THE INTERNATIONAL STANDARDISATION OF LABOUR STATISTICS

A Review of the Statistical Work of the International Labour Office and of Various International Statistical Conferences

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PREFACE

The resolutions on the scope and methods of compilation of statistics of labour adopted by various International Conferences of Statisticians held under the auspices of the International Labour Office or with its direct collaboration have been scattered hitherto among various publications of the Office issued during the last ten years, and it has been decided to make them available in one volume.

Five international conferences on labour statistics were called by the International Labour Office, and between them they covered almost the whole field of labour statistics. In addition, others were held due to the initiative of other institutions: the Social Science Research Council (U.S.A.), and the International Union of Towns. The International Labour Office collaborated closely in these Conferences and, as they covered also branches of labour statistics, the resolutions adopted by them are included here.

It has been thought desirable to precede the resolutions by a short introduction on the nature of these Conferences, with indications as to the scope of the subjects treated and the effort made by the Office to compile regular statistics classified as far as possible on the lines laid down by the Conferences. Full references are also made to the statistical publications of the Office containing these data.

It is hoped that this volume will be of use not only to officials of the Statistical Departments called upon to deal with these various subjects, but also to students and research workers on labour problems.
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PART I

THE WORK OF THE INTERNATIONAL LABOUR OFFICE AND OF THE INTERNATIONAL STATISTICAL CONFERENCES

INTRODUCTION

From the outset, the International Labour Office, having as one of its duties "the collection and distribution of information on all subjects relating to the international adjustment of conditions of industrial life and labour", undertook the compilation and publication of labour statistics. It concentrated its efforts at the beginning on developing its relations with the statistical organisations of the different countries, considering that during the first few years the collection and publication of a large number of figures were less necessary than the study and criticism of existing national methods of compilation of statistics, with a view to their improvement and possible assimilation. The Office was hampered in its task by the fact that it was difficult, in view of the diversity of official statistics, to compare with any degree of adequacy the level of unemployment, wages, cost of living, etc., in two or more different countries, and it soon became evident that before any international comparisons could be made, countries must endeavour to increase their statistical output and to compile their statistics on lines more uniform between country and country. If therefore the Office was to fulfil its duty as defined in its Charter, it had to make a strenuous effort to achieve the fullest possible uniformity in the methods of compiling statistics in the different countries.

The suggestion was made by certain Governments that a Conference of Official Statisticians engaged in the compilation

1 Cf., e.g., Treaty of Versailles of 28 June 1919, Part XIII (Labour), Article 396.
of statistics relating to labour should be called by the International Labour Office. The first Conference was accordingly held in 1923, and it was followed by others in 1925, 1926, 1931 and 1932. All the principal industrial countries sent representatives.

The decisions of these Conferences in no way committed Governments, nor was it intended to prepare a code of strict and complete rules for the classification and compilation of statistical data. Their aim was merely to point out the general lines to be followed in certain special branches of statistics and to make suggestions as to the direction in which improvements should be made when opportunity arose.

At the first Conference (1923), the agenda covered statistics of wages and hours of labour, statistics of industrial accidents and the classification of industries and occupations; the agenda of the second Conference (1925) comprised, in addition to a second discussion on the classification of industries and occupations, the question of cost-of-living statistics and the statistics of employment and unemployment; the agenda of the third Conference (1926) dealt with methods of compiling family budgets, the statistics of collective agreements and the statistics of industrial disputes. The fourth Conference (1931) was of a somewhat special character and will be referred to later. The fifth Conference (1933) was devoted exclusively to statistics of emigration and immigration.

These conferences covered almost the whole field of what is commonly known as “labour statistics”. On each of the above-mentioned subjects the Office made and circulated to the delegates a preparatory technical study on the aims and objects of the statistics under discussion, and the methods adopted in the different countries together with suggestions for improving their value and comparability.

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2 The list of these publications is as follows: Classification of Industries and Occupations (Studies and Reports, Series N, No. 1); Statistics of Wages and Hours of Labour (Studies and Reports, Series N, No. 2); Statistics of Industrial Accidents (Studies and Reports, Series N, No. 3); Cost-of-Living Index Numbers (Studies and Reports, Series N, No. 6); Statistics of Unemployment (Studies and Reports, Series N, No. 7); Family Budget Enquiries (Studies and Reports, Series N, No. 9); Statistics of Industrial Disputes (Studies and Reports, Series N, No. 10); Statistics of Collective Agreements (Studies and Reports, Series N, No. 11); Statistics of Migration (Studies and Reports, Series N, No. 18).
After the close of each Conference the Office published a summary of the discussions, a list of delegates, etc., and the resolutions adopted\(^1\).

Independently of the conferences convoked and organised by the International Labour Organisation, three other conferences of a similar nature, in which the Office closely collaborated, were held in 1928, 1929 and 1930. At each of these three meetings the International Labour Office was invited to take part. It undertook the secretarial work and the Statistical Section of the Office supplied memoranda on the subjects on the agenda\(^2\). The first was a committee of statistical experts (from 10 European countries) called by the International Union of Towns at Munich in 1928, in order to lay down the guiding lines for statistics of housing\(^2\). The two others were convened in 1929 and 1930 by the Social Science Research Council (U.S.A.) to study the question of statistics of wages, and representatives of six industrial countries — the United States, Canada, France, Germany, Great Britain and Italy — were invited\(^3\).

The fourth Conference of Labour Statisticians, convoked by the Office in 1931, was confined, like the three preceding Conferences, to Government representatives, but its object was quite different from that of these Conferences, whose resolutions were addressed primarily to Governments and reviewed in turn the successive branches of labour statistics. The fourth Conference

\(^1\) Report on the Conference of Labour Statisticians, 1923 (Studies and Reports, Series N, No. 4); Report of the Second Conference of Labour Statisticians, 1925 (Studies and Reports, Series N, No. 8); Report of the Third Conference of Labour Statisticians, 1926 (Studies and Reports, Series N, No. 12); Report of the Fourth Conference of Labour Statisticians (International Labour Review, July 1931); Report of the Conference on Migration Statistics (International Labour Review, Jan. 1933).

\(^2\) For the Committee on housing statistics, the memoranda of the experts and the resolutions adopted were published in the official organ of the International Union of Towns (L'Administration locale, May-June 1928). The International Labour Office supplied a complete report on the question which served as a basis for the work of the Committee and has been published as Methods of compiling Housing Statistics (Studies and Reports, Series N, No. 13).

\(^3\) For these two Conferences, copies of the memoranda supplied by the representatives of each of the countries and the memoranda presented by the International Labour Office, together with a report on the existing wage and cost-of-living statistics in each of the countries represented, has been published in a volume entitled International Wage Comparisons, published in 1932 in Great Britain by the Manchester University Press and in the United States by the Social Science Research Council. The resolutions of the first Conference, together with a short account of the work of the Conference, were published in the International Labour Review for April 1929; the resolutions of the second Conference are published in this report by the International Labour Office for the first time.
arose out of a special enquiry undertaken by the International Labour Office in 1924, by which it endeavoured to compare the level of wages in different countries\(^1\). During subsequent years the scope of the enquiry was considerably enlarged. One result of the extension in scope of the figures was that certain countries found it difficult to furnish the additional information and it was therefore considered desirable to consult them as to the desirability and practicability of certain developments and improvements\(^2\). The resolutions of the Conference were addressed primarily to the Office and not to Governments; they indicate the nature and scope of the information which Governments should be asked to supply to the International Labour Office, and recommend the methods which might be adopted to compare such information internationally.

The scope of these Conferences having thus been briefly described, it is now desirable to give a short account of the work of the International Labour Office in following up the work of the Conferences and in compiling and publishing statistics on these subjects. Reference to the resolutions adopted by the Conferences will show that the scope of these resolutions differs considerably. In some cases a full, detailed plan is given for compiling statistics, as, for example, in the case of statistics of industrial disputes (third Conference). In other cases merely a brief indication of the different kinds of statistics is given, for example, statistics of wages and hours of labour (first Conference). The Office has not attempted (nor is it possible) to publish statistics covering all the points indicated by the resolutions, but has been compelled to limit itself to the principal points of these resolutions.

Moreover, the Office has not considered it sufficient merely to publish the statistics of the different countries, but has attached great importance to the publication of notes along with the statistics indicating the methods employed in their compilation. In the preparation of these notes special attention was paid to the points raised by the resolutions of the various Conferences. These notes have been published in the *International Labour Review* at regular intervals\(^3\). In the case of those

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\(^1\) A complete account of the scope and methods originally adopted will be found in the *International Labour Review* for October 1924.

\(^2\) No printed documents were prepared for this Conference, but roneoed documents summarising the scope of the Office enquiry and the successive changes introduced since 1924 were circulated to the members.

\(^3\) For notes on the source and methods of compilation of these branches of labour statistics, see the following articles in the *International Labour Review* at regular intervals.
subjects where methods of compilation have changed frequently, such as, for example, statistics of employment and unemployment, they have been published at annual intervals. Unfortunately, information as to the methods of compilation is not always available and, although every effort has been made by the Office, it has not always been possible to obtain complete information.

I. — Classification of Industries and Occupations

This question is a somewhat special one as it relates to a method of classification applicable to most branches of labour statistics, as well as to economic and other statistics. The Conference did not attempt to draw up a complete list, but confined itself to emphasising the distinction between classification by industry and classification by personal occupation (a distinction which is not always made), and to drawing up a list of main divisions — primary production (agriculture, mining, etc.), secondary production (manufactures and construction) and services (transport, commerce, administration, etc.). It was found impracticable to recommend a list of manufacturing industries at the present stage owing to the great differences in the economic development and industrial organisation of the different countries, and the various criteria adopted for classifying industries. It was also felt that the subject was such a vast one that it should not be considered solely from the point of view of labour statistics. A classification of industries is important for economic statistics (statistics of production, for example) and is also connected with the question of the classification of commodities (foreign trade). It was therefore recommended that the subject should be considered in collaboration with other international bodies interested in the question.

Since the adoption of these resolutions an International Convention on Economic Statistics has been drawn up under the auspices of the League of Nations, which contains a resolution recommending that a Committee of Statistical Experts should draw up a scheme of classification of industries.

International Labour Review: “Wages” (August 1933, February 1934, May 1934); “Employment and Unemployment” (January 1934); “Cost-of-Living Index Numbers and Retail Prices” (April 1933); “Industrial Accidents” (December 1931); “Collective Agreements” (July 1933); “Industrial Disputes” (July 1933); “Emigration and Immigration” (January 1933).
The classification of statistics by industries has been applied by the International Labour Office to wage statistics and statistics of employment and unemployment and the Office has endeavoured in presenting the figures for each country to follow the general lines laid down by the Conference of Labour Statisticians. It has also adopted provisionally a list of the principal branches of economic activity, for the purpose of presenting in a uniform order the data available in respect of wages, employment and unemployment.

II. — WAGES AND HOURS OF LABOUR

Money Wages

Before the Conference of 1923 the Office had commenced studies on changes in wages in various countries since 1914 (the year usually chosen as the starting-point for general time comparisons). In these volumes the subject is treated country by country; special emphasis was laid on the difference between wage rates and earnings, and on real earnings as distinct from money earnings, as recommended subsequently by the Conference. This method was continued in the form of series of articles country by country in the International Labour Review. The number of countries providing information gradually increased, and in 1931 the system was adopted of compiling in one article in the Review international tables showing the movements in wages in the principal industries and occupations in different countries. From 1934 these tables, covering twenty-four countries, are published in the volume Labour Statistics (appendix to the I.L.O. Year-Book). Recently the Office has begun the publication of statistical monographs on specified industries. The first two studies relate to the textile industry and agriculture.

In addition, special enquiries have been made into wages and hours of labour in the coal-mining industry, which presents

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1 This list is given in the International Labour Review, September 1933, p. 414, and also in Labour Statistics, reprinted from the I.L.O. Year-Book, 1933.
2 These enquiries were published in three volumes, viz. Wage Changes in Various Countries in 1914-1921 (Studies and Reports, Series D, No. 2); Wage Changes in Various Countries, 1914-1922 (Studies and Reports, Series D, No. 10); Wage Changes in Various Countries, 1914-1925 (Studies and Reports, Series D, No. 16).
3 International Labour Review, May 1928 to May 1929.
5 International Labour Review, Sept. 1934; and Nov. and Dec. 1934.
certain special features. Enquiries were conducted for the years 1925, 1927, 1929 and 1931. Questionnaires drawn up with the help of a special committee were sent to the various Governments, together with definitions of the scope of the terms used. By this means internationally comparable data were obtained.\(^1\)

The Office has not neglected the results of general wage censuses referred to in paragraph 5 of the resolution of the Conference on wage statistics, and has published analyses in various issues of the *International Labour Review*.

**Wage Index Numbers**

The Office commenced the publication of these index numbers as a result of the resolution adopted by the special Conference held in 1929 on the initiative of the Social Science Research Council. This Conference made an exhaustive study of the question and drew up a series of resolutions indicating the various types of index numbers, their purpose, etc., together with a preamble outlining the objects of such series. This is the first occasion on which the theory of wage index numbers has been discussed in such detail.

The object of wage index numbers is to measure changes in the *general level of wages*, in the same way as price index numbers indicate changes in the general level of prices, and the problems involved in this concept are analysed in great detail in the resolutions. These statistics are now compiled at quarterly intervals and published in the *International Labour Review*, and also in *Labour Statistics* (reprinted from the *I.L.O. Year-Book*). At the date of their first publication, only twelve countries were included; at the present time, fifty-four regular series, covering agriculture, mines, industry, etc., are compiled and published for twenty-nine countries. The methods of compilation of the indexes (wage rates per hour, earnings per week, etc., with distinction by sex, skill and between adults and juveniles) have followed as far as possible the Conference recommendations.\(^2\)

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\(^1\) The results of the first enquiry were published in a volume *Wages and Hours of Work in the Coal-Mining Industry* (Studies and Reports, Series D, No. 18), and those for 1927, 1929 and 1931 in the *International Labour Review*, Oct. 1929, May 1931 and Sept. 1933 respectively.

\(^2\) A discussion of the resolutions on wage index numbers and a synoptic analysis of the methods of compilation adopted in different countries were published in the *Revue internationale de Statistique*, Vol. I, No. 1, Jan. 1933: "On Index Numbers of Wages", by J.W. Nixon, Chief of the Statistical Section.
III. — Cost-of-Living Index Numbers

These resolutions deal in a general way with the methods of compiling cost-of-living index numbers, intended to measure changes in the cost of living in a given country at different periods. The question of family budgets is closely related to that of cost-of-living index numbers and a resolution was adopted emphasising the importance of such enquiries, but the matter of family budget studies was taken up and dealt with in greater detail at a later conference (see below). Statistics of cost-of-living index numbers and of retail food prices are compiled and published at quarterly intervals in the *International Labour Review* and annually in *Labour Statistics*. Once a year, in addition, index numbers of changes in prices in the groups heating and lighting, clothing and rent are given. As will be seen from the notes on methods published in the *International Labour Review*, the methods adopted in the different countries agree fairly closely with those recommended by the Conference of Labour Statisticians. The chief difference at present is that many countries have adopted new base years for their computations. The second Conference of Labour Statisticians in 1925 had considered the year 1930 as a suitable year for the calculation of new series of index numbers, but the onset of the economic crisis has made this year unsuitable. It is in fact difficult to settle a matter of this nature without paying attention to other series of indices, such as wholesale prices, production, etc., and this problem has been taken up by the Committee of Statistical Experts appointed by the League of Nations under the terms of the International Convention on Economic Statistics. This Committee recently concluded that it was not yet possible, in view of the recent abnormal periods, to select a base year which could be recommended to the different countries for adoption.

IV. — Unemployment Statistics and Employment

It is principally in this sphere of labour statistics that the greatest amount of progress seems to have been realised. The Conference recommended that the best bases for unemployment statistics were comprehensive schemes of unemployment insurance, but where these were not available statistics furnished by workers' organisations or by public employment offices would be very desirable. The number of countries for which regular
information was available when the Office first commenced the compilation of these statistics was about twenty, but at the present time statistics, in almost every case monthly, are available for about thirty-five countries.

The statistics of unemployment depend to a large extent on the systems in force for relieving unemployment and on the definition of the word "unemployed". The Office also in publishing these statistics emphasises that they relate to recorded unemployment only and are not a complete census of the unemployed; that therefore the figures are more useful in indicating whether unemployment is increasing or decreasing in any country than in showing the absolute level of unemployment at any date. The improvement in the statistics in recent years has been such that the Office felt justified in computing an international index number of unemployment in which the fluctuations in about sixteen important countries were combined, by a suitable system of weighting, into an index number which would approximately show the general movements in the level of unemployment.

In countries in which satisfactory information was not obtainable by the means above indicated, the Conference recommended that special enquiries should be made from time to time, preferably at the time of the general population census. This method has been adopted by several countries, even by some which publish regular statistics based on one of the above methods. The Office undertook an enquiry into these various censuses or estimates and published the results in the *International Labour Review*.

One subject to which the Conference gave little attention in 1925, but which has since proved very important, is that of statistics of employment. The Conference of 1925 contented itself with a short resolution to the effect that "information as to the state of employment should also be published periodically, if possible monthly, based on returns made by a representative

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1 It has been estimated that the number of workers covered by schemes of unemployment insurance increased from less than 5 million in 1919 to 42 million in 1934.

2 For a full account of the methods adopted and the results obtained, reference should be made to the following articles in the *International Labour Review*, April 1934: "Some Problems in the Construction of Index Numbers of Unemployment", by John Lindberg; "National and International Index Numbers of the General Level of Unemployment".

3 "Some Recent Estimates or Censuses of Unemployment", in *International Labour Review*, July 1933.
number of employers". Statistics of employment are now published regularly by the Office in the same sources as those indicated above for unemployment, and at the present time seventeen countries supply data regularly on this question. They are based not only on returns from employers, but in some cases on sickness insurance or unemployment insurance statistics. The problems of compilation of a series of this nature merit special attention. In fact, it is found that in some countries the recorded decreases or increases in employment do not correspond with the recorded increases or decreases in unemployment for the same period. The Office is at present investigating the subject and it is hoped to publish an article on the results of its studies within the next few months.

V. — INDUSTRIAL ACCIDENTS

The difficulties in connection with the standardisation of statistics of industrial accidents are largely due to the fact that they are based on legislation concerning the notification of accidents and compensation for the victims of such accidents, and the scope of the statistics cannot usually be modified without modifying existing legislation. The Conference realised this fact and therefore adopted some general resolutions on this question, e.g. concerning the classification of accidents by industry, cause, extent and degree of disability, location of injury, and nature of injury. If these classifications were generally adopted some improvement would be made in international comparability, but the fact that the definition of an accident, particularly of a "compensated accident", is dependent on the legislation in force, prevents much progress being made in this sphere. The extent to which the statistics in the various countries differ can be seen from results of the special enquiry made by the Statistical Section in 1931 published in the International Labour Review, in which the methods of compilation in thirty countries were analysed and statistics compiled showing for a series of years the number of fatal and non-fatal accidents (distinguishing permanent and temporary) and the accident rates.

The resolutions of the Conference referred primarily to accidents in manufacturing industries, but in the case of three industries, namely, railways, coal-mining and shipping, special

methods of classification have to be adopted owing to the peculiar nature of the risk in these industries. On the first two of these the Office has made special studies and has published the results in two volumes\(^1\). The question of shipping accidents is also being investigated. Some of the special problems connected with accident statistics in which the complicated nature of the data is discussed were illustrated in an analysis of the British statistics published in the *International Labour Review*\(^2\); and the general question of the measurement of risk in labour statistics, a question of special importance in accident statistics, has also been discussed in the *Review*\(^3\).

VI. — FAMILY BUDGET ENQUIRIES

Family budget enquiries are not usually compiled and published at regular intervals like most of the other branches of labour statistics; and it is therefore not possible to publish regular information on this question. The Conference in drawing up its resolution on the best methods of conducting these enquiries recommended that they should be conducted at intervals of not more than ten years. The method adopted by the Office in this question has been to publish in the *International Labour Review* the results of all important family budget enquiries soon after their appearance, and about a dozen articles have appeared in the last few years giving the salient features of these enquiries. In 1933, however, a general summary of all the chief enquiries conducted in the previous ten years was compiled and published in the *Review*\(^4\). In this article the scope and methods adopted in different countries are analysed and compared and special attention is paid to the recommendations of the third Conference of Labour Statisticians. Although family budget enquiries have not been conducted as frequently as hoped, yet, as will be seen from this article, those which have been undertaken have generally conformed very closely to the recommendations of the Conference. An analysis of these

\(^1\) *Methods of Compiling Statistics of Railway Accidents* (Studies and Reports, Series N, No. 15) and *Methods of Compiling Statistics of Coal-Mining Accidents* (Studies and Reports, Series N, No. 14).
\(^4\) "Recent Family Budget Enquiries", in *International Labour Review*, Nov. 1933.
recommendations from the point of view of international comparison of family budgets was also prepared for a publication submitted to the International Statistical Institute\(^1\).

Finally, in view of the great interest attached to the consumption of foodstuffs of working-class families, the Office has made a special analysis of family budgets from this point of view for thirteen countries, and analysed the consumption in a series of tables published in the *International Labour Review*\(^2\). Where information was available showing consumption for the families with lower incomes, medium incomes and higher incomes, this information was given separately in order to throw light on the question of how far the level of income affects the consumption of foodstuffs.

VII. — HOUSING AND RENTS

Although the statistics of housing do not fall within the scope of labour statistics, as this term is generally understood, they are important for a study of the living conditions of the workers, housing conditions being an important factor in the standard of living. Statistics of rents are essential for comparisons (both in time and in space) of the cost of living, and the whole question is of interest for the study and development of the housing policy of national and local authorities in their attempts to improve housing conditions.

The problem of standardisation of these statistics is important, not only among different countries but also in the same country, between the different branches of these statistics (censuses of buildings and dwellings, periodical statistics of changes in numbers of dwellings, statistics of the housing market, and statistics of rents) which are often within the competence of different departments, national or municipal. In the technical study of the Office, the different branches of these statistics are considered as a whole, and the lines laid down for standardising each branch have been conceived on identical principles.

The resolutions adopted by the Committee of Housing experts give first a definition of the basic unit of the different housing statistics: they then give detailed indications for the

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\(^1\) "Family Budgets, with Special Reference to International Comparison", by J. W. Nixon. International Statistical Institute, 21st Session, Mexico, 1933.

censuses of buildings and more general indications for the periodical statistics of housing and the housing market.

The different statistics published in the different countries have not yet formed the subject of regular compilation by the Office. In a study on housing policy in Europe\(^1\), however, the principal results of censuses of dwellings as well as statistics of housing construction for the years 1920-1927 have been given systematically, following the proposals of the above-mentioned resolutions. Also on the basis of the same resolutions, international statistics of rent have been compiled and published annually in the *International Labour Review*\(^2\), on the basis of information obtained from the various Governments on the occasion of an enquiry into wages, hours and retail prices in different countries.

VIII. — Industrial Disputes

The resolutions of the third Conference recommended that full details of industrial disputes classified by industry, method of settlement, by results, by importance (i.e. number-of establishments, number of workers and number of days lost) should be published at least yearly. The method of classification for each of these characteristics was given in rather great detail. The Office has not attempted to analyse the available statistics by all the criteria indicated above, but has limited itself to publishing the figures showing the number of establishments, number of workers involved and number of days lost. About thirty-three countries publish annual statistics of this nature. In this case the statistics are somewhat affected by the legislation in force, as will be seen by the notes on methods which the Office publishes, and in some countries industrial disputes are forbidden by law. Nevertheless, the statistics are of interest in showing the loss caused to industry by this form of interruption of work.

IX. — Collective Agreements

The resolutions on collective agreements are somewhat similar to those on industrial disputes and recommend various methods of classifying and analysing these statistics. Very

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few countries, however, have elaborated this branch of labour
statistics, which depends to some extent on the methods of
organisation of labour and the labour legislation of the country.
As in the case of industrial disputes, annual figures are compiled
by the Office showing, both for the number of new agreements
concluded during the year and the number in force during the
year, the number of establishments and workers covered. The
statistics relate to twelve countries.

X. — Emigration and Immigration

As far back as 1921, the International Emigration Com-
mission set up by the First Session of the International Labour
Conference at Washington, 1919, passed resolutions recommend-
ing, inter alia, that the various Governments should commun-
icate regularly to the Office all available information concerning
emigration and immigration. As a sequel to this, the Fourth
Session of the International Labour Conference in 1922 adopted
a Recommendation requesting the various Member States to
communicate all available information and also invited the
International Labour Office to make every effort to facilitate an
international co-ordination of migration statistics. As a con-
sequence of these decisions, the Office computed and published
the data as articles in the Review and in the form of special
studies1.

A special Conference on Migration Statistics was called in
October 1932. For this purpose, a study of the methods
adopted in different countries was prepared and published2. The
resolutions adopted by the Conference dealt with the
definition of a migrant, the various methods of collecting the
information, the methods of classifying the data. In the
international tables compiled annually by the Office, it has not
been possible to analyse the data by all the different criteria
indicated by the Conference. Emigration and immigration
figures are given separately, and subdivided as far as possible
into nationals and aliens, and into continental and inter-
continental movements. The different sources of migration

1 These studies were published as follows: Migration Movements
1920-1923 (Studies and Reports, Series O, No. 1); Migration Movements
1920-1924 (Studies and Reports, Series O, No. 2); Migration Movements
1925-1927 (Studies and Reports, Series O, No. 3).

2 Statistics of Migration: Definitions — Methods — Classifications
(Studies and Reports, Series N, No. 18, 1932).
statistics enumerated by the Conference are also clearly indicated port statistics; declarations of residence; frontier control; coupons detachable from documents (e.g. passports), etc.

XI. — INTERNATIONAL REAL WAGE COMPARISONS

This question which was discussed at the fourth International Conference of Labour Statisticians in 1931, has been left till the last, since the object of this Conference was different from that of the six others already discussed. These Conferences reviewed the successive branches of labour statistics in turn and adopted resolutions to which it was hoped that Governments would, as opportunity occurred, endeavour to make their statistics conform. The object of the fourth Conference was to assist the Office in its work of compiling and comparing, internationally, money wages and real wages.

The work of the Office in this sphere originated in 1924 in an enquiry begun by the British Ministry of Labour. It was decided that this work, in view of its international character, should be transferred to the International Labour Office1. Briefly, the enquiry consists in ascertaining the wages of adult male workers in a series of about thirty occupations in a large number of towns, and the retail prices of a large number of foodstuffs and other articles of common consumption in the same towns, in order that the purchasing power of wages might be computed. It was found, however, that the money wages were not always comparable — sometimes they referred to minimum, or predominant rates, sometimes to actual earnings — and, moreover, money wages themselves did not always fully express the total remuneration of the workers; payments for holidays, family allowances, allowances in kind, the value of social insurance contributions, for example, all these may affect the question of the worker’s remuneration according as they are or are not taken into consideration. From the point of view of cost of living, it is important to consider not only retail prices of articles of common consumption, but the level of rents, which form an important part of working class expenditure:

These problems were placed before the delegates to the fourth Conference, which adopted a series of recommendations

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1 A full account of the work, as originally adopted, is given in the International Labour Review, Oct. 1924, and successive modifications have been notified from time to time in the Review.
addressed this time to the Office, as to the methods which might be adopted. It emphasised the important distinction, in wage comparisons, to be made between rates and earnings, and the necessity of taking into account the different national habits of consumption as shown by family budget enquiries. It also recommended that all the data collected on these questions should be published at annual intervals, with full notes as to the source, nature and scope of the data. Finally, it recommended that, if possible, the relative purchasing power of wages should be computed on various bases, and on different hypotheses, with a view to preventing any one figure being regarded as authoritative for all purposes.

The Office has in preparation a special report on the statistics of wages, hours of labour and other factors in the remuneration of labour, obtained in its latest enquiries in which the difficulties encountered are discussed and the available information compared and criticised, and it is not necessary here to go into details, except to say that the Office has attempted as far as possible to carry out the recommendations of the Conference. Considerable lacunae exist in the information which the Governments are able to supply, but all the information collected for the year 1932 both on wages and prices was published in a series of articles in the *International Labour Review*; methods of comparing the data were discussed and illustrations were given of the results of applying different methods to the comparison of real wages in certain countries. For 1933 the information on wages, hours of labour, retail prices and rents was also published in a series of articles in the *Review*, leaving the general discussion on the various methods of combining the data on wages and other elements of remuneration for the special report referred to above.

Moreover, as recommended by this Conference, a Committee of Statistical Experts has now been set up to assist the Office in the work of developing and publishing wage and cost-of-

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living statistics. The first meeting of this Committee was held in December 1933 when certain problems connected with international conferences on the cost of living were discussed as well as the problem of the comparing of statistics of rents in different countries. The Committee indicated various directions in which the work of the Office might be continued and developed. The principal technical studies prepared for this Committee have recently been published and discuss certain theoretical problems of international comparisons of food costs and rents. The first part of this report is based to a large extent on the experience obtained on the occasion of a special enquiry carried out by the Office to compare the cost of living of a certain category of workers in Detroit (U.S.A.) and those in fourteen European towns in January 1931.

XII. — Annual Volume of Labour Statistics

Finally, the recommendation of the fourth Conference that an annual volume on wages and prices should be published, which "would be in essentials a development and amplification of the tables published at regular intervals in the International Labour Review", has been partly realised by the publication in 1934 for the first time of a special appendix to the I.L.O. Year-Book, entitled Labour Statistics. The statistics in this appendix are not confined to wages and prices but extend to all the other branches of labour statistics covered by the Conferences of Labour Statisticians, viz. employment and unemployment, cost-of-living and retail price index numbers, family budgets, food consumption, industrial disputes, collective agreements, emigration and immigration. It is believed that this appendix, which has been reprinted as a separate publication, meets the want, often expressed in the past, of a work in which all the statistics of labour are brought together in a single volume. It is hoped to expand and improve this compilation in subsequent years.

1 International Comparisons of Cost of Living: a Study of Certain Problems connected with the Making of Index Numbers of Food Costs and of Rents (Studies and Reports, Series N, No. 20, 1934).
2 A Contribution to the Study of International Comparisons of Costs of Living (Studies and Reports, Series N, No. 17, 1932).
CONCLUSION

In this short introduction to the resolutions which follow, it has only been possible to touch briefly on the scope of the resolutions adopted and on the work of the Office in publishing the various statistics, in describing the methods adopted, and in analysing the results; the reader is referred to the original sources for fuller information on these questions. It has been sufficient to show that the Office has not been inactive in endeavouring to obtain, as a help to the solution of the problems with which it is called upon to deal, full and comparable statistics on all subjects which affect the conditions of labour. For many countries, statistics on many branches are still not available at all, or are available only at very irregular intervals, and even the most highly industrialised and best-equipped countries have serious gaps in certain of their statistics. The resolutions given in the following pages are no doubt "ideal", in the sense that they will never be completely applied in all countries; but considerable progress towards their application has been made, even in the last ten years, and together they form a scheme which will lead, it is hoped, to still further improvements in the future.
PART II

TEXTS OF RESOLUTIONS ADOPTED BY
INTERNATIONAL CONFERENCES
OF STATISTICIANS

I. — First International Conference of Labour Statisticians
(October 1923)

A. — Classification of Industries and Occupations

(1) Occupied persons should be classified in the first instance according to the industry in which they are employed, and within each industry they may be further classified according to their individual occupations. When it is not possible to give this double classification in sufficient detail to show the total number of workers in each individual typical occupation, it is necessary to make a second classification of all occupied persons according to their individual occupations, so that for comparative purposes two separate classifications will be available, (a) by industry and (b) by individual occupation.

(2) Industries should be classified into the following main divisions:

(a) Primary Production
Agriculture, pasturing, forestry, hunting, fishing, etc.; mining, quarrying, etc.; i.e. extraction of minerals.

(b) Secondary Production
Manufacturing industries, etc.; i.e. the transformation or modification of materials, together with the construction of buildings, roads, etc., and the repair of finished products.

(c) Services
Transport and communication;
Commerce, finance, and trade;
Public administration and defence;
Professional services;
Domestic service and personal services for which remuneration is paid, supply of board and lodging.

(3) In classifying manufacturing industries the establishment considered as a technical unit should be taken as basis.

(4) In the absence of an agreed classification of industries and as a preparation for such a classification, and in order to facilitate inter-
national comparison, the groupings of industries used in the different countries should be so subdivided that it would always be possible to secure separate information concerning an adequately complete number of industries included in a provisional list drawn up in alphabetical order, which might be prepared by the International Labour Office after consultation with any statistical services or organisations which might usefully assist in this work.

(5) It is desirable for purposes of international comparison that each country should publish definitions of the occupational, industrial and other terms most commonly used in that country in connection with its labour statistics.

B. — Statistics of Wages and Hours of Labour

Detailed statistics of rates of wages, of actual earnings, and of normal and actual hours of labour should be collected and published in each country as frequently as possible, account being taken of the special circumstances and conditions obtaining in each case. With a view to facilitating international comparisons, the responsible authorities in each country should, as far as practicable, observe the following principles:

(1) At regular intervals, and at least once a year, there should be published:
   (a) Statutory minimum rates;
   (b) Rates fixed in collective agreements;
   (c) Rates accepted by organisations of employers and workpeople for typical categories of workers.

(2) In order to provide an indication of the general course of wage movements, information should be published at more frequent intervals as to the nature and amount of any changes resulting from alterations in the statutory minimum rates or arranged between organisations of employers and workpeople. Particulars should be given of changes in the normal hours of labour and of alterations in the level of piece work rates.

(3) At regular intervals, not less than once a year, average actual earnings and actual hours of labour during a year or a typical period in a year should be given for each of the principal industries, and based on data supplied by representative employers or establishments.

(4) From the data indicated above, index numbers should be computed to show the general course of changes in nominal wage rates and in actual earnings. Index numbers of the purchasing power of the wages should also be calculated by relating changes in actual earnings to changes in the cost of living, the necessary precautions being taken to ensure that the two series of data are comparable.

The nominal wages employed in computing the index numbers should be given in every case.

(5) At less frequent intervals general wage censuses should be taken, information being obtained from the pay sheets of establishments to show rates of wages and the actual earnings in a typical week. The information should be given by industries, districts, occupations, and sex, and a distinction should be made between adults and young persons.
Until the principles enunciated above have been applied in the different countries, statistics of wages and hours of labour should at least give:

(a) Current rates of wages (hourly or weekly) and normal hours of work of typical categories of time workers; and at regular intervals averages weighted according to the number of workers to whom the data apply both for such categories and for all categories combined;

(b) Actual and full-time earnings and hours of labour for typical categories of workers, especially those paid on piece work. Such statistics should be available for sample periods, at least once a year;

(c) Real wage index numbers based on nominal wage and cost-of-living index numbers.

C. — STATISTICS OF INDUSTRIAL ACCIDENTS

(1) Classification of Industrial Accidents

Industrial accidents should be classified according to the industry of the injured worker, the cause of accidents, the extent and degree of disability, the location of the injury, and the nature thereof.

(a) The classification of industrial accidents according to the industry of the injured worker should conform to the list indicated in paragraph 4 of the Resolution concerning the Classification of Industries, with such subdivisions as will allow special consideration to be given to industries with a relatively high accident rate.

(b) The classification of accidents according to the cause of accident should as far as possible be in accordance with the table given below, with such subdivisions as may be considered necessary.

(i) Machinery:
   (a) Prime-movers;
   (b) Transmission machinery;
   (c) Lifting machinery;
   (d) Working machinery;

(ii) Transport:
   (a) Railways;
   (b) Ships;
   (c) Vehicles;

(iii) Explosions; fire;
(iv) Poisonous, hot, or corrosive substances;
(v) Electricity;
(vi) Falls of persons;
(vii) Stepping on or striking against objects;
(viii) Falling objects;
(ix) Falls of grounds;
(x) Handling without machinery;
(xi) Hand tools;
(xii) Animals;
(xiii) Miscellaneous.

(c) In the classification of accidents according to the extent and degree of disability a distinction should be made between fatal and non-fatal accidents and between temporary and permanent disabilities.
Temporary disabilities should be classified according to duration, and uniformity should be obtained by using the following groups:
(i) 2 weeks or less; (ii) over 2 and up to 4 weeks; (iii) over 4 and up to 13 weeks; (iv) over 13 weeks and up to 6 months; (v) over 6 months and up to 1 year; (vi) over 1 year and up to 2 years; (vii) over 2 years and up to 3 years.

Permanent disabilities should be classified by degree, and uniformity should be obtained by using the following groups: (i) under 20 per cent. disability; (ii) 20 and under 40 per cent.; (iii) 40 and under 60 per cent.; (iv) 60 and under 80 per cent.; (v) 80 and under 100 per cent.; (vi) 100 per cent.

Permanent disabilities should be classified at the time they are recognised as such.

(d) The location of injury should be clearly distinguished from the nature of the injury. The most suitable classification is that of the common anatomical divisions of the body, namely: (i) the head; (ii) trunk; (iii) upper extremities; (iv) lower extremities; (v) general.

Each of these groups should be subdivided if necessary.

(e) The nature of the injury should be classified as follows: (i) contusions and abrasions; (ii) burns and scalds; (iii) concussions; (iv) cuts and lacerations; (v) punctured wounds; (vi) amputations; (vii) dislocations; (viii) fractures; (ix) sprains and strains; (x) asphyxiation; (xi) drowning; (xii) other injuries.

Note. In publishing the above statistics a note should be added on the following points:
(a) The scope of the legislation;
(b) The system of insurance (compulsory or optional);
(c) The nature of the accidents included;
(d) The methods of reporting the accidents and of compiling the statistics;
(e) A summary of the benefits given to the injured or to their dependants.

In countries in which industrial diseases are compensated as accidents they should, wherever possible, be distinguished separately in the tables.

(2) Accident Rates

For industrial and international comparison it is essential to calculate frequency rates and severity rates.

(a) The frequency rate should if possible be calculated by dividing the number of accidents (multiplied by 100,000) by the number of hours of working time.

(b) The severity rate should similarly be calculated by dividing the number of working hours lost (multiplied by 100,000) by the number of hours of working time.

Where practical difficulties prevent the calculation of the number of hours of working time, this number should be replaced by the number of full-time workers (i.e. the number of working days divided by 300) or the average number of workers, as may be best suited to the economic and social needs of the country or industry concerned.
II. — Second International Conference of Labour Statisticians (April 1925)

A. — Cost-of-Living Index Numbers
(intended to measure changes in the cost of living in a given country at different periods)

(1) In each country statistics should be published showing changes in the cost of living. They should cover the food, clothing, heating and lighting, rent, and miscellaneous groups. Each group should include the most important items of consumption, and especially those articles the price changes of which may be taken as representative of changes in the prices of articles not included.

Separate index numbers should be published for each of the groups and general index numbers for all the groups combined. In calculating these index numbers weights should be used proportionate to the relative importance in consumption of the items in each group and of the different groups. Changes in the cost of living in a given period should be calculated by using weights which remain unchanged throughout the period. When changes in consumption render the weights inappropriate a new series of index numbers based on new weights should be calculated.

It would be desirable that as far as possible the information published should enable the differences which would result in the index numbers from the inclusion or exclusion of direct taxes to be determined.

(2) A series of national index numbers, calculated by using weights based on the consumption of industrial workers generally, should be published. In cases where desirable, index numbers may also be calculated for other classes of workers.

In countries in which there are marked differences in economic conditions in different districts or among different sections of the working classes, it is desirable that separate index numbers should be published for such areas and classes. In these cases the weights used should, as far as possible, be based on working-class consumption in the districts or among the sections of workers to which the index numbers relate.

It may be convenient that the national index should be computed by combining the separate indices, account being taken of the relative populations in the different groups.

(3) In view of the existing inadequacy of statistics of consumption, the most satisfactory method of determining the weights of the different items and groups appears to be that based on a standard family budget obtained as the result of an enquiry into the average expenditure of a number of families during a given period.

Where statistics of family budgets are not available, statistics of aggregate consumption may be of some value in the determination of the relative importance of certain articles of consumption in the country as a whole, account being taken of the fact that certain articles are used for purposes other than human consumption.

Theoretical budgets computed from all information available may also be used.

(4) Care should be taken to ensure that the quality of each item for which prices are obtained at different dates and the methods of collection and calculation remain unchanged during the period covered.
(5) Index numbers should be computed as often as may be necessary having regard to the extent to which prices are changing. In present conditions they may with advantage be computed at monthly intervals, but under more stable conditions their publication at less frequent intervals may be adequate.

(6) It is desirable that in those countries in which no family budget enquiries have been held since 1920-1921 such enquiries should be undertaken as soon as economic conditions are sufficiently favourable, and, if possible, not later than the year 1928.

(7) It is desirable that the Governments, in collaboration with the International Labour Office, should agree to adopt the same year as base for the calculation of a new series of index numbers. It is suggested that the year 1930 would be suitable for this purpose.

(8) It is of great importance that the principles adopted in the selection of articles and of the different qualities of such articles, in the collection and computation of the price data and in the fixing of the weights, should be indicated in full detail when such index numbers are first published, also the precise data to which the index numbers refer.

B. — UNEMPLOYMENT STATISTICS

(1) In countries in which a widespread system of unemployment insurance exists the information obtained from the working of such a system forms the best basis for unemployment statistics.

(2) These statistics should furnish the following information as a minimum:

(a) Annually, the total number of workpeople insured against unemployment, which should be related so far as practicable to the total number of workers.

(b) Monthly, the total number of unemployed on a given day in receipt of benefit, and the total number of insured workers unemployed (whether on benefit or not) on the same day.

(c) Monthly, the percentage that on a given day the total number of insured unemployed (whether on benefit or not) forms of the estimated number of insured workpeople.

(d) Annually, the total amount paid during the year in benefits.

A method according to which, as in the Netherlands, a percentage is calculated between the number of days of unemployment during one week and the total number of days of work which might have been performed is one which is worthy of attention.

(3) Where statistics based on unemployment insurance, compulsory or voluntary, are not available, it is desirable to obtain from workers' organisations the following information:

(a) Monthly, the total number of unemployed on a given day and the percentage they form of the total membership covered by the enquiry.

(b) Annually, the number of workers covered by the enquiry as a percentage of the total number of workers in the corresponding industries or occupations.

Even when statistics based on unemployment insurance become available it is desirable, for purposes of comparison, to continue trade union statistics as long as they are reliable.
The statistics derived from public employment offices should give:

(a) The number of workpeople registered on a given day of the month as seeking work, with the total number of vacancies remaining unfilled on the same day.
(b) The number of workers' applications registered, of vacancies notified, and of vacancies filled, during the month.

Employment exchange statistics should be compiled so that as far as possible unskilled workers are distinguished from other classes of workers.

Information as to the state of employment should also be published periodically, if possible monthly, based on returns made by a representative number of employers.

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In countries in which satisfactory information concerning unemployment cannot be obtained by the means indicated above, it is desirable that an attempt should be made to obtain at the general population census, or at an industrial or occupational census, information as to the amount of unemployment, or that special enquiries relating to the whole population or to an adequate sample thereof should be made from time to time with a view to ascertaining the number and condition of the unemployed.

The statistics indicated in the preceding resolutions should distinguish males and females and should, so far as possible, give figures for separate occupations in the case of statistics arising out of the activities of employment exchanges, and for separate occupations or industries as may be most convenient in the case of trade union and insurance statistics and in the case of special industrial or occupational enquiries. The classifications used should be based on the classifications adopted in the general population census in so far as these are applicable to employment exchange operations.

It is desirable, for comparing statistics of unemployment internationally:

(a) That precise and detailed information should be published and kept up to date as to the methods adopted in compiling the various statistics of unemployment; in particular, each country should indicate any legislative or administrative changes affecting the value of its unemployment statistics;
(b) That copies of all forms and questionnaires used in collecting the various statistics should be forwarded to the International Labour Office;
(c) That in each country an enquiry should be made to determine, as exactly as possible, the representative value of the unemployment statistics in relation to the "ideal statistics" which would give, at any date, the total number of unemployed in relation to the total number of workers. For this purpose it is agreed:

(i) that the ideal population "field" to which the statistics should relate should be all persons whose normal means of livelihood is employment under contract of service as well as those persons not hitherto wage earners who seek to become so;
(ii) that the unemployment measured should exclude that due to sickness, invalidity, participation in trade disputes or voluntary absence from work, and should be limited to unemploy-
ment due to lack of employment or to lack of work while in employment;

(iii) that the necessary and sufficing condition for being enumerated as unemployed is that the individual must have been not at work for one day at least.

(10) It is desirable that the different statistics of unemployment (insurance, trade union, and employment exchanges) should be presented together, preferably in graphic form, so that they might be co-ordinated and checked one with another and as clear and correct an idea as possible of the fluctuations in unemployment obtained.

(11) Statistics of short-time employment should, if possible, be given separately from those of whole-time unemployment.

C. — INTERNATIONAL COMPARISONS OF REAL WAGES

The Conference recognises the great theoretical and practical importance of the international comparisons of real wages which were initiated by the British Ministry of Labour and the interest of the researches which have been subsequently carried on by the International Labour Office and which have certainly led to progress in this sphere.

The Conference, however, expresses the opinion that, since these figures cannot be considered as representative of the real differences in the workers' standard of living which exist from country to country, it is desirable that a second series of index numbers should be published along with the first, measuring the relative standards of living of the working classes in the different countries. In this case it would be necessary to base the calculations on the actual earnings of working-class families and to take account of the differences in the physiological needs of the population due chiefly to climate and race.

The International Labour Office, in publishing these index numbers, should give in the greatest detail the original figures, the methods of calculation adopted, and any reservations necessary. The different countries should send to the International Labour Office the fullest information, together with a detailed description as to the nature and value of their figures.

D. — CLASSIFICATION OF INDUSTRIES

The Conference, realising, as it did in 1923, that it is not possible at the present time to reach an agreement as to the scientific bases of an international classification of industries, but recognising that it is necessary to ensure in the immediate future some form of international comparison, at least for the principal industries, recommends that pending the time when a complete classification becomes possible there should be drawn up, after consultation with the various statistical services and international organisations concerned, a provisional list of the most important industries.

In order that the question of drawing up a more complete list of industries which would serve as a base for international statistical comparisons might be thoroughly investigated,
the Conference recommends the International Labour Office to invite the Governments to examine the draft classification which has been submitted to them, and to inform the Office of the difficulties which they would experience in adopting it, calling attention to cases where the draft list might be reduced or expanded.

III. — Third International Conference of Labour Statisticians (October 1926)

A. — METHODS OF FAMILY BUDGET ENQUIRIES

(1) In order to provide adequate information with regard to actual standards of living, enquiries should be conducted at intervals generally of not more than ten years into the income, expenditure, and conditions of living of families representative of large homogeneous sections of the population.

The families should be selected to include a sufficient number from different income classes within the sections of the population under consideration, and also from different industries and districts. It is preferable to ask for less detailed information rather than to reduce the number of families covered by the enquiry.

(2) In order that the results of the enquiries may be as complete and comparable as possible, information should be based on daily records of income and expenditure kept by a member of the family for a period of twelve months.

Where it would be impracticable to obtain annual records, every effort should be made to secure from as large a number of families as possible budgets covering at least four periods of not less than a week, one in each quarter, or two periods of at least a fortnight in different seasons of the year. These records would supply adequate information regarding items of expenditure which recur daily. In the case of items of income and expenditure (clothing, furniture, etc.) which recur only at considerable intervals, annual records kept by a smaller number of families or information on which annual estimates could be based should be sufficient.

Special forms or account books should be distributed to the families for their use in making these records of income and expenditure. It is desirable that competent persons should be appointed to visit the families during the course of the enquiry and advise them regarding the keeping of the records.

(3) The records should show the district in which the family resides, the industry and occupation to which members of the family who are gainfully occupied belong, and the composition of the household, including the sex of each member and the age of juvenile members. They should show in sufficient detail the nature of the housing accommodation.

Information should be given for each important item of income and expenditure. By income should be understood earnings in money and kind, sums received from boarders and lodgers, from insurance funds, pensions, and investments, together with income from allotments or in the form of gifts. The chief items of income and expenditure should
be specified on the forms, or account books, distributed. In the case of items of expenditure, the quantity purchased, as well as the cost, should be recorded wherever practicable. Where a family includes boarders, lodgers, or domestic servants, information should be given to show the proportion they represent in the family consumption. In the calculation of expenditure, the cost of maintenance of domestic servants should be added to their money wages.

(4) In compiling the results of an enquiry, if the number of budgets secured is adequate, separate averages should be given for important districts and industries. Families of manual and non-manual workers should be shown separately. Averages calculated for different income groups should be shown.

In addition to averages per family and for families classified according to size, the data expressed in terms of some more precise unit of consumption, for example the consumption of an adult male, should be given. For reducing data for families of different size to terms of a common unit, it is desirable, where suitable scales showing the relative consumption of persons of different age and sex are available, to apply one scale to food commodities and a second scale to other items.

The tabulated results should show the average income from different sources, and the quantity of and expenditure on each of the chief commodities consumed. Separate information should be given for each item of income and of expenditure which constitutes on the average not less than 1 per cent. of total income or expenditure. Other items of interest may be shown separately as desired. The items of expenditure should be classified into the following groups: food, clothing, housing accommodation, fuel and light, furniture and furnishings, and miscellaneous. It is desirable that payments of direct taxation should be given as a separate item. It is also desirable to determine the nutritive value of the principal articles of food together with the cost of a thousand calories of each commodity.

Where the sole object of an enquiry is to provide weights for the calculation of cost-of-living index numbers, satisfactory results may be obtained from a less detailed investigation than that indicated above. Information regarding district, industry, composition of family, and expenditure upon each of the several items to be included in the index numbers only is necessary. It is desirable, however, to have, in addition, information as to quantities.

The results will be tabulated to meet the requirements of the series of cost-of-living index numbers which it is proposed to publish in each country. Thus if separate series of cost-of-living index numbers are to be published for a number of districts or categories of workers, the results of the family budget enquiries will be tabulated separately for each district or category; if a single national index is to be calculated, the results may be shown in the form of general averages only.

B. — Statistics of Collective Agreements

In each country information concerning collective agreements and their principal contents should be collected and published in a summary form at appropriate intervals.
It is desirable that any statistics compiled on the basis of this information should be compiled in accordance with the following general principles:

(1) The collective agreement should be defined, for the purposes of the statistics, as a written agreement concluded between one or more employers or an employers' organisation on the one hand, and one or more workers' organisations of any kind on the other, with a view to determining the conditions of individual employment, and in certain cases to the regulation of other questions relative to employment.

(2) The number of collective agreements should be recorded at annual intervals according to the following scheme:

- (a) number of agreements in force at the beginning of the period of registration;
- (b) number of agreements concluded during the period of registration;
- (c) number of agreements expired within the period of registration;
- (d) number of agreements in force at the end of the period of registration.

(3) The importance of each collective agreement should be measured by ascertaining the numerical strength of the contracting parties, i.e. the number of establishments covered, the total number of workers employed in these establishments, and the number of workers covered by each agreement.

The extent to which workers are covered by collective agreements should be indicated by calculating the number of workers covered by agreements as a percentage of the total number of workers in the various industries.

(4) The collective agreements, together with the number of establishments and of workers covered, should be classified according to their principal legal and social characteristics on the following lines:

A. Nature of contracting parties. The agreements should be classified according to the nature of the contracting parties as follows:

- (a) agreements concluded between an employer and his workers;
- (b) agreements concluded between one or more employers, and one or more workers' organisations;
- (c) agreements concluded between employers' organisations and workers' organisations.

B. Scope of application. The agreements should be classified according to the extent of the area in which they are applicable, as follows:

- (a) shop agreements: i.e. agreements applicable to a single establishment;
- (b) local agreements: i.e. agreements applicable to several or all establishments of similar kind situated in the same locality;
- (c) district agreements: i.e. agreements applicable to several or all establishments of similar kind situated in several or all localities belonging to a district forming an economic or an administrative unit;
(d) national agreements: i.e. agreements applicable to several or all establishments of similar kind in several districts or in the country as a whole.

C. Subjects regulated. The agreements should be classified in the following two principal groups:

(a) agreements regulating individual conditions of employment only;

(b) agreements regulating — in addition to individual conditions of employment — general matters relative to employment.

In group (b) the number of agreements providing for special procedure for the enforcement of the agreement may be shown separately.

The statistics should also indicate the number of agreements which regulate each subject of importance, e.g. wages, hours of work, holidays, conditions of apprenticeship, labour exchanges, works councils, conciliation and arbitration.

D. Duration of validity. The agreements should be classified according to the period for which they are concluded, as follows:

(a) 3 months or less;
(b) 3 to 6 months;
(c) 6 months to one year;
(d) 1 to 2 years;
(e) 2 to 3 years;
(f) more than 3 years;
(g) indefinite period.

E. Method of conclusion. The agreements should be classified according to the method of the conclusion of the agreement and according to the method of negotiation, as follows:

(a) Collective agreements concluded as a consequence of an industrial dispute:

(i) by direct negotiations,
(ii) through the intervention of a third party;

(b) Collective agreements concluded as a consequence of peaceful discussion:

(i) by direct negotiations,
(ii) through the intervention of a third party.

F. Industries covered. The agreements should be classified according to the principal industrial groups. The classification may be left to the domain of national statistics.

G. Industrial importance. The agreements should be classified according to their industrial importance, as defined under (3).

(a) Classification of agreements by the number of establishments covered:

(i) agreements covering one establishment,
(ii) " 2 to 20 establishments,
(iii) " 21 to 100 establishments,
(iv) " more than 100 establishments.
(b) Classification of agreements according to the number of workers covered:

(i) agreements covering less than 100 workers,
(ii) " 100 to 1,000 workers,
(iii) " 1,001 to 10,000 workers,
(iv) " 10,001 to 100,000 workers,
(v) " more than 100,000 workers.

A distinction should also be made between workers who are members of the organisation which is a party to the agreement and other workers to whom the agreement applies in practice.

C. — Statistics of Industrial Disputes

In each country statistics of industrial disputes should be compiled according to the following general principles:

(1) The basic unit — the case of dispute — should be defined as a temporary stoppage of work wilfully effected by a group of workers or by one or more employers with a view to enforcing a demand. Disputes affecting several establishments should be considered as one case if they are organised or directed by one person or organisation. It is desirable to make, as far as possible, a distinction between strikes and lockouts.

(2) The statistics should relate to disputes beginning in the period under review, and also, but separately, to those continuing from the previous period. The total of these two groups of disputes represents the number of disputes in existence during the period under review.

(3) The importance of the dispute should be measured by ascertaining the number of establishments and of workers affected by the dispute, the duration of the dispute, and the number of man-days lost on account of the dispute.

The number of establishments affected should be based on the technical unit as defined in censuses of industries.

The number of workers affected should be based on the vacancies caused in the establishments affected by the dispute, and calculated by taking an average of the number of vacancies each day during which the dispute lasted, or, where this is not practicable, by taking an average of the number of vacancies recorded at weekly intervals.

The duration of the dispute should be expressed as the number of working days from the date on which the dispute began in the first establishment affected to the date on which it terminated in the last one.

The number of man-days lost should be based on the number of vacancies caused by the dispute during each day of the dispute, or, where this is not practicable, by multiplying the number of days for which the dispute lasted by the average number of vacancies recorded at weekly intervals.

(4) The disputes, together with the number of establishments and workers affected, the duration of disputes, and the number of man-days lost, should be classified according to their principal characteristics, namely:
A. **The matter in dispute.** The principal criterion should be the relation of the dispute to collective bargaining as follows:

(a) Disputes related to collective bargaining:
   (i) concerning trade unionism or refusal to conclude a collective agreement;
   (ii) concerning conditions of employment:
      (1) wages,
      (2) hours of labour,
      (3) engagement or dismissal of workers,
      (4) others.

(b) Disputes not related to collective bargaining:
   (i) sympathetic disputes;
   (ii) political disputes;
   (iii) others.

Groups (a) (ii) may also be classified into disputes concerning general terms of future employment, and disputes concerning the interpretation of existing terms of employment.

B. **The result of the disputes.** Disputes should be classified according to their general result from the point of view of workers involved, as follows:

(a) disputes where the workers’ demands have been entirely accepted;
(b) disputes where the workers’ demands have been partially accepted;
(c) disputes where the workers’ demands have been rejected;
(d) disputes where the employers’ demands have been entirely accepted;
(e) disputes where the employers’ demands have been partially accepted;
(f) disputes where the employers’ demands have been rejected;
(g) disputes with indeterminate or unknown result.

C. **The method of settlement of the disputes.** Disputes should be classified according to the method of their settlement on the following lines:

(a) disputes settled by direct negotiations between the two parties;
(b) disputes settled by the medium of a third party:
   (i) through voluntary conciliation accepted by the parties to the dispute,
   (ii) through compulsory conciliation imposed by the law,
   (iii) through voluntary arbitration,
   (iv) through compulsory arbitration.

(c) Disputes terminated without successful negotiations.

D. **The industries affected.** Disputes should be classified according to the principal industrial groups. The classification may be left to the domain of national statistics.
E. The extent of the disputes. Disputes should be classified according to the number of establishments affected as follows:
(a) disputes affecting one establishment,
(b) " " 2 to 10 establishments,
(c) " " 11 to 20 establishments,
(d) " " 21 to 100 establishments,
(e) " " more than 100 establishments.

F. The importance of disputes. Disputes should be classified according to their importance, taking as criteria the number of workers affected, the duration of the disputes, and the number of man-days lost.
(a) The classification of disputes by the number of workers affected should be as follows:
(i) disputes affecting less than 10 workers,
(ii) " " 10 to 100 workers,
(iii) " " 101 to 1,000 workers,
(iv) " " 1,001 to 10,000 workers,
(v) " " 10,001 to 100,000 workers,
(vi) " " over 100,000 workers.
(b) The classification of disputes by their duration should be as follows:
(i) disputes lasting less than 2 working days,
(ii) " " from 2 to 10 working days,
(iii) " " 11 to 50 working days,
(iv) " " 51 to 100 working days,
(v) " " 101 to 300 working days,
(vi) " " over 300 working days.
(c) Disputes should be classified by the number of man-days lost as follows:
(i) disputes involving the loss of less than 20 man-days,
(ii) " " of 20 to 1,000 man-days,
(iii) " " of 1,001 to 50,000 man-days,
(iv) " " of 50,001 to 1,000,000 man-days,
(v) " " of 1,000,001 to 30,000,000 man-days,
(vi) " " of over 30,000,000 man-days.

G. Amount of wages lost. The wage loss caused by each dispute may be estimated by multiplying the number of man-days lost by the average daily wages of the workers affected. The classification of disputes according to the amount of wages lost may be left to the domain of national statistics.

(5) For the purpose of comparing the risk of industrial disputes between different industries and countries, frequency and severity rates of disputes should be calculated.
The exposure to risk should be expressed in terms of the number of full-time workers, obtained by dividing the total number of days
worked during the period by the total number of normal working days in the same period.

The frequency rate should show the number of disputes per 100,000 full-time workers. The severity rate should show the number of man-days lost per 10,000 full-time workers.

(6) The above-mentioned data should be published at least yearly. It is desirable, however, that preliminary figures dealing more particularly with the number of disputes should be published monthly.

D. — Classification of Industries

(1) This Conference recommends the International Labour Office to elaborate the list of the most important industries submitted to it so as to show in greater detail the contents of each industrial group in the different countries, obtaining from the Governments any necessary information on the subject. This amplified list should be submitted in due course to the different Governments for their information and comment.

(2) The Conference also recommends the International Labour Office to pursue its endeavours in collaboration with the League of Nations and the International Statistical Institute to compare the existing classifications and to promote their gradual readjustment in the direction of greater uniformity and better comparability.

IV. — Committee of Statistical Experts convoked by the International Union of Towns

(May 1928)

Housing Statistics

I. General Definitions

Dwelling. — The dwelling comprises a separate collection of rooms which, for whatever purpose they may be in use, are at the date of the census intended for occupation by one family and have separate access to a street or to a common passage or stairway. Detached rooms which are clearly intended to form a part of the dwelling should be counted as part of the dwelling.

Premises not intended for habitation but in use as such should be separately counted and should be reckoned as as many units as there are families in occupation.

Habitable Buildings. — Habitable building comprises every property standing by itself or completely separated from other properties by party walls, intended as a whole or in part for habitation or in use for this purpose. Huts, tents, carts, caravans, boats and barges, which are in use as dwellings but which cannot be included in this definition, should be classified separately.

Rooms. — A room, defined as a space entirely enclosed, should be distinguished as follows:

(1) Habitable rooms, i.e. rooms intended to be actually inhabited, such as bedrooms, rooms in which meals are habitually eaten and
rooms reserved for the common life of the family. The kitchen (unless by reason of its limited size it should be reckoned as a subsidiary room) should be reckoned as a habitable room. Attics and servants' quarters should be reckoned as habitable rooms when they are in fact habitable.

(2) Subsidiary rooms (sanitary accommodation, bathrooms, corridors, verandas, attics, lofts, wash-houses).

Occupants. — An occupant comprises every person who is habitually in occupation of the dwelling at the date of the census. Persons who although absent at the date of the census are ordinarily in occupation should be included, and persons who are only in temporary occupation should be excluded.

Household. — The household consists of an independent group of persons enjoying a common domestic life. A distinction should be drawn between the family household and the non-family household. It would appear most easy to draw the line of demarcation at the point where the number of boarders exceeds the number of the permanent members of the household (including domestic servants). In this connection it is more important to have regard to the actual participation of any person in the life of the family than to the form of contract between the inhabitants.

II. Census of Dwellings

§1. Classification of dwellings. — Dwellings should be classified as follows:

A. According to the purpose for which they were intended and the purpose for which they are in use:

(1) Dwellings intended for the occupation of family households;
   (a) in use as such;
   (b) not actually in use, i.e. vacant and available for occupation.

(2) Dwellings intended for the occupation of non-family households;
   (a) in use as such;
   (b) not actually in use, i.e. vacant and available for occupation.

(3) Premises not intended for habitation but in use for this purpose.

B. According to their size measured by the number of habitable rooms and classified as follows:

<table>
<thead>
<tr>
<th>Rooms</th>
<th>Number of Habitable Rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>and more</td>
</tr>
</tbody>
</table>

It is also desirable that, in the above categories, the existence of kitchen, sanitary accommodation or bathroom should be indicated wherever possible.
§2. Classification of habitable buildings. — A. Habitable buildings should be classified according to the proportion of the building occupied by dwellings:

(1) habitable buildings primarily utilised as dwellings;
(2) habitable buildings primarily utilised for purposes other than dwellings but which contain a certain number of dwellings.

B. Habitable buildings primarily intended for the occupation of family households or utilised for this purpose should be classified as follows:

(1) Habitable buildings containing 1 dwelling
(2) " 2 dwellings
(3) " 3-4 "
(4) " 5-10 "
(5) " 11-20 "
(6) " 21 " and over

§3. Classification of occupants according to the characteristics of the dwellings and habitable buildings which they occupy. — The occupants of dwellings intended for the occupation of family households should be classified as follows:

A. According to the size of the dwellings which they occupy, arranged in the same categories as in II §1 B.
B. According to the character of the habitable buildings arranged in the same categories as in II §2 B.

§4. Combined classification according to the number of rooms and the number of occupants of a dwelling. — The occupants of dwellings intended for family habitation should be classified both according to the number of habitable rooms contained in the dwellings which they occupy and according to the number of persons occupying the dwelling as in the following table:

<table>
<thead>
<tr>
<th>In dwellings inhabited by</th>
<th>Number of occupants occupying dwellings of:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 habitable room</td>
</tr>
<tr>
<td>1 person</td>
<td></td>
</tr>
<tr>
<td>2 persons</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
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<td>5</td>
<td></td>
</tr>
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<td>7</td>
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<td>8</td>
<td></td>
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<tr>
<td>9</td>
<td></td>
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<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>and over</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
Dwellings should be classified according to the same principle in a similar table:

<table>
<thead>
<tr>
<th>Dwellings occupied by</th>
<th>Number of dwellings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 habitable room</td>
</tr>
<tr>
<td>1 person</td>
<td></td>
</tr>
<tr>
<td>2 persons</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
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<td>9</td>
<td></td>
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<tr>
<td>10</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>and over</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

§5. Classification according to density of occupation. — The density of occupation should be calculated in the case of each dwelling by dividing the number of occupants by the number of habitable rooms.

Dwellings in each of the size categories II §1 B should then be classified according to their degree of density of occupation as follows:

Dwellings occupied by 4 or more persons per room

- " " " 3 persons but less than 4 per room
- " " " 2 " " " " 3 " " "
- " " " 1 " " 2 " " "
- " " " less than 1 person per room

Occupants should also be classified according to the density of occupation of the dwellings which they occupy, using similar categories.

§6. Classification of dwellings according to the number of households in occupation. — Dwellings in each of the size categories II §1 B should be classified according to the number of households in occupation.

§7. Definition of rent. — The term "rent" should be taken as signifying only those charges which strictly relate to the letting of the premises, including any charges which may be made for the services of caretaker, etc., where such charges are not included in the net rent. All additional charges for lighting and heating the dwelling should, on the other hand, be systematically excluded. Rates and taxes payable by the tenant should be given separately. In cases where it is not found possible to observe these distinctions, indications should be given which would show the margin of error involved.

When a dwelling is occupied by two or more households, each household paying rent directly to the landlord, the total of any rents so paid should be recorded. Rents paid for furnished apartments and rooms, and rents paid for portions of dwellings which are sub-let should be separately recorded.
§8. Classification of dwellings according to the amount of rent paid. — Dwellings which are rented by family households should be classified according to the amount of rent paid, making use of a certain number of groups (between 10 and 20) which should be drawn up in accordance with a uniform plan in each country, having regard to prevailing conditions. This classification should be combined with a classification of dwellings according to their size in the categories suggested in II §1 B.

The number of occupants of dwellings should also be classified in a double classification, according to the amount of rent paid and to the size of the dwelling occupied, making use of the same categories.

§9. Distinction between dwellings subject and not subject to rent restrictions. — In countries where the restrictions as to the amount of rent which may be charged for dwellings, imposed during, and immediately after, the war are still in force, or still exert a marked influence on the level of rents, it is important that in the classification of dwellings, as also in the classification of occupants, a distinction should be made between dwellings which are subject to and those exempt from these restrictions.

III. Periodical Statistics relating to Variations in the Total Number of Existing Dwellings

Particulars of the variations in the total number of dwellings should be regularly obtained, based on information supplied by the public authorities responsible for the supervision of new buildings (registration of completed works; inspection of completed works in order to ascertain whether they comply with the approved plans; issue of habitation permits).

The following particulars should be obtained at intervals not exceeding one year:

(a) The number of habitable buildings erected (distinguishing those erected to replace buildings demolished); the number of such buildings structurally altered (by enlargement, by the superposition of another storey and by interior alterations); the number of such buildings demolished or destroyed.

(b) The number of dwellings erected; the number of new dwellings brought into existence as a result of structural alterations; the number of dwellings ceasing to exist as a result of structural alterations; the number of dwellings demolished or destroyed. In each case the dwellings should be classified according to their size.

It is also desirable to denote, in the case of buildings erected, dwellings erected and dwellings brought into existence as a result of structural alterations, whether the works have been undertaken by (a) public authorities, (b) institutions of public utility, or (c) private enterprise.

IV. Periodical Statistics of Vacant Dwellings

It is desirable to obtain annual returns of vacant dwellings, i.e. habitable dwellings which are unoccupied and immediately available for occupation.
The dwellings should be classified according to their size and in the case of dwellings intended for letting according to the rent to be charged. These particulars could be supplied by the Public Housing Offices in cases where the notification of vacancies is obligatory.

V. — First International Conference of Statisticians convoked by the Social Science Research Council (U.S.A.)
(January 1929)

INDEX NUMBERS OF WAGES

The Committee is fully aware that in the majority of countries the available data are too limited for all the requisite conditions for the compilation of satisfactory index numbers of wages to be fulfilled. However, it considered it desirable in the circumstances to discuss the conditions to be observed in order that index numbers of wages should, as far as possible, be adapted to the purposes for which they may be used. It seemed to the Committee that such an examination was useful not merely from the point of view of statistical theory, but also from the practical point of view, because many countries are at present passing through a period in which wage statistics are being reorganised on fresh bases, and it may be very useful for these countries to have certain guiding principles for the collection and tabulation of their figures. Moreover, even if it appears that the programme outlined is incapable of realisation at the moment, it will, nevertheless, have a certain practical utility because it will make clear the extent of the reservations to be made when interpreting necessarily incomplete series of wage index numbers, whether existing or to be drawn up in the future.

The Committee unanimously recognised that the compilation of index numbers of wages must proceed along perceptibly different lines as regards both the data to be taken into account and the methods of collection and tabulation, according to the purpose for which the index numbers are to be used.

It would consequently serve no useful purpose to attempt to establish an index number for wages for all purposes; on the contrary, it is necessary to consider separately the establishment of different indexes corresponding to different purposes.

There are three obvious and very distinct purposes for which index numbers of wages may be required:

(1) to determine one of the elements for measuring fluctuations in the standard of living;

(2) to calculate the remuneration per hour of work;

(3) to calculate the labour cost per unit of production.

Within each of these purposes, the object may be to determine the fluctuations in wages in time, or to make comparisons between different districts or different countries. In accordance with the task entrusted to it, the Committee, generally speaking, considered chiefly the first of these points of view, that is to say, the variations in wages in time within a country.

At the same time, international comparisons of the remuneration per hour of work seemed so much more valuable than comparisons in
time in a single country, that the Committee felt impelled to examine certain specially difficult points raised by this question.

For each of the purposes mentioned above, a distinction must be made according to whether the index is considered as applying to the working class as a whole, or as an indication of the variations occurring in different industries or classes of workers, independently of the influence which the relative importance of these different industries or classes of workers may have on the general wage averages. For example, if index numbers of wages are considered as one of the factors to be taken into account in estimating the standard of living of the workers, then the aim may be to measure separately the variations in the standard of living of skilled, semi-skilled, or unskilled workers; or the variations occurring among the workers as a whole, which may arise to a considerable extent from the fact that skilled workers may be at present much more numerous than formerly. The Committee therefore considered it desirable to keep in mind these two points of view. A similar distinction may be made, and was in fact taken into account by the Committee, in considering the labour cost per unit of production.

In the same way a calculation of the remuneration per hour of labour may be concerned with the remuneration for any hour, or for an hour of the same nature (normal or supplementary work, skilled, semi-skilled, or unskilled work) and of the same efficiency in regard to either individual qualifications or technical equipment. The Committee, in view of the limited time at its disposal, restricted its examination to the latter point of view.

In addition to the three main purposes analysed above, there are two others for which index numbers of wages have been employed. There is, first, that of measuring the variations in the total amount of wages as a percentage of the national income, and secondly, that of using them as one of the factors in economic forecasting. The Committee was of opinion that this latter purpose was particularly important, and therefore gave it special attention.

It must be understood that when the Committee states that index numbers of wages may be used for measuring the standard of living or the remuneration for an hour of work, or again as a factor in economic forecasting, it does not thereby imply that they represent the only factor to be taken into account for the purpose in view. It is obvious that the index numbers of wages can only be one factor, and that other measurements must also be taken into consideration. In particular, the index number of the cost of living must be considered when estimating the standard of living or the real remuneration for an hour of work, and, similarly, the level of prices when the index numbers of wages are to be used in calculating the labour cost per unit of production. In the same order of ideas the Committee unanimously decided (as the second Conference of Labour Statisticians had done) that the data concerning actual earnings should be taken for preference, save in exceptional cases, in examining the question of the standard of living.

The Committee was unanimously of the opinion that in determining the standard of living no attempt should be made to allow for the subjective cost of labour, which it is quite impossible to measure; on the contrary, the term “standard of living” should retain the connotation which it generally has in economic science, namely, that of material well-being. In order to avoid any misunderstanding the Committee would even have adopted the suggestion of using the term
“purchasing power” instead of “standard of living”, if it had not been that it considered it more practical to retain the commoner expression which is more familiar to the majority of workers, rather than employ a technical term whose exact significance is probably fully grasped only by specialists.

The Committee did not claim to deal with all the important points, but was content to consider for each type of index:

1. the wages data (rate of wages, average wages, or actual earnings) to be taken into account in each case;
2. the industries or classes of workers to which these data should refer;
3. the areas from which returns should be collected;
4. the period during which the data should be gathered;
5. the method of arriving at the index numbers, that is, the weighting of the various classes or industries, the choice of the basic period, etc.

Generally speaking, the Committee wishes to emphasise the importance, whenever a series of index numbers of wages is published, of giving a detailed explanation of the principles adopted with reference to each of the five points enumerated above, and of all the other factors which may be essential for a true interpretation of the index numbers.

Finally, while the Committee, in accordance with the task entrusted to it, considered in particular the fluctuations of wages within single countries, it also frequently emphasised the fact that comparisons between different districts and different countries were no less important, and might even be of greater value.

I. — Construction of Indexes to Measure Changes in the Standard of Living of the Working Class as a Whole

(1) Choice of Type of Wage Data

If the standard of living is used in its generally accepted sense of material well-being, it is evident that for the purpose of constructing wage index numbers to measure changes in the standard of living of the working class as a whole, the ideal type of data to be used should be actual annual earnings, or earnings for a shorter period representative of annual earnings.

Experience in certain countries shows that in fact changes in actual earnings may differ from changes in rates of wages and in average wages per hour. But this does not exclude the fact that in other countries changes in rates of wages may be considered as approximately representative of changes in actual earnings in certain industries and under certain conditions.

While recognising that, in normal conditions, the standard of living may be considered proportional to actual earnings, it must be recognised that changes in hours worked and other social conditions equally affect the standard of living, and the accuracy of an index number based on actual earnings. In these cases, it would be desirable to take hours of labour into consideration.
(2) **Industries and Categories of Workers to be Included**

For the construction of such index numbers it would be desirable to consider changes in the wages of the wage-earning class as a whole; but as in practice this would be rarely possible, it is necessary to select certain industries and categories of workers which would be representative of the wage-earning class. In this case it will be necessary to indicate clearly the industries and categories of workers covered by the statistics.

If it is desired to measure the standard of living of the wage-earning class as a whole, it is indispensable to include agricultural workers, as well as workers in industry proper. But as in most countries statistics of the cost of living of agricultural workers are not available, it will be necessary, when one wishes to compare index numbers of wages with index numbers of the cost of living, to consider separately the workers in industry proper.

(3) **Choice of Districts**

Where it would not be possible to cover the whole country, districts should be chosen so as to be representative of the whole country. If adequate consideration is not given to this very important point, there is the danger that wage index numbers will be compiled which are not representative of the actual situation, either from the point of view of the levels of wages of the wage-earning class, or from the point of view of their changes.

(4) **Frequency of Compilation**

From the point of view of the practical use of these statistics, it would appear reasonable that the frequency of compilation should be determined in relation to the stability of economic conditions, compilation being less frequent when these conditions are more stable.

From the point of view of facility in collecting the statistics and for the purpose of ensuring their accuracy, there may be certain reasons, as is shown by the experience of a number of countries, for the compilation of the statistics at frequent intervals, even when economic conditions are stable.

In any case, it is opportune to determine frequency of compilation in relation to the systems of wage payment in use in the different countries, selecting periods for which the wage payments may be considered complete. Generally a period of one month (or four weeks) would appear to be the most suitable, and to be satisfactory in relation to other general uses of the wage index numbers. Where the supply of information depends on the good will of the employers, it is necessary to take care that the statistics for successive periods relate to the same establishments. If this condition cannot be realised, it would become necessary to obtain also statistics for the preceding period in order to enable the figures for successive periods to be connected by the chain method.

When a system of payment includes supplementary items of remuneration that cover more than one period of normal payment, it is necessary to allocate such items proportionately among the normal periods that they cover or to average them over the whole period intervening between one such supplementary payment and the next.
Method of Compilation

As to the method used in establishing these index numbers, the most precise consists in relating the total actual earnings compiled or calculated for a given period to the corresponding actual earnings for the period taken as base. These averages may be compiled per worker, or better, per member of the family, if it is possible to include the earnings of other members of the family. The last consideration, which may be important in international comparisons, does not, however, have any appreciable effect on time comparisons in a country.

The calculation of a simple or a weighted average index number for the various industries and occupations, the weights remaining constant during the various periods, may lead in certain circumstances to false conclusions, for they do not take into account the movement of workers from one industry to another and from one occupation to another. These movements may in certain cases be of great importance. In consequence, it may be necessary to use separate indexes for the different industries, and in combining them to revise the weighting as often as possible so as to take account of these changes. For such a series of index numbers, the choice of base period does not influence the index number.

It would be desirable, however, that all countries should adopt a common base period and for various reasons a post-war period is favoured. This does not exclude, naturally, the possibility for certain countries of constructing a series with pre-war bases. The fact that in various countries statistics of wages are in their infancy or in course of being organised, and also the fact that in various countries economic conditions are not yet stable enough, hinders the fixing at present of the most appropriate base period common to all countries. In a general way it would be preferable not to choose the first period for which the enquiries are made, as in general the first enquiries are not the most exact.

II. — Construction of Index Numbers of Wages for Measuring, in each Country, the Changes in the Fluctuation in the Standard of Living in Different Industries or Occupations

It is of interest for certain purposes to measure fluctuations in the standard of living, not of the workers as a whole, but in different industries or occupations, without taking into account fluctuations in the standard of living of the workers as a whole, which may arise from variations in the numerical importance of different industries or occupations. In this case, the same methods are to be recommended as to the choice of wage data, of localities, and of periods.

III. — Calculation of Index Numbers of Wages as an Aid in Forecasting Economic Conditions

(1) Choice of Data

In countries which do not possess well-organised statistics of unemployment, overtime, and short time, or in countries where the

1 These averages will usually be compiled per earner, but when it is possible to obtain the information they may also be compiled per family. In this case the average size of the family should be given, expressed, if possible, in terms of "adult men."
wage rates are fixed for a determined and fairly lengthy period, the statistics of earnings have advantages for following economic fluctuations. In countries for which the statistics of unemployment, etc., are well organised, and where rates of wages can be changed according to economic conditions, it may be useful to consider rates of wages also as an index for economic forecasting, as, at the beginning of a crisis, these rates may vary according to the orders received by establishments, and consequently may constitute a more sensitive index than that of actual earnings.

(2) **Industries and Categories of Workers**

In every country it is necessary to take into consideration the industries and categories of workers whose variations in wage rates or actual earnings are the most sensitive; the work of choosing the industries and categories the most appropriate for these studies must be left to the specialists of each country. Certain industries even of less economic importance, like the luxury trades and printing, may give interesting information in this field, whilst industries which receive orders long periods in advance, and may in certain cases be the most important ones from the economic point of view, may be less suitable for forecasting.

In each branch of industry the best organised establishments which can estimate with the greatest certitude the future development of the market should primarily be considered.

(3) **Choice of Localities**

In order to establish economic forecasts, it is advisable to take into special consideration certain centres or localities which, either because of the concentration of industry, or because of some special development, or for other reasons, are, as experience has shown, the first to show symptoms of crisis or of economic revival.

(4) **Frequency**

The interval chosen should be as short as possible.

(5) **Method of Compilation**

It would be advisable, even if it were desired to reduce the various information into one index, to publish separately the information for the various industries, occupations, and localities, so that all necessary information would be available for the interpretation of these indexes.

IV. — **Compilation of Index Numbers of Wages to measure Earnings per Hour in respect of Work, of Comparable Character and Efficiency**

(1) **Choice of Data**

It may be assumed that the best method theoretically would be to determine separately the average wages per hour of normal work and the average wages per hour of overtime, and then to eliminate the influence of varying amounts of overtime by combining these two averages in a constant ratio.

As in many countries it is not possible in practice to distinguish between normal and overtime earnings, the most practical method is to calculate a single average by dividing the aggregate amount of
actual earnings — for normal and overtime work, including special allowances, payments in kind, etc. — by the total number of hours worked. The objection to this method of calculation is that changes in the payment per hour worked may result from a mere change in the proportion of overtime worked to normal hours; this objection being the more important, the more significant the changes in this proportion.

(2) **Industries and Categories of Workers**

The comparison aimed at is one between certain categories of workers belonging to selected occupations who work with approximately similar equipment and under similar conditions in different countries or in different periods. It must be recognised, however, that the individual workers who perform the same occupations in different countries and in various periods may diverge in varying degrees from the average worker in respect to individual skill and efficiency. This objection will be the more important in practice, the more restricted the number of occupations and the number of workers considered.

Even if the comparisons between different countries may on this account be open to doubt, it may well be that the variations in time shown by these index numbers may be comparable.

(3) **Localities**

It may be assumed that the localities should be representative of the conditions of the whole country. Consequently it may not be sufficient to limit the statistics to capital or principal cities, because the differences, in this respect, between these and the rest of the country may be more or less great according to the country or the period considered.

(4) **Frequency**

If it were possible to determine separately the average wages per normal hour and per hour of overtime, it would be desirable to secure data as frequently as possible. Since in general such data are not available, it will be necessary to take rather long intervals so that the different circumstances influencing the amount of overtime work might arrange themselves out.

(5) **Method of Calculation**

It goes without saying that the different occupations chosen for international comparisons will comprise different numbers of workers in different countries, and that these differences will not be similar in all countries and will even present considerable variations from country to country.

Since the index numbers are to be used to measure the changes in the earnings per hour of work of a given nature and given efficiency, it will be necessary to calculate as many special index numbers as there are from this point of view different categories, and then to compute an average of these index numbers.

It is evident that the index numbers calculated for different categories of workers should be weighted according to the number of workers in each category. A practical difficulty in comparing the index numbers in different countries arises from the fact that the numbers of workers of each category would vary from country to country, and that there is no reason for taking as basis the number of workers in
one country rather than that in another country. In order to avoid this difficulty, it might be advisable to repeat the calculation as many times as there are countries, using in turn the weight corresponding to the conditions prevailing in each country.

The results of the calculation will show whether the application of the different methods of weighting will produce significant deviations.

V. — Compilation of Index Numbers of Wages for the Purpose of Measuring the Labour Cost per Unit of Production

If the unit of production is taken in the sense of a unit of value, the determination of labour cost per unit of production consists in calculating the percentage of the total value of production represented by the aggregate wages paid. It is evident that even if in some countries and in certain branches of productive activity firms already furnish data of this kind, it is not possible to expect at present an extension of these enquiries over all branches of economic activity and all countries. In this respect the Committee, while hoping that this will be possible in respect to an increasing part of production and increasing number of countries, considers that the collection of data on wages, cost of labour, and cost of production should be organised as far as possible so as not to give rise to fears or opposition on the part of the firms concerned. Even if this opposition to supplying such detailed information is sometimes due rather to habits or traditional ideas which are no longer justifiable, it is necessary in any case to take account of them because the sincere collaboration of the heads of firms constitutes an exceedingly useful element in ensuring the accuracy of the data.

In any case the possibility may be considered of measuring the variations, between different periods or different localities, in the labour cost as an element in the total cost of production. There are, in fact, several countries which conduct censuses of the value of production for the whole country or for industry as a whole, or for industrial production, or for manufacturing, or for large industries, or even for agricultural production. For these countries it would be possible to establish index numbers showing the variations in the value of the production as between different periods. If it should be possible to establish, in addition to this series of index numbers, another series of index numbers relating to aggregate wages paid to the workers covered, it would be possible to state whether the value of production has increased more or less rapidly than the aggregate wages bill, and consequently whether the percentage of wages in the total cost of production has increased or decreased during this period.

Similarly, it is possible to proceed to comparisons between different countries, provided that the data concerning the production of these countries are comparable between themselves; it is, however, difficult to satisfy this condition.

It is evident that this method may be applied either to production as a whole or to certain special branches of production, or further to a particular industry. It is obvious that care should be taken in interpreting the variations in the percentages showing changes between different periods as well as between different countries, because these variations or differences may be due to extremely different circumstances, such as differences in machinery and equipment, in natural conditions, in the efficiency of labour, etc.
In compiling these index numbers, it is convenient to proceed as follows:

1. To take as bases the actual earnings — that is to say, the aggregate and not the average earnings.
2. (2) and (3) If it is not possible to take into account all localities and industries concerned, to choose representative localities and industries.
3. (4) To obtain records of wages for the same periods as for the censuses or evaluations of production, which can only be effected at rather long intervals.
4. (5) To adopt for the index numbers of wages the same base as for the index numbers of production, and to follow in respect of weighting the principles specified under I and II, according as it is proposed to make, or not to make, allowance for the effects of differences in the importance of the production of different industries.

VI. — Compilation of Index Numbers of Wages for Measuring the Variations in the Proportion of the National Income Formed by Wages

The percentage of the value of production represented by the aggregate wages of labour may have a very different significance according as it applies to primary production (extractive industries, forestry or agriculture) in which the consumption of the products of other industries is of small importance, or to manufacturing industries in which an important part of the value of the product is due to raw materials or semi-manufactured products. This inconvenience might be avoided if the total wages are related not to the total value of production but to the value of the net product of industry.

The relation between the aggregate earnings of labour as a whole and the national income is of particular interest from theoretical and practical points of view.

As regards the choice of data concerning wages, industries, localities, the frequency of collection, and the methods of calculating the index numbers, the principles indicated under V may in general be applied.

However, it is to be observed that the comparisons between different countries may be in practice more frequent and less difficult in this case. In fact, many countries in which comparable data concerning the value of production are not available calculate approximately the amount of national income.

Per contra, the comparisons as between different periods would probably be less frequent in the present case because the variations in the income can be evaluated with sufficient accuracy only at fairly long intervals.

B. — International Comparisons of Wages

I

(1) The Committee is impressed by the fact that a great variety of wage statistics is collected in the various countries. In general these statistics may be described as statistics of earnings or of wage rates. Some countries are strong in statistics of rates, others of
earnings. It is desirable that records of the movement both of rates of wages and of earnings should be available. The Committee therefore recommends that:

(a) the countries which are weak in statistics of earnings take steps to add to those statistics by collecting statistics of earnings, for the principal occupations as well as for the chief industries, and of total hours worked from which it would be possible to compute earnings per hour, and that

(b) the countries which have concentrated on statistics of earnings improve their figures of wage rates and of changes in wage rates.

(2) It is evidently of the greatest importance that the expressions "earnings" and "rates of wages" should have the same meaning in the statistics of the different countries. With this object the Committee recommends that:

(a) the statistics of the different countries indicate clearly what is understood by the expressions "rates of wages" and "earnings", and particularly what are the payments in money and in kind which are included in "earnings";

(b) at intervals, special enquiries should be undertaken to show what are the differences between the rates of wages and average wages (earnings) of different branches of industry and categories of workers.

(3) The Committee is of the opinion that attention might be particularly directed to defects in the information at present available in the various countries if the International Labour Office would compile an annual statement, if possible in tabular form, by industries, either of wage rates or earnings or both. The statement should, if possible, also include for the various industries in each country the full-time and actual hours together with their distribution.

It is considered that the publication of such information would encourage the various countries to supplement their statistics as to rates or earnings or both, and that in course of time the annual statement would gradually improve until it would provide material for more adequate comparisons.

II

The Committee is impressed by the limitations of the present quarterly statistics of wages published by the International Labour Office, due to the fact that few industries and occupations in, generally, only one city in each country are included.

The Committee believes that it would be possible to improve the statistics by adding to the number of occupations and of localities. It therefore recommends that the Conference invite the International Labour Office to consider whether these defects could possibly be remedied by asking the national authorities concerned to supply them with additional information necessary for this purpose.

The Committee has selected a few additional occupations which appear not unsuitable for immediate inclusion. These are named in the annex to these Recommendations. The Committee also considers that the number might be further increased.

The Committee also ventures to suggest that the International Labour Office might be asked to consider the possibility of consulting with competent bodies in the several countries as to whether other
localities could be added to the present list, and the further question
whether it might be possible to indicate more definitely the divisions
of industry to which some of the occupations included belong and to
omit any localities which are not really representative of any country
as a whole.

The occupations proposed for addition are confined to non-
localised industries. It might be possible also to include occupations
from other non-localised industries, such as railway transportation,
and also commercial and municipal employees. Localised industries
such as iron and steel, textiles, mining, and shipbuilding can only be
dealt with by consultation with the representatives of the several
countries, and certain occupations which come under this head and the
towns in which they are found might also be added to the list.

If fuller information on the lines indicated is obtainable, the col-
lection and publication of statistics for localised and non-localised
industries on a half-yearly or yearly basis might be adequate.

ANNEX

Building Industry:
  Structural iron workers.
  Concrete workers.
Electric Power Distribution:
  Electrical engineers.
Electric Installation (Buildings):
  Electrical fitters.

Transport:
  Tram and bus drivers.
  Tram and bus conductors.
  Motor drivers (van and lorry).
  Horse drivers.

VI. — Second International Conference of Statisticians
convoked by the Social Science Research Council (U.S.A.)
(May 1930)

A. — INDEX NUMBERS OF WAGES

1. The construction of index numbers to measure the movement
of wages, although designed primarily for use within a country, is of
importance also for the international comparison of wages. Any
divergence between the movement in two countries is the reflection
of a significant change, and may be a cause of further change in the
economic relations of the two countries. It is important, therefore,
that indices of wage movements in different countries should be made
available for purposes of comparison, and the Committee welcomes
the initiative of the International Labour Office since the last Con-
ference in publishing together all the available indices of wage move-
ments.

2. The Committee are of opinion that the indices published should
take three forms.

(a) It is desirable, whether a single numerical index is compiled
or not, that as much as is practicable of the detailed information on
which such numerical indices may be based should be published. The
problems in the elucidation of which wage statistics are required are
so numerous and varied that it is not possible to meet all the needs
that may arise. It is, therefore, important that such material as
exists should be made available for the use of students, and not merely numerical indices based on this material. Full publication of details is necessary also to prevent misunderstanding and misuse of indices.

(b) A general index, inclusive of as much of the available material for each country as can be obtained regularly, should be constructed, where the material is adequate. The publication of such an index, however, would be dangerous unless accompanied by an indication of the movement of wages in the chief component industrial groups. Such more detailed indices should, where possible, give separately the movement of wages of skilled or unskilled and male and female workers.

(c) A special index for each country embodying the movement of wages in certain selected industries for the special purpose of international comparison. This index might be modelled on the index set forth in the American report, combining the indices for general manufacturing, railways, building and coal mining. Representative rates for these groups can probably be found among the wage statistics of most countries; but whatever combination is included, it should be restricted to industries in which wages are determined by purely industrial conditions, industries in which wages are influenced by political considerations being excluded.

3. The Committee would call attention to certain desiderata in the presentation of statistics. Where possible actual figures of wage rates or of averages of wage rates should be given, as well as the index or indices of change in wage rates, since it is possible for actual wage rates to remain unchanged, while the index number in which they are combined changes on account of some alteration in the proportion of different classes of workers, or the rise to importance of some hitherto unimportant industry.

Tables should be accompanied by notes warning the reader of the limits within which and purposes for which the figures may be used. References to the official publications of the different countries from which the figures are taken or the indices compiled should always be given.

The Committee wishes to stress the Recommendation of the 1929 Conference that statistics of both rates of wages and earnings should be compiled. Pending collection of such comprehensive statistics, they recommend that rates and earnings should be given wherever they are available; that it should be made clear whether the figure given represents wages or earnings where only one is available; and that where rates only are embodied in the index, the relation between earnings and rates, in the years for which figures of earnings are available, should be given. They suggest also that it may be advisable to omit from any index based exclusively upon rates, occupations in which it is known that the divergence between earnings and rates is considerable.

Where possible the data on wages should be compiled and published monthly, as is already done in certain countries. This is necessary to make possible the study of seasonal fluctuations.

Both hourly and weekly rates and earnings should be given when possible.

In any industry or occupation in which a large proportion of women is employed, it is desirable that a separate index number of

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1 Report submitted to the Conference.
women's wages should be compiled. Where only a small proportion of women are employed, this would be impracticable; but in this case it should be stated whether the women's rates are included or excluded from the index for the industry or occupation which is given. Statistical authorities should print full and repeated explanations of the principles on which, and the methods by which, any indices which they publish are constructed.

B. — INTERNATIONAL COMPARISONS OF COST OF LIVING

I. In view of the fact that international comparisons of cost of living which are the bases of all international real wages comparisons are defective because of the lack in various countries of adequate recent comparable budget studies, the Committee recommends that the various countries which have not made family budget enquiries within the last five years be requested to make new and comprehensive studies of the budgets of working-class families; to conduct these enquiries as soon as possible (and not later than the end of 1932); and to take account of the studies on these subjects issued by the International Labour Office and recommendations made by the several Conferences of Labour Statisticians.

II. In order to supplement international real wage comparisons and to throw further light on actual living conditions among workers in various countries, the Committee recommends that a descriptive detailed study be made (carefully planned and very limited in scope) of the mode of life (work, wages, lodging, dress, dietary, amusements, etc.) of typical high-, medium-, and low-paid workers in various countries, such as railway workers, miners, builders, etc.

III. In order to see how far different methods of comparing real wages agree with one another, the Committee recommends as desirable:

(a) while awaiting new budget enquiries, to consider the compilation of these comparisons on the basis of the budgets of the principal countries included in the comparison, instead of grouping the budgets, or using an international budget; such comparisons might be made once a year;

(b) when results of family budgets are available, to make allowances as far as possible in indices based on food, fuel, and lighting, for rents and other items of expenditure; the results of these allowances should be indicated separately;

(c) in the case of countries where there are outstanding differences in the mode of living in different districts, to use as far as possible, where comparisons relate to wages in different towns, the budgets of the towns considered, and, where comparisons relate to wages in the country as a whole, the national budget;

(d) that in view of the fact that cost-of-living index numbers depend more on the prices than on the composition of the budgets, and that retail prices of the same article vary considerably according to quality, precautions be taken with a view to ensure that, as far as possible, the comparability of prices is maintained. It would be
VII. — Fourth International Conference of Labour Statisticians
(May 1931)

INTERNATIONAL COMPARISONS OF REAL WAGES

This Conference, recognising the value of the information as to wages and prices which has in the past been collected by the International Labour Office for the purpose of calculations relating to the purchasing power of wages in different countries, and taking account of the resolutions adopted by the Governing Body at its Fifty-first Session, with the object of improving the bases and methods of compilation of such statistics, makes the following recommendations:

(1) The International Labour Office should continue to collect and publish particulars of wages, in a representative selection of towns, industries and occupations in those countries for which information is obtainable; the statistics hitherto published should be extended, as far as possible, and in publishing the information the Office should give detailed particulars as to the sources, nature and scope of the data included.

(2) Information as to earnings per unit of time are preferable for purposes of international comparison but can generally be furnished only as a result of special enquiries. Governments should make these enquiries on uniform lines on the basis of the resolutions adopted by the first International Conference of Labour Statisticians and should supply the information to the Office. Comparisons based on this information should be made and published by the Office.

(3) Time rates of wages and piece-work basis time rates as established by collective agreements or other arrangements can be furnished by many countries without special enquiry. These are of value for purposes of international comparison and should be collected and published.

(4) In principle, it is undesirable to compare rates of wages in one country with actual earnings in another; but where, owing to incomplete information, rates of wages in certain countries have to be compared with earnings in other countries, any available information as to the relation between the level of rates of wages and earnings should be used to correct the figures of wage rates.

(5) In addition to the data as to money wages referred to in the foregoing paragraphs, particulars should be supplied with regard to the amounts of family allowances, if any, paid to the various classes of workpeople.

(6) The International Labour Office should continue to collect and publish statistics of the retail prices of the articles of food consumed by working-class families in the towns for which particulars as to wages are collected; particulars should also be collected of the prices of fuel and light in these towns. The statistics hitherto published
should be extended as far as possible and in publishing the information
the Office should give such indications as can be obtained as to the
scope of the data.

(7) In view of the desirability of including, in the data relating
to cost of living, information as to the relative level of rents in each
country, the International Labour Office should invite the statistical
authorities in each country to furnish regular information with regard
to the average rents of the predominant types of working-class dwell-
ings in the towns for which statistics of wages and prices are supplied,
together with a description of the accommodation provided and of the
general character of the dwellings covered. The International Labour
Office should study the possibility of obtaining one or more standard
units of housing for the various purposes of international comparison.

(8) In those countries in which no family budget enquiries have
been made during the last ten years, such enquiries should be under-
taken at the earliest possible date, on the lines laid down in the
resolutions adopted at the third Conference of Labour Statisticians
in 1926.

(9) The wages and prices information referred to in the preceding
paragraphs should be collected and published by the International
Labour Office at annual intervals. The Office should address each
year to the statistical offices of each contributing Government a
questionnaire soliciting the fullest possible particulars of wages and
retail prices and rents relating as nearly as possible to the month of
October. In view of the fact that there are important seasonal
variations in the prices of certain foodstuffs, such prices should be
obtained several times a year.

(10) The information so obtained should be tabulated in a form
facilitating ready comparison, and should be published, at the earliest
possible date, in a special annual volume. This volume would be, in
essentials, a development and amplification of the statistical tables
published by the Office at regular intervals in the *International Labour
Review*. It should include, as regards wages, tables both of rates of
wages and of earnings. It should include explanatory notes regarding
the source, nature and scope of all the figures given, and should set
out and illustrate the various possible methods of combining the data
so as to yield any desired indices of relative real wages. This Con-
ference believes that such a volume would increase in scope and in
importance with each addition to the range of information obtained;
and would form from the outset the nucleus of what must become in
due course an authoritative *source-book* of comparable international
information regarding wages and retail prices in all industrially
developed countries.

(11) Following upon the publication of this volume, there should
be prepared and published in the *International Labour Review* an article
in which the data contained in the published volume should be discussed
from the standpoint of determining the relative levels of purchasing
power of wages in the various countries. In this article the difficulties
of the procedure should be fully and frankly disclosed. Indices
on various bases should be given, with the purpose of indicating the
various points of view from which comparisons can be made and of
preventing any one figure being regarded as authoritative for all
purposes.

In view of the fact that the index numbers of purchasing power
of wages serve different national purposes, it is impracticable for the
International Labour Office to compute all the comparisons which are possible between a series of countries and between different occupations and industries. The series of index numbers compiled by the Office should be illustrative of the methods by which the data may be used for computing further series.

(12) In any statistics which may in future be compiled by the International Labour Office as to the relative purchasing power of wages in different countries, account should be taken of the diverse circumstances and conditions of the workers in different countries resulting, for example, from differences: (a) in systems of wage payment; (b) in the nature and amount of payments supplementary to wages, such as family allowances and paid holidays; and (c) in systems of social insurance. Alternative series of index numbers should be so far as possible computed to show the effect of the inclusion or exclusion of such items.

(13) The calculation of these index numbers by the use of information as to working-class consumption furnished by family budget enquiries should be made not only as hitherto on a fixed international budget but also on the basis of various national or regional budgets.

(14) The Conference realises that comparisons cannot usefully be made between countries of widely differing habits and customs; and that the closer are the consumption habits in different countries, the more trustworthy are the comparisons likely to be.

(15) The Conference is unable to recommend the proposal to compare countries of dissimilar conditions by progression through countries with intermediate conditions owing to the lack of information on such conditions at the present time and to the absence of any criterion for measuring the degree of dissimilarity among the intermediate countries.

(16) In all comparisons between two or more countries, however, allowance should be made for the difference in articles consumed in each of the countries by basing the calculations successively on the list of important articles consumed in one country and the list of important articles (but not necessarily the same articles) consumed in the others.

(17) It is also desirable that as regards certain articles of food for which direct comparison of prices as between one country and another is impracticable, the International Labour Office should explore the question of supplementing the present method of calculation by a method in which account would be taken of the possibilities of comparisons of prices on a basis of nutritive value.

Recommendaion

The Conference recommends that the Governing Body place the question of the supply of the data required for the purpose of these international comparisons of wages and cost of living on the agenda of a future International Labour Conference with a view to the framing of a Convention binding the Governments which ratify it to collect and supply the information at regular intervals.

It recommends that a small committee of experts representing the competent national statistical authorities might be set up. The function of this committee would be to assist the Office in its work of developing and publishing wage and cost-of-living statistics and in preparing for any future international conference which might appear desirable in the near future.
The Conference considers that in view of the fact that migration statistics in general are, from the international point of view, still in a very imperfect state, efforts should be made in the various countries to arrive gradually at the following desiderata:

1. In principle, every act of removal from one country to another for a certain length of time should be included in the statistics of migration, with the exception of tourist traffic.

2. When the removal is for one year or more the migration should be regarded as permanent migration.

3. When the removal is for less than a year the migration should be regarded as temporary, frontier traffic being excluded.

4. It is desirable to distinguish statistics of permanent migration from those of temporary migration. When the distinction cannot be made on the basis of definite information it should be made by presumption.

5. When it is possible to distinguish between temporary migration according to its duration it is desirable that this should be done.

6. Seasonal migration should be included in the statistics of temporary migration. It is desirable that it should also be shown in separate tables.

7. It is desirable that each country should compile statistics of emigration and statistics of immigration. Both should, if possible, include nationals as well as aliens.

8. It is desirable that countries of transit should, if possible, draw up separate statistics of transmigrants.

9. Although migration movements between territories situated in different continents but coming under the same sovereignty are from the legal point of view of an internal character, it is nevertheless desirable that they should be given in the statistics, by way of addition, side by side with international migration movements.

10. It is desirable that each country should state as precisely as possible the definitions on which its statistics are based, so that the International Labour Office may be able to indicate to what extent its definitions differ from those recommended by the Conference.

11. In cases where national methods are not such as to make it possible to realise the desiderata stated above, certain omissions might be remedied by collaboration between the statistical services of two or more different countries.

The methods by which migration statistics are compiled in different countries depend on the regulations to which migrants are subject. These methods accordingly vary very considerably from one country to another.
The Conference notes that none of the methods are entirely satisfactory or make it possible to observe the phenomenon of migration completely in all its aspects. The Conference does not think it desirable to make a choice between these various methods and to recommend one rather than another. Some, however, are clearly inadequate and should only be regarded as substitutes to which recourse is had in the absence of anything better. These include the statistics of information offices for emigrants, statistics of passport visas, statistics of steamship passenger contracts, statistics of the recruiting and placing of migrant workers, and statistics of employment permits issued to foreign workers. The same applies in a less degree to passport statistics, which were of a certain importance some years ago but which are now not so much used.

The Conference gave its attention in particular to port statistics, statistics of declarations of residence, statistics of frontier control, and statistics of coupons detachable from certain documents, and makes the following observations on these classes of statistics.

A. — Port Statistics

1. In order to make it possible to collect migration statistics, it is necessary that the passenger lists of seagoing vessels should mention the reason why each passenger makes the journey or whether or not he is a migrant.

2. Shipping companies or the master of the ship should be required to supply the competent statistical authorities with a copy of the passenger lists.

3. Before landing the master should prepare lists of immigrants in the forms prescribed by the countries of immigration.

B. — Statistics of Declarations of Residence

1. In countries which record the changes of residence of their inhabitants, the declarations which are required to be made on this subject and which are recorded by the local authorities make it possible to establish statistics of migration, particularly of permanent migration.

2. It would be desirable that measures should be taken if possible to make a distinction under this system between temporary and permanent migration.

C. — Statistics of Frontier Control

In those countries where a developed system for the control and supervision of passenger traffic by ports or across frontiers is in existence, migration statistics may be based on the returns obtained from the authorities responsible for this supervision.

It is desirable that in the case of migrants individual questionnaires stating the reason for the journey should be filled up.

D. — Statistics of Coupons Detachable from Certain Documents

1. In the case of countries whose nationals are required to present special documents when crossing the frontier, such documents may serve as a basis for migration statistics.

2. Such documents should be issued to all migrants, if possible free of charge, and contain detachable coupons. The coupons, duly filled up, should be detached when the migrants leave or enter the country. Nationals of the country of emigration residing in a foreign country should be able to obtain such documents from the consular authorities.
3. A distinction should be made between permanent and temporary migration either when these documents are issued or when the coupons are detached.

III

The Conference also discussed the possibility of establishing a uniform international system. It makes the following observations on this point.

1. With a view to obtaining complete and uniform statistics of international migration, it would be desirable that all countries should employ the same system based on the issue of an identical individual document.

2. The realisation of such a system would obviously involve serious difficulties and could not be effected immediately. Further study appears necessary and the Conference suggests scientific collaboration between the competent departments of the International Labour Office and those of the International Statistical Institute, which has made proposals on this subject.

IV

With a view to the classification of the statistical data, it is desirable that so far as possible information should be supplied by the various countries in such a way that the international tables can include the following subdivisions:

1. Distinction between continental and inter-continental migration. For this purpose it is desirable that emigrants should be classified as completely as possible according to the country of destination and immigrants according to the country from which they originally started. This distinction might be based in principle on the geographical list of countries adopted by the Statistical Year-Book of the League of Nations in the table “Area and population”.

2. Distinction between nationals and aliens.

3. As an additional or subsidiary distinction to that given above, a distinction may be made according to language, ethnic origin or the country of birth of the migrant.

4. Distinction according to sex and by quinquennial age groups (under five, five to under ten, etc.).

5. It is also desirable that migrants should be classified according to industrial or occupational groups.

It is suggested that this classification should be made only in the case of migrants of over fifteen years of age and that the following groups should be adopted, a distinction being made between the sexes:

I. Agriculture.
II. Mines and quarries.
III. Manufacturing industries.
IV. Transport and communications.
V. Other industries.
VI. Commerce and finance.
VII. Domestic and personal service.
VIII. Liberal professions.
IX. Persons without occupation or of unknown occupation.

1 One member of the Conference asked that naturalised persons should be distinguished from other nationals.
It might also be desirable to include children under fifteen in this classification under a separate heading, especially in those cases where such information cannot be derived from the classification mentioned in point 4.

6. It is desirable that migrants should also be classified according to their industrial or social status:
   (a) Independent persons (employers and persons working on their own account).
   (b) Employed persons.
       (1) Directors, managers, etc.
       (2) Manual workers.
       (3) Salaried employees.
   (c) Others.
   (d) Members of the migrant's family without occupation.

It is also desirable that this classification should be combined with the classification mentioned under 5, in order to show so far as possible the status of migrants in the various occupational groups.

7. It would be desirable that an attempt should be made to distinguish the following classes among migrants, a distinction being also made according to sex:
   (a) Married, widowed or divorced, unmarried.
   (b) Persons emigrating alone, persons emigrating with their families.

The following distinctions might also be made for certain countries specially concerned:
   (c) Persons travelling at their expense, persons travelling with financial assistance of private individuals, persons travelling with financial assistance of public authorities or private institutions.
   (d) Persons possessing or not possessing a contract of employment.
   (e) Persons able or unable to write (it being understood that any language may be used and that the distinction should only apply to migrants aged ten years or more).

8. In the case of internal migration between territories coming under the same sovereignty but situated in different continents, it is desirable to make a distinction according to the continent of origin of the migrant.

9. The statistics should be established periodically, not less than once a year and, if possible, for the calendar year. In countries where some other period is used, it would be desirable from the international point of view also to follow the calendar year, or some shorter period which makes it possible to arrive at the calendar year, and to make the geographical distribution mentioned above (point 1).