

STATISTICAL AND SOCIAL INQUIRY SOCIETY OF IRELAND.

WORK OF INTERNATIONAL LABOUR OFFICE.

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1. I propose in this paper to give you a short account of the work accomplished by the International Labour Office in the sphere of labour statistics since its foundation in 1920 with special reference to the subject of wages. This latter subject, apart from being the most important of all branches of labour statistics, is the one in which the most progress has been made; I also thought that the subject of wages would be of special interest to this Society in view of the recent publication by your Department of Industry and Commerce of what has been described as "a first attempt to fill a serious lacuna in the national statistics."

2. One of the duties imposed on the International Labour Office by the Peace Treaties was "the collection and distribution of information on all subjects relating to the international adjustment of conditions of industrial life and labour."¹ For this purpose it was obviously necessary to know what are the conditions of life and labour in the different countries, and the collection of statistics was thus one of the first duties of the office. The use to be made of such statistics was primarily to help the International Labour Office in solving the problems with which it was faced, viz., the regulation and improvement of conditions of labour and for this purpose it was necessary not only that statistics should exist but that they should be as far as possible internationally comparable. This question of comparability is of greater importance in the international sphere than in the national one, since in the former we are dealing mostly with place comparisons, while in the latter we are dealing also, though not wholly, with time comparisons. It is quite possible for example to compare the accident rate from year to year in a country, although the statistics are admittedly incomplete, or to compare the changes in the cost of living in a country even if the figures are based on partial data, so long as the degree of incompleteness or partiality remains the same from year to year; but it is impossible to compare the accident rate or the relative cost of living between two places without having some guarantee that the scope and methods of compilation of the statistics are uniform. Accident rates in one country where the waiting period is one week cannot be compared with accidents in another country where the waiting period is two days,

¹ Cf., e.g., Article 396 of the Treaty of Versailles.

though national time comparisons can readily be made in each country. Hence arose the obsession of the International Labour Office for international comparability or what we call international standardisation.

3. This necessity showed itself in the earliest days of the life of the Office, and in 1923 a first International Conference of Labour Statisticians was held for the purpose of considering certain aspects of this question. The object of these Conferences, of which five general ones have been held, in addition to a few of a special character, was to bring together the practising statisticians of the different countries for the purpose of discussing the best methods of drawing up statistics on various subjects connected with labour. They were purely voluntary conferences; the recommendations adopted in no way committed governments. Their aim was primarily to point out the general lines to be followed in labour statistics and to make suggestions as to the directions in which improvements should be made when opportunity arose. The subjects dealt with at these Conferences have been industrial accidents, the classification of industries, wages and hours of work, cost of living index numbers, employment and unemployment, methods of conducting family budget inquiries, strikes and lockouts and collective agreements, and a special conference was also held to deal with a subject which is not strictly speaking a branch of labour statistics, viz., emigration and immigration. Thus almost the whole field of what is usually covered by the term labour statistics has been covered.

4. There is no doubt in my mind that the work of these Conferences although they were merely consultative has had its effect on national statistics. A comparison of the statistics available on the above subjects now as compared with those available in 1920 shows that there has been a big advance, and though it would be absurd to claim that it is entirely or even largely due to the work of these Conferences, and of the International Labour Office in following them up, yet from our correspondence with the statistical offices, from our personal contacts with statisticians by visits to their country (of which the present occasion is a happy example) and by their visits to Geneva, and also indirectly, the work of the Office has, and continues to have, good effect.

5. In case you think my opinion is a biased one, I should like to quote from the report of the Conference of British Commonwealth Statisticians held at Ottawa in 1935. In the Section dealing with labour, the report says:

“ The International Labour Office, besides undertaking the actual collection and publication of statistics on these subjects, has assiduously endeavoured to promote international co-operation in the formulation and adoption of uniform methods of compiling such statistics, notably by convening, from 1923 onwards, a series of International Conferences of Labour Statisticians, at which almost the whole field of labour statistics has been reviewed and agreement reached on a wide range of recommendations. The decisions of these Conferences have in no sense been binding on the Governments represented, and have

as yet been only partially applied, but they have already exerted a marked influence in securing a fuller measure of international comparability, and it may reasonably be anticipated that, as and when conditions permit, further progress towards their general application will be made in the future. The discussions at this Conference revealed general agreement with the **broad principles** formulated in the resolutions of the various International Conferences of Labour Statisticians, and appreciation of the work of the International Labour Office in this sphere."

I might add that the resolutions on statistical methods adopted by this Conference, at which eight countries were represented, largely followed those of the International Labour Conferences.

6. The scope of the recommendations made on the different subjects, however, differs considerably. In some cases a full detailed plan for compiling statistics is given, as, for example, for statistics of industrial disputes and accidents; in other cases a less detailed programme is given, or what might be termed a maximum and a minimum programme (*e.g.*, wages and hours of work); those on industrial accidents are drawn up primarily for factory accidents and rather neglect the special problems connected with mining, railway and shipping accidents, and so on; and it has now become obvious that the recommendations require to be amended or amplified in certain directions. Some of them, we have discovered from experience, have turned out to be of little international importance, *e.g.*, the statistics of collective agreements, and of industrial disputes. The International Labour Office has never been asked to make international statistical comparisons on these subjects, nor have the statistics been required for use in drawing up international conventions. The statistics of industrial accidents is another subject which somewhat to my astonishment has never aroused much interest from the international point of view, except perhaps as regards coal mining. The two subjects on which there has been shown considerable interest are those of unemployment (including employment) and of wages. The former subject is one which gives rise to many interesting problems both nationally and internationally, but it is the subject of wage statistics to which I wish to devote my attention.

7. This subject, to judge from the interest taken in it, overshadows all others. Governments employers and workers, in connection with all the questions of social reform which come up at our Conferences, are all interested in this subject. This is not unnatural, as wages are a vital factor in international competition and are the chief source of information on the standard of living of the workers. Of the statistical publications of the Office—the Year-Book of Labour Statistics, and other special volumes—the space devoted to statistics of wages and hours equals that devoted to all other subjects put together. I have already indicated in my opening remarks that the Irish Government has recently taken a special interest in this subject; and a further reason for devoting special attention to wages is that one of the subjects on the agenda of the forthcoming session of the International Labour Conference in June, is the possibility of an international convention on the statistics of wages and hours of work. As the result of a further Conference of Labour Statisticians held

in September, 1937, this subject is, therefore, particularly suitable for discussion, and I shall devote the rest of my paper principally to the work of the International Labour Office in this field. As I have already stated, the methods of compiling statistics on wages and hours of work was dealt with at the first Conference of Labour Statisticians called by the International Labour Office in 1923, 15 years ago. The resolutions adopted provided for the compilation of three types of wage data, which I shall call briefly rates of wages; earnings; and index numbers of wage changes. Each of these I shall touch on briefly.

8. It is not necessary before this Society to explain the difference between rates and earnings. Each of them has its uses and advantages, and the Office has always made a clear distinction between them in all its statistical publications. Some countries, *e.g.*, Great Britain, compile comprehensive information on time rates, and at frequent intervals, while the information on average earnings is less comprehensive or less frequent. Other countries, *e.g.*, the U.S.A., are in the reverse position, *i.e.*, information on earnings is comprehensive and frequent, while that on rates is meagre. The term "average earnings" is, however relatively unambiguous, while that of "rates" is much less so. Our experience of this was shown when the Office conducted an international enquiry into wages in different occupations in various countries. This inquiry (which was started by the British Government in 1923 and subsequently transferred to the International Labour Office) was into the rates of wages in 30 selected occupations in the principal towns or capital cities. The origin of the inquiry was to obtain comparable information as to the hourly rates, or the "price of labour," and to use it, by means of statistics of retail prices, to obtain international indexes of real wages. We found, however, that these rates were described sometimes as minimum rates, sometimes as standard rates, sometimes as current rates, sometimes as predominant rates.

9. In some countries, the term "time rates" means the rate, fixed usually by collective bargaining, which is paid to all workers or to the great majority of workers in an occupation. •Certain employers may pay above this rate, but on the whole each job has its recognised rate of pay. This is to a large extent the British and the Dominions conception.² In other countries, the conception of a rate is that of a *minimum* rate, and, in *e.g.*, collective agreements, it merely indicates that of the parties to the agreement employers will not pay nor workers accept less than this rate. Employers are, however, free to pay higher rates and in practice appear in some cases do so. Some indications on this can be seen from the statistics of those countries which compile both rates *per hour* and earnings *per hour*. Where there is little or no overtime, these two, if they relate to the same workers, should be approximately equal, since the hour, unlike the working week, is a unit of fixed length. If, however, the statistics of a country such as Sweden are examined, it will be seen that hourly earnings are in some cases much higher than hourly rates. This is to some extent due to the inclusion in the earnings' figures of piece-workers, of overtime payments, but also,

² See in this connection, the resolutions on wages statistics adopted by the Conference of Commonwealth Statisticians, Ottawa, 1935.

it is alleged, to the fact that time rates as fixed by agreement, legislation, etc., are exceeded in practice. There is again a third group of countries, and some of them important industrial countries, in which collective agreements fixing rates of wages are still comparatively undeveloped and individual contracts between the employer and employee are very common. These differences in the different countries will enable you to appreciate the difficulties in making international comparisons of time rates.

10. The problem of comparing statistics of rates of wages is thus from the international point of view primarily that of knowing how far they are truly representative. I say "from the international point of view", since from the national point of view, especially that of comparing changes, in time, this problem is of less importance. The degree to which the rates quoted are representative of actual rates varies from country to country, and there is no direct means of estimating the exact relation between the two, since it is impracticable to compile statistics of every rate in each occupation. The best method is the one I mentioned above, viz., to compare rates per hour with earnings per hour, or rates for a full time week with actual earnings for a full time week. This involves considerable difficulties. Rates are usually available by occupations, while earnings are usually compiled by industries, and often include overtime and other payments. This question of the relation between rates and earnings is thus of importance, especially when international comparisons are to be made: it was not dealt with at all by our first Conference of Statisticians in 1923, but was discussed by the 5th Conference of Labour Statisticians in 1937, and it is one to which the International Labour Office proposes to devote more attention in the future. Some information on these lines has, in fact, been compiled for Germany and Sweden.

11. The terminology used in the different countries to describe rates of wages is somewhat confusing and even the same word, e.g., minimum does not have the same meaning. In one case it may mean a minimum which it is stated by the statistical authorities is generally exceeded; in other cases it may mean one which it is stated is rarely exceeded. In Great Britain, the general term used to cover time rates is *standard rates*, but the actual terms in usage are extremely varied. Even the rates quoted by the British Ministry of Labour represent in a varying degree the actual conditions, and the volume they publish on "Standard Time Rates" says in the Preface: "It should be observed that the rates and hours shown are not necessarily those actually predominant in the occupations and districts covered by the tables". In an appendix to this paper, I have gone into the matter in somewhat greater detail and I give a list of about 30 different terms used in Great Britain to describe time rates of wages, as well as some of the terms used in certain foreign countries.

12. In countries in which rates of wages are standardised to an even less extent than in Great Britain, the difficulties of obtaining figures which can be compared internationally are very great. Some indication of the difficulties will be appreciated by those here when I refer to the recent publication of your Department of Industry and Commerce, which quotes rates of wages for lorry drivers in Galway varying from 9½d. to 1s. 2d. or half as much again. In other cases

the publication frankly states: "For certain occupations in some districts there are no recognised standard rates of wages".

13. These observations on the difficulties of time rates relate primarily to the making of international comparisons: and from the point of view of the International Labour Office these are of chief importance. The compilation of wage statistics, however, has another object, viz., to enable the fluctuations in wages within a country to be followed over a period of time by means of index numbers and rates of wages are very valuable for this purpose. They can be compiled more frequently than earnings, and can be readily kept up to date. Rates of the various types mentioned above, whether minimum standard, typical, etc., move, more or less, in sympathy with each other, and as long as the categories of workers covered are the same from year to year, index numbers, whether for showing changes in a particular industry or for showing changes in the *general* level of wages can be computed satisfactorily from selected or incomplete data. If the object of the index numbers is, as is usually the case, to measure changes in *all* rates it is, however, essential to include changes not only in time-rates but also in piece-rates. No mention has been made by me hitherto of piece-rates since, though an important proportion of wage-earners are remunerated in this way, they do not lend themselves as such to statistical compilation. When, however, *changes* in rates of wages as a whole are being measured, it is essential that changes in piece-work prices should be taken into account, especially for industries such as the textile and mining industries in which piece-work is common. I was very interested to see, in this connection, that the Irish Department of Industry and Commerce has just compiled an index of rates per hour covering 23 industrial occupations. It states that particulars for piece-workers are not generally available, although piece-work is quite common in certain occupations. If it were possible to include such changes in the future, the value of this index would be increased and it would be more comparable with the British and other indexes of rates of wages. On this subject of index numbers, I propose to speak further later on, after I have dealt with the subject of earnings.

14. When we come to earnings we are relieved of one chief difficulty connected with rates: they are *actual* earnings, not minimum, standard, current or typical earnings. They are also *average* earnings, and relate usually either to an hour or to a definite pay-period, e.g., a week; *annual* earnings are in a special category to be referred to later. "Average actual earnings per week" is, therefore, a phrase relatively free from ambiguity and it might be considered that comparisons of figures of this kind could be made between different countries without much difficulty. But there are still considerable difficulties ahead of us. First, we must be sure that the term "earnings" is used in a uniform sense, that is, that it includes, e.g., cost of living and other bonuses; family allowances (which are important in some countries); the value of payments in kind, etc.; second, that the figures relate to the same category of workers, so that figures for adult males are not compared with figures for males (i.e., adults and juveniles) or that figures for males are not compared with figures for males and females together. Even if these conditions are satisfied, there is still the possibility that the figures are not equally representative. This

is a difficulty somewhat similar to that I referred to in connection with rates. Suppose we have a uniform definition of earnings and that two countries give the average actual earnings for a definite group, viz., those "in March, 1938, of adult males over 21, in the engineering industry in the capital city of two countries," how can we be certain that the differences found are due to real differences in earnings and not to what statisticians call "fluctuations in sampling". For in both of these countries, it is highly improbable that *all* the workers coming into the scope of the above description were covered. In one case, the information may have been obtained by a compulsory inquiry, in the other by a voluntary. In one case, small establishments may have been excluded—this happens even when compulsory powers exist—in the other, included. In one case, there may have been a tendency to include the better employers especially when the returns are confined only to those willing to supply information. There are no means of overcoming this difficulty, and international comparisons must, therefore, be made with caution. What the International Labour Office endeavours to do is to encourage the countries to base their returns either on all establishments or on a representative selection of establishments in a particular industry, and, in the case of general averages for industry as a whole, to base their data on a wide and representative selection of the principal industries.

15. I have spoken hitherto of average earnings, usually averages per week, but while these are of interest, they are not sufficient. Both the word "average" and the word "week" require further discussion. Some poet wrote that he was "sick of idle words:

Words that weary and perplex, and ponder and conceal".

Perhaps he had the word "average" in mind when he wrote this. They may "weary and perplex" the schoolboy and sometimes others; they certainly "ponder", especially if we remember that to ponder means to weight (*pondérer* in French); and whether weighted or unweighted, *pondérés* or non-*pondérés*, averages certainly "conceal". Two different series of figures may have the same average and this average conceals the difference between the two. Averages are, therefore, of limited value without some knowledge of the distribution about the average. The resolutions of our first Conference in 1923 made no reference to this question, and few countries compile data of this kind, but more attention is now being given to this matter.

The Conference of Commonwealth Statisticians in 1935 attached importance to this question, and adopted the following resolution:

"In view of the fact that the lack of information relating to the numbers of wage-earners classified according to the amount of their weekly incomes constitutes one of the most marked deficiencies in the existing statistics of wages, those countries of the Commonwealth in which such information is not regularly obtained should consider the possibility of instituting enquiries, on the lines of those already undertaken periodically in certain countries, designed to provide particulars of the numbers of wage-earners in each of the principal industries, grouped according to the amount of their wages in a representative week or other customary pay-period".

The U.S.A. is one of the countries which has compiled data of this kind for several industries. Information on the distribution of earnings demands a great effort from employers since it is necessary to extract individual earnings, but it is of value to have data of this kind, for discussions of the national income and its distribution, for measurements of levels of living, etc., and I am glad to see that the Irish Government is making an attempt to compile data of this nature in its new Census of Industrial Production.

16. The second word I emphasised was that of *week*. *Weekly* earnings do not tell you how much the worker receives for the period over which these earnings *are spent*, e.g., the year. If a worker receives, say, 50s. a week, but he receives it for only 47 weeks in the year, his average weekly earnings throughout the year are (in the absence of other sources, such as insurance benefits) only about 45s. a week. If, therefore, we wish to use data of average weekly earnings for comparing the standard of living of workers in different countries (or even, for that matter, of workers in different industries in the same country), it would be very desirable to know also their annual earnings. The international wage comparisons which the Office has attempted to make are subject to serious reservations if this is not taken into account. In some cases, e.g., the building trade, hourly or weekly wages may be high, but owing to lost time, weather, etc., earnings for a longer period may be low, and workers in all industries lose wages not only from unemployment, but also while in employment from sickness, bereavement, unpaid holidays, and voluntary absences. In some countries data on annual earnings are compiled by taking the aggregate amount of wages paid by the establishments during the year and dividing this by a figure which purports to represent the number of workers. This involves technical difficulties as to what is meant by the phrase "number of workers" and how it is computed. The International Labour Office attempted to compile statistics of this kind on the basis of aggregate wages given in the Censuses of Production of certain countries, but the results were not satisfactory. The most satisfactory method, in my view, is to adopt the practice of the U.S.A., which has made several enquiries into annual earnings, viz., to obtain individual records from establishments showing the number of workers and their total earnings, classified according to the time they worked in the establishment.³ Information of this kind, i.e., the annual earnings of workers, like the other information to which I have just referred, the frequency distribution of earnings, is of great value in throwing light on the standard of living of the workers. Obviously, data of this kind cannot be compiled as frequently as those showing rates per hour, or earnings per week and they involve a considerable burden on employers but it is in these two directions that it would be of value to see earnings statistics developed in the future.

17. I have said little at present on statistics of hours of work; these, of course, form an integral part of wage statistics, since every

³ The recent American enquiry into the iron and steel industry in 1934 showed that the average number of weeks worked in the year was 46.4, and that 52 per cent. of the workers worked in each of the 52 weeks, 73 per cent. in 48 weeks or more, and nearly 85 per cent. worked in 40 weeks and more. Some of these workers working less than 52 weeks may have worked in other establishments during the year and to the extent that this is so, the annual earnings are too low.

statement of wages must state to what period of time it refers. Time rates of wages are associated with normal hours; earnings are associated with hours actually worked. The compilation of statistics of hours is usually, but not always, based on the same sources of information as those of wages, and the same method of classification, etc., can, therefore, be applied. Both of these terms, "normal hours" and "actual hours", however, may give rise to difficulties. As regards "normal hours", the sources of information on rates may not use the term "normal hours" or may not lay down in precise terms what are to be considered as normal hours: moreover, the normal hours laid down are often a *maximum*—as distinct from normal rates, which, as I have already pointed out, may be a minimum and the normal hours adopted may be lower. The practice adopted in collective agreements, etc., differs from country to country and from industry to industry, so that it is not possible to lay down a uniform rule. As regards actual hours worked, there are two possible interpretations of this figure—one refers to the actual hours worked by each individual⁴ and the other to the hours actually worked by the establishments, or the different branches. The British Wage Census of October, 1935, gives figures showing for each industry the "average hours actually worked by all workpeople" in the week considered, and they are based largely on the latter conception; the report on this Census distinctly states: "In the great majority of cases, the particulars relating to operatives working less than the full week included only those workers who were on short time as a result of arrangements made by their employers, and excluded any loss of time by individual workers due to voluntary absence from work, sickness, bad time-keeping, etc. If full account had been taken of absences of work from all these causes, the figures relating to hours actually worked would have been somewhat lower, on average, than those shown".⁵ It is not always clear what practice is adopted in different countries, but the matter is of some importance, since it affects any calculation of average earnings *per hour* which may be computed by dividing actual earnings by actual hours worked.

18. I have dealt solely with statistics of wages and, by this term, I do not include salaries. The difficulties in compiling statistics of administrative, clerical, and technical staff are much greater than those of compiling statistics of wage-earners, and an examination of the national statistics shows that there is no chance of hoping for international statistics on this subject. I have not time to go into this question, nor as to why wage statistics are often limited to the mining and manufacturing industries to the exclusion of wage-earners in transport, commercial establishments, etc. I should have liked also, had the time been available, to have discussed the question of agricultural wages, especially as here in Ireland you have considerably developed this branch of wages statistics. All I can say is that the rudimentary nature of the statistics of wages in agriculture in most countries and the question of payments in kind make it extremely difficult to compile comparable statistics.

⁴ The treatment of breaks for meals and for rest periods is also not uniform in different countries.

⁵ *Ministry of Labour Gazette*, July, 1937.

19. As regards the third subject, index numbers of wage changes, I pointed out a few minutes ago, in dealing with statistics of wage-rates, that the difficulties of comparison are considerably lessened when the object of the statistics is to compile index numbers showing changes in a country over a period of time. Index numbers of wages, whether of rates or earnings, are now compiled by a considerable number of countries, and we publish each quarter in the *International Labour Review* and also in the *Year Book of Labour Statistics*, practically all the general series which exist, and I am glad to note that it will now be possible to add a new country, Ireland. These series are of considerable value for comparisons with cost-of-living index numbers, so as to show changes in real wages, for comparison with indexes of production, of employment, etc.

20. The problems of method raised by this subject are many and, in fact, a special conference was held at the I.L.O. in 1931, which produced a valuable report on index numbers of wages. The problems involved are chiefly problems of weighting, under what circumstances one should use fixed weights or variable weights, *i.e.*, how far allowance should be made for changes in the proportion of workers in the different industries and occupations, in the proportions of men, women, and children, etc., whether the weights to be used for combining the figures of the different industries into a general index, etc., should be based, *e.g.*, on the number of workers, or on the total wages paid or on the net production or any other factor. One point, however, is of special importance at the present time. Index numbers of rates and earnings may be either indexes of hourly rates and earnings, or of weekly rates and earnings; some countries compile one, some compile the other and some compile both. At our International Labour Conferences, we have recommended that countries should always give index numbers of hours, in addition to index numbers of wages. It is possible for the hourly index to increase while the weekly index decreases or remains stationary. This is actually the case in those countries in which hours of work have changed rapidly in recent years, *e.g.*, France and the U.S.A.; in the latter country, the index of hourly wages increased by over 25 per cent. from 1929 to 1937 but that of weekly wages slightly declined. This is due to the drastic reduction of hours of work from about 48½ in 1929 to about 37 at the end of 1937.

21. The question of index numbers showing changes in the general level of wages leads me to another question. Is it possible to calculate the *general level of wages* in a country? We frequently receive requests in Geneva asking what is the general level of wages in, say, England or the United States, compared with that in, say, France, Germany or Italy. Such questions are almost impossible to answer. Most countries compile index numbers of wholesale prices or retail prices, but that does not mean that they compile the average or general price (wholesale or retail) of all the commodities covered by the index number. Similarly, for wage index numbers; it is not necessary, in calculating an index number of wages to compute the average level of wages. Some countries, however, do publish data which purports to represent the average level in money, of wages at particular dates. Germany, for example, publishes each month the average wage per hour fixed by collective agreements for skilled and for unskilled workers; the U.S.A. publishes each month the average

weekly earnings in all manufacturing industries. These series of figures are of great value for national purposes in showing whether wages are rising or falling, but for international comparisons, they are of little value, since the scope of the figures differs in the various countries. How is it possible to compare a figure in one country which is limited to manufacturing industries and to workers of both sexes, with that of another country which covers also commerce and other non-manufacturing industries, or is limited to males only?

22. Some countries possess a unique source for wage statistics in their social insurance schemes. Contributions to these schemes are not, as in Great Britain and Ireland, independent of wages but are a percentage of wages, or are fixed according to certain "wage-classes". Hence, employers are required to declare their total wages to the social insurance institution in order that their contributions may be assessed. The figures of average wages compiled from such statistics seem to show that the level of wages is generally lower than the level shown by statistics based on collective agreements, or on returns from establishments. This is partly due to the methods of computing wages for social insurance purposes⁶ but also, probably, to the fact that all establishments or all workers are covered and that branches, such as the distributive trades, in which wages are often lower than in other trades, are included, whereas in the other statistics they may be excluded altogether, or under-represented. About 20 countries compile data at regular, usually monthly, intervals, showing the "average level of wages." The I.L.O. publishes all these series in its monthly review, but we emphasise the fact that these figures cannot be used for comparing wages between countries but only for comparing *fluctuations* in wages in different countries. If wages are to be compared internationally they must relate, as far as possible, to the same categories of workers, the same definition of wages, the same units of time, etc., hence the emphasis of the Office, or the obsession as I called it at the outset, for international comparability and the necessity for this purpose of making *ad hoc* inquiries. Such inquiries are made by the I.L.O. once a year and I shall refer to them in a few moments.

23. I have spoken little so far of the statistical publications of the I.L.O. From the outset, however, the Office has endeavoured to publish the chief time series of each country; starting first with employment and unemployment and cost of living, and gradually extending it to wages and hours of work. These are given regularly in the *International Labour Review*. In 1931 we commenced the publication of a Year Book of Labour Statistics, which gives all these data for the last ten years and also series showing changes since 1929 in wages, hours and unemployment separately for the principal industries. In addition to these current time series, the Year Book contains a brief analysis of the occupied population of all countries, and of all family budget inquiries undertaken in the last 10 years, as well as tables on migration statistics, industrial disputes, total wages bill, agricultural wages, world indexes of unemployment, etc. This volume is not merely a reproduction of the series given in each country, but the Office tries to bring out as clearly as possible the nature and significance of the figures available, and to present them in such a way as to facilitate

⁶ E.g., in some cases, an upper limit of wages is fixed, above which limit no account is taken for the payment of insurance contributions.

international comparisons. Wherever possible, the economic scope of the figures is clearly indicated: an index of the general level of wages confined to manufacturing industries, is clearly to be distinguished from one covering not only manufactures but also agriculture, mining and transport, which may show different movements. Statistics of unemployment, based on a few trade unions, as in Canada, are to be clearly distinguished from those based on compulsory unemployment insurance as in Great Britain. Moreover, a standard list of 25 industries has been drawn up by the Office, which for convenience has been given the letters A to Y, and the industrial statistics of all countries are regrouped so that the industries conform as far as possible to this list, and they are all given in the same order. Finally, all national index numbers, *e.g.*, those of cost of living, of wages and of employment, are recomputed by the Office on a uniform base (1929=100) so that the fluctuations in the different countries and between different phenomena (*e.g.*, wages and cost of living) can be readily compared.

24. In addition to these current statistics, the Office undertakes special inquiries, especially into wages in the textile industry, the coal-mining industry, etc., and also an *annual* inquiry into actual wages and hours in a selected list of occupations in the principal towns of all the chief countries. I have already referred briefly to this inquiry, and I have copies of the results of the latest inquiry here for those who are interested. This has been one of the most successful of our inquiries, and I should like to say a few words about it as it illustrates some of the difficulties to which I have called attention above. A list of about 30 occupations was drawn up, so selected as to be well-defined occupations, which exist in nearly all countries, such as fitter, bricklayer, baker, compositor, etc., and countries are invited to give the wages and normal hours for adult males in the principal towns in each of these occupations in October of each year. Both rates and earnings are asked for. Where weekly figures are given, the Office converts them into hourly wages. Nearly 25 countries, covering over 80 towns, collaborate in this inquiry, and the figures are in several cases compiled specially for the International Labour Office and not to be found in the current statistical publications of the country concerned. Thus, for Ireland, I think I am correct in saying that until this year, the only source of information on the rates of wages in the chief occupations in Irish towns was the *International Labour Review* of the I.L.O.

As will be seen from an inspection of this publication, the figures are not strictly comparable though as near as it is possible to go at present, and the number of footnotes it is necessary to append is almost as great as the number of figures! Nevertheless, this inquiry is almost the only source of information at the present time on comparative wages in different countries, and as the data relate to a definite type of worker, in certain defined occupations in certain towns and for a uniform date, they are free from many of the objections raised above. I should add that we also obtain retail prices of the chief commodities at the same time and for the same towns, and it is thus possible to make rough comparisons of purchasing power of wages, or real wages.

25. I have tried in this paper to show the importance of statistics of wages to the International Labour Office, and the relative value of statistics of rates, statistics of earnings and of index numbers of wage changes. Rates are of importance in showing the price or cost of labour, and also, in the absence of particulars on actual earnings of the amounts paid for a normal pay-period. Earnings are of importance in showing what the worker actually receives at the end of the week, but average earnings need to be supplemented by information as to the distribution of earnings and as to annual earnings, if we are to have adequate information as to the workers' standard of living.⁷ Rates of wages are also of value for the compilation of index numbers, which may be compared with price index numbers (for showing changes in real wages), with index numbers of productivity and other indexes. I have also tried to show that, for the purposes of international comparisons of wages at a given date, it is necessary to have more precise and more detailed information than is necessary for the purpose of national comparisons in time and hence the continuous activity of the Office in trying to standardise national labour statistics. I am not one who believes that it is possible to draw up uniform rules for the compilation of statistics nor that if such rules are drawn, they will be uniformly interpreted. Each country must be allowed to develop its statistics on its own lines, taking into account national traditions and characteristics, but this is not to say that there are not general recommendations for compiling statistics, which can be laid down as a goal towards which countries may direct their efforts. Statistics of wages and hours of work are very suitable for progress in the sphere of standardisations. Unlike statistics of unemployment, accidents, etc., which often arise out of the administration of some Act of Parliament, their scope and definition are independent of legislation and their development will help the International Labour Organisation considerably in its work of bringing about improvements and adjustments in the conditions of labour.

SOME TERMS USED IN OFFICIAL STATISTICS, ETC., DESCRIBING TIME RATES OF WAGES.

GREAT BRITAIN.

- Rates *recognised* by employers' associations and trade unions.
- Rates *agreed* upon by employers' associations and trade unions or by single firms and trade unions.
- Rates *determined* by collective agreements, awards, etc.
- Rates *actually paid*.
- Rates *recognised* by trade unions (engineering, etc.).
- Rates *generally* recognised by employers' associations.
- Basis, basic or base* rates (coal mining, iron and steel).
- Basic minimum* rates (vehicle building).
- General minimum* time rates (Trade Board orders).
- Guaranteed* time rates (ditto).
- Minimum* rates (paper, docks, etc.).
- Datal* rates (coal mining).
- Standard* rates (shipping, railways).

⁷ As was pointed out in the discussion, *family* earnings are of chief importance in this connection. This subject is not dealt with here, as it forms rather a branch of family budget statistics than of wages statistics.

- Piece work* basis time rates (Trade Boards).
- Rates *legally enforceable* (Trade Boards Acts).
- Subsistence* rates (coal mining).
- Statutory minimum* rates (Agricultural Wages (Regulation) Act).
- Legal minimum* rates (coal mining).
- Predominant* rates (shipping).
- National uniform* time rates (shipbuilding).
- Majority* rates (engineering).
- Standing* wages.
- Rates *fixed* by decisions of Industrial Court (railway shops).
- Rates *quoted* by various undertakings (public utility and local authorities).
- Rates of wages *prevailing* (Trade Boards Act, 1909).
- Rates of wages . . . *commonly recognised* by employers and trade societies; or in the absence of such recognised wages, those which in practice prevail amongst good employers in the trade, etc. (Fair Wages Clause).
- Rates of wages . . . *generally observed* by agreement between associations of employers and employees, or failing such agreement those *generally recognised* in the district by *good employers* (Unemployment Insurance Acts, concerning refusal of suitable work).

SOME TERMS USED IN OTHER COUNTRIES ARE:—

U.S.A.

- Trade union rates.
- Union scales.
- Entrance rates (common labour).

CANADA.

- Predominant rates.
- Prevailing rates.
- Rates secured from representative employers.

AUSTRALIA.

- Basic rates.
- Prevailing rates.
- Minimum rates.
- Ruling union or predominant rates in cases where no agreement was in force.

NEW ZEALAND.

- Minimum weekly rates.

SOUTH AFRICA.

- Legal minimum rates.
- Actual rates.

GERMANY.

- Minimum rates under collective agreements (Mindesttariföhne).

BELGIUM.

Current (taux courants).

FRANCE.

Normal hourly rates most frequently applied (salaires horaires normaux, évaluation approximative du taux le plus fréquemment appliqué).

DISCUSSION.

Professor G. O'Brien, proposing a vote of thanks to Mr. Nixon, congratulated him on the excellent work being done by the International Labour Office in the field of international statistics, which were of the greatest value both to the student of economic theory and the administrator and man of affairs. It could not be too strongly emphasized that successful work of the kind undertaken by the International Labour Office depended on the collaboration of the various national statistical departments, and it was satisfactory to know that at all times the most cordial relations existed between the International Labour Office and the Irish Statistics Office. The result of listening to Mr. Nixon's paper was to generate healthy humility in view of the great difficulties which were experienced in the collection of these statistics. Such a frame of mind would prevent the economist from rushing into unwarrantable conclusions in the interpretation of these statistics. Even assuming that the most perfect statistics were available, it had to be remembered that most statistics in themselves were not a complete measure of the standard of living. In modern times the working classes enjoyed a considerable amount of free income by way of social services and, provided that those services were not paid for by the taxation of the recipients, they constituted a valuable addition to the income of the working classes. Moreover, the size of the average family was relevant in determining the standard of living. On the one hand, members of the family may contribute to the family income, while on the other hand changes in the size of the number of dependants affect the standard of living which can be secured from a given monetary income. The hours of work were also relevant in this connection, inasmuch as many workers preferred to take their increase in the standard of living in greater leisure than in greater money income. The reference to hours in Mr. Nixon's paper also reminded them that wages were not a complete measure of the cost of labour to the employers. High wages which were the result of efficiency were an unmixed blessing, whereas high wages caused by trade union action and monopolistic practices might constitute a serious hidden danger. In order that wages might serve as an adequate measure of the cost of labour, some index of productivity in work was essential. Concluding, Professor O'Brien stressed the point that the wages statistics applied only to a part of the total working class population, and said that in Ireland, for example, the greater proportion of those engaged in agriculture were not paid in money wages.

Mr. Stanley Lyon (Director of Statistics Branch, Department of Industry and Commerce) said he feared after the discourse they had listened to from Professor O'Brien that his effort in seconding the vote of thanks to their distinguished lecturer would be a feeble one. It gave him more than usual pleasure to welcome Mr. Nixon to their meeting. He had the pleasure of knowing Mr. Nixon for many years—since 1925—when he first attended a conference of statistical officers in Geneva. Since that time he was certainly impressed by the great work on the statistical side which had been done by the International Labour Office. Mr. Nixon had succeeded eminently in the office which he holds, and his work and that of the subordinate officials in his department was reflected in the quality of the statistical reports of the International Labour Office. When statistics of unemployment, wage rates, cost of living of other countries were required, or when expert advice was wanted, the International Labour Office was always willing to help. He had to express his thanks to Mr. Nixon and his office for the assistance given to the Statistical Branch of the Department of Industry and Commerce in dealing with labour statistics. Mr. Nixon, in his paper, referred to the question of wage rates as against earnings. He (Mr. Lyon) believed that earnings were to be preferred. Reference was made by Mr. Nixon to the report recently issued from his (Mr. Lyon's) office in regard to wages. It was a first effort on the part of the office, and they were not ashamed of it, but they hoped that the next issue of those reports would be a very big step in advance. Mr. Nixon also mentioned that for some time they had been obtaining wages in certain occupations in three different towns in Ireland and also the retail prices of commodities in these towns for the International Labour Office. The fact that that office considered those returns worthy of inclusion in their International Review was a source of gratification to him (Mr. Lyon).

In the 1937 Irish Census of Industrial Production, provision had been made for the collection of earnings in every industry and for their frequency distribution in earnings groups.

The great difficulty in obtaining wage rates is the source of information. If they had in Ireland collective agreements on a large scale, there would not be great difficulty in obtaining a good set of wage statistics, but unfortunately with their scattered population, collective agreements were not very general. They, however, hoped, with the encouragement from Mr. Nixon, to be able to take further steps in that connection.

Miss Stafford said it was a great pleasure to her to be allowed to associate herself with the vote of thanks to Mr. Nixon for his interesting and attractive paper. As a member of the Society, she was glad to be able to do so, but she was more pleased also as a former colleague of Mr. Nixon in the London School of Economics. When Ireland was first admitted to the League of Nations in 1923, she had the privilege of being a member of the Government group in the delegation which represented Ireland in the International Conference, and it was a very agreeable surprise to find her former colleague in the International Labour Office. It was a still greater pleasure to her to find some years later that he had

been promoted to Chief of the Statistical Branch of the International Labour organization. She hoped that some day the League of Nations would do for the political peace of the world what the International Labour organization was doing for the betterment of the social conditions of the lives of the masses of the people. She did not wish to suggest that the International Labour organization had not been open to attack and had not been attacked. It had been attacked, and those who were familiar with the atmosphere of Labour Conferences know how vehemently the International Labour Office was attacked, on the one side, by employers for going too fast, and by the employees for going too slow on the other. She was rather surprised to hear Mr. Nixon state that accident statistics did not appear to make any international appeal. They certainly made a great national appeal, and she ventured to say that it was on the basis of accident statistics that regulations for hygienic and safety conditions for workers had been inaugurated in Great Britain and other countries. It was only natural to suppose that that was the case. At last year's Conference it was striking to find that, while the atmosphere around the forty hour week proposal changed with the opposition of the employers, when the question of regulations for the prevention of, or minimizing, the risk of accident in the building industry came forward, there was the most cordial co-operation between employers, workers and government representatives, resulting in a very important convention. Concluding, Miss Stafford said that she heartily joined in the vote of thanks of the Society to Mr. Nixon, and to express the hope that he would visit Dublin again and give the Society another interesting paper.

Professor Duncan, supporting the vote of thanks, having briefly dealt with the former methods of compiling statistics, said that the International Labour Office had attempted to introduce some order into the work regarding which Mr. Nixon had given them a very favourable insight. One thing for which the economist and student of economics were exceptionally grateful to the International Labour Office was the pressure brought on national authorities to improve their social statistics.

Referring to the absence of a unit in piece rate, he said that unless they could assume that piece rates fluctuated in a similar manner with time rate, they would have an incalculable degree of error which would affect compilations based only on time rate.

The President joined with the other speakers in welcoming Mr. Nixon and thanking him for his interesting and valuable paper. A matter which, perhaps, was worthy of attention was that the study of wages statistics, like every other study in the economic field, had to be correlated with other matters if mistakes were to be avoided when making use of the information. What he had in mind was the danger of comparing wages rates without giving consideration to the general economic environment in which the wages were being paid and seeing that in the conditions there was an equal degree of permanence. They had seen many examples in modern times of high wages being paid for a limited period in countries, which ultimately found themselves unable to make permanent advance-

ment. In considering the more permanent aspect of international wage relations, they had to consider particularly wages in relation to the export trade of countries. When differences in standards of living and remuneration became acute they reacted on exchange activities, and, perhaps, there was no purpose for which international wages statistics had more direct practical value than in estimating the manner in which they were likely to affect the monetary systems of the countries concerned. High wages, if out of accord with the fundamental conditions of a country, would probably react on the exchange position. In dealing with wages and using them for international comparison, it would seem important to try and distinguish between wages that were paid in different classes of occupations with reference also to the different sheltered trades. He would like to know whether in the compilation of wages statistics any attempt were made in regard to distinctions of that kind, because when they came to make use of international statistics for practical purposes, such distinctions had a very great importance, and it could possibly be said that there was no country that they would be of more importance to than Ireland.

Mr. Nixon, replying to the vote of thanks, regretted that he had not more time at his disposal to enable him to prepare a more interesting paper. He was glad of that opportunity to express his thanks to the Government of Ireland for the co-operation which they had always extended in the field of statistical work. Points had been raised by some of the speakers which, he held, did not come within the ambit of his paper. He agreed it was not possible to measure statistically the standard of living in countries. At the present moment the International Labour Office was trying to hold an inquiry into the standard of living in different countries, and he had been asked to advise upon it. It was difficult to produce figures, but rough conclusions could be drawn from wages and other factors that were available. He agreed with Professor O'Brien that an important consideration in the compilation of statistics was the cost of labour. In his paper he had only dealt with wage rates used for international comparisons. Information was needed on the cost of labour production. Mr. Lyon referred to the distinction between earnings and wages, and said he preferred the latter. On the whole, he was inclined to agree with Mr. Lyon.

As to the different national attitudes towards these statistics, he observed that in America the employer was willing to allow Government agents to copy their wages lists; the British employer would not allow it.

He was in agreement with almost all that had been said by the Chairman on the economic questions raised by him. The present aspects of the situation must be given special attention. Australia had to make a drastic reduction in all wage rates in 1935 or 1936 in order to recover economic stability, and the workers accepted it, and since then the country had been slightly more prosperous.