Employment Data for the Measurement of Living Standards
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Employment Data for the Measurement of Living Standards

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EMPLOYMENT DATA FOR THE MEASUREMENT OF LIVING STANDARDS

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. LINK BETWEEN INCOME AND EMPLOYMENT DATA</td>
<td>1–7</td>
</tr>
<tr>
<td>III. ISSUES IN COLLECTING EMPLOYMENT DATA</td>
<td>7–14</td>
</tr>
</tbody>
</table>
I. INTRODUCTION

A dual relationship exists between employment and living standards: On the one hand, insufficient and unequal access to adequate employment are among the major causes of poverty and inequality in most countries; at the same time, full employment is also a means of producing the increase in output necessary to meet the basic needs of the poorer segments of the population. Thus, more adequate and better distributed employment opportunities, along with a more equal allocation of capital and a redistribution of productive resources, are essential steps in providing the poor and unprivileged with the necessary purchasing power to achieve better standards of living and produce the needed increase in output. 1/

A statistical implication of this relationship is that employment data constitute an important part of the data base necessary for the measurement of living standards. This, in turn, implies that in addition to the collection of employment data, provision should be made to link the resulting data to the other components of the data base, namely, income, consumption and items of basic needs.

Accordingly, in Section 2, some aspects of the link between income and employment data are discussed, and in Section 3, various issues regarding the collection of employment data in developing countries are examined.

II. LINK BETWEEN INCOME AND EMPLOYMENT DATA

Increasingly, countries are conducting household income and expenditure surveys and labor force surveys. In many household income and expenditure surveys, information on the employment characteristics of the population is also collected; conversely, in many labor force surveys, inquiries are also made on

the earnings and income of the population. In some countries where both sur-
veys are conducted, attempts have been made, with varying degrees of success,
to combine the two surveys or to conduct them as part of a multi-round survey
program. Most of these efforts are directed toward the integration of the sur-
veys at the operational level. At the conceptual level, however, less has been
done, even though difficulties of integration exist there as well.

One difficulty in linking income and employment data is due to the fact
that income data usually refer to the household while employment data refer to
the individual. The common practice in surmounting this problem is to relate
the income of the household to the employment characteristics of the head of
the household. The justification for this type of linkage is presumably based
on the idea that in most households there is only one earner and it is the head
of the household. Although this statement may be supported with more vigor in
developing than developed countries, the percentage of multi-earner households
in developing countries is, nevertheless, substantial. For example, for
1975/76, this percentage was 33 in Trinidad and Tobago and 26 in urban Iran.
With the increasing number of females and young persons engaged in earning
activities, one-earner households tend to decline in relative terms in many
countries. In Iran, for example, the number of one-earner urban households has
decreased from 71 percent of the total number of sample households in 1972/73
to 63 percent in 1975/76. Thus, the assumption of the majority of one-earner
households is becoming increasingly weak in these countries.

The linking of household income with the employment characteristics of
the head of household for the identification of the working poor is further com-
plicated by the fact that the composition of the number of earners per house-
hold varies with income levels. Households with multiple earners tend to be
in the higher household income brackets while households with no earners
tend to be in the lower household income brackets.

Since mixing concepts with different units proves to be difficult, one may envisage measuring income using the individual instead of the household as the basic unit. This, however, also raises problems. From a practical point of view, there is the issue of apportioning the income from work to each worker within the household in the case of unpaid family workers and own-account workers that are engaged in household enterprises. From a conceptual point of view, it can be argued that because income is often derived as a result of the joint effort of the entire household and is to be utilized jointly for the welfare of all household members irrespective of the amount of effort contributed by each member, the household rather than the individual should be treated as the unit of analysis.

Another problem in linking income and employment data arises from the use of different reference periods for collecting the information. While most labor force surveys use one week as the reference period for the measurement of employment status, household income and expenditure surveys are generally based on one-month or one-year reference periods. Relating such income and employment data assumes that the employment characteristics measured during the reference week were the same throughout the preceding year or month. There is, however, considerable evidence that the employment status of many persons may change several times in the course of the year, such that a person could be unemployed part of the year, employed during the peak season and later become unemployed again. For the United States, for example, it is reported that nearly half the people who are in the labor force at some time during the year do not fit neatly into a single labor force category. ¹/ This ratio may even be

higher in developing countries where a large portion of the population is employed in agricultural and construction activities, two sectors that are highly seasonal with respect to employment.

Shortening the reference period for the collection of income data to match the reference period for employment data may result in reflecting only a temporary situation, thus giving a distorted picture of the income-employment relationship. Moreover, for most agricultural own-account workers, the bulk of income is normally received at long intervals such as the end of a crop season which makes it difficult to ascertain the portion of the measured income that corresponds to the reported short reference period. On the other hand, the use of a longer reference period for collecting employment data to match that for income data also raises problems, some of which are discussed in the next section.

A third difficulty in linking income and employment data concerns the isolation of income from work, from other sources of income. For employees, it is generally possible to obtain satisfactory data on income from paid work. For other categories of workers, however, the situation is more complex. For example, in the case of rural household enterprises, the household normally uses productive assets such as land, machinery and tools for the generation of net income from the enterprise. Thus, even if satisfactory information on net income could be obtained from the survey, the separation of the labor income component would require an elaborate questionnaire involving many questions on productive assets and other inputs that would go beyond the scope of labor force surveys or household income and expenditure surveys commonly carried out.

The difficulties in linking income and employment data are essentially due to the fact that the labor force concepts are not designed to measure or relate
to living standards. 1/ In fact, the labor force categories (employed, unemployed and inactive) are not defined in terms of any measure of the economic well-being of the respondents. No operationally feasible set of statistics with wide acceptance exists for the measurement of the income and employment relationship. 2/ From a technical point of view, however, the discussion in this section suggests that the required statistics should involve information on the employment experience of the working age members of the household throughout the year, and on the household income and individual earnings during the reference year.

Information on employment experience should at least include whether the person was employed part of the year or throughout the year, and whether employment was on a part-time or full-time basis. The inquiry on part-year or full-year employment could be based on a more detailed inquiry regarding the number of days per week worked if possible. For persons who report to have been usually unemployed during the year, information on the duration of unemployment and also on the duration of employment whenever applicable may be collected. Similarly the information base on the inactive may include the duration of inactivity during the year and the extent to which it was combined with some earning activities.


2/ One possible exception may be the concept of disguised underemployment. Its definition, however, does not fully provide a set of operational resolutions. International Recommendations on Labour Statistics (Geneva: International Labour Office, 1976).
The matching information base on income may be divided into two parts: household income and individual earnings. Household income (adjusted for household size and composition) is interpreted to be a characteristic of an individual in the sense that it provides information on the economic status of the family to which the individual belongs. Thus, a part-time worker with low earnings may still enjoy a high standard of living if his or her family's economic status is high. Household income is to be measured on an annual basis, although for greater accuracy and reduction of recall errors the actual reference period used may be shorter than one year if the survey with fixed sampling units is spread over a one-year period. The concept of household income is intended to serve as a measure of economic well-being. Hence, it should cover both cash and non-cash income sources.

In addition to household income, information on the earnings of the individual is also required for linking employment and income data. Ideally, for each earning activity reported as part of the employment data base, the corresponding income earned should also be recorded. In practice, however, this may only be done for wage and salary employees. For other categories of workers, as mentioned earlier, no satisfactory data may be obtained from one or two questions in the questionnaire. The simplest possibility, which is far from satisfactory, is to ask what the person would have earned for the work done during the specified period had he or she worked for an employer under similar conditions.

1/ This is in line with the recent discussion on the appropriate choice of the income unit in the construction of size distributions of income: see S. Danziger and M.K. Taussing, "The Income Unit and the Anatomy of Income Distribution," The Review of Income and Wealth, Series 25, No. 4, December 1979, pp. 365-375.


In conclusion, given the various difficulties mentioned above and others, including the inaccuracy and instability of reported income, serious doubts may be raised as to the validity of any type of simple linkage between income and employment data that goes beyond wage and salary earners.

III. ISSUES IN COLLECTING EMPLOYMENT DATA

The continuing debate on the problems and adequacy of employment and unemployment statistics and the experiences obtained from the application of these concepts in developing countries in particular have raised a number of specific issues which need to be examined. The ILO has made provisions to convene a meeting of experts in 1981 to examine these issues and the international recommendations on labor force statistics that are presently in force and to suggest new standards whenever necessary. The results are then to be considered at the Thirteenth International Conference of Labour Statisticians (ICLS) scheduled for 1982 when new international recommendations are to be established. In this section some of the issues which are relevant to the measurement of living standards are briefly discussed. These issues are: reference period, age limits, work and economic activity, part-time and part-year workers.

A. Reference Period

The adoption of a specific reference period for the identification of the activity status and other employment characteristics of persons is fundamental to the concept of an economically active population. The existing international recommendation concerning the reference period stipulates a short reference

1/ The materials presented in this section are mainly extracted from Household Employment Surveys, a draft chapter forming part of ILO's contribution to the forthcoming revised United Nations Handbook of Household Surveys.
period of one day or a week for the measurement of economic activity. Although the short reference period has a number of advantages (e.g. it measures current activity status, permits the study of trends and seasonalities, and minimizes memory lapse and other response errors), it may not, however, be appropriate when the survey is conducted only once during the year and where there are substantial seasonalities and irregularities in the employment and unemployment patterns. For example, in many developing countries where agriculture is the major activity, because the work pattern is greatly influenced by climatic cycles, the current activities of the population may not reflect the year-around activities. Similarly, in countries where the movements from one occupation to another in the course of the year is common, the measurement of current employment characteristics alone would yield a distorted picture of the employment structure.

The particular advantage of a long reference period, commonly taken to be a year, is that it can provide information on the economic activity of most consequence to each person. As mentioned earlier, it is also the reference period used for the collection of income data and, hence, facilitates the linkage of income and employment data. The use of the long reference period for the measurement of employment characteristics raised, however, a number of conceptual and operational problems. First, the underlying priority criteria in the classification of labor force categories, which accords precedence to any economic activity over non-economic activity, must be abandoned; otherwise persons who are economically active for even a brief part of the year, must be classified as economically active and, thus, part of the labor force. For a similar reason, persons who have usually been unemployed but occasionally worked at brief intervals during the year must be classified as employed, if the
priority criteria is to be respected. There is also the problem of identifying the principal or "usual" occupation and other employment characteristics for persons who have been engaged in more than one occupation or other characteristics during the course of the year.

Given the advantages and disadvantages of the use of short and long reference periods the choice between the two reference periods must be determined to a large extent by the type of survey to be undertaken. If the survey is to be carried out once during the year, it seems that for the purpose of linking income and employment data the long reference period used with a relaxation of the priority criteria is more appropriate. If the survey is conducted periodically with periodicity of less than a year (monthly, quarterly) with fixed sampling units, the use of the short reference period seems appropriate as the employment experience in the course of the year may be constructed from the periodic elements. This procedure of course involves considerable cost which few countries would like to incur on a regular basis.

B. Age Limits

The international recommendations (Eight ICLS 1954) do not prescribe a specific minimum age limit for a person to be included in the labor force; for census questions on economic activity, however, it is recommended (UN Statistical Commission 1966) that the minimum age limit be set in accordance with the conditions in each country, but never higher than 15 years. 1/

In fact, in many countries youth employment is widespread whether in agriculture, services or other branches of economic activities. For example in Nigeria, although the Labour Code Ordinance restricts the working age to between

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15 and 55 years, the labor force survey of 1966/67 showed that more than 60 percent of the male children between the ages of 12 and 14 years were engaged in various areas of economic activity. Another study on farm work in Toro, Uganda, showed that the average hours of work per day in family farms was 2.9 for boys and 2.6 for girls from ages 10 to 15 in 1965-66. ¹/

Although most child labor consists of unpaid family work, paid child labor is also widespread, particularly in small rural enterprises in developing countries where legal restrictions may be ignored without substantial risks. There is also extensive paid child labor in the form of apprenticeships in some developing countries. For example, it is reported that in one country, virtually the entire wage labor force in some industries consists of apprentices.

Thus, if such work is to be included in the measurement of employment, the minimum age limit for data collection on economic activity should be set at a substantially lower value than 15. Moreover, because earning and learning activities are competing activities among young persons, the use of a low minimum age limit permits investigation of the trade-off between the two activities.

Of course, the argument for selecting a low minimum age limit should be weighted against the difficulty in obtaining accurate information from very young children. Since the nature and type of work of children differs from that of adults, the collection of accurate information on youth employment and earnings may require specially designed questions and interviewing techniques. ²/


²/ A Multi-Purpose Household Questionnaire, op. cit., pp. 44-46.
C. Work and Economic Activity

The core of the measurement of the economically active population lies in the concept and meaning of work that constitutes economic activity. According to international recommendations in this field, work which leads to an output and which provides an income (in cash or in kind) to those who supplied the labor should be distinguished from other types of work (e.g. housework, child rearing, volunteer service or schoolwork) for the purpose of determining economic activity. There are, however, exceptions; and in many cases, especially in developing countries, the boundary line between work and non-work activities may not be sufficiently clear and specific decisions must be made.

For example, in the case of unpaid family workers, a person is considered as an unpaid family worker if he or she worked for at least one-third of the normal working time during the specified reference period by assisting in the operations of the household enterprise or farm. This definition raises certain practical and conceptual problems. From the practical point of view, in some situations the determination of normal working hours may be difficult. For example, in the case of unpaid family workers, a person is considered as an unpaid family worker if he or she worked for at least one-third of the normal working time during the specified reference period by assisting in the operations of the household enterprise or farm. This definition raises certain practical and conceptual problems. From the practical point of view, in some situations the determination of normal working hours may be difficult. For example, in agriculture the economic activity is subject to seasonal variations and the number of man-hours of work during a given week depends on the agricultural operations to be carried out at that particular time of the year. In these situations, therefore, no normal working hours can be meaningfully determined.

1/ International Recommendations on Labour Statistics, op.cit., p.32
unless a one-year reference period is used which covers an entire agricultural and climatic cycle.

From the conceptual point of view, the choice of one-third of the normal work time as the time limit in determining employment status of unpaid family workers is rather arbitrary and few countries follow the recommendations strictly. In fact, questions may be raised concerning the necessity of any minimum time requirement on duration of work for unpaid family workers when no such requirement is stipulated for the other classes of workers (employers, own-account workers, etc.). Furthermore, there are the unpaid apprentices or trainees, like carpenters' assistants or nurses in training, who are engaged in producing foods and services but are not paid because they are supposed to be learning a trade. In the labor force surveys of most developed countries the work of unpaid apprentices is not regarded as an economic activity, although the work of remunerated apprentices is. However, in certain developing countries (e.g., Jamaica and Nigeria), given the prevailing conditions, the work of the unpaid as well as the paid apprentices and trainees is considered as an economic activity. If the purpose of the survey is to link employment and income data, and to identify the working poor, it seems that unpaid apprentices who are not engaged in their own household enterprise may be excluded from the employment category, in line with implicit international recommendations.

There is also, in many countries, especially in developing countries, a substantial number of persons engaged in marginal and borderline activities which are not readily classifiable into economic or non-economic activities. Examples are taking care of animals, scaring away birds to protect crops, and tending vegetable gardens which may or may not be part of a farm; processing food which may be partly for sale and partly for home consumption; making
improvements of land and tools; repairing own dwellings etc. Although, no simple solution may be advanced regarding these borderline activities, one way of tackling the problem is first to identify and list the most common borderline activities and secondly, to make a more or less arbitrary decision on their inclusion or exclusion as economic activities in the context of local conditions. This procedure at least ensures a certain degree of uniformity in the treatment of border-line activities.

D. Part-time and Part-year Workers

In linking income and employed data, as mentioned earlier, it is necessary to distinguish between part-time and full-time workers and, if a long reference period is used, between part-year and full-year workers as well.

At present there are no international definitions of part-time and part-year work. According to the Eighth ICLS, a person who has performed some work for pay or profit, even if it is for only one hour during the specified reference week or day, is regarded as at work. The only exception is unpaid family workers who are required to have worked at least one-third of the normal working hours. Thus, the part-time workers and the regular full-time workers are lumped together in the single "employed" category. Regarding part-year employment, the issue of its definition does not arise because the internationally recommended reference period for measuring employment is a short reference period.

Although there exist no international definitions of part-time and part-year work, certain countries have adopted certain standards for distinguishing between full-time and part-time workers in the labor force surveys. For example, in the labor force survey of the Philippines, an employed person reported to have worked 40 hours or more during the survey week is considered as working full-time and an employed person who has worked less than 40 hours
during the survey week is considered as working part-time. In the Israel survey the cut-off point is 35 hours of work during the reference week, but in order to account for persons working in a profession in which a full-time job consists of less than 35 hours per week (e.g. physicians, teachers, etc.), hours spent in preparation for work are included in the calculation of full-time work. In the Current Population Survey of the United States, the cut-off point is also 35 hours but a distinction is made between persons working part-time voluntarily (e.g., because they do not want full-time work or because their jobs are considered full-time) and those working part-time for involuntary (economic) reasons (e.g., because their work is slack or they could find only part-time work). Also, workers who are employed part-time on a second job are considered to be in the part-time labor force in some countries, but excluded in others.

Whatever the cut-off point used, some data are required for distinguishing between part-time and full-time workers and between part-year and full-year workers. These may be "the usual number of hours of work per week" and "the number of weeks worked" during the reference year. The usual number of hours worked per week at all jobs would indicate whether employment was part-time or full-time; and, the number of weeks worked during the reference period, which is to be reported for part-time as well as full-time workers, would indicate whether employment was part-year or full-year. Of course, the results of such inquiries may not produce accurate data, especially for persons without a regular job, but the accuracy may be sufficient for classifying the employed population into part-time/full-time and part-year/full-year categories.
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