

# PROBLEMS IN THE COLLECTION AND COMPARABILITY OF INTERNATIONAL LABOR STATISTICS

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**M**Y discussion of the subject assigned me will be limited principally to the experience of the International Labour Office in its work of standardizing international labor statistics over a period of more than a quarter of a century.

The topic assigned is labor statistics, with the two subjects employment and unemployment given special mention. This special mention is perhaps particularly appropriate in view of the emphasis placed on these topics at the sessions of the Sixth International Conference of Labour Statisticians in Montreal, in August 1947. But it should be noted that this Conference was the sixth in a series at which these and other topics of labor statistics have been considered. It may, therefore, be appropriate to review briefly the different topics of labor statistics with a view to summarizing their status in regard to international comparability before coming to the detailed discussion of employment and unemployment statistics.

But first a word should be said in regard to the general problem of international comparability. International comparability may be obtained in general by unification of the various statistical concepts, definitions and operations—to use a picturesque expression—“from the bottom up” or “from the top down.” The method of unification “from the bottom up” is that adopted within any one jurisdiction to obtain uniform statistics and includes the adoption of identical statistical forms, the adoption of identical procedures, identical interpretations of crucial terms, and unified or identical tabulations, with the result that the statistics obtained will be for all practical purposes comparable. If the method can be extended over more than one jurisdiction so that identical forms and procedures, etc. are followed, comparability can be considered to be

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achieved for such statistics. This method is not usually feasible, however, in international collections. On the contrary, the usual approach in the problem of obtaining international comparability is to unify "from the top down." Agreement takes place, first, in the purposes which the statistics are designed to serve. This unification of purpose leads to a unification of the concepts in which the purpose is defined and it may be extended to include agreement on the precise elements and limits of the concepts. If then, in addition, agreement can be reached on technical methods, or even extended to the statistical forms and tabulations to be adopted in the technical carrying out of the purposes, the unification from the top down tends to approach the results of unification from the bottom up. The primary and essential requirement for international comparability of statistics is agreement upon purposes and concepts. An important advantage in placing agreement on this objective as the primary goal in the quest for international comparability is that it focuses attention upon the relations between the statistics gathered in the different countries and this goal. Thus, if agreement is reached on the objective of obtaining complete statistics of the unemployed, the gap between the figures of the unemployed as reported in trade unions for example and the total of the unemployed in the country becomes evident. Thus, this approach may lead to the discovery of gaps in national statistics which need to be filled in order to make the statistics conform to the objective. From this point of view, unification from "the bottom up," though stemming from identity of forms, definitions and procedures, may actually fail to obtain the true objective if the figures as collected are themselves not wholly satisfactory.

An illustration may make these points clearer. Thus, in the field of migration statistics, with which Mr. Lacroix is dealing at length, the fundamental objectives and concepts are reasonably clear. Agreement upon these should be easily reached. But in many cases, the sources available in national statistics may fall short of fulfilling the recognized purpose. Thus, in a

country which depends for migration statistics upon statistics of arrivals and departures at the seaports, arrivals and departures by air may be left out of the reckoning, or, if it is a continental country, arrivals and departures over the continental border may be neglected. The adoption of identical forms, procedures and definitions, no matter how thorough, if limited to arrivals and departures at seaports, will leave obvious gaps in the statistics, and such data will fail to fulfil the purposes of migration statistics. These gaps appear most obvious when international comparisons are sought. Agreement upon purpose and on the concepts which embody this purpose is evidently of prime importance for international comparability of statistics.

The goal pursued by the International Labour Organisation in its standardization of labor statistics has therefore been in first instance to obtain agreement upon objectives and on the concepts and definitions which embody these objectives. This objective is sought through the International Conference of Labour Statisticians in which the representatives of governments who have the leading official positions in the field of labor statistics come together to discuss these problems of international comparability. For these meetings the Office prepares documentations on each of the topics of the agenda, in order that the discussion may be focused upon specific proposals, and presents a series of resolutions for the consideration of the Conference. After discussion and consideration of the various problems involved, the Conference adopts resolutions embodying its recommendations to serve as international standards for statistics in these fields.

The first of these International Conferences was held in 1923 and considered the subjects of the classification of industries and occupations, wages and hours of work and industrial accidents; the second held in 1925 took up cost of living index numbers, unemployment and real wages; the third, in 1926, considered family budget inquiries, collective agreements, and industrial disputes. A fourth Conference, in 1931, was devoted to the subject of international comparison of real wages. A

fifth Conference, in 1937, proposed a Convention concerning the statistics of wages and hours of work which was subsequently adopted by the Twenty-fourth International Labour Conference in 1938. The Sixth International Conference of Labour Statisticians held a year ago in Montreal had on its agenda the topics of employment and unemployment statistics, cost of living statistics and statistics of industrial accidents. The agenda of a Seventh Conference, in October 1949, includes four topics, the classification of occupations, wages and payroll statistics, methods of family living studies, and labor productivity.

In all these different topics, thus briefly mentioned, except the classification of industries, the approach to international standardization may be characterized as "from the top down." With regard to the classification of industries, the approach is from a different direction. In this case agreement appears to be reached more easily in terms of specific industry groups than in terms of general objectives. A classification of industries has been adopted by the United Nations Economic and Social Council upon recommendation of its Statistical Commission. It is proposed to develop the classification further by drawing up a detailed list of industries showing their allocation to specific industry groups.

Of the other topics, other than employment and unemployment to which I return later, three deserve special mention.

With regard to cost of living index numbers, agreement as to purpose has in general been reached. The concepts are clear. There is likewise a fair degree of uniformity in technical methods. Practically all countries use the method of the weighted aggregative index numbers. In details, great diversity is to be found. The selection of goods to be priced, methods of weighting, methods of collecting prices, etc. are not uniform. These tend to be brought nearer together by the adoption by one country after another of technical methods which have proved useful in practice in one or another country. Questions of black market prices and during period of rationing, problems of ad-

justing the index to take account of the insufficiency of the rationed allowances to meet acceptable living standards are among the problems still requiring attention.

So far as family living studies are concerned, substantial agreement has been reached on the basic objectives. The problem of selecting families for study and the application of sampling techniques is in the foreground of interest. A second important question of technique is the relative advantage of interview as against the account book in the procedure of collecting information, in regard particularly to the reliability of the results.

The question of consumption scales illustrates the issues to be faced in seeking international comparability. The idea of consumption scales is to reduce families of different sizes to a common unit for purposes of comparisons on specific points. These points on which comparisons are sought include calorie requirements, protein requirements, requirements for specific minerals and vitamins, as well as economic requirements for food, shelter, clothing and all items. Analysis of these requirements leads to the conclusion that separate scales are required for each purpose, and further, that the elements of international comparability, especially in the economic scales, must be sought in the purposes, rather than in the specific scales themselves.<sup>2</sup> A calorie scale for a European, for example, may conceivably be different from that for a person belonging to a short-statured race, as the calorie requirement for the adult male is different in these two cases. An economic scale which includes elements which depend upon local prices may obviously be different in one locality from that of another locality with different prices. In such cases, the essential comparability must rest in identity of purpose rather than in identity of the scales.

A third field is that of wage statistics. In this field, agreement must be reached at the outset on the objectives of wage data:

<sup>2</sup> See Woodbury, Robert Morse: *Economic Consumption Scales and Their Uses*. *Journal of the American Statistical Association*, December, 1945.

whether rates or earnings, whether for a larger or smaller range of industries, whether for each sex separately, for specific occupations and industries, etc. For useful results, the material must be analyzable into categories and classified in such a way as to furnish a basis for comparability. Thus, international comparisons of wages or earnings may require a classification by sex, industry, and occupation. The amounts of earnings must include similar elements in each case, namely, to show the total amount earned by the individual concerned, including employees' contributions to social insurance, special bonuses, and similar receipts and allowances, properly credited to labor.

In the field of wage statistics, the Fifth International Conference of Labour Statisticians recommended a Convention with certain minimum specifications for wage statistics which could be ratified by the different countries, and then would represent the acceptance by the ratifying country of an obligation to compile wage statistics along these lines. This is a procedure to extend the adoption of an obligation to compile data in a specific field in accordance with certain specified minimum standards. An examination of the results of this procedure is being made with a view to appraising its usefulness.

Turning now to the two fields specially mentioned for the present paper, the basic objective, in unemployment statistics, is the definition of the unemployed person. This should properly include all persons who are not at work and are looking for work. It excludes those on strikes, those who are ill and unable therefore to accept work if offered. It includes persons looking for work even though they may not have been previously employed.

The International Conference of Labour Statisticians meeting in 1925 considered this question of unemployment and in its resolutions included a general statement on the ideals to be sought in the statistics. The differences between the definitions which were described as ideal and the definitions adopted in practice under the different technical methods used to obtain figures on the unemployed were striking and considerable. The

resolutions adopted by the Conference expressed preference for certain types of unemployment statistics. In the first rank were unemployment statistics derived from unemployment insurance records, then statistics derived from employment exchange records, and finally the statistics of trade union funds or trade unions. It may be noted that the basic element in the definition of the unemployed included as an indispensable and sufficient condition that the person should be unemployed for at least one day.

The Sixth Conference returned to the subject of unemployment statistics in conjunction with statistics of employment. In the light of more recent developments the relative value of the different sources of unemployment statistics was differently appraised. The newly developed labor force sample surveys were recognized as sources of the first importance. Statistics based on the records of employment exchanges where these latter are not connected with an insurance scheme were considered subject to such reservations that, by implication, they could rank only after trade union statistics of unemployment. In the discussions at this conference employment and unemployment statistics were placed in close relation to each other. The two combined represent the labor force. The resolutions adopted were intended to cover not only current series of employment and unemployment but also bench-mark data derived from census and other general surveys.

From an international point of view, the agreement on the concept of labor force was especially significant. This concept replaces the other concepts associated with the terms "gainfully occupied" as used in the English speaking countries and "active population" as found in countries using French or Spanish. The concept of "labor force" as popularized also in the term "manpower" appears to supply the basic idea upon which agreement can be reached. This concept is defined, further, in specific terms to include the employed and the unemployed. A person is considered employed in this sense, if he is occupied as employer, a person working on his own account, as

employee, or as an unpaid family worker. Thus, in place of the old term "gainfully occupied" which was always interpreted to include the unemployed—who are neither occupied nor receive gain—and was usually interpreted to include the unpaid family worker also, a new term "labor force" with its clearer concept is substituted. Similarly, the old term "active population," which was usually, though not always, interpreted to include the "unemployed" is replaced by the new term which clearly includes the unemployed as well as the employed.

The adoption of the concept of labor force should bring about a greater degree of uniformity in the statistics on this topic whether census data on employed, unemployed or labor force, or series showing changes from time to time in this important economic sector of the population.

This is supplemented by specifications of the terms in certain definite cases. Thus, in the labor force and among the employed are counted employers, persons working independently, wage earners and salaried employees, and unpaid family workers. Excluded from the labor force are students who have no remunerative occupation, housewives, persons who are sick or incapacitated. It is hoped that with agreement on these concepts as thus defined and illustrated by specific cases that the statistics on this topic will in the future be compiled and collected on more comparable bases.

Subsequent to the meeting of the Sixth International Conference of Labour Statisticians, the Statistical Commission and Population Commission of the United Nations have also considered these questions. In particular the Population Commission considered in detail the questions to be asked in the population censuses on the economic characteristics of the population. Its recommendation also adopted this basic definition of "labor force" or the "economically active population," with the same supplementary definitions in specific cases.

There remains the question of the techniques of collection. In censuses of the labor force two different techniques are used. The first, or the so-called "labor force" technique, asks about



the actual employment or unemployment status during the week prior to the date of the census. It is thought that this form of inquiry will obtain more accurate replies, since the question relates to the week just past. The second technique asks for "usual occupation" which is subject to various interpretations depending upon the application of the term "usual." In practice, the difference between the two techniques would of course depend upon the degree of labor mobility. Where persons are employed year after year in the same industry or occupation the two questions would receive the same answer, since the occupation or industry in which the person is employed during the week prior to the census would be his usual one. On the other hand, where a considerable occupational mobility exists, the inquiry as to the actual employment during the week prior to the date of the census should obtain a much more accurate and detailed picture of employment conditions; in such a case an inquiry as to the usual occupation may merely raise confusion. In certain respects, furthermore, notably in the case of seasonal work and in the case of partial employment, the question relating specifically to a particular week should obtain much more satisfactory data than the question as to usual occupation. In the United States and Canada where the labor force technique is used, the census is supplemented by a monthly or quarterly survey of the labor force on a sampling basis and the census data thus tie in with these monthly estimates since both are taken on the same basis. For countries like the United States and Canada, the labor force technique is considered to represent a substantial advance in accuracy and precision in the picture of the labor force over what was obtained by the technique of the "usual occupation" question.

It should be emphasized, however, that the objective, namely to give a true picture of the labor force, that is the employed and unemployed available for work, is the key to international comparability of statistics on this topic.

One further fact might be emphasized, with especial reference to the unemployed. A question asked at the census with

regard to "usual occupation" does not give good results on the amount of unemployment. To secure data on unemployment, the reference should be made for a specific period, at the date of the census or just prior to it—the shorter the better. Statistics of persons who are out of work and are looking for work as thus obtained should be comparable with other data obtained in a similar way by labor force sample surveys, and with other data with similar minimum definitions as to the length of employment. Thus, this technique should not only improve the data on the unemployed, but by definitely including them as a part of the labor force and providing means for their enumeration, should improve substantially the return of this sector of the economically active population.

This discussion leaves out of account many interesting and important developments. Thus as to the classification of persons in the labor force, a standard classification of industries has been adopted by the UN Economic and Social Council on the recommendation of the Statistical Commission, as already noted; a standard classification of occupations is being elaborated by the International Labour Office and will be considered by the Seventh International Conference of Labour Statisticians; a standard classification according to industrial status was considered by the Committee of Statistical Experts of the League of Nations and by the Sixth International Conference of Labour Statisticians. Problems of tabulation of results were considered in some detail by the Sixth International Conference and their recommendations are embodied in the resolutions adopted by that Conference.

Thus remains, finally, the question as to the adoption of these recommendations by the different countries. This is a question for the future to answer; it may be noted, however, that the substantial agreement between the recommendations of the Sixth International Conference of Labour Statisticians and the Population Commission, and it is to be hoped, of the Committee of the 1950 Census of the Americas, will result in a substantial improvement in the comparability of labor statistics.