

# Measurement of employment, unemployment and underemployment – Current international standards and issues in their application

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## 1. Introduction

Like any other market, the labour market consists of a supply side and a demand side. The labour supply of the population, referred to as the economically active population or labour force, has two components: employed persons and unemployed persons. The labour demand of enterprises and other production units, too, can be broken down in two components: jobs (filled posts) and job vacancies (unfilled posts). Due to the existence of multiple jobholding, the number of jobs tends to be larger than the number of employed persons. In most countries, statistics on the supply of labour are far better developed than statistics on the demand of labour. As a result, current international recommendations on labour market statistics deal almost exclusively with statistics on labour supply.

Statistics of the economically active population, employment, unemployment and underemployment serve a large variety of purposes. They provide measures of labour supply, labour input, the structure of employment, and the extent to which the available labour time and human resources are actually utilised or not. Such information is essential for macro-economic and human resources development planning and policy formulation. When collected at different points in time, the data provide the basis for monitoring current trends and changes in the labour market and employment situation, which may be analysed in connection with other economic and social phenomena so as to evaluate macro-economic policies. The unemployment rate, in particular, is widely used as an overall indicator of the current performance of a nation's economy.

Statistics of the economically active population, employment, unemployment and underemployment are also an essential base for the design and evaluation of government programmes geared to employment creation, vocational training, income maintenance, poverty reduction and similar objectives. The measurement of the relationships between employment, income and other socio-economic characteristics provides information on the adequacy of employment of different subgroups of the population, the income-generating capacity of different types of economic activities, and the number and characteristics of persons unable to ensure their economic well being on the basis of the employment opportunities available to them. Information on employment and income, disaggregated by branches of economic activity, occupations and socio-demographic characteristics, is needed for collective bargaining, for assessment of the effects of poverty reduction policies on different subgroups of the population, and for the analysis of ethnical, gender or age inequalities in work opportunities and participation and their changes over time.

Statistics of the economically active population and its components can be generated from various sources. Common sources of statistics on economically active, employed and unemployed persons are labour force surveys and other household sample surveys, as well as population censuses. Data on employment can also be obtained from establishment sample surveys, establishment or economic censuses, social security records, public sector payrolls, etc., and data on unemployment from administrative records on registered job seekers or recipients of unemployment benefits. The use of harmonised classifications, units, concepts and definitions enhances the comparability between statistics obtained from different sources. Data users must be aware that each source has its strengths and limitations, that different sources can validly provide different estimates, and that the use of several sources can help in analysing different facets of the employment situation, and in evaluating and improving the quality of statistics obtained from each source.

The International Labour Organisation (ILO) promulgates international standards on the various topics of labour statistics. These standards are set by the International Conference of Labour Statisticians (ICLS), which is convened by the ILO about every five years. They include: the ILO Labour Statistics Convention, 1985 (No. 160); the ILO Labour Statistics Recommendation, 1985 (No. 170); and the various Resolutions adopted by the ICLS on specific topics of labour statistics. The purpose of the ICLS Resolutions is to provide technical guidelines for the development of national

labour statistics on the basis of accepted definitions and methods, to enhance the international comparability of labour statistics, and to protect labour statistics against public criticism and political interference at the national level.

The current international standards for labour force statistics comprise the Resolution concerning statistics of the economically active population, employment, unemployment and underemployment adopted by the Thirteenth ICLS in 1982 and the Resolution concerning the measurement of underemployment and inadequate employment situations adopted by the Sixteenth ICLS in 1998. As a supplement to the Thirteenth ICLS Resolution, the Fourteenth ICLS (1987) endorsed Guidelines on the implications of employment promotion schemes on the measurement of employment and unemployment, and the Sixteenth ICLS (1998) Guidelines concerning the treatment in employment and unemployment statistics of persons on extended absences from work (ILO 2000).

The present article is intended to describe the basic concepts and definitions laid down in these international standards. Where relevant, particular issues are discussed that may arise in survey applications concerning measurement problems and the appropriate statistical treatment of particular categories of workers, such as self-employed persons, contributing family workers, casual workers, seasonal workers, apprentices and trainees, persons on lay-off, and persons engaged in the production of goods for own final use by their household, who sometimes are at the borderline between two or more labour force categories. The present article updates and supersedes an earlier article by the author on the topic, which had been published in 1989<sup>1</sup>.

## 2. Concept and boundary of economic activity

A clear understanding of the concept and boundary of economic activity is a fundamental requirement for the correct application of the definitions of the economically active population, employment and unemployment in labour force and similar surveys. The exact boundary between economic and non-economic activities is a matter of convention, but unless a precise dividing line is drawn, the statistical treatment of many situations encountered in practice remains ambiguous and will raise questions about the reliability of the resulting statistics.

The concept of economic activity adopted by the Thirteenth ICLS (1982) for the measurement of the economically active population is defined in terms of the production of goods and services as set forth by the System of National Accounts (SNA). The 13th ICLS Resolution specifies that "the economically active population comprises all persons of either sex who furnish the supply of labour for the production of economic goods and services, as defined by the United Nations systems of national accounts and balances, during a specified time-reference period". Thus, persons are to be considered as economically active if (and only if) they contribute or are available to contribute to the production of goods and services falling within the SNA production boundary. The use of a definition of economic activity, which is based on the SNA, serves to ensure that the activity concepts of employment statistics and production statistics are consistent, thus facilitating the joint analysis of the two bodies of statistics.

### *SNA production boundary*

The 1993 SNA defines production in general terms as activities carried out under the control and responsibility of institutional units (i.e. non-financial and financial corporations, government units, non-profit institutions, and households including unincorporated enterprises owned by households) that use inputs of labour, capital and goods and services to produce outputs of goods or services. The definition excludes the following types of activities: (i) purely natural processes without any human involvement or direction, such as the unmanaged growth of fish stocks in international waters; (ii) basic human activities, such as eating, sleeping or taking exercise, that it is impossible for one person to obtain another person to perform instead; (iii) activities not producing any output, such as begging or theft unless the acquired goods are resold.

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<sup>1</sup> Ralf Hussmanns: International standards on the measurement of economic activity, employment, unemployment and underemployment; *Bulletin of Labour Statistics*, ILO, Geneva, 1989-1.

As compared with the general definition of production, the 1993 SNA production boundary is more restricted. It includes the following activities:

- (a) the production of all individual or collective *goods or services* that are supplied to units other than their producers, or intended to be so supplied, including the production of goods or services used up in the process of producing such goods or services (intermediate inputs);
- (b) the production of all *goods* that are retained by their producers for their own final consumption or gross fixed capital formation;
- (c) the production of housing services for own final consumption by owner-occupiers<sup>2</sup> and of domestic and personal services produced by employing paid domestic staff.

The 1993 SNA includes the production of all goods within the production boundary, whether destined for the market or for own final use. The following types of production by households are, therefore, included:

- (b1) The production of agricultural products and their subsequent storing; the gathering of berries or other uncultivated crops; forestry; wood-cutting and the collection of firewood; hunting and fishing.
- (b2) The production of other primary products such as mining salt, cutting peat, the supply of water, etc.
- (b3) The processing of agricultural products; the production of grain by threshing; the production of flour by milling; the curing of skins and the production of leather; the production and preservation of meat and fish products; the preservation of fruit by drying, bottling, etc.; the production of dairy products such as butter or cheese; the production of beer, wine, or spirits; the production of baskets or mats; etc.
- (b4) Other kinds of processing such as weaving cloth; dress making and tailoring; the production of footwear; the production of pottery, utensils or durables; making furniture or furnishings; etc.
- (b5) The construction, major renovation or extension of own dwellings, farm buildings, etc.

Although the above list covers the most common types of production by households for their own final, it is not exhaustive. In general, whenever the amount of a good produced within households is deemed to be quantitatively important in relation to the total supply to that good in a country, its production should be recorded.

With the exception of domestic and personal services produced by employing paid domestic staff and housing services produced by owner-occupiers, the 1993 SNA production boundary excludes the production of all services for own final consumption within the same household. Thus, the following domestic and personal services are excluded, if provided by unpaid household members for own final consumption by the household: the cleaning, decoration and maintenance of the dwelling occupied by the household, including small repairs of a kind usually carried out by tenants as well as owners; the cleaning, servicing and repair of household durables or other goods, including vehicles used for household purposes; the preparation and serving of meals for immediate consumption; the care, training and instruction of children; the care of sick, infirm or old people; the transportation of household members or their goods.

The importance, which the production of unpaid domestic and personal services for own final consumption within households has in terms of the amount of labour involved and the contribution to economic welfare, is widely recognised. Nevertheless, such activities remain excluded from the SNA production boundary for the following reasons: Unlike goods, which can be stored or offered on the

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<sup>2</sup> As it involves no labour inputs, the production of housing services by owner-occupiers is not relevant in the present context.

market, the services in question have to be consumed immediately when they are produced. As most household domestic and personal services are not produced for the market, there are typically no suitable market prices that can be used to value such services. Imputing values for them would not only be difficult, but would yield values which, for analytic or policy purposes, would have a different economic meaning from monetary values. Employment being defined as engagement in production included within the SNA production boundary (see below), an extension of the boundary to include unpaid domestic and personal services produced for own final consumption within households would lead to virtually the whole adult population being considered as employed, and unemployment being eliminated statistically.

The fact that such activities fall at present outside the production boundary does, however, not mean that such activities, which are mainly carried out by women, should not be statistically measured at all. In fact, the 13th ICLS Resolution contains a provision to identify persons engaged in unpaid community and volunteer services, and other persons engaged in activities which fall outside the boundary of economic activities, separately among the population not economically active.

The 1993 SNA is currently being updated. The delineation of the production boundary will however remain unchanged in the updated version (planned for 2008).

For convenience, the activities corresponding to (a) above are often designated as market activities or market production, and those corresponding to (b) and (c) as non-market economic activities or non-market production. The aggregate constitutes the scope of economic activity for the measurement of the economically active population. All other activities are called non-economic activities.

#### *Market activities*

Though market production and non-market production are defined in terms of the product destination rather than on the basis of the paid or unpaid nature of the engagement of the production, market activities typically involve some form of remuneration to those who participate in them. Such remuneration may be in the form of pay or profit. Pay includes cash payment as well as payment in kind, whether they are received in the same period where the work is done or not. Cash payment includes wages or salaries at time or piece rates, fees or tips, bonuses or gratuities, etc. Payment in kind may be in the form of food, housing or other goods and services. Payment in kind as the sole means of remuneration is not uncommon in some countries, e.g. for agricultural workers receiving a share of the harvest or for apprentices and trainees working in exchange for lodging and board.

Profit refers to the remuneration for activities performed by persons who operate their own farm, business enterprise or service undertaking with or without hired employees. An activity may be undertaken for profit even if currently no profit is made during the reference period of the survey. Work for profit also includes the activities of family members undertaken in connection with the operation of a household unincorporated enterprise producing for the market, even though these persons typically work for family gain and do not receive any direct payment for the work done. Similarly, market activities include also work performed for productive purposes on the basis of an exchange labour arrangement between households, and the production of goods or services for barter among households, even when no cash payment is received.

#### *Non-market activities*

The rationale for the inclusion of certain types of non-market activities within the SNA production boundary while excluding others lies in the importance of the activities for the subsistence of the population in many countries, and in the frequent existence of close market parallels, i.e. identical or very similar goods and services are usually also available on the market. Throughout the world, the production and processing of primary products of agriculture, hunting, forestry, fishing, mining and quarrying for own final use represents a major part of consumption for many persons and their households.

Similarly, in a number of countries construction of dwellings, farm buildings and other items to be considered as investment goods is undertaken to a significant extent for own final use.

Furthermore, since a shift may take place from production for own final use to market production as economic development proceeds, it is essential to account for both types of activities, so as to obtain a comparable measure of the economically active population at different time periods or for different countries.

There are also practical considerations involved in the delineation of the SNA production boundary. So as to cover market production completely, it is necessary to include some non-market production as well, as it is in practice often impossible to measure the market component separately when the same persons or households are engaged in both types of production. For example, at the time when the production of an agricultural crop takes place, it is often impossible to determine how much of it will be used for own final consumption, for storage, or for sale or barter.

### *Measurement*

In measuring the economically active population in household surveys, it is essential that careful attention be paid in questionnaire design and interviewer instructions so as to translate the notion of economic activity into appropriate questions, because the interviewers' and respondents' own subjective understanding of economic activity may differ from what the concept intends to include. This requirement is fundamental, as it sets the frame for all subsequent information collected in the course of the interview. A misunderstanding of whether or not certain activities are to be considered as economic may thus have irremediable impacts on the entire interview and on the survey results. Such problems may particularly arise in situations where a substantial part of the economically active population is engaged in activities other than regular full-time full-year paid employment or self-employment, such as part-time employment, casual work, work remunerated in kind, home-based work, unpaid family work and production for own consumption. In such situations, the inclusion of additional probing questions or an activity list in the survey questionnaire may prove useful to reduce underreporting.

### **3. The currently active population**

The 13th ICLS Resolution distinguishes between two measures of the economically active population: the currently active population (labour force), measured in relation to a short reference period such as one week or one day, and the usually active population, measured in relation to a long reference period such as a year.

The currently active population (or the labour force) comprises all persons above a specified minimum age (e.g. 15 years) who, during a specified brief period of one week or one day, fulfil the requirements for inclusion among the employed or the unemployed as described in later sections of this article. The minimum age limit for defining the working age population needs to be specified by each country according to its national circumstances such as the compulsory schooling age, minimum age for admission to employment, and extent of child labour. These circumstances vary so greatly among countries that it is impossible to specify any universally applicable minimum age limit at the international level. The use of a maximum age limit for defining the working age population is not recommended by the international standards.

The currently active population is the most widely used measure of the economically active population. Being based on a short reference period, it is used for measuring the current employment and unemployment situation of a country and the current employment characteristics of its population. When measurement is repeated at sufficiently frequent intervals, current changes over time can be monitored.

### *Labour force framework*

The measurement of the currently active population is based on the labour force framework. The labour force framework permits pressure on the labour market to be measured in terms of the current supply of labour, through an integrated measurement of employment and unemployment. The essential feature of the labour force framework is that individuals are categorised according to their

activities during a specified short reference period by using a specific set of priority rules. The result is a classification of the population into three mutually exclusive and exhaustive categories: employed persons, unemployed persons, and persons not in the labour force (or persons not currently active). The first two categories make up the currently active population (or labour force), which gives a measure of the number of persons furnishing the supply of labour at a given moment in time. A short reference period (one week or one day) is used in order to minimise recall errors and improve data accuracy.

#### *Priority rules*

So as to ensure that each person is classified into one and only one of the three basic categories of the labour force framework, the following set of priority rules is adopted. The first step consists of identifying among persons above the specified minimum age those who, during the specified short reference period, were either at work or temporarily absent from work (the "employed" category); the next step is to identify among the remaining persons those who were seeking and/or available for work (the "unemployed" category). The third category (persons not in the labour force or not currently active), i.e. those without work who were not seeking and/or nor available for work, then falls out residually. Persons below the age specified for measuring the economically active population are added to the population not currently active. In this scheme, precedence is given to employment over unemployment and to unemployment over economic inactivity. A person who is both working and seeking work is classified as employed, and a student who is attending school and also seeking work is classified as unemployed. One corollary of the priority rules is that employment always takes precedence over other activities, regardless of the amount of time devoted to it during the reference period, which in extreme cases may be only one hour. A related feature of the labour force framework is that unemployment is conceptualised as a situation of a total lack of work.

#### *Activity principle*

Another characteristic of the labour force framework is that a person's labour force status should be determined on the basis of what the person was actually doing during the specified reference period (activity principle). The purpose of the activity principle is to make measurement of the labour force as objective as possible. Thus only persons who were engaged in an economic activity or who were actively seeking and/or available for such an activity are to be considered for inclusion into the labour force. There are only few exceptions to the activity principle, such as the inclusion among the employed of persons temporarily absent from work, or the inclusion among the unemployed of persons without work who are not seeking work because they have already found a job to start at a date subsequent to the reference period.

#### *Applicability of the labour force framework*

The labour force framework is best suited to situations where the dominant type of employment is regular full-time paid employment. In these situations, a working person falls unambiguously in the employed category, a person seeking and/or available for such employment falls into the unemployed category, and others fall outside the labour force. In practice, however, the employment situation in a given country will to a greater or lesser extent differ from this pattern. Some deviations may be unimportant or can be handled by proper application of the underlying concepts and definitions, but others may require more elaborate considerations. For example, there might be situations falling at the borderline between labour force categories (e.g. persons on temporary layoff, unpaid family workers during the off-season, persons on training schemes), raising questions about their appropriate statistical treatment. Other situations, while clearly falling into one category or another, contribute to the heterogeneity of that category, thus raising difficulties in the interpretation of the resulting statistics and calling for further differentiations (e.g. a distinction between adequately employed and inadequately employed persons, a sub-classification of the population not currently active by degree of labour market attachment). There may even be situations which raise questions about the very meaningfulness of categories, such as the virtual non-existence of unemployment in the sense of total lack of work in certain countries, particularly in their rural areas. Some of these issues will be discussed along with the definitions of employment, unemployment and underemployment in later sections of this article.

The current activity measurement provides a snapshot picture of the economically active population at a given point of time. In situations where the dominant pattern of employment is year-round, with little or no seasonal variations and relatively few movements into and out of the labour force or its main components, such a snapshot picture is probably sufficient to provide an adequate representation of the employment situation for the whole year. However, where significant seasonal patterns of activities or substantial labour force movements exist, the employment picture obtained for one short reference period may not be representative of others. In such situations, measurement should be made over a longer period of time, either by repeating or staggering the current activity measurement over time so as to cover the desired longer period, or by using the longer period itself as the reference period for measurement. In principle, the two approaches will give different results, due to differences in measurement concepts and methods. The first approach requires increasing the frequency of labour force surveys or spreading their samples over time, while the second approach calls for retrospective measurement on the basis of a long reference period with an appropriate conceptual framework. A framework introduced by the 13th ICLS in 1982 as international standard is that of the "usually active population".

#### **4. The usually active population**

The usually active population comprises all persons above a specified age (e.g. 15 years) whose main activity status as determined in terms of number of weeks or days during a long specified period (such as the preceding 12 months or the preceding calendar year) was employed or unemployed. Residually, the population not usually active comprises all persons whose main activity status during the reference period was neither employed nor unemployed, including persons below the age specified for measuring the economically active population.

The measurement of the usually active population is based on the activity status of individuals, assessed on the basis of a "main activity" criterion over a long reference period, as opposed to assessment of activity status on the basis of the priority criterion used for measurement of the currently active population through the labour force framework. Another fundamental difference between the two measurement frameworks concerns subdivisions. In the usual activity framework, individuals are first classified as usually active or not usually active, and then the usually active may be further subdivided as employed persons or unemployed persons according to the main activity during the active period. In the labour force framework, however, individuals are first identified as employed or unemployed, and then the two categories are summed to obtain the currently active population.

There are two options for determining the main activity status of persons. One is to interpret it as that status, usually active or not usually active, which prevailed over most of the 52 weeks (or most of the 365 days) of the reference year (majority criterion). Another is to set a specific number of weeks (or days) as the cut-off point and classify anyone with at least that many weeks (or days) of employment or unemployment as belonging to the usually active population.

#### *Illustration*

To illustrate the usual activity framework, consider the example of a person who, during the course of a year, was employed for 13 weeks, unemployed for 18 weeks and not economically active during the remaining 21 weeks. Using the majority criterion, this person would first be classified as usually active, as the extent of economic activity over the year (31 weeks) exceeded the extent of inactivity, and would then be classified as unemployed, as the extent of unemployment exceeded that of employment. This is despite the fact that among the three activity statuses "employed", "unemployed" and "not economically active", the person was not economically active for the largest number of weeks. The example shows that the usual activity status of a person is not necessarily identical with his or her main activity status assessed directly. The example also shows that, for an accurate measurement of the usually active population and its components, data on the duration of employment and unemployment over the year are needed. This is because the main activity status of individuals is to be determined on the basis of the amount of time that these individuals were employed or unemployed during the reference period, measured in terms of weeks or days of employment or unemployment.

### *Measurement*

Accurate measurement of the usually active population and its components is in practice not a simple task. Unless panel surveys for statistical follow-up of individuals are used, it involves retrospective questioning on the employment and unemployment experience of individuals during a whole year. Since retrospective measurement over such a long reference period may be subject to substantial recall errors, particularly in situations of frequent changes in activity status, it is important to adopt measurement procedures which reduce these errors to the extent possible. This may be done, for example, by structuring the reference year in terms of calendar months (month-by-month recall), or in terms of jobs held and their durations (job-specific approach).

The definitions of one week or one day of employment or unemployment should, in principle, be the same as those used in the labour force framework. This provides a conceptual link between the definitions of the usually active population and the currently active population. In survey applications, however, the procedure for measuring weeks or days of employment or unemployment tends to be somewhat different from the measurements in the current activity framework because of practical limitations resulting from the use of a long reference period.

The main activity status of a person may be substantially different depending on whether it is based on weeks or days as measurement units. Take the example of a person working one day per week throughout the year and not available for work during the rest of the time. If the main activity status of that person is determined on the basis of weeks as measurement units, he or she will be classified as usually active; however, if days are used as measurement units to determine the main activity status, the person will be classified as not usually active. The example shows that where employment is mostly of a regular and continuing nature, and where a week of employment generally means a week of full-time employment or of employment for a major part of the working time, the main activity status can be determined on the basis of weeks as measurement units. Otherwise, it would better be determined in using days as the measurement units.

For analytical purposes, it is useful to combine measurement of the usually active population with measurement of the currently active population, so that cross-classifications of the population by usual activity status and current activity status can be made.

## **5. Employment**

The international definition of employment adopted by the 13th ICLS is formulated in terms of the labour force framework, i.e. with respect to a short reference period. The definition distinguishes between paid employment (employees including apprentices or trainees and members of the armed forces) and self-employment (employers, own-account workers including producers of goods for own final use, members of producers' co-operatives, and contributing family workers). It provides separate criteria for the measurement of these two types of employment. According to the definition, the "employed" comprise all persons above the age specified for measuring the economically active population (e.g. 15 years) who, during a specified short period of either one week or one day, were in the following categories:

### *(a) paid employment:*

- (a1) at work:* persons who, during the reference period, performed some work (i.e. at least one hour) for wage or salary, in cash or in kind;
- (a2) with a job but not at work:* persons who, having already worked in their present job, were temporarily not at work during the reference period and had a formal attachment to their job;

### *(b) self-employment:*

- (b1) at work:* persons who, during the reference period, performed some work (i.e. at least one hour) for profit or family gain, in cash or in kind;
- (b2) with an enterprise but not at work:* persons with an enterprise (which may be a business enterprise, a farm or a service undertaking) who were temporarily not at work during the reference period for any specific reason.

The concept of work for the measurement of employment corresponds to the concept of economic activity as derived from the SNA production boundary. This means that the notion of "work



for pay, profit or family gain" in the definition of employment should be interpreted as referring to any activity falling within the SNA production boundary.

#### *The one-hour criterion*

For measuring the number of persons employed, employment is broadly defined in the labour force framework. The 13th ICLS Resolution stipulates that, for operational purposes, the notion of "some work" should be interpreted as work for at least one hour during the reference period. This means that engagement in an economic activity for as little as one hour is sufficient for a person to be classified as employed on the basis of the labour force framework. There are several inter-related reasons for the use of the one-hour criterion in the international definition of employment. One is to make this definition as broad as possible, in order to cover all types of employment that may exist in a given country, including short-time and part-time work, casual and temporary employment, stand-by work, employment in the informal sector and other types of informal employment, etc. Another reason is to ensure that at an aggregate level total labour inputs correspond to total production. Such correspondence is needed in order to make a joint analysis of employment and production statistics possible. Last but not least, the one-hour criterion results from the priority rules of the labour force framework, which gives precedence to any employment activity over any other activity, and which defines unemployment as a situation of total lack of work (zero hours of work during the reference period). In that framework, situations of partial lack of work are covered by the definition of time-related underemployment (see Section 7 below), i.e. as a sub-category of employment. The definitions of employment and unemployment being inter-related in the labour force framework, raising the minimum number of hours worked in the definition of employment would have the effect that unemployment would no longer only refer to situations of total lack of work.

The one-hour criterion was reviewed by the 14th ICLS in 1987. While agreeing to retain the criterion, the 14th ICLS emphasised that the resulting employment data should be classified by the number of hours of work. Such additional information permits a distinction between different subgroups of employed persons to be made and is helpful to a sound interpretation of the statistics. The broadness of the definition of employment also stresses the importance of the recommendations adopted by the 16th ICLS (1998) in its *Resolution concerning the measurement of underemployment and inadequate employment situations*. Finally, it may be useful to measure the volume of employment (number of employed persons multiplied with the average number of hours of work) in addition to the number of employed persons as a head count.

#### *Temporary absence from work*

The international definition of employment includes among the employed certain persons who were not at work during the reference period. These are persons who were temporarily absent from their work for reasons such as illness or injury, holiday or vacation, strike or lock-out, educational or training leave, maternity or parental leave, temporary reduction in economic activity, temporary disorganisation or suspension of work due to bad weather, mechanical or electrical breakdown, shortage of raw materials or fuels, etc., or other temporary absence with or without leave. In general, the notion of temporary absence from work refers to situations in which a period of work is interrupted by a period of absence. This implies that persons should only be considered as being temporarily absent from work (and thus as employed) if they have already worked in their present activity and are expected to return to their work after the period of absence<sup>3</sup>.

#### *Temporary absence from paid employment*

The international definition of employment specifies certain criteria for assessing temporary absence from work, which differ between paid employment and self-employment. In the case of paid employment, the criteria are based on the notion of "formal job attachment", which is to be determined in the light of national circumstances according to one or more of the following criteria: (i) the continued receipt of wage or salary; (ii) an assurance of a return to work (with the same employer) following the end of the contingency, or an agreement as to the date of return; and (iii) the elapsed

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<sup>3</sup> In exceptional cases, persons might be considered as being temporarily absent from work even though they have not yet worked in their job. An example is persons who happen to be sick at the day when they are to start a new job.

duration of absence from the job, which may be that duration for which workers can receive compensation benefits without obligations to accept other jobs. The third criterion implies that in order to be considered temporary, the absence from work should be of a fairly short duration. However, the 13th ICLS could not specify any precise time limit that would meaningfully apply to all types of absences.

Regarding absence from work, a borderline situation may be that of persons temporarily laid-off, i.e. persons whose contract of employment or whose activity has been suspended by the employer for a specified or unspecified period. Such persons should be considered as being temporarily absent from work and classified as employed only if they maintain a formal attachment to the job, from which they have been laid off. Persons laid-off without formal job attachment should be classified as unemployed or not economically active, depending on their recent job search activity and current availability for work. Borderline situations may also arise in the case of non-regular employees. Casual workers working on a daily or weekly basis for one or more employers do not have a formal job attachment and, when not at work during the reference day or week, should not be classified as employed. Other non-regular employees, when not at work, should be classified as employed if they have a formal job attachment during the reference period.

In respect of seasonal employees not engaged in any kind of work during the off-season, the 16th ICLS (1998) recommended that they be classified as employed if they have an assurance of a return to work with the same employer at the beginning of the next season, and the employer continues to pay all or a significant part of their wage or salary during the off-season. Otherwise, they should be classified as unemployed or not economically active, depending upon their current availability for work, recent job-search activity and, possibly, the reason for not seeking work.

In addition to seasonal employees, the *Guidelines concerning treatment in employment and unemployment statistics of persons on extended absences from work*, which were endorsed by the 16th ICLS, refer to the following groups of employees on extended absence from work:

*Women on maternity leave*, who have an assurance of a return to work following the end of the leave, should be classified as employed if, during the reference period, they were in receipt of all or a significant part of their wage or salary from the employer or an equivalent payment from other sources received by virtue of being an employee. Women on maternity leave, who have an assurance of a return to work following the end of the leave, should also be considered as being employed during the compulsory period of leave stipulated by national legislation to ensure that mothers before and after childbirth have sufficient rest, or for a period to be specified according to national circumstances. In countries where they are not classified as employed according to these criteria, women on maternity leave should be classified as unemployed or not economically active, depending upon their current availability for work and recent job-search activity.

*Employees on unpaid leave initiated by the employer* (including leave paid by the government or social security funds) should only be classified as employed if they have an agreed date for return to work and if the elapsed duration of their leave falls within a time-limit to be specified according to national circumstances. They may be classified as a separate category among employed persons, and should be included among persons in time-related underemployment if they meet the criteria of the international definition of time-related underemployment (see Section 7 below). All other employees on unpaid leave initiated by the employer should be classified as unemployed or not economically active, depending upon their expectation of returning to work in the near future, current availability for work, recent job-search activity and, possibly, the reason for not seeking work. The notion of expectation of returning to work "in the near future" should be specified in the light of the national circumstances and economic situation of each country.

*Employees on other types of extended leave* such as parental leave or educational or training leave, who have an assurance of a return to work with the same employer following the end of the leave, should be classified as employed if the employer continues to pay all or a significant part of the wage or salary of the person on leave, or if the duration of the leave does not exceed a time-limit to be specified according to national circumstances. Persons, who do not meet these criteria, should be classified as unemployed or not economically active, depending upon their current availability for work and recent job-search activity;

### *Temporary absence from self-employment*

Given the large diversity in working patterns of self-employed persons, the notion of temporary absence from self-employment is less elaborate in the international definition of employment than the notion of temporary absence from paid employment. According to the 13th ICLS, all persons with an enterprise, who were temporarily not at work during the reference period for any specific reason, should be considered employed. A correlate to the criterion of formal job attachment for employees does not exist in the case of self-employed persons. In practice, the decision as to whether or not a self-employed person is to be considered absent from work (and therefore as employed) should be based on the continued existence of the enterprise during the absence of its operator. The decision as to whether the absence from work is to be considered temporary or not can be based on the duration of the absence, to be determined according to national circumstances.

For casual own-account workers, such as itinerant shoe-shiners or street vendors, it may be assumed that their enterprise does not continue to exist when they are absent from work. Thus, casual own-account workers, when not at work, should not be considered as "with an enterprise but not at work" and should not be classified as employed.

Regarding self-employed persons (excluding contributing family workers) engaged in seasonal activities, one may assume that, during the busy season, the enterprise continues to exist when the operator is absent. In this case, the operator should be classified as employed when temporarily absent from work. During the off-season, however, enterprises do not always continue to exist. One can assume that seasonally-operated enterprises cease to exist during the off-season, if the owners do not continue to do any work in them. Accordingly, the 16th ICLS recommended that seasonal employers, own-account workers and members of producers' cooperatives, who are not engaged in any kind of work during the off-season, should be considered as unemployed or not economically active, depending upon their current availability for work, recent job-search activity and, possibly, the reason for not seeking work. For example, enterprises like fruit kiosks, ice cream shops or beach restaurants are generally not in operation during the off-season, and therefore the operators of such enterprises should not be classified as employed when they are not at work during the off-season. There are, however, also enterprises which continue to exist during the off-season, and whose owners continue to do some work in them (e.g. farms which are operated all year round though the bulk of their activities are carried out seasonally). In such cases, a self-employed person not at work during the off-season could be classified as employed (with an enterprise but not at work) provided the duration of the absence from work falls within an acceptable limit.

Contributing family workers, though participating in the activities of a household enterprise, are not considered to have an enterprise of their own. Accordingly, contributing family workers cannot be "with an enterprise but not at work". Therefore, contributing family workers not at work during the reference period should not be included among the employed. They would be considered as unemployed or not economically active, depending upon their recent job-search activity and/or availability for work during the reference period.

### *Particular groups*

The 13th ICLS referred explicitly to certain particular groups of workers to be included among the employed: contributing family workers (previously called 'unpaid family workers') at work; persons engaged in the production of goods for own final use by their household; paid apprentices; working students, homemakers, etc.; and members of the armed forces. In respect of participants in employment promotion schemes, additional guidelines were formulated by the 14th ICLS (1987). The appropriate statistical treatment of other specific groups of workers, such as unpaid apprentices and trainees or volunteers, can be derived from the general principles.

*Contributing family workers at work.* The International Classification of Status in Employment (ICSE-93) defines a contributing family worker as a person who works for family gain in an unincorporated market enterprise operated by a related person living in the same household, but who cannot be regarded as a partner because the degree of his/her commitment to the operation of the enterprise, in terms of working time or other factors, is not at a level comparable to that of the head of the enterprise. Where it is customary for young persons, in particular, to work without pay in an

unincorporated market enterprise operated by a related person who does not live in the same household, the requirement of "living in the same household" may be eliminated. The Resolution concerning statistics of the labour force, employment and unemployment adopted by the 8th ICLS (1954) had required unpaid family workers to have worked at least one-third of normal working hours in order to be classified as employed. This special provision was abandoned by the 13th ICLS (1982). Thus, according to the present international standards contributing family workers at work are to be considered as employed irrespective of the number of hours worked during the reference period, i.e. they are treated in the same way as other categories of workers. Referring to countries that, for special reasons, prefer to set a minimum time criterion for the inclusion of contributing family workers among the employed, the 13th ICLS Resolution specifies that they should identify and separately classify those contributing family workers who worked less than the prescribed time.

*Producers of goods for own final use by their household.* Another category of unpaid workers to be considered for inclusion among the employed are persons engaged in the production of goods for own final consumption or gross fixed capital formation by their household. The international standards mention, however, that these persons should be considered employed only if such production comprises an important contribution to the total consumption of the household. This provision conforms to the practice in many countries of excluding negligible non-market production activities from the national accounts. The important contribution provision also serves to exclude from the employed population persons who may, for example, be growing some vegetables in their backyards but whose subsistence does not significantly depend on it. However, its implementation in labour force surveys is difficult, due to the lack of information on total household consumption in such surveys. For this reason, some countries have resorted to assessing the importance of household production for own final use on the basis of information on the volume of labour inputs to such production (number of hours worked).

*Volunteers.* Volunteers and other persons providing unpaid labour inputs, who produce goods for any enterprise, government unit, non-profit institution or other household, or who produce services for a market enterprise, should be considered as employed. By contrast, persons providing unpaid services to other households, non-profit institutions or the community as a whole should not be considered employed, as such services fall outside the SNA production boundary.

*Apprentices and trainees.* The 13th ICLS Resolution states explicitly that apprentices, who receive pay in cash or in kind, should be considered in paid employment and be classified as "at work" or "not at work" on the same basis as other persons in paid employment. Regarding apprentices, who are not paid, the Resolution makes no specific statement, and the appropriate statistical treatment should therefore follow from the general principles. Unpaid apprentices, who fulfil the conditions for inclusion among contributing family workers, should be classified as employed if they were at work for at least one hour during the reference period. The inclusion among the employed of other unpaid apprentices may be determined on the basis of the apprentices' association with the productive activities of an enterprise. If the apprentices contribute to the production of goods and services of an enterprise, they should be classified as employed. Otherwise, they should be classified as unemployed or not economically active, depending upon their recent job-search activity and current availability for work.

In addition to apprenticeships, there are various other types of job-training schemes, organised directly by enterprises to train or retrain their staff, or subsidised by the government as a way to promote employment. Such job-training schemes are so varied in nature, modalities of contract, modes of payment, duration of training, etc., that specific guidelines on the classification of the trainees into labour force categories cannot be formulated. The appropriate statistical treatment should rather be determined on a scheme-by-scheme basis. However, the 14th ICLS agreed on the following general guidelines.

Trainees should be classified as employed if their activity can be considered as work, or if they have a formal job attachment. When the training takes place within the context of an enterprise, it can be assumed that the trainees are associated with the production of goods and services of the enterprise, at least for one hour during the reference period. In this case, the trainees should be considered as "at work" and be classified as employed, irrespective of whether or not they receive a wage or salary from the employer.

When the training does not take place within the context of an enterprise (e.g. training outside the enterprise, or inside the enterprise but without association with the production activity of the enterprise), the statistical treatment should depend on whether or not the trainees were employed by the enterprise before the training period (including cases classified as employed as mentioned above):

(a) If employed by the enterprise before the training period, the trainees should be considered as employed but not at work while on training, if they maintain a formal job attachment. An example is training schemes where periods of training in a specialised institution alternate with periods of work in the enterprise. To establish whether or not a formal job attachment exists, the criterion of assurance of a return to work (to be interpreted as assurance of a return to work with the same employer) should be considered to be the essential one. In situations where such assurance of a return to work does not exist, formal job attachment should be assessed on the basis of the criterion of continued receipt of wage or salary. This criterion should be considered as satisfied if the employer paid directly all or a significant part of the wage or salary. The third criterion, i.e. elapsed duration of the absence, might also be used in particular situations, e.g. in connection with long-term training schemes.

(b) If the trainees were not employed by the enterprise before the training period, they cannot be considered as "with a job but not at work" and the notion of formal job attachment does not apply. Consequently, if the training scheme provides a definite commitment to employment at the end of the training, the statistical treatment might follow that of persons who have made arrangements to take up employment at a date subsequent to the reference period, and who are to be classified as unemployed if currently available for work (see Section 6 below). Otherwise, the trainees should be classified as unemployed or not economically active, depending upon their recent job-search activity and current availability for work.

*Students, homemakers, etc.* In accordance with the priority rules of the labour force framework, students, homemakers, pensioners, registered unemployed persons and others mainly engaged in non-economic activities during the reference period, who at the same time were in paid employment or self-employment, should be considered as employed on the same basis as other categories of employed persons (and be identified separately, where possible).

*Employed persons looking for another or additional job.* The priority rules of the labour force framework, which give precedence to employment over unemployment, imply that employed persons seeking other or additional work should be classified as employed.

*Members of the armed forces.* Another group of persons identified by the 13th ICLS for inclusion among the employed are members of the armed forces. The statistics should include both the regular members and the temporary members (e.g. conscripts) of the armed forces as specified in the most recent revision of the International Standard Classification of Occupations (ISCO). It follows logically that persons performing civilian service as an alternative to compulsory military service, wherever such possibility exists, should also be classified as employed.

## 6. Unemployment

The international standard definition of unemployment adopted by the 13th ICLS is based on three criteria, which have to be met simultaneously. According to this definition, the unemployed comprise all persons above the age specified for measuring the economically active population who during the reference period were:

- (a) "without work", i.e. were not in paid employment or self-employment as defined by the international definition of employment (see section 5 above);
- (b) "currently available for work", i.e. were available for paid employment or self-employment during the reference period; and
- (c) "seeking work", i.e. had taken specific steps in a specified recent period to seek paid employment or self-employment.

In formulating these criteria, the 13th ICLS Resolution does not refer to any institutional or legal provisions, such as the receipt of unemployment insurance benefits or the registration as job seeker with a public employment office. The international definition of unemployment is intended to refer exclusively to a person's particular activities during a specified reference period. As a result,

unemployment statistics based on the international definition may differ from statistics on registered unemployment.

According to the priority rules of the labour force framework, unemployment takes precedence over economic inactivity. Therefore, students, homemakers, pensioners and other persons mainly engaged in non-economic activities during the reference period, who satisfy the above-mentioned criteria of the definition of unemployment, should be regarded as unemployed on the same basis as other categories of unemployed persons. They should however be identified separately, where possible. On the other hand, employed persons looking for another or additional job are excluded from the unemployed.

#### *Without work*

The "without work" criterion serves to draw the distinction line between employment and non-employment and to ensure that employment and unemployment are mutually exclusive, with precedence given to employment. Thus, a person is to be considered as without work if he or she did not work at all during the reference period (not even for one hour), nor was temporarily absent from work in the sense described in the previous section of this article. The other two criteria of the standard definition of unemployment, i.e. "current availability for work" and "seeking work", serve to distinguish among the non-employed population those who are unemployed from those who are not economically active.

#### *Seeking work*

In accordance with the activity principle of the labour force framework, the "seeking work" criterion is formulated in terms of active search for work. For being considered as seeking work, a person must have taken specific steps in a specified recent period to obtain work. A general declaration of being in search for work is not sufficient. This formulation of the criterion is meant to provide an element of objectivity for measurement. The recent period specified for job search activities need not be the same as the basic survey reference period of one week or one day, but might be longer. The 13th ICLS did not specify the length of the job search period. It left its determination open to countries. In practice, most countries define the job search period in terms of the last month or the past four weeks. The purpose of extending the job search period somewhat backwards in time is to take account of the prevailing time lags involved in the process of obtaining work after the initial step to find it was made. During these time lags persons may not take any other initiatives to find work. In particular, this may be the case of persons who can only apply for employment with one potential employer (e.g. judges) and are awaiting the reply to their application for a job.

The examples of active steps to seek work listed by the 13th ICLS include: registration at a public or private employment exchange; application to employers; checking at worksites, farms, factory gates, market or other assembly places; placing or answering newspaper advertisements; seeking assistance of friends or relatives; looking for land, building, machinery or equipment to establish one's own enterprise; arranging for financial resources; applying for permits and licenses, etc. Some of these examples refer to rather formal methods of seeking work (e.g. registration at an employment exchange), while others are more informal (e.g. seeking assistance of friends or relatives). Concerning "registration at a public or private employment exchange", the 14th ICLS specified that this should be considered an active step to seek work only when it is for the purpose of obtaining a job offer, as opposed to cases where registration is merely an administrative requirement for the receipt of certain social benefits.

Note that the examples given above cover steps referring not only to paid employment but also to self-employment. This is because the notion of seeking work is independent from the type and duration of employment sought, including self-employment, part-time employment, temporary, seasonal or casual work, and, in general, any type of work considered as economic activity.

### *Seeking self-employment*

The notion of seeking self-employment requires particular attention, as for self-employed persons the dividing line between seeking work activities and the self-employment activities themselves is often difficult to draw. In many situations, activities such as looking for potential clients or orders, or advertising the goods or services produced, are an essential component of the self-employment activity itself. One may also need to clarify, when new enterprises are set up, at what point the process of seeking self-employment turns to become a self-employment activity itself. For example, it is not obvious whether the activities of buying an initial stock of raw materials or merchandise, or of acquiring the necessary equipment for opening a shop, should still be regarded as a search activity or already as self-employed work. Having discussed the subject, the 14th ICLS recommended that the distinction between seeking self-employment and the self-employment activity itself should be based on the point when the enterprise starts to exist formally, e.g. when the enterprise is registered. Thus, activities taking place before the registration of the enterprise would be regarded as search activities, while activities taking place after registration would be considered as self-employment itself. For situations where enterprises are not necessarily required to formally register in order to operate, it was recommended to draw the dividing line at the point when the enterprise is ready to receive the first order, when financial resources have become available, or when the necessary infrastructure is in place.

### *Current availability for work*

According to the international standards, persons should be available for work during the reference period in order to be considered unemployed. Availability for work means that, given a work opportunity, a person should be able and ready to work. When used in the context of the standard definition of unemployment, a purpose of the availability criterion is to exclude persons who are seeking work to begin at a later date. Such may be the case of students who, at the time of the survey, are already seeking work to be taken up after completion of the school year. In this situation, use of the availability criterion serves as a test of the current readiness to start work. The availability criterion also serves to exclude other persons who cannot take up work due to certain impediments, such as family responsibilities, illness, or commitments to community services.

While the availability criterion was formulated by the 13th ICLS as availability during the reference week or day of the survey, in practice some countries prefer to use a slightly longer period. In countries of the European Union, for example, current availability for work is interpreted as availability during the survey reference week or the subsequent two weeks. This is to account for the fact that not everyone who is seeking work can be expected, or is expected, to take up a job immediately when it is offered. Persons may be temporarily sick at that moment, or may have to make arrangements concerning childcare, transport facilities, etc., before being able to start work. Furthermore, it may be usual practice that employers do not expect newly recruited employees to start work before the forthcoming first or fifteenth of the month.

### *Future starters*

The 13th ICLS Resolution mentions one particular category of persons, for whom an exception is made from the general rule that all three criteria (without work, currently available for work, seeking work) have to be satisfied simultaneously for being considered as unemployed under the standard definition. These are persons without work who have already made arrangements to take up paid employment or undertake self-employment activity at a date subsequent to the reference period (future starters). Such persons, if currently available for work, are to be considered as unemployed, whether or not they continue to seek work. In survey applications, it may be useful to set a time limit within which the employment is to be started.

Between the alternative of considering future starters as unemployed or employed (with a job or enterprise but not at work), the 13th ICLS has opted for unemployment. This is because being currently available for work these persons would probably already have started work if the job had begun earlier, and as such form part of the currently underutilised labour resources. Moreover, their classification as temporarily absent from work would not be in line with the requirement that a person temporarily absent from work must have worked already in the job in question.

*Relevance of the standard definition of unemployment*

Seeking work is essentially a process of search for information on the labour market. In this sense, it is particularly meaningful as a definitional criterion in situations where the bulk of the working population is oriented towards paid employment, and where channels for the exchange of labour market information exist and are widely used. While in industrialised countries these conditions are largely satisfied, this may not be the case in many developing countries where most workers are self-employed, often in informal sector enterprises, and where labour exchanges and similar institutional arrangements are not fully developed and are often limited to major urban areas or particular categories of workers. In rural areas and in agriculture, because of the size of the localities and the nature of the activities, most workers have a more or less complete knowledge of the employment opportunities in their areas at particular periods of the year, making it often unnecessary for them to take active steps to seek work. Even in industrialised countries and in urban labour markets of developing countries similar situations may exist, in which particular groups of workers do not actively seek work because they believe that no work corresponding to their skills is available in their area or at particular times of the business cycle.

*Relaxation of the seeking work criterion*

Since it was recognised that the standard definition of unemployment, with its emphasis on the seeking work criterion, might be somewhat restrictive and might not fully capture the prevailing employment situations in many countries, the 13th ICLS introduced a provision which allows for the relaxation of the seeking work criterion in certain situations. This provision is confined to situations where "the conventional means of seeking work are of limited relevance, where the labour market is largely unorganised or of limited scope, where labour absorption is at the time inadequate, or where the labour force is largely self-employed".

Formulating a definition of unemployment under the relaxation provision does not necessarily mean that the seeking work criterion should be completely relaxed for all categories of workers. The relaxation may be only partial. One would then include among the unemployed, in addition to persons satisfying the standard definition, certain groups of persons without work who are currently available for work but who are not seeking work for particular reasons.

An example of partial relaxation of the seeking work criterion, which is explicitly mentioned in the 13th ICLS Resolution, refers to persons temporarily laid off by their employer without maintaining a formal job attachment, i.e. to lay-offs not to be classified as employed (with a job but not at work). Under the standard definition of unemployment, such persons should be considered unemployed only if they are currently available for work and seeking work. For countries which, depending on national circumstances and policies, prefer to relax the seeking work criterion in the case of persons temporarily laid off, the 13th ICLS Resolution contains a provision to include such persons, if currently available for work but not seeking work, as a separate subcategory among the unemployed. Other examples, not specifically mentioned in the international standards, would be seasonal workers awaiting the start of the next season due to the lack of any current work opportunities, persons waiting to be recalled to work with their former employer, and the so-called "discouraged workers". The various categories of persons, for whom the seeking work criterion may be relaxed, are usually identified in labour force surveys by means of a question on the reason for not seeking work.

Some countries use a relaxed definition of unemployment in parallel with the standard definition. However, such practice tends to confuse users of the statistics and may lead to misunderstandings in public debates on the employment situation. It may be better in such cases to reserve the term 'unemployment' for a single indicator (such as the standard unemployment rate), and to disseminate other measures of labour slack under the heading 'supplementary indicators of labour underutilisation'.



### *Availability for work under the relaxation provision*

Where the labour market situation justifies the relaxation of the seeking work criterion, unemployment would be defined, for the persons concerned, in terms of the remaining two criteria of the definition, i.e. without work and current availability for work. The availability criterion, in particular, becomes then a crucial element for measurement and should be fully tested.

When the seeking work criterion is relaxed, a person without work will be considered unemployed if, given a work opportunity, he or she is able and ready to work. The meaning of the conditional element "given a work opportunity" is more ambiguous when the seeking work criterion is relaxed than when it is not. When the seeking work criterion is applied, the conditional element is linked to the type of work sought by the job seeker, as most active steps to seek work imply that the job seeker has some idea of the type of work that he or she has been looking for. However, when the seeking work criterion is relaxed, this link is cut and the notion of "given a work opportunity" is much less clear. The context, to which current availability for work refers, should then be specified in indicating the particulars of the potential work opportunities in terms of remuneration, working time, location, occupation, etc.

The 13th ICLS recognised that apart from special circumstances (e.g. school attendance, family responsibilities, illness or disability) availability for work depended essentially on the nature of potential work opportunities. It recommended that in "the application of the criterion of current availability for work, especially in situations where the 'seeking work' criterion is relaxed, appropriate tests should be developed to suit national circumstances. Such tests may be based on notions such as present desire for work, previous work experience, willingness to take up work for wage or salary on locally prevailing terms, or readiness to undertake self-employment activity, given the necessary resources and facilities".

## **7. Underemployment**

The international standards for the statistical measurement of underemployment were revised in 1998 by the 16th ICLS. The 'Resolution concerning the measurement of underemployment and inadequate employment situations' adopted by the 16th ICLS replaces the 'Resolution concerning measurement and analysis of underemployment and underutilization of manpower' of the 11th ICLS (1966) and paragraphs 14-20 and 21(5) of the 'Resolution concerning statistics of the economically active population, employment, unemployment and underemployment' of the 13th ICLS (1982).

The 16th ICLS integrated the measurement of underemployment in the labour force framework. Unemployment is defined in the labour force framework as an extreme situation of total lack of work. Less extreme situations of partial lack of work are all embodied within the broad concept of employment, defined as engagement in any economic activity for at least one hour during the reference period. It is for identifying such situations of partial lack of work and for complementing the statistics on employment and unemployment that the concept of underemployment has been introduced in the international standards.

The measurement of underemployment has particular relevance in developing countries, notably in agricultural activities. In many developing countries, because of high prevalence of self-employment, limited coverage of workers by unemployment insurance or social security systems and other reasons, the level of measured unemployment is consistently low. This has been explained by the fact that only few people can afford to be unemployed for some period of time, whereas the bulk of the population must engage themselves in some economic activity in order to survive, however little or inadequate that may be. In such circumstances, the employment situation cannot be fully described by unemployment data alone and the statistics should be supplemented with data on underemployment.

While the measurement of underemployment has mostly been recommended for describing the employment situation in developing countries, its relevance for industrialised countries is also increasingly felt. This is because in many countries, due to the changes in the employment situation, labour market flexibility and the rise of various forms of non-standard employment, new situations have emerged that can be regarded as underemployment.

According to the 16th ICLS, underemployment reflects an underutilization of the productive capacity of the employed population, including underutilization which arises from a deficient economic system. It relates to an alternative employment situation in which persons are willing and available to engage. The 16th ICLS recommendations concerning the measurement of underemployment are limited to time-related underemployment. The resolution adopted by the 16th ICLS does not cover a concept of underemployment based upon theoretical models about the potential capacities and desires for work of the working age population.

#### *Time-related underemployment*

The 16th ICLS Resolution specifies that time-related underemployment exists when the hours of work of an employed person are insufficient in relation to an alternative employment situation in which the person is willing and available to engage. The Resolution considers two elements in the measurement of time-related underemployment: (a) the number of persons in time-related underemployment and (b) the volume of time-related underemployment. The first element gives results in terms of a number of persons (head count), and the second element is measured in terms of time units such as working days, half-days or hours.

#### *Persons in time-related underemployment*

According to the definition adopted by the 16th ICLS, persons in time-related underemployment comprise all persons in employment (as defined by the 13th ICLS) who, during the reference period used to define employment, were willing to work additional hours, were available to work additional hours, and whose hours actually worked in all jobs during the reference period were below a threshold to be determined according to national circumstances. Thus, the definition sets forth three criteria for the identification of persons in time-related underemployment:

- (a) Willingness to work additional hours;
- (b) Availability to work additional hours;
- (c) Total number of hours actually worked during the reference period below a specified cut-off.

For considering a person as being in time-related underemployment, all three criteria must be satisfied simultaneously. Note that the definition of time-related underemployment refers to employed persons and not to jobs.

The concept of time-related underemployment applies to all employed persons, i.e. it applies not only to persons in paid employment but also to persons in self-employment, and not only to persons currently at work but also to persons temporarily absent from work. Persons in time-related underemployment being a sub-group of the employed, the concept does not apply to unemployed persons or to the population not economically active. By definition, an unemployed or economically inactive person cannot be in time-related underemployment.

A rate of time-related underemployment can be calculated as the ratio between the number of persons in time-related underemployment and the total number of employed persons. Alternatively, such a rate can be calculated as the ratio between the number of persons in time-related underemployment and the number of persons in the labour force (employed persons plus unemployed persons). In the latter case, a composite rate of time-related underemployment and unemployment can be obtained in summing the rate of time-related underemployment and the unemployment rate.

#### *Willingness to work additional hours*

The criterion of “willingness to work additional hours” in the 16th ICLS definition of time-related underemployment replaced the criterion of “involuntary reason” for work of less than normal duration, which had been used by the 13th ICLS to define visible underemployment. The notion of additional hours of work should be interpreted in a broad sense. It is meant to refer to all work arrangements and types of work that may increase a person’s total hours of work. Employed persons are considered to be willing to work additional hours, if during the reference period they wanted to have another job (or other jobs) in addition to their current job(s), in order to increase their total hours of work. Employed persons are also considered to be willing to work additional hours, if during the reference period they wanted to replace any of their current jobs with another job (or jobs) with

increased hours of work. Moreover, employed persons are considered to be willing to work additional hours, if during the reference period they wanted to increase the hours of work in any of their current jobs. A combination of these options is possible.

The international definition of time-related underemployment does not require persons to engage in any active search for additional hours of work. However, the 16th ICLS recommended that persons, who had actively sought to work additional hours, should be distinguished from other persons willing to work additional hours. This is to show, for analytical purposes, how willingness to work additional hours is expressed in terms of action.

#### *Availability to work additional hours*

To be considered in time-related underemployment, an employed person must not only be willing to work additional hours but also be available for doing so. In the context of measuring time-related underemployment, availability means being ready, within a specified subsequent period, to work additional hours, if there are opportunities for additional work. The period to be specified for determination of the availability to work additional hours should be chosen according to national circumstances, i.e. it may vary among countries. It should comprise the period generally required for workers to leave one job in order to start another. Thus, the reference period for availability to work additional hours in the definition of time-related underemployment may have to be longer than the reference period for current availability for work in the definition of unemployment.

In practice, it may be difficult for survey respondents to distinguish their availability for additional work from the desire for additional work. For this reason, a number of labour force surveys have resorted to measuring the two criteria jointly, i.e. through a combined question on the respondents' willingness and availability to work additional hours.

#### *Threshold for hours actually worked*

The 10th ICLS (1962) defined hours actually worked as including: hours actually worked during normal periods of work; time worked in addition to hours worked during normal periods of work, and generally paid at higher than normal rates (overtime); time spent at the place of work on the preparation of the work place, repairs and maintenance, preparation and cleaning of tools, preparation of receipts, time sheets and reports, etc.; time spent at the place of work waiting or standing-by because of lack of supply of work, breakdown of machinery, accidents, etc., or time spent at the place of work during which no work is done but for which payment is made under a guaranteed employment contract; and time corresponding to short rest periods at the work place, including tea and coffee breaks. Excluded from the 10th ICLS definition of hours actually worked are: hours paid for but not worked (e.g. paid annual leave, paid public holidays, paid sick leave); meal breaks; and time spent on travel from home to work and vice versa.

According to the 16th ICLS definition, employed persons willing and available to work additional hours should be considered in time-related underemployment only if the total hours, which they actually worked in all of their jobs during the reference period, were below a working time threshold to be chosen according to national circumstances. The 16th ICLS Resolution suggests that this threshold be determined, for example, by the boundary between full-time and part-time employment, median values, averages, or norms for hours of work as specified in relevant legislation, collective agreements, agreements on working time arrangements or labour practices in countries. Given that regulations and practices concerning hours of work vary among different groups of workers, labour force surveys tend to specify a uniform conventional norm (e.g. 40 hours or 35 hours) to be used for all categories of employed persons.

Persons, who during the reference period worked more than the number of hours taken as the cut-off point, do not qualify for the inclusion among persons in time-related underemployment. In order to provide analytical flexibility and enhance the international comparability of statistics, the 16th ICLS recommended, however, that countries should identify all employed persons who were willing and available to work additional hours, irrespective of the number of hours which they actually worked during the reference period. Following this recommendation means for the design of survey questionnaires, that the question(s) on willingness and availability to work additional hours should be

addressed to all employed persons, and not only to those whose number of hours actually worked was below the chosen threshold.

The 16th ICLS Resolution mentions the usefulness of identifying, among persons in time-related underemployment, the following two groups separately: (a) persons who usually work part-time schedules and want to work additional hours, and (b) persons who during the reference period had to work less than their normal hours of work. Separate identification of the two groups helps to distinguish persons, for whom time-related underemployment represents a lasting phenomenon (involuntary part-time workers), from persons, for whom time-related underemployment was an exceptional situation during the reference period (short-time workers). It requires additional information on the full-time vs. part-time nature of the employment and/or the number of usual hours of work.

#### *Volume of time-related underemployment*

According to the 16th ICLS, the volume of time-related underemployment relates to the total additional time that persons in time-related underemployment were willing and available to work during the reference period up to the chosen threshold. It can be computed in units of working days, half-days or hours as may be convenient in national circumstances. In addition, it may be useful to estimate the aggregate number of days, half-days or hours that employed persons are willing and available to work in addition to the hours actually worked during the reference period without reference to a threshold.

The number of persons in time-related underemployment is a head-count measure which gives the same weight to all persons in time-related underemployment, irrespective of the number of additional hours that they are willing and available to work. A person, who was willing and available to work, for example, only one additional hour during the reference period, is included among persons in time-related underemployment on the same basis as a person, who was willing and available to work, for example, 10 additional hours. Measurement of the volume of time-related underemployment accounts for such differences and permits data on time-related underemployment to be expressed in full-time equivalents. It requires collection of information on the number of hours, half-days or days that employed persons were willing and available to work during the reference period in addition to the number of hours which they actually worked.

A rate of the volume of time-related underemployment can be obtained as the ratio between the volume of time-related underemployment and the potential time for work of employed persons, calculated as the sum of the total hours actually worked by employed persons and the volume of time-related underemployment.

## **8. Employment and income relationships**

Inadequacy of employment may result from a number of factors, among which insufficient volume of employment (in terms of time worked) and low remuneration per hour are perhaps the two most obvious ones. Statistics on unemployment and time-related underemployment provide insight only on the first of these factors. They do not provide any information on the adequacy of the incomes obtained from employment and on related social aspects (e.g. poverty). The limitation of the concepts of unemployment and time-related underemployment becomes evident, for example, in the case of persons who, though fully or even excessively employed in terms of hours, have low earnings and may therefore seek extra or different work. Another example refers to the situation of self-employed persons, where a lack of demand for their goods or services may result in low intensity of work and low income rather than in a reduction of time spent at work. This is because there is a tendency for such persons to spread their work over time rather than to work short-time when the demand for their products or services is low. In many countries, such problems are more characteristic of the employment situation, and hence more important for employment policies, than unemployment and time-related underemployment.

So as to indicate the need for supplementing statistics of employment, unemployment and underemployment with statistics that would provide insights on the income aspect of employment inadequacy, the 13th ICLS recommended that countries develop data collection programmes for the

analysis of the relationships between employment and income. In particular, data should be compiled for the purpose of (a) analysing the income-generating capacity of different economic activities, and (b) identifying the number and characteristics of persons who are unable to maintain their economic well-being on the basis of the employment opportunities available to them. However, the relationships between employment and income are complex, and up to now relatively little national or international experience exists regarding statistics on these topics. Thus, there is still more work to be done in the future. To this end, countries should test the inclusion of questions on income from employment in their labour force survey questionnaires. In countries, where a significant part of the labour force is self-employed, such questions should refer not only to income from paid employment but also to income from self-employment, which is more difficult to measure accurately.

## **9. Inadequate employment situations**

According to the 16th ICLS, indicators of inadequate employment situations describe situations in the workplace, which reduce the capacities and well-being of workers as compared to an alternative employment situation. The 16th ICLS recognised that inadequate employment situations may differ among countries and that to a large extent the statistical definitions and methods needed to describe such situations still had to be developed further.

The 16th ICLS defined persons in inadequate employment situations as comprising all employed persons who during the reference period wanted to change their current work situation, or (particularly for self-employed persons) to make changes to their work activities and/or environment, for any of a set of reasons chosen according to national circumstances. Examples include: inadequate use and mismatch of occupational skills; inadequate income in the current job(s); excessive hours of work; precariousness of the job(s); inadequate tools, equipment or training for the assigned tasks; inadequate social services; difficulties in travelling to work; variable, arbitrary or inconvenient work schedules; recurring work stoppages due to delivery failures of raw materials or energy; prolonged non-payment of wages; long overdue payments from customers. Note that a person may be simultaneously in several types of inadequate employment situations.

Three particular types of inadequate employment situations were identified by the 16th ICLS: skill-related inadequate employment, income-related inadequate employment, and inadequate employment related to excessive hours (over-employment).

*Skill-related inadequate employment* is characterised by an inadequate utilisation and mismatch of occupational skills. It signifies a poor utilisation of human capital. Skill-related inadequate employment comprises all employed persons who during the reference period wanted or sought to change their current work situation in order to use their current occupational skills more fully, and who were available to do so.

*Income-related inadequate employment* results from low levels of organisation of work, low productivity, insufficient tools, equipment or training, or a deficient infrastructure. It comprises all employed persons who during the reference period wanted or sought to change their current work situation in order to increase income limited by factors such as those mentioned above, and who were available to do so. It may be useful to apply an income threshold chosen according to national circumstances, above which persons do not qualify for inclusion.

*Inadequate employment related to excessive hours (over-employment)* comprises all employed persons who want or seek to work, either in the same job or in another job, less hours than they actually worked during the reference period, with a corresponding reduction of income. Again, it may be useful to apply a threshold of hours, below which persons do not qualify for inclusion.

One way to identify persons in inadequate employment situations in labour force surveys is to include survey questions on the respondent's desire for changing his or her current work situation, and on the reason for such desire. The subjectivity of the resulting measures of inadequate employment should however be taken into account when interpreting the statistics.

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## **La mesure de l'emploi, du chômage et du sous-emploi – Normes internationales en vigueur et questions de leur application**

### Résumé

Ce document décrit les concepts et définitions de base énoncés dans les normes internationales concernant les statistiques de la population active, de l'emploi, du chômage et du sous-emploi, adoptées à la 13e Conférence internationale des statisticiens du travail (CIST) en 1982 et à la 16e CIST en 1998. Les principales questions traitées dans le document sont les suivantes: le concept d'activité économique défini par la production de biens et de services conformément au Système de comptabilité nationale 1993; les cadres conceptuels de mesure de la population active du moment (la main-d'oeuvre) et de la population habituellement active; la définition de l'emploi fondée sur le critère d'une heure pour toutes les catégories de travailleurs et faisant la distinction entre l'emploi salarié et l'emploi non salarié; la notion d'absence temporaire du travail dans la définition de l'emploi; la définition standard du chômage et l'assouplissement du critère de la recherche de travail dans certaines situations; la définition du sous-emploi lié à la durée du travail et sa mesure dans le cadre des statistiques de l'emploi; les recommandations contenues dans les normes internationales tendant à rassembler des données pour l'analyse des relations entre l'emploi et le revenu afin de compléter les statistiques sur l'emploi, le chômage et le sous-emploi lié à la durée du travail.

Lorsqu'il y a lieu, le document analyse les problèmes de mesure, qui peuvent se poser dans les enquêtes, ainsi que le traitement statistique approprié de catégories particulières de travailleurs comme les personnes travaillant à titre indépendant, les travailleurs familiaux collaborant à l'entreprise familiale, les travailleurs occasionnels, les travailleurs saisonniers, les apprentis et les stagiaires, les personnes temporairement mises à pied et les personnes engagées dans la production de biens pour l'autoconsommation du ménage, qui sont quelquefois à la limite entre des catégories de main-d'oeuvre. A cet égard, le document examine aussi certaines directives approuvées par la 14e CIST en 1987 et la 16e CIST en 1998 concernant l'application des normes internationales de 1982 à des situations particulières.

## **La medición del empleo, del desempleo y del subempleo - Normas internacionales vigentes y cuestiones en su aplicación**

### Resumen

En el presente documento se describen los conceptos y definiciones básicos recogidos en las normas internacionales sobre estadísticas de la población económicamente activa, el empleo, el desempleo y el subempleo, tal como se adoptaron por la decimotercera Conferencia Internacional de Estadísticos del Trabajo (CIET) en 1982 y la decimosexta CIET en 1998. Entre las principales cuestiones que se examinan en él, cabe señalar: el concepto de actividad económica definido en términos de la producción de bienes y servicios, tal como se define por el Sistema de Cuentas Nacionales de 1993; los marcos conceptuales para medir la población actualmente activa (la fuerza de trabajo) y la población habitualmente activa; la definición de empleo, basada en el criterio de una hora para todas las categorías de trabajadores y diferenciando entre empleo asalariado y empleo independiente; la noción de ausencia temporal del trabajo en la definición de empleo; la definición estándar de desempleo y la supresión del criterio de búsqueda de trabajo en determinadas situaciones; la definición de subempleo por insuficiencia de horas y su medición como parte de las estadísticas sobre el empleo, y las recomendaciones hechas por las normas internacionales de recopilar datos para analizar las relaciones entre el empleo y los ingresos con objeto de complementar las estadísticas sobre el empleo, el desempleo y el subempleo por insuficiencia de horas.

En los casos pertinentes, se examinan los problemas de medición, que pueden suscitarse en las encuestas, y el debido tratamiento estadístico de determinadas categorías de trabajadores, como los trabajadores independientes, los trabajadores familiares auxiliares, los trabajadores ocasionales, los trabajadores estacionales, los aprendices, las personas suspendidas de su trabajo y aquellas que participan en la producción de bienes para el autoconsumo del hogar, que a veces se hallan en el límite entre distintas categorías de la fuerza de trabajo. A este respecto, se examinan igualmente determinadas directrices adoptadas por la decimocuarta CIET en 1987 y la decimosexta CIET en 1998 relativas a la aplicación de las normas internacionales adoptadas en 1982 a distintas situaciones particulares.