa	9	9	959	561	52.9	53.6	.614	.600	32.48	32.16
Kansas	9	10	260	276	55.1	56.0	.480	.455	26.45	25.48
Kentucky	7	5	207	122	50.6	51.1	.510	.519	25.81	26.52
Louisiana	4	5	246	178	56.4	52.4	.436	.401	24.59	21.01
Maine	4	4	248	239	50.7	48.3	.555	.558	28.14	26.95
Maryland	7	7	421	397	50.9	49.9	.558	.543	28.40	27.10
Massachusetts	28	21	2,410	1,320	48.7	47.2	.680	.690	33.12	32.57
Michigan	37	33	4,439	1,936	51.9	52.1	.640	.581	33.22	30.27
Minnesota	6	6	457	466	52.0	51.2	.555	.589	28.86	30.16

1 For less than 3 wage earners in this establishment, data included in total.

2 Included in total in 1929.

TABLE 3.—NUMBER OF ESTABLISHMENTS AND OF WAGE EARNERS, AND AVERAGE HOURS AND EARNINGS IN FOUNDRIES AND MACHINE SHOPS, 1929 AND 1931, BY SEX AND STATE—Continued

## Foundries—Continued

Sex and State	Number of establishments		Number of employees		Average full-time hours per week		Average earnings per hour		Average full-time weekly earnings	
	1929	1931	1929	1931	1929	1931	1929	1931	1929	1931
<i>Males and females—Contd.</i>										
Missouri.....	15	14	764	460	52.1	51.9	\$0.610	\$0.577	\$31.78	\$29.95
New Hampshire.....	6	5	143	127	50.9	50.7	.599	.567	30.49	28.75
New Jersey.....	16	16	2,403	1,699	50.5	48.9	.633	.604	31.97	29.54
New York.....	28	26	3,446	2,882	50.1	49.2	.644	.594	32.26	29.22
Ohio.....	44	44	4,331	3,518	51.8	50.9	.625	.610	32.38	31.05
Oregon.....	5	6	208	163	46.1	47.2	.677	.675	31.21	31.86
Pennsylvania.....	39	39	5,304	3,643	51.6	51.1	.607	.605	31.32	30.92
Rhode Island.....	9	7	1,077	696	51.5	50.4	.610	.598	31.42	30.14
Tennessee.....	7	6	382	256	49.2	49.0	.461	.469	22.68	22.98
Texas.....	6	6	278	151	49.8	49.0	.488	.515	24.30	25.24
Washington.....	7	6	316	235	48.3	47.9	.727	.698	35.11	33.43
Wisconsin.....	13	13	2,202	2,134	51.1	51.5	.643	.583	32.86	30.02
Total.....	399	388	40,391	28,699	51.0	50.3	.624	.600	31.82	30.18

## Machine shops

<i>Males</i>										
State	1929	1931	1929	1931	1929	1931	1929	1931	1929	1931
Alabama.....	6	7	284	457	50.0	54.0	\$0.551	\$0.596	\$27.55	\$32.18
California.....	23	23	2,133	1,626	45.9	45.2	.779	.753	35.76	34.04
Colorado.....	2	3	654	282	48.1	48.0	.619	.647	29.77	31.06
Connecticut.....	19	20	4,104	2,409	51.0	49.3	.639	.569	32.59	32.49
Georgia.....	8	9	332	396	52.3	51.2	.434	.462	22.70	23.65
Illinois.....	36	36	11,149	7,015	50.0	49.6	.691	.657	34.55	32.59
Indiana.....	16	17	2,865	1,855	51.0	51.1	.564	.543	28.76	27.75
Iowa.....	6	7	1,032	815	54.1	52.2	.552	.659	29.86	29.70
Kansas.....	10	11	436	272	54.1	52.9	.508	.543	27.48	28.72
Kentucky.....	10	7	624	395	50.7	48.9	.526	.551	26.67	26.94
Louisiana.....	5	6	217	199	54.1	51.4	.489	.524	26.45	26.93
Maine.....	4	4	650	492	49.0	48.1	.544	.550	26.66	26.46
Maryland.....	7	8	705	456	50.0	48.4	.656	.658	32.80	31.85
Massachusetts.....	36	38	7,673	6,452	49.3	48.2	.630	.646	31.06	31.14
Michigan.....	38	35	5,580	3,530	51.9	51.5	.639	.645	33.16	33.22
Minnesota.....	8	8	856	940	50.4	49.2	.578	.601	29.13	29.57
Missouri.....	19	19	1,153	712	51.4	51.3	.574	.562	29.50	28.83
New Hampshire.....	6	5	835	341	49.0	48.8	.625	.600	30.63	29.28
New Jersey.....	28	25	3,624	2,509	49.5	49.4	.685	.679	33.91	33.54
New York.....	32	34	8,958	7,430	48.7	49.2	.683	.680	33.26	33.46
Ohio.....	85	85	13,965	10,316	50.1	49.9	.646	.628	32.36	31.34
Oregon.....	6	6	396	175	47.2	46.2	.691	.724	32.62	33.45
Pennsylvania.....	48	48	12,537	8,198	51.7	51.2	.615	.616	31.80	31.54
Rhode Island.....	10	11	3,104	1,513	50.8	50.4	.592	.595	30.07	29.99
Tennessee.....	8	9	540	323	50.8	49.3	.550	.568	27.94	28.00
Texas.....	10	10	742	554	47.6	48.0	.583	.603	27.75	28.94
Washington.....	7	7	732	392	47.6	47.6	.732	.729	34.84	34.70
Wisconsin.....	15	14	4,255	4,792	51.6	51.2	.639	.617	32.97	31.59
Total.....	508	512	89,935	64,846	50.3	49.9	.641	.637	32.24	31.79
<i>Females</i>										
State	1929	1931	1929	1931	1929	1931	1929	1931	1929	1931
Connecticut.....	2	(1)	7	(1)	50.0	(1)	.424	(1)	21.20	(1)
Illinois.....	6	7	56	56	50.7	50.9	.377	.373	19.11	18.99
Indiana.....	3	1	49	21	50.0	50.0	.357	.471	17.85	23.55
Kentucky.....	1		(2)		(2)		(2)		(2)	
Maine.....		1		8		50.0		.380		19.00
Massachusetts.....	10	7	95	87	47.1	47.7	.414	.448	19.50	21.37
Michigan.....	10	7	261	201	51.6	52.3	.411	.398	21.21	20.82
New Hampshire.....	1	1	(2)	18	(2)	48.0	(2)	.436	(2)	20.93
New Jersey.....	2	2	45	22	50.0	50.0	.397	.423	19.85	21.15
New York.....	6	6	411	269	47.8	47.9	.408	.500	19.50	23.95
Ohio.....	7	6	302	212	49.2	49.4	.382	.347	18.79	17.14
Pennsylvania.....	5	4	153	94	48.4	45.9	.423	.397	20.47	18.22
Rhode Island.....	2	4	111	38	51.1	50.8	.417	.453	21.31	23.01
Tennessee.....	1	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)
Wisconsin.....		1		45		45.5		.378		17.20
Total.....	56	49	1,556	1,073	49.3	49.1	.399	.419	19.67	20.57

<sup>1</sup> For less than 3 wage earners in this establishment, data included in total.<sup>2</sup> Included in total in 1929.

TABLE 3.—NUMBER OF ESTABLISHMENTS AND OF WAGE EARNERS, AND AVERAGE HOURS AND EARNINGS IN FOUNDRIES AND MACHINE SHOPS, 1929 AND 1931, BY SEX AND STATE—Continued

Machine shops—Continued

Sex and State	Number of establishments		Number of employees		Average full-time hours per week		Average earnings per hour		Average full-time weekly earnings	
	1929	1931	1929	1931	1929	1931	1929	1931	1929	1931
<i>Males and females</i>										
Alabama.....	6	7	284	457	50.0	54.0	\$0.551	\$0.596	\$27.55	\$32.18
California.....	23	23	2,133	1,626	45.9	45.2	.779	.753	35.76	34.04
Colorado.....	2	3	654	282	48.1	48.0	.619	.647	29.77	31.06
Connecticut.....	19	20	4,111	2,410	51.0	49.3	.639	.659	32.59	32.49
Georgia.....	8	9	332	396	52.3	51.2	.434	.462	22.70	23.65
Illinois.....	36	36	11,205	7,071	50.0	49.6	.689	.655	34.45	32.49
Indiana.....	16	17	3,014	1,876	51.0	51.0	.561	.543	28.61	27.69
Iowa.....	6	7	1,032	815	54.1	52.2	.552	.569	29.86	29.70
Kansas.....	10	11	436	272	54.1	52.9	.508	.543	27.48	28.72
Kentucky.....	10	7	652	395	50.9	48.9	.512	.551	26.06	26.94
Louisiana.....	5	6	217	199	54.1	51.4	.489	.524	26.45	26.93
Maine.....	4	4	650	500	49.0	48.1	.544	.548	26.66	26.36
Maryland.....	7	8	705	456	50.0	48.4	.656	.658	32.80	31.85
Massachusetts.....	38	38	7,768	6,539	49.3	48.2	.628	.644	30.96	31.04
Michigan.....	36	35	5,841	3,731	51.8	51.5	.630	.631	32.63	32.50
Minnesota.....	8	8	856	940	50.4	49.2	.578	.601	29.13	29.57
Missouri.....	19	19	1,153	712	51.4	51.3	.574	.562	29.50	28.83
New Hampshire.....	6	5	572	359	49.0	48.7	.610	.594	29.89	28.93
New Jersey.....	28	25	3,669	2,531	49.5	49.4	.682	.677	33.76	33.44
New York.....	32	34	9,369	7,699	48.6	49.2	.672	.674	32.66	33.16
Ohio.....	85	85	14,267	10,528	50.1	49.9	.641	.622	32.11	31.04
Oregon.....	6	6	396	175	47.2	46.2	.691	.724	32.62	33.45
Pennsylvania.....	48	48	12,690	8,292	51.7	51.1	.612	.614	31.64	31.38
Rhode Island.....	10	11	3,215	1,551	50.3	50.4	.586	.591	29.77	29.79
Tennessee.....	8	9	541	324	50.8	49.3	.550	.567	27.94	27.95
Texas.....	10	10	742	554	47.6	48.0	.583	.603	27.75	28.94
Washington.....	7	7	732	392	47.6	47.6	.732	.729	34.84	34.70
Wisconsin.....	15	14	4,255	4,837	51.6	51.1	.639	.615	32.97	31.43
Total.....	508	512	91,491	65,919	50.3	49.8	.638	.633	32.09	31.52

Hours and Earnings, 1931, in Selected Occupations, by Sex and State

TABLE 4 shows average hours and earnings in four representative occupations in foundries and four in machine shops in each State in 1931. It illustrates the variations in average hours and earnings in all occupations in each industry in different States and makes easy the comparison of the averages in each occupation in the table for any one State with those in the same occupation in any other State.

Average earnings per hour of hand molders, floor, the second occupation under foundries, ranged by States from 61.2 cents for the State with the lowest, to 97.8 cents for the State with the highest average, and for all States combined, or for all employees included in this occupation in the study of the industry, averaged 78.2 cents per hour. Average full-time hours per week ranged by States from 44.9 to 55.1 and for all States averaged 50.0 per week. Average full-time earnings per week ranged by States from \$29.22 to \$45.31, and for all States averaged \$39.10.

TABLE 4.—AVERAGE HOURS AND EARNINGS FOR SPECIFIED OCCUPATIONS IN  
FOUNDRIES AND MACHINE SHOPS, 1931, BY OCCUPATION, SEX AND STATE

## Foundries

State	Number of establishments	Number of employes	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Number of establishments	Number of employes	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
	Laborers, male					Molders, hand, floor, male				
Alabama.....	4	66	53.6	\$0.297	\$15.92	4	28	53.5	\$0.703	\$37.61
California.....	18	143	46.3	.553	25.60	19	129	44.9	.978	43.91
Colorado.....	3	34	48.0	.469	22.51	3	29	48.0	.728	34.94
Connecticut.....	16	265	51.7	.461	23.83	17	180	49.8	.764	38.05
Georgia.....	9	116	51.2	.244	12.49	9	50	50.1	.694	34.77
Illinois.....	30	723	49.9	.495	24.70	29	304	49.1	.803	39.43
Indiana.....	17	458	51.7	.436	22.54	17	175	51.0	.684	34.88
Iowa.....	9	148	56.3	.522	29.39	9	76	50.7	.757	38.38
Kansas.....	8	47	57.2	.352	20.13	9	57	55.1	.559	30.80
Kentucky.....	5	25	53.8	.385	20.71	5	31	50.7	.612	31.03
Louisiana.....	5	58	52.3	.284	14.85	5	23	53.6	.651	34.89
Maine.....	2	33	49.8	.460	22.91	4	52	46.3	.631	29.22
Maryland.....	7	114	51.4	.391	20.10	7	71	47.7	.764	36.44
Massachusetts.....	20	242	47.9	.487	23.33	20	212	47.3	.958	45.31
Michigan.....	32	481	52.9	.470	24.86	31	287	51.8	.694	35.95
Minnesota.....	5	93	51.7	.463	23.94	6	58	51.3	.742	38.06
Missouri.....	13	92	53.8	.407	21.90	13	91	52.2	.720	37.58
New Hampshire.....	3	16	50.4	.409	20.61	5	20	51.1	.674	34.44
New Jersey.....	15	418	49.3	.447	22.04	15	194	49.4	.849	41.94
New York.....	25	829	49.3	.485	23.91	25	299	50.2	.772	38.75
Ohio.....	43	923	51.8	.460	23.83	42	512	50.5	.825	41.66
Oregon.....	3	26	48.1	.513	24.68	5	24	46.8	.859	40.20
Pennsylvania.....	38	809	50.3	.483	24.29	39	454	50.3	.790	39.74
Rhode Island.....	7	172	50.2	.479	24.05	7	74	50.6	.751	38.00
Tennessee.....	6	67	49.1	.310	15.22	6	38	48.8	.678	33.09
Texas.....	5	39	49.3	.341	16.81	6	25	47.9	.639	30.61
Washington.....	5	44	48.0	.521	25.01	6	38	47.8	.884	42.26
Wisconsin.....	13	426	51.4	.460	23.64	13	221	50.8	.800	40.64
Total.....	366	6,907	50.8	.460	23.37	376	3,752	50.0	.782	39.10
	Molders, machine, male					Patternmakers, male				
Alabama.....	1	2	(1)	(1)	(1)	2	10	55.0	\$0.802	\$44.11
California.....	6	13	45.0	\$0.773	\$34.79	7	14	44.3	1.101	48.77
Colorado.....	1	6	48.0	.624	29.95	2	16	48.0	.870	41.76
Connecticut.....	7	103	52.2	.605	31.58	8	15	52.1	.700	36.47
Georgia.....	2	10	50.4	.613	30.90	2	3	51.7	.666	34.43
Illinois.....	18	377	50.2	.680	34.14	22	323	48.8	.862	42.07
Indiana.....	14	224	49.8	.583	29.03	11	59	48.6	.903	43.89
Iowa.....	5	43	51.8	.624	32.32	7	20	52.2	.718	37.48
Kansas.....	4	10	58.2	.459	26.71	3	4	54.0	.918	49.57
Kentucky.....	3	5	51.2	.675	34.56					
Louisiana.....	2	8	52.5	.385	20.21	1	2	(1)	(1)	(1)
Maine.....	1	24	50.0	.667	33.35	3	9	45.3	.663	30.03
Maryland.....	5	34	49.7	.600	29.82	5	11	47.5	.702	33.35
Massachusetts.....	17	109	42.9	.704	30.20	14	60	47.9	.813	38.94
Michigan.....	21	179	50.8	.543	27.58	11	33	49.1	.843	41.39
Minnesota.....	5	25	51.4	.703	36.13	5	26	49.6	.760	37.70
Missouri.....	3	20	52.8	.652	34.43	10	27	50.2	.866	43.47
New Hampshire.....	2	12	52.0	.565	29.88	1	4	50.0	.518	25.90
New Jersey.....	9	121	48.8	.724	35.33	7	82	48.4	.882	42.69
New York.....	18	292	47.9	.655	31.37	8	62	48.1	.825	39.68
Ohio.....	26	360	50.0	.733	36.65	16	75	50.5	.833	42.07
Oregon.....						4	15	47.5	.865	41.09
Pennsylvania.....	24	311	51.7	.683	35.31	23	162	51.2	.755	38.66
Rhode Island.....	7	104	50.3	.656	33.00	2	12	49.0	.764	37.44
Tennessee.....	1	1	(1)	(1)	(1)	5	9	48.1	.861	41.41
Texas.....	2	4	48.5	.767	37.20	5	13	47.6	.882	41.98
Washington.....	1	1	(1)	(1)	(1)	4	20	47.8	.991	47.37
Wisconsin.....	10	140	51.9	.654	33.94	6	21	51.1	.785	40.11
Total.....	215	2,538	50.0	.661	33.05	194	1,107	49.3	.835	41.17

<sup>1</sup> For less than 3 wage earners in this establishment, data included in total.

TABLE 4.—AVERAGE HOURS AND EARNINGS FOR SPECIFIED OCCUPATIONS IN FOUNDRIES AND MACHINE SHOPS, 1931, BY OCCUPATION, SEX, AND STATE—Con.

Machine shops

State	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time weekly earnings
	Fitters and bench hands, male					Laborers, male				
Alabama	3	44	55.4	\$0.675	\$37.40	6	41	53.3	\$0.320	\$17.06
California	12	71	44.9	.851	38.21	18	123	44.9	.513	23.03
Colorado	1	8	48.0	.587	28.18	2	12	48.0	.448	21.50
Connecticut	20	223	49.7	.638	31.71	18	111	49.5	.458	22.67
Georgia	2	13	52.2	.514	26.83	8	72	51.4	.231	11.87
Illinois	22	307	49.9	.659	32.88	31	607	50.0	.474	23.70
Indiana	13	118	51.0	.575	29.33	16	198	51.0	.413	21.06
Iowa	4	42	52.5	.613	32.18	7	84	51.9	.459	23.82
Kansas	3	15	50.0	.678	33.90	5	6	52.3	.307	16.06
Kentucky	4	47	47.0	.662	31.11	5	25	46.2	.398	18.39
Louisiana	2	2	52.0	.353	18.36	4	23	56.5	.240	13.56
Maine	2	20	49.1	.567	27.84	3	29	46.5	.419	19.48
Maryland	4	16	47.8	.719	34.37	6	23	49.5	.422	20.89
Massachusetts	27	582	48.2	.672	32.39	29	399	49.4	.471	23.27
Michigan	20	164	51.1	.620	31.68	28	224	53.8	.475	25.56
Minnesota	7	27	49.6	.657	32.59	7	111	49.2	.434	21.35
Missouri	7	43	52.6	.523	27.51	8	49	53.4	.407	21.73
New Hampshire	1	35	48.0	.604	28.99	3	13	48.6	.487	23.67
New Jersey	14	297	49.1	.717	35.20	20	210	51.0	.482	24.58
New York	28	951	48.8	.733	35.77	31	705	49.4	.501	24.75
Ohio	73	1,417	49.0	.644	31.56	76	843	49.9	.449	22.41
Oregon	2	4	46.0	.647	29.76	4	9	45.8	.511	23.40
Pennsylvania	38	473	51.3	.621	31.86	46	632	51.4	.446	22.92
Rhode Island	9	175	50.3	.586	29.48	11	106	51.0	.435	22.19
Tennessee	1	7	52.0	.666	34.63	8	42	48.9	.315	15.40
Texas	4	37	47.8	.690	32.98	9	63	48.8	.388	18.93
Washington	4	23	47.7	.704	33.58	3	16	47.7	.550	26.24
Wisconsin	14	287	51.3	.643	32.99	14	397	51.3	.444	22.78
Total	341	5,528	48.7	.666	32.43	426	5,173	50.3	.455	22.89
	Lathe operators, engine, male					Tool makers, male				
Alabama	5	43	55.7	\$0.718	\$39.99	3	17	51.4	\$0.700	\$35.98
California	19	120	44.7	.880	39.34	17	52	45.4	.909	41.27
Colorado	3	11	48.0	.731	35.09	1	11	48.0	.536	25.73
Connecticut	17	147	50.2	.668	33.53	17	135	49.7	.768	38.17
Georgia	3	15	50.8	.488	24.79	4	5	50.2	.658	33.03
Illinois	26	392	50.0	.724	36.20	25	308	49.8	.797	39.69
Indiana	12	98	51.7	.597	30.86	12	77	50.9	.673	34.26
Iowa	7	26	51.4	.666	34.23	4	30	52.7	.672	35.41
Kansas	6	33	50.5	.633	31.97	3	5	50.4	.614	30.95
Kentucky	5	15	47.3	.633	29.94	5	15	49.3	.699	34.46
Louisiana	3	12	50.0	.633	31.65					
Maine	3	48	46.9	.566	26.55	4	11	49.5	.666	32.97
Maryland	5	15	48.9	.661	32.32	3	29	47.7	.784	37.40
Massachusetts	34	307	49.2	.708	34.53	32	266	47.8	.640	30.59
Michigan	24	181	51.6	.670	34.57	22	103	52.2	.821	42.86
Minnesota	8	44	49.5	.667	33.02	8	27	49.2	.738	36.31
Missouri	13	64	51.1	.584	29.84	11	23	50.7	.684	34.68
New Hampshire	4	16	48.4	.636	30.78	2	12	48.2	.775	37.36
New Jersey	20	156	49.4	.742	36.65	15	79	49.4	.785	38.73
New York	29	347	49.3	.748	36.88	28	390	48.6	.802	38.98
Ohio	78	602	51.4	.698	35.88	65	432	49.5	.759	37.57
Oregon	6	26	46.3	.838	38.80	3	46	47.7	.789	36.85
Pennsylvania	42	451	50.7	.708	35.90	38	156	50.6	.750	37.95
Rhode Island	10	52	50.1	.599	30.01	7	74	50.5	.768	38.78
Tennessee	1	3	49.5	.856	42.37	4	4	47.6	.810	38.56
Texas	3	60	47.1	.709	33.39	5	11	47.7	.729	34.77
Washington	7	30	47.7	.788	37.59	4	8	47.5	.831	39.47
Wisconsin	14	236	51.4	.703	36.13	14	103	51.0	.761	38.81
Total	407	3,550	50.2	.706	35.37	355	2,386	49.4	.758	37.45



## Hours and Earnings in Sheet Mills and Tin-Plate Mills, 1931

**T**HIS is the last of a series of three articles by the Bureau of Labor Statistics showing summaries of average hours and earnings by departments and occupations for wage earners in the iron and steel industry in the United States in 1931, in comparison with like figures for 1929 and for each of the specified years back to 1913 in which studies of the industry have been made by the bureau. The summaries in Table 1 of this report are for wage earners in sheet mills and in tin-plate mills separately for the years 1913 to 1931. Index numbers of the averages are also shown in the table, with the 1913 averages the base, or 100 per cent.

Wage earners in sheet mills, as shown in Table 1, earned an average of 74.7 cents per hour in 1931 and 79.3 cents in 1929. The average for 1931 was 4.6 cents per hour, or 5.8 per cent, less than the average for 1929. The average of 45.0 cents for 1915 was less, and of \$1.039 for 1920 was more, than for any of the other specified years from 1913 to 1931, inclusive, for which figures are shown in the table. Index numbers of these averages with the 1913 average the base or 100 were 101.0 for 1914; 93.2 for 1915; 215.1 for 1920; 143.7 for 1922; 167.5 for 1924; 157.1 for 1926; 164.2 for 1929; and 154.7 for 1931. The index of 215.1 for 1920 shows that earnings per hour in that year were nearly 2½ times the 1913 average; and the index of 154.7 for 1931 shows that average earnings per hour were 54.7 per cent more than in 1913. Earnings in 1931 were 28.1 per cent less than in 1920.

Average full-time hours per week in sheet mills were 47.8 in 1931 and 48.9 in 1929. The average for 1931 was 1.1 hours per week, or 2.2 per cent, less than the average for 1929. The average of 52.5 for 1915 was more, and of 47.8 for 1931 was less, than the average for any of the other specified years from 1913 to 1931. The index of 91.4 in 1931 shows that average full-time hours per week were 8.6 per cent less than in 1913.

Average full-time earnings per week in sheet mills were \$35.71 in 1931 and \$38.78 in 1929. The 1931 average was \$3.07 per week, or 7.9 per cent, less than the 1929 average. The 1915 average of \$23.63 was less, and the 1920 average of \$52.26 was more, than the average for any of the other specified years from 1913 to 1931 for which averages are shown. Index numbers for 1920 at 206.9 show that average full-time earnings per week were 106.9 per cent more than in 1913 and for 1931 at 141.4 were 41.4 per cent more than in 1913. Full-time earnings per week did not increase or decrease in the same proportion as average earnings per hour, because of the change from year to year in average full-time hours per week.

The explanation of the figures for sheet mills above also applies to the averages and index numbers for tin-plate mills.

The hours and earnings used in computing the 1931 averages in Table 1 and in other tables in this report were, except for a very few mills, for the half-monthly pay period ending March 31, and were collected directly from the pay rolls of the plants included in the study of the industry.

Average hours and earnings and index numbers of the averages for employees in blast furnaces, Bessemer converters, and open-hearth furnaces were published in the November, 1931, issue of the Labor

Review and those in puddling mills, blooming mills, plate mills, standard rail mills, and bar mills in the December issue. A bulletin which will be published later will present average hours and earnings and index numbers in much more detail for each of the 10 departments of the industry than could be shown for them in the Labor Review.

TABLE 1.—AVERAGE HOURS AND EARNINGS, AND INDEX NUMBERS THEREOF, FOR EACH SPECIFIED YEAR, 1913 TO 1931, FOR ALL WAGE EARNERS COMBINED, IN SHEET AND TIN-PLATE MILL DEPARTMENTS

Year	Sheet mills						Tin-plate mills					
	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers (1913=100)			Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Index numbers (1913=100)		
				Full-time hours per week	Earnings per hour	Full-time earnings per week				Full-time hours per week	Earnings per hour	Full-time earnings per week
1913	52.3	\$0.483	\$25.26	100.0	100.0	100.0	46.1	\$0.417	\$19.22	100.0	100.0	100.0
1914	52.3	.488	25.52	100.0	101.0	101.0	46.0	.425	19.55	99.8	101.9	101.7
1915	52.5	.450	23.63	100.4	93.2	93.5	50.4	.428	21.57	109.3	102.6	112.2
1920	50.3	1.039	52.26	96.2	215.1	206.9	50.6	.949	48.02	109.8	227.6	249.8
1922	51.1	.694	35.46	97.7	143.7	140.4	49.9	.650	32.44	108.2	155.9	168.8
1924	50.2	.809	40.61	96.0	167.5	160.8	48.8	.795	38.80	105.9	190.6	201.9
1926	48.9	.759	37.12	93.5	157.1	147.0	48.1	.704	33.86	104.3	168.8	176.2
1929	48.9	.793	38.78	93.5	164.2	153.5	47.4	.732	34.70	102.8	175.5	180.5
1931	47.8	.747	35.71	91.4	154.7	141.4	47.0	.714	33.56	102.0	171.2	174.6

#### Trend of Hours and Earnings, 1913 to 1931

THE average hours and earnings and index numbers in Table 2 are for the wage earners in all departments combined, or the industry, for each of the specified years from 1913 to 1931 in which studies have been made.

Average full-time hours per week for the 10 departments combined, or the industry as a whole, were 2.2 hours or 4.0 per cent less in 1931 than in 1929; average earnings per hour were 1.1 cents or 1.6 per cent less; and average full-time earnings per week were \$1.90 or 5.2 per cent less in 1931 than in 1929.

Average full-time hours per week at 66.1 in 1913 were more, and at 52.4 in 1931 were less, than for any of the other years in the table. The index number of 79.3 for 1931 shows that average full-time hours per week were 20.7 per cent less than in 1913.

Average earnings per hour for the industry at 29.7 cents for 1915 were less, and at 74.5 cents for 1920 were more, than for any of the other years in the table. Index numbers of 247.5 for 1920 show that earnings per hour were 147.5 per cent more than in 1913, and of 220.3 for 1931 that earnings for the latter were 120.3 per cent more than in 1913. Earnings per hour in 1931 were 11.0 per cent less than in 1920.

Average full-time earnings per week at \$18.60 for 1914 were less, and at \$45.65 for 1920 were more, than for any other year in the table. Index numbers show that full-time earnings in 1920 were a little more than 2½ times the 1913 average and that the 1931 average was a little more than 1½ times the 1913 average.

TABLE 2.—AVERAGE HOURS AND EARNINGS, WITH INDEX NUMBERS OF SUCH AVERAGES, FOR EACH SPECIFIED YEAR, 1913 TO 1931, FOR ALL EMPLOYEES IN ALL DEPARTMENTS COMBINED, OR THE INDUSTRY

Year	Average full-time hours per week	Average earnings per hour	Averages full-time earnings per week	Index numbers (1913=100)		
				Full-time hours per week	Earnings per hour	Full-time earnings per week
1913	66.1	\$0.301	\$18.89	100.0	100.0	100.0
1914	64.9	.301	18.60	98.2	100.0	98.5
1915	65.5	.297	18.65	99.1	98.7	98.7
1920	63.1	.745	45.65	95.5	247.5	241.7
1922	63.2	.513	31.67	95.6	170.4	167.7
1924	55.2	.644	35.22	83.5	214.0	186.4
1926	54.4	.637	34.41	82.3	211.6	182.2
1929	54.6	.674	36.48	82.6	223.9	193.1
1931	52.4	.663	34.58	79.3	220.3	183.1

### Hours and Earnings, 1929 and 1931, by Department and Occupation

TABLE 3 shows average hours and earnings and the per cent of wage earners in each classified group of full-time hours per week in 1929 and 1931 for each of the specified occupations in sheet mills and tin-plate mills. Like figures for each of the occupations in the table for the specified years from 1910 to 1929 appear in Bulletin No. 513. Figures for "cold roll rollers" and "cold roll catchers" in sheet mills and "shearmen's helpers," "openers, female," and "assorters, male," in tin-plate mills are for 1931 only.

*Sheet mills.*—Average full-time hours per week were more in seven and less in seven of the specified occupations in sheet mills in 1931 than in 1929. Hours were the same in four occupations in 1929 and in 1931, and in two are shown for 1931 only. Hours ranged in 1929, by occupation, from an average of 43.1 for rollers, level handed, and sheet heaters' helpers to 60.7 for laborers, and in 1931 from 42.8 for rollers, level handed, to 57.7 for laborers. The increase from 43.2 to 43.8 for openers was more than for any other occupation. The decrease from 60.7 to 57.7 for laborers was more than for any other occupation.

Average earnings per hour were more in 1 and less in 17 occupations in sheet mills in 1931 than in 1929. Averages for 1929 ranged, by occupation, from \$0.429 for laborers to \$1.979 for rollers and in 1931 from \$0.428 to \$1.811, respectively, for the same occupations. Feeders, the only occupation for which earnings were more in 1931 than in 1929, earned an average of 70.9 cents per hour in 1929 and 75.0 cents in 1931. Rollers, level handed, earned an average of \$1.381 in 1929 and \$0.971 in 1931. The loss in this occupation was more than that of any other occupation.

Average full-time earnings per week were more in 1 and less in 17 occupations in sheet mills in 1931 than in 1929. Averages in the various occupations ranged in 1929 from \$26.04 for laborers to \$85.89 for rollers and in 1931 from \$23.56 for openers, level handed, to \$78.78 for rollers.

*Tin-plate mills.*—Average full-time hours per week were the same in 1931 as in 1929 for all hot-mill occupations in tin-plate mills (the first 14 occupations under this department). There was an increase of average hours in one and a decrease in eight of the occupations

that handle the product after it leaves the hot mill. The average for shearmen increased from 42.9 to 43.6 or 0.7 hour per week. The average for branners decreased from 49.6 in 1929 to 44.7 in 1931, or 4.9 hours per week. The 1929 averages ranged by occupation from 42.7 for those of the hot-mill crew to 57.1 for laborers and in 1931 from 42.7 for the hot-mill crew to 56.9 for assorters, male.

Average earnings per hour were more in 5 and less in 18 occupations in tin-plate mills in 1931 than in 1929 and ranged in 1929 from \$0.369 for assorters, female, to \$1.778 for rollers, and in 1931 from \$0.380 to \$1.737, respectively, for the same occupations. Average earnings for mechanical doublers increased from 67.9 cents per hour in 1929 to 74.9 cents in 1931. The increase for this occupation was more than for any other occupation. Redippers earned an average of \$1.158 in 1929 and \$1.053 in 1931. The loss by this occupation was more than that of any other occupation.

TABLE 3.—AVERAGE HOURS AND EARNINGS AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED NUMBER OF FULL-TIME HOURS PER WEEK IN SPECIFIED OCCUPATIONS IN SHEET AND TIN-PLATE MILLS

Sheet mills

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Per cent of employees whose average full-time hours per week were—							
							40 and under 44	44 and under 48	48 and under 60	60 and under 72	72 and over			
Pair heaters.....	1929	15	580	43.4	\$0.953	\$41.36	73	27						
	1931	15	532	43.5	.870	37.85	64	36						
Rollers.....	1929	15	546	43.4	1.979	85.89	75	25						
	1931	15	541	43.5	1.811	78.78	65	35						
Rollers, level handed.....	1929	8	41	43.1	1.381	59.52	83	17						
	1931	7	112	42.8	.971	41.56	95	5						
Rollers' helpers and finishers.....	1929	14	448	43.2	.826	35.68	81	19						
	1931	13	388	43.2	.773	33.39	77	23						
Roughers.....	1929	15	581	43.4	1.067	46.31	73	27						
	1931	15	513	43.6	.952	41.51	63	37						
Catchers.....	1929	15	576	43.3	1.017	44.04	78	22						
	1931	15	619	43.5	.915	39.80	66	34						
Matchers.....	1929	12	495	43.6	.894	38.98	65	35						
	1931	15	550	43.5	.772	33.58	65	35						
Doublers.....	1929	11	524	43.6	.870	37.93	65	35						
	1931	14	522	43.6	.764	33.31	63	37						
Sheet heaters.....	1929	15	540	43.3	1.432	62.01	76	24						
	1931	15	484	43.5	1.287	55.98	65	35						
Sheet heaters, level handed.....	1929	7	34	43.6	1.054	45.95	62	38						
	1931	8	37	43.5	.822	35.76	73	27						
Sheet heaters' helpers.....	1929	14	525	43.1	.841	36.25	86	14						
	1931	14	415	43.1	.758	32.67	81	19						
Shearmen.....	1929	14	287	43.5	1.227	53.37	70	30						
	1931	15	321	43.5	1.052	45.76	64	35		( <sup>1</sup> )				
Shearmen's helpers.....	1929	14	281	43.5	.712	30.97	69	31						
	1931	14	321	43.7	.627	27.40	62	36		2				
Openers.....	1929	11	370	43.2	.754	32.57	81	19						
	1931	9	276	43.8	.659	28.86	49	51						
Openers, level handed.....	1929	5	106	44.1	.686	30.25	52	48						
	1931	6	107	43.3	.544	23.56	73	27						
Picklers.....	1929	14	125	52.0	.713	37.08	26		33	11	19	6	4	
	1931	13	116	50.6	.712	36.03	9	9	49	11	17	2	3	
Feeders.....	1929	10	90	46.6	.709	33.04	60		26	10			4	
	1931	9	73	46.4	.750	34.80	47		42	11				
Cold roll rollers.....	1931	15	142	53.3	.759	40.45	10	13	25	23	24		6	
Cold roll catchers.....	1931	15	174	53.0	.663	35.14	7	19	25	24	20		5	
Laborers.....	1929	15	448	60.7	.429	26.04	( <sup>1</sup> )		2	33	46	6	13	
	1931	15	396	57.7	.428	24.70		3	6	36	53	1	1	

<sup>1</sup> Less than 1 per cent.

TABLE 3.—AVERAGE HOURS AND EARNINGS AND PER CENT OF EMPLOYEES WORKING EACH CLASSIFIED NUMBER OF FULL-TIME HOURS PER WEEK IN SPECIFIED OCCUPATIONS IN SHEET AND TIN-PLATE MILLS—Continued

*Tin-plate mills*

Occupation	Year	Number of plants	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week	Per cent of employees whose average full-time hours per week were—					
							Over 40, under 44	44, under 48	48	Over 48, under 60	Over 60, under 72	
Heaters.....	1929	8	121	42.7	\$1.159	\$49.49	100					
	1931	8	113	42.7	1.102	47.06	100					
Heaters, level handed.....	1929	8	604	42.7	.982	41.93	100					
	1931	9	580	42.7	.942	40.22	100					
Heaters' helpers.....	1929	8	180	42.7	.811	34.63	100					
	1931	8	164	42.7	.798	34.07	100					
Pair heaters.....	1929	5	187	42.7	.795	33.95	100					
	1931	7	346	42.7	.744	31.77	100					
Rollers.....	1929	8	378	42.7	1.778	75.92	100					
	1931	9	391	42.7	1.737	74.17	100					
Rollers, level handed.....	1929	5	65	42.7	.949	40.52	100					
	1931	7	84	42.7	.930	39.71	100					
Roughers.....	1929	8	401	42.7	1.014	43.30	100					
	1931	9	428	42.7	.989	42.23	100					
Catchers.....	1929	8	382	42.7	.926	39.54	100					
	1931	9	378	42.7	.902	38.52	100					
Screw boys.....	1929	8	408	42.7	.691	29.51	100					
	1931	9	395	42.7	.682	29.12	100					
Single boys.....	1929	5	299	42.7	.732	31.26	100					
	1931	7	351	42.7	.737	31.47	100					
Doublers, hand.....	1929	4	193	42.7	.912	38.94	100					
	1931	3	65	42.7	.883	37.70	100					
Doublers, mechanical.....	1929	5	229	42.7	.679	28.99	100					
	1931	7	380	42.7	.749	31.98	100					
Doublers, level handed, hand.....	1929	3	45	42.7	.824	35.18	100					
	1931	2	38	42.7	.760	32.45	100					
Doublers' helpers, hand.....	1929	3	156	42.7	.702	29.98	100					
	1931	1	32	42.7	.622	26.56	100					
Shearmen.....	1929	7	110	42.9	1.076	46.16	81	19				
	1931	8	135	43.6	.983	42.86	84	12			4	
Shearmen's helpers.....	1931	4	60	46.1	.551	25.40	57	25		3	15	
Openers, male.....	1929	7	253	48.3	.685	33.09	9	50		41		
	1931	8	355	47.5	.748	35.53	34	30		32	3	
Openers, female.....	1931	1	2	42.7	.573	24.47	100					
Tinners, hand.....	1929	6	164	43.7	.907	39.64	96		4			
	1931	5	125	42.7	.899	38.39	99		1			
Tinners, machine.....	1929	4	84	43.4	.794	34.46	86		14			
	1931	6	119	42.7	.834	35.61	100					
Redippers.....	1929	2	20	42.9	1.158	49.68	100					
	1931	2	12	42.7	1.053	44.96	100					
Risers.....	1929	2	24	43.0	.639	27.48	100					
	1931	2	21	42.7	.589	25.15	100					
Branners.....	1929	4	51	49.6	.600	29.76	65	6				30
	1931	6	83	44.7	.577	25.79	71		25			
Assorters, male.....	1931	4	12	56.9	.541	30.78				4		
Assorters, female.....	1929	5	254	46.1	.369	17.01	39	30	1	30		
	1931	6	305	45.5	.380	17.29	29	51		18	2	
Laborers.....	1929	8	251	57.1	.422	24.10				67	31	2
	1931	9	350	55.4	.419	23.21		1	(1)	74	23	2

<sup>1</sup>Less than 1 per cent.

Average full-time earnings per week were more in 5 and less in 18 occupations in tin-plate mills in 1931 than in 1929. Averages in the various occupations ranged in 1929 from \$17.01 for assorters, female, to \$75.92 for rollers, and in 1931 from \$17.29 to \$74.17, respectively, for the same occupations. The increase for mechanical doublers from \$28.99 in 1929 to \$31.98 in 1931 was more than for any other occupation. The decrease for redippers from \$49.68 in 1929 to \$44.96 in 1931 was more than that of any other occupation.



### Wage-Rate Changes in Manufacturing Industries in November, 1931

OF THE 16,170 manufacturing establishments from which data concerning wage changes were requested, 15,680 establishments, or 97 per cent of the total, reported no wage-rate changes during the month ending November 15, 1931. The 15,680 establishments employed 2,600,649 workers in November, 1931, or 95.1 per cent of the 2,735,017 employees in all establishments from which wage-rate changes were requested.

Decreases in rates of wages were reported by 490 establishments, or 3 per cent of the total number of establishments surveyed. These decreases, averaging 10.7 per cent, affected 134,368 employees, or 4.9 per cent of all employees in the establishments reporting.

WAGE CHANGES REPORTED IN **MANUFACTURING** INDUSTRIES BETWEEN OCTOBER 15 AND NOVEMBER 15, 1931

Industry	Estab- lish- ments report- ing	Total number of em- ployees	Number of establish- ments reporting—			Number of employees having—		
			No wage changes	Wage in- creases	Wage de- creases	No wage changes	Wage in- creases	Wage de- creases
All manufacturing indus- tries.....	16, 170	2, 735, 017	15, 680	---	490	2, 600, 649	---	134, 368
<i>Per cent of total.....</i>	<i>100</i>	<i>100</i>	<i>97.0</i>	---	<i>3.0</i>	<i>95.1</i>	---	<i>4.9</i>
Slaughtering and meat packing.....	212	84, 675	202	---	10	80, 130	---	4, 545
Confectionery.....	320	39, 354	316	---	4	39, 220	---	134
Ice cream.....	316	10, 839	310	---	6	10, 588	---	251
Flour.....	414	16, 182	396	---	18	15, 427	---	755
Baking.....	818	62, 151	802	---	16	61, 454	---	697
Sugar refining, cane.....	14	8, 159	14	---	---	8, 159	---	---
Cotton goods.....	520	184, 470	473	---	47	166, 189	---	18, 281
Hosiery and knit goods.....	341	84, 816	327	---	14	82, 362	---	2, 454
Silk goods.....	249	49, 132	241	---	8	48, 516	---	616
Woolen and worsted goods.....	185	46, 455	173	---	12	44, 077	---	2, 378
Carpets and rugs.....	30	15, 201	29	---	1	15, 083	---	118
Dyeing and finishing textiles.....	122	33, 489	105	---	17	28, 707	---	4, 782
Clothing, men's.....	334	51, 687	325	---	9	49, 013	---	2, 674
Shirts and collars.....	105	16, 704	98	---	7	15, 552	---	1, 152
Clothing, women's.....	360	23, 913	357	---	3	23, 775	---	138
Millinery and lace goods.....	137	12, 559	133	---	4	12, 409	---	150
Iron and steel.....	192	190, 361	166	---	26	143, 990	---	46, 371
Cast-iron pipe.....	41	8, 053	38	---	3	7, 693	---	360
Structural-iron work.....	175	20, 752	166	---	9	17, 956	---	2, 796
Foundry and machine-shop products.....	1, 067	153, 595	1, 018	---	49	145, 878	---	7, 717
Hardware.....	99	24, 433	95	---	4	24, 004	---	429
Machine tools.....	146	15, 994	145	---	1	15, 959	---	35
Steam fittings and steam and hot-water heating apparatus.....	99	22, 458	97	---	2	22, 267	---	191
Stoves.....	131	15, 477	125	---	6	14, 219	---	1, 258
Lumber, sawmills.....	624	73, 490	607	---	17	71, 318	---	2, 172
Lumber, millwork.....	320	19, 896	310	---	10	19, 091	---	805
Furniture.....	422	46, 821	411	---	11	44, 425	---	2, 396
Leather.....	139	21, 868	127	---	12	19, 073	---	2, 795
Boots and shoes.....	277	80, 844	266	---	11	78, 645	---	2, 199
Paper and pulp.....	344	65, 367	331	---	13	63, 141	---	2, 226
Paper boxes.....	309	23, 938	304	---	5	22, 779	---	1, 159
Printing, book and job.....	623	52, 240	614	---	9	51, 978	---	262
Printing, newspapers and peri- odicals.....	429	71, 597	425	---	4	71, 411	---	186
Chemicals.....	159	31, 828	156	---	3	31, 481	---	347
Fertilizers.....	204	6, 620	192	---	12	5, 995	---	625

## WAGE CHANGES REPORTED IN MANUFACTURING INDUSTRIES BETWEEN OCTOBER 15 AND NOVEMBER 15, 1931—Continued

Industry	Establishments reporting	Total number of employees	Number of establishments reporting—			Number of employees having—		
			No wage changes	Wage increases	Wage decreases	No wage changes	Wage increases	Wage decreases
Petroleum refining.....	107	46,543	106		1	46,508		35
Cement.....	112	15,987	109		3	15,396		591
Brick, tile, and terra cotta.....	714	24,833	702		12	24,275		558
Pottery.....	111	15,664	111			15,664		
Glass.....	190	39,112	183		7	37,845		1,267
Stamped and enameled ware.....	83	13,291	83			13,291		
Brass, bronze, and copper products.....	155	26,528	154		1	26,484		44
Chewing and smoking tobacco and snuff.....	27	8,841	26		1	8,671		170
Cigars and cigarettes.....	191	51,656	186		5	50,435		1,221
Automobiles.....	214	191,501	212		2	190,970		531
Carriages and wagons.....	46	620	45		1	607		13
Car building and repairing, electric-railroad.....	436	24,653	436			24,653		
Car building and repairing, steam-railroad.....	504	78,625	504			78,625		
Agricultural implements.....	76	6,956	72		4	5,935		1,021
Electrical machinery, apparatus and supplies.....	215	134,295	206		9	132,257		2,038
Pianos and organs.....	55	3,861	53		2	3,702		159
Rubber boots and shoes.....	9	12,333	9			12,333		
Automobile tires and inner tubes.....	38	44,233	37		1	43,954		279
Shipbuilding.....	84	33,452	82		2	33,040		412
Aircraft.....	40	7,038	40			7,038		
Aluminum manufactures.....	15	2,585	15			2,585		
Beet sugar.....	48	16,820	48			16,820		
Beverages.....	284	9,456	279		5	9,327		129
Bolts, nuts, washers, and rivets.....	67	8,258	65		2	7,890		368
Butter.....	218	5,138	216		2	5,107		31
Cash registers, adding machines, and calculating machines.....	50	15,463	49		1	15,120		343
Clocks, time-recording devices, and clock movements.....	24	7,638	23		1	5,521		2,117
Corsets and allied garments.....	28	4,346	28			4,346		
Cottonseed oil, cake, and meal.....	44	2,778	44			2,778		
Cotton small wares.....	100	8,354	95		5	7,987		367
Cutlery (not including silver and plated cutlery) and edge tools.....	112	9,208	108		4	5,826		3,382
Forgings, iron and steel.....	39	4,550	39			4,550		
Gas and electric fixtures, lamps, lanterns, and reflectors.....	50	5,800	49		1	5,703		97
Hats, fur-felt.....	33	5,013	33			5,013		
Jewelry.....	159	12,755	157		2	12,729		26
Marble, granite, slate, and other stone products.....	181	5,242	179		2	5,217		25
Men's furnishing goods.....	67	4,957	64		3	4,741		216
Paint and varnish.....	344	16,387	333		11	16,162		225
Plated ware.....	32	4,855	32			4,855		
Plumbers' supplies.....	71	5,319	69		2	5,295		24
Radio.....	42	25,008	40		2	24,128		880
Rayon.....	20	24,428	19		1	22,021		2,407
Rubber goods, other than boots, shoes, tires, and inner tubes.....	105	19,463	104		1	19,451		12
Smelting and refining copper, lead, and zinc.....	24	7,324	24			7,324		
Soap.....	60	8,551	58		2	7,791		760
Tin cans and other tinware.....	52	7,044	51		1	7,009		35
Tools (not including edge tools, machine tools, files, or saws).....	124	8,131	118		6	7,624		507
Turpentine and rosin.....	25	1,228	24		1	1,204		24
Typewriters and supplies.....	16	9,079	15		1	8,479		600
Wirework.....	52	4,399	52			4,399		

## Recent Wage Changes Reported by Trade-Unions

UNION and municipal wage and hour changes reported to the bureau during the past month and occurring during the past four months are shown in the following table. The tabulation covers 7,807 workers, 999 of whom were reported to have gone on the 5-day work week.

In addition to those for which changes were reported, the following unions reported renewed wage agreements: Butchers, San Francisco, Calif.; mailers, St. Louis, Mo.; news writers, Scranton, Pa.; stereotypers, Dallas, Tex.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, SEPTEMBER TO DECEMBER, 1931

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
		<i>Per week</i>	<i>Per week</i>		
Bakers, Los Angeles, Calif.....	Oct. 1	\$25.00-\$35.00	\$25.00-\$45.00	48	40
Barbers, New Britain, Conn.....	Nov. 5	1 25.00	2 22.00	60	68
Broom and brush workers, Minneapolis and St. Paul, Minn.....	Oct. 26	(3)	(4)	44	44
Building trades—		<i>Per hour</i>	<i>Per hour</i>		
Bricklayers—					
Dayton and Xenia, Ohio.....	Oct. 1	\$1.62½	\$1.40	40	40
Denver, Colo.....	Nov. 1	1.50	1.31¼	40	40
Carpenters—					
Des Moines, Iowa, and vicinity.....	do	1.12½	1.00	40	40
Ellwood City, Pa., and vicinity.....	do	1.25	1.00	44	44
Vallejo, Calif.....	Nov. 2	1.12½	1.12½	40	30
Cement finishers, Des Moines, Iowa.....	Nov. 8	1.25	1.12½	40	40
Engineers, hoisting, Des Moines, Iowa.....	Nov. 9	1.25	1.12½	40	40
Hod carriers, Dayton, Ohio, and vicinity.....	Sept. 20	1.12½	1.02½	40	40
Lathers—					
Dayton, Ohio, and vicinity.....	do	1.00	.75	40	40
Des Moines, Iowa.....	Nov. 9	1.37½	1.10	40	40
Des Moines, Iowa.....	Nov. 9	1.37½	1.25	40	40
Painters, Des Moines, Iowa.....	do	1.12½	1.03½	40	40
Plasterers—					
Abilene, Tex.....	Sept. 28	1.62½	1.25	44	44
Dallas, Tex., and vicinity.....	Sept. 5	1.62½	1.25	40	40
Des Moines, Iowa.....	Nov. 8	1.50	1.37½	40	40
Fort Collins, Colo., and vicinity.....	Oct. 1	1.50	1.25	44	44
Nashville, Tenn.....	Sept. 1	1.50	1.00	44	44
Salt Lake City, Utah.....	Oct. 1	1.50	1.25	44	44
St. Joseph, Mo.....	Sept. 24	1.37½	1.12½	44	44
Structural-iron workers, Des Moines, Iowa.....	Nov. 9	1.25	1.12½	40	40
Furniture: Upholsterers, Philadelphia, Pa.....	Nov. 1	(5)	(6)	49-51	40
Metal trades: Patternmakers, Detroit, Mich.....	Dec. 21	1.40	1.25	44-60	40
		<i>Per day</i>	<i>Per day</i>		
Miners, coal, Cadiz, Ohio.....	Nov. 25	\$4.25	\$4.00	48	48
Motion-picture operators, actors, and theatrical workers:		<i>Per week</i>	<i>Per week</i>		
Kansas City and Independence, Mo., operators.....	Nov. 26	\$50.00-\$125.00	\$37.50-\$93.75	35-48	(7)
Los Angeles and Culver City, Calif., studio mechanics.....	Oct. 26	<i>Per day</i>	<i>Per day</i>		
		\$8.75	\$6.56	48	36
		<i>Per week</i>	<i>Per week</i>		
Tulsa, Okla., organists.....	Oct. 24	\$67.50	\$60.00	8 5½	8 5½
Railway workers:					
Atlantic City and Shore Railroad Co.—					
Clerks and officers.....	Oct. 1	(8)	(9)	(7)	(7)
Platform employees.....	Oct. 15	(8)	(9)	(7)	(7)
Textiles, hosiery workers, Milwaukee, Wis.:					
Toppers.....	Oct. 24	(9)	(9)	49	48
Leggers.....	do	(9)	(10)	49	48
Fitters.....	do	(9)	(11)	49	48

See footnotes at end of table.

RECENT WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, SEPTEMBER TO DECEMBER, 1931—Continued

Industry or occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Municipal workers: Donora, Pa.----- Jackson, Miss.---	Nov. 1	(3)	(4)	48	48
Monthly basis employees-----	Oct. 1	<i>Per month</i> (3)	<i>Per month</i> <sup>12</sup> \$15.00	(7)	(7)
Per diem employees-----	do-----	<i>Per day</i> (3)	<i>Per day</i> <sup>12</sup> \$0.25	(7)	(7)
Milwaukee, Wis., sewerage department--- Royal Oak, Mich.---	Dec. 1	<i>Per hour</i> (3)	<i>Per hour</i> <sup>13</sup> \$0.05-\$0.40	48	40-42
Workers earning over \$125 per month---	do-----	(3)	(4)	44	40
Workers earning under \$125 per month---	do-----	(3)	(14)	44	40

<sup>1</sup> And 50 per cent of receipts over \$33.

<sup>2</sup> And 50 per cent of receipts over \$32.

<sup>3</sup> Various.

<sup>4</sup> 10 per cent reduction.

<sup>5</sup> Piecework.

<sup>6</sup> 18 to 25 per cent increase.

<sup>7</sup> Not reported.

<sup>8</sup> Per day.

<sup>9</sup> 30 per cent reduction.

<sup>10</sup> 35 per cent reduction.

<sup>11</sup> 45 per cent reduction.

<sup>12</sup> Amount of reduction.

<sup>13</sup> Amount of increase.

<sup>14</sup> 5 per cent reduction.

### Collection of Unpaid Wages in California, 1929-30

OUT of every 100 complaints received in the biennial period 1929-30, by the division of labor statistics of the California Department of Industrial Relations, 88 were complaints of violations of the wage-payment laws, for wage claims.<sup>1</sup> Of the 60,469 wage claims filed in these two years, 61.8 per cent were settled. The collection of unpaid wages in the fiscal year ending June 30, 1930, totaled \$1,082,857.34, which was \$30,931.55, or 2.9 per cent, more than in the previous 12 months. In the two fiscal years ending June 30, 1930, the amount of such wages collected was \$2,134,783.13. The average amount collected per wage claim settled during these two years was \$57.16, or approximately 81.1 per cent of the average amount involved per wage claim. Of the 60,469 wage claimants who filed claims in the biennial period closed June 30, 1930, 41.5 per cent were in the manufacturing and mechanical industries, 13.8 per cent in domestic and personal service, and 12.7 per cent in agricultural industries.

It is reported that many of the workers who avail themselves of the division's service would lose their wages were it not for the efforts of that office on their behalf. Since practically all wage claims are collected without recourse to court actions, the complainants are not obliged to lose their time and earnings through protracted court procedures. Probably if it were necessary for wage claimants to employ attorneys in these cases, the legal fees would be from 10 to 25 per cent of the amounts involved in the claims. But since approximately 64 per cent of the wage claims filed are for less than \$55 it would seem that a large number of the claimants could not afford the time from their jobs to prosecute, even if they were able to employ attorneys.

<sup>1</sup> California. Department of Industrial Relations. First biennial report, 1927-1930. Sacramento, 1931.

It is roughly estimated in the report under review that the division saves the wage claimants from one-fourth to one-third of the collected wages; for example, from \$266,848 to \$355,797 per annum of the \$2,134,783 collected in the biennium ending June 30, 1930.

### Relative Importance of Check and Cash Methods of Wage Payment in Illinois

A STUDY of methods and frequency of wage payment in Illinois was made in May, 1931, by the division of statistics and research of the Illinois Department of Labor. An article in the October, 1931, Labor Bulletin, issued by the State department of labor, gives data from this study showing, by industry, the relative importance of the check and cash methods of wage payment and the frequency with which payments are made.

A marked preference was found among employers for the payment of wages by check, 86.1 per cent of the reporting firms using this method. Of the total number of wage earners, 89.3 per cent were paid by check and 90.5 per cent of the total wages bill was disbursed in this manner.

Large firms more frequently pay by check than small ones, the firms which paid in cash (13.9 per cent of the total number reporting) disbursing only 9.5 per cent of the total wages bill. A larger percentage of manufacturing than of nonmanufacturing establishments paid by check.

Table 1 shows, by industry, the per cent of reporting establishments paying their employees by check and by cash, respectively, the per cent of wage earners paid by each method, and the per cent of the total wages bill disbursed under each method of payment.

TABLE 1.—RELATIVE IMPORTANCE OF CASH AND CHECK METHODS OF WAGE PAYMENT IN ILLINOIS, BY INDUSTRY

Industry	Reporting establishments		Wage earners			Pay roll			
	Number	Per cent paying by—		Number	Per cent paid by—		Amount	Per cent disbursed by—	
		Cash	Check		Cash	Check		Cash	Check
All industries.....	1, 173	13. 9	86. 1	294, 001	10. 7	89. 3	\$7, 602, 310	9. 5	90. 5
All manufacturing industries.....	893	11. 1	88. 9	180, 971	9. 7	90. 3	4, 429, 217	9. 8	90. 2
Stone, clay, and glass.....	70	4. 3	95. 7	9, 078	. 8	99. 2	226, 697	. 6	99. 4
Metals, machinery, conveyances.....	326	7. 1	92. 9	91, 011	8. 3	91. 7	2, 209, 729	7. 7	92. 3
Wood products.....	73	13. 0	87. 0	6, 749	7. 4	92. 6	141, 910	8. 2	91. 8
Furs and leather goods.....	31	12. 9	87. 1	10, 659	1. 9	98. 1	186, 152	2. 6	97. 4
Chemicals, oils, and paints.....	66	10. 6	89. 4	10, 192	2. 9	97. 1	261, 648	2. 5	97. 5
Printing and paper goods.....	136	14. 3	85. 7	20, 351	18. 3	81. 7	663, 134	21. 3	78. 7
Textiles.....	16	6. 3	93. 7	2, 693	. 7	99. 3	53, 710	. 5	99. 5
Clothing and millinery.....	40	28. 8	71. 2	8, 187	44. 6	55. 4	117, 884	47. 4	52. 6
Food, beverages, and tobacco.....	133	15. 8	84. 2	21, 923	7. 2	92. 8	565, 316	7. 0	93. 0
Miscellaneous manufacturing.....	2	.....	100. 0	128	.....	100. 0	3, 037	.....	100. 0
Nonmanufacturing industries.....	280	22. 5	77. 5	113, 030	12. 3	87. 7	3, 173, 063	9. 1	90. 9
Trade, wholesale and retail.....	66	50. 0	50. 0	17, 736	63. 5	36. 5	493, 778	48. 8	51. 2
Services.....	68	26. 5	73. 5	11, 816	21. 0	79. 0	235, 493	19. 1	80. 9
Public utilities.....	55	1. 8	98. 2	75, 231	(1)	100. 0	2, 259, 730	(1)	100. 0
Coal mining.....	27	3. 7	96. 3	6, 135	1. 2	98. 8	114, 006	1. 2	98. 8
Building and contracting.....	64	15. 6	84. 4	2, 112	4. 0	96. 0	70, 086	3. 3	96. 7

<sup>1</sup> Less than one-tenth of 1 per cent.



Table 2 shows the relative importance of the cash and check methods of wage payment, by length of pay period. It will be noted that while more than two-thirds (68.3 per cent) of the establishments had a weekly pay period they employed only 56.0 per cent of the total number of workers and their combined pay rolls formed but 55.2 per cent of the total. The firms which paid semimonthly employed 39.3 per cent of the workers and disbursed 41.3 per cent of the total wages bill.

TABLE 2.—RELATIVE IMPORTANCE OF CASH AND CHECK METHODS OF WAGE PAYMENT, BY LENGTH OF PAY PERIOD

Pay periods	Reporting establishments			Wage earners			Pay roll		
	Per cent of total	Per cent paying by—		Per cent of total	Per cent paid by—		Per cent of total	Per cent disbursed by—	
		Cash	Check		Cash	Check		Cash	Check
Weekly pay periods.....	68.3	12.5	55.8	56.0	10.0	46.0	55.2	9.0	46.2
Biweekly pay periods.....	5.1	.3	4.8	2.8	.1	2.7	2.0	.1	1.9
Semimonthly pay periods...	25.3	.9	24.4	39.3	.2	39.1	41.3	.1	41.2
Other pay periods.....	1.3	.2	1.1	1.9	.4	1.5	1.5	.3	1.2
Total.....	100.0	13.9	86.1	100.0	10.7	89.3	100.0	9.5	90.5

## General Survey of Wages in Belgium<sup>1</sup>

THE depression which is affecting all of Belgium's commerce and industry is the cause of such extensive disorganization that at the present no definite wages can be quoted for any of the branches of industry, because the unemployed workers who are receiving unemployment-insurance benefits are obliged to accept the work offered to them at the employment exchange, at the wages and under the conditions fixed by the employers, regardless of the basic scale of wages fixed by the commissions and even in some cases by the collective agreement, under penalty of losing all further rights to unemployment benefits.

In order to give a concrete idea of the wage situation there is submitted below a schedule of the principal reductions of wages effected in the course of the year 1930. These reductions have been followed by others no less important in the course of 1931.

Mines: July, 1930, a reduction of 5 per cent; in October, 1930, a further reduction of 4 per cent; and in January, 1931, a further reduction of 5 per cent demanded by the employers.

Steel: December, 1930, a reduction of 5 per cent.

Iron: November, 1930, a reduction of 5 per cent demanded by the employers.

Mechanical construction: December, 1930, a reduction of 10 per cent demanded by the employers.

Stone and granite: November, 1930, a reduction the rate of which is not known.

The above reductions have been followed by others in almost all branches of industry throughout the country, among which the reductions in the glass, leather, textile, and building industries must be noted. The same applies to all branches of shipping activity, which, in certain centers such as Antwerp, are vital factors in the economic life.

### Hours of Labor

HOURS of labor are controlled in Belgium by a law which dates from June 14, 1921. This law fixes the hours of labor at 8 per day and 48 per week.

The following industries are subject to the application of this law:

(1) Mines, surface workings, quarries, and extractive works of all kinds.

(2) Industries occupied in the manufacture of merchandise, the transformation of raw materials or products, their ornamentation or finishing, cleaning, and application with a view to sale.

(3) The repair, cleaning, and overhaul of plants and equipment, effects or other used objects, as well as the demolition of plants and equipment.

(4) Building industries and industries connected therewith, including work of upkeep, repair, and demolition.

(5) Public-works enterprises.

<sup>1</sup> This study of Belgian wages was furnished by Marion Letcher, American consul general, and R. G. Vanderslyen, Antwerp; Manson Gilbert, American vice consul, and D. Russell, Brussels; and Courtland Christiani, American vice consul, Ghent.

(6) Private-engineering enterprises other than those falling under the heading of building industries.

(7) Gas plants and waterworks.

(8) The production, transformation, and transmission of electricity and motive power.

(9) The construction, transformation, and demolition of ships and boats, and their upkeep and repair by other workers than members of the crew.

(10) Overland transport.

(11) The work of loading, unloading, and handling of merchandise in ports, wharves, warehouses, and stations.

(12) Dairies and creameries.

(13) Offices of commercial enterprises.

In addition to the above industries and trades affected by this law, the following were afterwards, with some modifications, brought under its application: (1) Retail shops; (2) hotels, restaurants, and drinking places; and (3) workmen and employees, other than office employees, engaged in commercial enterprises.

For underground labor such as in mines, the time taken up in the descent of the worker to and ascent from his place of work is included in the 8 hours of labor per day. When the works are accessible by galleries, the time counted begins from the time the worker enters the gallery until the time of his return to the same point.

The law provides for certain modifications or variations of the 8-hour day or 48-hour week in stated cases. Thus, an amendment to the law allows the granting of the Saturday half holiday and this has been adopted in many industries. In such cases the law stipulates that the working limit of 48 hours per week still holds good but that the working hours per day may be extended from 8 to 9 hours on the other days in order to make up for the time lost on Saturday afternoon. An extension of the work week is allowed in unusual situations, as, for instance, in the tailoring trade. The tailors are allowed to work 54 hours a week during certain seasons, while during other periods they are allowed to work only 42 hours weekly. Again, in some circumstances, the working hours may be prolonged from 48 to 56 per week over a period of 3 weeks. This extension applies particularly to works which may not be interrupted owing to their nature, such as in those industries where continuous furnaces are employed. By royal decree this extension of hours may be permitted over a longer period than 3 weeks.

The limitations of the legal hours of labor may be suspended by the King (*a*) in case of war or national danger, or (*b*) in case of national necessity, to assure the exportation of means of exchange indispensable for the importation of articles of subsistence.

#### Night Work

The law also forbids in principle work between 8 p. m. and 6 a. m. This limitation, however, does not apply to the following professions, trades, and industries: (1) Hotel offices and places of entertainment; (2) journalists and newspapers; (3) information bureaus; (4) land transport; (5) loading, unloading, and handling of merchandise in ports, wharves, warehouses, and railway stations; (6) repair and upkeep of ships; (7) gas plants and water works; (8) the production,

transformation, and transmission of electricity and motive power; (9) enterprises where the materials worked are susceptible to rapid change or loss through too long an interruption in the work; (10) works of which the execution may not, owing to their nature, be interrupted or retarded; and (11) enterprises where the work is organized for successive gangs.

The legislation on working hours also provides that women and all workers under a certain age, in some cases 17 and in others 19 years of age for the male workers, are not to be employed at night work. Work done after 8 p. m. is generally considered as night work, but in some cases night work is only that undertaken after 10 p. m.

#### Overtime

The law also provides in certain circumstances for overtime. Among these may be cited: (1) Lighting of boiler fires, (2) starting of generators, (3) reassembly of tools and returning same to stores, (4) work undertaken owing to accidents which have occurred or may be imminent, (5) urgent works to be effected on plant or equipment owing to unforeseen circumstances. The hours of work of workmen occupied on such labor must not exceed by more than two hours per day those of workers on regular time.

#### Payment for Overtime and Holidays

OVERTIME is paid for as follows: (1) 25 per cent more than the ordinary rate for the first two hours of overtime, and (2) 50 per cent more than the regular rate thereafter.

Sunday work must be paid for at double the ordinary rates.

In all industries in which the workers are paid by the week or month, the legal holidays are counted as workdays, and are paid for as such, although no work is accomplished. Some of these industries also give a certain number of paid days of vacation per year; this system has not, however, been applied as yet to the branches of industry in which the workers are paid by the hour or by the piece.

There is also what might be termed the "compensatory holiday." Thus, the law provides for the granting of paid holidays to workmen working two hours overtime per day. These holidays may not be less than 26 days per year. For those working less than two hours overtime per day, a royal decree decides for what period paid holidays should be accorded.

#### Short-Time Work

SINCE the effects of the world-wide economic depression have spread over Europe, many of the larger industries in Belgium have been obliged to introduce short-time work. This has been done with a view to clearing stocks by decreasing production, and where surplus stocks do not exist production has been diminished, owing to the fact that the demand is insufficient to consume the output of normal times. Hours of labor of normal times have in some cases been reduced by half, and in others by two-thirds. This action has naturally had the effect of increasing the number of unemployed and especially the partially unemployed.

The slump in trade and industry has therefore had the effect of nullifying the practice of overtime which, in the period of trade boom, was not uncommon.

## Payments Supplementary to Wages

SOME industries make certain supplements to wages. Thus in the coal mines married workers receive 8 hundredweights of coal per month and widows of miners who have at least one bachelor son working in the mines are also entitled to the same payment in kind.

In some industries, as in brick making, houses are provided for certain members of the personnel, in the vicinity of the works, but these are rented by the workers, although the rents paid are naturally lower than those paid for workmen's cottages in other than the industrial districts.

The providing of land for gardens is uncommon in most industrial areas, as the workmen's cottages in these districts usually possess a small garden. In a few districts, however, where rough land is available, such an allotment of land is made, but the gift of such a garden may be said to be rare.

Workers in unhealthful conditions, receive a regular augmentation of wages which amounts to 50 per cent of the normal wages, for the time they have worked under unhealthful conditions. (The unhealthful conditions are determined by one of the legally instituted commissions.) In dangerous work, such as in the building industry, when a height of 20 meters is reached, the laborers receive a special indemnity which varies according to the height, between 25 and 50 per cent of the normal wages.

Some plants also pay a "production bonus," i. e., a bonus paid to the laborer in proportion to his efficiency, in the employer's discretion. Such bonuses are very frequent in some of the branches of industry.

## Deductions from Wages

*Wage tax.*—Workers' wages in Belgium are affected by a Government tax which is levied on all salaried classes. This tax is known as the "taxe professionnelle" and varies according to the number of inhabitants of the communes in which the workers are engaged. These communes are classified as follows: (1) Communes of 30,000 inhabitants and more; (2) communes of from 5,000 to 30,000 inhabitants; and (3) communes of less than 5,000 inhabitants.

Special rates are calculated for wages paid to workers by the week, fortnight, or by the month, and special deductions are made according to the number of the worker's dependents. For example, in a commune with from 5,000 to 30,000 inhabitants, if the average wage of workers in the various industries is taken as 337 Belgian francs, or \$9.37 per week,<sup>2</sup> the weekly wage-tax deduction would be as follows:

No dependents.....	5.25 francs (14.6 cents)
1 dependent.....	4.50 francs (12.5 cents)
2 dependents.....	4.00 francs (11.2 cents)
3 dependents.....	3.00 francs (8.3 cents)
4 dependents.....	1.50 francs (4.2 cents)
More than 4 dependents.....	No tax

The average wage tax paid by workers would therefore appear to be 3.65 Belgian francs or 10.1 cents per week.

*Social-insurance contributions.*—In addition to the "taxe professionnelle" there is another Government levy which affects the wage of the workers, in the form of an insurance against premature death and old age. The average amount paid by workers in Belgium for this insurance is 12.50 francs or 34.8 cents per month.

<sup>2</sup> Conversions into United States currency on basis of franc=2.78 cents.



The employer's contribution is fixed at the same amount, namely, 12.50 francs, or 34.8 cents per month, making a total payment of 25 francs, or 69.5 cents per month. This sum, for each worker, is paid into the retirement exchange (*Caisse de Retraite*), and thereby each worker is provided for upon reaching the age of 55, or his family, in the case of his premature death. The State also makes its contribution to this pension when it becomes applicable. Workers in the coal-mining industry do not pay for this old-age insurance, but 3 per cent is deducted from their salaries to provide for a pension which varies according to the number of years of service.

Unemployment insurance is not obligatory in Belgium and therefore can not be considered as a general levy affecting the wages of workers.

#### Vocational Education

THERE is at present an important movement toward making occupational education compulsory. A considerable number of well-equipped and very efficient vocational schools are operated in Belgium, and the training given in them to young laborers has proved very useful. It is generally held that the effect of this training on the efficiency of the workers has been most salutary.

#### Wages in the Antwerp District

TABLE 1 shows the wage rates in the various industries in the Antwerp district in August, 1931:

TABLE 1.—WAGE RATES IN THE ANTWERP DISTRICT IN AUGUST, 1931  
[Conversions into United States currency on basis of franc=2.78 cents]

Industry and occupation	Period	Average rate of wages	
		Belgian currency	United States currency
		<i>Francs</i>	
Metal industry:			
Firemen	Per week	322.00	\$8.95
Construction smiths	Per hour	7.00	.20
Smiths	do	7.50	.21
Lathe workers	do	7.00	.20
Toolmakers	do	8.50	.24
Polishers	do	7.50	.21
Fitters	do	7.00	.20
Food and drink industry:			
Bakers	Per week	300.00	8.34
Pastry bakers	do	310.00	8.62
Brewers	do	250.00	6.95
Brewers (factors)	do	325.00	9.04
Bean pickers	do	120.00	3.34
Warehouse hands	do	300.00	8.34
Packers	do	200.00	5.56
Bottle rinsers	do	125.00	3.48
Factory hands	do	320.00	8.90
Cigar makers	do	290.00	8.06
Cigarette makers	do	230.00	6.39
Cigarette packers	do	120.00	3.34
Building industry:			
Excavators	Per hour	5.75	.16
Bricklayers	do	6.75	.19
Bricklayers' helpers	do	5.75	.16
Marble workers	do	9.00	.25
Painters	do	7.00	.20
Electricians	do	7.00	.20
Plasterers	do	7.00	.20
Plasterers' helpers	do	5.75	.16
Floor layers	do	8.00	.22
Plumbers	do	6.75	.19

TABLE 1.—WAGE RATES IN THE ANTWERP DISTRICT IN AUGUST, 1931—Continued

Industry and occupation	Period	Average rate of wages	
		Belgian currency	United States currency
<b>Wood and furniture industry:</b>			
Machine hands	Per hour	7.00	\$0.19
Carpenters	do	6.85	.19
Automobile-body painters	do	8.50	.24
Wood polishers	do	6.95	.19
Cabinetmakers	do	7.00	.20
Joiners	do	7.00	.20
Upholsterers	do	6.50	.18
Varnishers	do	7.50	.21
Trunk and coffin makers	do	6.25	.17
Basket makers	do	6.15	.17
<b>Printing industry:</b>			
Typographers	Per week	299.20	8.32
Pressmen	do	293.20	8.15
Mat makers	do	317.20	8.82
Lithographers	do	350.00	9.73
Bookbinders	do	320.00	8.90
<b>Clothing industry:</b>			
Ladies' dressmakers	Per hour	7.50	.21
Tailors	do	5.60	.16
Ironers	Per week	120.00	3.34
<b>Miscellaneous:</b>			
Bag makers	Per day	24.00	.67
Paper-box makers	Per week	140.00	3.89
Letter painters	do	250.00	6.95
Chauffeurs (automobile)	do	450.00	12.51
Dentist's mechanics	do	450.00	12.51
<b>Stevedoring:<sup>1</sup></b>			
<b>Longshoremen—</b>			
<b>Week days—</b>			
Ordinary shift	Per day	56.00	1.56
Morning shift	do	61.00	1.70
Afternoon shift	do	66.00	1.83
Night shift	do	84.00	2.34
<b>Sundays—</b>			
Ordinary shift	do	100.00	2.78
Morning shift	do	106.75	2.97
Afternoon shift	do	115.50	3.21
<b>Corporation laborers—</b>			
<b>Week days—</b>			
Ordinary shift	do	50.00	1.39
Morning shift	do	55.00	1.53
Afternoon shift	do	60.00	1.67
Night shift	do	75.00	2.09
<b>Sundays—</b>			
Ordinary shift	do	87.50	2.43
Morning shift	do	96.25	2.68
Afternoon shift	do	105.00	2.92
Drivers, 1 horse	Per week	292.00	8.12
Drivers, 2 horses	do	297.00	8.26
Truck drivers	do	307.00	8.53
Watchers	Per day	31.00	.86
<b>Mining industry:</b>			
Vein workers	do	50.00	1.39
Conductors	do	41.00	1.14
Loaders	do	41.00	1.14
Surface workers	do	38.00	1.06
Laborers (surface)	do	31.00	.86
Washers	do	20.00	.56
<b>Heavy industry:</b>			
Smelting foremen	do	37.00	1.03
First smelters	do	34.00	.95
Fitters	do	31.00	.86
Bellows hands	do	31.00	.86
Drivers	do	30.00	.83
Tipplers	do	31.00	.86
<b>Mechanical construction industry:</b>			
Stampers	Per hour	5.40	.15
Cutters	do	6.10	.17
Borers	do	6.80	.19
Millers	do	6.70	.19
<b>Agriculture:</b>			
Gardeners	do	5.00	.14
Laborers <sup>2</sup>	Per month	650.00	18.07
Cow watchers <sup>2</sup>	do	400.00	11.12
Farm hands <sup>2</sup>	do	300.00	8.34

<sup>1</sup> Special supplements to these rates are paid for any overtime, and for all special work, such as loading and discharging of ores, grain, coal, and all other bulk cargoes. The chief tally clerk receives 26 per cent, the chief foreman 34.5 per cent, and the foreman 17.25 per cent above the longshoremen's rate.

<sup>2</sup> Rates include board value of and lodging.

## Wages Offered at Official Employment Exchange, Antwerp

The wages quoted in Table 2 are those offered at the Employment Exchange of Antwerp, during August, 1931.

TABLE 2.—WAGES OFFERED AT ANTWERP EMPLOYMENT EXCHANGE, AUGUST, 1931  
[Conversions into United States currency on basis of franc=2.78 cents]

Industry and occupation	Period	Wage rate			
		Minimum		Maximum	
		Belgian cur- rency	United States cur- rency	Belgian cur- rency	United States cur- rency
<b>Iron and steel industry:</b>		<i>Francs</i>		<i>Francs</i>	
Fitters.....	Per hour.....	8.50	\$0.24	9.60	\$0.27
Mechanics.....	do.....	8.70	.24	9.00	.25
Plate workers.....	do.....	9.00	.25	10.80	.30
Molders.....	Per week.....	330.00	9.17	336.00	9.34
Smiths.....	Per hour.....	7.90	.22	8.30	.23
Borers.....	Per week.....	290.00	8.06	290.00	8.06
Lathe hands.....	Per hour.....	7.45	.21	8.80	.25
Solderers.....	Per week.....	318.00	8.84	318.00	8.84
<b>Food and drink industry:</b>					
Bakers.....	do.....	250.00	6.95	375.00	10.43
Pastry bakers.....	do.....	300.00	8.34	307.00	8.53
Cigarette packers.....	do.....	150.00	4.17	156.00	4.34
Brewers' hands.....	do.....	235.00	6.53	240.00	6.67
Brewers (factors).....	do.....	300.00	8.34	325.00	9.04
Bean pickers.....	do.....	115.00	3.20	115.00	3.20
Warehouse hands.....	do.....	275.00	7.65	275.00	7.65
Chauffeurs.....	do.....	265.00	7.37	410.00	11.40
Cigar makers.....	do.....	250.00	6.95	300.00	8.34
Cigarette makers.....	do.....	180.00	5.00	200.00	5.56
Factory hands.....	Per hour.....	4.80	.13	6.50	.18
<b>Construction industry:</b>					
Pavers.....	do.....	5.75	.16	5.75	.16
Iron placers.....	do.....	7.00	.20	7.05	.20
Excavators.....	do.....	5.75	.16	6.35	.18
Plumbers.....	do.....	6.70	.19	7.15	.20
Bricklayers.....	do.....	6.70	.19	7.35	.20
Bricklayers' helpers.....	do.....	5.70	.16	6.00	.17
Plasterers.....	do.....	6.70	.19	7.15	.20
Plasterers' helpers.....	do.....	5.75	.16	5.90	.16
Painters.....	do.....	6.00	.17	7.25	.20
Floor layers.....	do.....	8.00	.22	8.00	.22
<b>Wood industry:</b>					
Machine hands.....	do.....	6.90	.19	7.00	.20
Joiners.....	do.....	6.70	.19	7.65	.21
Carpenters.....	do.....	6.75	.19	7.05	.20
Automobile-body painters.....	do.....	8.50	.24	10.50	.29
Varnishers.....	do.....	7.50	.21	7.50	.21
Upholsterers.....	do.....	6.35	.18	6.80	.19
Cabinetmakers.....	do.....	6.50	.18	7.00	.20
Trunk and coffin makers.....	do.....	6.25	.17	6.25	.17
Basket makers.....	do.....	6.15	.17	6.15	.17
<b>Cloth industry:</b>					
Bag makers.....	Per day.....	26.00	.72	29.00	.81
Dressmakers.....	Per week.....	310.00	8.62	425.00	11.82
Tailors.....	Per hour.....	5.50	.15	6.25	.17
<b>Printing industry:</b>					
Typographers.....	Per week.....	295.00	8.20	300.00	8.34
Pressmen.....	do.....	305.00	8.48	330.00	9.17

## Wages in the Brussels District

IN BELGIUM, the Ministry of Labor and the various other ministries concerned do not compile statistics giving details as to the wages paid in the various industries. However, after exhaustive inquiries in the various labor exchanges and private trade organizations, the following figures concerning the wages and details covering the various

laws in force concerning industry and labor have been collected, and these will give a general idea as to the existing standards in the Brussels district.

TABLE 3.—AVERAGE WAGE RATES IN VARIOUS INDUSTRIES IN THE BRUSSELS DISTRICT

[Conversions into United States currency on basis of franc=2.78 cents]

Industry and occupation	Period	Average wage rate	
		Belgian currency	United States currency
<b>Mining industry:<sup>1</sup></b>			
Seam workers ( <i>ouvriers de la veine</i> )	Per day	50.90	\$1.42
Loaders, drawers, brakemen, and conductors ( <i>chargeurs, traineurs, fraineurs, conducteurs</i> )	do.	41.00	1.14
Trained surface workers ( <i>ouvriers qualifiés de surface</i> )	do.	38.00	1.06
Surface laborers ( <i>manœuvres de surface</i> )	do.	31.00	.86
Female workers ( <i>ouvrières</i> )	do.	20.00	.56
<b>Quarry industry:</b>			
<b>Cobblestone—</b>			
Mine captains ( <i>chef mineurs</i> )	Per hour	8.00	.22
Miners ( <i>mineurs</i> )	do.	6.75	.19
Sifters ( <i>décarteleurs</i> )	do.	6.75	.19
Cutters ( <i>épineurs</i> )	do.	7.50	.21
<b>Limestone—</b>			
Miners ( <i>mineurs</i> )	do.	6.90	.19
Breakers ( <i>casseurs</i> ) <sup>2</sup>	do.	7.40	.21
Laborers ( <i>manœuvres</i> )	do.	5.50	.15
<b>Iron and steel industry:</b>			
<b>Blast furnaces—</b>			
Founding masters ( <i>brigadier fondeurs</i> )	Per day	37.00	1.03
First smelters ( <i>1<sup>er</sup> fondeurs</i> )	do.	33.50	.93
Second smelters ( <i>2<sup>me</sup> fondeurs</i> )	do.	31.00	.86
Third smelters ( <i>3<sup>me</sup> fondeurs</i> )	do.	30.00	.83
Fitters ( <i>appareilleurs</i> )	do.	31.00	.86
Ventilator motormen ( <i>wattman de ventilateur</i> )	do.	31.00	.86
Blast engine drivers ( <i>wattman de soufflantes</i> )	do.	31.00	.86
Grapnel drivers ( <i>wattman de grappin</i> )	do.	29.60	.82
Scourers or cleaners ( <i>ouvriers de dégraissage</i> )	do.	26.30	.73
Cabin men ( <i>wattman de cabine</i> )	do.	28.60	.80
Tipplers ( <i>basculeurs</i> )	do.	31.00	.86
<b>Steel works—</b>			
Still drivers ( <i>machinistes de cornues</i> )	Per hour	6.40	.18
Ladle men ( <i>ouvriers aux poches</i> )	do.	7.50	.21
Still workers ( <i>ouvriers aux cornues</i> )	do.	7.50	.21
Reservoir workers ( <i>ouvriers du bassin</i> )	do.	7.40	.21
Foundrymen ( <i>ouvriers fondeurs</i> )	do.	5.60	.16
Mixers ( <i>ouvriers aux mélanges</i> )	do.	5.60	.16
Pitz-oven fillers ( <i>enfourneurs fours Pitz</i> )	do.	7.50	.21
Stokers ( <i>chauffeurs</i> )	do.	8.30	.23
Laborers ( <i>manœuvres</i> )	do.	5.40	.15
<b>Rolling mills—</b>			
Foremen ( <i>contremâtres</i> )	Per month	1,850.00	51.43
Senior rollers ( <i>1<sup>er</sup> lamineurs</i> )	Per hour	8.50	.24
Junior rollers ( <i>2<sup>me</sup> lamineurs</i> )	do.	7.90	.22
Senior stokers ( <i>1<sup>er</sup> chauffeurs</i> )	do.	8.30	.23
Junior stokers ( <i>2<sup>me</sup> chauffeurs</i> )	do.	6.50	.18
Shearmen ( <i>cisailleurs</i> )	do.	6.30	.18
Scrapers ( <i>décapeurs</i> )	do.	6.30	.18
Bridgemen ( <i>pontoniers</i> )	do.	5.60	.16
Enginemen ( <i>machinistes</i> )	do.	6.20	.17
Laborers ( <i>manœuvres</i> )	do.	5.30	.15
<b>Metal industries:</b>			
<b>Mechanical construction—</b>			
<b>Machine tools for metal working—</b>			
Borers ( <i>alésieurs</i> )	do.	6.80	.19
Cutters ( <i>décolleurs</i> )	do.	6.10	.17
Stamping-machine workers ( <i>estampeurs</i> )	do.	5.40	.15
Drillers ( <i>foreurs</i> )	do.	5.40	.15
Metal lathe workers ( <i>fraiseurs</i> )	do.	6.70	.19
Lathe tool fitters ( <i>fraiseurs-outilleurs</i> )	do.	6.50	.19
Slotters ( <i>morlaiseurs</i> )	do.	6.70	.19

<sup>1</sup> Married miners receive 8 hundredweights of coal per month free, as do the widows of miners who have at least one bachelor son working in the mines. Rates given are subject to a deduction of 3 per cent to provide for pensions, which vary according to the number of years of service.

<sup>2</sup> These workers generally work by contract.

TABLE 3.—AVERAGE WAGE RATES IN VARIOUS INDUSTRIES IN THE BRUSSELS DISTRICT—Continued

Industry and occupation	Period	Average wage rate	
		Belgian currency	United States currency
Metal industries—Continued.			
Mechanical construction—Continued.			
Machine tools for metal working—Continued.			
Rectifiers ( <i>rectifieurs</i> )	Per hour	Fr. 6.15	\$0.17
Planers ( <i>raboteurs</i> )	do	6.70	.19
Tapping-machine workers ( <i>taraudeurs</i> )	do	5.50	.15
Turners ( <i>tourneurs</i> )	do	6.40	.18
Hand workers—			
Fitter mechanics ( <i>ajusteurs mécaniciens</i> )	do	6.20	.17
Fitters ( <i>ajusteurs-monteurs</i> )	do	6.20	.17
Fitter mechanics, automobile ( <i>ajusteurs-metteurs au point- autos</i> )	do	6.70	.19
Boiler firemen ( <i>chauffeurs de chaudière</i> )	do	5.40	.15
Firemen and engine drivers ( <i>chauffeurs and machinistes</i> )	do	5.80	.16
Wrought-iron workers ( <i>ferronniers d'art</i> )	do	6.40	.18
Mechanical blacksmiths ( <i>forgerons de mécanique</i> )	do	6.20	.17
Assistant blacksmiths ( <i>aides-forgerons</i> )	do	5.00	.14
Workshop laborers ( <i>manœuvres d'atelier</i> )	do	4.80	.13
Tool modelers ( <i>outilleurs-matriciers</i> )	do	6.80	.19
Iron blacksmiths ( <i>maréchaux ferrants brocheurs</i> )	do	6.80	.19
Motor-truck drivers ( <i>chauffeurs de camions et camionnettes</i> )	Per week	275.00	7.65
Enginemens ( <i>chauffeurs-mécaniciens</i> )	do	312.00	8.67
Smelting works—			
Chiselers ( <i>charbeurs-burineurs</i> )	Per hour	5.30	.15
Founders ( <i>fondeurs</i> )	do	6.00	.17
Laborers ( <i>manœuvres</i> )	do	4.50	.13
Grinders ( <i>meuleurs</i> )	do	5.40	.15
Iron molders ( <i>monleurs en fer</i> )	do	6.20	.17
Machine-tool molders ( <i>mouleurs au banc</i> )	do	6.20	.17
Core makers ( <i>noyadeurs</i> )	do	6.20	.17
Coach-building trade—			
Smiths ( <i>forgerons</i> )	do	6.70	.19
Platers ( <i>platiniers</i> )	do	6.60	.18
Shaping-machine workers ( <i>limeurs</i> )	do	5.00	.14
Sheet-iron makers ( <i>tôliers</i> )	do	7.00	.20
Boilers, bridges, and framework industry—			
Framework fitters ( <i>ajusteurs en charpentes</i> )	do	5.50	.15
Insulators ( <i>calorifugeurs</i> )	do	5.30	.15
Iron and copper boilermakers ( <i>chaudronniers fer et cuivre</i> )	do	6.00	.17
Punchers and sawyers ( <i>découpeurs-scieurs</i> )	do	5.00	.14
Stampers ( <i>estampeurs</i> )	do	5.00	.14
Ironworkers ( <i>ferronniers</i> )	do	5.60	.17
Shaping-machine workers ( <i>limeurs</i> )	do	5.00	.14
Workshop laborers ( <i>manœuvres d'atelier</i> )	do	4.30	.12
Framework erectors ( <i>monteurs en charpentes</i> )	do	5.60	.16
Riveters ( <i>riveurs</i> )	do	5.50	.15
Autogeneous solderers and brazers ( <i>soudeurs autogène et brasseurs</i> )	do	6.80	.19
Industrial sheet-iron workers ( <i>tôliers industriels</i> )	do	5.90	.16
Wire drawers ( <i>tréfileurs</i> )	do	5.90	.16
Trellis workers ( <i>treillageurs</i> )	do	5.10	.14
Pipe fitters ( <i>tuyauteurs</i> )	do	5.70	.16
Enamel and tin-plate works—			
Punching-machine workers ( <i>découpeurs</i> )	do	5.10	.14
Enamellers ( <i>émailleurs</i> )	do	5.40	.15
Stamping-machine workers ( <i>estampeurs</i> )	do	5.10	.14
Tin-plate workers, lantern and headlight workers ( <i>ferblantiers, pharistes</i> )	do	5.90	.16
Meter makers ( <i>ferblantiers en compteur</i> )	do	5.90	.16
Industrial tin-plate workers ( <i>ferblantiers industriels</i> )	do	5.90	.16
Laborers ( <i>manœuvres</i> )	do	4.30	.12
Enamel workers, female ( <i>ourières d'émailleries</i> )	do	3.00	.08
Pressers ( <i>presseurs</i> )	do	5.10	.14
Makers of automobile radiators ( <i>radiateurs d'autos, fabricants de</i> )	do	5.90	.16
Tin-box industry—			
Punching-machine workers ( <i>découpeurs</i> )	do	5.10	.14
Stampers, female ( <i>emboutisseuses</i> )	do	3.25	.09
Setters, female, ( <i>sertisseuses</i> )	do	3.25	.09
Solderers, female ( <i>soudeuses</i> )	do	3.25	.09
Stove, blacksmith, plumbing, and electrical industry—			
Safe makers ( <i>coffres-forts</i> )	do	5.90	.16
Stove makers ( <i>poêliers</i> )	do	5.25	.15
Brass founders and finishers ( <i>robinettiers</i> )	do	5.25	.15
Metal-work fitters ( <i>serruriers ajusteurs</i> )	do	5.90	.16
Fitters of heating apparatus ( <i>monteurs en chauffage</i> )	do	6.20	.17
Assistant fitters ( <i>aides-monteurs</i> )	do	4.50	.13
Coil winders, electricians ( <i>bobineurs electriciens</i> )	do	6.50	.18



TABLE 3.—AVERAGE WAGE RATES IN VARIOUS INDUSTRIES IN THE BRUSSELS DISTRICT—Continued

Industry and occupation	Period	Average wage rate	
		Belgian currency	United States currency
<b>Metal industries—Continued.</b>			
Stove, blacksmith, plumbing, and electrical industry—Continued.			
Coil winders and other female workers ( <i>bobineuses et autres ouvrières</i> )	Per hour...	Francs 3.25	\$0.09
Mechanics and electricians ( <i>mécaniciens électriciens</i> )	do	6.50	.18
Electrical fitters ( <i>monteurs électriciens</i> )	do	6.50	.18
Workman fitters ( <i>monteurs électriciens—demi ouvriers</i> )	do	5.25	.15
Assistant electrical fitters ( <i>monteurs électriciens, aides</i> )	do	3.60	.10
Electrical fitter apprentices ( <i>monteurs électriciens, apprentis</i> )	do	2.10	.06
<b>Bronze industry—</b>			
Bath boiler fitters ( <i>appareilleurs de chauffe-bains</i> )	do	3 7.00	.20
Bronze chisellers ( <i>ciseleurs de bronze</i> )	do	3 7.00	.20
Metal decorators ( <i>décorateurs de métaux</i> )	do	3 7.00	.20
Copper smelters ( <i>fondeurs de cuivre</i> )	do	3 7.00	.20
Bronze fitters ( <i>monteurs de bronze</i> )	do	3 7.00	.20
Copper molders ( <i>mouleurs de cuivre</i> )	do	3 7.00	.20
Polishers ( <i>polisseurs</i> )	do	3 7.00	.20
Turners ( <i>tourneurs</i> )	do	3 7.00	.20
Turners of taps, pipes, and fittings ( <i>tourneurs en robinetterie</i> )	do	3 7.00	.20
Copper smelting works laborers ( <i>manœuvres de fonderies de cuivre</i> )	do	3 4.60	.13
Fettlers and chisellers ( <i>ébarbeurs-burineurs</i> )	do	3 4.60	.13
Copper shaping-machine workers ( <i>limeurs de cuivre</i> )	do	3 4.60	.13
<b>Wood and furniture industry:</b>			
Framework assemblers ( <i>assembleurs de cadres</i> )	do	6.60	.18
Coach builders and body makers ( <i>carrossiers-caissiers qualifiés</i> )	do	6.60	.18
Chair makers ( <i>chaisiers</i> )	do	6.60	.18
Wheelwrights ( <i>charrons</i> )	do	6.60	.18
Bevellers ( <i>biseauteurs</i> )	do	6.60	.18
Wood gilders ( <i>doreurs sur bois</i> )	do	6.60	.18
Ornament workers and dressers ( <i>ornemanistes-apprêteurs</i> )	do	6.60	.18
Cabinetmakers ( <i>ébénistes</i> )	do	6.60	.18
Mattress makers ( <i>matelassiers</i> )	do	6.50	.18
Joiners and cabinetmakers ( <i>menuisiers-ébénistes</i> )	do	6.60	.18
Mirror makers ( <i>mirroliers</i> )	do	6.60	.18
Floor joiners and scrapers ( <i>parqueteurs et récleurs de parquets</i> )	do	6.60	.18
Trimmers ( <i>passementiers</i> )	do	7.00	.20
Coach painters, varnishers, and glazers ( <i>peintres d'équipages laqueurs, glazeurs</i> )	do	6.50	.18
Furniture polishers ( <i>polisseurs de meubles</i> )	do	6.60	.18
Sawyers, cutters ( <i>scieurs-découpeurs</i> )	do	6.75	.19
Sawyers, planers ( <i>scieurs-raboteurs</i> )	do	6.30	.18
Sawyers, circular saws ( <i>scieurs-scie circulaire</i> )	do	6.30	.18
Sawyers, bandsaws ( <i>scieurs au ruban</i> )	do	6.30	.18
Wood carvers ( <i>sculpteurs sur bois</i> )	do	7.20	.20
Upholsterers and stickers ( <i>tapissieurs-colleurs</i> )	do	6.60	.18
Upholsterers, female ( <i>tapissières</i> )	do	4.40	.12
Coopers ( <i>tonneliers</i> )	do	6.50	.18
Spinners ( <i>toupilleurs</i> )	do	7.35	.20
Wood turners ( <i>tourneurs sur bois</i> )	do	6.70	.19
Slotters ( <i>mortaiseurs</i> )	do	6.30	.18
Surface-planing machine workers ( <i>dégauchisseurs</i> )	do	6.70	.19
Pattern makers ( <i>modeleurs</i> )	do	8.00	.22
Furniture stuffers ( <i>garnisseurs de meubles</i> )	do	6.60	.18
Coach packers and stuffers ( <i>garnisseurs en équipage</i> )	do	6.60	.18
Armchair stuffers ( <i>garnisseurs de fauteuils "club"</i> )	do	6.60	.18
Apprentices and beginners ( <i>apprentis débutants</i> )	do	1.40	.04
<b>Glass industry:</b>			
Window-glass makers ( <i>ouvriers de grand' place</i> )	Per day...	54.00	1.50
Stemmed-glass workers ( <i>ouvriers de verre à pied</i> )	do	50.00	1.39
Tumbler-glass workers ( <i>ouvriers bogetier</i> )	do	49.00	1.36
Cutters ( <i>tailleurs</i> )	do	43.00	1.20
Bench workers ( <i>ferrassiers</i> )	do	40.00	1.11
Smelters ( <i>fondeurs</i> )	do	40.00	1.11
Smiths ( <i>forgerons</i> )	do	40.00	1.11
Box makers ( <i>caissiers</i> )	do	40.00	1.11
Packers ( <i>emballeurs</i> )	do	43.00	1.20
Laborers ( <i>manœuvres</i> )	do	34.00	.95
Girl workers ( <i>gamines</i> )	do	18.00	.50
Woman workers ( <i>ouvrières</i> )	do	22.00	.61
<b>Rubber industry:</b>			
Ordinary laborers ( <i>manœuvres ordinaires</i> )	Per hour...	4.70	.13
Specialized workmen ( <i>manœuvres spécialisés</i> )	do	6.00	.17
Woman pieceworkers ( <i>ouvrières à la production</i> )	do	3.30	.09

<sup>3</sup> Plus 3 per cent on the total salary of the month, payable on the last Saturday of each month.

TABLE 3.—AVERAGE WAGE RATES IN VARIOUS INDUSTRIES IN THE BRUSSELS DISTRICT—Continued

Industry and occupation	Period	Average wage rate	
		Belgian currency	United States currency
<b>Agriculture:</b>			
Gardeners ( <i>jardiniers</i> )	Per hour	Frans 5.00	\$0.14
Agricultural workers, fed and housed ( <i>ouvriers agricoles, nourris et logés</i> )	Per month	600.00	16.68
Cowmen, fed and housed ( <i>vachers, nourris et logés</i> )	do	400.00	11.12
Farm-boys, fed and housed ( <i>garçons de ferme, nourris et logés</i> )	do	350.00	9.73
Beet hoers ( <i>sarclieurs de betteraves</i> )	Per hectare <sup>4</sup>	500.00	13.90
Beet pullers ( <i>arracheuses de betteraves</i> )	do	550.00	15.29
<b>Lingerie manufacture:</b>			
Hand embroiderers, female ( <i>brodeuses à la main</i> )	Per day	3.50	.97
Machine embroiderers, female ( <i>brodeuses à la machine</i> )	do	3.50	.97
Lingerie machine workers, female ( <i>lingères à la machine</i> )	Per hour	3.10	.09
Hand lingerie workers, female ( <i>lingères à la main</i> )	do	3.50	.97
Machine-drawn threadwork makers, female ( <i>point-claireuses à machine</i> )	do	3.50	.97
Hand-drawn threadwork makers, female ( <i>point-claireuses à la main</i> )	do	3.00	.08
<b>Leather manufacture:</b>			
Makers of leather articles for traveling ( <i>maroquiniers articles, de voyage</i> )	do	6.50	.18
Stitchers, female ( <i>piqueuses-marouinière</i> )	do	4.70	.13
Stickers, female ( <i>colleuses-marouinière</i> )	do	3.70	.10
Glove makers, female ( <i>gantières</i> )	do	4.25	.12
Finishers and polishers, female ( <i>déformeuses-ponceuses</i> )	do	4.50	.13
Lathe tool fitters ( <i>fraiseurs</i> )	do	6.50	.18
Machine sewers ( <i>couseurs à la machine</i> )	do	6.70	.19
Stitchers and sewers, female ( <i>piqueuses-couseuses</i> )	do	3.60	.10
Rollers, female ( <i>meuleuses</i> )	do	4.70	.13
Machine skin trimmers, female ( <i>ébarbeuses de peau, à la machine</i> )	do	3.50	.10
Glove cutters ( <i>coupeurs-gantiers</i> )	Per week	450.00	12.51
Skin bristlers, female ( <i>éjarreuses de peau</i> )	do	220.00	6.12

<sup>4</sup> Hectare=2,471 acres.<sup>5</sup> Or 1.50 to 15.00 francs (4.2 to 41.7 cents) per meter (39.37 inches).

### Wages in Textile Industries in the Ghent District

THE principal industry of the Ghent district is that of textile production. The Ghent district comprises the two Provinces of East and West Flanders, and in this territory are situated practically all of the textile plants and also a great part of the flax fields, especially those fields producing the more desirable classes of the fiber. All branches of the industry are carried on, from flax cultivation to the making of the finest finished linen products. Also, there are important cotton and jute spinning and weaving establishments. There is, however, relatively little manufacturing of wool or of silk products, except where these last two materials are used in mixture with linen and cotton.

Normally, Belgian textile exports form an important factor in the world market, and the wages paid in East and West Flanders are of importance in determining the world prices for these commodities, while, on the other hand, wages in Flanders are influenced in a downward direction by competition of other exporting countries and upwards by the cost of living in the localities where the industries are carried on.

In view of the present situation, and the difficult position that the industry finds itself in, owing to depressed markets and surplus plants, it is logical that only minimum wages are paid in each category, and the agreed minimums become the standard, if, in some instances, even the minimum is not cut.

There is a probability that individual plants are able to depart from the terms of the wage agreements set out below, but safe to assume that where this is done it is at the expense of the worker.

There is in force a very elaborate classification of workers in the textile industry, the wages being based on the age and experience of the worker, the specific task, the class or number of looms or other device operated, the kind of thread handled, and other technical considerations that can be apparent only to those skilled in the industry.

The agreement fixes a basic wage established on the basis of the cost of living being 380 per cent higher than it would be were the purchasing power of the Belgian franc at its pre-war rate. It assumes that 3.80 francs are necessary to purchase one franc's worth of necessities (pre-war, or normal costs), thus this standard applies without alteration when the index of the cost of living is 380. With each increase of 20 points in the index of living costs, the wages are increased by 5 per cent. Thus, at the present time, the index figure for West Flanders is 792, so the cost of living has risen 412 points over the arbitrary standard, resulting in 20.6 increases of 5 per cent in the wage, or practically doubling it.

Thus, in the tables that follow, the basic hourly wages have been increased by 5 per cent of the base for every 20-point increase in the index of the cost of living.

Table 4 shows the basic wages in the various categories of the flax and tow spinning and the weaving industries. The 48-hour week is generally in force, but many establishments are operating only half time.

TABLE 4.—BASIC HOURLY WAGES IN THE FLAX AND TOW SPINNING AND WEAVING INDUSTRIES IN THE GHENT DISTRICT, SEPTEMBER, 1931

*Flax and tow spinning*

[Conversions into United States currency on basis of franc=2.78 cents]

Occupation	Basic hourly rate	Actual hourly wages (including increase for rise in cost of living)	
		Belgian currency	United States currency
	<i>Francs</i>	<i>Francs</i>	<i>Cents</i>
Hacklers, experienced ( <i>hekelaars, oud personeel</i> )	2.05	4.16	11.6
Hacklers, beginners ( <i>hekelaars, leerlingen</i> )	1.40	2.84	7.9
Hacklers, after 1 month ( <i>hekelaars, na 1 maand</i> )	1.56	3.17	8.8
Hacklers, after 3 months ( <i>hekelaars, na 3 maanden</i> )	1.73	3.51	9.8
Hacklers, after 6 months ( <i>hekelaars, na 6 maanden</i> )	1.90	3.86	10.7
Handlers, experienced ( <i>opleggers, oud personeel</i> )	1.81	3.67	10.2
Handlers, beginners ( <i>opleggers, leerlingen</i> )	1.40	2.84	7.9
Handlers, after 1 month ( <i>opleggers, na 1 maand</i> )	1.46	2.96	8.2
Handlers, after 3 months ( <i>opleggers, na 3 maanden</i> )	1.55	3.15	8.8
Handlers, after 6 months ( <i>opleggers, na 6 maanden</i> )	1.62	3.29	9.1
Flax toppers, experienced ( <i>vlstoppers, oud personeel</i> )	1.62	3.29	9.1
Flax toppers, beginners ( <i>vlstoppers, leerlingen</i> )	1.23	2.50	7.0
Flax toppers, 17 years of age ( <i>vlstoppers, 17 jaar</i> )	1.32	2.68	7.5
Flax toppers, 18 years of age ( <i>vlstoppers, 18 jaar</i> )	1.46	2.96	8.2
Flax withdrawers from troughs ( <i>bakuithalers</i> )	1.00	2.03	5.6
Separators ( <i>vlasseiders</i> )	1.00	2.03	5.6
Carriers ( <i>vlstragers</i> )	1.00	2.03	5.6
Lockmakers, beginners ( <i>slotmakers, beginnelingen</i> )	.85	1.73	4.8
Lockmakers, after 2 months ( <i>slotmakers, 2 volgende maanden</i> )	.93	1.89	5.3
Laborers ( <i>arbeiders</i> )	1.72	3.49	9.7
	1.77	3.59	10.0
	1.81	3.67	10.2
	1.86	3.78	10.5
Control oilers ( <i>commandesmeeders</i> )	1.86	3.78	10.5

TABLE 4.—BASIC HOURLY WAGES IN THE FLAX AND TOW SPINNING AND WEAVING INDUSTRIES IN THE GHENT DISTRICT, SEPTEMBER, 1931—Continued

## Flax and tow spinning—Continued

Occupation	Basic hourly rate	Actual hourly wages (including increase for rise in cost of living)	
		Belgian currency	United States currency
	Francs	Francs	Cents
Spinners, 1 loom ( <i>spinsters, 1 molen</i> )	1.50	3.05	8.5
Spinners, 2 looms ( <i>spinsters, 2 molens</i> )	1.73	3.51	9.8
Reserve spinners, 1 and 2 looms ( <i>reservepinsters, 1 en 2 molens</i> )	1.38	2.80	7.8
Thread makers, large ( <i>garenmaaksters groote</i> )	1.26	2.56	7.1
Thread makers, small ( <i>garenmaaksters kleine</i> )	1.17	2.38	6.6
Pullers ( <i>afsteksters</i> )	1.10	2.23	6.2
Pullers, beginners ( <i>afsteksters beginnelingen</i> )	.85	1.73	4.8
Pullers, after 1 month ( <i>afsteksters, na 1 maand</i> )	.93	1.89	5.3
Pullers, after 2 months ( <i>afsteksters, na 2 maanden</i> )	1.00	2.03	5.6
Coal carriers ( <i>kolenvoerders</i> )	1.81	3.67	10.2
Thread dryers ( <i>garendroogsters</i> )	2.05	4.16	11.6
Bale makers ( <i>pressers inpakkers</i> )	2.20	4.47	12.4
Packers ( <i>pakmakers</i> )	1.30	2.64	7.3
Carders ( <i>kamers</i> )	1.45	2.94	8.2
Carders, on 1 card ( <i>kamers op 1 kaarde</i> )	.75	1.52	4.2
Trough-girl, beginners ( <i>bakmeisjes leerlingen</i> )	.84	1.71	4.8
Trough-girl, after 3 months ( <i>bakmeisjes, na 3 maanden</i> )	.93	1.89	5.3
Trough-girl, after 6 months ( <i>bakmeisjes, na 6 maanden</i> )	1.02	2.07	5.8
Trough-girl, after 1 year ( <i>bakmeisjes, na 1 jaar</i> )	.75	1.52	4.2
Counters, beginners ( <i>toertelsters beginnelingen</i> )	.84	1.71	4.8
Counters, after 3 months ( <i>toertelsters, na 3 maanden</i> )	1.32	2.68	7.5
Sweepers ( <i>vaagsters spinnerij</i> )	1.14	2.31	6.4
Sweepers, preparation ( <i>vaagsters, preparatie</i> )			

## Weaving

Spoolers ( <i>spoelsters</i> )	1.37	2.78	7.7
Beam preparers ( <i>boomsters</i> )	1.40	2.84	7.9
Warp preparers ( <i>warpssters</i> )	1.47	2.98	8.3
Sizers ( <i>sijssers</i> )	2.20	4.47	12.4
Repairers ( <i>stopsters</i> )	1.42	2.88	8.0
Workers (operators) ( <i>arbeiders</i> )	1.72	3.49	9.7
Beam operators ( <i>boomers</i> )	1.72	3.49	9.7
Harness makers ( <i>kamslaners</i> )	2.12	4.30	12.0
Reed makers ( <i>reilmakers</i> )	2.22	4.51	12.5
Examiners ( <i>overtrekkers</i> )	2.22	4.51	12.5
Assistant examiners ( <i>trekkers</i> )	2.11	4.28	11.9
Packers ( <i>emballeurs</i> )	1.95	3.96	11.0
Hydraulic packers ( <i>emballeurs</i> )	2.04	4.14	11.5
Oilers ( <i>smeeders</i> )	1.72	3.49	9.7
Dressers ( <i>laineurs</i> )	2.03	4.12	11.5
Warp croppers ( <i>scheeders-ketting</i> )	1.83	3.71	10.3
Piece croppers ( <i>scheeders-stukken</i> )	1.95	3.96	11.0
Loom cleaners ( <i>getouwkuischers</i> )	1.82	3.69	10.3
Yarn preparers ( <i>garenmakers</i> )	1.89	3.84	10.7
Calendar operators ( <i>kalandreurs</i> )	2.03	4.12	11.5
Cylinder operators ( <i>cylindreurs</i> )	2.03	4.12	11.5
Cylinder operators' helpers ( <i>cylindreurs-helpers</i> )	1.85	3.76	10.5
Folders ( <i>plooters</i> )	1.95	3.96	11.0
Sizers ( <i>appteurs</i> )	2.03	4.12	11.5
Sizers' helpers ( <i>appteurs-helpers</i> )	1.85	3.76	10.5
Dyers ( <i>verwers</i> )	2.03	4.12	11.5
Supplementary sizers ( <i>bijstijssers</i> )	1.91	3.88	10.8
Coverers ( <i>optrekkers</i> )	1.72	3.49	9.7
Foremen ( <i>meestergasten</i> )		1 280.46	Dollars 1 7.80
Mechanics ( <i>monteurs</i> )		1 270.31	1 7.52
First harness man ( <i>eerste dooralter</i> )		1 250.01	1 6.95

1 Per week.

## Cotton Industry

There are approximately 200 different categories of labor in the cotton-spinning industry alone. The basic wages in this industry, which, like those in the linen industry, are subject to an increase of 5 per cent with every 20 points of rise in the cost-of-living index over the figure of 380, range from 2.31 francs (6.4 cents) per hour, for machinists, to 2.36 francs (6.6 cents) per hour, and the actual wages from 4.69 to 4.79 francs (13.0 to 13.3 cents).

For boiler firemen, the range of basic wages is from 1.80 to 2.35 francs per hour. Actual wages range from 3.65 to 4.77 francs (10.1 to 13.3 cents).

For carpenters, fitters, blacksmiths, and other mechanics the basic wage ranges from 2.57 to 2.87 francs per hour, and the actual wages from 5.21 to 5.83 francs (14.5 to 16.2 cents).

Carders receive basic wages ranging from 0.92 franc per hour to 2.25 francs, and actual wages ranging from 1.87 to 4.57 francs (5.3 to 12.7 cents).

For the work done by girls attending machines the basic wages run from 0.91 franc in the case of beginners to 1.57 francs for the ordinary workers, and the actual wages from 1.84 to 3.19 francs (5.1 to 8.9 cents) per hour.

## Flax Culture

Actual wages in the flax-cultivating industries in the regions of Comines, Wervicq, and Menin are 4 francs (11.1 cents) per hour. At Waereghem, on the Lys River, wages are actually 2.75 francs (7.6 cents) per hour for corresponding work. The workers at Deynze and at Waereghem belong to a syndicate to which they pay 4 francs (11.1 cents) per week for an unemployment fund. When they are unemployed they receive 132 francs (\$3.67) per week, which in the case of Waereghem, actually amounts to the wages they would receive for 48 hours at the prevailing rate of 2.75 francs (7.6 cents) per hour. It is stated by certain employers that this situation has brought about some voluntary unemployment.

As an example of how the basic wage works out in conjunction with the percentage increase in the index number of the cost of living, the following actual wages now prevailing in the linen industry are given:

TABLE 5.—ACTUAL HOURLY WAGES IN THE LINEN INDUSTRY IN THE GHENT DISTRICT

[Conversions into United States currency on basis of franc=2.78 cents]

Occupation	Actual wage per hour	
	Belgian currency	United States currency
	Francs	Cents
Weavers ( <i>lisserands</i> ).....	5.20	14.5
Bobbin winders ( <i>spoelsters</i> ).....	3.60	10.0
Doffers ( <i>bobijnsters</i> ).....	3.80	10.6
Cutters ( <i>scheersters</i> ).....	5.30	14.7
Starchers ( <i>pappers</i> ).....	5.50	15.3
Dyers ( <i>verwers</i> ).....	4.50	12.5
Laborers ( <i>koermannen</i> ).....	4.00	11.1
Sewers ( <i>naaisters</i> ).....	3.50	9.7



## Bonuses on Wages

The bonuses for female workers who lose no time through absence in an entire week are as follows: 6 francs (16.7 cents) for spinners and 4.50 francs (12.5 cents) for thread makers (*garenmaaksters*), 3 francs (8.3 cents) for pullers (*aftreksters*).

One hour's loss of time per week disqualifies a worker for 50 per cent of the bonus and two hours' loss of time disqualifies altogether.

Holidays, mechanical breakdowns, etc., up to two days do not affect payment of bonus. Authorized leave or certified illness is deducted pro rata from the bonus.

Hacklers (*hekelaars*) under 16 years of age are paid the basic rate only. From 16 to 17 years they receive 10 centimes (0.3 cent) over the basic rate per hour, and from 17 to 18 years of age an additional 10 centimes per hour is paid, making 20 centimes over the basic rate.

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### General Survey of Wages in France, 1930 and 1931<sup>1</sup>

WAGE rates in the manufacturing, coal and metal mining, oil production, agriculture and lumber industries in France given in the following tables are based on reports of official agencies and trade associations. The wages relate in general to 1930 or 1931 and cover industries the products of which enter into international commerce.

In cases where one of these industries is definitely concentrated in one or two sections of France, even though it may be carried on to some extent in other portions of the country, the average wage statistics refer only to the dominantly important area or areas of concentration. In other instances, where a particular industry is spread in a general way over a large part of the country, the figures refer to all of France, though in such cases where wage differences seem to warrant it, separate wage figures are given for the "Paris region," a term applying to the important manufacturing area including and reaching out from the city of Paris and its suburbs.

#### Hours of Labor

IN ALL of the industries represented, except agriculture, the hours of labor are limited by legislation. The French Labor Code provides (Vol. II, Book I, Ch. II, art. 6) that "in industrial or commercial concerns, or in their dependencies, of whatever nature, public or private, lay or religious, even if they possess the character of professional instruction or charity, the duration of work of the laborers or employees of either sex or of any age, may not exceed 8 hours per day, or 48 hours per week, or an equivalent limitation based on a period of time other than the week."<sup>2</sup> Variations of the 8-hour day which are suggested in the law, as well as exceptional or emergency digressions from it, are arranged by the public authorities, according to a balancing of the interests of employers and laborers.

<sup>1</sup> This report was prepared by the American Consular Service in France under the direction of L. J. Keena, American Consul General. Consular officers participating in the preparation of the report were: Archibald E. Gray, Bordeaux; Frank Cussans, Bordeaux; James G. Carter, Calais; Harold Playter, Lille; Hugh H. Watson, Lyon; James P. Moffitt, Marseille; Richard W. Morin, Paris; John G. Wood, Strassburg.

<sup>2</sup> Law of Apr. 23, 1919.

Unless special mention is made to the contrary in the statements of wage rates for the various industries indicated, it may be assumed that the 48-hour week is in effect, either through a week of six days of 8 hours each, or five days at 9 hours and 3 hours on Saturday, or some other variation.

The 8-hour day is not obligatory for agricultural workers and the number of working hours depends entirely upon the agreement between the employer and the worker. Most farm laborers work from sunrise to sunset, depending on the work to be done and the season; those who are employed by the day generally work 8 hours.

### Child Labor

ACCORDING to the French labor code "children may not be employed nor admitted into factories, manufactures, mines, quarries, works, or workshops of any kind, nor in their dependencies, whether they are public or private, lay or religious, even when these establishments possess a professional or charitable character, before the age of 13 years." There are certain exceptions to this regulation but they are not important for the purpose of this study.

### Free Housing and Transportation

IT CAN NOT be said that free housing for laborers has become the general custom in France. There are, however, many industrial establishments, especially in the mining industry, which have constructed lodgings to be used by their employees without charge, or for a nominal charge. Diversity of practice and lack of published information makes it impossible to give reliable estimates of the extent to which such advantages add to the cash value of wages.

In the smaller industrial centers and especially in the mining and textile industries, free transportation is provided to and from work.

### Family Allowances

THE custom of supplementing wages with special allotments or allowances to laborers according to the size of their families grew up during the war. Beginning with a few industries, it has gradually spread into nearly all fields of industrial endeavor. From its inception the system, consisting of contributions solely from employers to funds for distribution to laborers in a particular industry or group of industries, has been entirely voluntary and optional.<sup>3</sup> The single exception to this is that employers engaged in public works are required by a law enacted in 1922 to contribute to a fund for distribution according to the size of laborers' families, based on minimum rates fixed by each Department in France.

A central organization called the Comité Central des Allocations Familiales, with officers in Paris, heads the system. A large proportion of the organizations administering the funds for particular industries or groups of industries are members of this central committee. In 1930, the total personnel of the industries adhering to the central committee consisted of 1,880,800 workers. The mining industry, the railways and a few smaller industries are not affiliated

<sup>3</sup> A bill is now pending which would make compulsory contributions by all employers to family allowance funds.

with the central committee but distribute the family allotments among their workers through their own organizations.

It is estimated that at present there are between four and four and a half million persons in France benefiting, in addition to their wages, from family allowances, totaling 1,700,000,000 francs (\$66,640,000) <sup>4</sup> annually. This includes beneficiaries of the member organizations of the central committee, independent organizations, and public work organizations.

In addition to cash allowances, these organizations allot certain benefits in kind, such as sending children to healthful localities, supplying visiting nurses, making loans for household goods, free laundry, gifts of linen, subsidies to companies constructing cheap houses, milk allowances for children, birth bonuses, etc. The annual disbursements made for these purposes from organizations affiliated with the central committee total about 10,000,000 francs (\$392,000).

As an illustration, the following brief statement of operations is given for one of the important organizations in the Paris region affiliated with the central committee. This Paris organization is made up of employers in the metallurgy, electrical and associated lines and includes 2,165 establishments employing 402,000 workers. Allowances were paid to 102,000 families and 167,000 children in 1930, the total allotments amounting to 75,150,000 francs (\$2,945,880).

The cash value of the allotments by organizations in several French industrial centers is shown in the following table. Where the particular organization is devoted to a special industry instead of to a group of several industries, it is indicated parenthetically.

TABLE 1.—MONTHLY RATES PAID AS FAMILY ALLOWANCES IN FRANCE IN SPECIFIED LOCALITIES AND INDUSTRIES

Locality and industry	Number of children in family					
	1	2	3	4	5	6
	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>	<i>Francs</i>
Bordeaux.....	20.00	50.00	90.00	130.00	170.00	210.00
Calais.....	20.00	50.00	90.00	140.00	200.00	260.00
Clermont Ferrand.....	20.00	50.00	90.00	140.00	200.00	260.00
Grenoble (gloves).....	15.00	45.00	90.00	150.00	225.00	300.00
Le Havre.....	30.00	70.00	120.00	180.00	250.00	330.00
Lille (textile).....	30.00	100.00	180.00	280.00	400.00	540.00
Lille (metallurgy).....		45.00	85.00	120.00	180.00	250.00
Lyon.....	20.00	60.00	105.00	180.00	250.00	330.00
Lyon (weaving).....	20.00	45.00	70.00	120.00	175.00	240.00
Marseille.....	25.00	60.00	120.00	210.00	300.00	390.00
Nantes.....	17.50	40.00	67.50	105.00	122.50	150.00
Orleans.....	20.00	50.00	90.00	140.00	200.00	260.00
Paris.....	30.00	70.00	120.00	200.00	280.00	360.00
Rennes.....	12.50	27.50	50.00	90.00	140.00	200.00
Rouen (textile).....	40.00	95.00	160.00	235.00	320.00	415.00
Rouen (clothing).....	15.00	45.00	80.00	120.00	165.00	215.00
Saint Etienne (metallurgy).....	20.00	50.00	100.00	200.00	300.00	400.00
Strassburg.....	50.00	100.00	150.00	200.00	250.00	300.00
Troyes.....	40.00	100.00	220.00	340.00	460.00	580.00

Thus in considering the following wage tables it must be recalled that where the individual worker has a family his income will be substantially greater in almost every case than the mere statement of his wage rate would indicate.

<sup>4</sup> Conversions into United States currency on basis of franc=3.92 cents.

## Wage Taxes and Income Tax

THE salary tax (*impôt sur les traitements*) is payable by all persons domiciled in France on January 1, on their total salaries, pensions, annuities, or other remuneration earned or received during the preceding year, either in France or abroad. The tax is essentially a personal tax, each member of a family being assessable separately on his own income.

The following are among the most important sources of personal income that are assessable:

1. Salaries and remunerations received for services rendered (except family allowances).
2. Remuneration in kind, such as accommodation, food, light, etc.
3. Bonuses or Christmas gifts.
4. Life pensions (except war pensions or those arising out of civil accidents) and pensions for a limited period.
5. Income of artisans and other individuals working for their own account, who would normally be assessable under the commercial profits tax but who are specially exempted therefrom by law.

From the income received it is permitted to make certain deductions for taxation purposes, among which are the following:

1. Salary tax paid during the preceding year.
2. Contributions to pension-fund schemes, or alternatively, life-insurance premiums.
3. Traveling expenses to and from the place of business.
4. Cost of books and periodicals necessitated by the occupation followed.
5. Subscriptions to trade or professional associations.
6. Extra cost of meals necessarily taken at restaurants, owing to distance of place of occupation from home.

From the income thus arrived at the following deductions for taxation purposes are allowed:

1. 3,000 francs (\$117.60) for the wife, if her income does not exceed this amount.
2. 3,000 francs (\$117.60) for each child under 18 years of age, and not in receipt of earned income in excess of this amount (this allowance is increased to 4,000 francs (\$156.80) for the third and subsequent children).
3. 2,000 francs (\$78.40) for any other person under the taxpayer's charge.

It should be observed that, if the husband and wife are both taxable then only the one who has the greater income is entitled to the deductions.

From January 1, 1930, the rate of tax payable is 10 per cent, subject to the following relief: (a) When the taxable income arrived at in the manner set out above does not exceed 10,000 francs, it is totally exempted from the tax; (b) on taxable income between 10,000 (\$392) and 20,000 francs (\$784) only 50 per cent is taxable; between 20,000 (\$784) and 40,000 francs (\$1,568) only 75 per cent is taxable, and in excess of 40,000 francs it is taxable in full.

The many reservations and deductions connected with the application of this tax result in but few persons properly classified as laborers paying it.

While employers must submit data on their employees in connection with this, they do not withhold sums from their wages unless requested to do so in special cases by the authorities.

The income tax (*impôt général sur le revenu*) begins on incomes of 10,000 francs (\$392), but exemptions and deductions which are allowed rarely place a laborer in the position of having to pay it.

### Social Insurance Deductions

THE social insurance law which came into effect on July 1, 1930, provides for the compulsory insurance of all French wage earners whose annual remuneration does not exceed 15,000 francs (\$588), or 18,000 francs (\$704.60) in cities of more than 200,000 inhabitants and in industrial centers. The risks covered are sickness, incapacity, old age, and death.

For the purpose of contributions and benefits, the insured are divided into five wage classes. The amount of the contribution thus varies in accordance with the wages of the insured, but the average is 4 per cent of the wage. This sum is held back on pay day by the employer, who puts it with an equivalent sum from his own pocket to be turned over to the administrative authorities.

### Wages in Manufacturing Industries

THE following nine industries have been selected as representative of the French manufacture of products appearing in international commerce: Automobiles, textiles, metallurgy, clothing, furniture, tanning, beauty products, gloves, and beet sugar.

#### Automobile Industry

Table 2 shows the average rates per hour for piecework and time work in the automobile industry in the Paris district.

TABLE 2.—AVERAGE HOURLY WAGES IN THE **AUTOMOBILE INDUSTRY** OF THE PARIS DISTRICT, JANUARY-FEBRUARY, 1931, BY OCCUPATION

#### *The industry (except body building)*

[Conversions into United States currency on basis of franc=3.92 cents]

Class of workers, occupation, and sex	Average hourly wage rates <sup>1</sup>			
	Time work		Piece work	
	French currency	United States currency	French currency	United States currency
Skilled workers ( <i>professionnels</i> ), male:	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Tool sharpeners ( <i>afuteurs-outilleurs</i> )	6.48	25.4		
Fitters ( <i>ajusteurs</i> )	5.92	23.2	6.70	26.3
Engine fitters and assemblers ( <i>ajusteurs-monteurs et assembleurs</i> )	6.22	24.4	6.97	27.3
Tool adjusters, tool fitters ( <i>ajusteurs-outilleurs</i> )	7.17	28.1	7.57	29.7
Drill adjusters ( <i>ajusteurs-traceurs</i> )	6.77	26.5		
Drillers ( <i>aléseurs</i> )	6.63	26	7.15	28
Coppersmiths ( <i>chaudronniers en cuivre au marteau</i> )	6.58	25.8	7.91	31
Copper-pipe makers ( <i>chaudronniers en cuivre tuyauteurs</i> )	6.38	25	7.13	27.9
Boiler makers ( <i>chaudronniers en fer</i> )	6.17	24.2	7.05	27.6

<sup>1</sup> Including all premiums, bonuses, etc., except family allowances.



TABLE 2.—AVERAGE HOURLY WAGES IN THE **AUTOMOBILE INDUSTRY** OF THE PARIS DISTRICT, JANUARY-FEBRUARY, 1931, BY OCCUPATION—Continued*The industry (except body building)*—Continued

Class of workers, occupations, and sex	Average hourly wage rates			
	Time work		Piece work	
	French currency	United States currency	French currency	United States currency
Skilled workers ( <i>professionnels</i> ), male—Continued.				
Cutters on semiautomatic or nonautomatic machines ( <i>décolleteurs sur machine demi-automatique ou non automatique</i> )			6.74	26.4
Electrical adjusters ( <i>électriciens-ajusteurs</i> )	5.94	23.3		
Electrical fitters ( <i>électriciens-monteurs</i> )	6.02	23.6	6.63	26.0
Enamellers ( <i>émailleurs</i> )	5.59	21.9	6.21	24.3
Die stampers ( <i>estampeurs à chaud et au mouton</i> )			7.73	30.3
Tinsmiths ( <i>ferblantiers</i> )			6.88	27.0
Hammersmiths ( <i>forgerons à main</i> )	6.44	25.2	6.96	27.3
Toolsmiths ( <i>forgerons outilleurs</i> )	6.98	27.4	7.52	29.5
Metal lathe workers ( <i>fraiseurs</i> )	6.51	25.5	7.12	27.9
Lathe tool fitters ( <i>fraiseurs outilleurs</i> )	7.14	28.0	7.67	30.1
Mechanical adjusters ( <i>mécaniciens metteurs au point</i> )	6.29	24.7	6.93	27.2
Machinery fitters and assemblers ( <i>monteurs et monteurs assembleurs</i> )	6.01	23.6	6.79	26.6
Electric fitters on cars ( <i>monteurs électriciens sur voitures</i> )	6.03	23.6	6.68	26.2
Mortisers-planers ( <i>mortaiseurs-raboteurs</i> )	6.54	25.6	7.01	27.5
Nickel platers ( <i>nickeleurs</i> )	5.89	23.1	6.61	25.9
Die makers ( <i>outilleurs en matrice</i> )	7.42	29.1		
Punchers ( <i>perceurs au tracé</i> )	5.82	22.8	6.61	25.9
Polishers and polisher grinders ( <i>polisseurs et polisieurs meuleurs</i> )			7.17	28.1
Planers and rough squarers ( <i>raboteurs et dégauchisseurs</i> )	6.4	25.1	6.97	27.3
Tool planers ( <i>raboteurs et outilleurs</i> )	7.7	30.2	7.39	29.0
Rectifiers ( <i>rectifieurs</i> )	6.52	25.6	7.29	28.6
Tool rectifiers, tool adjusters ( <i>rectifieurs-outilleurs</i> )	7.12	27.9	7.49	29.4
Adjusters ( <i>regleurs</i> )	7.36	28.9	7.97	31.2
Art-lamp welders ( <i>soudeurs à l'autogène</i> )	6.37	25.0	6.93	27.2
Gear cutters ( <i>tailleurs d'engrenages</i> )	5.83	22.9	6.91	27.1
Sheet-iron workers ( <i>tôliers</i> )	6.08	23.8	6.97	27.3
Turners ( <i>tourneurs</i> )	6.20	24.3	7.13	27.9
Tool turners ( <i>tourneurs-outilleurs</i> )	7.27	28.5	7.64	29.9
Tracers ( <i>tracers</i> )	6.77	26.5	7.35	28.8
Measurers ( <i>verificateurs</i> )	6.36	24.9		
Specialized workers ( <i>ouvriers spécialisés</i> ), male:				
Sharpeners ( <i>affuteurs</i> )	5.71	22.4	6.33	24.8
Adjusters, fitters ( <i>ajusteurs</i> )	5.31	20.8	5.78	22.7
Clippers, stampers ( <i>cisailleurs, poinçonneurs</i> )	5.27	20.7	5.84	22.9
Currier, leather dressers ( <i>corroyeurs</i> )	5.28	20.7		
Metal scourers ( <i>décapeurs</i> )	5.06	19.8	5.58	21.9
Cutters on automatic machines ( <i>décolleteurs sur machines automatiques</i> )			5.60	22.0
Setters, by machine or by hand, of ordinary articles ( <i>dresseurs à la machine et dresseurs à la main de produits courants</i> )	5.14	20.1		
Sheet-iron cutters ( <i>ébarbeurs</i> )	4.91	19.2	5.58	21.9
Chasers ( <i>emboutisseurs</i> )			6.19	24.3
Metal lathe workers ( <i>fraiseurs</i> )	5.34	20.9	5.82	22.8
File cutters and holders ( <i>frappeurs et teneurs de tas</i> )	5.12	20.1	5.66	22.2
Filers ( <i>limeurs</i> )	5.08	19.9	5.51	21.6
Grinders ( <i>meuleurs</i> )	5.37	21.1	6.13	24.0
Drillers ( <i>perceurs au montage</i> )	5.49	21.5	6.03	23.6
Polishers ( <i>polisseurs</i> )			5.62	22.0
Planers ( <i>raboteurs</i> )	5.25	20.6	6.03	23.6
Rectifiers ( <i>rectifieurs</i> )			5.81	22.8
Resettlers ( <i>redresseurs</i> )	5.46	21.4	6.18	24.2
Spring winders on automatic machines ( <i>ressortiers sur machine automatique</i> )			6.05	23.7
Hand riveters ( <i>riveurs à la main</i> )	5.74	22.5	6.39	25.0
Polishers ( <i>rodours</i> )			6.19	24.3
Sand molders ( <i>sableurs</i> )	5.17	20.3	5.96	23.4
Screw cutters ( <i>tarandeurs</i> )			5.59	21.9
Turners on automatic lathe ( <i>tourneurs sur tour automatique</i> )	5.54	21.7	6.38	25.0
Turners on parallel lathe ( <i>tourneurs sur tour parallèle</i> )	4.96	19.4	5.62	22.0
Hardeners cementers ( <i>trempeurs cimenteurs</i> )	5.17	20.3	6.03	23.6
Cutters ( <i>tronçonneurs</i> )	5.19	20.3	5.73	22.5
Verifiers ( <i>verificateurs</i> )	5.18	20.3		
Ordinary laborers ( <i>manœuvres</i> ), male	4.24	16.6	4.81	18.9
Foundry laborers ( <i>manœuvres de fonderie</i> ), male	4.55	17.8	4.98	19.5

TABLE 2.—AVERAGE HOURLY WAGES IN THE **AUTOMOBILE INDUSTRY** OF THE PARIS DISTRICT, JANUARY-FEBRUARY, 1931, BY OCCUPATION—Continued

*The industry (except body building)*—Continued

Class of workers, occupations, and sex	Average hourly wage rates			
	Time work		Piece work	
	French currency	United States currency	French currency	United States currency
	Francs	Cents	Francs	Cents
Specialized and ordinary workers, female:				
Sharpeners ( <i>affuteuses</i> )			4.34	17.0
Matchers ( <i>appareilleuses</i> )	3.79	14.9	4.32	16.9
Winders ( <i>bobineuses</i> )	3.87	15.2	4.38	17.2
Spindlers ( <i>bobinières</i> )	4.43	17.4	5.02	19.7
Inspectors ( <i>controlieuses</i> )	3.60	14.1	4.36	17.1
Sewers ( <i>couturières</i> )	3.74	14.7	4.55	17.8
Cutters knowing how to set up ( <i>décolleteuses sachant se monter</i> )	4.61	18.1	5.49	21.5
Cutters without knowledge of setting up ( <i>décolleteuses ne sachant pas se monter</i> )	3.84	15.1	4.34	17.0
Cutters ( <i>découpeuses</i> )	3.76	14.7	4.38	17.2
Enamelers ( <i>émailleuses</i> )			4.50	17.6
Gaugers, adjusters ( <i>étalonneuses</i> )	3.59	14.1	4.31	16.9
Tinsmiths ( <i>ferblantières</i> )	4.34	17.0	5.03	19.7
Metal lathe workers ( <i>fraiseuses</i> )	4.02	15.8	4.81	18.9
Mechanics ( <i>mécaniciennes</i> )	4.01	15.7	4.77	18.7
Corers ( <i>noyanteuses</i> )	3.92	15.4	4.52	17.7
Painters ( <i>peintres</i> )	3.59	14.1	4.61	18.1
Drillers ( <i>perceuses</i> )	3.93	15.4	4.70	18.4
Polishers on machines ( <i>polisseuses de mécanique</i> )	4.13	16.2	4.88	19.1
Rectifiers ( <i>rectifieuses</i> )	3.89	15.2	4.97	19.5
Regulators ( <i>régleuses</i> )	4.68	18.3		
Arc-lamp welders ( <i>soudeuses à l'autogène</i> )	4.66	18.3	4.95	19.4
Solderers ( <i>soudeuses à l'étain</i> )	4.03	15.8	4.57	17.9
Turners ( <i>tourneuses</i> )	4.03	15.8	4.78	18.7
Workers specializing in other trades than those mentioned here ( <i>ouvrières spécialisées autres que les catégories ci-contre</i> )	3.66	14.3	4.22	16.5
Ordinary laborers, female	3.44	13.5	3.77	14.8

*Automobile body building*

Occupation	Custom building				Mass production			
	Time work		Piece work		Time work		Piece work	
	French currency	United States currency	French currency	United States currency	French currency	United States currency	French currency	United States currency
	Francs	Cents	Francs	Cents	Francs	Cents	Francs	Cents
Locksmiths ( <i>ferreurs</i> )	7.17	28.1	7.71	30.2	6.51	25.5	6.94	27.2
Blacksmiths ( <i>forgerons à main</i> )	7.14	28.0	8.38	32.8	6.45	25.3	7.38	28.9
Joiners ( <i>menuisiers ordinaires</i> )	7.04	27.6	7.71	30.2	6.12	24.0	6.69	26.2
Special automobile joiners ( <i>menuisiers traceurs de voitures</i> )	7.59	29.8	8.34	32.7	6.56	25.7	7.45	29.2
Decorators ( <i>peintres finisseurs-lettres, finition, rechampissage</i> )	7.02	27.5	8.32	32.6	6.03	23.6	6.67	26.1
Ordinary painters ( <i>peintres hommes de pied</i> )	6.29	24.7	7.11	27.9	5.74	22.5	6.53	25.6
Leather-upholstery makers ( <i>selliers à l'établi ou confectionneurs</i> )	6.73	26.4	7.18	28.1	5.97	23.4	6.43	25.2
Upholsterers ( <i>selliers poseurs et garnisseurs</i> )	7.38	28.9	8.14	31.9	6.27	24.6	7.20	28.2
Sheet-metal workers ( <i>tôliers</i> )	7.13	27.9	7.75	30.4	6.12	24.0	6.89	27.0

## Textile Industry

Table 3 shows the average hourly rates in the textile industry in certain districts.

In certain branches of the Lille textile industry, such as the weaving of velvets, velveteens, and Jacquard tapestries, piecework pay is almost universal. Such pay, of course, varies greatly, but a consideration of that prevailing for velvet weaving will give a general idea of its application.

It will be seen from the table that the basic wage of the warper is 4.11 francs (16.2 cents) per hour, or 197.28 francs (\$7.73) per 48-hour week. This is the lowest wage paid by the hour and, in general, it may be said that the worker earns 15 per cent more at piecework, or 4.72 francs (18.5 cents) per hour. The pay of the velvet worker, however, is considerably higher. It varies greatly according to the skill required. From the minimum of 200 francs (\$7.84) this worker earns as much as 500 or 600 francs (\$19.60 to \$23.52) for a 50-hour week. The average might be placed at 325 francs (\$12.74) a week, or 6.50 francs (25.5 cents) an hour.

TABLE 3.—WAGES IN THE **TEXTILE INDUSTRY** IN SPECIFIED DISTRICTS IN SEPTEMBER, 1931, BY PROCESS AND OCCUPATION

## Cotton and wool (Lille district)

[Conversions into United States currency on basis of franc=3.92 cents]

Process, occupation, and sex	Average hourly rate			
	Minimum		Maximum	
	French currency	United States currency	French currency	United States currency
<b>Combing:</b>	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Greasers ( <i>graisseurs</i> ), male.....	3.00	11.8	3.44	13.5
Card cleaners ( <i>nettoyeurs de cardé</i> ), male.....	3.24	12.7	3.42	13.4
Washers ( <i>laveurs</i> ), male.....	3.01	11.8	3.23	12.7
Washers' helpers ( <i>aide laveurs</i> ), male.....	3.00	11.8	3.18	12.5
Polishers ( <i>polisseurs</i> ), male.....	3.09	12.1	3.38	13.2
Polishers ( <i>polisseuses</i> ), female.....	2.58	10.1	2.73	10.7
Deobstructors ( <i>déboucheurs</i> ), male.....	3.07	12.0	3.18	12.5
Combers ( <i>peigneurs</i> ), male.....	3.08	12.1	3.11	12.2
Combers ( <i>peigneuses</i> ), female.....	2.58	10.1	2.69	10.5
Drawers ( <i>soigneurs</i> ), male.....	3.00	11.8	3.07	12.0
Drawers ( <i>soigneuses</i> ), female.....	2.51	9.8	2.57	10.1
Tank emptiers ( <i>remplisseurs de bac</i> ), male.....	3.00	11.8	3.00	11.8
Tank emptiers ( <i>remplisseuses de bac</i> ), female.....	2.51	9.8	2.57	10.1
Finishers ( <i>appêteurs</i> ), male.....	3.00	11.8	3.11	12.2
Finishers ( <i>appêteuses</i> ), female.....	2.51	9.8	2.57	10.1
Utility men ( <i>hommes de peine</i> ).....	3.00	11.8	3.24	12.7
Packers ( <i>emballeurs</i> ), male.....	3.00	11.8	3.58	14.0
Bundlers ( <i>empaqueteurs</i> ), male.....	3.16	12.4	-----	-----
Bundlers ( <i>empaqueteuses</i> ), female.....	2.51	9.8	2.64	10.3
Wheelbarrowers ( <i>brouetteurs</i> ), male.....	3.09	11.8	3.08	12.1
Winders ( <i>bobineurs</i> ), male.....	3.00	11.8	-----	-----
Winders ( <i>bobineuses</i> ), female.....	2.51	9.8	-----	-----
Beaters ( <i>batteurs</i> ), male.....	3.00	11.8	3.23	12.7
Dryers ( <i>sécheurs</i> ), male.....	3.00	11.8	-----	-----
Dryers ( <i>sécheuses</i> ), female.....	2.51	9.8	-----	-----
Burr removers ( <i>ébarbeurs</i> ), male.....	3.00	11.8	-----	-----
Burr removers ( <i>ébarbeuses</i> ), female.....	2.51	9.8	-----	-----
<b>Spinning:</b>				
Spinners ( <i>fileurs</i> ), male.....	4.65	18.2	-----	-----
Attachers ( <i>rattacheurs</i> ), male.....	3.96	15.5	-----	-----
Helpers ( <i>aides</i> ), under 18 years.....	1.77	6.9	-----	-----
Preparation attendants ( <i>préparatrices</i> ), female.....	2.79	10.9	-----	-----
Ring frame attendants ( <i>fileuses sur continu</i> ), female.....	3.07	12.0	-----	-----
Helpers ( <i>aides</i> ), spinning ring frames, female.....	1.76	6.9	-----	-----
Twisting ring frame attendants ( <i>étordeuses</i> ), female.....	2.90	11.4	-----	-----

TABLE 3.—WAGES IN THE TEXTILE INDUSTRY IN SPECIFIED DISTRICTS IN SEPTEMBER, 1931 BY PROCESS AND OCCUPATION—Continued

Cotton and wool (Lille district)—Continued

Process, occupation, and sex	Average hourly rate			
	Minimum		Maximum	
	French currency	United States currency	French currency	United States currency
	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Winders, doublers, twistors ( <i>bobineuses, soigneuses, rétordeuses</i> ), female.....	2.73	10.7		
Breakers ( <i>casseuses</i> ), female.....	3.07	12.0		
Utility men ( <i>hommes de peine</i> ).....	3.00	11.8		
Carded spinning:				
Spinners ( <i>fileurs</i> ), male.....	4.65	18.2		
Adjusters, ( <i>ajusteurs</i> ), male.....	4.18	16.4		
Attachers ( <i>rattacheurs</i> ), male.....	4.04	15.8		
Attachers ( <i>rattacheuses</i> ), female.....	3.26	12.8		
Helpers ( <i>aides</i> ), under 18 years.....	1.83	7.2		
Card attendant ( <i>cardeurs</i> ), male.....	3.44	13.5		
First card cleaners ( <i>nettoyeurs de 1<sup>ère</sup> carde</i> ), male.....	4.10	16.1		
Second card cleaners ( <i>nettoyeurs de 2<sup>ème</sup> carde</i> ), male.....	3.91	15.3		
Mixers ( <i>mélangeurs</i> ), male.....	3.34	13.1		
Collectors ( <i>collecteurs</i> ), male.....	3.05	12.0		
Cop attendants ( <i>fileuses à pot</i> ), female.....	3.01	11.8		
Utility men ( <i>hommes de peine</i> ).....	3.03	11.9		
Weaving:				
Weavers ( <i>tisserands</i> ), male.....	3.72	14.6		
Warpers ( <i>encolleurs</i> ), male.....	4.11	16.1		
Warpers ( <i>encolleuses</i> ), female.....	2.81	11.0		
Removers of knots ( <i>purgeuses de nœuds</i> ), female.....	2.78	10.9		
Repairers of defects ( <i>remetteuses de défauts</i> ), female.....	3.24	12.7		
Testers ( <i>vérificateurs</i> ), male.....	3.81	14.9		
Sizers ( <i>colleurs</i> ), male.....	4.04	15.8		
Foil makers ( <i>repousseuses</i> ), female.....	3.68	14.4		
Warp mounters ( <i>monteur de chaines</i> ), male.....	2.97	11.6		
Threaders ( <i>enfileurs</i> ), male.....	4.08	16.0		
Utility men ( <i>hommes de peine</i> ).....	3.00	11.8		
Dyeing (in tanks):				
Storekeepers ( <i>magasiniers</i> ), male.....	3.00	11.8		
Dye workers ( <i>teinturiers</i> ), male.....	3.14	12.3		
Machine workers ( <i>mécaniciens</i> ), male.....	3.24	12.7		
Dryers ( <i>sécheurs</i> ), male.....	3.14	12.3		
Washers ( <i>laveurs</i> ), male.....	3.14	12.3		
Bundlers ( <i>empaqueteuses</i> ), female.....	2.68	10.5		
Boys, 13 to 16 years ( <i>apprentis</i> ).....	1.59	6.2		
Boys, 16 to 18 years ( <i>apprentis</i> ).....	2.16	8.5		
Utility men ( <i>hommes de peine</i> ).....	3.00	11.8		

Silk (Lyon district)<sup>1</sup>

Process, occupation, and sex	Average hourly rate	
	French currency	United States currency
Weaving:	<i>Francs</i>	
Bobbin winders ( <i>canneteuses</i> ), female.....	2.75	\$0.11
Reelers ( <i>dévideuses</i> ), female.....	2.75	.11
Warpers ( <i>ourdisseuses</i> ), female.....	3.25	.13
Weavers ( <i>tisseurs</i> ), male.....	4.00	.16
Weavers ( <i>tisseuses</i> ), female.....	3.25	.13
Loom fitters ( <i>gareurs</i> ), male.....	<sup>2</sup> 1,250.00	<sup>2</sup> 49.00
Loom fitters, apprentice ( <i>apprentis gareurs</i> ).....	<sup>2</sup> 700.00	<sup>2</sup> 27.44
Dyeing:		
Dyers ( <i>coloristes</i> ), male.....	5.50-6.00	.22-.24
Printers ( <i>imprimeurs</i> ), male.....	5.75-6.00	.23-.24

<sup>1</sup> Piecework.

<sup>2</sup> Per month.

TABLE 3.—WAGES IN THE **TEXTILE INDUSTRY** IN SPECIFIED DISTRICTS IN SEPTEMBER, 1931, BY PROCESS AND OCCUPATION—Continued*Silk (Lyon district)*—Continued

Process, occupation, and sex	Average hourly rate	
	French currency	United States currency
<i>Finishing:</i>	<i>Francs</i>	
Finishers ( <i>finisseurs</i> ), male.....	4.00	\$0.16
Laborers ( <i>manœuvres</i> ), male.....	<sup>2</sup> 600.00	<sup>2</sup> 23.52
<i>Velvet weaving:</i>		
Bobbin winders ( <i>canneleuses</i> ), female.....	3.00	.12
Reelers ( <i>dévideuses</i> ), female.....	2.90	.11
Warpers ( <i>ourdisseuses</i> ), female.....	2.90	.11
Weavers ( <i>tisseuses</i> ), female.....	3.30	.13
Stoppers ( <i>stoppeuses</i> ), female.....	3.20	.13
Burlers ( <i>pincetteuses</i> ), female.....	2.80	.11
<i>Velvet dyeing:</i>		
Dyers ( <i>coloristes</i> ), male.....	5.25	.21
Laborers ( <i>manœuvres</i> ), male.....	3.50	.14
<i>Velvet finishing:</i>		
Glazers ( <i>lisseurs</i> ), male.....	4.25	.17
Glazers ( <i>lisseuses</i> ), female.....	2.90	.11
Combers ( <i>cardeurs</i> ), male.....	3.50	.14
Luster ironers ( <i>miroiteurs</i> ), male.....	3.60	.14
Shavers ( <i>raseurs</i> ), male.....	4.00	.16
Shavers ( <i>raseuses</i> ), female.....	2.75	.11
Plush finishers ( <i>apprêteurs peluches</i> ).....	3.90	.15
Finishers ( <i>finisseurs</i> ), male.....	3.75	.15
Finishers ( <i>finisseuses</i> ), female.....	2.80	.11
Folders ( <i>plieuses</i> ), female.....	2.80	.11

*Artificial silk (Strassburg district)*

Workers, male.....	<sup>3</sup> 32.00	\$1.25
Workers, female.....	<sup>4</sup> 2.50	.10
Handicrafts, male.....	4.50	.18
Electricians and machinists.....	5.00	.20

*Jute (Strassburg district)*

Workers, male <sup>5</sup> .....	<sup>3</sup> 25.00	\$0.98
Workers, female <sup>5</sup> .....	<sup>3</sup> 20.00–25.00	.78–.98

<sup>2</sup> Per month.<sup>3</sup> Per day; night work 25 per cent extra.<sup>4</sup> Women on piecework earn from 25 to 30 francs per day.<sup>5</sup> Workers receive free transportation extra.

## Metallurgy

Table 4 shows the wages paid per hour in the metallurgical industry in the Paris district during January and February, 1931.



TABLE 4.—HOURLY RATES IN THE **METALLURGICAL INDUSTRY** IN THE PARIS DISTRICT, JANUARY-FEBRUARY, 1931, BY OCCUPATION  
[Conversions into United States currency on basis of franc=3.92 cents]

Class of worker, occupation, and sex	Hourly wage rate <sup>1</sup>			
	Time work		Piece work	
	French currency	United States currency	French currency	United States currency
Skilled workers ( <i>professionnels</i> ), male:	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Fitters ( <i>ajusteurs</i> ).....	5.72	22.4		
Tool adjusters, tool fitters ( <i>ajusteurs outilleurs</i> ).....	6.65	26.1		
Hand adjusters ( <i>dresseurs à la main de profil</i> ).....	5.32	20.9		
Drawers ( <i>étireurs au banc de profils réglant leur outillage</i> ).....	5.27	20.7		
Tube drawers ( <i>étireurs au banc de tubes réglant leur outillage</i> ).....	4.83	18.9	5.81	22.8
Furnace or skillet founders ( <i>fondeurs au creuset et au four</i> ).....	5.52	21.6	6.31	24.7
Band rollers ( <i>lamineurs de bandes</i> ).....	4.72	18.5	5.68	22.3
Hot rollers ( <i>lamineurs à chaud</i> ).....	5.22	20.5	6.18	24.2
Cold rollers ( <i>lamineurs à froid</i> ).....	4.87	19.1	5.49	21.5
Plank rollers ( <i>lamineurs de planches</i> ).....	4.62	18.1	6.18	24.2
Pointers ( <i>pointiers</i> ).....	5.36	21.0	6.08	23.8
Wire drawers ( <i>tréfileurs</i> ).....	5.77	22.6	6.42	25.2
Special wire drawers ( <i>tréfileurs rebattant les filières</i> ).....	5.88	23.0	6.73	26.4
Wire drawers, copper ( <i>tréfileurs rebattant les filières cuivre</i> ).....	5.66	22.1	6.58	25.8
Specialized workers ( <i>ouvriers spécialisés</i> ), male:				
Band clippers ( <i>cisaillieurs de bandes</i> ).....	4.79	18.8	5.16	20.2
Plank clippers ( <i>cisaillieurs de planches</i> ).....	4.53	17.8	5.06	19.8
Clippers-punchers ( <i>cisaillieurs-poinçonneurs</i> ).....	4.78	18.7	5.26	20.6
Crane and rolling-bridge conductors ( <i>conducteurs de grues et ponts roulants</i> ).....	5.03	19.7		
Scourers ( <i>décapeurs</i> ).....	4.79	18.8	5.35	21.0
Machine setters ( <i>dresseurs à la machine</i> ).....	4.95	19.4		
Drawers ( <i>étireurs</i> ).....	4.66	18.3	5.18	20.3
Rolling mill assistants ( <i>manceuvres de laminoirs</i> ).....	4.61	18.1	5.08	19.9
Temperers ( <i>recuiseurs</i> ).....	4.64	18.2	4.97	19.5
Metal cutters ( <i>sieurs sur métaux</i> ).....	4.73	18.5		
Verifiers ( <i>vérificateurs</i> ).....	4.73	18.5		

<sup>1</sup> Includes all premiums, bonuses, etc., except family allowances.

#### Clothing Industry

The table following shows average rates per hour in the various branches of the clothing industry in the Paris district and in the ready-made clothing industry in the rest of France, in October, 1930.

TABLE 5.—WAGE RATES IN THE **CLOTHING INDUSTRY** IN THE PARIS DISTRICT AND IN THE REST OF FRANCE IN OCTOBER, 1930  
[Conversions into United States currency on basis of franc=3.92 cents]

District, occupation, and sex	Period	Average wage	
		Amount	
		French currency	United States currency
<i>Paris district</i>			
Men's clothing, ready made:		<i>Francs</i>	
Cutters ( <i>tailleurs d'habits</i> ), male.....	Per hour.....	6.50	\$0.26
Dressmaking and lingerie:			
Seamstress, first class ( <i>premières mains</i> ).....	Per week.....	218.40	8.56
Seamstresses, second class ( <i>deuxièmes mains</i> ).....	do.....	163.20	6.40
Seamstresses, ordinary ( <i>petites mains</i> ).....	do.....	115.20	4.52
High class dressmaking:			
Skilled finishers ( <i>bonnes apprêteuses</i> ), female.....	Per month.....	936.00	36.69
Average finishers ( <i>moyennes apprêteuses</i> ), female.....	do.....	748.40	29.34
Ordinary finishers ( <i>petites apprêteuses</i> ), female.....	do.....	520.00	20.38
Apprentices ( <i>apprenties</i> ), female.....	do.....	208.00-260.00	8.15-10.19
<i>Rest of France</i>			
Clothing, ready made:			
Cutters ( <i>tailleurs d'habits</i> ), male.....	Per hour.....	4.10	.16
Sewers ( <i>couturières</i> ), female.....	do.....	2.25	.09
Underclothing makers ( <i>lingères</i> ), female.....	do.....	2.29	.09
Vest makers ( <i>giletères</i> ), female.....	do.....	2.43	.10
Embroiderers ( <i>brodeuses</i> ), female.....	do.....	2.39	.09
Women's-hat makers ( <i>modistes</i> ), female.....	do.....	2.46	.10

## Furniture Industry

The statement below shows the hourly rates paid to males in the furniture industry in the Paris district and in the rest of France, in October, 1930.

Paris district:	Per hour
Wood turners ( <i>tourneurs en bois</i> )-----	6.70 francs (26.3 cents)
Cabinetmakers ( <i>ébénistes</i> )-----	6.75 francs (26.5 cents)
Joiners ( <i>menuisiers</i> )-----	6.25 francs (24.5 cents)
Rest of France:	
Wood turners ( <i>tourneurs en bois</i> )-----	4.20 francs (16.5 cents)
Cabinetmakers ( <i>ébénistes</i> )-----	4.50 francs (17.6 cents)
Joiners ( <i>menuisiers</i> )-----	4.16 francs (16.3 cents)

## Tanning Industry

The average hourly wage rates paid in various centers of production in the tanning industry, in 1930, are shown in Table 6.

TABLE 6.—AVERAGE HOURLY RATES IN THE TANNING INDUSTRY IN SPECIFIED LOCALITIES IN 1930, BY SEX

[Conversions into United States currency on basis of franc=3.92 cents]

Division of industry and locality	Average hourly rate				Division of industry and locality	Average hourly rate			
	Males		Females			Males		Females	
	French currency	United States currency	French currency	United States currency		French currency	United States currency	French currency	United States currency
Heavy leather:	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>	Heavy leather—				
Annonay----	3.50	13.7	2.50	9.8	Continued:	<i>Francs</i>	<i>Cents</i>	<i>Francs</i>	<i>Cents</i>
Bordeaux----	3.35	13.1	2.50	9.8	Romans----	3.25	12.7	1.75	6.9
Bellac----	2.75	10.8	1.50	5.9	Strassburg----	3.00	11.8	1.75	6.9
Chateaurenault----	3.50	13.7	2.00	7.8	St. Amand				
Grenoble----	3.00	11.8	1.50	5.9	les Eaux----	3.00	11.8	1.90	7.4
Lannoy----	3.65	14.3			Tournon----	3.00	11.8		
Lille----	3.75	14.7	2.25	8.8	Light leather:				
Millau----	3.75	14.7	1.90	7.4	Annonay----	4.00	15.7	3.50	13.7
Nantes----	3.25	12.7	2.00	7.8	Graulhet----	3.75	14.7	2.25	8.8
Oullins----	2.25	8.8			Grenoble----	3.50	13.7	2.00	7.8
Paris----	5.00	19.6	2.75	10.8	Lubruguiere----	3.00	11.8	1.75	6.9
Rennes----	2.75	10.8	1.35	5.3	Mazamet----	3.20	12.5	2.30	9.0

## Beauty-Products Industry

The wage rates per hour paid in the beauty-products industry in the Paris district in September, 1931, are shown in the following statement. The data relate to the manufacture of the products themselves, as opposed to their containers of various materials. Ordinarily, only women are employed in the making of these products. No special skill or training is required.

Overtime in this industry is usually paid for at 25 per cent above the regular wage rate.

	Per hour
Under 15 years:	
On beginning-----	2.00 francs (7.8 cents)
After six months-----	2.25 francs (8.8 cents)
Over 15 years and under 16 years:	
On beginning-----	2.25 francs (8.8 cents)
After six months-----	2.50 francs (9.8 cents)
Over 16 years and under 17 years:	
On beginning-----	2.50 francs (9.8 cents)
After six months-----	2.75 francs (10.8 cents)
Over 17 years and under 18 years:	
On beginning-----	2.75 francs (10.8 cents)
After six months-----	3.00 francs (11.8 cents)
Over 18 years:	
On beginning-----	3.00 francs (11.8 cents)
After one year-----	3.15 francs (12.3 cents)
After 5 years-----	3.25 francs (12.7 cents)
Table head ( <i>première de table</i> )-----	3.50 francs (13.7 cents)
Carriers of materials ( <i>manutentionnaires</i> )-----	3.40 francs (13.3 cents)

## Glove Industry

The statement following shows the average monthly rates paid in the glove industry of the Lyon district in September, 1931. The rates include cash payments of all kinds. Lodging is not furnished.

	Per month
Parers ( <i>mégisseurs</i> ), male-----	700 francs (\$27.44)
Skin dyers ( <i>teinturiers</i> )-----	950 francs (\$37.24)
Skin stakers ( <i>palissonneurs</i> )-----	950 francs (\$37.24)
Glove cutters ( <i>coupeurs</i> )-----	1,050 francs (\$41.16)
Glove dressers ( <i>dresseurs</i> )-----	800 francs (\$31.36)
Seamstresses ( <i>couturières</i> )-----	400 francs (\$15.68)
Factory employees ( <i>employés de fabrication</i> ), male-----	1,100 francs (\$43.12)
Factory employees ( <i>employées de fabrication</i> ), female-----	700 francs (\$27.44)
Warehouse employees ( <i>employées de magasin</i> ), female-----	600 francs (\$23.52)

## Beet-Sugar Industry

In the beet-sugar industry, in 1930, men received an average daily wage of 31.83 francs (\$1.25); women, 18.29 francs (71.7 cents); and children, 17.05 francs (66.8 cents).

## Wages in the Mining Industry

## Coal Mining

TABLE 7 shows the average daily wages paid to underground and surface workers in various coal-mining localities in 1930.

TABLE 7.—AVERAGE DAILY WAGES IN PRINCIPAL COAL-MINING CENTERS, 1930  
(Conversions into United States currency on basis of franc=3.92 cents)

Locality	Underground workers		Surface workers	
	French currency	United States currency	French currency	United States currency
	<i>Francs</i>		<i>Francs</i>	
Douai-----	40.26	\$1.58	30.83	\$1.21
Arras-----	40.05	1.57	30.09	1.18
Strassburg-----	43.03	1.69	31.29	1.23
Saint Etienne-----	41.19	1.61	29.61	1.16
Chalon sur Saone-----	40.48	1.59	29.43	1.15
Ales-----	38.16	1.50	27.86	1.09
Toulouse-----	37.37	1.46	27.54	1.08
Clermont-----	35.28	1.38	26.99	1.06
Rest of France-----	40.07	1.57	29.76	1.17

Wages in French coal mines were reduced in 1927 because of the unfavorable condition of the coal market, but in the course of 1929 the commercial situation of the coal companies had improved and wages were raised in the Nord and Pas-de-Calais on April 16 and October 1, and in the Loire, October 1. Table 8 shows the average daily wages of underground and surface workers in 1929 and 1930, by quarters.

TABLE 8.—AVERAGE DAILY WAGES OF UNDERGROUND AND OF SURFACE WORKERS IN COAL MINES, 1929 AND 1930, BY QUARTERS

[Conversions into United States currency on basis of franc=3.92 cents]

Date	Average daily wages of—					
	Underground workers		Surface workers		Underground and surface workers	
	French currency	United States currency	French currency	United States currency	French currency	United States currency
1929:	<i>Francs</i>		<i>Francs</i>		<i>Francs</i>	
First quarter.....	35.01	\$1.37	25.83	\$1.01	32.32	\$1.27
Second quarter.....	36.58	1.43	26.99	1.06	33.71	1.32
Third quarter.....	37.34	1.46	27.57	1.08	34.43	1.35
Fourth quarter.....	39.74	1.56	29.44	1.15	36.70	1.44
1930:						
First quarter.....	39.85	1.56	29.58	1.16	36.86	1.44
Second quarter.....	39.97	1.57	29.71	1.16	36.94	1.45
Third quarter.....	40.16	1.57	29.84	1.17	37.06	1.45
Fourth quarter.....	40.32	1.58	29.84	1.17	37.16	1.46

Below are given wage data as of September, 1931, for the four principal coal-mining regions.

*Calais region.*—In the case of piecework, the men are paid on the amount of coal turned out and are exclusively hewers working on the veins. They usually work in groups of 5 to 50, under the charge of a foreman, who is paid separately by, and largely represents the interests of, the mine owners. The earnings of the gang are calculated at the end of a 15-day working period, on the number of "berlines" (i. e., small wagonettes, capable of holding 500 kilos<sup>5</sup>) of coal produced. The rate per berline varies according to the obstacles and difficulties encountered in any particular vein, and is determined by the foreman. In cases of disagreement between foreman and the men as to the rate, a mine engineer is called in for a decision. The rate varies according to the run of the vein, and may be changed several times during a working period or even during a shift.

The lowest rate thus far paid per berline is said to have been 4 francs (15.7 cents) and the highest 10 francs (39.2 cents). The total earnings of the pieceworkers are divided among the members of the gang at the end of each "quinzaine," or fortnight, each man receiving a share calculated on his grading as a mine worker. For this purpose, four gradings have been instituted, viz, grades, 7, 8, 9, and 10. The grade 10 men are the most proficient and ordinarily the highest paid men, while grades 9 to 7 are usually slightly inferior workmen and juniors qualifying for the higher paid gradings.

<sup>5</sup> Kilogram = 2.2046 pounds.

Following is an example of the way the earnings are divided: A gang of 25 men, comprising 9 grade 10 hewers, 8 grade 9 hewers; 5 grade 8 hewers, and 5 grade 7 hewers, extract, say, 200 berlines of coal in a day, each berline being allowed a rate of 5 francs (19.6 cents). The total earnings of the gang for the day would be 1,000 francs (\$39.20), i. e., 200 berlines at 5 francs (19.6 cents). The grade 10 man's ratio share is 100; that of the grade 9 man, 95; that of the grade 8 man, 90; and that of the grade 7 man, 85. Thus for this particular example, the total sum earned would be divided into 2365ths (i. e.,  $9 \times 100$ , plus  $8 \times 95$ , plus  $5 \times 90$ , plus  $3 \times 85$ ). The grade 10 men would receive  $100/2365$ , or 42.30 francs (\$1.65) each; the grade 9 men,  $95/2365$  or 40.19 francs (\$1.58) each; the grade 8 men,  $90/2365$ , or 38.07 francs (\$1.49) each; and the grade 7 men,  $85/2365$ , or 35.95 francs (\$1.41) each.

The present agreement between the mine owners and workers, however, stipulates that the *average* daily wage, constituting the "basic salary," of a vein worker, according to grade, shall be as follows, plus a bonus of 19 per cent:

Grade 10-----	35.00 francs (\$1.37), plus 19 per cent, or 41.65 francs (\$1.63)
Grade 9-----	33.25 francs (\$1.30), plus 19 per cent, or 39.57 francs (\$1.55)
Grade 8-----	31.50 francs (\$1.23), plus 19 per cent, or 37.49 francs (\$1.47)
Grade 7-----	29.75 francs (\$1.17), plus 19 per cent, or 35.40 francs (\$1.39)

These sums are average wages, and the actual amounts paid are from 1 to 2 francs (3.9 to 7.8 cents) in excess thereof. Under the agreement, the actual amount paid shall in no case be less than 94 per cent of the average wage. If, during the course of a wage period of 15 days, it is seen by the foreman that his group will not, by the work they are turning out, earn the stipulated sum, he either advises the men to make a greater production effort, or, if he realizes that this is not possible, he increases the sum to be allowed per berline. Long experience enables the foreman, as well as the men themselves, to estimate just what amount should be allowed per berline from the outset.

For workers paid by the day, except boys (*galibots*), there is no real agreement wage, although the conventional 19 per cent bonus applies to this class of worker as well as to the piecework miner. Laborers, whether for underground or surface work, other than recognized pieceworkers, are engaged at a rate based upon what they merit and the work to be done. However, there are more or less recognized extremes for the various categories of these workers, according to sex and age. A starting wage, fixed at the time of hiring, is increased, as indicated, by the conventional bonus, and this bonus applies to all subsequent revisions of the initial wage. The daily wage for boys (*galibots*), beginning at the age of 13, is increased by 0.70 francs for every increase of 6 months in age, up to 16 years, as follows:

13 years --	13.20 francs (51.7 cents), plus 19 per cent, or 15.70 francs (61.5 cents)
13½ years --	13.90 francs (54.5 cents), plus 19 per cent, or 16.55 francs (64.9 cents)
14 years --	14.60 francs (57.2 cents), plus 19 per cent, or 17.35 francs (68.0 cents)
14½ years --	15.30 francs (60.0 cents), plus 19 per cent, or 18.20 francs (71.3 cents)
15 years --	16.00 francs (62.7 cents), plus 19 per cent, or 19.00 francs (74.5 cents)
15½ years --	16.70 francs (65.5 cents), plus 19 per cent, or 19.85 francs (77.8 cents)
16 years --	17.40 francs (68.2 cents), plus 19 per cent, or 20.70 francs (81.1 cents)

While, as indicated, there is no definite or conventional wage schedule for the day workers, other than boys, as shown above, a



survey reveals that they received in September, 1931, the following wages, per day of 8 hours, including the conventional bonus of 19 per cent of the wage at which engaged.

TABLE 9.—AVERAGE DAILY WAGES OF DAY WORKERS IN COAL MINES IN THE CALAIS REGION, SEPTEMBER, 1931

[Conversions into United States currency on basis of franc=3.92 cents]

Class of worker, and occupation	Average daily wages	
	French currency	United States currency
Underground workers ( <i>ouvriers de fond</i> ):	<i>Francs</i>	
Pickmen ( <i>picqueurs, ouvriers d'about</i> ).....	41.65-43.75	\$1.63-\$1.72
Trimmers ( <i>raucieurs</i> ).....	34.71-38.45	1.36- 1.51
Timbermen ( <i>raccommodeurs</i> ).....	30.99-37.30	1.22- 1.46
Fillers-in, truckmen, and laborers ( <i>remblayeurs, herscheurs et manœuvres</i> ), over 21 years of age.....	29.52-31.96	1.16- 1.25
Surface workers ( <i>ouvriers du jour</i> ):		
Machinists and machinists' helpers ( <i>machinistes et aide-machinistes</i> ).....	28.76-45.60	1.13- 1.79
Firemen ( <i>chauffeurs</i> ).....	27.10-33.55	1.06- 1.32
Shaft men ( <i>moulineurs</i> ).....	26.68-33.82	1.05- 1.33
Laborers ( <i>manœuvres</i> ), over 21 years of age.....	26.68-28.76	1.05-1.13
Women and girls ( <i>femmes et filles</i> ).....	10.45-16.27	.41- .64

*Saar region.*—The statement below shows the average wages in the Saar coal mines:

	Per day
Pickmen ( <i>picqueurs</i> ).....	<sup>6</sup> 36.12-38.70 francs (\$1.42-1.52)
Underground workers ( <i>ouvriers de fond</i> ):	
Group 1.....	36.12 francs (\$1.42)
Group 2.....	34.18 francs (\$1.34)
Group 3.....	32.25 francs (\$1.26)
Surface workers ( <i>ouvriers du jour</i> ):	
Group 1.....	34.18 francs (\$1.34)
Group 2.....	32.25 francs (\$1.26)
Group 3.....	30.90 francs (\$1.21)

Deductions for social insurance of all kinds amount to 98 francs (\$3.84) per month. Miners taken by motorbusses must pay their own fare. Those living at a distance, returning only weekly to their families, either hire sleeping accommodations in private quarters or pay a reduced sum for accommodations in the dormitories maintained by the Direction of the Mines. The family allowance amounts to an average of 1.50 francs (5.9 cents) per day for each member of the family not working.

*Strassburg and Lyon regions.*—The average daily wages in coal mines of the Strassburg and Lyon regions are shown in Table 10:

<sup>6</sup> For 6 hours.

TABLE 10.—AVERAGE DAILY WAGES IN COAL MINES IN STRASSBURG AND LYON REGIONS

[Conversions into United States currency on basis of franc=3.92 cents]

Occupation	Average daily wages			
	Strassburg region		Lyon region (Saône-et-Loire) <sup>1</sup>	
	French currency	United States currency	French currency	United States currency
Pickmen ( <i>picqueurs</i> ).....	<i>Francs</i> 45.59	\$1.78	<i>Francs</i> 38.98	\$1.53
Other underground workers ( <i>autres ouvriers de fond</i> ).....	36.06-40.65	1.41-1.59	28.62	1.22
Surface workers ( <i>ouvriers du jour</i> ).....	28.84-36.24	1.13-1.42	45.86	1.80

<sup>1</sup> Includes family allowances and all other cash payments of every nature. Does not include material advantages which are considerable as coal is usually supplied either free or at a nominal figure, and housing accommodation is furnished in much the same way.

The data for the Lyon region in the above table cover the second quarter of 1931. From April 1 to May 15, 1931, a reduction was put in force by which pay of men over 21 was cut 1.40 frs. (5.5 cents) per day and smaller cuts were made for younger employees. On May 16th this cut was carried to 2 francs (7.8 cents). Miners are paid for the most part on a bonus system, comprising a minimum with subsequent payments for larger output. These conditions vary in different mines and under different conditions.

## Iron Mines

In the iron mines, there is a family allowance of 1 franc (3.9 cents) for the wife, 1.25 francs (4.9 cents) for the first child, 1.50 francs (5.9 cents) for the second and 2 francs (7.8 cents) for each succeeding child, for each working-day. About 51 per cent of the workers occupy lodgings at reduced rentals and receive coal at special rates. An average of 1.74 francs (6.8 cents) per working-day is charged each worker for social insurance, the employer paying 2.09 francs (8.2 cents) as his contribution.

The daily rates paid in the iron mines of the Strassburg region in September, 1931, are shown in the following statement:

	Per day
Pickmen.....	744.68 francs (\$1.75).
Other underground workers.....	36.96-41.95 francs (\$1.45-1.64).
Surface workers.....	27.52 francs (\$1.08).

## Potash Mines

The statement following shows the wage rates paid in the potash mines of the Strassburg region in September, 1931:

	Per day
Pickmen.....	41.35 francs (\$1.62).
Other underground workers.....	35.35-37.44 francs (\$1.39-1.47).
Surface workers.....	30.05 francs (\$1.18).

<sup>7</sup> For 8 hours per day from mouth to pit and return.

Family allowances are also paid, the rate per working-day being as follows:

For 1 child.....	1.35 francs (5.3 cents).
For 2 children.....	3.00 francs (11.8 cents).
For 3 children.....	5.05 francs (19.8 cents).
For 4 children.....	7.50 francs (29.4 cents).
For 5 children.....	10.35 francs (40.6 cents).
For 6 children.....	13.60 francs (53.3 cents).
For 7 children.....	17.25 francs (67.6 cents).
For 8 children.....	21.30 francs (83.5 cents).
For 9 children.....	23.75 francs (93.1 cents).

Social insurance is compulsory in the potash mines, as in the iron mines.

Excellent lodgings in cottages are furnished to families at very cheap rates. Single men also get reduced prices.

#### Wages in Oil Production

THE average daily wages in the production of oil in the Strassburg district are shown below:

	Per day
Pickmen.....	36.19 francs (\$1.42).
Other underground workers.....	27.48 francs (\$1.08).
Surface workers.....	24.14 francs (\$0.95).

The family allowance amounts to 2 francs (7.8 cents) for each child. Social insurance is compulsory.

#### Wages in the Lumber Industry

TABLE 11 shows the average hourly and daily rates paid in the lumber industry in the Bordeaux district:

TABLE 11.—AVERAGE RATES PER HOUR AND PER DAY IN THE LUMBER INDUSTRY OF THE BORDEAUX DISTRICT

[Conversions into United States currency on basis of franc=3.92 cents]

Class of labor	Average wage			
	Per hour		Per day	
	French currency	United States currency	French currency	United States currency
Unskilled labor.....	<i>Francs</i> 3.75	<i>Cents</i> 14.7	<i>Francs</i> 30.00	<i>United States currency</i> \$1.18
Skilled labor.....	5.00	19.6	45.00	1.76

The 8-hour day and 48-hour week are worked in sawmills and lumber yards, with double pay for overtime. Boys from 15 to 18 years of age are paid less than the wage scale indicated above, receiving from 15 francs (58.8 cents) to 25 francs (98 cents) per day.

The wages shown are net, except for a social insurance contribution of 1.25 francs (4.9 cents) per man, per day, the expense of which is borne by the worker. There are no supplementary payments, such as family allowances, payments in kind, paid holidays, free housing and land for garden, etc.

Dock-yard workers receive 40 francs (\$1.57) per 8-hour day for handling mine props.

### Wages in Agriculture

IN CONNECTION with the law of December 15, 1922, extending the workmen's compensation law to cover agricultural workers, each prefect is required to furnish a table of wages classified by occupations and, when possible, by locality. These reports are made every two years. The average wages of agricultural workers vary greatly in the different departments. The lowest yearly wages reported for day laborers were 3,060 francs (\$119.95) in the Department of Alpes (Haute) while the highest 9,750 francs (\$382.20) with board and lodging, were paid in the Department of the Seine. The wages of farm hands varied from 4,112 francs (\$161.19) in the Department of Loire, Inferieure, to 11,000 francs (\$431.20) in the Department of Aveyron, while the annual wages of teamsters ranged from 4,800 francs (\$188.16) in the Department of Dordogne to 11,250 francs (\$441) in the Department of the Seine, in the latter case board and lodging also being furnished. Among woman farm laborers, the lowest wages, 1,300 francs (\$50.96), were found in the Department of Finistere, and the highest, 7,500 (\$294), in the Department of Maine-et-Loire, while the wages of farm servants ranged from 2,500 francs (\$98) in Ariege to 8,000 francs (\$313.60) in Aveyron. In addition to the cash wages, farm workers also receive various payments in kind.

Table 6 shows the average daily and yearly wages of the different classes of farm workers in 1928 and 1930.

TABLE 12.—AVERAGE DAILY AND YEARLY WAGES OF DIFFERENT CLASSES OF AGRICULTURAL WORKERS IN FRANCE IN 1928 AND 1930

[Conversions into United States currency on basis of franc=3.92 cents]

Sex and occupation	Average wages in—							
	1928				1930			
	Per day		Per year		Per day		Per year	
	French currency	United States currency	French currency	United States currency	French currency	United States currency	French currency	United States currency
Males:	<i>Francs</i>		<i>Francs</i>		<i>Francs</i>		<i>Francs</i>	
Laborers.....	20.60	\$0.81	5,642	\$221.17	22.50	\$0.88	6,202	\$243.12
Farm hands.....	18.94	.74	5,993	234.93	20.85	.82	6,690	262.25
Teamsters.....	21.56	.85	6,699	262.60	23.73	.93	7,437	291.53
Females:								
Laborers.....	14.20	.56	3,595	140.92	15.41	.60	3,933	154.17
Farm servants.....	13.58	.53	4,324	169.50	14.74	.58	4,806	188.40

## General Survey of Wages in Luxemburg, 1931

THE principal industries in Luxemburg are iron mining, the iron and steel industry, and agriculture. The wages which were in effect in those industries in September, 1931, are given in this report.<sup>1</sup>

### Iron Mining and Iron and Steel Industry

OWING to the greatly curtailed production of iron and steel and large stocks of iron ore in storage, miners are to-day being paid from 5 to 7.50 francs (13.9 to 20.9 cents)<sup>2</sup> per ton of ore brought out, but each miner is allowed to produce only a certain number of tons of ore in one day or shift. No overtime is allowed and a miner must quit work when he has produced his allotment.

As a rule the miner produces his daily allotment of ore in about seven hours, and his average daily earnings vary, according to the mine and quality of ore, from 50 to 86 francs (\$1.39 to \$2.39) per day. The miners are working, on the average, five days per week, and the total amount of cash received is much less than during the period when work was allowed seven days per week and a miner could, if he chose, work 10 hours a day and produce as much ore as possible, being paid a bonus for every ton over his daily allotment.

The wages of unskilled labor in the steel mills range from 7 to 13 francs (19.5 to 36.1 cents) per hour. At present no overtime or Sunday work is permitted; in fact about five days' work per week is furnished, but during the month workmen are laid off on the average about half of a month's work for each man. An 8-hour day means a wage of 44 to 56 francs (\$1.22 to \$1.56) per day for unskilled labor and 56 to 104 francs (\$1.56 to \$2.89) per day for skilled labor.

*Insurance.*—Both miners and mill workers are subject to the compulsory insurance laws and must be covered in two classes of insurance—that against industrial accidents, for which the entire premium is paid by the employer, and that against old age and invalidity, the contribution for which is paid half by the worker and half by the employer. This contribution at present is 4 per cent of the wages paid, 2 per cent being paid by the worker.

<sup>1</sup> Report from Frederick L. Washbourne, American vice consul, Luxemburg, Luxemburg.

<sup>2</sup> Conversions into United States currency on basis of franc=2.78 cents.



## Agriculture

IN THE Grand Duchy of Luxemburg both men and women are employed in agriculture.

The table following gives the current rate of wages for the various types of farm labor. In connection with these figures it should be noted that they are in addition to board and lodging, which are furnished free by the employer.

## MONTHLY RATES OF WAGES IN AGRICULTURE IN LUXEMBURG

[Conversions into United States currency on basis of franc=2.78 cents]

Class and sex of workers	Average rate per month	
	Luxem- burg currency	United States currency
Experienced workers, male.....	<i>Francs</i> 500-600	\$13. 90-\$16. 68
Inexperienced workers, male....	320-400	18. 90- 11. 12
Experienced workers, female....	380-450	10. 06- 12. 51
Inexperienced workers, female....	250-350	6. 95- 9. 73

Day workers do not receive board and lodging; they are paid in the winter season 15 to 25 francs (41.7 to 69.5 cents) per day and in the busy season from April until after the harvest, 25 to 35 and 40 francs (69.5, 97.3 cents and \$1.11) per day.

The day of the farm laborer with board and lodging is determined by weather conditions and in pleasant weather may last from sunrise to sunset, with numerous periods for refreshments.

*Insurance.*—Accident insurance is compulsory, and the entire premium is paid by the employer. Farm labor is not subject to any other form of insurance at the present time, so that there are no deductions from their wages for insurance contributions.

# TREND OF EMPLOYMENT

## Summary for November, 1931

**E**MPLOYMENT decreased 2.4 per cent in November, 1931, as compared with October, 1931, and pay-roll totals decreased 3.7 per cent.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both October and November, together with the per cents of change in November, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, OCTOBER AND NOVEMBER, 1931

Industrial group	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		October, 1931	Novem-ber, 1931		October, 1931	Novem-ber, 1931	
<b>1. Manufacturing</b> .....	16,558	2,868,184	2,800,539	1-2.8	\$60,845,850	\$58,102,971	1-5.0
<b>2. Coal mining</b> .....	1,456	320,075	315,451	-1.4	7,219,740	6,671,947	-7.6
Anthracite .....	160	118,719	114,648	-3.4	3,617,307	3,174,023	-12.3
Bituminous .....	1,296	201,356	200,803	-0.3	3,602,433	3,497,924	-2.9
<b>3. Metalliferous mining</b> .....	254	34,141	33,534	-1.8	735,032	689,487	-6.2
<b>4. Quarrying and nonmetallic mining</b> .....	803	29,669	27,259	-8.1	597,912	531,422	-11.1
<b>5. Crude petroleum produc-ing</b> .....	278	24,162	23,058	-4.6	800,582	765,230	-4.4
<b>6. Public utilities</b> .....	11,861	674,177	666,493	-1.1	20,468,736	20,330,422	-0.7
Telephone and telegraph .....	7,988	298,044	295,922	-0.7	8,772,648	8,588,586	-2.1
Power, light, and water .....	3,353	237,248	233,728	-1.5	7,442,453	7,449,253	+0.1
Electric railroad operation and maintenance, exclu-sive of car shops .....	520	138,885	136,843	-1.5	4,253,635	4,292,583	+0.9
<b>7. Trade</b> .....	14,632	437,144	440,554	+0.8	10,490,117	10,554,514	+0.6
Wholesale .....	2,735	77,620	76,623	-1.3	2,308,974	2,302,502	-0.3
Retail .....	11,897	359,524	363,931	+1.2	8,181,143	8,252,012	+0.9
<b>8. Hotels</b> .....	2,281	151,104	146,780	-2.9	2,380,480	2,302,921	-3.3
<b>9. Canning and preserving</b> .....	991	62,908	35,363	-43.8	827,299	513,058	-38.0
<b>10. Laundries</b> .....	768	52,641	51,489	-2.2	938,574	906,030	-3.5
<b>11. Dyeing and cleaning</b> .....	318	11,392	10,890	-4.4	249,452	228,889	-8.2
<b>Total</b> .....	50,200	4,665,597	4,551,410	-2.4	105,553,774	101,596,891	-3.7

## RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION <sup>3</sup>							
New England .....	7,899	525,772	507,159	-3.5	\$11,635,793	\$10,974,413	-5.7
Middle Atlantic .....	8,390	1,393,806	1,367,925	-1.9	34,024,605	32,571,534	-4.3
East North Central .....	10,342	1,196,931	1,169,473	-2.3	27,920,397	27,155,066	-2.7
West North Central .....	5,202	300,743	289,798	-3.6	6,826,601	6,642,572	-2.7
South Atlantic .....	5,138	507,453	500,899	-1.3	9,054,074	8,731,312	-3.6
East South Central .....	2,597	195,467	192,552	-1.5	3,095,449	2,973,025	-4.0
West South Central .....	3,172	168,594	164,411	-2.5	3,791,935	3,658,812	-3.5
Mountain .....	1,900	96,768	94,703	-2.1	2,283,788	2,274,621	-0.4
Pacific .....	5,560	280,063	264,490	-5.6	6,921,132	6,615,536	-4.4
<b>All divisions</b> .....	50,200	4,665,597	4,551,410	-2.4	105,553,774	101,596,891	-3.7

<sup>1</sup> Weighted per cent of change for the combined 54 manufacturing industries, repeated from Table 1, man-ufacturing industries; the remaining per cents of change, including total, are unweighted.

<sup>2</sup> Cash payments only; see note 3, Table 1, nonmanufacturing industries.

<sup>3</sup> *New England:* Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont. *Middle Atlantic:* New Jersey, New York, Pennsylvania. *East North Central:* Illinois, Indiana, Michigan, Ohio, Wisconsin. *West North Central:* Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota. *South Atlantic:* Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia. *East South Central:* Alabama, Kentucky, Mississippi, Tennes-see. *West South Central:* Arkansas, Louisiana, Oklahoma, Texas. *Mountain:* Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming. *Pacific:* California, Oregon, Washington.

The per cents of change shown for the total figures represent only the changes in the establishments reporting, as the figures for the several industrial groups are not weighted according to the relative importance of each group.

Employment in retail trade establishments increased 1.2 per cent in November as compared with October, and earnings of employees in this industrial group increased 0.9 per cent.

Slight gains in pay-roll totals over the month interval coupled with decreases of 1.5 per cent each in employment were reported in electric-railroad operation and in power, light, and water plants.

The remaining 12 industrial groups included in the summary table reported decreases in both employment and pay-roll totals in November as compared with October.

Decreases in employment ranging from 0.3 per cent to 1.8 per cent were reported in bituminous coal mining; telephone and telegraph; wholesale trade; electric-railroad operation; power, light, and water; and metalliferous mining. Laundries reported 2.2 per cent fewer employees, manufacturing industries reported a falling off of 2.8 per cent in number of workers, and employment in hotels decreased 2.9 per cent from October to November. Employment in anthracite mining decreased 3.4 per cent, dyeing and cleaning establishments showed a loss of 4.4 per cent in number of workers, and crude petroleum-producing plants reported 4.6 per cent fewer employees in November than in the preceding month. A seasonal decrease in quarrying and nonmetallic mining of 8.1 per cent was reported in November, while the usual closing of establishments with the completion of the vegetable canning season resulted in a loss of 43.8 per cent in number of employees in the canning and preserving industry over the month interval.

Each of the nine geographic divisions reported decreases in both employment and earnings from October to November, the smallest decrease in employment (1.3 per cent) being reported in the South Atlantic division, while the greatest decline in number of workers (5.6 per cent) was shown in the Pacific geographic division. The decrease in this last-named division was due largely to the seasonal decrease in the canning and preserving industry in that division in November.

Per capita earnings for November, 1931, given in the first table on page 192 must not be confused with full-time weekly rates of wages; they are actual per capita weekly earnings computed by dividing the total number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers. Comparisons are made with per capita earnings in October, 1931, and with November, 1930.

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are shown in the second table on page 192. These reports are for the months of September and October, instead of for October and November, 1931, consequently, the figures can not be combined with those presented in the summary table.

PER CAPITA WEEKLY EARNINGS IN NOVEMBER, 1931, AND COMPARISON WITH OCTOBER, 1931, AND NOVEMBER, 1930

Industrial group	Per capita weekly earnings in November, 1931	Per cent of change November, 1931, compared with—	
		October, 1931	November, 1930
1. Manufacturing (54 industries) .....	\$20.68	-2.3	-12.7
2. Coal mining:			
Anthracite .....	27.68	-9.2	-5.5
Bituminous .....	17.42	-2.6	-21.3
3. Metalliferous mining .....	20.56	-4.3	-23.7
4. Quarrying and nonmetallic mining .....	19.50	-3.3	-14.4
5. Crude petroleum producing .....	33.19	+0.2	-5.6
6. Public utilities:			
Telephone and telegraph .....	29.02	-1.4	+2.0
Power, light, and water .....	31.87	+1.7	+1.9
Electric railroads .....	31.37	+2.4	-0.4
7. Trade:			
Wholesale .....	30.05	+1.1	-3.6
Retail .....	22.67	-0.3	-4.6
8. Hotels (cash payments only) <sup>1</sup> .....	15.69	-0.3	-8.6
9. Canning and preserving .....	14.51	+10.2	-7.7
10. Laundries .....	17.60	-1.4	-6.8
11. Dyeing and cleaning .....	21.02	-3.9	-5.7
Total .....	22.32	-1.3	-8.9

<sup>1</sup> The additional value of board, room, and tips can not be computed.

#### EMPLOYMENT AND PAY-ROLL TOTALS, CLASS I RAILROADS

Industry	Number on pay roll		Per cent of change	Amount of pay roll in entire month		Per cent of change
	Sept. 15, 1931	Oct. 15, 1931		September, 1931	October, 1931	
Class I railroads .....	1,239,118	1,210,426	-2.3	\$163,429,525	\$164,636,799	-0.7

The total number of employees included in this summary is 5,761,836, and their combined earnings in one week amount to approximately \$139,000,000.

### Employment in Selected Manufacturing Industries in November, 1931

#### Comparison of Employment and Pay-Roll Totals in Manufacturing Industries in November, 1931, with October, 1931, and November, 1930

**E**MPLOYMENT in manufacturing industries decreased 2.8 per cent in November, 1931, as compared with October, 1931, and pay-roll totals decreased 5.0 per cent.

In each of the last nine years, with but one exception, employment and pay-roll totals in manufacturing industries have decreased from October to November. This falling off in employment and earnings in November is due largely to decreases in employment in industries connected with building construction, the between-season declines in the clothing and the boot and shoe industries, and the usual shrinkage in employment in the automobile industry which regularly reports decreased employment at this time of year due to temporary lay-offs occasioned by changes in automobile models.

Measured by changes in indexes of employment and earnings over the year interval, the level of employment in November, 1931, was 14.5 per cent below the corresponding month of the previous year, and pay-roll totals were 25.3 per cent lower than in November, 1930.

These per cents of change in employment and earnings from October to November, 1931, are based upon returns made by 13,958 establishments in 54 of the principal manufacturing industries of the United States, having in November 2,519,455 employees, whose combined earnings in one week were \$52,110,615.

The index of employment in November, 1931, is 65.4, as compared with 67.3 for October, 1931, 69.6 for September, 1931, and 76.5 for November, 1930; the index of pay-roll totals for November, 1931, is 51.0, as compared with 53.7 for October, 1931, 55.4 for September, 1931, and 68.3 for November, 1930. The monthly average for 1926 equals 100.

Each of the 12 groups of manufacturing industries upon which the bureau's indexes of employment and pay-roll totals are based reported decreases in both employment and earnings from October to November, with the single exception of the vehicles group, which showed a slight gain in pay-roll totals coupled with a decrease in number of workers. The decreases in employment in the paper, tobacco, and miscellaneous groups of industries were less than 1 per cent. The leather group of industries reported the greatest loss in number of workers over the month (12 per cent) due to the decline in employment in the boot and shoe industry, in which a more pronounced decrease than is customarily reported was shown from October to November. The stone, clay, and glass group reported a decrease of 4.6 per cent, due to seasonal fluctuation in industries connected with building construction, while the lumber and the textiles groups reported decreases in employment of 3.4 per cent and 3.0 per cent, respectively. The remaining 5 groups reported losses ranging from 1.3 per cent in the food group to 2.6 per cent in the chemicals group.

The decreases in employment in these 12 groups of manufacturing industries over the year interval, as measured by changes in the index numbers of employment, range from 5.9 per cent in the food group to 23.2 per cent in the vehicles group, and the decreases in pay-roll totals range from 13.5 per cent in the paper group to 39.5 per cent in the iron and steel group. The decline in earnings in each of these groups over the year interval is more pronounced than the decreases in employment.

Increased employment was shown in 8 of the 54 manufacturing industries on which the bureau's indexes of employment and pay-roll totals are based, and increased earnings were reported in 5 industries. The greatest increase in employment from October to November, 6.8 per cent, was shown in the agricultural-implement industry. The rubber boot and shoe industry reported a gain of 4.2 per cent in number of employees over the month interval, and employment in the shipbuilding industry increased 3.9 per cent. The chewing and smoking tobacco industry and the cane-sugar refining industry reported increases in employment of 3.0 per cent and 2.9 per cent, respectively. The most pronounced decrease in employment from October to November, 13.9 per cent, was reported in the boot and shoe industry, in which a decrease of somewhat more than seasonal proportion was shown. A number of plants in this industry reported



inventory-taking during the November pay period. The ice cream industry reported a seasonal decline in employment of 8.6 per cent, and the men's clothing and the millinery and lace goods industries reported decreases of 9.5 per cent each in number of workers. The women's clothing industry reported 8.3 per cent fewer employees; machine tools, 7.7 per cent; cement, 7.4 per cent; carpets and rugs, 6.3 per cent; stoves, 6.7 per cent; glass, 5.7 per cent; and shirts and collars, 5.4 per cent.

Comparing the indexes of employment and earnings in November, 1931, with the index numbers of November, 1930, for each of the 54 industries, decreased employment and pay-roll totals are shown in each industry. The chewing and smoking tobacco industry showed practically no change in employment over the year interval, while decreases of 2.5 per cent or less were reported in the confectionery, cotton goods, hosiery and knit goods, men's clothing, and automobile-tire industries. The outstanding decrease in both employment and pay-roll totals was shown in the agricultural-implement industry, in which the level of employment in November, 1931, had declined 52 per cent over the year interval, and pay-roll totals were 56.6 per cent below the level of the corresponding month of 1930. Employment in the machine-tool industry had decreased 38.2 per cent over the year interval, and the fertilizer and the piano and organ industries reported a falling off of slightly less than 37 per cent in number of workers between November, 1930, and November, 1931. The automobile industry reported a loss of 26.5 per cent in employment over the 12-month period; the iron and steel industry reported 18.6 per cent fewer employees in November, 1931, than in November, 1930, and the decline in employment from November, 1930, to November, 1931, in the foundry and machine-shop products industry was 24.5 per cent.

In the following table is shown the number of identical establishments reporting in both October and November, 1931, in the 54 manufacturing industries on which the bureau's indexes of employment and pay-roll totals are based, together with the total number of employees on the pay rolls of these establishments during the pay period ending nearest November 15, and the amount of their weekly earnings in November, the per cents of change over the month and the year interval, and the index numbers of employment and pay-roll totals in November, 1931.

The monthly per cents of change in employment and earnings for each of the 54 separate industries are computed by direct comparison of the total number of employees and the amount of weekly earnings in identical establishments for the two months considered. The per cents of change over the year interval in the separate industries, the group indexes, and the general indexes are computed from the index numbers of employment and pay-roll totals. The per cents of change over the month interval in the several groups and in the total of the 54 manufacturing industries are computed from the index numbers of these groups, which are obtained by weighting the index numbers of the several industries in the groups by the number of employees or wages paid in the industries.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN OCTOBER AND NOVEMBER, 1931, PER CENT OF CHANGE OVER A YEAR INTERVAL, AND INDEX NUMBERS OF EMPLOYMENT AND PAY-ROLL TOTALS, NOVEMBER, 1931

Industry	Estab-lish-ments reporting in both Oct. and Nov., 1931	Employment		Pay-roll totals		Index num-bers, Novem-ber, 1931 (average 1926=100)			
		Number on pay roll, No- vember, 1931	Per cent of change		Amount of pay roll (1 week), Novem-ber, 1931	Per cent of change		Em- ploy- ment	Pay- roll totals
			Oct. to Nov., 1931	Nov., 1930, to Nov., 1931		Oct. to Nov., 1931	Nov., 1930, to Nov., 1931		
<b>Food and kindred products.</b>	<b>2,124</b>	<b>223,999</b>	<b>-1.3</b>	<b>-5.9</b>	<b>\$5,239,884</b>	<b>-3.0</b>	<b>-13.7</b>	<b>87.8</b>	<b>81.1</b>
Slaughtering and meat packing.....	213	85,506	+1.6	-5.3	2,022,317	-2.3	-16.2	90.4	92.9
Confectionery.....	328	39,809	-2.9	-2.4	659,262	-5.2	-9.7	90.3	79.1
Ice cream.....	320	10,966	-8.6	-10.0	348,374	-8.0	-15.9	70.1	66.1
Flour.....	419	16,311	-0.7	-6.3	404,740	-0.8	-11.0	87.9	83.3
Baking.....	830	63,248	-2.4	-7.0	1,587,653	-2.8	-13.0	88.0	82.7
Sugar refining, cane.....	14	8,159	+2.9	-6.6	217,538	-1.5	-14.7	82.2	74.3
<b>Textiles and their products.</b>	<b>2,409</b>	<b>525,175</b>	<b>-3.0</b>	<b>-6.4</b>	<b>8,022,340</b>	<b>-8.8</b>	<b>-18.4</b>	<b>73.7</b>	<b>56.3</b>
Cotton goods.....	520	184,470	-0.8	-2.5	2,199,084	-6.6	-16.0	73.5	56.1
Hosiery and knit goods.....	350	89,573	+1.5	-1.8	1,390,108	-0.4	-17.8	85.8	70.3
Silk goods.....	249	49,132	-3.1	-15.2	814,776	-8.4	-25.1	70.7	57.2
Woolen and worsted goods.....	186	46,593	-1.8	-6.0	853,816	-3.7	-12.1	67.4	55.9
Carpets and rugs.....	30	15,201	-6.3	-9.1	291,995	-5.6	-16.9	65.1	48.1
Dyeing and finishing tex- tiles.....	122	33,489	-0.4	-11.1	727,275	-0.7	-20.1	82.5	70.4
Clothing, men's.....	345	53,074	-9.5	-1.7	794,814	-21.5	-15.2	69.7	43.0
Shirts and collars.....	105	16,704	-5.4	-6.9	202,265	-11.7	-23.1	71.8	50.3
Clothing, women's.....	365	24,380	-8.3	-17.2	517,183	-16.0	-25.6	73.5	56.6
Millinery and lace goods.....	737	12,559	-9.5	-9.0	231,024	-13.5	-15.2	68.1	51.9
<b>Iron and steel and their products.</b>	<b>1,989</b>	<b>459,558</b>	<b>-2.2</b>	<b>-21.8</b>	<b>8,736,316</b>	<b>-6.0</b>	<b>-39.5</b>	<b>59.0</b>	<b>37.6</b>
Iron and steel.....	194	190,741	-1.6	-18.6	3,396,678	-5.3	-42.8	62.5	36.3
Cast-iron pipe.....	41	8,053	-2.7	-17.6	136,502	-1.2	-34.5	49.7	36.2
Structural-iron work.....	181	21,393	-2.9	-24.8	462,813	-6.0	-39.3	63.7	46.1
Foundry and machine-shop products.....	1,090	159,883	-1.8	-24.5	3,200,002	-5.7	-38.1	57.1	37.7
Hardware.....	100	24,453	-1.0	-15.2	435,853	-3.2	-30.7	61.2	40.8
Machine tools.....	147	16,361	-7.7	-38.2	367,412	-8.9	-42.5	50.2	36.6
Steam fittings and steam apparatus.....	102	22,532	-3.6	-18.4	442,952	-10.4	-36.1	51.4	34.3
Stoves.....	134	16,142	-6.7	-15.7	324,104	-15.8	-28.1	60.0	41.0
<b>Lumber and its products.</b>	<b>1,434</b>	<b>147,632</b>	<b>-3.4</b>	<b>-21.5</b>	<b>2,286,077</b>	<b>-9.9</b>	<b>-37.4</b>	<b>48.1</b>	<b>33.7</b>
Lumber, sawmills.....	653	76,075	-4.2	-25.5	1,094,355	-9.8	-42.7	43.8	29.9
Lumber, millwork.....	341	21,863	-0.5	-17.3	381,476	-5.2	-32.6	47.7	34.7
Furniture.....	440	49,694	-3.5	-15.1	810,246	-11.9	-30.4	59.4	40.8
<b>Leather and its products.</b>	<b>429</b>	<b>107,464</b>	<b>-12.0</b>	<b>-9.6</b>	<b>1,687,803</b>	<b>-16.5</b>	<b>-14.4</b>	<b>68.9</b>	<b>45.6</b>
Leather.....	142	23,064	-4.0	-10.6	486,083	-8.4	-19.4	71.6	60.1
Boots and shoes.....	287	84,400	-13.9	-9.3	1,201,720	-19.6	-12.3	68.2	41.4
<b>Paper and printing.</b>	<b>1,780</b>	<b>226,470</b>	<b>-0.4</b>	<b>-7.4</b>	<b>6,568,407</b>	<b>-0.8</b>	<b>-13.5</b>	<b>88.6</b>	<b>84.2</b>
Paper and pulp.....	393	76,849	-1.4	-7.7	1,656,895	-2.7	-20.5	78.4	63.6
Paper boxes.....	312	24,309	-0.9	-7.7	497,681	-5.3	-15.6	83.9	78.4
Printing, book and job.....	631	52,735	+0.4	-10.6	1,650,172	+1.1	-16.9	85.7	80.6
Printing, newspapers.....	444	72,577	-0.2	-3.9	2,763,659	-0.6	-6.5	104.9	104.4
<b>Chemicals and allied products.</b>	<b>470</b>	<b>84,991</b>	<b>-2.6</b>	<b>-16.7</b>	<b>2,318,317</b>	<b>-5.3</b>	<b>-21.7</b>	<b>72.0</b>	<b>67.7</b>
Chemicals.....	159	31,828	-2.6	-10.9	809,599	-6.6	-15.6	83.3	76.8
Fertilizers.....	204	6,620	-4.6	-36.4	98,306	-7.4	-45.0	46.8	38.3
Petroleum refining.....	107	46,543	-2.0	-18.5	1,410,412	-3.6	-24.6	67.4	64.2
<b>Stone, clay, and glass products.</b>	<b>1,129</b>	<b>95,615</b>	<b>-4.6</b>	<b>-20.0</b>	<b>1,863,583</b>	<b>-6.5</b>	<b>-32.6</b>	<b>54.5</b>	<b>40.3</b>
Cement.....	112	15,987	-7.4	-23.0	361,592	-10.0	-32.5	52.7	40.8
Brick, tile, and terra cotta.....	716	24,852	-3.9	-29.2	394,748	-6.7	-46.7	41.5	25.7
Pottery.....	111	15,664	-1.5	-11.8	298,128	-1.7	-25.4	72.4	54.2
Glass.....	190	39,112	-5.7	-12.6	809,115	-7.4	-22.7	65.3	53.7
<b>Metal products, other than iron or steel.</b>	<b>251</b>	<b>43,156</b>	<b>-1.8</b>	<b>-12.7</b>	<b>833,387</b>	<b>-3.3</b>	<b>-26.2</b>	<b>64.0</b>	<b>47.5</b>
Stamped and enameled ware.....	90	16,400	-3.3	-9.3	301,393	-6.7	-23.3	66.9	50.9
Brass, bronze, and copper products.....	161	26,756	-1.2	-14.4	531,994	-1.9	-27.5	62.6	46.1

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN OCTOBER AND NOVEMBER, 1931, PER CENT OF CHANGE OVER A YEAR INTERVAL, AND INDEX NUMBERS OF EMPLOYMENT AND PAY-ROLL TOTALS, NOVEMBER, 1931—Continued

Industry	Estab- lish- ments report- ing in both Oct. and Nov., 1931	Employment			Pay-roll totals			Index num- bers, Novem- ber, 1931 (average 1926= 100)	
		Number on pay roll, No- vember, 1931	Per cent of change		Amount of pay roll (1 week), Novem- ber, 1931	Per cent of change		Em- plov- ment	Pay- roll totals
			Oct. to Nov., 1931	Nov., 1930, to Nov., 1931		Oct. to Nov., 1931	Nov., 1930, to Nov., 1931		
<b>Tobacco products</b> .....	<b>224</b>	<b>60,587</b>	<b>-0.5</b>	<b>-8.6</b>	<b>\$859,094</b>	<b>-0.1</b>	<b>-15.9</b>	<b>81.4</b>	<b>68.4</b>
Chewing and smoking tobacco and snuff.....	27	8,841	+3.0	-0.1	124,898	-4.3	-7.9	87.4	74.6
Cigars and cigarettes.....	197	51,746	-1.0	-9.7	734,196	+0.4	-16.9	80.6	67.6
<b>Vehicles for land transpor- tation</b> .....	<b>1,218</b>	<b>299,808</b>	<b>-2.3</b>	<b>-23.2</b>	<b>7,942,270</b>	<b>+0.2</b>	<b>-25.8</b>	<b>51.0</b>	<b>43.8</b>
Automobiles.....	218	194,003	-1.2	-26.5	5,110,390	+2.3	-26.3	51.1	41.2
Carriages and wagons.....	47	645	-1.5	-24.8	12,214	-7.9	-34.2	33.1	30.6
Car building and repair- ing, electric-railroad.....	442	24,723	-0.4	-14.6	733,107	+1.6	-16.5	71.7	68.6
Car building and repair- ing, steam-railroad.....	1,511	80,437	-3.5	-20.6	2,086,559	-2.1	-26.3	49.6	44.6
<b>Miscellaneous industries</b> .....	<b>501</b>	<b>245,000</b>	<b>-0.9</b>	<b>-17.6</b>	<b>5,753,137</b>	<b>-2.8</b>	<b>-27.6</b>	<b>69.3</b>	<b>55.7</b>
Agricultural implements.....	83	9,400	+6.8	-52.0	183,464	+5.3	-56.6	34.2	24.8
Electric machinery, appar- atus, and supplies.....	227	138,883	-3.1	-20.2	3,471,215	-1.6	-29.1	73.3	61.7
Pianos and organs.....	56	3,877	-1.6	-36.7	87,160	-8.0	-48.9	30.9	21.7
Rubber boots and shoes.....	10	13,752	+4.2	-4.6	242,513	-3.6	-11.9	72.4	54.9
Automobile tires and inner tubes.....	39	45,340	-0.7	-2.0	920,035	-7.8	-15.5	65.1	43.5
Shipbuilding.....	86	33,748	+3.9	-10.5	848,750	-2.4	-23.6	93.3	80.0
<b>Total—54 industries used in computing index numbers of employment and pay roll</b> .....	<b>13,958</b>	<b>2,519,455</b>	<b>-2.8</b>	<b>-14.5</b>	<b>52,110,615</b>	<b>-5.0</b>	<b>-25.3</b>	<b>65.4</b>	<b>51.0</b>

The trend of employment and earnings in 31 additional manufacturing industries, surveyed but not yet included in the bureau's weighted indexes of employment and pay-roll totals, is shown in Table 2 following. The combined total of these industries shows a decrease of 1.4 per cent in number of employees from October to November and a loss of 4.7 per cent in pay-roll totals. The per cents of change for the combined total of these industries are un-weighted and represent only the changes in the total number of establishments reported. These 31 industries have been added to the bureau's employment survey at various times since February, 1929. Information for the index base year (1926), however, is not available, and therefore these industries can not be combined with the 54 manufacturing industries upon which the bureau's indexes of employment and earnings are based.

Nine of the thirty-one industries in this group reported gains in number of employees in November, as compared with October, and six industries showed increased weekly pay-roll totals. The beet-sugar and cottonseed products industries, which reported the outstanding increases in employment last month, again reported the largest gains in employment from October to November, due to the seasonal expansion at this time of year in these industries. The iron and steel forgings industry reported an increase of 6.6 per cent in employment over the month interval, and the typewriters and supplies industry reported a gain of 3.0 per cent. The greatest de-

crease in employment was reported in the fur-felt hat industry in which employment declined 10.6 per cent from October to November. Seasonal decreases in number of workers in the beverage and the marble and other stone products industries of 8.3 per cent and 7.9 per cent, respectively, were reported in November, as compared with October, and decreases ranging from 6.7 per cent to 5.4 per cent were reported in radio, men's furnishing goods, jewelry, and aluminum manufactures. The decreases in employment in the remaining 15 industries were 3.7 per cent or less. A comparison of employment and pay-roll totals over the year period is available for 9 of these 31 industries. Decreases in both employment and earnings are shown in this yearly comparison in each of these 9 industries, the rayon industry reporting the smallest loss in employment from November, 1930, to November, 1931, 1.3 per cent, while the greatest decrease in employment over the year interval, 41.7 per cent, was shown in the radio industry.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN NOVEMBER, 1931, WITH OCTOBER, 1931, AND NOVEMBER, 1930, IN SPECIFIED MANUFACTURING INDUSTRIES, FOR WHICH DATA FOR THE INDEX BASE YEAR (1926) ARE NOT AVAILABLE

Industry	Estab-lish-ments report-ing in both Oct. and Nov., 1931	Employment			Pay-roll totals		
		Number on pay roll, Novem-ber, 1931	Per cent of change		Amount of pay roll (1 week), Novem-ber, 1931	Per cent of change	
			Oct. to Nov., 1931	Nov., 1930, to Nov., 1931		Oct. to Nov., 1931	Nov., 1930, to Nov., 1931
Aircraft.....	41	7,058	+2.2	-27.1	\$240,685	+8.2	-22.7
Aluminum manufactures.....	18	2,857	-5.4	(1)	57,816	-3.7	(1)
Beet sugar.....	49	16,820	+14.3	-19.6	385,955	+36.8	-18.5
Beverages.....	304	10,700	-8.3	-8.4	292,462	-10.0	-14.4
Bolts, nuts, washers, and rivets.....	68	8,262	-2.2	(1)	151,039	-3.4	(1)
Butter.....	218	5,138	-1.7	(1)	126,261	-(2)	(1)
Cash registers, adding machines, and calculating machines.....	50	15,463	+0.2	-13.7	396,773	+0.3	-23.6
Clocks, time-recording devices, and clock movements.....	24	7,638	+2.1	(1)	143,387	-2.2	(1)
Corsets and allied garments.....	28	4,346	-2.4	(1)	71,202	-4.9	(1)
Cottonseed oil, cake, and meal.....	44	2,778	+40.2	(1)	37,804	+30.8	(1)
Cotton, small wares.....	100	8,354	-1.1	(1)	139,616	-7.3	(1)
Cutlery (not including silver and plated cutlery) and edge tools.....	112	9,208	-0.2	(1)	179,981	-1.3	(1)
Forgings, iron and steel.....	40	4,654	+6.6	(1)	82,726	+7.4	(1)
Gas and electric fixtures, lamps, lanterns and reflectors.....	51	5,912	+0.5	(1)	139,710	-3.4	(1)
Jewelry.....	159	12,755	-5.7	-20.1	271,549	-7.9	-26.6
Hats, fur-felt.....	33	5,013	-10.6	(1)	88,278	-15.7	(1)
Marble, granite, slate, and other stone products.....	197	5,577	-7.9	(1)	148,608	-12.4	(1)
Men's furnishing goods.....	74	5,448	-6.3	(1)	92,262	-2.4	(1)
Paint and varnish.....	353	16,891	-3.0	-9.5	421,332	-4.7	-16.5
Plated ware.....	33	4,873	-0.7	(1)	108,785	-15.8	(1)
Plumbers' supplies.....	71	5,319	-2.6	(1)	96,399	-11.6	(1)
Radio.....	43	25,672	-6.7	-41.7	518,310	-18.9	-46.5
Rayon.....	20	24,428	-2.6	-1.3	426,991	-13.1	-13.1
Rubber goods other than boots, shoes, tires, and inner tubes.....	105	19,463	-1.0	-6.1	402,770	-5.3	-15.1
Smelting and refining copper, lead, and zinc.....	24	7,324	-1.3	(1)	156,034	-4.5	(1)
Soap.....	65	8,860	-2.6	(1)	212,273	-9.5	(1)
Tools (not including edge tools, machine tools, files, or saws).....	124	8,131	-1.8	(1)	153,351	-3.0	(1)
Tin cans and other tinware.....	52	7,044	-3.7	(1)	154,126	-4.7	(1)
Turpentine and rosin.....	25	1,228	-0.2	(1)	17,925	-10.3	(1)
Typewriters and supplies.....	16	9,079	+3.0	(1)	175,317	+1.0	(1)
Wirework.....	59	4,791	+1.4	(1)	102,629	-3.4	(1)
<b>Total.....</b>	<b>2,600</b>	<b>281,084</b>	<b>-1.4</b>	<b>(1)</b>	<b>5,992,356</b>	<b>-4.7</b>	<b>(1)</b>

<sup>1</sup> Data not available.

<sup>2</sup> Less than one-tenth of 1 per cent.

The total number of employees and amount of earnings in the 31 industries shown in the foregoing table have been combined with the totals of the 54 manufacturing industries shown in Table 1 in presenting the total of all manufacturing industries in the summary table.

In the following table is presented a recapitulation of the data by geographic divisions for the combined 85 manufacturing industries. Employment and pay-roll totals in the Mountain geographic division showed an increase from October to November due to the seasonal expansion in the beet-sugar industry. The remaining geographic divisions reported decreases in both employment and earnings over the month interval, the South Atlantic division reporting the smallest decline in employment, 0.9 per cent, and the West North Central division reporting the greatest falling off in number of workers, 4.7 per cent. The level of employment and earnings in each of these nine divisions in November, 1931, as compared with November, 1930, shows a considerable decrease over the year interval, the decrease in earnings in each instance being more pronounced than the decline in employment.

TABLE 3.—TREND OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING ESTABLISHMENTS BY GEOGRAPHIC DIVISIONS, ESTABLISHMENTS REPORTING FOR OCTOBER AND NOVEMBER, 1931, NUMBER OF EMPLOYEES AND WEEKLY EARNINGS IN NOVEMBER, 1931, AND PER CENTS OF CHANGE OVER THE MONTH AND YEAR INTERVAL

Geographic division	Estab- lishments reporting in both Oct. and Nov., 1931	Number on pay roll November, 1931	Per cent of change		Amount of pay roll (1 week), November, 1931	Per cent of change	
			Oct., to Nov., 1931	Nov., 1930, to Nov., 1931		Oct., to Nov., 1931	Nov., 1930, to Nov., 1931
New England.....	2,029	347,627	-4.1	-12.9	\$6,675,072	-7.9	-22.4
Middle Atlantic.....	3,910	825,886	-2.2	-15.3	18,254,638	-4.7	-26.5
East North Central.....	3,974	815,359	-2.1	-19.0	18,266,258	-3.3	-27.7
West North Central.....	1,722	151,451	-4.7	-15.0	3,304,961	-3.9	-21.4
South Atlantic.....	1,964	340,103	-0.9	-5.9	5,357,807	-3.8	-18.3
East South Central.....	709	104,668	-1.2	-8.9	1,516,332	-6.3	-22.0
West South Central.....	833	76,586	-1.5	-17.0	1,538,367	-4.2	-26.3
Mountain.....	417	35,302	+2.4	-21.4	821,166	+5.0	-22.8
Pacific.....	1,000	103,557	-4.2	-17.8	2,368,370	-6.4	-28.8
<b>All divisions.....</b>	<b>16,558</b>	<b>2,800,539</b>	<b><sup>1</sup>-2.8</b>	<b>-14.5</b>	<b>58,102,971</b>	<b><sup>1</sup>-5.0</b>	<b>-25.3</b>

<sup>1</sup> Weighted per cent of change for the combined 54 manufacturing industries, repeated from Table 1, manufacturing industries.

#### Per Capita Earnings in Manufacturing Industries

ACTUAL per capita weekly earnings in November, 1931, for each of the 85 manufacturing industries surveyed by the Bureau of Labor Statistics, together with per cents of change in November, 1931, as compared with October, 1931, and November, 1930, are shown in Table 4.

Per capita earnings in November, 1931, for the combined 54 manufacturing industries of the United States, upon which the bureau's indexes of employment and pay rolls are based, were 2.3 per cent lower than for October, 1931, and 12.7 per cent less than for November, 1930.

The actual average per capita weekly earnings in November, 1931, for the 54 manufacturing industries were \$20.68; the average per capita earnings for all of the 85 manufacturing industries surveyed were \$20.75.



Per capita earnings given in Table 4 must not be confused with full-time weekly rates of wages. They are actual per capita weekly earnings, computed by dividing the total number of employees reported into the total amount of pay roll in the week reported, and the "number of employees" includes all persons who worked any part of the period reported—that is, part-time workers as well as full-time workers.

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN NOVEMBER, 1931, AND COMPARISON WITH OCTOBER, 1931, AND NOVEMBER, 1930

Industry	Per capita weekly earnings in November, 1931	Per cent of change compared with—	
		October, 1931	November, 1930
Food and kindred products:			
Slaughtering and meat packing.....	\$23.65	-3.8	-11.6
Confectionery.....	16.56	-2.4	-7.4
Ice cream.....	31.77	+0.7	-6.6
Flour.....	24.81	-0.1	-5.3
Baking.....	25.10	-0.4	-6.6
Sugar refining, cane.....	26.66	-4.3	-8.4
Textiles and their products:			
Cotton goods.....	11.92	-5.8	-13.6
Hosiery and knit goods.....	15.52	-1.9	-16.0
Silk goods.....	16.58	-5.5	-11.9
Woolen and worsted goods.....	18.32	-2.0	-6.7
Carpets and rugs.....	19.21	+0.8	-8.7
Dyeing and finishing textiles.....	21.72	-0.2	-10.2
Clothing, men's.....	14.98	-13.3	-13.9
Shirts and collars.....	12.11	-6.7	-17.2
Clothing, women's.....	21.21	-8.4	-10.5
Millinery and lace goods.....	18.40	-4.4	-6.6
Iron and steel and their products:			
Iron and steel.....	17.65	-3.8	-29.7
Cast-iron pipe.....	16.95	+1.5	-20.7
Structural-iron work.....	21.63	-3.2	-19.4
Foundry and machine-shop products.....	20.01	-4.0	-18.2
Hardware.....	17.82	-2.3	-18.4
Machine tools.....	22.46	-1.2	-7.0
Steam fittings and steam and hot-water heating apparatus.....	19.66	-7.0	-21.7
Stoves.....	20.08	-9.8	-14.6
Lumber and its products:			
Lumber, sawmills.....	14.39	-5.8	-23.0
Lumber, millwork.....	17.45	-4.7	-19.0
Furniture.....	16.30	-8.7	-18.0
Leather and its products:			
Leather.....	21.08	-4.6	-10.1
Boots and shoes.....	14.24	-6.6	-3.6
Paper and printing:			
Paper and pulp.....	21.56	-1.4	-13.9
Paper boxes.....	20.47	-4.5	-8.2
Printing, book and job.....	31.29	+0.7	-6.9
Printing, newspapers and periodicals.....	38.08	-0.5	-2.5
Chemicals:			
Chemicals.....	25.44	-4.1	-5.3
Fertilizers.....	14.85	-3.0	-13.8
Petroleum refining.....	30.30	-1.6	-7.4
Stone, clay, and glass products:			
Cement.....	22.62	-2.7	-12.3
Brick, tile, and terra cotta.....	15.88	-3.0	-24.7
Pottery.....	19.03	-0.2	-15.2
Glass.....	20.69	-1.9	-11.8
Metal products, other than iron and steel:			
Stamped and enameled ware.....	18.38	-3.5	-15.4
Brass, bronze, and copper products.....	19.88	-0.7	-15.6
Tobacco products:			
Chewing and smoking tobacco and snuff.....	14.13	-7.0	-7.8
Cigars and cigarettes.....	14.19	+1.4	-7.9
Vehicles for land transportation:			
Automobiles.....	26.34	+3.5	-0.1
Carriages and wagons.....	18.94	-6.5	-12.7
Car building and repairing, electric-railroad.....	29.65	+2.0	-2.4
Car building and repairing, steam-railroad.....	25.94	+1.4	-7.2

TABLE 4.—PER CAPITA WEEKLY EARNINGS IN MANUFACTURING INDUSTRIES IN NOVEMBER, 1931, AND COMPARISON WITH OCTOBER, 1931, AND NOVEMBER, 1930—Continued.

Industry	Per capita weekly earnings in November, 1931	Per cent of change compared with—	
		October, 1931	November, 1930
Miscellaneous industries:			
Agricultural implements.....	\$19.52	-1.4	-9.7
Electrical machinery, apparatus, and supplies.....	24.99	+1.5	-11.1
Pianos and organs.....	22.48	-6.5	-19.3
Rubber boots and shoes.....	17.63	-7.6	-7.6
Automobile tires and inner tubes.....	20.29	-7.2	-14.1
Shipbuilding.....	25.15	-6.1	-14.6
Industries added since February, 1929, for which data for the index base year (1926) are not available:			
Aircraft.....	34.10	+5.9	+6.1
Aluminum manufactures.....	20.24	+1.8	(1)
Beet sugar.....	22.95	+19.7	+1.5
Beverages.....	27.33	-1.9	-6.6
Bolts, nuts, washers, and rivets.....	18.28	-1.2	(1)
Butter.....	24.57	+1.7	(1)
Cash registers, adding machines, and calculating machines.....	25.66	+ <sup>(2)</sup>	-11.7
Clocks, time-recording devices, and clock movements.....	18.77	-4.2	(1)
Corsets and allied garments.....	16.38	-2.6	(1)
Cottonseed oil, cake, and meal.....	13.61	-6.7	(1)
Cotton small wares.....	16.71	-6.3	(1)
Cutlery (not including silver and plated cutlery) and edge tools.....	19.55	-1.1	(1)
Forgings, iron and steel.....	17.78	+0.7	(1)
Gas and electric fixtures, lamps, lanterns, and reflectors.....	23.63	-3.9	(1)
Hats, fur-felt.....	17.61	-5.6	(1)
Jewelry.....	21.29	-2.3	-8.1
Marble, granite, slate, and other stone products.....	26.65	-4.9	(1)
Men's furnishings goods.....	16.94	+4.2	(1)
Paint and varnish.....	24.94	-1.8	-7.5
Plated ware.....	22.32	-15.2	(1)
Plumbers' supplies.....	18.12	-9.2	(1)
Radio.....	20.19	-13.1	-8.2
Rayon.....	17.48	-10.7	-11.8
Rubber goods, other than boots, shoes, tires, and inner tubes.....	20.69	-4.4	-9.4
Smelting and refining, copper, lead, and zinc.....	21.30	-3.2	(1)
Soap.....	23.96	-7.1	(1)
Tools (not including edge tools, machine tools, files, or saws).....	18.86	-1.3	(1)
Tin cans and other tinware.....	21.88	-1.1	(1)
Turpentine and rosin.....	14.60	-10.0	(1)
Typewriters and supplies.....	19.31	-1.9	(1)
Wirework.....	21.42	-4.7	(1)

<sup>1</sup> Data not available.

<sup>2</sup> Less than one-tenth of 1 per cent.

### Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

TABLE 5 shows the general indexes of employment and pay-roll totals in manufacturing industries, by months, from January, 1923, to November, 1931, together with the average indexes for each of the years 1923 to 1930, inclusive, and for the period January to November, 1931, inclusive.

In computing these general indexes of employment and earnings the index numbers of the separate industries are weighted according to the relative importance of the 54 industries included.

TABLE 5.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO NOVEMBER, 1931

[Monthly average, 1926=100]

Month	Employment										Pay-roll totals									
	1923	1924	1925	1926	1927	1928	1929	1930	1931	1923	1924	1925	1926	1927	1928	1929	1930	1931		
Jan...	106.6	103.8	97.9	100.4	97.3	91.6	95.2	90.2	73.1	95.8	98.6	93.9	98.0	94.9	89.6	95.5	87.6	62.3		
Feb...	108.4	105.1	99.7	101.5	99.0	93.0	97.4	90.3	74.1	99.4	103.8	99.3	102.2	100.6	93.9	101.8	90.7	67.0		
Mar...	110.8	104.9	100.4	102.0	99.5	93.7	98.6	89.8	74.8	104.7	103.3	100.8	103.4	102.0	95.2	103.9	90.8	68.5		
Apr...	110.8	102.8	100.2	101.0	98.6	93.3	99.1	89.1	74.5	105.7	101.1	98.3	101.5	100.8	93.8	104.6	89.8	67.4		
May...	110.8	98.8	98.9	99.8	97.6	93.0	99.2	87.7	74.1	109.4	96.5	98.5	99.8	99.8	94.1	104.8	87.6	66.6		
June...	110.9	95.6	98.0	99.3	97.0	93.1	98.8	85.5	72.2	109.3	90.8	95.7	99.7	97.4	94.2	102.8	84.1	62.5		
July...	109.2	92.3	97.2	97.7	95.0	92.2	98.2	81.6	70.4	104.3	84.3	93.5	95.2	93.0	91.2	98.2	75.9	59.1		
Aug...	108.5	92.5	97.8	98.7	95.1	93.6	98.6	79.9	70.0	103.7	87.2	95.4	98.7	95.0	94.2	102.1	73.9	58.5		
Sept...	108.6	94.3	98.9	100.3	95.8	95.0	99.3	79.7	69.6	104.4	89.8	94.4	99.3	94.1	95.4	102.6	74.2	55.4		
Oct...	108.1	95.6	100.4	100.7	95.3	95.9	98.3	78.6	67.3	106.8	92.4	100.4	102.9	95.2	99.0	102.3	72.7	53.7		
Nov...	107.4	95.5	100.7	99.5	93.5	95.4	94.8	76.5	65.4	105.4	91.4	100.4	99.6	91.6	96.1	95.1	68.3	51.0		
Dec...	105.4	97.3	100.8	98.9	92.6	95.5	91.9	75.1	-----	103.2	95.7	101.6	99.8	93.2	97.7	92.0	67.4	-----		
Av...	108.8	98.2	99.2	100.0	96.4	93.8	97.5	83.7	71.4	104.3	94.6	97.7	100.0	96.5	94.5	100.4	80.3	61.1		

<sup>1</sup> Average for 11 months.

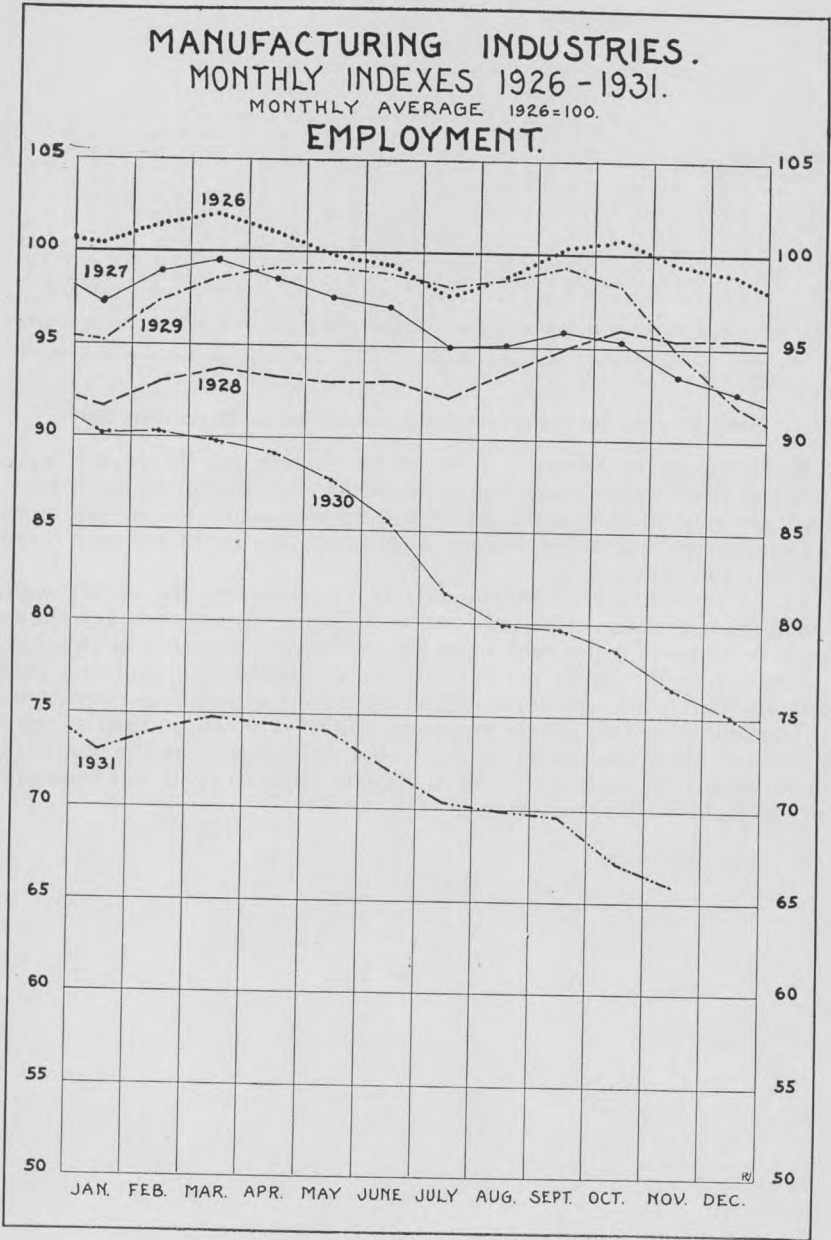
## Time Worked in Manufacturing Industries in November, 1931

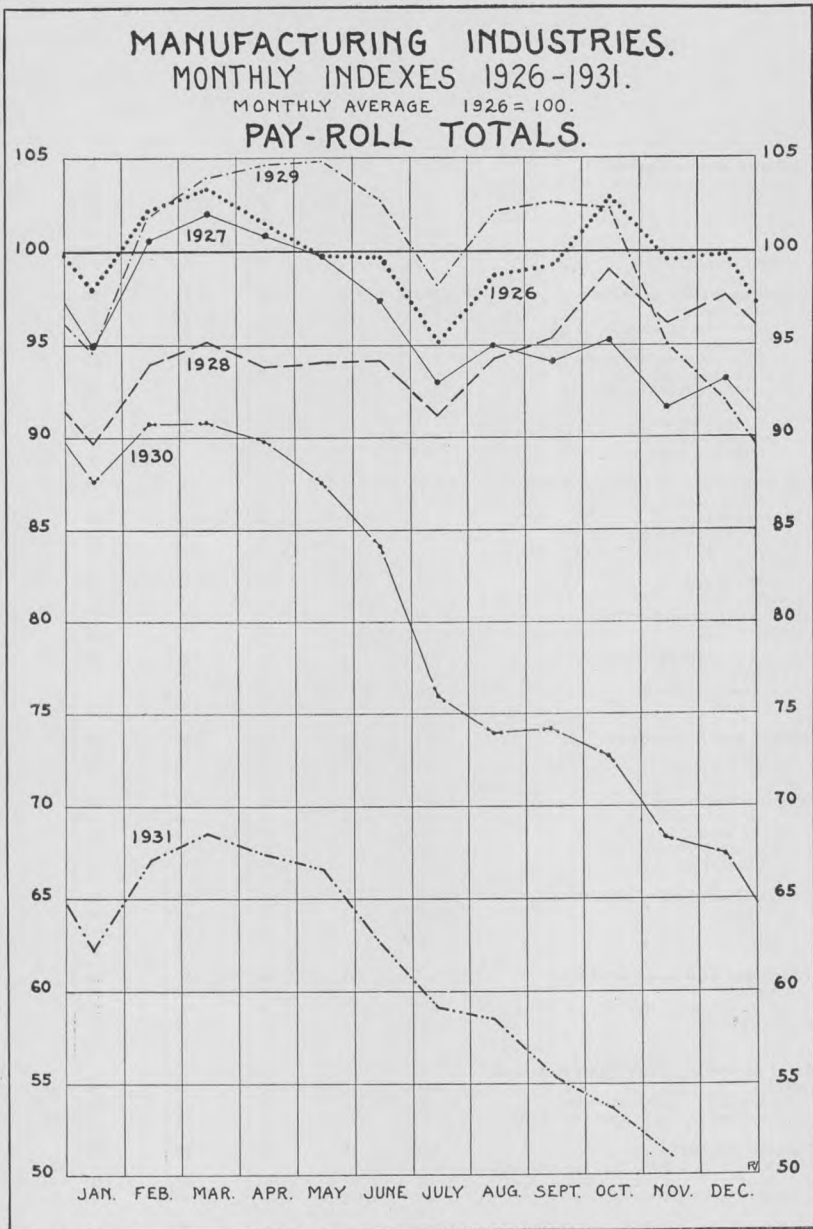
REPORTS as to working time of employees in November were received from 12,587 establishments in 64 manufacturing industries. Two per cent of the establishments were idle, while employees in 49 per cent were working full time and employees in 49 per cent were working part time.

Employees in the establishments in operation in November were working an average of 87 per cent of full time, this percentage showing a decrease of 1 per cent from the percentage reported in October.

Employees in the 49 per cent of the establishments working part time in November were averaging 73 per cent of full-time operation.

The following two charts represent the 54 separate industries combined and show the course of pay-roll totals as well as the course of employment for each month of the years 1926 to 1930, and January to November, 1931, inclusive.





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TABLE 6.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN NOVEMBER, 1931

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
<b>Food and kindred products</b>	<b>1,757</b>	( <sup>1</sup> )	<b>77</b>	<b>23</b>	<b>96</b>	<b>81</b>
Slaughtering and meat packing	175	-----	75	25	97	89
Confectionery	275	( <sup>1</sup> )	59	41	91	78
Ice cream	228	1	66	33	94	82
Flour	393	1	72	26	94	78
Baking	674	-----	91	9	98	81
Sugar refining, cane	12	-----	58	42	93	83
<b>Textiles and their products</b>	<b>1,984</b>	<b>4</b>	<b>56</b>	<b>40</b>	<b>90</b>	<b>76</b>
Cotton goods	487	3	47	49	87	74
Hosiery and knit goods	296	2	59	38	92	80
Silk goods	228	2	65	33	93	78
Woolen and worsted goods	175	7	51	42	89	76
Carpets and rugs	25	-----	44	56	86	76
Dyeing and finishing textiles	117	1	43	56	87	76
Clothing, men's	260	7	60	33	92	76
Shirts and collars	77	1	62	36	94	84
Clothing, women's	224	6	68	26	93	75
Millinery and lace goods	95	4	49	46	87	72
<b>Iron and steel and their products</b>	<b>1,696</b>	<b>2</b>	<b>22</b>	<b>77</b>	<b>73</b>	<b>66</b>
Iron and steel	143	7	25	68	76	67
Cast-iron pipe	39	10	8	82	62	58
Structural-iron work	168	1	26	73	81	75
Foundry and machine-shop products	935	1	23	76	72	64
Hardware	64	-----	16	84	71	66
Machine tools	131	3	16	81	72	67
Steam fittings and steam and hot-water heating apparatus	96	-----	14	86	69	64
Stoves	120	1	19	80	74	68
<b>Lumber and its products</b>	<b>1,150</b>	<b>1</b>	<b>32</b>	<b>67</b>	<b>80</b>	<b>70</b>
Lumber, sawmills	486	2	30	68	79	69
Lumber, millwork	300	( <sup>1</sup> )	27	73	79	72
Furniture	364	1	38	60	82	70
<b>Leather and its products</b>	<b>376</b>	<b>2</b>	<b>31</b>	<b>66</b>	<b>79</b>	<b>69</b>
Leather	125	-----	46	54	88	77
Boots and shoes	251	3	24	73	74	66
<b>Paper and printing</b>	<b>1,542</b>	( <sup>1</sup> )	<b>56</b>	<b>43</b>	<b>91</b>	<b>79</b>
Paper and pulp	321	2	38	60	83	73
Paper boxes	265	-----	43	57	89	81
Printing, book and job	568	-----	51	49	91	81
Printing, newspapers	388	-----	89	11	99	90
<b>Chemicals and allied products</b>	<b>362</b>	<b>3</b>	<b>68</b>	<b>28</b>	<b>94</b>	<b>79</b>
Chemicals	136	1	67	32	94	81
Fertilizers	157	7	57	36	91	77
Petroleum refining	69	-----	96	4	99	87
<b>Stone, clay and glass products</b>	<b>745</b>	<b>13</b>	<b>48</b>	<b>39</b>	<b>86</b>	<b>69</b>
Cement	87	15	76	9	97	74
Brick, tile, and terra cotta	418	17	39	45	82	66
Pottery	97	3	33	64	81	71
Glass	143	9	71	20	95	77
<b>Metal products, other than iron and steel</b>	<b>218</b>	-----	<b>28</b>	<b>72</b>	<b>80</b>	<b>73</b>
Stamped and enameled ware	80	-----	30	70	83	76
Brass, bronze, and copper products	138	-----	27	73	79	71
<b>Tobacco products</b>	<b>201</b>	<b>3</b>	<b>34</b>	<b>63</b>	<b>85</b>	<b>77</b>
Chewing and smoking tobacco and snuff	26	-----	50	50	90	79
Cigars and cigarettes	175	3	31	65	85	77
<b>Vehicles for land transportation</b>	<b>1,090</b>	<b>1</b>	<b>48</b>	<b>51</b>	<b>88</b>	<b>77</b>
Automobiles	174	2	33	66	81	71
Carrriages and wagons	41	7	32	61	83	75
Car building and repairing, electric-railroad	394	-----	72	28	96	84
Car building and repairing, steam-railroad	481	( <sup>1</sup> )	37	63	86	77

<sup>1</sup> Less than one-half of 1 per cent.

TABLE 6.—PROPORTION OF FULL TIME WORKED IN MANUFACTURING INDUSTRIES BY ESTABLISHMENTS REPORTING IN NOVEMBER, 1931—Continued

Industry	Establishments reporting		Per cent of establishments in which employees worked—		Average per cent of full time reported by—	
	Total number	Per cent idle	Full time	Part time	All operating establishments	Establishments operating part time
<b>Miscellaneous industries</b> .....	<b>417</b>	<b>1</b>	<b>29</b>	<b>69</b>	<b>83</b>	<b>76</b>
Agricultural implements.....	76	7	26	67	80	72
Electrical machinery, apparatus, and supplies.....	172	-----	15	85	82	78
Pianos and organs.....	46	-----	30	70	81	73
Rubber boots and shoes.....	9	-----	33	67	87	80
Automobile tires and inner tubes.....	35	-----	11	89	72	68
Shipbuilding.....	79	1	71	28	94	80
<b>Industries added in 1929 and 1930</b> .....	<b>1,049</b>	<b>(1)</b>	<b>59</b>	<b>40</b>	<b>89</b>	<b>74</b>
Radio.....	36	-----	69	31	94	82
Rayon.....	12	-----	58	42	91	78
Aircraft.....	38	8	71	21	95	80
Jewelry.....	150	-----	40	60	83	72
Paint and varnish.....	341	-----	62	38	91	76
Rubber goods, other than boots, shoes, tires, and inner tubes.....	92	-----	43	57	86	76
Beet sugar.....	42	-----	95	5	99	80
Beverages.....	278	-----	66	34	90	70
Cash registers.....	46	-----	50	50	86	72
Typewriters.....	14	-----	50	50	84	65
<b>Total</b> .....	<b>12,587</b>	<b>2</b>	<b>49</b>	<b>49</b>	<b>87</b>	<b>73</b>

<sup>1</sup> Less than one-half of 1 per cent.

### Employment in Nonmanufacturing Industries in November, 1931

IN THE following table are presented, by geographic divisions, data for 14 groups of nonmanufacturing industries, the totals for which also appear in the summary of employment and pay-roll totals, page 1.

The retail trade group reported increased employment and pay-roll totals in November, as compared with October, in continuation of the seasonal expansion which began in September. The remaining 13 industrial groups reported decreases in both employment and earnings, with the exception of the electric-railroad and the power, light, and water groups, in which a small gain in pay-roll totals was reported, coupled with a falling off in number of workers. The bituminous coal-mining industry reported the smallest decrease in employment from October to November, 0.3 per cent, and the telephone and telegraph group reported a loss of 0.7 per cent. Decreases in employment ranging from 1.3 per cent to 2.9 per cent were reported in wholesale trade, power, light, and water, electric railroads, metalliferous mining, laundries, and hotels. Anthracite mining reported 3.4 per cent fewer employees in November than in the preceding month and the dyeing and cleaning and the crude petroleum producing industries reported declines of 4.4 per cent and 4.6 per cent in employment, respectively. The two largest decreases over the month interval were seasonal declines and were reported in quarrying and nonmetallic mining and in canning and preserving, quarrying reporting a loss of 8.1 per cent in employment and the canning industry showing a drop of 43.8 per cent, due to the closing of establishments upon the completion of the vegetable canning season.

Following this monthly comparison of employment and earnings in these nonmanufacturing industries will be found a tabulation showing the per cent of change in these groups over a year interval.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL NONMANUFACTURING ESTABLISHMENTS IN OCTOBER AND NOVEMBER, 1931, BY INDUSTRIES

Geographic division	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		October, 1931	November, 1931		October, 1931	November, 1931	
<i>Anthracite mining</i>							
<b>Middle Atlantic</b> .....	<b>160</b>	<b>118,719</b>	<b>114,648</b>	<b>-3.4</b>	<b>\$3,617,307</b>	<b>\$3,174,023</b>	<b>-12.3</b>
<i>Bituminous coal mining</i>							
Middle Atlantic.....	389	55,915	56,400	+0.9	\$921,111	\$903,079	-2.0
East North Central.....	166	30,239	29,617	-2.1	596,482	586,258	-1.7
West North Central.....	51	4,851	4,752	-2.0	94,702	95,370	+0.7
South Atlantic.....	311	49,928	49,663	-0.5	914,504	848,889	-7.2
East South Central.....	228	42,324	42,062	-0.6	610,794	613,532	+0.4
West South Central.....	25	1,557	1,302	-16.4	29,464	22,858	-22.4
Mountain.....	117	15,074	15,477	+2.7	398,367	387,886	-2.6
Pacific.....	9	1,468	1,530	+4.2	37,009	40,052	+8.2
<b>All divisions</b> .....	<b>1,296</b>	<b>201,356</b>	<b>200,803</b>	<b>-0.3</b>	<b>3,602,433</b>	<b>3,497,924</b>	<b>-2.9</b>
<i>Metalliferous mining</i>							
Middle Atlantic.....	7	643	583	-9.3	\$13,272	\$12,091	-8.9
East North Central.....	44	9,198	9,461	+2.9	146,445	138,003	-5.8
West North Central.....	55	5,882	5,656	-3.8	138,391	122,605	-11.4
East South Central.....	10	1,709	1,695	-0.8	20,755	20,171	-2.8
West South Central.....	32	1,243	1,143	-8.0	22,443	20,301	-9.5
Mountain.....	85	13,502	12,962	-4.0	337,715	319,659	-5.3
Pacific.....	21	1,964	2,034	+3.6	56,011	56,657	+1.2
<b>All divisions</b> .....	<b>254</b>	<b>34,141</b>	<b>33,534</b>	<b>-1.8</b>	<b>735,032</b>	<b>689,487</b>	<b>-6.2</b>
<i>Quarrying and nonmetallic mining</i>							
New England.....	100	3,740	3,627	-3.0	\$87,153	\$81,573	-6.4
Middle Atlantic.....	120	6,399	5,708	-10.8	135,169	112,941	-16.4
East North Central.....	222	6,563	5,820	-11.3	140,982	126,894	-10.0
West North Central.....	107	1,960	1,589	-18.9	41,687	34,610	-17.0
South Atlantic.....	93	4,695	4,464	-4.9	74,255	65,664	-11.6
East South Central.....	64	2,982	3,019	+1.2	43,037	43,515	+1.1
West South Central.....	49	2,162	1,929	-10.8	43,694	37,262	-14.7
Mountain.....	9	106	97	-8.5	3,452	2,664	-22.8
Pacific.....	39	1,062	1,006	-5.3	28,483	26,299	-7.7
<b>All divisions</b> .....	<b>803</b>	<b>29,669</b>	<b>27,259</b>	<b>-8.1</b>	<b>597,912</b>	<b>531,422</b>	<b>-11.1</b>
<i>Crude petroleum producing</i>							
Middle Atlantic.....	25	492	538	+9.3	\$13,462	\$13,986	+3.9
East North Central.....	18	284	298	+4.9	5,757	5,722	-0.6
West North Central.....	31	979	976	-0.3	24,308	24,321	+0.1
South Atlantic.....	7	428	403	-5.8	10,739	10,102	-5.9
East South Central.....	8	182	204	+12.1	3,834	4,023	+4.9
West South Central.....	137	16,046	15,206	-5.2	547,460	508,983	-7.0
Mountain.....	15	301	273	-9.3	9,449	9,121	-3.5
Pacific.....	37	5,450	5,160	-5.3	185,573	188,972	+1.8
<b>All divisions</b> .....	<b>278</b>	<b>24,162</b>	<b>23,058</b>	<b>-4.6</b>	<b>800,582</b>	<b>765,230</b>	<b>-4.4</b>

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL NONMANUFACTURING ESTABLISHMENTS IN OCTOBER AND NOVEMBER, 1931, BY INDUSTRIES—Continued

Geographic division	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		October, 1931	November, 1931		October, 1931	November, 1931	
<i>Telephone and telegraph</i>							
New England.....	734	27,189	26,812	-1.4	\$865,767	\$850,566	-1.8
Middle Atlantic.....	1,264	95,560	95,303	-0.3	3,154,165	3,130,295	-0.8
East North Central.....	1,374	66,281	65,782	-0.8	1,828,949	1,785,970	-2.3
West North Central.....	1,300	27,272	27,003	-1.0	695,264	678,522	-2.4
South Atlantic.....	566	19,423	19,404	-0.1	540,062	524,800	-2.8
East South Central.....	654	9,526	9,373	-1.6	212,126	204,838	-3.4
West South Central.....	708	16,900	16,738	-1.0	394,961	379,472	-3.9
Mountain.....	510	6,884	6,728	-2.3	173,221	164,627	-5.0
Pacific.....	878	29,009	28,779	-0.8	908,133	869,496	-4.3
<b>All divisions.....</b>	<b>7,988</b>	<b>298,044</b>	<b>295,922</b>	<b>-0.7</b>	<b>8,772,645</b>	<b>8,588,586</b>	<b>-2.1</b>
<i>Power, light, and water</i>							
New England.....	244	21,360	21,123	-1.1	\$687,345	\$677,566	-1.4
Middle Atlantic.....	408	64,280	63,583	-1.1	2,126,633	2,094,638	-1.5
East North Central.....	343	54,159	53,397	-1.4	1,742,833	1,761,141	+1.1
West North Central.....	421	26,709	25,775	-3.5	777,631	785,404	+1.0
South Atlantic.....	286	21,014	20,592	-2.0	641,291	632,640	-1.3
East South Central.....	196	6,198	6,048	-2.4	158,779	154,629	-2.5
West South Central.....	540	15,546	14,932	-3.9	418,907	422,699	+0.9
Mountain.....	137	5,872	6,398	+9.0	180,672	199,964	+10.7
Pacific.....	778	22,110	21,880	-1.0	708,362	720,563	+1.7
<b>All divisions.....</b>	<b>3,353</b>	<b>237,248</b>	<b>233,728</b>	<b>-1.5</b>	<b>7,442,453</b>	<b>7,449,253</b>	<b>+0.1</b>
<i>Electric railroads<sup>1</sup></i>							
New England.....	42	13,450	13,263	-1.4	\$477,756	\$471,843	-1.2
Middle Atlantic.....	149	36,424	35,862	-1.5	1,112,146	1,118,134	+0.5
East North Central.....	113	40,194	39,629	-1.4	1,245,357	1,271,016	+2.1
West North Central.....	65	13,243	13,144	-0.7	398,498	405,095	+1.7
South Atlantic.....	56	11,396	11,260	-1.2	316,430	316,239	-0.1
East South Central.....	12	2,545	2,501	-1.7	66,801	66,913	+0.2
West South Central.....	29	4,389	4,324	-1.5	113,945	119,503	+4.9
Mountain.....	16	2,105	2,014	-4.3	55,598	55,433	-0.3
Pacific.....	38	15,139	14,846	-1.9	467,104	468,407	+0.3
<b>All divisions.....</b>	<b>520</b>	<b>138,885</b>	<b>136,843</b>	<b>-1.5</b>	<b>4,253,635</b>	<b>4,292,583</b>	<b>+0.9</b>
<i>Wholesale trade</i>							
New England.....	709	16,007	15,737	-1.7	\$480,610	\$471,790	-1.8
Middle Atlantic.....	364	10,406	10,424	+0.2	326,651	327,231	+0.2
East North Central.....	399	13,355	13,049	-2.3	397,847	391,653	-1.6
West North Central.....	251	13,691	13,620	-0.5	396,411	402,456	+1.5
South Atlantic.....	255	5,199	5,103	-1.8	137,918	135,133	-2.0
East South Central.....	91	2,159	2,098	-2.8	53,425	51,372	-3.8
West South Central.....	310	6,070	6,021	-0.8	172,713	174,805	+1.2
Mountain.....	93	2,055	2,036	-0.9	62,033	62,531	+0.8
Pacific.....	263	8,677	8,535	-1.6	281,366	285,531	+1.5
<b>All divisions.....</b>	<b>2,735</b>	<b>77,620</b>	<b>76,623</b>	<b>-1.3</b>	<b>2,308,974</b>	<b>2,302,502</b>	<b>-0.3</b>

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL **NONMANUFACTURING** ESTABLISHMENTS IN OCTOBER AND NOVEMBER, 1931, BY INDUSTRIES—Continued

Geographic division	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		October, 1931	November, 1931		October, 1931	November, 1931	
<i>Retail trade</i>							
New England.....	3, 674	63, 293	63, 117	-0.3	\$1, 489, 276	\$1, 481, 970	-0.5
Middle Atlantic.....	883	85, 336	88, 189	+3.3	2, 114, 634	2, 180, 848	+3.1
East North Central.....	2, 778	86, 079	86, 850	+0.9	1, 987, 682	1, 976, 675	-0.6
West North Central.....	714	22, 953	24, 254	+5.7	466, 751	475, 035	+1.8
South Atlantic.....	1, 107	24, 129	24, 478	+1.4	489, 495	503, 257	+2.8
East South Central.....	405	9, 451	9, 626	+1.9	167, 925	168, 857	+0.6
West South Central.....	269	14, 503	14, 978	+3.3	293, 547	294, 260	+0.2
Mountain.....	262	6, 546	6, 288	-3.9	129, 168	128, 357	-0.6
Pacific.....	1, 805	47, 234	46, 151	-2.3	1, 042, 665	1, 042, 753	+0.0
<b>All divisions.....</b>	<b>11, 897</b>	<b>359, 524</b>	<b>363, 931</b>	<b>+1.2</b>	<b>8, 181, 143</b>	<b>8, 252, 012</b>	<b>+0.9</b>
<i>Hotels<sup>3</sup></i>							
New England.....	151	8, 980	8, 312	-7.4	\$141, 363	\$129, 477	-8.4
Middle Atlantic.....	439	49, 268	46, 917	-4.8	828, 846	792, 068	-4.4
East North Central.....	439	32, 483	32, 130	-1.1	536, 020	528, 452	-1.4
West North Central.....	291	14, 274	14, 085	-1.3	194, 090	187, 718	-3.3
South Atlantic.....	209	12, 320	12, 130	-1.5	169, 379	167, 333	-1.2
East South Central.....	113	6, 361	6, 289	-1.1	70, 709	68, 671	-2.9
West South Central.....	154	8, 392	8, 321	-0.8	102, 997	102, 194	-0.8
Mountain.....	123	3, 457	3, 368	-2.6	56, 991	54, 404	-4.5
Pacific.....	362	15, 569	15, 228	-2.2	280, 085	272, 604	-2.7
<b>All divisions.....</b>	<b>2, 281</b>	<b>151, 104</b>	<b>146, 780</b>	<b>-2.9</b>	<b>2, 380, 480</b>	<b>2, 302, 921</b>	<b>-3.3</b>
<i>Canning and preserving</i>							
New England.....	78	3, 721	2, 112	-43.2	\$46, 751	\$28, 070	-40.0
Middle Atlantic.....	95	9, 897	8, 434	-14.8	178, 639	147, 788	-17.3
East North Central.....	272	13, 599	6, 558	-51.8	172, 793	103, 767	-39.9
West North Central.....	77	3, 602	1, 295	-64.0	46, 553	19, 895	-57.3
South Atlantic.....	135	6, 530	4, 463	-31.7	54, 929	37, 262	-32.2
East South Central.....	45	2, 375	1, 355	-42.9	17, 841	12, 369	-30.7
West South Central.....	34	1, 812	782	-56.8	10, 580	5, 411	-48.9
Mountain.....	55	3, 854	1, 285	-66.7	50, 138	25, 464	-49.2
Pacific.....	200	17, 518	9, 079	-48.2	249, 075	133, 032	-46.6
<b>All divisions.....</b>	<b>4 991</b>	<b>62, 908</b>	<b>35, 363</b>	<b>-43.8</b>	<b>827, 299</b>	<b>513, 058</b>	<b>-38.0</b>
<i>Laundries</i>							
New England.....	101	4, 220	4, 129	-2.2	\$80, 848	\$77, 617	-4.0
Middle Atlantic.....	129	13, 616	13, 348	-2.0	271, 774	260, 846	-4.0
East North Central.....	141	9, 046	8, 833	-2.4	159, 783	154, 250	-3.5
West North Central.....	84	5, 418	5, 227	-3.5	91, 670	86, 887	-5.2
South Atlantic.....	96	7, 723	7, 572	-2.0	112, 668	110, 693	-1.8
East South Central.....	45	3, 033	2, 914	-3.9	38, 038	35, 668	-6.2
West South Central.....	26	1, 444	1, 411	-2.3	20, 598	19, 287	-6.4
Mountain.....	43	2, 272	2, 228	-1.9	38, 828	37, 910	-2.4
Pacific.....	103	5, 869	5, 827	-0.7	124, 367	122, 872	-1.2
<b>All divisions.....</b>	<b>768</b>	<b>52, 641</b>	<b>51, 489</b>	<b>-2.2</b>	<b>938, 574</b>	<b>906, 030</b>	<b>-3.5</b>

See footnotes at end of table.



TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL NONMANUFACTURING ESTABLISHMENTS IN OCTOBER AND NOVEMBER, 1931, BY INDUSTRIES—Continued

Geographic division	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		October, 1931	November, 1931		October, 1931	November, 1931	
<i>Dyeing and cleaning</i>							
New England.....	37	1,347	1,300	-3.5	\$31,769	\$28,869	-9.1
Middle Atlantic.....	48	2,187	2,102	-3.9	53,413	48,928	-8.4
East North Central.....	59	2,816	2,690	-4.5	64,628	59,007	-8.7
West North Central.....	33	1,005	971	-3.4	21,294	19,693	-7.5
South Atlantic.....	17	731	1,264	-6.8	23,542	21,484	-8.7
East South Central.....	53	1,356	700	-4.2	12,524	12,135	-3.1
West South Central.....	26	760	738	-2.9	14,422	13,410	-7.0
Mountain.....	18	272	247	-9.2	5,953	5,435	-8.7
Pacific.....	27	918	878	-4.4	21,907	19,928	-9.0
<b>All divisions.....</b>	<b>318</b>	<b>11,392</b>	<b>10,890</b>	<b>-4.4</b>	<b>249,452</b>	<b>228,889</b>	<b>-8.2</b>

<sup>1</sup> Not including electric car building and repairing; see manufacturing industries, Table 1, et seq.

<sup>2</sup> Less than one-tenth of 1 per cent.

<sup>3</sup> The amount of pay roll given represents cash payments only; the additional value of board, room, and tips can not be computed.

<sup>4</sup> Included in the total of 991 establishments reporting in November were 2 establishments which were closed in October but had resumed operation in November, and 112 establishments which were operating in October and reported a seasonal closing in November, 1931. There were also 73 additional canning establishments, whose reports were not included in the total number of reporting establishments, as the plants had been seasonally closed for a period of 2 or more months.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN NON-MANUFACTURING INDUSTRIES, NOVEMBER, 1931, WITH NOVEMBER, 1930

Industry	Per cent of change November, 1931, compared with November, 1930		Industry	Per cent of change November, 1931, compared with November, 1930	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Anthracite mining.....	-13.8	-18.5	Electric railroads.....	-8.7	-9.1
Bituminous coal mining.....	-12.3	-31.0	Wholesale trade.....	-9.2	-12.4
Metalliferous mining.....	-27.5	-44.6	Retail trade.....	-7.6	-11.8
Quarrying and nonmetallic mining.....	-24.3	-35.2	Hotels.....	-9.8	-17.6
Crude petroleum producing.....	-31.1	-35.0	Canning and preserving.....	-37.1	-42.0
Telephone and telegraph.....	-10.2	-8.4	Laundries.....	-4.8	-11.2
Power, light, and water.....	-11.7	-10.0	Dyeing and cleaning.....	-7.9	-13.1

### Indexes of Employment and Pay-Roll Totals for Nonmanufacturing Industries

TABLE 3 shows the index numbers of employment and pay-roll totals for anthracite, bituminous coal, and metalliferous mining, quarrying, crude petroleum producing, telephone and telegraph, power, light, and water, electric railroads, wholesale and retail trade, hotels, and canning and preserving, by months, from January, 1930, to November, 1931, with the monthly average for 1929 as 100. Index numbers for the laundering and the dyeing and cleaning groups are not presented, as data for the base year, 1929, are not available.

TABLE 3.—INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS FOR **NONMANUFACTURING** INDUSTRIES, JANUARY, 1930, TO NOVEMBER, 1931  
[Monthly average, 1929=100]

Year and month	Anthracite mining		Bituminous coal mining		Metalliferous mining		Quarrying and non-metallic mining		Crude petroleum producing		Telephone and telegraph		Power, light, and water		Operation and maintenance of electric railroads <sup>1</sup>		Wholesale trade		Retail trade		Hotels		Canning and preserving	
	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total	Em- p- loy- ment	Pay- roll total
<b>1930</b>																								
January.....	102.1	105.8	102.5	101.4	95.7	92.7	79.6	71.9	92.7	94.0	101.6	105.1	99.6	99.7	97.1	97.8	100.0	100.0	98.9	99.7	100.4	100.3	46.1	50.3
February.....	106.9	121.5	102.4	102.1	92.3	92.5	79.8	73.5	90.8	88.6	100.2	101.9	98.8	100.4	95.1	95.7	98.5	98.3	94.4	96.0	102.4	103.8	45.7	51.5
March.....	82.6	78.5	98.6	86.4	90.9	90.8	83.0	80.0	89.3	91.3	99.4	105.8	99.7	102.1	94.4	95.4	97.7	99.7	93.9	95.5	102.4	104.4	49.7	50.8
April.....	84.1	75.0	94.4	81.7	89.3	88.3	87.4	85.4	86.8	86.6	98.9	103.4	100.7	102.6	95.2	97.1	97.3	97.9	97.3	97.5	100.1	100.3	74.8	72.6
May.....	93.8	98.8	90.4	77.5	87.5	85.6	90.8	90.2	89.8	85.4	99.7	103.2	103.4	104.5	95.2	96.0	96.8	97.4	96.7	97.3	98.0	98.4	65.7	66.9
June.....	90.8	94.3	88.4	75.6	84.6	81.6	90.3	90.9	90.2	87.1	99.8	103.4	104.6	107.8	94.8	97.0	96.5	98.6	93.9	96.8	98.0	98.1	83.0	81.5
July.....	91.6	84.0	88.0	68.9	80.5	71.9	89.9	85.5	89.9	88.5	100.0	106.6	105.9	106.7	95.3	95.6	96.0	96.0	89.0	91.7	101.3	99.8	126.3	112.7
August.....	80.2	78.8	89.2	71.1	79.0	71.0	89.3	85.8	87.7	86.0	98.8	102.5	106.4	106.6	92.9	92.1	95.0	93.6	85.6	87.6	101.5	98.6	185.7	172.0
September.....	93.8	91.6	90.5	74.9	78.1	69.9	87.7	82.5	85.0	84.0	96.8	102.2	105.2	106.1	91.8	90.5	94.8	93.6	92.0	92.4	100.1	97.1	246.6	214.8
October.....	99.0	117.2	91.8	79.4	77.2	68.6	84.7	79.3	85.2	82.6	94.5	100.9	104.8	105.6	91.0	88.9	94.2	92.9	95.5	95.1	97.5	95.5	164.7	140.0
November.....	97.2	98.0	92.5	79.1	72.8	63.4	78.3	66.8	83.6	80.0	93.0	97.9	103.4	103.7	89.3	87.7	92.6	91.0	98.4	96.8	95.2	93.6	96.7	82.9
December.....	99.1	100.0	92.5	77.7	70.1	59.9	70.2	59.9	77.4	77.2	91.6	101.3	103.2	106.3	88.8	88.6	92.0	91.3	115.1	107.7	93.5	91.5	61.6	57.4
<b>Average.....</b>	<b>93.4</b>	<b>95.3</b>	<b>93.4</b>	<b>81.3</b>	<b>83.2</b>	<b>78.0</b>	<b>84.3</b>	<b>79.3</b>	<b>87.4</b>	<b>85.9</b>	<b>97.9</b>	<b>102.9</b>	<b>103.0</b>	<b>104.3</b>	<b>93.4</b>	<b>93.5</b>	<b>96.0</b>	<b>95.9</b>	<b>95.9</b>	<b>96.2</b>	<b>99.2</b>	<b>98.5</b>	<b>103.9</b>	<b>96.1</b>
<b>1931</b>																								
January.....	90.6	89.3	93.9	73.3	68.3	55.0	64.4	50.4	74.8	71.5	90.5	96.3	99.2	98.6	86.9	85.6	89.5	87.5	90.0	89.4	95.0	91.0	48.9	46.1
February.....	89.5	101.9	91.5	68.3	65.3	54.6	66.6	54.4	73.2	70.0	89.2	94.8	97.8	99.7	86.6	87.1	88.2	88.4	87.1	86.7	96.8	93.7	48.3	48.6
March.....	82.0	71.3	88.8	65.2	63.5	52.8	70.0	58.2	72.2	73.2	88.6	97.9	96.7	102.4	86.4	88.1	87.4	89.1	87.8	87.5	96.3	93.4	53.0	50.3
April.....	85.2	75.2	85.9	58.6	63.9	51.4	76.1	62.6	69.8	66.3	88.1	95.0	97.1	97.6	86.8	86.6	87.4	85.2	90.1	88.3	95.9	89.9	59.6	57.1
May.....	80.3	76.1	82.4	54.4	49.3	43.3	75.0	62.3	67.8	64.7	87.4	94.1	97.6	98.7	85.9	85.1	87.1	84.7	89.9	88.0	92.5	87.7	56.0	56.0
June.....	76.1	66.7	78.4	52.4	60.0	46.1	72.3	60.1	65.0	62.7	86.9	95.0	97.2	98.3	85.3	84.8	87.1	84.1	89.1	87.6	91.6	85.4	70.6	58.6
July.....	65.1	53.7	76.4	50.4	56.2	41.3	71.0	57.3	65.3	59.2	86.6	93.3	96.7	97.4	85.6	83.3	86.8	83.3	83.9	83.3	93.3	85.2	102.2	74.2
August.....	67.3	56.4	77.0	50.6	55.8	40.2	68.9	55.1	62.4	56.3	85.9	92.3	95.9	96.2	84.8	81.9	86.5	82.1	81.8	80.3	92.8	83.8	142.9	104.7
September.....	80.0	64.9	80.4	53.6	55.5	40.0	66.6	51.2	61.2	55.2	85.0	92.1	94.7	94.3	84.0	81.2	86.1	81.4	86.6	83.5	90.6	81.9	180.1	129.4
October.....	86.8	91.1	81.3	56.2	53.8	37.4	64.5	48.7	60.4	54.4	84.1	91.6	92.7	93.2	82.7	79.0	85.2	79.9	89.8	84.6	88.5	79.7	108.1	77.6
November.....	83.8	79.9	81.1	54.6	52.8	35.1	59.3	43.3	57.6	52.0	83.5	89.7	91.3	93.3	81.5	79.7	84.1	79.7	90.9	85.4	85.9	77.1	60.8	48.1

<sup>1</sup> Not including electric-railroad car building and repairing; see vehicles group, manufacturing industries, Table 1, et seq.

**Employment in Building Construction in November, 1931**

**I**NFORMATION as to changes in volume of employment and payroll totals in building construction for each of the 38 cities covered by the Bureau of Labor Statistics appears in the following table. Similar data, furnished by 4 cooperating State bureaus, covering 5 cities in Pennsylvania—Philadelphia, Pittsburgh, Reading, Scranton, and Erie; Baltimore (Md.), and the States of Massachusetts and Wisconsin are also presented.

The table shows the number of identical firms reporting for both months, the number of employees, and the amount of earnings in one week in October and November, 1931, together with the per cents of change over the month period.

In the 38 cities covered by the Federal bureau, reports were received from 6,186 identical contractors who had a total employment for a week ending near November 15 of 61,139 as compared with 67,970 for a similar period in October. While this is a decrease of 10.1 per cent, 8 cities showed increased employment in November over that of October. These increases ranged from 1.8 for Fort Wayne to 18.8 per cent for Salt Lake City. The combined pay roll of all reporting firms for a week ending near November 15 was \$1,741,484. This is a decrease of 11.7 per cent when compared with \$1,973,158, the amount of pay roll for a similar period ending near October 15. Increased pay rolls are shown in 3 cities.

The information for the 5 cities in Pennsylvania covers 1,189 firms whose employment for the week ending nearest November 15 was 9,311 as compared with 10,373 in October. This is a decrease of 10.2 per cent. Combined pay rolls in these 5 cities decreased about the same percentage.

When all the information supplied by cooperating State bureaus is combined with that of the Federal bureau, the number of identical firms reporting is increased to 8,214. These firms had a combined total of 83,287 employees for a week ending near November 15 as compared with 92,067 for a similar period in October. This is a decrease of 9.5 per cent. These same firms had a combined pay roll of \$2,418,546 for a week ending near November 15, which was 10.5 per cent less than the \$2,703,495 reported for a similar period in October.

Data concerning the building-construction industry appearing in the following table have not been included in the summary table shown at the beginning of this trend of employment section.

The several industrial groups in the summary table are not weighted according to their relative importance, and the bureau's monthly employment survey of the building-construction industry, while being steadily expanded, has not yet attained sufficient volume to represent its proper proportion in comparison with the other 15 industrial groups in the summary table.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN THE **BUILDING-CONSTRUCTION** INDUSTRY IN IDENTICAL FIRMS, OCTOBER AND NOVEMBER, 1931

Locality	Number of firms reporting	Number on pay roll week ending near—		Per cent of change	Amount of pay roll week ending near—		Per cent of change
		Oct. 15	Nov. 15		Oct. 15	Nov. 15	
Akron.....	72	867	627	-27.7	\$22,161	\$16,341	-26.3
Atlanta.....	123	1,502	1,342	-10.7	25,804	23,879	-7.5
Birmingham.....	71	719	627	-12.8	13,241	11,994	-9.4
Charlotte.....	34	355	345	-2.8	7,063	6,014	-14.9
Cincinnati <sup>1</sup> .....	490	3,651	3,384	-7.3	113,293	104,206	-8.0
Cleveland.....	436	5,097	4,074	-20.1	179,907	137,850	-23.1
Dallas.....	109	990	776	-21.6	22,901	17,305	-24.8
Denver.....	189	1,026	960	-6.4	30,843	26,487	-14.4
Des Moines.....	67	682	705	+3.4	18,335	17,086	-6.0
Detroit.....	472	5,436	5,353	-1.5	166,300	153,046	-8.4
Duluth.....	45	203	209	+3.0	4,680	3,854	-17.6
Fort Wayne.....	101	555	565	+1.8	13,327	12,211	-8.4
Grand Rapids.....	73	348	333	-4.3	8,768	7,742	-11.7
Hartford.....	237	2,037	2,025	-0.6	67,649	65,775	-2.8
Houston.....	92	878	687	-21.8	19,124	15,397	-19.5
Indianapolis.....	171	1,786	1,509	-15.5	54,837	47,455	-13.5
Jacksonville.....	49	276	290	+5.1	5,155	5,142	-0.3
Kansas City <sup>2</sup> .....	218	2,479	2,151	-13.2	80,980	67,036	-17.2
Louisville.....	119	1,030	987	-4.2	22,667	20,450	-9.8
Memphis.....	89	1,187	807	-32.0	20,143	18,951	-5.9
Minneapolis.....	225	2,593	2,198	-15.2	72,723	61,452	-15.5
Nashville.....	61	805	928	+15.3	15,804	15,239	-3.6
New Haven.....	187	2,701	2,632	-2.6	96,676	97,377	+0.7
New Orleans.....	124	2,649	2,073	-21.7	55,424	41,985	-24.2
Norfolk-Portsmouth.....	69	506	492	-2.8	11,308	10,849	-4.1
Oklahoma City.....	99	1,576	1,320	-16.2	39,009	30,040	-23.0
Omaha.....	109	1,186	860	-27.5	31,865	22,174	-30.4
Portland, Me.....	76	669	603	-9.9	20,168	16,932	-16.0
Portland, Ore.....	178	1,316	1,151	-12.5	39,598	31,082	-21.5
Providence.....	224	2,521	2,586	+2.6	71,385	70,152	-1.7
Richmond.....	144	1,478	1,247	-15.6	36,060	29,377	-18.5
St. Louis.....	458	4,010	3,429	-14.5	133,912	117,060	-12.6
Salt Lake City.....	83	468	556	+18.8	11,548	13,539	+17.2
Seattle.....	187	1,748	1,350	-22.8	50,590	38,625	-23.7
Washington, D. C.....	496	10,146	9,595	-5.4	324,756	304,494	-6.2
Wheeling.....	52	300	324	+8.0	7,711	7,849	+1.8
Wichita.....	60	495	434	-12.3	11,719	9,700	-17.2
Wilmington.....	99	1,699	1,605	-5.5	45,724	45,337	-0.8
Total, 38 cities.....	6,186	67,970	61,139	-10.1	1,973,158	1,741,484	-11.7
Philadelphia <sup>3</sup> .....	717	6,077	5,644	-7.1	182,255	163,535	-10.3
Pittsburgh <sup>3</sup> .....	313	2,967	2,502	-15.7	101,083	89,301	-11.7
Reading <sup>3</sup> .....	77	754	627	-16.8	19,081	15,460	-19.0
Scranton <sup>3</sup> .....	53	351	332	-5.4	10,328	8,618	-16.6
Erie <sup>3</sup> .....	29	224	206	-8.0	5,683	5,103	-10.2
Total, 5 cities.....	1,189	10,373	9,311	-10.2	318,430	282,017	-11.4
Baltimore, Md. <sup>3</sup> .....	72	1,416	1,478	+4.4	32,509	34,439	+5.9
Massachusetts <sup>3</sup> .....	700	9,602	9,100	-5.2	312,068	306,845	-1.7
Wisconsin <sup>3</sup> .....	67	2,706	2,259	-16.5	67,330	53,761	-20.2
Total.....	839	13,724	12,837	-6.5	411,907	395,045	-4.1
Total, all localities.....	8,214	92,067	83,287	-9.5	2,703,495	2,418,546	-10.5

<sup>1</sup> Includes Covington and Newport, Ky.<sup>2</sup> Includes both Kansas City, Kans., and Kansas City, Mo.<sup>3</sup> Data supplied by cooperating State bureaus.

## Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to October 1931, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO OCTOBER, 1931

[Monthly average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930	1931
January	98.3	96.9	95.6	95.8	95.5	89.3	88.2	86.3	73.7
February	98.6	97.0	95.4	96.0	95.3	89.0	88.9	85.4	72.7
March	100.5	97.4	95.2	96.7	95.8	89.9	90.1	85.5	72.9
April	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0	73.5
May	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6	73.9
June	107.1	98.0	98.6	101.6	100.9	95.9	96.1	86.5	72.8
July	108.2	98.1	99.4	102.9	101.0	95.6	96.6	84.7	72.4
August	109.4	99.0	99.7	102.7	99.5	95.7	97.4	83.7	71.2
September	107.8	99.7	99.9	102.8	99.1	95.3	96.8	82.2	69.3
October	107.3	100.8	100.7	103.4	98.9	95.3	96.9	80.4	67.7
November	105.2	99.0	99.1	101.2	95.7	92.9	93.0	77.0	-----
December	99.4	96.0	97.1	98.2	91.9	89.7	88.8	74.9	-----
Average	104.1	98.3	97.9	100.0	97.5	92.9	93.3	83.5	<sup>1</sup> 72.0

<sup>1</sup> Average for 10 months.

Table 2 shows the total number of employees on the 15th day each of October, 1930, and September and October, 1931, and pay-roll totals for the entire months.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES, OCTOBER, 1930, AND SEPTEMBER AND OCTOBER, 1931

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	Oct. 15, 1930	Sept. 15, 1931	Oct. 15, 1931	October, 1930	September, 1931	October, 1931
Professional, clerical, and general	245,494	216,936	213,562	\$36,779,737	\$31,555,178	\$31,554,435
Clerks	136,315	117,522	115,455	19,364,157	16,052,521	16,187,748
Stenographers and typists	22,676	20,267	19,911	3,018,560	2,628,693	2,617,660
Maintenance of way and structures	337,056	282,946	264,289	32,438,959	24,754,216	23,525,799
Laborers, extra gang and work train	40,172	28,119	23,649	3,085,104	1,817,905	1,535,791
Laborers, track and roadway section	177,721	153,824	143,141	12,888,869	9,735,198	9,225,986
Maintenance of equipment and stores	378,794	326,679	322,984	50,689,803	38,893,055	39,195,506
Carmen	79,837	67,628	67,191	12,109,023	9,008,210	9,152,923
Machinists	47,960	43,605	43,334	7,568,749	5,963,904	6,042,693
Skilled trades	83,159	71,268	70,213	9,430,801	7,015,639	7,083,088
Laborers (shops, engine houses, power plants, and stores)	31,955	26,908	26,769	3,103,577	2,403,203	2,459,281
Common laborers (shops, engine houses, power plants, and stores)	41,123	34,911	34,381	3,227,648	2,412,130	2,432,201
Transportation, other than train, engine, and yard	176,772	157,411	153,712	22,872,298	19,536,232	19,560,726
Station agents	28,471	27,369	27,249	4,658,003	4,274,650	4,371,294
Telegraphers, telephoners, and towermen	21,230	19,117	18,709	3,381,008	2,913,544	2,960,458
Truckers (stations, warehouses, and platforms)	28,266	23,080	22,743	2,721,366	2,077,407	2,116,001
Crossing and bridge flagmen and gatemen	19,523	18,885	18,710	1,630,320	1,452,551	1,442,819
Transportation (yard masters, switch tenders, and hostlers)	19,625	17,118	16,751	3,883,912	3,205,503	3,192,146
Transportation, train and engine	281,003	238,028	239,128	59,401,272	45,485,341	47,608,187
Road conductors	31,644	27,190	27,196	7,989,179	6,325,606	6,557,793
Road brakemen and flagmen	61,962	52,204	52,466	11,419,115	8,632,082	9,069,307
Yard brakemen and yard helpers	47,758	40,616	41,076	8,623,134	6,379,903	6,749,894
Road engineers and motor men	37,656	32,013	32,087	10,732,101	8,385,782	8,753,469
Road firemen and helpers	38,239	32,746	32,723	7,830,631	6,055,605	6,325,617
All employees	1,438,744	1,239,118	1,210,426	206,065,981	163,429,525	164,636,799



# WHOLESALE AND RETAIL PRICES

## Retail Prices of Food in November, 1931

THE following tables are compiled from simple averages of the actual selling prices<sup>1</sup> received monthly by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food November 15, 1930, and October 15 and November 15, 1931, as well as the percentage changes in the year and in the month. For example, the retail price per pound of sliced ham was 52.1 cents on November 15, 1930; 44.2 cents on October 15, 1931; and 41.9 cents on November 15, 1931. These figures show decreases of 20 per cent in the year and 5 per cent in the month.

The cost of various articles of food combined shows a decrease of 17.5 per cent November 15, 1931, as compared with November 15, 1930, and a decrease of 2.0 per cent November 15, 1931, as compared with October 15, 1931.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE NOVEMBER 15, 1931, COMPARED WITH OCTOBER 15, 1931, AND NOVEMBER 15, 1930

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-) Nov. 15, 1931, compared with—	
		Nov. 15, 1930	Oct. 15, 1931	Nov. 15, 1931	Nov. 15, 1930	Oct. 15, 1931
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Sirloin steak.....	Pound.....	43.3	38.6	37.3	-14	-3
Round steak.....	do.....	38.1	33.6	32.3	-15	-4
Rib roast.....	do.....	31.8	28.0	27.3	-14	-3
Chuck roast.....	do.....	24.7	20.7	20.2	-18	-2
Plate beef.....	do.....	16.9	13.5	13.3	-21	-1
Pork chops.....	do.....	32.8	29.3	25.0	-24	-15
Bacon, sliced.....	do.....	42.1	34.3	32.1	-24	-6
Ham, sliced.....	do.....	52.1	44.2	41.9	-20	-5
Lamb, leg of.....	do.....	31.4	27.5	26.1	-17	-5
Hens.....	do.....	32.6	29.9	29.2	-10	-2
Salmon, red, canned.....	do.....	34.3	30.3	29.9	-13	-1
Milk, fresh.....	Quart.....	14.0	12.0	12.0	-14	0
Milk, evaporated.....	16-oz. can.....	9.9	8.8	8.8	-11	0
Butter.....	Pound.....	45.4	39.9	37.4	-18	-6
Oleomargarine (all butter substitutes).	do.....	24.6	18.8	18.9	-23	+1
Cheese.....	do.....	33.8	27.1	26.8	-21	-1
Lard.....	do.....	17.5	12.4	12.2	-30	-2
Vegetable lard substitute.....	do.....	24.0	22.7	22.4	-7	-1
Eggs, strictly fresh.....	Dozen.....	48.4	37.9	39.7	-18	+5
Bread.....	Pound.....	8.5	7.3	7.3	-14	0

<sup>1</sup> In addition to monthly retail prices of food and coal, the bureau publishes periodically the prices of gas and electricity for household use in each of 51 cities. At present this information is being collected in June and December of each year.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE NOVEMBER 15, 1931, COMPARED WITH OCTOBER 15, 1931, AND NOVEMBER 15, 1930—Continued

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-) Nov. 15, 1931, compared with—	
		Nov. 15, 1930	Oct. 15, 1931	Nov. 15, 1931	Nov. 15, 1930	Oct. 15, 1931
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Flour.....	Pound.....	4.2	3.3	3.3	-21	0
Corn meal.....	do.....	5.2	4.4	4.2	-19	-5
Rolled oats.....	do.....	8.6	7.9	7.9	-8	0
Corn flakes.....	8-oz. package.....	9.3	8.9	8.8	-5	-1
Wheat cereal.....	28-oz. package.....	25.3	23.3	23.1	-9	-1
Macaroni.....	Pound.....	18.9	16.2	16.1	-15	-1
Rice.....	do.....	9.3	7.8	7.5	-19	-4
Beans, navy.....	do.....	10.2	6.7	6.4	-37	-4
Potatoes.....	do.....	2.9	1.8	1.7	-41	-6
Onions.....	do.....	3.9	4.3	4.4	+13	+2
Cabbage.....	do.....	3.4	3.2	3.0	-12	-6
Pork and beans.....	No. 2 can.....	10.7	10.3	10.2	-5	-1
Corn, canned.....	do.....	15.1	12.6	12.1	-20	-4
Peas, canned.....	do.....	15.9	13.7	13.6	-14	-1
Tomatoes, canned.....	do.....	11.7	9.8	9.7	-17	-1
Sugar.....	Pound.....	5.9	5.6	5.6	-5	0
Tea.....	do.....	76.9	75.6	75.1	-2	-1
Coffee.....	do.....	38.7	32.1	31.8	-18	-1
Prunes.....	do.....	13.6	11.1	10.7	-21	-4
Raisins.....	do.....	11.5	11.4	11.4	-1	0
Bananas.....	Dozen.....	29.3	24.0	24.4	-17	+2
Oranges.....	do.....	51.1	37.2	35.3	-31	-5
Weighted food index.....	.....				-17.5	-2

Table 2 shows for the United States average retail prices of specified food articles on November 15, 1913, and on November 15 of each year from 1925 to 1931, together with percentage changes in November of each of these specified years compared with November, 1913. For example, the retail price per pound of sliced bacon was 27.2 cents in November, 1913; 49.2 cents in November, 1925; 51.0 cents in November, 1926; 46.3 cents in November, 1927; 44.5 cents in November, 1928; 43.0 cents in November, 1929; 42.1 cents in November, 1930; and 32.1 cents in November, 1931.

As compared with November, 1913, these figures show increases of 81 per cent in November, 1925; 88 per cent in November, 1926; 70 per cent in November, 1927; 64 per cent in November, 1928; 58 per cent in November, 1929; 55 per cent in November, 1930; and 18 per cent in November, 1931.

The cost of the various articles of food combined showed an increase of 11.3 per cent in November, 1931, as compared with November, 1913.

TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE NOVEMBER 15 OF CERTAIN SPECIFIED YEARS COMPARED WITH NOVEMBER 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail prices on Nov. 15—								Per cent of increase Nov. 15 of each specified year compared with Nov. 15, 1913							
	1913	1925	1926	1927	1928	1929	1930	1931	1925	1926	1927	1928	1929	1930	1931	
Sirloin steak.....pound.....	Cts. 25.4	Cts. 40.3	Cts. 40.9	Cts. 43.5	Cts. 49.1	Cts. 49.3	Cts. 43.3	Cts. 37.3	59	61	71	93	94	70	47	
Round steak.....do.....	22.8	34.4	35.5	37.8	43.4	43.8	38.1	32.3	51	56	66	90	92	67	42	
Rib roast.....do.....	19.8	29.5	30.2	31.9	36.3	36.3	31.8	27.3	49	53	61	83	83	61	38	
Chuck roast.....do.....	16.3	21.6	22.7	24.5	29.7	29.4	24.7	20.2	33	39	50	82	80	52	24	
Plate beef.....do.....	12.4	14.1	14.7	16.2	20.8	20.7	16.9	13.3	14	19	31	68	67	36	7	
Pork chops.....do.....	21.5	37.5	39.3	36.3	35.7	35.8	32.8	25.0	74	83	69	66	67	53	16	
Bacon, sliced.....do.....	27.2	49.2	51.0	46.3	44.5	43.0	42.1	32.1	81	88	70	64	58	55	18	
Ham, sliced.....do.....	26.9	53.5	58.4	53.0	54.6	53.9	52.1	41.9	99	117	97	103	100	94	56	
Lamb, leg of.....do.....	18.5	38.4	37.9	37.6	38.0	37.9	31.4	26.1	108	105	103	105	105	70	41	
Hens.....do.....	20.6	35.8	37.1	35.6	38.0	37.7	32.6	29.2	74	80	73	84	83	58	42	
Salmon, red, canned																
.....pound.....		36.4	34.7	34.8	32.3	31.9	34.3	29.9								
Milk, fresh.....quart.....	9.1	14.3	14.1	14.2	14.3	14.4	14.0	12.0	57	55	56	57	58	54	32	
Milk, evaporated																
.....16-ounce can.....		11.6	11.4	11.5	11.4	10.5	9.9	8.8								
Butter.....pound.....	38.7	59.7	55.7	56.4	58.3	53.5	45.4	37.4	54	44	46	51	38	17	13	
Oleomargarine (all																
.....butter substitutes)																
.....pound.....		31.2	30.1	27.9	27.6	26.9	24.6	18.9								
Cheese.....do.....	22.5	37.4	36.9	38.6	38.5	37.8	33.8	26.8	66	64	72	71	68	50	19	
Lard.....do.....	15.9	23.3	21.1	19.5	19.1	18.0	17.5	12.2	47	33	23	20	13	10	123	
Vegetable lard substitute																
.....pound.....		25.8	25.6	25.1	24.8	24.6	24.0	22.4								
Eggs, strictly fresh																
.....dozen.....	49.7	69.4	66.0	61.7	59.3	63.3	48.4	39.7	40	33	24	19	27	13	120	
Bread.....pound.....	5.6	9.4	9.4	9.3	9.1	8.9	8.5	7.3	68	68	66	63	59	52	30	
Flour.....do.....	3.3	6.0	5.7	5.4	5.1	5.2	4.2	3.3	82	73	64	55	58	27	0	
Corn meal.....do.....	3.1	5.3	5.1	5.2	5.3	5.3	5.2	4.2	71	65	68	71	71	68	35	
Rolled oats.....do.....		9.2	9.1	9.0	8.9	8.8	8.6	7.9								
Corn flakes																
.....8-ounce package.....		11.0	10.9	9.7	9.5	9.5	9.3	8.8								
Wheat cereal																
.....28-ounce package.....		25.2	25.4	25.5	25.5	25.5	25.3	23.1								
Macaroni.....pound.....		20.5	20.1	20.0	19.7	19.7	18.9	16.1								
Rice.....do.....	8.7	11.4	11.3	10.4	9.8	9.7	9.3	7.5	31	30	20	13	11	7	114	
Beans, navy.....do.....		9.9	9.3	9.5	12.5	13.7	10.2	6.4								
Potatoes.....do.....	1.8	5.2	4.0	3.0	2.2	3.8	2.9	1.7	189	122	67	22	111	61	16	
Onions.....do.....		5.7	5.0	4.8	6.5	5.0	3.9	4.4								
Cabbage.....do.....		4.2	4.0	3.7	4.3	4.2	3.4	3.0								
Pork and beans																
.....No. 2 can.....		12.3	11.7	11.5	11.7	11.7	10.7	10.2								
Corn, canned.....do.....		17.1	16.3	15.7	15.9	15.7	15.1	12.1								
Peas, canned.....do.....		18.1	17.3	16.6	16.7	16.6	15.9	13.6								
Tomatoes, canned																
.....No. 2 can.....		12.9	12.1	11.8	11.9	12.6	11.7	9.7								
Sugar, granulated																
.....pound.....	5.4	6.6	7.1	7.2	6.8	6.7	5.9	5.6	22	31	33	26	24	9	4	
Tea.....do.....	54.5	75.7	77.1	77.5	77.4	77.4	76.9	75.1	39	41	42	42	42	41	38	
Coffee.....do.....	29.8	51.2	50.8	47.8	49.7	48.3	38.7	31.8	72	70	60	67	62	30	7	
Prunes.....do.....		17.2	16.5	14.1	14.0	17.9	13.6	10.7								
Raisins.....do.....		14.2	14.6	13.8	12.0	12.4	11.5	11.4								
Bananas.....dozen.....		34.7	34.9	34.4	33.7	32.7	29.3	24.4								
Oranges.....do.....		65.5	55.1	53.2	56.5	43.0	51.1	35.3								
All articles combined <sup>2</sup> .....									59.3	54.2	49.1	50.0	52.3	34.9	11.3	

<sup>1</sup>Decrease.

<sup>2</sup> Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1930, and by months for 1929, 1930, and 1931. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913 TO NOVEMBER, 1931

[Average cost in 1913=100.0]

Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913: Average for year.....	100.0	100.0	100.0	1930: Average for year....	158.0	175.8	136.5
1914: Average for year.....	106.7	103.4	97.1	January.....	162.9	183.6	138.9
1915: Average for year.....	121.6	99.6	96.1	February.....	161.6	183.1	138.5
1916: Average for year.....	126.8	108.2	103.2	March.....	160.9	183.0	137.6
1917: Average for year.....	136.5	137.0	127.6	April.....	160.3	183.3	138.9
1918: Average for year.....	194.3	172.8	153.4	May.....	159.8	181.5	137.0
1919: Average for year.....	198.0	184.2	176.6	June.....	160.1	179.9	133.7
1920: Average for year.....	232.1	185.7	185.1	July.....	158.6	175.2	133.9
1921: Average for year.....	178.8	158.1	149.5	August.....	156.9	169.9	137.4
1922: Average for year.....	159.3	150.3	135.9	September.....	156.4	173.3	138.8
1923: Average for year.....	156.9	149.0	147.6	October.....	154.4	171.1	137.8
1924: Average for year.....	160.4	150.2	142.8	November.....	152.4	164.0	135.3
1925: Average for year.....	176.2	163.0	147.1	December.....	151.6	161.6	129.8
1926: Average for year.....	175.5	171.3	145.5	1931:			
1927: Average for year.....	170.7	169.9	148.7	January.....	147.1	159.5	123.6
1928: Average for year.....	167.2	179.2	150.0	February.....	144.6	153.4	120.2
1929: Average for year.....	164.1	188.4	148.6	March.....	142.4	152.5	120.5
January.....	164.1	180.9	151.9	April.....	138.9	151.4	116.5
February.....	164.1	180.3	152.6	May.....	137.7	149.3	110.3
March.....	164.1	182.8	152.4	June.....	136.3	145.7	108.3
April.....	164.1	187.5	148.9	July.....	134.3	147.8	109.6
May.....	163.5	191.2	147.5	August.....	132.0	149.1	111.9
June.....	163.0	192.4	146.8	September.....	130.2	147.7	114.3
July.....	163.5	195.9	146.8	October.....	129.8	142.7	117.0
August.....	164.7	196.0	147.1	November.....	129.2	135.4	114.5
September.....	165.2	194.2	148.1				
October.....	163.5	189.2	149.3				
November.....	163.6	184.1	147.0				
December.....	162.9	181.8	144.9				

#### Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1930,<sup>2</sup> by months for 1930 and 1931. These index numbers, or relative prices, are based on the year 1913 as 100.0 and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1930 was 182.7, which means that the average money price for the year 1930 was 82.7 per cent higher than the average money price for the year 1913. As compared with the relative price, 196.9 in 1929, the figures for 1930 show a decrease of 14.2 points, but a decrease of 7.2 per cent in the year.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921, the number of food articles varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100.0 are 119.1 for October, 1931, and 116.7 for November, 1931.

<sup>2</sup> For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 495, pp. 32 to 45. Index numbers for 1929 are published in each Labor Review, February, 1930, to February, 1931.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1930, AND BY MONTHS FOR 1930 AND 1931

[A verage for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Lamb, leg of	Hens	Milk	Butter
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	207.9	209.9	187.6	183.0
1921	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	178.3	186.4	164.0	135.0
1922	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	193.7	169.0	147.2	25.1
1923	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	194.2	164.3	155.1	144.7
1924	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	196.3	165.7	155.1	135.0
1925	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	204.2	171.8	157.3	143.1
1926	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	206.3	182.2	157.3	138.6
1927	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	205.8	173.2	158.4	145.2
1928	188.2	188.3	176.7	174.4	157.0	165.7	163.0	196.7	208.5	175.6	159.6	147.5
1929	196.9	199.1	185.4	186.9	172.4	175.7	161.1	204.1	212.2	186.4	160.7	143.9
1930	182.7	184.8	172.7	170.0	155.4	171.0	156.7	198.5	186.7	178.4	159.6	121.9
January	192.9	195.5	183.3	184.4	172.7	168.1	157.0	206.9	206.9	179.3	158.4	122.7
February	191.3	194.2	181.8	184.4	171.9	167.6	157.8	200.7	193.7	179.8	157.3	121.9
March	190.6	192.8	181.3	182.5	170.2	171.9	157.8	201.1	189.4	179.3	157.3	125.6
April	190.2	193.3	181.3	182.5	168.6	176.7	157.4	200.4	193.7	179.3	157.3	120.9
May	190.2	192.8	179.8	179.4	164.5	171.9	156.7	200.7	189.7	175.6	157.3	113.1
June	188.6	191.5	177.3	175.6	160.3	174.3	156.7	200.7	193.7	167.6	157.3	114.1
July	182.3	184.3	171.7	166.3	149.6	173.8	156.7	200.0	188.9	161.5	157.3	114.1
August	175.6	176.7	163.1	155.6	138.8	174.8	155.6	198.1	178.3	158.7	157.3	123.8
September	177.2	178.0	166.7	160.0	142.1	186.2	158.1	198.9	179.9	159.6	157.3	127.2
October	175.2	176.2	164.1	158.7	142.1	180.5	157.8	197.4	173.5	158.7	173.3	124.8
November	170.5	170.9	160.6	154.4	139.7	156.2	155.9	193.7	166.1	153.1	157.3	118.5
December	168.9	169.1	159.6	153.8	139.7	149.5	153.0	191.4	164.6	150.2	151.7	111.0
1931:												
January	167.3	168.2	159.1	152.5	138.0	141.9	148.9	188.1	166.1	153.5	149.4	98.4
February	161.4	161.0	154.0	145.6	131.4	131.4	145.2	183.3	164.6	148.8	146.1	94.8
March	158.7	157.8	153.0	141.9	128.1	140.0	143.0	178.4	164.0	150.2	144.9	97.4
April	157.5	156.5	150.0	139.4	124.8	141.4	141.1	175.5	165.6	153.1	141.6	91.9
May	157.5	154.7	147.0	135.6	119.8	143.3	139.3	172.9	165.1	148.8	138.2	81.5
June	152.4	151.1	142.9	130.6	112.4	140.0	136.7	170.6	161.9	146.0	134.8	80.7
July	154.3	154.3	142.9	130.0	110.7	151.4	137.0	171.4	158.7	144.6	136.0	82.8
August	155.5	155.2	143.9	130.0	109.9	158.6	135.6	171.4	156.6	145.1	136.0	80.8
September	155.1	154.3	142.9	130.6	111.6	153.3	134.1	169.5	152.4	145.1	136.0	96.1
October	152.0	150.7	141.4	129.4	111.6	139.5	127.0	164.3	145.5	140.4	134.8	104.2
November	146.9	144.8	137.9	126.3	109.9	119.1	118.9	155.8	138.1	137.1	134.8	97.7
Year and month	Cheese	Lard	Eggs	Bread	Flour	Corn meal	Rice	Pota-toes	Sugar	Tea	Coffee	All art-icles 1
1913	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920	188.2	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921	153.9	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922	148.9	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	25.2	121.1	41.6
1923	167.0	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924	159.7	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925	166.1	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926	165.6	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927	170.1	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1928	174.2	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929	171.9	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1930	158.8	107.6	118.8	155.4	142.4	176.7	109.2	211.8	112.7	142.5	136.2	147.1
January	169.2	108.9	160.6	158.9	154.5	180.0	110.3	229.4	120.0	143.4	147.0	155.4
February	167.0	108.2	136.8	157.1	154.5	176.7	110.3	229.4	118.2	143.2	143.3	153.0
March	164.7	107.0	102.3	157.1	151.5	176.7	109.2	229.4	116.4	142.8	140.6	150.1
April	162.9	106.3	100.0	157.1	148.5	176.7	110.3	241.2	114.5	142.5	138.9	151.2
May	162.0	105.7	97.7	157.1	145.5	176.7	109.2	252.9	114.5	142.5	137.2	150.1
June	157.9	105.1	97.4	157.1	145.5	176.7	109.2	247.1	110.9	143.0	136.2	147.9
July	155.2	103.2	101.7	157.1	139.4	176.7	109.2	194.1	110.9	142.6	135.6	144.0
August	153.4	104.4	112.5	155.4	136.4	176.7	109.2	182.4	110.9	142.3	134.6	143.7
September	154.8	110.8	124.9	155.4	133.3	176.7	110.3	188.2	107.3	142.1	132.6	145.6
October	154.8	112.0	129.9	153.6	130.3	176.7	109.2	182.4	105.5	141.9	131.2	144.4
November	152.9	110.8	140.3	151.8	127.3	173.3	106.9	170.6	107.3	141.4	129.9	141.4
December	150.2	105.7	120.6	151.8	124.2	173.3	105.8	170.6	107.3	141.4	129.2	137.2
1931:												
January	145.2	99.4	104.6	146.4	121.2	170.0	102.3	170.6	107.3	141.0	126.8	132.8
February	141.2	91.8	78.8	142.9	121.2	166.7	102.3	158.8	107.3	140.6	125.2	127.0
March	137.1	89.9	82.6	141.1	118.2	166.7	98.9	158.8	105.5	139.7	121.8	126.4
April	132.6	89.9	79.4	137.5	115.2	163.3	96.6	164.7	103.6	138.2	116.1	124.0
May	124.0	85.4	71.9	137.5	112.1	153.3	95.4	164.7	101.8	136.9	112.4	121.0
June	119.9	82.3	74.8	135.7	112.1	150.0	94.3	141.2	104.8	136.8	111.1	118.3
July	118.6	82.3	82.9	139.9	109.1	150.0	93.1	135.3	101.8	137.3	109.1	119.0
August	119.9	81.0	92.5	132.1	103.0	150.0	93.1	129.4	103.6	138.6	108.7	119.7
September	122.2	79.8	98.0	130.4	100.0	150.0	92.0	117.6	103.6	139.3	108.7	119.4
October	122.6	74.5	109.9	130.4	100.0	146.7	89.7	105.9	101.8	139.0	107.7	119.1
November	121.3	77.2	115.1	130.4	100.0	140.0	86.2	100.0	101.8	138.1	106.7	116.7

1 22 articles in 1913-1920; 42 articles in 1921-1931.

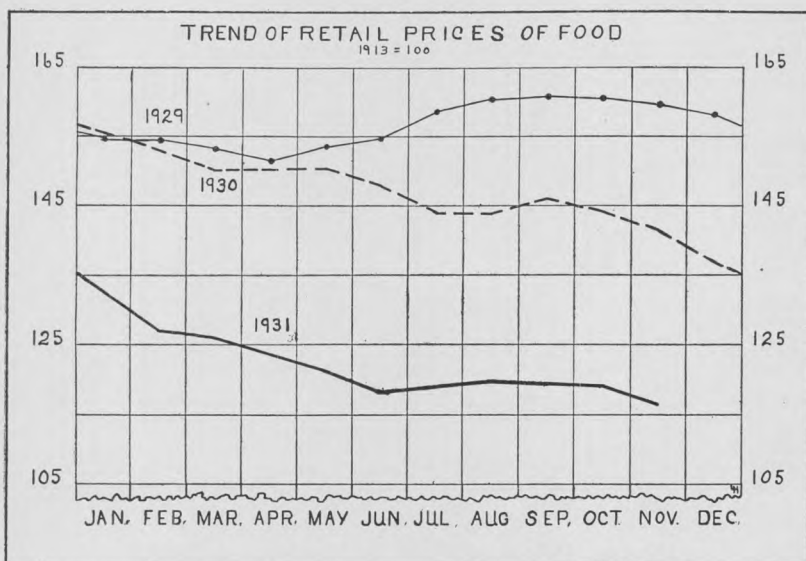


The curve shown in the chart below pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

#### Comparison of Retail Food Costs in 51 Cities

TABLE 5 shows for 39 cities the percentage of increase or decrease in the retail cost of food<sup>3</sup> in November, 1931, compared with the average cost in the year 1913, in November, 1930, and October, 1931. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average consumption of these articles in each city.<sup>4</sup>

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of



November schedules were received from 99.0 per cent of the firms in the 51 cities from which retail prices of food are collected.

Out of about 1,230 food reports 16 were not received—1 each in Boston, Buffalo, Butte, Jacksonville, Los Angeles, Peoria, Pittsburgh, Portland (Oreg.), St. Louis, San Francisco, Savannah, and Washington, and 2 each in New Orleans and Seattle.

Out of about 350 bread reports 3 were missing—1 each in Cincinnati, Columbus, and Jacksonville.

A perfect record is shown for the following named cities: Atlanta, Baltimore, Birmingham, Bridgeport, Charleston (S. C.), Chicago, Cleveland, Dallas, Denver, Detroit, Fall River, Houston, Indian-

<sup>3</sup> For list of articles see note 2, p. 216.

<sup>4</sup> The consumption figures used for January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

apolis, Kansas City, Little Rock, Louisville, Manchester, Memphis, Milwaukee, Minneapolis, Mobile, Newark, New Haven, New York, Norfolk, Omaha, Philadelphia, Portland (Me.), Providence, Richmond, Rochester, St. Paul, Salt Lake City, Scranton, and Springfield (Ill.).

TABLE 5.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD IN NOVEMBER, 1931, COMPARED WITH THE COST IN OCTOBER, 1931, NOVEMBER, 1930, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES AND IN THE UNITED STATES

City	Per cent- age in- crease November, 1931, compared with 1913	Percentage decrease November, 1931, compared with—		City	Per cent- age in- crease November, 1931, compared with 1913	Percentage decrease November, 1931, compared with—	
		Novem- ber, 1930	October, 1931			Novem- ber, 1930	October, 1931
United States.....	16.7	17.5	2.0	Milwaukee.....	19.3	16.6	2.3
Atlanta.....	15.3	18.5	0.0	Minneapolis.....	17.0	18.4	2.3
Baltimore.....	20.5	17.5	3.0	Mobile.....	-----	19.6	1.8
Birmingham.....	13.2	21.2	1.2	Newark.....	18.7	15.1	4.6
Boston.....	23.9	15.9	1.0	New Haven.....	24.1	16.0	1.5
Bridgeport.....	-----	15.3	2.4	New Orleans.....	13.2	18.8	1.3
Buffalo.....	20.7	17.5	2.1	New York.....	24.6	15.3	2.8
Butte.....	-----	10.0	0.7	Norfolk.....	-----	18.6	1.5
Charleston, S. C.....	19.1	18.1	3.6	Omaha.....	8.5	19.4	2.9
Chicago.....	29.3	15.2	1.5	Peoria.....	-----	20.6	1.4
Cincinnati.....	23.2	17.8	1.9	Philadelphia.....	24.8	14.3	2.1
Cleveland.....	9.0	20.5	2.5	Pittsburgh.....	15.8	18.2	1.5
Columbus.....	-----	19.4	2.0	Portland, Me.....	-----	14.6	0.3
Dallas.....	10.5	22.4	1.2	Portland, Oreg.....	7.1	13.8	0.3
Denver.....	7.6	14.8	1.8	Providence.....	24.0	14.8	0.4
Detroit.....	12.6	19.2	4.6	Richmond.....	20.2	17.9	1.1
Fall River.....	16.0	18.1	1.3	Rochester.....	-----	18.3	1.9
Houston.....	-----	20.9	3.2	St. Louis.....	16.5	18.1	2.7
Indianapolis.....	10.2	20.7	3.1	St. Paul.....	-----	18.8	2.7
Jacksonville.....	8.4	19.6	2.3	Salt Lake City.....	2.9	15.2	1.7
Kansas City.....	14.2	16.7	2.8	San Francisco.....	18.9	16.9	1.2
Little Rock.....	5.4	22.5	3.4	Savannah.....	-----	19.4	2.7
Los Angeles.....	8.9	15.2	1.0	Scranton.....	25.5	15.3	1.6
Louisville.....	8.2	20.5	2.4	Seattle.....	14.4	14.5	0.9
Manchester.....	18.2	15.9	2.0	Springfield, Ill.....	-----	24.5	1.6
Memphis.....	6.9	20.1	2.8	Washington.....	25.1	16.6	2.5

<sup>1</sup> Increase.

### Retail Prices of Coal in November, 1931<sup>1</sup>

RETAIL prices of coal are secured in each of the 51 cities in which retail food prices are obtained. The prices quoted are for coal delivered to consumers but do not include charges for storing the coal in cellar or bins where an extra handling is necessary.

Average prices for the United States for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite are computed from the quotations received from retail dealers in all cities where these coals are sold for household use.

The table shows the average prices of coal per ton of 2,000 pounds for the United States on November 15, 1931, in comparison with the average prices on October 15, 1931, and November 15, 1930, together with the percentage change in the year and in the month.

<sup>1</sup> Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

AVERAGE RETAIL PRICES PER 2,000 POUNDS OF COAL FOR THE UNITED STATES, AND PER CENT OF CHANGE ON NOVEMBER 15, 1931, COMPARED WITH NOVEMBER 15, 1930, AND OCTOBER 15, 1931

Article	Average retail price on—			Per cent of increase (+) or decrease (-) November, 1931, compared with—	
	Nov. 15, 1930	Oct. 15, 1931	Nov. 15, 1931	Nov. 15, 1930	Oct. 15, 1931
Pennsylvania anthracite:					
Stove—					
Average price per 2,000 pounds.....	\$15.14	\$15.00	\$15.00	-0.9	0.0
Index (1913=100.0).....	196.0	194.2	194.2		
Chestnut—					
Average price per 2,000 pounds.....	\$14.90	\$14.97	\$14.96	+0.4	-0.1
Index (1913=100.0).....	188.2	189.1	189.1		
Bituminous:					
Average price per 2,000 pounds.....	\$8.94	\$8.22	\$8.23	-7.9	+0.1
Index (1913=100.0).....	164.6	151.3	151.4		

### Comparison of Retail-Price Changes in the United States and in Foreign Countries

THE principal index numbers of retail prices published by foreign countries have been brought together with those of this bureau in the subjoined table, the base years in all cases being as given in the original reports. As stated in the table, the number of articles included in the index numbers for the different countries differs widely. These results, which are designed merely to show price trends and not actual differences in the several countries, should not, therefore, be considered as closely comparable with one another. In certain instances, also, the figures are not absolutely comparable from month to month over the entire period, owing to slight changes in the list of commodities and the localities included on successive dates.

## INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND IN OTHER COUNTRIES

Country.....	United States	Canada	Belgium	Czecho-slovakia	Denmark	Finland	France (except Paris)	France (Paris)	Germany
Number of localities....	51	69	59	Entire country	100	21	320	1	72
Commodities included.....	42 foods	29 foods	56 (foods, etc.)	29 foods	53 foods	36 foods	13 (11 foods)	13 (11 foods)	Foods
Computing agency.....	Bureau of Labor Statistics	Department of Labor	Ministry of Industry and Labor	Office of Statistics	Government Statistical Department	Central Bureau of Statistics	Ministry of Labor	Ministry of Labor	Federal Statistical Bureau
Base=100....	1913	1913	April, 1914	July, 1914	July, 1914	January-June, 1914	August, 1914	July, 1914	October, 1913-July, 1914
1924									
January.....	149	147	480	836	194	1089	1 401	376	127
April.....	141	138	498	829	-----	1035	1 395	380	123
July.....	143	135	493	837	200	1052	1 401	360	126
October.....	149	140	513	877	-----	1156	1 428	383	134
1925									
January.....	154	147	521	899	215	1130	1 442	408	137
April.....	151	144	506	901	-----	1137	1 435	409	144
July.....	160	143	509	916	210	1145	1 451	421	154
October.....	162	148	533	875	-----	1165	1 471	433	151
1926									
January.....	164	158	527	854	177	1090	1 503	480	143
April.....	162	155	529	832	-----	1085	1 523	503	142
July.....	157	151	637	876	159	1105	1 610	574	145
October.....	160	149	705	888	-----	1126	1 647	624	145
1927									
January.....	159	155	755	914	156	1092	1 586	592	151
April.....	154	147	774	923	152	1069	1 572	580	150
July.....	153	149	790	962	153	1102	1 553	557	157
October.....	156	150	804	907	152	1156	1 526	520	152
1928									
January.....	155	152	813	913	152	1126	1 522	530	152
April.....	152	148	807	905	152	1119	1 530	532	151
July.....	153	147	811	943	153	1155	1 536	2 111	154
October.....	157	154	834	907	146	1183	1 562	2 115	152
1929									
January.....	155	154	856	900	147	1156	3 117	2 122	153
April.....	152	150	860	901	150	1118	3 118	2 125	154
July.....	158	150	874	925	149	1116	3 118	2 123	156
October.....	160	159	894	879	146	1137	3 120	2 124	154
1930									
January.....	155	162	895	872	145	1048	-----	2 124	150
February.....	153	161	890	865	-----	1022	2 118	2 121	148
March.....	150	159	879	853	-----	1006	-----	2 120	145
April.....	151	153	870	851	140	975	-----	2 119	143
May.....	150	152	867	852	-----	945	2 116	2 120	142
June.....	148	151	866	865	-----	937	-----	2 120	143
July.....	144	149	869	886	137	969	-----	2 122	146
August.....	144	145	872	857	-----	995	2 127	2 127	145
September.....	146	141	874	839	-----	976	-----	2 129	142
October.....	144	141	875	830	133	944	-----	2 129	140
November.....	141	140	872	818	-----	934	2 132	2 131	138
December.....	137	138	859	810	-----	903	-----	2 132	135
1931									
January.....	133	134	846	798	127	893	-----	2 132	134
February.....	127	129	825	739	-----	883	2 131	2 132	131
March.....	126	124	811	779	-----	879	-----	2 131	130
April.....	124	121	808	780	123	870	-----	2 130	129
May.....	121	116	803	784	-----	849	2 128	2 129	130
June.....	118	111	798	811	-----	842	-----	2 128	131
July.....	119	110	789	798	119	846	-----	2 125	130
August.....	120	112	787	771	-----	870	2 124	2 121	126
September.....	119	109	786	761	-----	844	-----	2 119	125

1 For succeeding month.

2 In gold.

3 In gold; for succeeding month.

INDEX NUMBERS OF RETAIL PRICES IN THE UNITED STATES AND IN OTHER COUNTRIES—Continued

Country	Italy	Netherlands (The Hague)	Norway	Sweden	Switzerland	United Kingdom	South Africa	India (Bombay)	Australia	New Zealand
Number of localities	47	1	31	49	34	630	9	1	30	25
Commodities included	20 foods and charcoal	Foods	Foods	50 (43 foods, 7 fuel and light)	Foods	21 foods	24 foods	17 foods	46 foods and groceries	59 foods
Computing agency	Ministry of National Economy	Central Bureau of Statistics	Central Bureau of Statistics	Social Board	Labor Office (revised)	Ministry of Labor	Office of Census and Statistics	Labor Office (revised)	Bureau of Census and Statistics	Census and Statistics Office
Base=100	1913	1921	July, 1914	July, 1914	June, 1914	July, 1914	1914	July, 1914	July, 1914	July, 1914
1924										
January	527	4 82. 5	230	163	173	175	120	154	155	150
April	527	4 81. 7	240	159	169	167	122	143	150	150
July	538	4 80. 8	248	159	170	162	117	151	148	148
October	556	4 82. 3	264	172	174	172	120	156	146	145
1925										
January	609	4 80. 2	277	170	172	178	120	152	148	147
April	606	4 86. 7	276	170	169	170	124	153	152	149
July	605	4 81. 3	260	169	169	167	120	152	156	151
October	645	4 79. 3	228	166	168	172	119	148	157	155
1926										
January	658	4 76. 6	216	162	165	171	116	151	155	154
April	633	4 80. 1	198	158	161	159	119	150	163	151
July	645	4 73. 5	198	156	159	161	117	155	159	149
October	662	4 75. 7	191	157	160	163	120	153	153	147
1927										
January	629	4 76. 3	180	156	158	167	116	155	158	148
April	606	4 77. 0	169	151	156	155	119	151	151	145
July	540	4 76. 5	175	151	157	159	119	154	152	144
October	530	4 79. 5	173	155	159	161	119	148	159	143
1928										
January	531	4 81. 6	170	153	159	162	119	151	154	147
April	522	4 79. 4	171	154	156	155	119	140	154	144
July	516	4 76. 2	173	157	157	157	116	143	152	147
October	536	4 75. 2	163	153	158	157	115	142	150	149
1929										
January	565	4 76. 0	158	150	157	159	115	146	161	149
April	566	4 72. 3	156	150	154	150	119	145	162	147
July	558	4 74. 5	157	151	155	149	116	145	160	146
October	546	4 73. 1	160	150	158	156	113	147	165	147
1930										
January	548	-----	156	145	155	157	112	145	153	146
February	536	-----	154	144	154	154	111	143	151	145
March	525	69. 7	152	142	153	150	111	139	151	144
April	522	-----	152	140	152	143	113	138	151	144
May	510	-----	151	140	150	140	113	137	150	144
June	509	68. 8	151	140	151	138	112	137	149	143
July	507	-----	151	140	152	141	109	136	147	143
August	506	-----	151	139	152	144	108	133	146	141
September	508	71. 6	151	139	152	144	107	134	141	140
October	513	-----	150	137	152	143	108	127	138	139
November	512	-----	149	136	151	144	108	123	135	139
December	482	69. 0	147	134	149	141	108	116	134	137
1931										
January	463	-----	145	133	148	138	108	111	135	135
February	450	-----	143	132	146	136	107	106	133	130
March	446	66. 8	142	133	144	134	107	103	131	126
April	446	-----	141	132	142	129	107	104	131	125
May	449	-----	138	130	141	129	108	102	129	125
June	448	68. 7	137	130	141	127	106	101	128	124
July	442	-----	138	130	140	130	104	100	125	-----
August	438	-----	138	129	139	128	103	100	124	-----
September	438	62. 6	136	130	139	128	102	100	124	-----

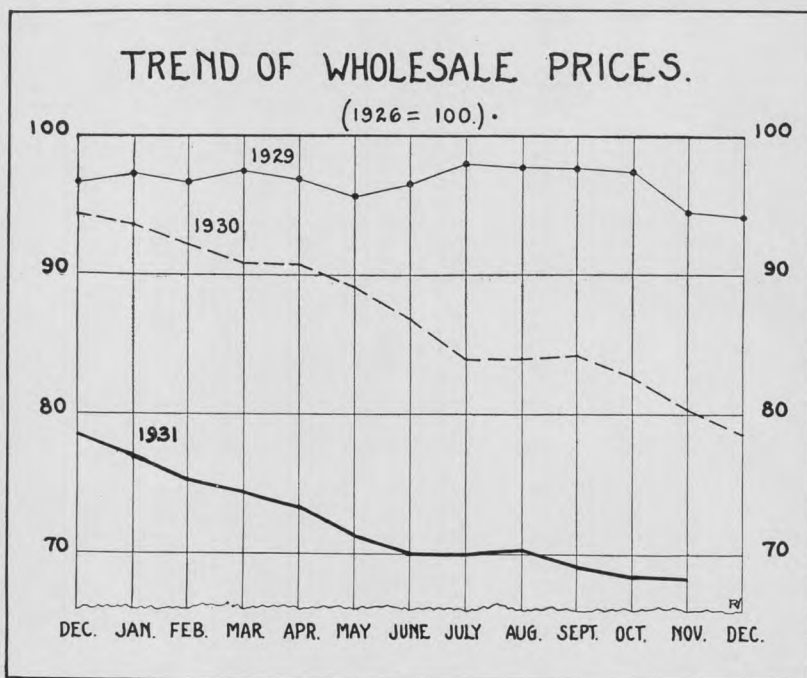
<sup>4</sup> For second month following.



### Index Numbers of Wholesale Prices in November, 1931

THE index number of wholesale prices as computed by the Bureau of Labor Statistics of the United States Department of Labor shows a minor decrease for November. This index number, which includes 550 commodities or price series weighted according to the importance of each article and based on the average prices for 1926 as 100.0, was 68.3 for November as compared with 68.4 for October, showing only a fractional per cent of decrease between the two months. When compared with November, 1930, with an index number of 80.4, a decrease of 15 per cent has been recorded.

In the group of farm products decreases in the average price of calves, hogs, lambs, live poultry, lemons, oranges, hay, and tobacco



were about offset by increases in all grains, cotton, eggs, seeds, onions, and sweetpotatoes. The group as a whole decreased less than one-fourth of 1 per cent.

Among foods price decreases were reported for butter, cheese, lamb, fresh pork, bacon, ham, veal, canned salmon, lard, raw and granulated sugar, and canned corn, peas, peaches, and pineapple, resulting in a net decrease of about  $2\frac{1}{2}$  per cent for the group as a whole. Fresh and cured beef, coffee, oleomargarine, rye and wheat flour, prunes, and corn meal averaged higher than in October.

Decreases in the average prices for goatskins and sheepskins, sole leather, and several types of shoes caused the hides and leather products group to decline 1 per cent. No change occurred in other leather products.

In the group of textile products, cotton goods and woolen and worsted goods recorded further price decreases from October to November. Silk and rayon show no general change, while there was an upward tendency in other textile products. The textile group as a whole declined about  $1\frac{1}{4}$  per cent.

Advancing prices of mid-continent crude petroleum, gasoline, and kerosene forced the index for the fuel and lighting group to advance  $2\frac{1}{2}$  per cent. Anthracite and bituminous coal and coke showed little or no change between October and November.

Up and down fluctuations in the prices of the items composing the metals and metal products group produced little change on the group as a whole, but with a downward tendency. Iron and steel products showed slight change and nonferrous metals, agricultural implements, and automobiles decreased, while other metal products showed no change.

Lumber, brick, cement, and other building materials continued their downward movement in November. No change was shown for structural steel while a minor increase was reported for paint materials. The group as a whole showed a decrease of less than one-half of 1 per cent.

Minor price recessions during November occurred in drugs and pharmaceuticals and fertilizer materials, while chemicals and mixed fertilizers advanced slightly. An increase of nearly 1 per cent was shown for the chemicals and drug group. Both furniture and furnishings in the group of house-furnishing goods continued to decline in the month.

Prices of cattle feed rose sharply during the month and paper and pulp advanced slightly. Crude rubber and other miscellaneous articles showed minor decreases, with no change reported in the price of automobile tires. The group as a whole showed an increase of over 1 per cent.

Raw materials as a whole averaged higher than in October while semimanufactured articles and finished products averaged lower. In the large group of nonagricultural commodities, including all articles other than farm products, the November prices showed a downward movement from those of the month before, while the group of all commodities other than farm products and foods showed an upward tendency.

Between October and November decreases took place in 119 instances, increases in 151 instances, while in 280 instances no change occurred.

## INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COMMODITIES (1926=100.0)

Groups and subgroups	November, 1930	October, 1931	November, 1931	Purchasing power of the dollar November, 1931
All commodities.....	80.4	68.4	68.3	\$1.464
Farm products.....	79.3	58.8	58.7	1.704
Grains.....	64.0	44.3	51.3	1.949
Livestock and poultry.....	77.7	57.6	55.7	1.795
Other farm products.....	85.4	64.2	63.1	1.585
Foods.....	85.7	72.6	70.9	1.410
Butter, cheese, and milk.....	95.8	86.4	80.9	1.236
Meats.....	91.4	71.1	67.7	1.477
Other foods.....	78.4	67.7	68.5	1.460
Hides and leather products.....	94.0	82.2	81.3	1.230
Hides and skins.....	75.1	50.0	49.0	2.041
Leather.....	93.3	80.7	78.8	1.269
Boots and shoes.....	100.3	93.1	92.5	1.081
Other leather products.....	104.2	101.0	101.0	.990
Textile products.....	73.3	61.5	60.7	1.647
Cotton goods.....	81.9	66.2	64.7	1.546
Silk and rayon.....	50.7	43.9	43.9	2.278
Woolen and worsted goods.....	83.2	72.4	71.9	1.391
Other textile products.....	57.9	47.3	47.4	2.110
Fuel and lighting materials.....	71.8	63.4	65.0	1.538
Anthracite coal.....	89.6	94.2	94.2	1.062
Bituminous coal.....	89.1	83.6	83.7	1.195
Coke.....	83.9	81.5	81.4	1.229
Gas.....	97.0	100.8	(1)	-----
Petroleum products.....	53.3	39.2	42.5	2.353
Metals and metal products.....	90.2	86.5	86.2	1.160
Iron and steel.....	88.3	86.2	86.0	1.163
Nonferrous metals.....	68.4	53.7	53.5	1.869
Agricultural implements.....	94.9	92.3	92.1	1.086
Automobiles.....	99.8	99.7	99.4	1.006
Other metal products.....	98.0	90.5	90.5	1.105
Building materials.....	85.6	74.3	74.0	1.351
Lumber.....	80.1	64.5	64.2	1.558
Brick.....	81.8	79.9	79.5	1.258
Cement.....	91.1	75.1	74.6	1.340
Structural steel.....	81.7	81.7	81.7	1.224
Paint materials.....	74.4	63.8	64.6	1.548
Other building materials.....	97.8	88.6	88.1	1.135
Chemicals and drugs.....	85.2	74.1	74.7	1.339
Chemicals.....	89.2	77.7	78.8	1.269
Drugs and pharmaceuticals.....	66.3	61.1	60.7	1.647
Fertilizer materials.....	82.1	70.2	70.1	1.427
Mixed fertilizers.....	91.1	77.2	77.7	1.287
House-furnishing goods.....	95.2	83.2	83.1	1.203
Furniture.....	96.5	84.7	84.5	1.183
Furnishings.....	94.0	82.0	81.8	1.222
Miscellaneous.....	67.8	59.0	59.7	1.675
Cattle feed.....	83.0	49.4	59.8	1.672
Paper and pulp.....	83.5	80.4	80.8	1.238
Rubber.....	18.6	10.2	9.6	10.417
Automobile tires.....	51.3	45.7	45.7	2.188
Other miscellaneous.....	88.9	77.9	77.7	1.287
Raw materials.....	76.8	61.5	62.0	1.613
Semimanufactured articles.....	75.6	64.7	64.4	1.553
Finished products.....	83.7	73.7	73.2	1.366
Nonagricultural commodities.....	80.9	71.2	71.0	1.408
All commodities less farm products and foods.....	80.1	71.4	71.8	1.393

<sup>1</sup> Data not yet available.

# IMMIGRATION AND EMIGRATION

## Statistics of Immigration for October, 1931

By J. J. KUNNA, CHIEF STATISTICIAN, UNITED STATES BUREAU OF IMMIGRATION

**D**URING October 3,913 immigrant aliens were admitted to the United States. This was a decrease of 1,104, or 22 per cent, as compared with the preceding month, and of 10,029, or 71.9 per cent, as compared with the number for October, 1930. The nonimmigrant aliens admitted also showed a decline since a year ago, the number for this class dropping from 23,304 to 17,096, or 26.6 per cent. Most of the decrease is accounted for by a falling off, for the immigrants, in the number of arriving quota aliens from 9,075 to 1,462; and for the nonimmigrants, in the number of returning residents, from 14,053 to 9,601, and of manifested visitors from 5,802 to 4,101.

Immigration during the first four months of the current fiscal year (July to October) showed a decline of 43,679, or 73 per cent, from that for the same months of last year, the number dropping from 59,873 to 16,194. The decrease for Europe was 28,164, or 76.3 per cent, while that from Canada was 10,904, or 72.4 per cent, and from Mexico 1,008, or 57.4 per cent.

In direct contrast to last year, seven alien residents of the United States are now leaving for intended future permanent residence in Europe for every three newcomers from that continent coming here for permanent residence, whereas a year ago the departures and arrivals were in the ratio of 3 to 7. From July to October last, 19,194 emigrant aliens departed to and 8,741 immigrants were admitted from Europe, as against 12,978 departures and 36,905 admissions in the same period last year.

The women continue to outnumber the men among the new arrivals, about eight females now entering the country for every five males. In the four months from July to October, 1931, the female immigrant aliens admitted numbered 9,839 and the male 6,355. The admitted immigrants of the most productive years, from 16 to 44 years, were in the majority, as has long been the case, with a total of 10,416. There were 2,715 in the group ranging in age from 16 to 21; 4,103 ranging from 22 to 29; 2,460 from 30 to 37; and 1,138 from 38 to 44; while the remainder included 3,172 under 16 years of age and 2,606 over 44 years. The single immigrants numbered 8,153 and the married 7,049, while 932 were widowed and 60 divorced. During the corresponding months a year ago, 33,758 of the immigrants were females and 26,115 males, a ratio of 9 to 7; 43,244 ranged in age from 16 to 44 years, 9,811 were under 16, and 6,818 were 45 years of age and over; 38,032 were single, 19,308 married, and 2,533 widowed or divorced.

The vast majority of immigrants were admitted at Atlantic seaports, the number totaling 10,099 for the four months from July to October, 1931. New York accounts for 9,201 of this total, mostly arrivals from Europe, and, with the exception of 425 arriving at Boston and 204

at Providence, the various other Atlantic ports show nominal figures. At Gulf of Mexico ports only 308 immigrants were admitted; at San Francisco and other Pacific ports the respective figures were 561 and 458. Over the Canadian border 4,087 immigrants were admitted, and over the southern land border the number was 681.

Of the 16,194 immigrants admitted in the four months ended October 31 last, 2,434 were English, 2,228 were Italian, 1,779 were German, 134 were French, 1,020 were Scotch, and 1,006 were Hebrews. These six groups comprised about three-fifths of the total.

## INWARD AND OUTWARD PASSENGER MOVEMENT, JULY TO OCTOBER, 1931

Period	Inward					Aliens de- barred from enter- ing <sup>1</sup>	Outward					Aliens de- ported after enter- ing <sup>2</sup>
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens de- parted	Total	
	Immi- grant	Non- immi- grant	Total				Emi- grant	Non- emi- grant	Total			
1931												
July-----	3, 174	12, 361	15, 535	30, 944	46, 479	761	7, 428	20, 450	27, 878	46, 961	74, 839	1, 681
August-----	4, 090	16, 580	20, 670	59, 372	80, 042	657	9, 541	23, 009	32, 550	65, 895	98, 445	1, 584
September----	5, 017	20, 940	25, 957	62, 581	88, 538	684	8, 733	20, 393	29, 126	42, 247	71, 373	1, 446
October-----	3, 913	17, 096	21, 009	32, 427	53, 436	806	10, 857	16, 525	27, 382	35, 016	62, 398	1, 663
Total...	16, 194	66, 977	83, 171	185, 324	268, 495	2, 908	36, 559	80, 377	116, 936	190, 119	307, 055	6, 374

<sup>1</sup> These aliens are not included among arrivals, as they were not permitted to enter the United States.

<sup>2</sup> These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.



# PUBLICATIONS RELATING TO LABOR

## Official—United States

ARIZONA.—Industrial Commission. *Fifth annual report*. [Phoenix, 1931.] 31 pp.

Reviewed in this issue.

CALIFORNIA.—Department of Industrial Relations. *First biennial report, 1927-1930*. Sacramento, 1931. 204 pp., charts.

Certain data from this report, relating to the collection of unpaid wages, the cost of filling jobs by the State employment agencies, and to workmen's compensation are given in this issue of the Labor Review.

— — — *Special Bulletin No. 4: Union scales of wages and hours of labor, 1929 and 1930, together with a directory of California reporting trade-unions*. Sacramento, 1931. 72 pp.

KANSAS.—Commission of Labor and Industry. Workmen's Compensation Department. *Annual report, for fiscal year ending June 30, 1931*. Topeka, 1931. 28 pp.

Reviewed in this issue.

NEW JERSEY.—Department of Banking and Insurance. *Annual report of the Commissioner of Banking and Insurance, relative to savings banks, trust companies, and State banks of discount and deposit, private bankers, credit unions, provident loan associations, and small loan brokers, for the year ending December 31, 1930*. Trenton, 1931. 149 pp.

The report on credit unions covers 14 such organizations, which made loans during 1930 amounting to \$151,594, to 1,523 borrowers. The amount of the largest loan was \$500 and of the smallest \$100.

NEW YORK.—Board of Housing. *Report on the standard of living of 400 families in a model housing project, the Amalgamated Housing Corporation, by Asher Achinstein*. [Albany ?] 1931. 93 pp.

Reviewed in the December, 1931, issue of the Labor Review from an advance summary of the report.

— — — Governor's Commission on Unemployment Problems for the State of New York. *Less unemployment through stabilization of operations*. [Albany ?] 1931. 130 pp., charts. Revised edition. (Distributed by New York Industrial Commissioner, 80 Centre Street, New York City.)

Report to the Governor of New York, reviewing the causes of unemployment and the measures adopted to combat it, and including detailed information on the experience of some prominent business firms in establishing stabilization and employment benefit policies.

OREGON.—Governor's Interim Committee on Workmen's Compensation. *Majority and minority reports*. [Salem?] 1931. 23 and 27 pp., charts.

Bound with this report are the actuary's report to the committee appointed to investigate affairs of the Oregon Industrial Accident Commission and the report and recommendations of the State industrial accident commission to the governor's committee on workmen's compensation law.

Reviewed in this issue.

PORTO RICO.—Industrial Commission. *Annual report, 1930-31*. San Juan, 1931. 40 pp.

Reviewed in this issue.

UNITED STATES.—Board of Mediation. *Annual report, for the fiscal year ended June 30, 1931.* Washington, 1931. 36 pp.

Reviewed in this issue.

— Congress. Senate. Document No. 323 (71st Cong., 3d sess.): *Stabilization of coal industry. Extracts from report of the royal commission of New South Wales, appointed to inquire into the coal industry, together with extract from special circular No. 744, minerals division, [United States] Bureau of Foreign and Domestic Commerce.* Washington, 1931. 43 pp.

— Department of Commerce. Bureau of Foreign and Domestic Commerce. *Domestic Commerce Series No. 49: Cotton production and distribution in the Gulf Southwest, by Elma S. Moulton.* Washington, 1931. 311 pp., maps, charts.

Contains sections on cooperative cotton ginning, wages and hours of labor in gins, cooperative marketing, and labor supply.

— Bureau of Mines. *Coal in 1929, by F. G. Tryon and L. Mann.* Washington, 1931. (*Mineral Resources of the United States, 1929, Part II, pp. 673-858.*) Charts.

Includes data on number of men employed, days worked by the mines, length of working-day, output per man, labor disputes, and prices of coal.

— Department of Labor. *Nineteenth annual report of the Secretary of Labor, for the fiscal year ended June 30, 1931.* Washington, 1931. 148 pp.

Reviewed in this issue.

— Bureau of Immigration. *Annual report, fiscal year ended June 30, 1931.* Washington, 1931. 286 pp.

— Bureau of Labor Statistics. *Annual report, fiscal year ended June 30, 1931.* Washington, 1931. 25 pp.

— Bulletin No. 541: *Handbook of labor statistics, 1931 edition.* Washington, 1931. 923 pp.

— Bulletin No. 552: *Labor legislation, 1930.* Washington, 1931. 59 pp.

This bulletin contains the Federal and State labor legislation enacted in 1930, and is linked up with the compilations for previous years through the cumulative index which is a part of the bulletin.

— Bulletin No. 554: *Labor legislation of Paraguay.* Washington, 1931. 19 pp.

— Bulletin No. 558: *Labor conditions of women and children in Japan, by Asa Matsuoka.* Washington, 1931. 102 pp.

— Bulletin No. 559: *Labor legislation of Ecuador.* Washington, 1931. 36 pp.

— Bureau of Naturalization. *Annual report, fiscal year ended June 30, 1931.* Washington, 1931. 40 pp.

— Children's Bureau. *Nineteenth annual report, fiscal year ended June 30, 1931.* Washington, 1931. 68 pp.

— Women's Bureau. *Thirteenth annual report, fiscal year ended June 30, 1931.* Washington, 1931. 30 pp.

— Department of the Interior. Office of Education. *Bulletin, 1931, No. 20: Biennial survey of education in the United States, 1928-1930. Chapter V.—Commercial education, by J. O. Malott.* Washington, 1931. 48 pp. (*Advance pages of Vol. I.*)

The enrollment in business courses outstrips that in any other vocational training field, exceeding 1,000,000. Further improvement of the commercial training program depends, the bulletin points out, on cooperation between business leaders and outstanding business educators.

— Federal Board for Vocational Education. *Bulletin No. 159, General Series No. 4: Vocational training and unemployment. A discussion of the question—What service can the public program of vocational education render to the unemployed?* Washington, 1931. 29 pp.

## Official—Foreign Countries

AMSTERDAM (NETHERLANDS).—Afdeeling Algemeene Secretarie en Arbeidszaken. *Verlag omtrent de bemoeiingen der gemeente Amsterdam in arbeidszaken en de verzekering tegen werkloosheid in 1930.* [Amsterdam, 1931?] 120 pp.

Contains information in regard to the relief given to unemployed workers by the city of Amsterdam in 1930, including ordinances and regulations, relief organization, and financial statements.

BREMEN (GERMANY).—Statistisches Landesamt. *Statistisches Jahrbuch der Freien Hansestadt Bremen, 1931.* Bremen, 1931. 158 pp., maps.

The statistical information given in this yearbook for the city of Bremen, Germany, includes data on housing and land ownership, prices and consumption, cooperation, social insurance, employment and unemployment, welfare work, etc., for 1930 and earlier years.

CHINA.—Ministry of Finance. National Tariff Commission. *The revision of the price index numbers, by T. Sheng. Shanghai, 1931. Various paging, charts.* (Statistical Series No. VI.) In Chinese and English.

Part 1 covers wholesale prices and part 2, import and export prices, in Shanghai.

FRANCE.—Ministère du Travail et de la Prévoyance Sociale. *Les accidents du travail, 1928.* Paris, 1931. 33 pp.

The report of the French Ministry of Labor on industrial accidents and the operation of the workmen's compensation law, in 1928.

— — — *Texte officiel et complet de la loi sur les assurances sociales.* Paris [1930] 47 pp.

The official text of the French social insurance law of April 5, 1928, as modified or amended by the law of April 30, 1930.

GERMANY.—Reichsarbeitsministerium. *Jahresberichte der Gewerbeaufsichtsbeamten und Bergbehörden für das Jahr 1930.* Berlin, 1931. 3 vols.

Annual reports of factory and mine inspectors in the various German States for 1930, including information on accident prevention, hours of labor, condition of work places, activities of committees on home work, etc.

GREAT BRITAIN.—Ministry of Labor. *Report of the advisory committee on draft regulations, required by section 1 (6) of the unemployment insurance (No. 3) act, 1931, to be laid before Parliament.* London, 1931. 12 pp.

— — — *The unemployment problem in Germany. Translation of the report of an advisory commission appointed by the Federal [German] Government.* London, 1931. 101 pp.

The first part of the report of the commission (Gutachterkommission zur Arbeitslosenfrage) was reviewed briefly in the Labor Review for August, 1931 (p. 20).

— — — Committee of Inquiry on Port Labor. *Report.* London, 1931. 92 pp.

GREATER SHANGHAI (CHINA).—Bureau of Social Affairs. *Strikes and lockouts, Greater Shanghai, 1930.* Greater Shanghai, 1931. [Various paging.] In Chinese and English.

Statistics from this report are given in this issue of the Labor Review.

ICELAND.—Bureau de Statistique. *Annuaire statistique de l'Islande, 1930.* Reykjavik, 1931. 150 pp.

Includes statistics of population, prices, cooperative societies, social insurance, etc. The table of contents and the table heads are in both Icelandic and French.

LEAGUE OF NATIONS.—*Proceedings of the second international conference with a view to concerted economic action. First session, held at Geneva from November 17 to 28, 1930. Geneva, 1931. 275 pp. Second session, held at Geneva from March 16 to 18, 1931. Geneva, 1931. 38 pp. (World Peace Foundation, Boston, American agent.)*

LEAGUE OF NATIONS.—Commission of Enquiry for European Union. *Economic depression. Geneva, 1931. 16 pp., charts.* (World Peace Foundation, Boston, American agent.)

STRAITS SETTLEMENTS.—Labor Department. *Annual report for the year 1930. Singapore, 1931. 34 pp.*

Includes data on wages and labor conditions in the Straits Settlements.

SWITZERLAND.—Département Fédéral de l'Économie Publique. *La législation suisse en matière de réglementation du travail et d'assurances sociales pendant l'année 1930. Berne, August, 1931. 132 pp. (12<sup>e</sup> supplément au La Vie Économique, Août, 1931.)*

This volume contains the Swiss Federal and cantonal legislative enactments during 1930 relative to the regulation of labor and to social insurance.

### Unofficial

AMERICAN SOCIETY OF REFRIGERATING ENGINEERS. *Safety code for mechanical refrigeration. New York, 37 West 39th Street, 1930. 29 pp.*

Reviewed in this issue.

AMERICAN STANDARDS ASSOCIATION. *Safety code for coal mine transportation, American recommended practice. New York, 29 West 39th Street, 1931. 17 pp.*

Reviewed in this issue.

BLEGEN, THEODORE C. *Norwegian migration to America, 1825-1860. Northfield, Minn., Norwegian-American Historical Association, 1931. 413 pp.*

BOGART, ERNEST LUDLOW. *Economic history of the American people. New York, Longmans, Green & Co., 1931. 797 pp., maps, charts.*

The three parts into which the volume is divided cover, respectively, colonial development, 1492-1783; the westward movement, 1783-1860; and industrialization, 1860-1930.

BUEHLER, E. C., Compiler. *Compulsory unemployment insurance. New York, H. W. Wilson Co., 1931. 295 pp. (The Reference Shelf, Vol. VII, No. 6.)*

CHEN, TA. *Study of the applicability of the factory act of the Chinese Government: A preliminary survey of the Shanghai area. Shanghai, China Institute of Scientific Management, 1931. 91 pp.*

An effort to discover the general situation in regard to the matters with which the factory law deals, for example, the hours now worked, the question of the present feasibility of abolishing midnight labor, and the amount of additional cost industry in China can carry without losing its markets.

FANG, FU-AN. *Chinese labor: An economic and statistical survey of the labor conditions and labor movements in China. London, P. S. King & Son (Ltd.), 1931. 185 pp., illus.*

The nine chapters of this volume deal, respectively, with the following subjects: The fundamentals of the Chinese labor movement, the Chinese labor population, working conditions, wages and cost of living, labor organizations, strikes, the labor surplus, industrial welfare institutions, and labor legislation. An appendix contains recent labor laws promulgated by the Chinese National Government.

FLANDERS, RALPH E. *Taming our machines: The attainment of human values in a mechanized society. New York, Richard R. Smith (Inc.), 1931. 244 pp.*

FORD, ADELBERT. *A scientific approach to labor problems. New York, McGraw-Hill Book Co. (Inc.), 1931. 446 pp., diagrams, illus.*

The volume deals with the application of physiological and psychological laws to labor management. Pointing out that the recent growth of science has been accompanied by an increase of the cooperative attitude, the author emphasizes the necessity of ripping apart all structures found opposing such attitude individually, nationally, and internationally.

GENEVA RESEARCH INFORMATION COMMITTEE. *Geneva Special Studies, Vol. II, No. 8: International labor standards and American legislation (a comparison)*. Geneva, 4 Rue de Monthoux, 1931. 62 pp., maps.

Includes a series of maps indicating the status of the labor laws of the individual States of the United States in comparison with the international labor conventions of the League of Nations.

HOBSON, J. A. *Poverty in plenty: The ethics of income*. London, George Allen & Unwin (Ltd.), 1931. 92 pp.

LOUCKS, WILLIAM N. *The stabilization of employment in Philadelphia through the long-range planning of municipal improvement projects*. Philadelphia, University of Pennsylvania Press, 1931. 341 pp., charts. (Research Studies XV, Industrial Research Department, Wharton School of Finance and Commerce.)

In this volume are given a history of Philadelphia's expenditures for permanent public improvements, 1919 to 1928, plans for future improvements, procedure for carrying through such projects, the possibility of stabilizing employment by long-range planning, and a suggested plan for partial stabilization of employment by long-range planning.

METROPOLITAN LIFE INSURANCE CO. Policyholders Service Bureau. *Index of economic reports*. New York, 1931. 72 pp.

Contains references to printed reports of the Policyholders Service Bureau, articles which have been published in the Executives Service Bulletin, and addresses delivered at conferences sponsored by the Service Bureau, classified by major divisions of management such as personnel management and industrial relations, industrial health, etc., and by type of business or industry.

MINNESOTA, UNIVERSITY OF. Employment Stabilization Research Institute. *Bulletin, Vol. 1, No. 1: The Minnesota unemployment research project, by Russell A. Stevenson*. Minneapolis, 1931. 26 pp.

Reviewed in this issue.

MOULTON, HAROLD G. *Japan—an economic and financial appraisal*. Washington, Institute of Economics of Brookings Institution, 1931. 645 pp., map, charts.

In Chapter XIX, on the social consequence of economic expansion, the authors discuss the changing social structure, protective labor legislation, unionism, working hours and wages, unemployment, living conditions, social welfare agencies, and social unrest.

NATIONAL ADVISORY COMMITTEE ON EDUCATION. *Report. Federal relations to education. Part 1—Committee findings and recommendations*. 140 pp. *Part 2—Basic facts*. Washington, 744 Jackson Place, 1931. 448 pp.

The comprehensiveness of this report is indicated by a résumé of the variety of subjects taken up, among which are the following: The educational situation in the Federal Government, fields of Federal responsibility for education, Federal relations to education in the States, education in special Federal areas, the training of Government personnel, and international intellectual relations.

NATIONAL COMMITTEE ON PRISONS AND PRISON LABOR. *Report presented to the annual meeting, April 30, 1931*. New York, 250 West Fifty-seventh Street, 1931. 31 pp.

NATIONAL UNIONS OF THE PAINTERS AND KINDRED TRADES. Secretariat. *Eighteenth international report, 1928-1930*. Hamburg, Germany [1931]. 36 pp.

Contains information in regard to the activities of the unions of the painters and allied trades in various countries for the period 1928-1930, including data on strikes and lockouts, unemployment, wages, and other labor conditions.

NETHERLANDS ECONOMIC INSTITUTE (ROTTERDAM). *No. 1: Wholesale and retail prices in Holland and Belgium, by A. J. W. Renaud*. Haarlem, 1931. In two parts. Various paging. Maps, charts. (In Dutch, with brief abstract in English.)



NEWSHOLME, Sir ARTHUR. *International studies on the relation between the private and official practice of medicine with special reference to the prevention of disease. Vol. 2: Belgium, France, Italy, Jugoslavia, Hungary, Poland, Czechoslovakia.* Baltimore, Williams & Wilkins Co., 1931. 249 pp.

The purpose of this study is to bring together information as to the results of public-health work in the different countries and to show how the cooperative services of private physicians may be best utilized by public authorities.

PRINCETON UNIVERSITY. Department of Economics and Social Institutions. Industrial Relations Section. *Selected bibliography: Unemployment prevention, compensation, and relief; company, trade-union, and public programs.* Princeton, September, 1931. 31 pp. Supplement, November, 1931. 3 pp.

ROBINSON, LOUIS N. *Should prisoners work? A study of the prison labor problem in the United States.* Chicago and Philadelphia, John C. Winston Co., 1931. 353 pp.

The topics covered are: Should prisoners work; extent of employment and unemployment in prisons; the causes of unemployment in prisons; systems of employing prisoners; problems of prison industrial management; costs, wages, and profits of prison labor; and what work has been found for prisoners.

ROCKEFELLER FOUNDATION. *Annual report, 1930.* New York, 61 Broadway, 1931. 380 pp., illus.

The report contains a section on the work of the foundation in the field of social sciences.

VERBAND DER MALER, LACKIERER, ANSTREICHER, TÜNCHER, UND WEISSBINDER DEUTSCHLANDS. 22. *Ordentliche Generalversammlung in Breslau vom 22. bis zum 26. Juni 1931.* Protokoll. Hamburg, 1931. 285 pp.

Contains proceedings and minutes of the 22d convention of the unions of painters and allied trades in Germany, held June 22 to June 26, 1931, at Breslau. Includes reports of locals, addresses, and resolutions reflecting the activities and condition of these trade-unions, including information on labor conditions, unemployment, wages, disputes, etc.

YANG, SIMON, AND TAO, L. K. *A study of the standard of living of working families in Shanghai.* Peiping, Institute of Social Research, 1931. 86, lv pp. (Social Research Publications, Monograph No. III.)

An analysis of the account books of 230 families from November 1, 1927, to October 31, 1928.

