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**AN INTEGRATED FRAMEWORK  
FOR THE MEASUREMENT  
OF WORKING TIME**

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## **TABLE OF CONTENTS**

A.	<u>Introduction</u> .....	1
	The Resolution concerning statistics of hours of work .....	1
	Uses of statistics of working time .....	2
	Need for revision .....	3
	The purpose of this paper.....	4
B.	<u>The basic framework of working time</u> .....	5
	Observation unit and other measurement issues .....	6
	Working time defined for measurement and labour laws .....	7
C.	<u>Time worked</u> .....	8
	Time actually worked.....	9
	Time for work.....	11
	Productive time .....	11
	Normal time.....	12
	Time demanded by establishments .....	14
	Usual time.....	16
	Expected time .....	17
	Time demanded .....	17
	Time paid.....	17
	Overtime.....	18
D.	<u>Time for rest</u> .....	21
	Normal rest.....	22
	Actual rest .....	23
E.	<u>Time of absence</u> .....	25
	Time of absence.....	26
	The boundary of "absence from work".....	29
	Time not demanded.....	30
	Non-productive time .....	31
F.	<u>Measurement issues</u> .....	32
	The worker coverage .....	32
	The reference period.....	32
	Time units .....	33
	Observation units .....	34
	Methods of data collection .....	34
G.	<u>National practices</u> .....	38
	Household surveys .....	38

Time use surveys .....	43
Establishment surveys .....	44
H. <u>Other topics</u> .....	45
Annual estimates of working time .....	45
Working time arrangements .....	46
I. <u>Conclusions</u> .....	48

REFERENCES .....	69
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<b><u>ANNEXES</u></b> .....	71
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1. ILO Conventions dealing with working time issues .....	72
2. Working time concepts defined in ILO Conventions and Recommendations.....	73
3. Resolution concerning Statistics of Hours of Work, 1962.....	78
4. Resolution concerning Statistics of the Economically Active Population, Employment, Unemployment and Underemployment, 1982.....	79
5. Report of the Working Group on the Implications of Employment Promotion Schemes on the measurement of Employment and Unemployment .....	80
6. National household survey titles .....	81
7. National establishment survey titles .....	83

## **FIGURES**

1. Relationship between time worked, time of absence and time for rest.....	5
2. A working time framework.....	6
3. Usual time seen as a modal value of "time actually worked" .....	15
4. Working time concepts.....	20
5. Time for rest concepts.....	24
6. A classification of absences .....	27
7. A definition of time of absence.....	28
8. Working time concepts.....	31
9. "Time actually worked" measured in the Australian survey .....	38
10. Usual time as measured in the UK survey.....	39
11. Normal time measured in the Norwegian survey.....	40
12. Measurement of time for rest and time of absence in household surveys .....	41

## **TABLES**

1. Working time concepts measured in national household surveys.....	51
2. Time worked measured in household surveys .....	53
3. Normal (or usual) time measured in household surveys .....	54
4. Overtime measured in household surveys .....	55

5.	Time of absence measured in household surveys .....	56
6.	Reasons of absence stipulated in household surveys .....	58
7.	Reasons of rest stipulated in household surveys .....	60
8.	Working time concepts measured in household surveys using longer reference periods .....	62
9.	Working time concepts measured in establishment surveys .....	63
10.	Time worked measured in establishment surveys .....	64
11.	Time paid measured in establishment surveys .....	65
12.	Normal time measured in establishment surveys.....	66
13.	Overtime measured in establishment surveys .....	67
14.	Time of absence or rest measured in establishment surveys .....	68
15.	Legal time .....	68



## A. INTRODUCTION

The main purpose of international standards adopted by the International Labour Conference is to protect the fundamental rights of workers. Within this objective, the regulation of working time is an aspect which has a direct and measurable impact on workers' health, level of stress and fatigue, on the establishment's productivity and costs and on the society's general quality of life. The importance of working time is reflected in the Preamble to the ILO Constitution, which urges the regulation of daily and weekly working time as a first step to improving workers' conditions, and in ILO Conventions adopted by the International Labour Conference, the first of which refers to working time [13]. Since then, over 30 Conventions have dealt with working time issues such as the regulation and reduction of maximum daily and weekly working time, the regulation of night work, weekly rest, annual leave and maternity leave, and the measurement of working time (see Annex 1 for a list of these Conventions).

The International Conference of Labour Statisticians (ICLS), which meets at regular intervals to discuss and adopt common methodologies on labour statistics, has also dealt with the measurement of working time. It has adopted two resolutions<sup>1</sup> which recommend the measurement of working time as part of a system of wages statistics and has recognised the importance of working time statistics when constructing wage indexes to measure changes in the standard of living of the working class<sup>2</sup>. However, it has only adopted one Resolution which defines working time for measurement purposes. This is the Resolution concerning statistics of hours of work adopted by the 10th ICLS in 1962 [17].

### The Resolution concerning statistics of hours of work

This resolution defines two working time concepts which cover wage earners and salaried employees. The first concept, "normal hours of work", relates to the hours of work stipulated in laws and establishments' rules or customs:

- (1) *Normal hours of work are the hours of work fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards.*
- (2) *Where not fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards, normal hours of work should be taken as meaning the number of hours per day or week in excess of which any time worked is remunerated at overtime rates or forms an*

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<sup>1</sup> Resolution concerning statistics of wages and hours of work, 1923 and Resolution regarding an integrated system of wages statistics, 1973 [12].

<sup>2</sup> Conclusions of the first International Conference of Statisticians convened by the Social Science Research Council of the United States of America, 1929 [12].

*exception to the rules or custom of the establishment relating to the classes of workers concerned.*

The second concept, "hours actually worked", relates to time worked during a specific reference period:

*Statistics of hours actually worked should include --*

1. *hours actually worked during normal periods of work;*
2. *time worked in addition to hours worked during normal periods of work, and generally paid at higher rates than normal rates (overtime);*
3. *time spent at the place of work on work such as the preparation of the workplace, repairs and maintenance, preparation and cleaning of tools and the preparation of receipts, time sheets and reports;*
4. *time spent at the place of work waiting or standing-by for such reasons as lack of supply of work, breakdown of machinery. or accidents, 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;*
5. *time corresponding to short rest periods at the workplace, including tea and coffee breaks.*

(2) *Statistics of hours actually worked should exclude --*

1. *hours paid for but not worked, such as paid annual leave, paid public holidays, paid sick leave;*
2. *meal breaks;*
3. *time spent on travel from home to work and vice versa.*

Given wide differences in payment of holidays and other periods of inactivity, this Conference did not adopt an international definition of "hours paid for", although statistics on this concept were readily available. The Conference observed that statistics on "hours paid for" could be used for internal purposes but that they were not suitable as a proxy to "hours actually worked". Regarding methods of data collection, establishment surveys were considered to provide more accurate results while household surveys had the advantage of covering more workers. Regarding data reporting, both concepts were to be measured in, or converted to, one-hour time units and reference periods of one week.

## **Uses of statistics of working time**

Statistics on working time were first collected to monitor working conditions. The main interest at the time was to assess working time regulations. This gave way to the development of the



**normal time** concept presented above. Later, working time statistics were also used as a tool for economic analysis. The concept of **hours actually worked** was then developed to estimate labour volume, and together with "normal hours", to identify part-time workers and persons in visible underemployment, and to calculate economic indicators, such as the average hourly earnings, the average labour cost per unit of time and labour productivity.

Additionally to "normal" and "actual" hours of work, other working time concepts have proved to be useful for the same and other purposes. For example, statistics on **overtime** are useful to evaluate establishments' responses to market's demands as well as working conditions. Statistics on **time of absence** are useful, when classified by types of absences, to indicate the level of discontent among workers, the employers' efforts regarding leave entitlement or the economy's functioning. "Total time of absence" is also useful to explain differences between "hours actually worked" and "normal hours of work" and also to explain differences in the measured level of employment. Linked to the regulation of working time is the regulation of resting time, and statistics on **leave entitlement** and on **actual leave** taken are useful to monitor the implementation of leave regulations. It is also important to account for the time spent at the workplace on activities which cannot be considered as productive, or **non-productive time**, especially when it causes variations in productivity. Its counterpart, the time spent in productive activities, or **productive time**, is a refined measure of "hours actually worked" and may serve in more refined calculations of productivity and labour cost per hour.

## Need for revision

The ICLS has adopted international standards on the measurement of time lost due to occupational injuries and labour disputes<sup>3</sup>, which may be seen as subsets of "time of absence". It has also discussed the measurement of paid vacations [14] and of absence from work [15]. However, it has not adopted international recommendations on "time not worked" as a whole. The need to adopt common methodologies on this subject was expressed by the 14th ICLS, which, after discussing the measurement of "absence from work", asked the Bureau of Statistics to continue its work on the subject, with the view of arriving at international standards [16].

Many countries are currently measuring many of these working time concepts and some have requested guidance to the ILO. Given its role of setting international standards on labour statistics, the ILO has started to develop definitions for the various working time concepts enumerated above. To be consistent, such definitions have been integrated into a **framework of working time**. This framework fits into a more general framework on the use of time, so that working time concepts can be linked with concepts of time spent on activities which fall outside the production boundary of the present UN System of National Accounts (SNA) but which contribute to the production of goods and services (e.g. household and voluntary activities).

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<sup>3</sup> Resolution concerning statistics of occupational injuries, 1982; Resolution concerning statistics of industrial disputes, 1926 [17].

One aim of this working time framework is to ensure that it can cover as many workers as possible. Total worker coverage is essential to obtain useful measures of labour volume for national accounts and for the analysis of visible underemployment. Working time concepts adopted by the 10th ICLS are limited, however, to wage earners and salaried employees. This is a serious limitation in countries where the bulk of the labour force is self-employed. The need for total worker coverage also follows from the Resolution concerning the promotion of self-employment adopted by the International Labour Conference in 1990 [10], which calls the ILO to extend the coverage of labour statistics to all workers.

Linked to the worker coverage is the increasing need to have definitions which can be easily applied to different measurement needs, circumstances and possibilities. The existing international standard definitions are based on reference periods of one week and time units of one hour, and cannot be easily implemented when other reference periods or time units are required. Given that the main objective of international standards is to guide countries in developing national definitions according to their own national realities, concepts discussed in this document will try to be independent from particular data collection methods, reference periods or time units. Therefore, the term **hours**, which may imply the use of a one hour time unit, will be avoided throughout this document, and will be replaced by the term **time** wherever possible, and no reference will be made to any one particular reference period, worker coverage or method of data collection.

## **The purpose of this paper**

It is the purpose of this paper to present the various working time concepts developed at the ILO Bureau of Statistics, with the view of arriving at a framework in which these working time concepts can be incorporated and measured. It is hoped that it will stimulate discussions and generate useful recommendations for future work to arrive at revised international statistical standards.

## B. THE BASIC FRAMEWORK OF WORKING TIME

The framework for measuring working time proposed in this paper applies only to **persons in employment** as defined by the labour force framework [17]. In this framework, persons in employment are those who, during a short reference period, were engaged in the production of goods and services considered as economic by the SNA, i.e. who "worked" for wage or salary, profit or family gain for at least one hour (i.e. persons "at work") or who did not work for temporary circumstances (i.e., persons "not at work"), but who maintained a formal attachment to their jobs.

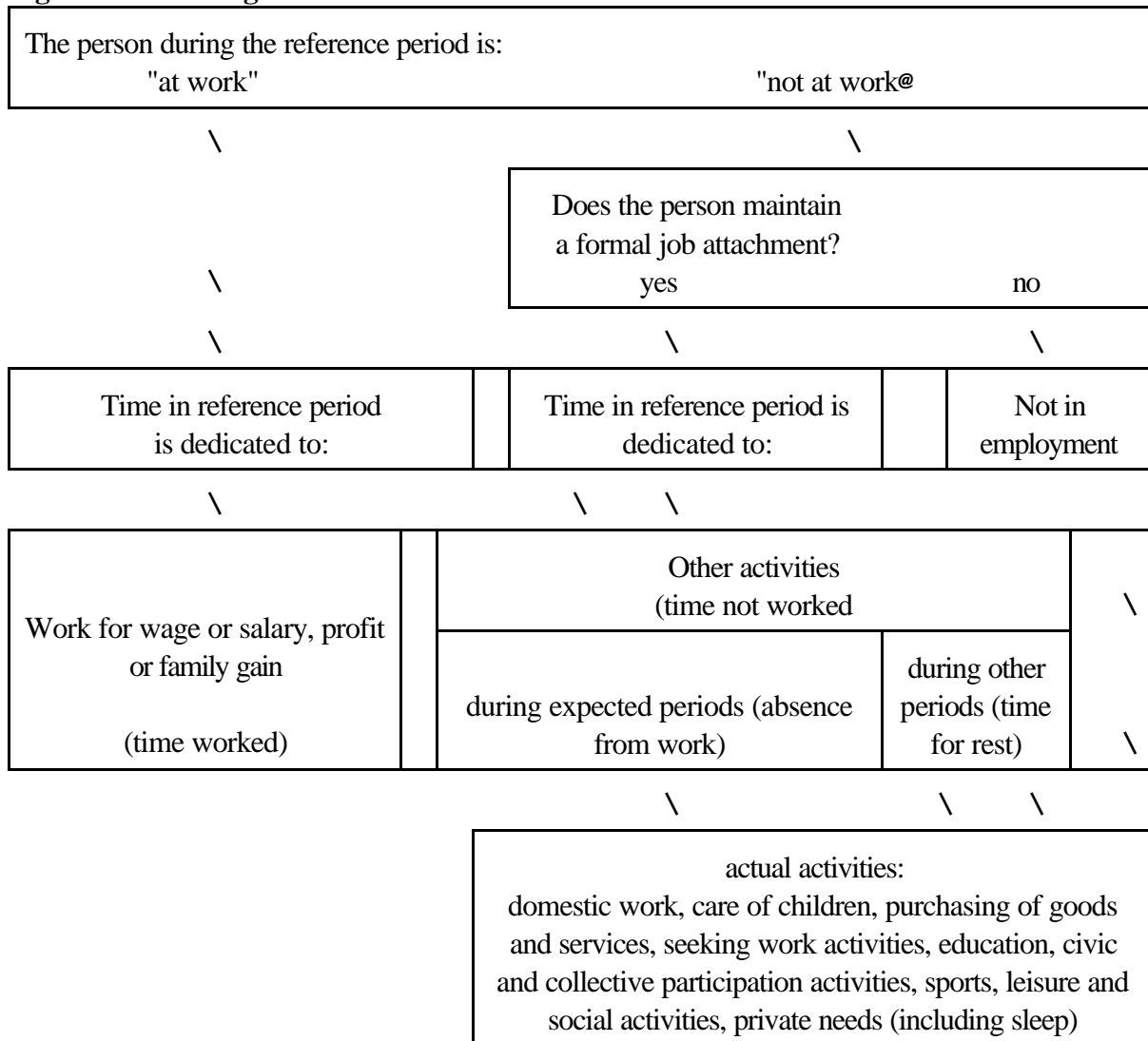
The distinction between persons "at work" and persons "not at work" is made on the basis of working time. Thus, a starting point for constructing a framework of working time may be to distinguish the "time worked" by persons "at work" from the "time not worked" by persons "not at work". A second step would be to distinguish, among persons "at work", the time worked from the time not worked.

"Time worked" is broadly reflected by the concept of "hours actually worked" adopted by the 10th ICLS and presented in Section A above. Concepts of "time worked" will be further discussed in Section C. No international definition exists of "time not worked". In this paper, "time not worked" is divided into time spent "resting" from work and time of "absence from work". The distinction between the two lies on the condition of **being expected to work**. "Time of rest" is time when workers do not expect nor are expected to work while "time of absence" happens when workers expect or are expected to work. These concepts will be further developed in Sections D and E. The time when workers are expected to work can be broadly linked to the concept of "normal hours" defined by the 10th ICLS and presented in Section A above. This concept will be discussed in Section C. Figure 1 shows the relationship between working time concepts.

**Figure 1. Relationship between time worked, time of absence and time for rest**

	during "expected" periods	During other periods
time worked	time worked	time worked
time not worked	time of absence	time of rest

It is well known that workers do not "rest" during the whole of their periods for rest, but use some of this time for the production of goods and services which fall outside the boundary of the SNA (e.g. household and voluntary work, child care, travelling activities), for personal activities (e.g. personal care, reading), for other activities linked to the labour market (e.g. seeking work activities), etc. The same can be said of workers during their periods of absence (e.g. a woman on maternity leave engages part of her time to household and other types of work), and of non-employed persons. Thus, when the interest is on the actual use of "time not worked", a classification of the use of time, as proposed in [31] may be more significant. Figure 2 below shows the basic framework for measuring working time.

**Figure 2. A working time framework**

## Observation unit and other measurement issues

It will be considered in this paper that working time should be measured in relation to a **job**. When measuring working time of persons who have more than one job, all jobs have to be considered. This is in line with the classifications by industry, occupation and status in employment. For the purpose of simplicity, however, it will be assumed that a worker has only one job. It will also be assumed that there are no measurement constraints, i.e. that methods of data collection are able to accurately capture the reality using short time units and long reference periods. Deviations from these assumptions are discussed in Sections F and G.

## **Working time defined for measurement and labour laws**

Working time defined for measurement purposes may differ from working time defined in labour laws. Labour laws are usually tailor-made to fit the objectives of the particular groups of employers and unions involved. They are specific to groups of workers and are often not comparable between them. They are, however, useful for labour management negotiations for the groups of workers concerned. The measurement of working time, on the other hand, should provide national (or regional) estimates which are comparable between groups of workers. This requires standard concepts and thus may exclude, for particular groups of workers, activities which are included (or vice versa) in labour laws. It is important to understand the different objectives and applications of the two types of concepts in order to collect and analyse data appropriately.

## C. TIME WORKED

"Time worked" has been defined by ILO Conventions in relation to the time, during a specified reference period, when (paid) workers are **at the disposal of an employer**, that is, when they are available to receive orders from an employer or a person with authority. During periods of availability, workers are ready to work if work is possible, requested or necessary. To be also meaningful for self-employed workers, this concept may be expanded to mean the time when workers are "at the disposal of (or available to receive orders from) an employer or client", or time when workers are "available to work" <sup>4</sup>.

The Hours of Work (Commerce and Offices) Convention in 1930 first ascribed "time worked" to availability periods, explicitly excluding "time for rest", when workers are not available to work:

*The term "hours of work" means the time during which the persons employed are at the disposal of the employer; it does not include rest periods during which the persons employed are not at the disposal of the employer* <sup>5</sup>.

"Rest periods" in this context (and in the context of the working time framework) is time not worked during periods when workers are not expected to (be available to) work. Workers may of course take breaks for rest during periods when they are in principle expected to work. These periods should be considered separately from rest periods and together with other interruptions of work. This distinction, however, often proves difficult in practice.

That may be the reason why the Hours of Work and Rest Periods (Road Transport) Convention adopted in 1939 included "periods for rest below a certain length" (when workers are neither working nor available to work) in their definition of "availability to work":

*The term "hours of work" means the time during which the persons concerned are at the disposal of the employer or of any other person entitled to claim their services, or in the case of owners of vehicles and members of their families, the time during which they are engaged in their own account in work connected with a road transport vehicle, its passengers or its load, and includes -*

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<sup>4</sup> Being "available to work" should not be confused with the "availability" criterion used to determine unemployment. The time when workers are "available to work" in the working time framework is limited to periods of employment (i.e. in the context of a working contract or another sort of attachment to work). In the unemployment definition it means the time when workers are able and ready to set aside **if** a work opportunity arises [9]. During these periods, there is no formal job attachment.

<sup>5</sup> *Other conventions using similar definitions are the Reduction of Hours of Work (Public Works) Convention, 1936 and Reduction of Hours of Work (Textiles) Convention, 1937 (see Annex 2).*

- (i) *time spent in work done during the running time of the vehicle;*
- (ii) *time spent in subsidiary work;*
- (iii) *periods of mere attendance; and*
- (iv) *breaks for rest and interruptions of work, which breaks or interruptions do not exceed a duration to be prescribed by the competent authority*<sup>6</sup>.

Criteria (i) and (ii) reflect actual work. Criterion (iii) and that part of criterion (iv) which relates to interruptions of work reflect "availability to work". However, time spent on breaks for rest in criterion (iv) does not reflect either. A later revision to this Convention excluded breaks for rest from its definition<sup>7</sup>. The inclusion of short breaks in this definition of "hours of work" seems to respond to a measurement constraint: brief periods for rest are difficult to identify separately from periods of "availability" because they are short and easily interchangeable. For example, workers may prefer to take a coffee break (an unscheduled resting period) during stand-by periods (an availability period). Thus, although under the assumption of no measurement constraints "time worked" will exclude all periods of rest, in reality, its measurement will inevitably include those periods of rest which are difficult to recognise as such.

## **Time actually worked**

The concept of "hours actually worked" (or "time actually worked", to avoid using the term "hours") defined by the 10th ICLS in 1962 and presented in Section A, is very similar to the definitions mentioned above. It includes time spent at the workplace on productive activities and on other activities not considered to be directly productive but which are part of the tasks and duties of the jobs concerned (e.g. cleaning and preparing working instruments). The concept also includes some inactive time spent at the place of work for reasons linked to the production process or work organisation (e.g. stand-by time). During these periods, workers are available to work. As with previous definitions, and probably for similar reasons, the concept of "time actually worked" also included short periods for rest spent at the place of work, when workers are not "available to work", and explicitly excludes lunch breaks, the only sufficiently long period for rest which is easily distinguishable from periods of "availability". The concept of "hours actually worked" was therefore determined by practical measurement issues. It is the position in this working paper, however, that practical measurement considerations should be kept separate from the conceptual issues.

It was mentioned in the Introduction that this concept is only meaningful for a subgroup of workers. Indeed, this concept only considers working activities which are typical of machine

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<sup>6</sup> *This Convention goes on to describe in detail the meaning of each of these components (see Annex 2).*

<sup>7</sup> Hours of Work and Rest Periods (Road Transport) Convention, 1979, and Hours of Work and Rest Periods (Road Transport) Recommendation, 1979 (see Annex 2).

operators and similar types of jobs, and leaves out a number of working situations which may occur in other types of jobs, such as professional training, work at home, attending meetings and travelling activities. As these other activities do not fit easily into those listed by the definition, it is not clear whether they are to be included or excluded from the "time actually worked" concept.

To consider these and other activities, "time actually worked" would need to expand its coverage to all types of jobs. This may be achieved by relating the "time actually worked" in a particular job to the tasks and duties defined for that job. A compilation of tasks and duties defined for a wide range of jobs can be found in [20]. "Time actually worked" in a job would then include all time spent on the tasks and duties defined for that job, and all inactive time spent in the course of performing these tasks and duties, when workers continue to be available to work:

The "time actually worked" in a particular job relates to all periods, during the reference period, when workers are available to receive orders from an employer or client. This is equal to the time spent performing, or in the course of performing, the tasks and duties defined for that job.

This definition assumes that there exists a suitable occupational dictionary to describe the contents of all jobs in an economy.

According to this definition, "time actually worked" will include the time spent at all the places where the tasks and duties of a job are carried out. Thus, it will include the time that teachers work at school and at home; and the time that agriculture workers spend working in the fields, the barn and the marketplace. When a job requires some professional training, "time actually worked" will include the time spent on professional training <sup>8</sup>. And when the tasks and duties of a job require travelling, "time actually worked" will include travelling time. Examples of this type of jobs are those of door-to-door vendors who need to travel from one house to the next; of agriculture workers who need to travel to take the farm products to the marketplace and to bring farming inputs from town; of persons attending a meeting outside their usual workplace who need to travel to the meeting place; of doctors on call who need to travel to the hospital when they are called; of seafarers and drivers whose jobs require constant travelling. Conventions related to working time of transport workers have used a similar definition <sup>9</sup>.

"Time actually worked" will also include other periods spent **in the course** of performing the tasks and duties (i.e. stand-by and other inactive time), during which workers, in principle, continue and are expected to be "available to work". Assuming no measurement constraints, "time actually worked" should exclude all periods when workers are normally not expected (to be available) to

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<sup>8</sup> This contrasts with other types of training which are not defined as part of the tasks and duties for the particular job. In this paper they will be termed "study leave" to differentiate them from "professional training".

<sup>9</sup> Hours of Work and Rest Periods (Road Transport) Convention, 1939, Hours of Work and Rest Periods (Road Transport) Convention, 1979, and Hours of Work and Rest Periods (Road Transport) Recommendation, 1979 (see Annex 2).



work, i.e., when workers are normally resting from work. Deviations from this assumption are discussed in Section F.

## Time for work

It was stressed above that "time actually worked" in a job will include travelling time when it is part of the tasks and duties of the job. However, time spent travelling from the household to the workplace and back (i.e. commuting time) should be excluded, even among workers whose jobs require travelling or among those who are paid during these periods, because workers are neither working nor available to work during these periods. Commuting time is, however, a very important component of the use of time, and a concept which combines "time actually worked" and "commuting time" will refer to the "time allocated for work activities" or "time for work". Such a concept is a determinant indicator of workers' quality of life, particularly where commuting time tends to be significant and largely affects workers' levels of fatigue, for example in large cities:

"Time for work" in a job relates to all periods during the reference period allocated to work-related activities. It is equal to the "time actually worked" and the time spent on the way to and from work (i.e. commuting time).

## Productive time

Not all periods of (availability to) work are spent on activities which produce goods and services. Part of this time is spent on activities which cannot be considered as productive. Workers in service-oriented jobs may spend some time at the place of work waiting for clients, those in product-oriented jobs may spend some time waiting for materials, and most workers can experience periods when work is impossible to perform due to technical or mechanical breakdowns (e.g. when electricity is shut, water is closed or machinery fails) or other reasons.

That part of "time actually worked" which is productive (i.e. "productive time") is a more precise measure than "time actually worked" in the same way that "time actually worked" is a more precise measure than "employment" when estimating labour volume. It constitutes an improved estimate of labour input in National Accounts and labour productivity calculations, because it better reflects the amount of effective work involved in producing the goods and services which are being accounted for. It is relevant for the calculation of average labour cost per unit of working time (i.e., cost of labour input), which would reflect the total cost borne by the employer per hour of effective work. Variations in the difference between "time actually worked" and "productive time" may indicate the need to reorganize the productive structure in an establishment. "Productive time" should not, however, be taken as an indicator of working effort, as one hour of productive work may be spent more efficiently than another:

"Productive time" in a job relates to all periods during the reference period which are spent performing the tasks and duties defined for the job. It excludes inactive time related to the production process and resting time.

## Normal time

The main aim of ILO Conventions and Recommendations regarding working time has been to limit, and then gradually reduce, the time when paid workers are expected or required to (be available to) work on a normal basis. As a consequence of the regulations developed in many countries to reduce this time, workers have seen a radical reduction in their daily, weekly and annual working time. To implement and monitor these regulations, statistics are required to reflect the time when paid workers are expected to (be available to) work. The concept which reflects this time is known as "normal", "scheduled", "standard" or "contractual" hours of work. This concept may be extended to cover self-employed workers, for whom the concept would reflect the time they "expect" to (be available to) work.

"Normal hours" (or "normal time, to avoid using the term "hours") was first defined in international standards by the Convention concerning Statistics of Wages and Hours of Work (1938) as follows:

*The statistics of normal hours of work shall show the hours -*

- (a) *fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards;*
- (b) *ascertained from organisations of employers and workers, from joint bodies, or from other appropriate surveys of information, in cases where hours are not fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards.*

*"Normal hours of work", where not fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards, shall be taken as meaning the number of hours per day, week or other period, in excess of which any time worked is remunerated at overtime rates or forms an exception to the rules or custom of the establishment relating to the classes of wage earners concerned.*

Similar definitions were later adopted by a Recommendation dealing with the reduction of working time<sup>10</sup> and by the Resolution on hours of work adopted by the 10th ICLS (presented in Section A). In all these definitions, "normal time" was limited to paid workers and was defined in

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<sup>10</sup> Reduction of Hours of Work Recommendation, 1962 (see Annex 2).

terms of (a) legislation and collective agreements (for simplicity, we will term them "legal instruments") and (b) establishments' rules or customs<sup>11</sup>.

Indeed, the time when paid workers are expected to (be available to) work may be established, for specific groups of workers, by national laws, regulations or collective agreements. Establishments employing workers who belong to groups covered by legal acts have to apply these working schedules in their premises. In practice they may, however, offer shorter or longer working schedules. As these situations may be common and significant, it may be useful and important to consider them separately. Two distinct "normal time" concepts then arise: one reflecting working schedules as defined by legislation (i.e. "legal time") and the other reflecting working schedules as practised by establishments.

### Legal time

"Legal time" is a collective measure, applicable to a group of workers defined either by (a) the particular workers' organisations which come to an agreement with their respective employers' organisations, with or without the decision of a third party (i.e. arbitral awards and collective agreements respectively), or by (b) particular laws and regulations. Collective agreements may stipulate that workers are to work overtime on a regular basis in order to increase their total pay. Workers under such regulations can be said to be expected (to be available) to work on a regular basis during these "legal" overtime periods. Regular overtime stipulated in legal instruments could be considered as part of "legal time". However, it may be important to distinguish this type of overtime (paid at overtime rates) from other "legal time" (paid at ordinary rates) in order to assess working conditions. This issue will be further discussed later in this Section.

"Legal time" will be identical for particular groups of workers, which are generally made up of persons in the same union, industry, occupation, establishment or other grouping and thus "legal time" needs to be expressed with as many figures as there are different groups of workers. When information is needed for particular industries or occupational categories, an average of all groups within each industry or occupation can be obtained.

This concept makes reference to the "normal duration of work" determined for the activity, or which constitutes the "norm" for the types of workers concerned. This is the concept referred to in the definition of visible underemployment [17], see Annex 4.

### **Time practised by establishments**

The second "normal time" concept relates to working time defined by establishments' practices. Establishments may stipulate the periods during which they expect workers to (be

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<sup>11</sup> 'Overtime payment' was also used to distinguish "normal time" from "overtime". This criterion, however, applies only to a subset of all workers, namely those who are paid for overtime worked. It is inappropriate when overtime is not paid. 'Overtime payment' is already determined by establishments' rules or custom and is thus not considered here to be a necessary criterion. Nevertheless, 'overtime payment' may be useful to distinguish regular overtime which is stipulated in legislation from other normal working time.

available to) work in an **explicit** or **implicit** way. It is in working contracts (or internal regulations) that working schedules are **explicitly** determined. "Normal time" so defined may be termed "contractual time", a concept which may also apply to workers who are not covered by legal instruments but who possess a working contract. These are generally paid workers engaged in formal sector establishments. In contrast with "legal time", "contractual time" is specific to each worker and distinguishes between part-time and full-time schedules and other special time arrangements.

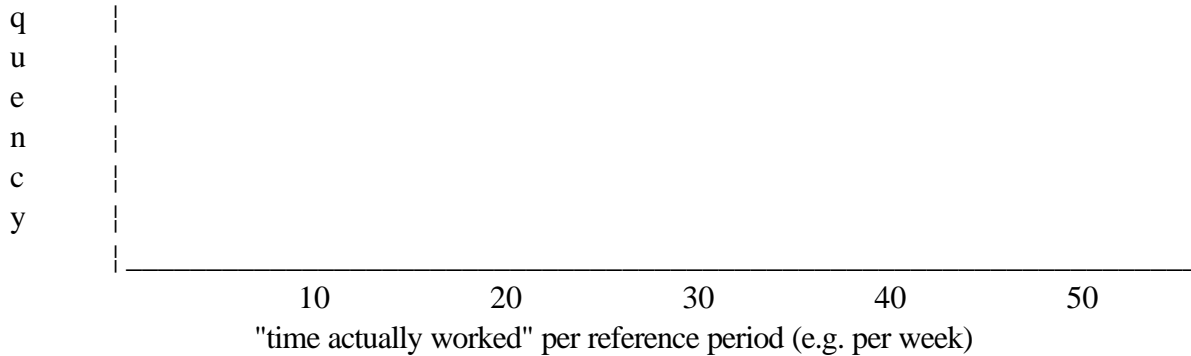
"Contractual time" is generally linked to the time for which basic payment is given. It may include periods which are paid but during which workers are not expected to work, such as time scheduled for coffee breaks, meal breaks and commuting time. "Contractual time" should in principle exclude all resting periods when workers are not expected to work. Therefore, when time stipulated in contracts includes some scheduled resting time, estimates should be provided on the amount of time these periods represent to be able to correct the data accordingly.

Working schedules may also be defined **implicitly** by establishments' practices. These implicit schedules relate to the working schedule **most commonly** demanded from workers. In the case of self-employed workers, they relate to the most common working schedules workers offer themselves. This "normal time" concept can be termed "usual time". "Usual time" may be measured for workers who do not possess a working contract (e.g. workers engaged in small-scale or family enterprises, self-employed workers, etc.) if they expect or are expected to work regular (or usual) working schedules. They will have a "usual schedule" if they work during specific periods on a regular basis. The "usual" working schedule of a job is equal to the **modal value** of the "time worked" in that job during a long period (see Figure 3)<sup>12</sup>. The modal value may be approximated by averaging "time worked" over the long period. Following the notion that "usual time" should reflect the most common situation, it should not take account of the days or weeks when workers do not work (i.e. when they are either absent from work or not in employment) if this situation is not common or regular.

**Figure 3. Usual time seen as a modal value of "time actually worked"**



<sup>12</sup> The extent of this "long period" may depend upon the number of existing modal values. When jobs have more than one "usual" working schedule during the year, i.e. more than one modal value, such as sales- and agricultural jobs whose working schedules are different during the high and low commercial or agricultural seasons, the long period could be one commercial or agricultural season. The choice of a "long period" is irrelevant when the working schedules of jobs have only one modal value (e.g. most clerical jobs). Among temporary and casual workers, the "long period" can be the current working period or season, provided all periods when they have not been in employment are excluded. The "long period" may also be set as a function of the frequency with which data are collected (e.g. monthly household surveys can use one month as a long period).



"Normal time" cannot be measured for workers who follow irregular working schedules (and do not have a contract). This is because the time they work varies significantly from day to day. They cannot be said to expect or be expected to work during specific periods. When working schedules are irregular, the modal value of "time worked" does not exist. The average of "time worked" could be calculated without major problems, but is misleading when schedules are irregular because it will not reflect the most common working schedule. "Normal time" for these workers will be equal to zero. "Normal time" may be defined as follows:

The "normal time" of a job relates to the time during a reference period when the worker normally expects or is expected to work. This time may be established either:

- (a) by national laws or regulations, collective agreements or arbitral awards (i.e. "legal time"); or
- (b) by establishments' practice, as defined in working contracts or internal regulations (i.e. "contractual time"); when workers do not have working contracts, by the modal value of their "time actually worked" over a long period (i.e. "usual time").

"Normal time" can only be measured for workers with working contracts or regular working schedules.

When "normal time" established by (a) differs significantly from "normal time" established by (b) it may be important and useful to measure them separately.

By definition, "normal time" excludes all time when workers do not normally expect nor are expected to work. In other words, "normal time" excludes all "normal" periods of rest. Weekly "normal time" excludes resting periods happening systematically every week: lunch breaks, night rest and weekend rest. And annual "normal time" excludes resting periods which happen systematically every year, such as annual leave and public holidays. The longer the period for which "normal time" is defined, the more periods of rest it is able to exclude (e.g. weekly "normal time" is not able to exclude annual leave because it does not happen systematically every week). As a consequence, the

sum of weekly "normal time" over the year will always be higher than the annual "normal time". To present consistent statistics of "normal time", it is proposed here that weekly figures should reflect the "annual average weekly normal time". In other words, they should correct for "normal" periods of rest:

$$\text{normal time per week} = \frac{\text{NTW} * \text{W} - (\text{V} + \text{H})}{\text{W}} \quad (1)$$

(annual average)

Where      NTW = normal time per week (in time units)  
               W  = number of weeks per year  
               V  = annual vacation (in time units)  
               H  = holidays (in time units)

## Usual time

Usual working schedules, defined above for workers who do not possess a working contract, may also be measured for workers who have working contracts. This concept is particularly useful when these workers work regularly more (or less) time than their "legal" or "contractual" time, i.e. when they work regularly overtime or are regularly absent from work. Their usual working schedule or "usual time" would include overtime which occurs systematically every day or week (if the reference period is one day or week), and would exclude time not worked on a usual basis. On the contrary, "usual time" would not be affected by unexpected or unusual overtime nor by unusual absence or rest:

The "usual time" of a job, during the reference period, relates to the modal value of "time actually worked" over a long period.

For workers who possess a working contract, it includes, in addition to their "normal time", overtime which is usual and excludes usual time of absence or rest. For other workers, it is equal to their "normal time".

"Usual time" can only be measured for workers with working contracts or who follow regular schedules. "Usual time" for other workers will be equal to zero.

## Expected time

"Expected time" relates to the time, during a particular reference period, when workers expect or are expected to (be available to) work. It is linked to the concept of "normal time" but differs in that "normal time" refers to periods of time when workers are **normally** expected to (be

available to) work. Weekly "normal time" will not exclude annual resting time taken on an irregular basis (e.g. vacation) but workers on e.g., vacation during the reference week cannot be said to expect nor be expected to work during that week. Thus, this concept is useful when the interest is to assess the time when workers expect or are expected to work on a particular reference period, e.g. for the calculation of "time of absence" (c.f. Section E below). This concept corrects for eventual "time for rest" taken during the reference period (i.e. actual rest, see Section D below):

Expected time in a job during a reference period refers to the time when workers expect and are expected to (be available to) work. It is equal to normal time corrected for actual rest.

For long reference periods of one year, "expected time" will be equal to "normal time".

## Time demanded

Not all time when workers expect or are expected to work (i.e. "normal time") is time when workers can actually work. During a particular reference period, some "normal time" may not be demanded from workers because of economic or technical problems related with the establishments' functioning or organisation. A concept which deduces from "normal time" the time not worked during the reference period for such reasons, would be particularly relevant in countries where short-time working is a common practice. Such a concept, when including overtime, would refer to "time demanded", and can be used as an indicator of employers' demand for labour in relation to each worker:

The "time demanded" in a job relates to the time during a reference period which has been demanded from workers. It includes "normal time" and "overtime" but excludes all time not worked for economic or technical reasons.

## Time paid

Working time may also be viewed as the time spent, during the reference period, on activities which have been remunerated as part of an explicit or implicit contract. A concept which refers to the time which has been paid to workers, regardless of whether or not they have worked during this time, could be termed time paid for or "time paid". "Time paid" will include "time actually worked" when it is paid and exclude "time actually worked" when it is unpaid (e.g. unpaid "overtime"). It will also include "time of absence" and "time for rest" which is paid, at least partly, by the employer (e.g. paid holidays, meal breaks, commuting time, sickness or study leave), and will exclude all other absence or rest.

The types of overtime, absence or rest periods which are paid depend on national legislation, collective agreements and establishments' practices and these are specific to groups of

workers or establishments (e.g. some establishments will pay lunch time while others will not). As a result, estimates of "time paid" are generally not comparable between establishments or countries, and it is impossible to arrive at a national or international definition of "time paid" (c.f. conclusions of the 10th ICLS in Annex 3). However, "time paid" is readily available in establishments' records and is compiled in many countries, in particular for the computation of labour productivity (where "productive time" should be used) and the analysis of labour cost among the paid employed (as a substitute of "time actually worked").

## Overtime

Paid workers may be required to be available to work, during a short reference period of one day or one week, more time than stipulated in their working contracts (i.e. more than their "contractual time") and self-employed workers may need to work more time than they are used to. The event of working beyond "normal" schedules is known as "overtime". Establishments may offer overtime work to compensate for time lost due to accidents or other reasons, to rapidly process perishable goods, or to cope with tight deadlines and heavy workloads (e.g. in the high commercial season). Data on "overtime" work are therefore useful to evaluate establishments' responses to market's demands.

Workers may be interested in working overtime because it represents an additional source of income and employers may resort to it because of skilled labour shortages. Establishments may also require overtime work because it represents a reduction in social contributions or because they cannot easily hire temporary workers, and workers may in some cases be obliged to work overtime hours against their will. Governments may want to reduce overtime work as a way of improving working conditions. This is particularly the case when overtime is a permanent situation which leads to an actual level of working time which is prejudicial for workers' conditions of life. Governments may also want to reduce overtime as a way of reducing unemployment. This measure, however, may not produce the desired results because vacancies and jobseekers may not match in skill requirements, geographical location, etc., and because establishments may respond to this policy by reorganising their production processes rather than by hiring additional (unemployed) workers. "Overtime", for the above purposes, needs to reflect all "time worked" in addition to "normal time":

"Overtime" in a job during a particular reference period relates to all the time worked in addition to "normal time", regardless of whether it is compensated or not.

Overtime defined in this way will include, during a particular reference period, "extra time" worked as part of flexitime arrangements, other special working time arrangements, extra time which will not be paid nor compensated with time off in subsequent periods and compensated extra time. It is therefore independent of administrative regulations.

However, "overtime", as commonly understood, often responds to such regulations: it may be fixed by establishments according to existing legislation, collective agreements or other legal acts. In this case, not all "time worked" in addition to "normal time" will be considered "overtime" by



establishments and workers, but only that "additional" time which is remunerated at higher rates, or which is compensated with equivalent time off in subsequent days. Given its wide use, a concept which reflects "overtime" as defined by establishments, i.e. which is compensated, may need to be defined. Such a concept may be termed "compensated overtime":

"Compensated overtime" in a job during a particular reference period relates to the time worked in addition to "normal time" and which is (to be) compensated in cash or in time".

The main components of working time concepts discussed in this section may be visualised in Figure 4 below.

Figure 4. Working time concepts

		Time worked	Time for work	Productive time	Contractual time	Usual time	Time demanded	Time paid	Over-time
Time spent during normal time on:	tasks and duties	i	i	i	i	i	i	i	e
	inactive activities in the course of performing tasks and duties	i	i	e	i	i	i	i	e
	absence for economic or technical reasons	e	e	e	i	e <sup>2</sup>	e	i <sup>3</sup>	e
	other absence	e	e	e	i	e <sup>2</sup>	i	i <sup>3</sup>	e
Time spent in addition to normal time on:	tasks and duties	i	i	i	e	i <sup>2</sup>	i	i <sup>3</sup>	i
	inactive activities in the course of performing tasks and duties	i	i	e	e	i <sup>2</sup>	i	i <sup>3</sup>	i
	short rest breaks within working periods	e	e	e	i <sup>1</sup>	e	e	i <sup>3</sup>	e
	longer rest breaks within working periods	e	e	e	i <sup>1</sup>	e	e	i <sup>3</sup>	e
	other resting periods	e	e	e	e	e <sup>2</sup>	e	i <sup>3</sup>	e
	travelling time	e	i	e	i <sup>1</sup>	e	e	i <sup>3</sup>	e

Notes: <sup>1</sup> included when part of contractual working schedules; this time should be corrected for as shown in formula (1) in page 19; <sup>2</sup> when usual; <sup>3</sup> when paid.

## D. TIME FOR REST

"Time for rest" is the complement to "working time". It refers to any period of time set aside for the purpose of abstaining from work activities. (It was noted in page 6 that "time for rest" may actually be spent on productive activities which are at present outside of the scope of economic activity.) During "time for rest", workers do not expect nor are expected to (be available to) work. Various types of "rest" can be distinguished [3]:

1. **Daily rest:** refers to daily periods of time which may take place during working periods (e.g. coffee breaks), may break the working day in two (e.g. lunch breaks), or may take place between two working days (e.g. nightly rest).
2. **Weekly rest:** refers to those days of the week commonly not worked, such as Fridays or Sundays.
3. **Annual rest:** refers to those days of the year not worked by the community at large (i.e. public holidays) or by individual workers (i.e. vacations). Vacations include annual days normally granted as well as other time granted by employers for various reasons, such as seniority, days which fall between holidays and weekly rest, etc.
4. **Compensation rest:** refers to time not worked as compensation for time worked in previous periods or for time to be worked in later periods, because of overtime work or due to flexitime schemes or other special working arrangements.
5. **Other rest:** refers to time not worked due to entry or exit from employment during the reference period or special work arrangements (e.g. shift-work, compressed working week, etc.); and to all other time for rest which cannot be classified into any of the above.

Daily and weekly rest reflect the various working schedules: full-time workers have a lower daily rest than part-time workers, and workers following a compressed working week will present lower daily rest but a longer weekly rest than typical full-time workers. Annual rest reflects the working year: holidays vary between regions and religious groups while vacation time varies between workers according to seniority and other characteristics. Compensation rest is relevant for workers following flexitime arrangements or who compensate for overtime work.

These groups are mutually exclusive. Lunch breaks (i.e. daily rest) cannot take place during Sundays (i.e. weekly rest) and vacation time (i.e. annual rest) will exclude weekends (i.e. weekly rest). Holidays which fall on a weekly rest day are not accounted for unless the holiday is "moved" to a working day (e.g. Labour day which falls on a Sunday). Resting activities cannot happen simultaneously with working activities and take precedence over periods of "absence from work": workers who fall sick during their annual vacation time, for example, are not considered as on sick leave, unless they are compensated for vacation time not enjoyed.

## Normal rest

The guarantee of a minimum time for rest is fundamental to the protection of workers. In this connection, the aim has been to increase the time when workers are allowed to rest from work on a daily, weekly and annual basis, a trend which is evident in European countries [19]. The reduction in the time that workers are expected or required to work (i.e. "normal time") has also brought about an increase in workers' daily resting time, either within working periods in the form of short breaks, or between two working days (i.e. night rest). To account for this aspect of working conditions, statistics are needed on workers' leave entitlement on a daily, weekly and annual basis. Leave entitlement reflects the time when workers do not expect nor are expected to work on a normal basis.

This topic was discussed by the 13th ICLS in 1982. The report to the Conference [14] confined its attention to annual leave and in particular to vacation time. "Leave entitlement" related to vacation time (i.e. excluding public holidays) as established by laws or establishments' practices. "Extra" time granted by the employer for special circumstances, was not considered part of "entitlement" (e.g. time given before or after public holidays or time in lieu for sick days falling during periods of vacation). Given the fact that both "entitlement" and "normal time" are established through similar mechanisms, this concept could be termed "normal time for rest" or "normal rest". The report to the Conference only covered annual rest but "normal rest" may also refer to daily and weekly "normal rest". Still, it might be more meaningful if each type of rest is measured separately, following the practice of ILO Conventions and Recommendations, which have defined "normal rest" separately for daily, weekly and yearly rest (see Annex 2).

In line with the discussion regarding "normal time", it might be useful to distinguish "normal rest" which is established by legal acts (i.e. "legal rest") from "normal rest" which is settled by establishments' practices. "Legal rest" is a collective measure and needs to be measured separately for each group of workers involved, or an average of all workers may be calculated. "Normal rest" which is fixed by establishments is defined explicitly through working contracts or internal regulations (i.e., "contractual rest"), or implicitly by common practices (i.e. "usual rest"). Thus, it can be measured to workers who either have working contracts or follow regular schedules.

"Normal rest" may be defined on the same lines as "normal time" as follows:

The "normal rest" of a job relates to the time during a reference period when the worker normally does not expect nor is expected to work. This time may be established either:

(a) by national laws or regulations, collective agreements or arbitral awards (i.e. "legal rest"); or

(b) by establishments' practice, as defined in working contracts or internal regulations (i.e. "contractual rest"); or, when workers do not have working contracts, by the modal value of their "actual rest" over a long period (i.e. "usual rest").

Normal rest" as defined above can only be measured for workers with working contracts or regular working schedules. For these workers, total "normal rest" is the difference between "total time" and "normal time" during the reference period.

When "normal rest" established by (a) differs significantly from "normal rest" established by (b) it may be important and useful to measure them separately.

Workers who do not have working contracts nor regular working schedules **never** expect nor are expected to work on a regular basis. Their "normal rest" can therefore be considered to be the "total time" during the reference period.

## Actual rest

Workers may prefer to be paid instead of actually enjoying leave entitlement, they may work on weekly resting periods or may not take their vacations at all. To reflect resting time actually enjoyed during a particular reference period, a concept which refers to the "actual time for rest" or **actual rest** is needed. "Actual rest" will be lower than "normal rest" when workers (a) do not take their "normal rest" in full, (b) take their leave entitlement after the period to which they are entitled or (c) choose to be paid for the time not enjoyed. "Actual rest" will be equal to "normal rest" when workers (d) take their rest during the entitled period or (e) enjoy time in lieu of holidays which fall during weekly resting periods. Finally, "actual rest" will be higher than "normal rest" when workers (f) compensate for extra time worked in previous periods (whether as part of flexitime arrangements or as overtime), (g) enjoy extra time granted by employers or persons in authority; or (h) enjoy resting period granted in previous periods (see Figure 5). Thus, the reasons for rest are varied, but the nature of the activity remains the same:

The "actual rest" in a job during the reference period relates to the time not worked when workers do not expect nor are expected to work.

**Figure 5. Time for rest concepts**

Actual rest					
Days taken from a previous period	Compen-sation time	Extra leave granted	Time in lieu	Normal rest enjoyed	Normal rest not enjoyed
			Normal rest		

## E. TIME OF ABSENCE

Sometimes, workers are neither working nor "resting" from work. They may fall sick, a machine may break down, the weather may be so bad they cannot reach their workplace or may force them to stop working. This event is known as "absence from work" and the time not worked due to absence may be termed "time of absence". Terms such as "absenteeism" or "time lost" have also been used to refer to this (or a related) phenomenon but should perhaps be avoided because they assign a negative connotation to it and do not seem to capture the fact that some of this time may be involuntary, unpaid or imposed on workers.

The origin, motives, characteristics and consequences of the various types of absence are diverse. Absences due to professional training are desirable and agreed between establishments and workers, but absences due to occupational injuries are undesirable for both. Absences due to strikes affect a group of workers but absences due to sickness involve individual workers. Absences due to machinery breakdown or layoff are imposed on workers but absences due to maternity leave or military service are imposed on establishments. Absences due to layoff, labour disputes and maternity leave are inherent to or more common among paid workers, while absences due to a lack of clients are more common among the self-employed.

Statistics on "absence from work" may be helpful to analyze variations in annual "time worked", on which they have an important influence. The hours that workers actually work may vary in time because of changes in "normal time" or in the overall levels of overtime and absence. Data on "absence from work" may also be useful to explain variations in employment figures. As countries define "formal job attachment" in different ways, those presenting a more "relaxed" definition will include as absent workers persons who are not regarded as being in employment by other countries. This may result in higher levels of measured employment in the former countries.

Data on "absence from work" are also useful for governments as a tool for monitoring the health of the economy in general and the labour market in particular, designing and evaluating policies and assessing conditions of work and life; they are useful for establishments to supervise their own performance, and for workers to evaluate their working conditions. For these purposes, it is important to distinguish between types of absences because each reflects a different underlying phenomenon which may require different measures to be directed towards different target groups.

Indeed, when absences affect workers individually data need to be analyzed in relation to those employees that experience them and their circumstances both at work and outside work: absences due to study leave may affect workers in particular occupations or industries; absences related to the bearing and rearing of children (e.g., maternity and parental leave, leave due to sickness of children) may be helpful to develop or evaluate child-care policies, and absences due to care of elderly family members might be useful to reveal shortages and requirements in such care. In contrast, when absences are related to the establishments' functioning, data may need to be analyzed in the context of establishments' characteristics. Absences due to occupational injuries indicate the occupational safety and health situation; absences due to labour disputes and to some extent those

due to short sickness may be seen as indicators of discontent among workers; absences due to short-time working schemes in certain industries may reflect the degree of malfunctioning in those sectors.

A classification of absence can be found in the international definition of employment [17], which lists the following reasons for being temporarily away from work: (a) illness or injury, (b) holiday or vacation <sup>13</sup>, (c) strike or lock-out, (d) educational or training leave, (e) maternity or parental leave, (f) reduction in economic activity, temporary disorganisation or suspension of work due to such reasons as bad weather, mechanical or electrical breakdown, or shortage of raw materials or fuels, or (g) other temporary absence with or without leave. Based on data applications mentioned above, two broad types of reasons can here be distinguished: those generally involving individual workers (personal leave), which group reasons (a), (d) and (e) and those related to the establishments' functioning, which include reasons (c) and (f). Based on these two main reasons of absence, a classification by reason of absence can be derived as shown in Figure 6 below (the specific terminology will depend on national circumstances).

## Time of absence

"Absence from work" was discussed in 1987 by the 14th ICLS. Based on the recommendations of this Conference, the following revised definition will be proposed for discussion by the 15th ICLS:

*"absence from work relates to the periods of time during a specified reference period when a person in employment normally expects or is expected to be at work but is not." [22]*

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<sup>13</sup> In this paper, reason (b) is not considered a reason of absence. It is a resting period and has already been covered in the preceding section on "resting time". It will therefore not be included in the remaining discussion.



**Figure 6. A classification of absences**

## **1 REASONS RELATED TO THE ESTABLISHMENT'S FUNCTIONING**

### **11 Economical or technical reasons**

111 **Bad weather:** rain, snow, earthquake, etc. impeding transportation to the place of work and work itself.

112 **Mechanical or electrical breakdown:** machine failure, break-up of working instruments, failure of the establishments' electrical or hydraulic system.

113 **Lack of materials or clients:** raw materials, including fuel, water, electricity and financing, customers, contractors.

114 **Short-time working:** reduction of working hours to fewer than normal time.

115 **Layoff:** suspension of employment contract.

12 **Occupational injury:** personal injuries and diseases resulting from work accidents occurring at or in the course of work ?.

### **13 Industrial Relations**

131 **Labour disputes:** temporary work stoppage wilfully effected by a group of workers (or by one or more employers) with a view to enforcing or resisting a demand or expressing a grievance, or supporting other workers (or employers) in their demands or grievances [21]

132 **Trade union and employers' organisation activities:** performance of duties arising from trade union or employers' associations' responsibilities.

133 **Suspension:** action taken by establishments to penalize workers trespassing internal regulations.

## **2 PERSONAL REASONS**

### **21 Social reasons**

211 **Family responsibilities:** sickness of family members (i.e. persons under responsibility); care of elderly relatives; doctor's appointments, funerals, marriages, of family members.

212 **Parental leave:** pregnancy and child-bearing, including doctor's appointments, breast-feeding, infant care, etc.

213 **Military or related services:** compulsory obligation to report to military or related units, given a formal job attachment.

214 **Civil responsibilities:** jury service, other civic rights and duties, administrative formalities.

### **22 Sickness**

221 **Personal sickness:** doctor's appointments (except pregnancy related), sickness, hospitalisation, operation, home rest, cure, incapacity to work.

222 **Personal injury:** not related to work, occurring outside the place of work, commuting accidents which occur to and from the place of work.

- 23 **Study leave:** time granted by the establishment for educational purposes at or outside the place of work.
- 24 **Other:** attending funerals, marriages, etc. of non-family members, home move, leave for no specified reasons.

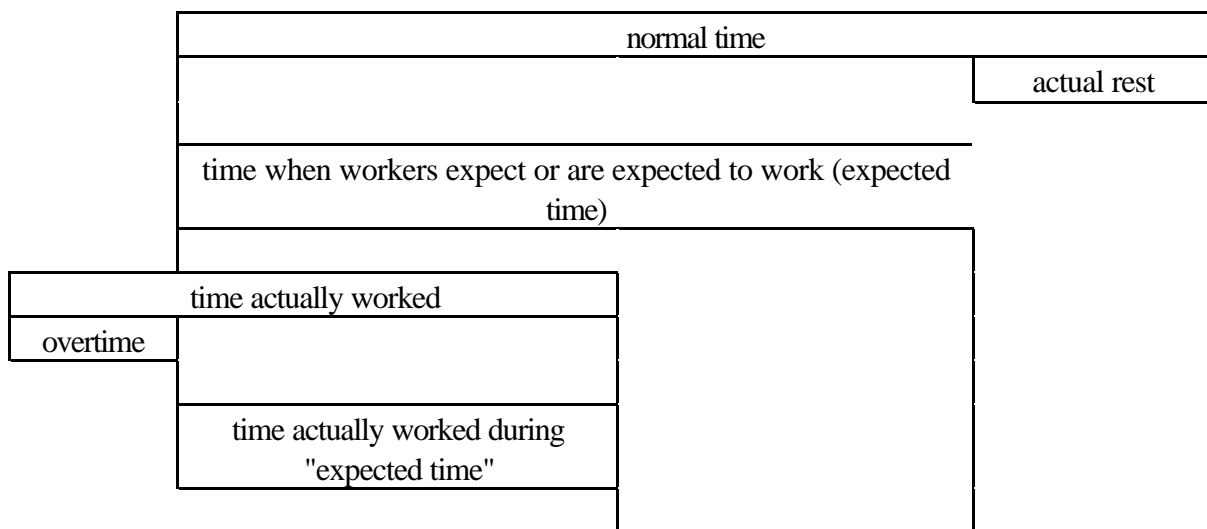
According to this definition, "absence from work" is to be measured only for persons in employment (which is in line with the working time framework). Persons "at work" may be absent part of the reference period and persons "not at work" are absent during the whole reference period. This last group of persons should maintain a formal job attachment to be considered as employed, a criterion which defines the upper boundary of "absence from work" (and the lower boundary of employment).

"Absence from work" is limited to "expected time" as discussed in page 19. "Time of absence" relates to "expected time" which has not been worked, and is equal to the difference between "expected time" and "time actually worked during expected time". In order to reflect the "time actually worked during expected time", "time actually worked" needs to exclude overtime periods (which are additional to expected time). The simple difference between "expected time" and "time actually worked" would underestimate "time of absence or rest" of workers who, during the reference period, are both absent and work overtime:

$$\text{time of absence} = \text{expected time} - (\text{time actually worked} - \text{overtime}) \tag{2}$$

Figure 7 below shows the relationship between the working time concepts needed to define time of absence.

**Figure 7. A definition of time of absence**



TIME OF ABSENCE
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## The boundary of "absence from work"

The boundary of "absence from work" is determined by the employment definition, and more explicitly, by the "formal job attachment" criterion. "Formal job attachment" of paid workers has been defined by international standards in terms of "(a) the continued receipt of pay or salary, (b) the assurance to return to work or the agreement as to the date of return and (c) the elapsed duration of absence from the job which, wherever relevant, may be that duration for which workers can receive compensation benefits without obligations to accept other jobs" [17]. No conditions are required for self-employed workers. These standards do not set a specific combination of the criteria but allow countries to establish their own definition according to national circumstances. This flexibility may explain why some national surveys do not use a clear definition of formal job attachment and why variations in the levels of absence through time or between countries may be caused by differences in the way this concept is implemented rather than by differences in the absence situation. The definition of formal job attachment may therefore require refinement, and perhaps an expansion to cover self-employed workers, if a precise definition of "absence from work" is to be agreed upon. Some ideas for discussion follow.

"Formal job attachment" may be taken to reflect the notion that, to continue being part of the current supply of labour (i.e. to be classified in employment), workers should **expect and be expected** to return to their job after the absence period. This happens mainly when absent workers are sure of returning to the same job (or to another job with the same employer) under an (implicit or explicit) employment contract or another type of guarantee from the employer. Criterion (b), assurance to return to work in the form of a continued working contract or another form of commitment, would then seem to be essential to determine formal job attachment. A similar conclusion has been reached elsewhere<sup>14</sup>. If this is so, criterion (a), a continued receipt of wages or salaries in part or in full from the employer during the absence period, might be seen as a sufficient, although not a necessary, condition for this assurance to return to work.

To guarantee that workers continue being part of the current supply of labour, they also need to be absent on a **temporary** basis. Criterion (c), the elapsed duration of absence, is relevant when absences are long. This criterion can be modified to mean the 'expected duration of absence' to avoid classifying in employment workers who expect to be absent during a long period (e.g. persons on long sick leave) but who at the observation moment have been absent for a short period. Indeed, absences which are long stop being "temporary" and workers experiencing them stop being in employment. However, how long should an absence be to lose its temporary nature? International standards suggest that this duration can be linked to the "duration for which workers can receive compensation benefits without obligations to accept other jobs". This means that workers on leave which is compensated (i.e. on maternity or sick leave) may be considered in employment as long as compensation takes place. This duration could be used at the national level as a benchmark duration for absences which are not compensated, i.e. when workers request

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<sup>14</sup> Report of the Working Group on the Implication of Employment Promotion Schemes on the measurement of employment and unemployment", in [16]

authorization to be inactive, (e.g., workers on study leave, extended parental leave, sabbatical leave) or when absences are involuntary (e.g, layoff), voluntary (e.g. strikes) or compulsory (e.g., military service). The duration of the 'compensation period', however, rather than reflecting the temporariness of the absence, reflects the legal situation in each country and may vary between countries and in time. It is thus of limited use for international comparisons and for time series analysis. These objectives would require a benchmark duration, independent of legal practices, which actually reflects the temporariness of the absence. A benchmark which satisfies the above would need to be long enough to cover all "compensated" leave but short enough to be "temporary". An agreement as to how long this would need to be can only be reached by the ICLS. Here, it is suggested that it could be either one half year or one year.

Criteria (b) and (c) could be applied to the self-employed as well. It has been suggested that a commitment to the place of work in the form of a "continued existence of the establishment" during the absence period, even when the establishment does not operate as such, would reflect criterion (b), assurance of returning to work [9]. The "continued existence" could relate to a physical existence of the premises or of the legal entity. Criterion (c), duration of absence, could be applied as suggested above.

Formal job attachment could then be defined as follows:

"Formal job attachment" relates to the conditions that persons "not at work" during the reference period need to maintain with relation to a particular job in order to continue being part of the current supply of labour. These conditions are:

- (a) that workers should expect and be expected to return to their job after the absence period, given a continued working contract or another guarantee from the employer (for paid workers) or given a continued existence of the establishment premises or legal entity (for self-employed workers); and
- (b) that workers should be absent on a temporary basis, i.e., that the expected duration of absence is less than (one half-year/one year).

## Time not demanded

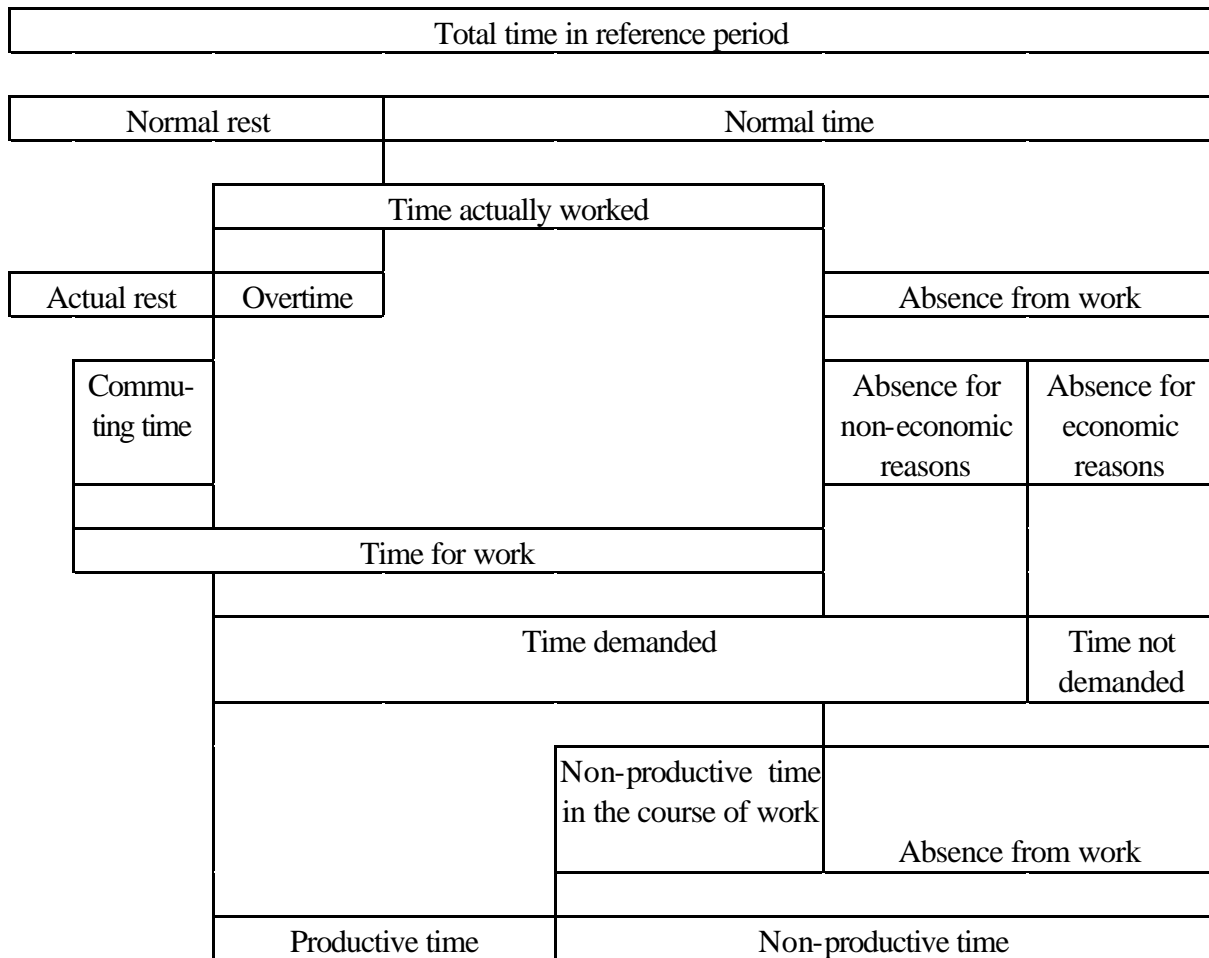
Workers who are absent from work due to sickness, strike activity, study leave or other personal leave are not "available to work" during these periods. They may be said to be "voluntarily" absent from work. In contrast, workers who do not work for reasons which are imposed on them, such as workers on layoff, short-time working, or workers who do not work due to a slack in their business, continue to be "available to work" during their absence periods. They are unable to work because of economic or technical problems related to their establishments' functioning or organisation. Time not worked due to these reasons is time which has not been "demanded" to workers, either by employers or clients. A concept which relates to "time of absence" due to economic reasons may be termed "time not demanded" to workers, and is the complement to "time demanded" (discussed in page 20. It may be linked to the concept of visible underemployment when workers are seeking or available for additional work, c.f. [9] and [17].

## Non-productive time

Another related concept refers to "non-productive time", which in addition to "time of absence" includes inactive time spent in the course of performing the tasks and duties defined for the job. This concept is the complement to "productive time" discussed in page 13. Such work interruptions at the workplace are linked to the production process but cannot be considered to be productive. It is important to distinguish them from productive periods because they may involve economic and financial costs to establishments when they experience a reduction in labour productivity, a loss of contracts when deadlines are not met and increased costs due to the eventual payment of overtime work and temporary replacements. "Non-productive time" may also have negative effects on workers who experience them, in particular if their payment is affected, and on co-workers, who may face longer hours of work.

For measurement purposes, the various working time concepts presented above can be linked together as shown in Figure 8 below.

**Figure 8. Working time concepts**



### F. MEASUREMENT ISSUES

The working time concepts discussed in Section C, D and E assumed that there were not measurement constraints, i.e. that they could be measured with no errors. This assumption is far from being realistic but was necessary to build the conceptual basis. This section will discuss the major deviations from this assumption which have a significant incidence over the measurement of working time. These relate to the problems of worker coverage, reference periods, time units, observation units and methods of data collection.

## **The worker coverage**

It is one of the objectives of the working time framework to cover all persons in employment. However, some concepts cannot cover all workers. "Time paid", by definition, can only cover paid workers. "Normal time" can only be measured when workers have working contracts or follow regular working schedules. "Time demanded", "overtime" and "time of absence", which are defined in terms of "normal time", are also only measurable for these workers.

Measuring working time of self-employed workers (and of paid workers who behave like them) may prove to be a difficult task. Many self-employed workers may not be as concerned as paid workers about the time they work because their remuneration is linked not only to the time they work but also to capital and skill inputs, in contrast with paid workers who are generally remunerated for time worked. Working time may also need to be analysed separately for self-employed workers and paid workers, because they may not be comparable in terms of productivity and costs.

Workers who work "in" or "next to" their private home (e.g. homeworkers, agriculture workers), may find it difficult to distinguish between periods of "availability" and other periods. Both are spent at or near the place of work, they are easily interchanged and tend to be alternated throughout the day. The same can be said of workers who interchange periods of availability and rest (c.f. page 9). The accurate measurement of "time actually worked" for these workers - and as a consequence of "usual time", "time of absence" and "actual rest" - may require sophisticated measurement instruments (e.g. time use surveys).

## **The reference period**

Working time concepts need to be observed continuously. This is because working time is affected by periods of rest, absence from work and overtime, which occur with an irregular incidence over time, varying according to the seasons, weather conditions, the political or economic climate, and other circumstances. To capture these variations, the reference period should be long, and, if short reference periods need to be used, observations should be frequent enough to guarantee continuity.

In practice, however, the measurement of working time is generally restricted to reference periods of one day or one week because (a) working time data are generally used to implement legal instruments and for labour management negotiations, which usually relate to daily or weekly working time, and individual establishments set rules regarding daily or weekly working time; (b) international statistical standards recommend the measurement of weekly or daily working time (see Annex 3) and the measurement of employment during a short reference period of one week [17]; (c) when precise results are required, measurement methods based on respondents' recall capacity (household surveys) generally limit their observations to a short and recent period, e.g. one week, and only methods based on registers (e.g. establishment surveys) are able to use long reference periods; and because (d) the precise recall, observation, recording or compilation of working time concepts which need to distinguish periods of availability from other periods may be possible and affordable only for short reference periods of one day or one week.

However, recent developments regarding the increase of paid holidays and the need to have annual estimates of labour volume have stressed the need to measure the length of the working year. The interest in studying spells of employment (and unemployment) has brought about the need to measure working time for other (long or variable) reference periods. And as a consequence of changes in the minimum school-leaving age in many countries (which have caused a delay of entry into the labour force) and the development of early retirement policies, the working lifetime has also become an important issue. Conventional methods of data collection are not always able to provide estimates of working time for periods of one year or longer that cover the whole population and indirect estimation methods need to be used. Some estimation procedures are discussed in Section H.

## **Time units**

Working time is measured and expressed in terms of units of time. These time units are the smallest units used for measurement purposes and cannot be divided (i.e. a person who worked during part (or most) of the time unit should be reported as having worked during that time unit). The choice of a time unit should consider that a smaller time unit generates more precise measures but a larger time unit is more easily applied. Time units of one day may not distinguish a full-time worker from a part-time worker and a time unit of one hour may not distinguish between a person "at work" eight hours and a person "at work" seven hours and a half. However, the very small time units which would be able to distinguish between the latter two working schedules may be too difficult and costly to apply.

The time unit chosen by convention is generally of one hour. Literature often refers to working time concepts in terms of "hours" of work, "hours" lost, etc. and international standards establish a "one-hour" time unit when defining employment (see Annex 4). Frequently, however, working time is measured in terms of "days" and converted to "hours" for presentation of results (e.g. in establishment surveys). This practice was recommended by the 10th ICLS but may be misleading, as it conveys a level of preciseness which is illusory (as do survey results with error levels of " 1000 which present their results in units of single persons).

The time unit actually chosen should depend on the (a) measurement objectives, which may sometimes require very broad estimates (e.g. annual vacations) or very precise estimates (e.g. productive time); on the (b) method of data collection: data obtained through household surveys may use time units of one hour or less but establishments may record precise data on time not worked only when it represents an important economic loss, using longer time units of one day or more for other types of events, thus affecting the measurement of "time worked"; and on the (c) measurement feasibility, especially when respondents cannot provide detailed information (e.g. self-employed workers, workers in regions where time has a lesser importance or where agriculture is predominant).

## Observation units

The use of the **job** as the observation unit (c.f. Section B) has important consequences on the methods of data collection. To assure that total working time can be detected, working time should be measured for all the jobs held by a worker. Therefore, in household surveys, data should be collected for the first and second jobs; and in establishment surveys, workers engaged in more than one establishment should be double counted. First job should be used, however, when consistency with employment figures by occupation, industry and status in employment is required.

## Methods of data collection

The measurement of working time depends to a great extent on the methods of data collection used. They affect the time unit that can be employed, the reference period, the type of information that can be collected, and in general, what can or cannot be measured. This is because different types of respondents are used to obtain the information and each type will provide data of different qualities and on different aspects of the same phenomenon. In practice, information on working time may be obtained either from the workers themselves, from their employers' records or from registers kept by social insurance agencies, legislative acts, etc.

**Household surveys** (e.g. Labour Force surveys) obtain data from workers (or from a member of their household) and can cover the whole population, including the self-employed. These surveys are able to provide information on most working time concepts discussed in this report. However, household surveys rely on the information provided by respondents, and are therefore subject to response errors. Respondents may (a) not understand the key-word "hours worked" or "usual hours": they may consider that lunch breaks, travelling time to and from the place of work or absences are part of "hours worked" but that overtime is not; (b) respondents may forget certain events: when giving information on "usual time", respondents may forget to declare regular events such as leave for therapeutical reasons every morning or regular overtime during the season; when giving information on "time actually worked", respondents may tend to report the hours when they started and finished work or their "normal time", forgetting one-time absences, time for rest and overtime happening in an isolated way during the particular reference period; (c) they may purposely provide incorrect information, especially when it refers to unauthorised absences; and, (d) when proxy respondents provide information, they may ignore the activities of other family members, in



particular those events which happen on an irregular basis. To minimize response errors due to (b), the reference period is usually limited to one day or one week. Response errors due to (a), (c) and (d) may be reduced with a careful training of interviewers and questionnaire design.

A good questionnaire for measuring working time is one which ensures that responses will be as independent as possible of respondents' and interviewers' assessments. It highlights all aspects which tend to be forgotten, clarifies those that tend to be misunderstood, breaks down into components the complex items and uses indirect questions to obtain information on those that tend to be misinformed. In this line, [9] has suggested to obtain information for all jobs by requesting data separately for the main and other jobs; and to help respondents remember unusual events such as overtime, weekend work, sick leave, etc., by requesting data separately for each day of the week. This procedure is very useful to measure "time actually worked" among casual and self-employed as well as other workers with irregular working schedules. To reduce the tendency of respondents to report "normal time" in place of "time actually worked", [9] has also recommended that the question on "normal time" should precede that of "time actually worked"; and that when particular groups of workers cannot provide information using short time units of one hour, questions may use longer time units of one day (or half-day). A combination of a short and a long time unit may also be used when the number of days usually (or actually) worked per week and the number of hours usually (or actually) worked per day are more easily recalled by respondents than the usual number of hours per week.

To improve the questionnaire design, the question itself may specify whether those activities which are liable to be forgotten or ignored by respondents are to be included or excluded from the working time concept. Better still, more than one separate question may be used to highlight each activity which tends to be erroneously included or excluded. The assurance that the information will be independent from respondents' assessments on what constitutes an "absence", "overtime" or "work" in general, however, will be maximised by using detailed questionnaires on all types of time use. These are known as **time use surveys**.

**Time use surveys** aim to account for the nature, duration and location of all activities carried out by the population during a reference period. Several countries have carried out time-use surveys, mainly to study the time spent in unpaid activities. Working time can also be studied with the same methodology, by requesting detailed information on time spent on each work-related activity, and following the particular sequence of activities performed each day of the reference period in the form of a 'time diary'. By using sufficiently short time units, a detailed account of the time spent at work on the different economic and non-economic activities may be obtained, thus allowing the measurement of practically all working time concepts which make reference to a specific reference period. It has been suggested that time-use surveys may be incorporated into regular household surveys for the measurement of working time [8].

Time use surveys are subject to response errors similar to those in household surveys. However, the errors are probably smaller, given that they do not require the respondents to know or judge whether a particular activity is classified as work or not. This is an advantage when measuring working time for workers who may tend to erroneously exclude or include certain activities, depending on whether they are paid or not during this time or on their own understanding of the term "work". Furthermore, time use surveys provide a description of all activities performed during a

particular reference period and thus are very appropriate to study the occurrence, behaviour and interrelation of working activities.

It has been suggested that time-use surveys provide better estimates of "time actually worked" than conventional labour force surveys for self-employed workers [25]. This could also be the case for workers for whom the distinction between periods of availability and other periods may be unclear and easily interchanged (e.g. agriculture workers, other rural workers, homeworkers) and when responses may tend to be misreported.

**Establishment surveys** obtain data from employers' records of attendance, usually kept for payment and other internal purposes. These surveys often exclude small establishments from their scope because they are difficult to identify and have a high birth and death rate, which renders the creation and maintenance of directories needed for sampling very difficult. This is a serious handicap in countries where an important share of the labour force is working in micro-enterprises or in small and medium-sized enterprises.

Establishments' records do not depend on employers' recall capacity and thus may provide reliable data for long reference periods. However, they are generally not kept for statistical purposes, but respond to administrative needs. That is why registers kept by establishments (a) are generally able to provide data on "time paid" rather than "time actually worked": establishments are more interested in knowing how many hours they should pay their workers than how many hours workers have been at the workplace or absent from work. (b) These registers suffer from inevitable omissions; some only record absences or resting periods which represent a significant economic loss (e.g. lateness, long sickness, strike activity, etc.); others record those which are paid by law (e.g. vacations, maternity leave or long sickness) or for which pay may be deducted, and others do not record absences at all. "Time of absence", "time for rest", "overtime" and "time actually worked", will refer to the time which has been recorded as such by establishments and not necessarily to time actually spent in these situations. (c) They are generally specific to each establishment and distinct between establishments. The coverage of working time concepts may be variable between establishments and methodologies used for measuring them may also tend to be heterogeneous.

The procedure followed by establishments to estimate the various working time concepts is generally not well documented nor controlled. Nevertheless, establishment surveys are generally able to provide complete and reliable data for particular types of absences, such as paid maternity leave and long sickness, and particular types of overtime work (i.e. compensated overtime) which may represent the bulk of the absences and overtime work in many countries. The resulting estimates of "time actually worked", "time of absence" and "time for rest", can be considered to be approximations to the real situation.

Establishment survey data may be greatly improved if a reporting system is implemented which allows to monitor changes in absence levels and to study the behaviour of individual workers during a particular (long) reference period, which simple pay-roll records do not allow. It would keep separate records for each worker, note all absences and resting periods using short time units (of one hour) and reference periods of at least one year and classify them by reason [2]. Such a system could be developed and recommended by Employers' associations. Some have already

done so and receive information on a voluntary basis [7]. The precise implementation of such a reporting system, however, largely depends on the willingness of workers and supervisors.

Other sources such as **legislation or collective agreements** are useful to obtain data for all or a subset of paid workers regarding "legal time" and "legal rest" (see Table 15). **Social security records** may provide data on "time of absence" for specific reasons such as sickness, maternity leave or occupational injuries, and even newspapers may be used to obtain information on labour disputes. As with establishment records, these sources are not kept for statistical purposes, but for legal, payment or information purposes. Agencies keeping social security records may be more interested in knowing how many days of sickness they have to pay - where entitlement to sickness benefit may begin after several days of sickness - than in knowing how many days workers have actually been sick. In contrast, these registers are generally kept by one agency or by various coordinated agencies, which share a common data collection methodology. Their worker coverage is generally also limited to workers covered by legislation or collective agreements, a serious limitation in countries where legal coverage is reduced.

## G. NATIONAL PRACTICES

### Household surveys

A review of 61 (regular or ad-hoc) household survey questionnaires (see Annex 6 for titles) shows that 58 request information on "time actually worked" (see Table 1). Of these, 24 surveys request information separately for first and second jobs, and various surveys, mainly in Africa, request information separately for each day of the week. The survey in Guyana, in particular, requests day-by-day information only for casual and part-time workers. The practice of requesting data on "normal time" before data on "actual time" is common in European countries. Variable time units to ease the response burden are applied in the surveys of Egypt and Côte d'Ivoire, which request information of actual days worked and actual hours worked per day during the reference week. Few surveys, however, test for the exclusion of absences and the inclusion of overtime with separate questions (see the Australian case in Figure 9 below). Still, many state the inclusion or exclusion of these activities in the question itself (see Table 2).

**Figure 9. "Time actually worked" measured in the Australian survey**

32A. On which days did ... work last week (in all jobs)?

	yes	no		yes	no		yes	no
Mon	//	//	Wed	//	//	Fri	//	//
Tue	//	//	Thu	//	//	Sat	//	//
						Sun	//	//

B. Did .. have any time off from ... job(s) on those days ?

Yes // No //

C. Did ... work any paid or unpaid overtime on any day last week?

Yes // No // Other //

D. How many hours did ... actually work last week (less the time off)(but)(counting the overtime)? : categories

Regarding "normal time", 41 surveys request information on what they term "normal", "usual", "general" or "settled" time (see Table 1). This difference in terminology actually reflects the fact that they are measuring different concepts (Table 3). Some surveys relate to "settled" hours or hours "agreed" with employers (i.e "contractual time"). In contrast, others relate to "usual time" and explicitly include overtime. These also stipulate that "usual time" should be either zero or the average hours if schedules are irregular (a practice which was considered as misleading). As with the measurement of "time actually worked", few surveys use explicit questions to assure that "usual overtime" is included (see the Survey in Great Britain in Figure 10) and none uses an explicit question to obtain information on "usual absence or rest", perhaps because it is a rare event. Still, some surveys stipulate in the question itself the inclusion of usual overtime (see Table 3).

**Figure 10. Usual time as measured in the UK survey**

18. How many hours a week do you usually work in your (main) job (business), that is, excluding meal breaks and overtime, whether paid or unpaid)?
- If work pattern not based on a week, make notes and give an average over the last four weeks /// [A]
19. In addition to this, do you work paid overtime? regularly .....  
occasionally .....  
or never? .....
20. On average, how many hours paid overtime do you usually work in a week? /// [B]
23. Do you work unpaid overtime: regularly .....  
occasionally .....  
or never? .....
24. On average, how many hours unpaid overtime do you usually work in a week? /// [C]
27. INTERVIEWER TOTAL [A] + [B] + [C] ///

Other surveys obtain information on "overtime" as the difference between "time actually worked" and "normal or usual time" (when the first is higher than the second):

$$\text{overtime} = \begin{array}{l} \text{normal time (or usual time)} \\ - \text{time actually worked} \end{array} \quad (3)$$

or as the difference between "time actually worked" and an established number of hours "x" (when they have requested for the reason for working more than "x"):

$$\text{overtime} = \text{"x"} - \text{time actually worked} \quad (4)$$

Few surveys request information on "normal time" as proposed in this report. The Norwegian survey, presented in Figure 11, is an interesting example. Most cover only the main job, but many also cover secondary jobs separately (see Table 1). To ease the response burden, the survey in Kenya has asked for usual hours worked per day and usual days worked per week. Some surveys only request information on "normal or usual time" when "time actually worked" is below a certain number of hours, probably because the aim of this information is to measure visible underemployment.

Various surveys obtain information on "overtime" (see Table 4). Some request a direct question, either for the whole population or only for a group of workers, as a control to the response on "time actually worked". A direct question will probably obtain data on "overtime" as is understood by workers, for example, overtime which is recorded in establishments' records or which is compensated. This would provide estimates on "compensated overtime".

**Figure 11. Normal time measured in the Norwegian survey**

For employees with agreed fixed working hours per week, including flexitime:

12. What were your settled working hours ? hours \_\_ min\_\_

For r employees with agreed working hours but the settled number of hours vary from week to week:

13. What were your settled working-hours in the [reference] week? hours\_\_min\_\_

14a. What is the average of your settled working hours per week? hours\_\_min\_\_

For employees with no agreement on working hours, self-employed and unpaid family workers:

14b. What are your average working hours per week? hours\_\_min\_\_

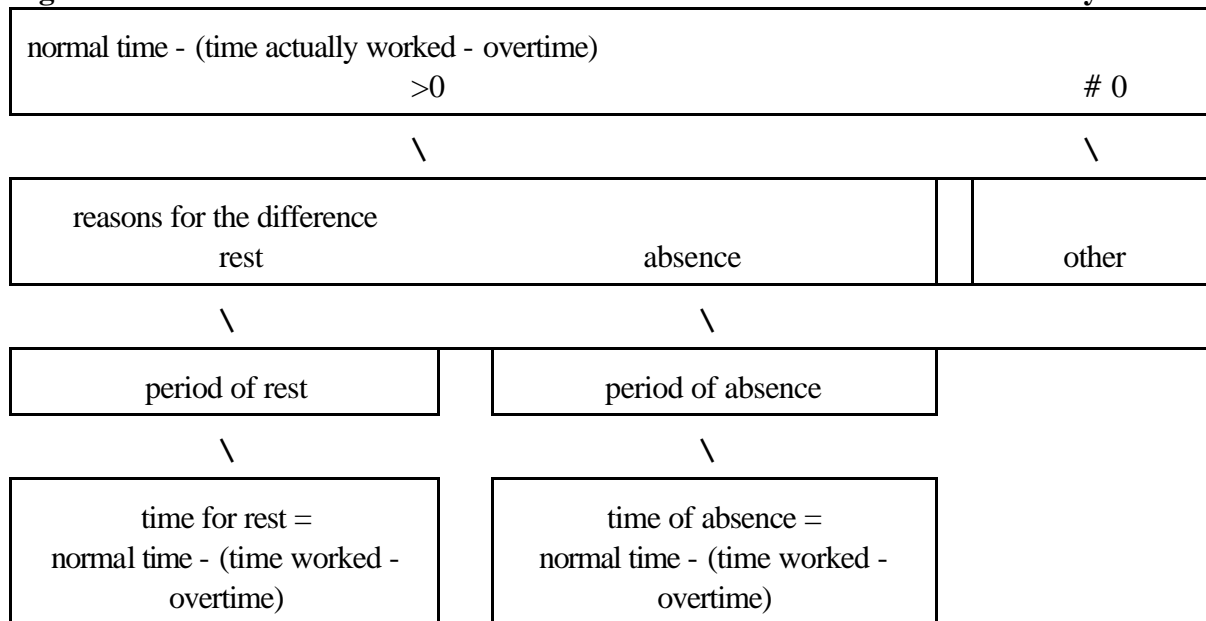
For workers with occasional working [during reference] week (no hours are recorded)

Both measures assume that workers cannot work overtime and be absent from work during the same reference period, and thus underestimate "overtime" when this is not the case. Indeed, when workers are also absent from work, their "time actually worked" will be lower than otherwise. The use of an established number of hours "x" will overestimate "overtime" when the worker's "normal or usual time" is higher than "x" and will underestimate it when it is lower.

Similarly, "time of absence" and "time for rest" are estimated in some household surveys by requesting a direct question of the type: "(How long) was ... absent from work (for specific reasons)?" This approach may only capture "absence" as understood by workers or which is recorded as such by their establishments, leaving out other types of absence, and may be difficult to answer when absence is not clearly defined by establishments (e.g. for workers in micro-enterprises).

Household surveys will estimate "time of absence or rest" as proposed in this report when they request numerical information on (a) normal time, (b) time actually worked during the reference period and (c) overtime worked during the reference period, and when a question is included on (d) all the reasons for the difference between "normal time" and "time actually worked" (see Figure 12). More than one reason for the difference may be given. When this is the case, additional questions to

assess the time spent on each can be added or a rule to assign the "time of absence or rest" to each reason can be established.

**Figure 12. Measurement of time for rest and time of absence in household surveys**

Many surveys, however, depart from this estimation procedure (see Table 5). Some request numerical information only on "time actually worked" (and no information, or only categorical information, on "normal time"). These usually request data on the "reason for working less than 'x' number of hours" (or the reason for not working more hours). Sometimes this question is asked when workers normally work longer than 'x', and other times a fixed benchmark is assumed. These surveys are able to estimate "time of absence" under the assumption that the "established number of hours" is representative of workers' "expected time":

$$\text{time of absence or rest} = \text{fixed benchmark} - (\text{"time actually worked"} - \text{overtime}) \quad (5)$$

"Time of absence or rest" may, however, be underestimated when the "established number of hours" is below workers' "expected time" and overestimated when it is higher.

When surveys use "usual time" as a basis for estimating "time of absence or rest", it will refer to "time of absence" above "usual absence" and "time for rest" above "usual rest", thus underestimating "time of absence or rest". To obtain total "time of absence or rest", "usual time" would need to be adjusted with information obtained through additional questions on (a) 'time of usual absence or rest', (b) 'reasons for usual absence or rest', and (c) 'time of usual overtime':

$$\text{Normal time} = \text{usual time} + \text{usual absence} + \text{usual rest} - \text{usual overtime} \quad (6)$$

However, no survey requests sufficient information to carry out this adjustment.

Very few surveys are able to correct for "overtime". Thus, when workers work "overtime" and are "absent from work" during the same reference period, "time of absence or rest" will be underestimated. One may, however, assume that the reference period is so short that it is difficult for a worker to experience both "overtime" and "absence from work or rest".



Surveys generally request information on the 'main reason for having worked less (or more) than usual'. This causes an underestimation of "time of absence" when the main reason relates to resting time but the person has also been absent, and an overestimation otherwise. Again, it may be assumed that the reference period is too short for workers to experience more than one period of absence or rest.

In principle, household surveys cover all "time of absence" and only differ in the reasons or groups of reasons of absence specified. Table 6 shows that all reasons of absence stipulated by household survey questionnaires can be found in the classification of absences proposed in Figure 5. Some reasons (e.g. sickness, labour disputes, bad weather, personal leave) are commonly stipulated. Other reasons are less common and are grouped in ways which vary considerably from country to country. Given this variety, and for tabulation purposes, the classification proposed in Figure 5 might be more suitable using two-digit codes instead of three-digit codes.

Regarding reasons for rest, 'vacation' is always mentioned (see Table 7) and is sometimes found in the same category with 'holidays'. In other surveys, 'holidays' are not stipulated at all, leading to think that both are considered identical events. Other types of rest mentioned in these questionnaires are 'compensation rest', such as 'compensation for overtime worked', 'flexitime working', 'shift work', 'casual work' or time for rest due to 'entry, change or exit of employment' during the reference period.

Most questionnaires distinguish between workers absent the whole week and those who have been absent only part of the week (i.e. "whole-week absence" and "part-week absence" [28]). Some questionnaires make explicit questions to probe for formal job attachment to determine employment status of whole-week absent workers (see Table 1).

Some household surveys request data on "time actually worked" for a reference period of one year, using longer time units of one week or one month (see Table 8). In order to assist the respondents to remember past events, they request information on a month by month basis. Such estimates are useful where it is important to study the various cycles of economic activity during the year but where household surveys are carried out only once a year. "Time of absence" may also be measured for a reference period of one year. Canada carries out such a survey on a yearly basis, using time units of one day and covering absences due to sickness, maternity leave and vacations which last two consecutive weeks or more [30].

## **Time use surveys**

At present, few time use surveys obtain detailed information on working activities. Most follow the scheme propose in [31], like the 1988 Bulgarian Time Use Survey [32] which used ten different categories for coding working activities: (1) regular working hours in primary employment, (2) overtime working hours in connection with primary employment, (3) additional work, including work on private property when product is for sale, (4) meetings, conferences when holding them is not a professional obligation, (5) moving, as when there is a change in the work site location (as in the construction industry); (6) idle time due to lack of raw materials, energy, etc.; (7) breaks; (8) time before or after work (dress, undress, start the machine, clean the work site, etc.); (9) other work related activities; (10) travel to or from work. With this information, estimates of "time

worked" can be obtained (i.e. adding activities (1) to (6), (8) and (9)), as well as estimates of "time for work" (adding (10)) and "productive time" (i.e. excluding (6)).

## Establishment surveys

A review of 30 establishment survey questionnaires (see Annex 7 for titles) shows that they provide estimates of one or more of the following concepts: "time actually worked", "time paid for", "normal time", "overtime", "time of absence" and "time for rest" (see Table 9). "Time actually worked" and "time paid for" are commonly measured. They use variable reference periods and time units. Among those questionnaires which gave instructions many stipulated that periods of absence or rest should be excluded from "time actually worked" and almost all stipulated that overtime should be included (Table 10). However, the explicit inclusion or exclusion of stand-by time, lunch time and other similar time is not specified in any questionnaire. Similarly, when measuring "time paid", most survey questionnaires specify the inclusion of overtime and paid absence but few specify the inclusion or exclusion of stand-by time, short breaks or commuting time (Table 11). One questionnaire in our review (Luxembourg) measured "time demanded" to workers, which refers to the number of hours actually worked by workers during reference month (including overtime and weekend work), excluding hours not worked due to short-time working schemes.

Establishment survey questionnaires which request information on "normal time" usually define it in terms of "standard", "ordinary" or "normal" time (Table 12) and some link the concept to the time which is paid at "ordinary rates". "Normal time" seems here to refer to the hours which represent the "usual" norm in the establishment (i.e. "contractual time"). One survey links the concept to laws and collective agreements and another defines "normal time" as proposed in this document, namely, as "the time when workers are expected to work in a normal week" (United Kingdom).

"Overtime" measured through establishment surveys is generally defined as the number of hours paid at overtime rates (i.e. paid overtime) or to hours above standard or normal time (Table 13). Some survey questionnaires explicitly warn not to convert overtime to the equivalent time paid for. Other surveys distinguish between hours that have been paid at premium rates due to shift work or hazardous work and overtime, where only those hours which are worked beyond normal time, such as weekend work, holiday work, etc. are to be included.

The few establishment surveys which request information on "time of absence or rest" use definitions which vary as much as the topics covered (Table 14). France measures "normal rest" and distinguishes separately weekly rest, holidays and vacation time. Their definition of vacation time excludes extra time granted by establishments due to seniority and other reasons. In contrast, the United Kingdom measures "actual annual rest" and thus includes such time. Sri Lanka measures all "time for rest" and distinguishes it from "time of absence", while Italy measures both together.

## H. OTHER TOPICS

This section briefly discusses two topics which are of importance in the field of working time and are part of STAT's future work.

### Annual estimates of working time

Generally, household surveys are not able to accurately measure "time actually worked" for long reference periods. Establishment surveys may use long reference periods but do not cover the whole working population. As a consequence, indirect methods have been developed to estimate total annual "time worked" (by all workers). Two estimation procedures have been put forward [27]: an "average" procedure and an "accounting" procedure. Their application to national data is one subject for future work.

The **average procedure** defines "annual time actually worked" as the "total time actually worked during the year divided by the average employment level over the year" [27]. It requires monthly (or quarterly) household survey data on "time actually worked" during the reference week, which are then extrapolated to refer to the survey month. The data are then adjusted for eventual public holidays and strike activity, information which may be obtained from administrative sources. These monthly estimates may then be added up to obtain "total annual time actually worked" which is then divided by the average number of workers during the year. The following is a simplified formula which assumes that all workers have the same working days. In practice, some adjustment may be needed for workers who work on weekends and those with special work arrangements, as is done in [26]:

$$\frac{\sum_j (12 \cdot wdm_j + S \cdot \frac{\sum_i tw_{ij} - str_j}{wdw_j})}{\sum_j emp_j} \quad (7)$$

where  $tw_{ij}$  = time actually worked by worker  $i$  during reference week in month  $j$   
 $wdw_j$  = working days in reference week in month  $j$   
 $wdm_j$  = working days in month  $j$   
 $str_j$  = total time lost (by all workers) due to strikes or lockouts during weeks other than reference week in month  $j$  (converted to time units if necessary)  
 $emp_j$  = employed population in reference week in month  $j$

With a similar procedure, annual "time of absence" and "time for rest" may also be estimated.

The **accounting procedure** consists of multiplying the worker's weekly "normal time" by the number of weeks he or she has been in employment during the year; holidays and vacations are subtracted to obtain a net amount of "annual normal time". Estimates of overtime obtained from sources such as household or establishment surveys are added and estimates of time spent in the

most important absences, obtained from household surveys or administrative sources, are then subtracted. The following is a simplified formula which assumes that "normal time" is the same throughout the year. In practice, some adjustments may be needed when a worker's "normal time" varies in the year:

$$S [ nt_i * wy_i - nr_i + ov_i - ab_i ] / n \quad (8)$$

where  $nt_i$  = normal time of worker  $i$   
 $wy_i$  = weeks in employment during the year of worker  $i$   
 $nr_i$  = annual normal rest of worker  $i$  (converted to time units)  
 $ov_i$  = annual overtime of worker  $i$   
 $ab_i$  = annual absence from work of worker  $i$   
 $i$  = 1,2,...  $n$  average number of workers during the year

"Normal time" may also be measured for a lifetime. Such a measure may be interpreted as the number of months or years that an average person will work during a lifetime, if the person enters the labour force at the average age of entry and leaves at the average retirement age on a given moment. It can be estimated as the difference between the average school-leaving age and the average age of retirement. As with the "life expectancy indicator", this indicator is based on information relative to different cohorts (i.e. the persons who are leaving school are different than those who are taking retirement) which are themselves different from the target cohort (i.e. the working population).

## Working time arrangements

The last years have seen new forms of employment appear, and other forms, which had only marginal importance, acquire relevance. Many of these involve working time arrangements which are different from regular full-time working schedules, i.e. they fulfil at least one of the following: (a) they are not full-time schedules, (b) they are not performed by full-year employed persons; (c) they do not require workers to work the same amount of time every day and every week, nor/or (d) to follow fixed checking in/out times. It is important to identify the different workint time arrangements to monitor their relative importance and impact on working conditions. The effects of these special working time arrangements on the measurement of working time have not been discussed in this working paper but will be the subject for future work.

Workers who follow special working time arrangements (a) may work less or more than full-time, (b) may be employed only part of the year (i.e. temporary workers), (c) may work only part of the week, (d) may have different checking in/out time every day/week, and/or (e) may work variable daily and/or weekly schedules.

Those in (a) are typically part-time workers, who are expected to work less time than what is common or normal. No international definition exists of part-time work, but some attempts have been made in this direction [29]. Part-time workers should not be confused with workers who have reduced their "normal time" through collective bargaining or other mechanisms, and who maintain

their level of remuneration. When part-time work is not a voluntary situation (i.e. when it has been imposed on workers as a way to prevent layoffs), it is known as "short-time working", "partial unemployment" or "work-sharing" arrangements. This situation is considered as temporary when workers continue to have a full-time contract (or another type of assurance) which guarantees a return to full-time employment. "Laid-off workers", whose employment contract has been suspended by their employer for economic or organisational reasons during a specified or unspecified period, also fall under category (a) if they maintain a formal job attachment. Workers who work more than full-time are generally multiple-job holders, who take on an additional job to increase their income.

Those in (b) are typically temporary workers. They may be casual or short-term workers (i.e. with employment contracts which are of short duration as proposed in [23]) or seasonal workers (i.e. who work only during the high commercial, agricultural or tourist season). Workers on "term-type working" may also fall under (b). These are workers who work only during school-terms (either full-time or part-time, in which case they also are in (a)). These workers do not work at all during school holidays [33].

Those who follow compressed working week systems are in (c). These workers are scheduled to work a regular amount of weekly hours during a shorter than usual number of days. Workers under this system may or may not work equal number of hours every day. Part-time workers may also fall under (c) when they work longer hours during a shorter number of days.

Shift-workers may be considered to belong in group (d). These succeed each other to perform the same operation in the same workplace. Workers under this working time arrangement may work either day shifts or night shifts, or may alternate between day-shifts and night-shifts at regular or variable intervals. In these last situations, workers may or may not work the same number of hours every day, week and/or month. Workers on staggered schedules alternate working weeks (e.g. who work 60 hours during two consecutive weeks and work 0 hours the next two weeks) also fall under (d).

Workers on flexitime systems belong to (d) and/or (e). This system defines working time over a period longer than one day or one week. It allows paid workers to choose, within established limits, the number of hours worked every day during this periods as well as the daily checking in/out times. Workers following this type of system may work different schedules every day and week, following no precise pattern. Workers who work more hours than scheduled for the period are entitled to take these hours as leave in subsequent periods. Such irregular working schedules are in this case the result of greater work flexibility; other irregular working schedules falling in (e), however, may reflect situations of precarious employment which depend upon a volatile clientele. Many workers in the self-employment sector fall under this category.

Workers on "annualized hours" belong to types (a), (d) and (e). This system defines working time over a long period of one year and allows employers to request long hours during high commercial periods without the need of paying overtime rates.

## I. CONCLUSIONS

This report discusses various working time concepts which might be useful when formulating and evaluating social and economic policies. Working time is one of the leading aspects of working conditions and has been at the centre of labour management negotiations. The way people spend their time, and the circumstances leading to such pattern, are of increasing interest in the fields of economic and social analysis. However, international standards regarding working time statistics are at present insufficient and the ILO Bureau of Statistics has started to develop a framework in which working time concepts can be incorporated. This is the subject of this report.

This framework classifies time into two major categories: "time worked" as understood by the labour force framework adopted by the 13th ICLS in 1982 (i.e. time spent on activities which lead to the production of goods and services) and time dedicated to other activities. This time is in turn subdivided into time spent on resting activities (i.e., "time for rest") and other time not worked (i.e. "absence from work").

Time worked can be seen from different perspectives: either as the time spent performing the tasks and duties defined for the job during a particular reference period (i.e. "time actually worked") or as the time normally expected to work (i.e. "normal time"). From these two dimensions, various other concepts emanate, such as time which is spent on economic activities (i.e. "productive time"), time which has been allocated for work activities (i.e., "time for work"), time which has been paid to workers (i.e. "time paid") and time worked in addition to normal schedules (i.e. "overtime").

"Time for rest" covers daily, weekly, annual and compensation rest and is characterised for being time when workers are not expected to work. As with "normal time" it is often regulated by legislation or established by employers. "Time of absence" can be seen as part of the time when workers are expected to work but which is not worked. "Absence from work" encompasses a wide range of reasons of absence, which differ in motives, origins, characteristics and consequences on establishments and workers; it should therefore be classified according to types of absence.

The working time concepts discussed in this report can in principle be measured using any method of data collection, time unit and reference period. Each combination of these will provide data of different qualities on different aspects of the same phenomenon. International comparability may be achieved by standardising concepts as well as specific methods of data collection (e.g. household surveys). The measurement of working time concepts will be more precise the shorter the time unit, and more complete the longer the reference period. However, the use of very short time units and very long reference periods may be impracticable; their length is often decided upon by the measurement instrument used and by the particular measurement objectives.

The coverage of all persons in employment conveys measurement problems that may only be resolved by using more refined measurement instruments, such as time use surveys; as the behaviour of self-employed workers regarding the way they use their time is different than that of paid workers, working time data may need to be analyzed according to workers' status in employment.

The report also examines national practices regarding household and establishment surveys. Data on working time provided by households will be adequate to the extent that respondents understand the questions, remember or know the particular events or are truthful in their answers.

The questionnaire design is of major importance for reducing response errors. In this context, countries should perhaps consider the development of time use surveys and their incorporation in regular household surveys to measure working time. The quality of working time data provided by establishments and other administrative records will depend on the quality of the records kept, and can only be guaranteed if establishments' reporting systems are coherent and reliable. Some efforts in this direction can be carried out by employers' or workers' organisations.

## TABLES

1. Working time concepts measured in national household surveys
2. Time worked measured in household surveys
3. Normal (or usual) time measured in household surveys
4. Overtime measured in household surveys
5. Time of absence measured in household surveys
6. Reasons of absence stipulated in household surveys
7. Reasons of rest stipulated in household surveys
8. Working time concepts measured in Household surveys using longer reference periods
9. Working time concepts measured in establishment surveys
10. Time worked measured in establishment surveys
11. Time paid measured in establishment surveys
12. Normal time measured in establishment surveys
13. Overtime measured in establishment surveys
14. Time of absence or rest measured in establishment surveys
15. Legal time



**Table 1. Working time concepts measured in national household surveys**

	Usual before actual	Time actually worked		Normal time		Formal job attachment
		Jobs	day by day	Jobs	conditions	
<b>AFRICA</b>						
Botswana		all	x			
Côte d'Ivoire (c)		1 st				
Egypt (c)		1st+2nd				
Kenya (urban) (c)				1 st		
Kenya (rural)		all				
Lesotho	x	all	x			payment
Nigeria		1st+2nd				
Rwanda		1st+2nd	x			
Sierra Leone			x			
Tanzania		1st+2nd	x			
Zimbabwe		1st+2nd	x			payment
<b>ASIA</b>						
Hong Kong		all				
Indonesia		1st+2nd				
Israel	x	all		all		payment
Japan		all				
Korea		all			t<35	
Malasya		all				
Pakistan		all	x			duration, payment, assurance
Phillipines	x	all				
Singapore		all				
Sri Lanka	x	1st+2nd		1 st		
<b>AMERICA</b>						
Bahamas		all				
Barbados		all				
Belize		all			t<40	
Brasil(month)		1st+2nd				
Brasil (year)				1st+2nd		
Canada	x	1st+2nd		1st+2nd		duration, payment
Colombia		all				
Costa Rica				1st+2nd		
Dominica		all				
Ecuador		all		all		
Salvador (b)		1 st			t<35	payment
					t=0	
F. Guiana (a)		1 st				
Grenada		1 st			t<40	
Guatemala		1st+2nd			t=0	
Honduras		1st+2nd			t<36	
Jamaica		all			t<40	
Martinique		all	x	all		
Panama		1st+2nd				
Perú		1st+2nd	x			
Puerto Rico		all				
Trin.& Tobago		1st+2nd				

	Usual before actual	Time actually worked		Normal time		Formal job attachment
		Jobs	day by day	Jobs	conditions	
U.S. (b)	x	all			t<35	payment
Uruguay		1st+2nd				
<b>EUROPE</b>						
Belgium	x	1st		1st		
Denmark	x	all		1st		
Finland	x	1st+2nd		1st		
France	x	1st				
Germany	x	1st+2nd		1st+2nd		
Ireland	x	1st		1st		
Italy		1st+2nd				
Luxembourg	x	1st		1st		
Netherlands	x	1st		1st		
Norway		1st+2nd		1st		
Portugal		1st+2nd		1st		assurance
Sweden		1st+2nd		1st+2nd		
Turkey		1st+2nd		1st+2nd		
U.K.	x	1st+2nd		1st		
<b>OCEANIA</b>						
Australia (b)		all		all	t<35	
Guam (b)	x	all			t<35	payment
New Zealand		1st+2nd	x	1st+2nd		

Source: National survey questionnaires (see Annex 6 for titles)

**Notes:**

blank no information requested

n.a. information not available

(a) requests time at work on a day-by-day basis for casual and part-time workers

(b) corrects for overtime and absence from work explicitly in the questionnaire

(c) time actually worked is derived by multiplying days per week by hours per day

**Codes:**

Usual before actual: question on "usual time" precedes question on "actual time" (= 16);

Time worked: covers all jobs (all=23), only the first job (1st=10), the first and secondary jobs separately (1st+2nd=24); is measured in number of hours (n=51), in ranges of hours (r = 7), is asked on a day-by-day basis (day by day=10)

Usual time: covers all jobs (all=4), only the first job (1st=11), the first and secondary jobs separately (1st+2nd=7); is measured in number of hours (n=30), in ranges of hours (r=11), is asked only if "time at work" is under 'x' hours (t<'x'=10)

**Table 2. Time worked measured in household surveys**

	Explicitly includes:	Explicitly excludes:
<b>AFRICA</b>		
Botswana	overtime, hours at work	approved time away from work, meal breaks
Rwanda	short breaks	rest periods, meal breaks
Sierra Leone		meal breaks, other breaks
Zimbabwe	overtime	meal breaks, approved time away from work
<b>ASIA</b>		
Japan	overtime	meal breaks, commuting time, housework, voluntary work without pay
Israel	overtime, shift work, special jobs, work in another place, preparation hours	absence from work
Malasya	extra work	
<b>AMERICA</b>		
Belize	overtime	
El Salvador	overtime	absences
Uruguay	extra hours	
United States	overtime	absences, meal breaks
<b>EUROPE</b>		
Finland	overtime	
France	overtime	paid absences, commuting time, meal breaks, sickness, leave, unemployment
Norway	overtime, etc.	absence because of illness, holidays, etc.
Turkey	overtime	meal breaks
United Kingdom	overtime	meal breaks
<b>OCEANIA</b>		
Australia	overtime	time off
Guam	overtime	absences, meal breaks
New Zealand	overtime	time off

Source: National survey questionnaires (see Annex 6 for titles)

**Table 3. Normal (or usual) time measured in household surveys**

	normal/usual time is defined as:	includes:	excludes:
Denmark	usual or average time		
Finland	hours usually worked; average hours when no regular hours		overtime
French Guiana	usual hours; average hours when schedules are irregular		
Ireland	usual hours; when schedules are irregular, usual hours=0	overtime	
Israel	usual hours; when schedules are irregular, usual hours=blank	overtime, preparation hours of teachers and artists	
Netherlands	according to contracts; average time if not fixed by convention		
New Zealand	usual hours	overtime	
Norway	settled hours; average hours if no agreements on working hours		
Portugal	usual hours; when unknown, usual hours=00		
Sweden	agreed to work with employer(s)		
United Kingdom	normal hours		overtime, meal breaks
	usual hours	usual overtime	meal breaks, unusual overtime

Source: National survey questionnaires (see Annex 6 for titles)

**Table 4. Overtime measured in household surveys**

	direct questions	when normal is higher than actual time	when actual is higher than x and usually works less	as a check for actual time
Israel	x			
Korea				
Belize				if t excludes it
Canada	x			
Ecuador			t>40	
Perú		x		
United States				if 35<t<48
Uruguay	x			
Denmark	x			
Finland	x			
France		x		
Germany		x		
Ireland		x		
Italy		x		
Luxembourg		x		
Portugal	x			
Sweden		x		
Turkey	x			
United Kingdom	x			
Guam				if 35<T<48
New Zealand		x		

Source: National survey questionnaires (see Annex 6 for titles).

Notes:

overtime is obtained by difference between "usual time" time and "time at work" (S = 9); is obtained directly (D = 10); is asked only if "time at work" is between 'x' and 'y' hours ('x' < T < 'y' = 2).

Table 5. Time of absence measured in household surveys

	actual time	usual time	when actual < usual time	when actual < 'x' and usual > 'x'	when actual < 'x' or wants to work more	reasons for not being at work	direct question
<b>AFRICA</b>							
Egypt	n				t<6 days		
Lesotho	n	r			t<30	x	
Nigeria	n				t<40		
Rwanda	n				w+		
Tanzania	n				t<40		
Zimbabwe	n					x	
<b>ASIA</b>							
Hong Kong	n				t<15		
Indonesia	n						x
Israel	n	n				x	x
Japan	n				t<35		
Korea	n	r		t<35		x	
Malaysia	n				t<25	x	
Pakistan	n	n			t<42	x	
Phillipines	n	n					
Sri Lanka	n	n	x			x	
<b>AMERICA</b>							
Bahamas	n	n				x	
Barbados	r					x	
Belize	r	r			t<40		
Canada	n	n					x
Colombia	n	n				x	
Dominica	r	r				x	
Ecuador	n	n		t<40		x	
El Salvador	n	r		t<35		x	
French Guiana	n	n	x				
Grenada	r	r					
Guatemala	r	r			w+	x	
Honduras	n	r			t<36 & w+	x	
Jamaica	r	r		t<32		x	
Martinique	n	n				x	
Panama	n				t+		
Perú	n	n	x				
Puerto Rico	n				t<35	x	
Tr. & Tobago	r				t<33		
United States	n	r		t<35		x	
Uruguay	n					x	
<b>EUROPE</b>							
Belgium	n	n	x			x	
Denmark	n	n	x			x	
Finland	n	n					x
France	n	n	x				
Germany	n	n	x				
Ireland	n	n	x			x	

	actual time	usual time	when actual < usual time	when actual < 'x' and usual > 'x'	when actual < 'x' or wants to work more	reasons for not being at work	direct question
Italy	n	n	x				
Luxembourg	n	n	x			x	
Netherlands	n	n					x
Norway	n	n				x	
Portugal	n	n	x				
Sweden	n	n	x			x	
Turkey	n	n	x			x	
U.K.	n	n	x			x	
<b>OCEANIA</b>							
Australia	r	r		t<35		x	
Guam	n	r		t<35		x	
New Zealand	n	n	x				

Source: National survey questionnaires (see Annex 6 for titles).

Codes:

n - numerical data; c - data presented in ranges of hours.

time of absence is obtained by difference between "usual time" and "time at work" (=18); is obtained directly (8); is asked only if "time worked" is under 'x' hours ( $t < 'x' = 13$ ); is asked only if "time worked" is between 'x' and 'y' hours ( $'x' < t < 'y' = 2$ ); is asked only if "time worked" is under 'x' hours and "usual hours" is over 'y' hours ( $t < 'x', u > 'y' = 3$ ); is asked if the respondent has expressed a desire to work more hours ( $w+=2$ ); is asked if the respondent has stated a reason for not having worked more hours ( $t+=1$ )

Table 6. Reasons of absence stipulated in household surveys

	layoff								personal leave										
	short-time working								family responsibilities										
	mechanical breakdown								parental leave										
	electrical breakdown								military service and civic leave										
	lack of supply								sickness										
	lack of clients								accident										
	bad weather								study leave										
	reduction of activity								professional training										
	occupational injury								other leave										
	labour dispute																		
	suspension																		
<b>AFRICA</b>																			
Lesotho			x	x	x			X	X			x	x	x		x	x	x	x
Rwanda			x		x			X				*			x	x	*		x
Tanzania	x		x	x	x			X				x					x		x
Zimbabwe			x		x			X	X						x	x			x
<b>AMERICA</b>																			
Bahamas	x		x		x			x							x				
Belize	x							X							x	x			x
Canada	x	x					x		x			x	x			x	x		x
Colombia			x					x	x			x				x	x		x
Dominica	x							X							x				x
Ecuador	x				x	x		X	X			x	x			x	x		x
El Salvador					x		x	x	x						x				x
F. Guiana												*				x			x
Honduras							x	x	x			x	x			x	x		
Guatemala					x		x	x	x			x	x	x		x	x	x	x
Jamaica	x						x		x							x			x
Martinique	x						x		x			x		x		x	x		
Tr. & Tobago	x															x			x
Perú			x			x		x	x			x	x			x		x	x
Puerto Rico								x				x				x			x
Uruguay							x	x				x				x			x
USA			x		x		x	x	x							x			
<b>ASIA</b>																			
Hong Kong	x								x			x							x
Israel							x		x			x	x		x	x			x
Japan							x	x											x
Korea			*				*	x	x							x			x
Malasya	x						x	x	x							x	x		x
Pakistan			x		x		x	x	x			x		x	x	x	x	x	x
Sri Lanka			x	x	x		x		x			x				x	x		x
<b>EUROPE</b>																			
Belgium		x					x		x			x	x	x		x	x	x	x
Denmark	x	x					x		x			x		x		x	x		x
Finland	x								*			*	x		x				*
France	x						x	x	x			*		x		x	x	x	
Germany	x						x		x					x		x			x
Ireland		*					x	*	x			x	x	x		x	x	x	x
Italy							x	x	x			x	x	x		x	x	x	x



	layoff										personal leave																
	short-time working										family responsibilities																
	mechanical breakdown										parental leave																
	electrical breakdown										military service and civic leave																
	lack of supply										sickness																
	lack of clients										accident																
	bad weather										study leave																
	reduction of activity										professional training																
	occupational injury										other leave																
	labour dispute																										
	suspension																										
Luxembourg		x						x		x	x							x	x	x	x	x		x	x		
Netherlands			x	x				x											*		*		x	x	x	x	
Norway	x																			x	x		x	x	x	x	
Portugal		x						x		x	x								x	x		x	x	x	x	x	
Sweden									x											x	x	x	x		x	x	
Turkey									x		x								x	x		x	x	x	x	x	
UK	x	x						x											x	x	x		x	x	x	x	
<b>OCEANIA</b>																											
Australia		x	*	*				*											x				x	x			x
Fiji	x																			x			x	x			x
Guam			x	x				x	x														x				
New Zealand	x	x	x					x											x	x			x	x			x

Source: National survey questionnaires (see Annex 6 for titles)

Notes: shaded cells show those reasons of absence which are grouped together in the national classification and are found next to each other in the table. Asterisks show those reasons of absence which are groups together in the national classification but are not found next to each other in the table.

**Table 7. Reasons of rest stipulated in household surveys**

	holi-days	vaca-tions	enter/leave	compen-sation	flexi-time	shift work	casual work
<b>AFRICA</b>							
Lesotho	x	x					
Rwanda		x					
Tanzania	x	x					
Zimbabwe	x	x					
<b>AMERICA</b>							
Bahamas		x					
Belize		x					
Canada	x	x	x				
Colombia		x					
Dominica		x					
Ecuador	x	x					
El Salvador		x					
Fren. Guiana		*					
Guatemala	x	x					
Honduras	x	x					
Jamaica		x					
Martinique	x	x					
Perú	x	x	x				x
Tr. & Tobago		x	x				
USA	x	x	x				
<b>ASIA</b>							
Hong Kong			x				
Israel	x	x					
Korea	x	x					
Malasya		x					
Pakistan	x	x					
Sri Lanka	x	x					
<b>EUROPE</b>							
Belgium	x	x	x		x		
Denmark	x	x	x		x		
Finland		x					
France	*	*	x	*	x		
Germany		x	x	x	x	x	
Ireland	x	x	x		x		
Italy	x	x	x	x	x		
Luxembourg	x	x	x		x		
Netherlands	x	x	x		x	x	
Norway		x	x	x	x	x	x
Portugal	x	x	x		x		
Sweden		x			x		
Turkey	x	x	x				
UK	x	x	x		x		
<b>OCEANIA</b>							
Australia		*	x		*	x	
Fiji		x					
Guam	x	x	x				
New Zealand		x	x		x	x	x

Source: National survey questionnaires (see Annex 6 for titles)  
Notes: idem Table 6.

**Table 8. Working time concepts measured in household surveys using longer reference periods**

Country	Reference period	Time unit	Concept	Jobs	month by month?
Kenya	year	week	usual		
Lesotho	year	month	actual		
Rwanda	year	week		all	
Guyane	year	week		all	yes
Martinique	year	days per week, hours per day	average time		yes
Belize	year	week		first	
Grenada	year	month			
Trinidad and Tobago	year	month			
Indonesia	year	month		first, second	
Sri Lanka	year	hours			yes
Turkey	year	days			

Source: National household survey questionnaires (see Annex 6 for titles)

**Table 9. Working time concepts measured in establishment surveys**

Country	Refper	Time worked	Time paid	Nor-mal time	Over-time	Other
Australia	W		min	min	min	
Belgium	W	x				absent workers
Botswana	M			x	x	
Canada	M		wage	sala	wage	absent workers
Chile	M	day			x	
Colombia	M	wage			wage	
Cyprus	W	wage:min		min	wage: min	
Ecuador	M	x			x	
Fiji	W			wage		
France	Y		perm		perm	short-time work, weekly and annual rest:perm,day
Greece (a)		x	x		x	
Greece (b)		day	x		x	
Hong Kong	M	days+ hrs/day		day		absent workers
Hungary	M	x				
Ireland	W	x				
Ireland	W		x			
Italy	M	days+hrs			x	paid time of absence+rest
Korea	M	perm:day+hrs; temp:day			perm	
Luxembourg	M		wage		wage	hours offered
Mauritius	M		wage	sala	sala	usual schedule:sala
New Zealand	P		wage		wage	
Norway (a)	W			sala		
Norway (b)	Q	wage			wage	
Panamá	W	wage				
Singapore	W	x			x	
Sri Lanka	M	days			x	time of absence+rest
Switzerland	M		wage	min	sala	unpaid time of absence:sala
UK	P			x	min	holiday entitlement:days
USA	P		sala		wage	
Venezuela	M	wage:day+hours			wage	

Source: National survey questionnaires (see Annex 7 for titles)

Notes: unless otherwise stated, working time concept refers to all workers or is measured in hours

x working time concept refers to all workers and is measured in hours

blank no information requested

Codes:

reference period: W(eek), M(onth), P(ay period), Q(arter), Y(ear)

worker coverage: wage(earners), sala(ried employees), perm(anent workers), temp(orary workers)

time units: day(s), hrs(hours), min(utes), hrs/day(hours per day)

**Table 10. Time worked measured in establishment surveys**

Country	Includes	Excludes
Belgium	normal hours, overtime, sunday work	
Chile		paid absences, rest
Colombia	overtime, weekend work	paid absences, rest
Cyprus	overtime, normal hours	
Ecuador	overtime	paid absences, rest
Hungary	obligatory hours, overtime	paid leave
Italy	ordinary time, overtime, night work, holiday work	absences such as holidays, vacations, etc. even if paid
Norway	overtime	
Panamá	hours worked in ordinary shifts, extra time	vacation, sick leave or casual leave
Sri Lanka	total attendance holiday work	
Venezuela	overtime	

Source: National survey questionnaires (see Annex 7 for titles)

**Table 11. Time paid measured in establishment surveys**

Country	Includes	Excludes
Austra-lia	award, standard, agreed hours of work; hours at penalty rates, paid leave, overtime	unpaid hours, stand by and reporting time if not part of standard hours
Canada	overtime, paid absence and rest	
Cyprus	overtime, normal hours	
France	overtime, short time work, absence	
Ireland (a)	normal time, overtime, paid absence and rest	
Ireland (b)	overtime, paid travelling time	
Luxem-bourg	normal time, weekend and holiday work, night work, paid leave	
Mauri-tius	hours paid, paid leave, public holidays and other time not worked	
New Zealand	hours paid at ordinary rates, paid travelling time, holidays, sick leave, etc.	
Switz-erland	hours worked, overtime, time lost but paid, e.g. holidays, vacation, breaks at work, personal leave, other resting time granted by establishment	
Sri Lanka	total attendance, holiday work	
USA	overtime, paid stand-by or reporting time, time not worked which is paid directly by the firm: holidays, vacations, sick leave, other paid leave	

Source: National survey questionnaires (see Annex 7 for titles)

**Table 12. Normal time measured in establishment surveys**

Country	definition	excludes
Australia	weekly standard/rostered hours which employees would ordinarily be paid in a full week	overtime
Botswana	hours ordinarily worked each week; standard ordinary time	overtime
Canada	hours in standard work week (salaried employees); average hours normally scheduled in a work week	
Cyprus	normal hours of work per week	
Fiji	normal hours worked per week; hours ordinarily worked in a full week at the ordinary or normal rate of pay	
Hong Kong	normal working hours per day; standard working days per month	
Mauritius	fixed by law or agreed with trade unions	meal breaks
Norway	normal hours of work	meal breaks
Singapore	standard hours	meal breaks
Switzerland	normal hours of work	
UK	hours that employees are expected to work in a normal week	overtime

Source: National survey questionnaires (see Annex 7 for titles)



**Table 13. Overtime measured in establishment surveys**

Country	definition	excludes
Australia *	hours in excess of award, standard or agreed hours of work	hours paid at penalty rates
Botswana	hours covered by overtime payments	
Canada *	hours for which overtime was paid	hours of shift pay, hazard or premiums
Colombia	hours beyond normal work hours and hours worked on compulsory resting time	
Ecuador	hours worked beyond normal, legal work hours	
France	hours worked beyond 39 hours, whether they give way to payment or compensation rest	
Italy	hours worked in addition to ordinary work, for which compensation is foreseen	
Luxembourg*	sunday work, holiday work	
New Zealand		shift work, time for which penal allowances are paid
USA	hours paid at overtime rates because they were in excess of the regularly scheduled hours, includes extra hours only if overtime premiums are paid	hours for which only shift differentials, hazard and similar incentives are paid
Sri Lanka*	hours worked on overtime basis on weekends and holidays	
Switzerland	paid overtime hours	
UK*	hours worked in excess of normal basic hours	

Source: National survey questionnaires (see Annex 7 for titles)

Notes:

\* countries which explicitly warn not to covert overtime hours to their ordinary time equivalent

**Table 14. Time of absence or rest measured in establishment surveys**

Country	concept:	definition:
France	holidays and extra days granted	days of public holiday and days taken in relation to holidays that cannot be recuperated. Excludes establishment's closing days, vacation and weekly rest
	paid vacation	minimum number of working days given to an employee. Excludes seniority leave, holidays, weekly rest, short-time work
	weekly rest	days of weekly rest given to most workers
	short-time work	hours lost due to short-time work
Italy	time not worked	hours not worked by paid workers by law due to holidays, sickness, accident, occupational injury, wedding leave, study leave, union activities, etc.
Sri Lanka	paid holidays	number of work-days paid for but not worked, including Saturdays and Sundays
	paid leave	number of work-days paid for but not worked due to annual, sick leave, casual leave, granted to employees excluding half-day leave
Switz-erland	time not paid	hours lost and not paid, e.g. due to short-time work
UK	annual holiday entitlement	days of entitlement to paid holidays during a calendar year. Excludes national public holidays and days in lieu but includes additional entitlement for seniority and local or "floating" holidays above national public holidays.

Source: National survey questionnaires (see Annex 7 for titles)

**Table 15. Legal time**

Country	Source	worker coverage
Australia	awards	full-time workers, excl. certain occupations
Austria	collective bargaining	regular and permanent workers in farm enterprises
Chile	national legislation	not available
Italy	collective agreements	not available
Netherlands	collective agreements	not available

Source: ILO Sources and Methods, volume 4, Geneva, 1989

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## **ANNEXES**

1. ILO Conventions dealing with working time issues
2. Working time concepts defined in ILO Conventions and Recommendations
3. Resolution concerning Statistics of Hours of Work, 1962
4. Resolution concerning Statistics of the Economically Active Population, Employment, Unemployment and Underemployment, 1982 (extracts)
5. Report of the Working Group on Implications of Employment Promotion Schemes on the measurement of Employment and Unemployment (extracts)
6. National household survey titles
7. National establishment survey titles

## Annex 1. ILO Conventions dealing with working time issues

- No. 1 Hours of Work (Industry) Convention, 1919  
 No.30 Hours of Work (Commerce and Offices) Convention, 1930  
 No.31 Hours of Work (Coal Mines) Convention, 1931  
 No.47 Forty-Hour Week Convention, 1935  
 No.46 Hours of Work (Coal Mines) Convention (Revised), 1935  
 No.49 Reduction of Hours of Work (Glass-Bottle Works) Convention, 1935  
 No.51 Reduction of Hours of Work (Public Works) Convention, 1936  
 No.61 Reduction of Hours of Work (Textiles) Convention, 1937  
 No.67 Hours of Work and Rest Periods (Road Transport) Convention, 1939  
 No.76 Wages, Hours of Work and Manning (Sea) Convention, 1946  
 No.93 Wages, Hours of Work and Manning (Sea) Convention (Revised), 1949  
 No.109 Wages, Hours of Work and Manning (Sea) Convention (Revised), 1958  
 No.153 Hours of Work and Rest Periods (Road Transport) Convention, 1979
- No. 4 Night Work (Women) Convention, 1919  
 No.20 Night Work (Bakeries) Convention, 1925  
 No.34 Night Work (Women) Convention (Revised), 1934  
 No.79 Night Work of Young Persons (Non-Industrial Occupations) Convention, 1946  
 No.89 Night Work (Women) Convention (Revised), 1948 [and Protocol, 1990]  
 No.90 Night Work of Young Persons (Industry) Convention (Revised), 1948  
 No.171 Night Work Convention, 1990
- No.14. Weekly Rest (Industry) Convention, 1921  
 No.52 Holidays with Pay Convention, 1936  
 No.54 Holidays with Pay (Sea) Convention, 1936  
 No.72 Paid Vacations (Seafarers) Convention, 1946  
 No.91 Paid vacations (Seafarers) Convention (Revised), 1949  
 No.101 Holidays with Pay (Agriculture) Convention, 1952  
 No.106 Weekly Rest (Commerce and Offices) Convention, 1957  
 No.132 Holidays with Pay Convention (revised), 1970
- No. 3 Maternity Protection Convention, 1919  
 No.103 Maternity Protection Convention (Revised), 1952
- No.63 Convention to deal with Statistics of Wages and Hours of Work, 1938

## **Annex 2. Working time concepts defined in ILO Conventions and Recommendations**

### **I. ACTUAL TIME**

#### Hours of Work (Commerce and Offices) Convention, 1930:

The term "hours of work" means the time during which the persons employed are at the disposal of the employer; it does not include rest periods during which the persons employed are not at the disposal of the employer.

#### Hours of Work (Coal Mines) Convention, 1935:

Hours of work in underground hard coal mines shall mean the time spent in the mine calculated as follows:

- (a) time spent in an underground mine shall mean the period between the time when the worker enters the cage in order to descend and the time when he leaves the cage after re-ascending;
- (b) in mines where access is by an adit the time spent in the mine shall mean the period between the time when the worker passes through the entrance of the adit and the time of this return to the surface.

#### Reduction of Hours of Work (Public Works) Convention, 1936:

The term "hours of work" means the time during which the persons employed are at the disposal of the employer and does not include periods during which they are not at his disposal.

#### Reduction of Hours of Work (Textiles) Convention, 1937:

The term "hours of work" means the time during which the persons employed are at the disposal of the employer and does not include rest periods during which they are not at his disposal.

#### Hours of Work and Rest Periods (Road Transport) Convention, 1939:

- (a) The term "hours of work" means the time during which the persons concerned are at the disposal of the employer or of any other person entitled to claim their services, or in the case of owners of vehicles and members of their families, the time during which they are engaged in their own account in work connected with a road transport vehicle, its passengers or its load, and includes -
  - (i) time spent in work done during the running time of the vehicle;
  - (ii) time spent in subsidiary work;
  - (iii) periods of mere attendance; and
  - (iv) breaks for rest and interruptions of work, which breaks or interruptions do not exceed a duration to be prescribed by the competent authority.
- (b) The term "running time of the vehicle" means the time from the moment when the vehicle starts at the beginning of the working day until the moment when the vehicle stops at the end of the working day, excluding any time during which the running of the vehicle is interrupted for a period exceeding a duration to be prescribed by the competent authority during which period the persons

who drive or travel with the vehicle are free to dispose of their time as they please or are engaged in subsidiary work;

- (c) the term "subsidiary work" means work in connection with the vehicle, its passengers or its load which is done outside the running time of the vehicle, including more particularly -
- (i) work in connection with accounts, the paying in or cash, the signing of registers, the handing in of service sheets, the checking of tickets and other similar work;
  - (ii) the taking over and garaging of the vehicle;
  - (iii) travelling from the place of work where a person signs on to the place where he takes over the vehicle and from the place where he leaves the vehicle to the place where he signs off;
  - (iv) working in connection with the upkeep and repair of the vehicle; and
  - (v) the loading and unloading of the vehicle;
- (d) the term "periods of mere attendance" means periods during which a person remains at his post solely in order to reply to possible calls or to resume action at the time fixed in the timetable.

Hours of Work and Rest Periods (Road Transport) Convention, 1979:

"Hours of work" means the time spent by wage-earning drivers on -

- (a) driving and other work during the running time of the vehicle; and
- (b) subsidiary work in connection with the vehicle, its passengers or its load.

Periods of mere attendance or stand-by, either on the vehicle or at the workplace and during which the drivers are not free to dispose of their time as they please, may be regarded as hours of work to an extent to be prescribed in each country by the competent authority or body, by collective agreements or by any other means consistent with national practice.

Hours of Work and Rest Periods (Road Transport) Recommendation, 1979:

"Hours of work" means the time spent by the persons on

- (a) driving and other work during the running time of the vehicle; and
- (b) subsidiary work in connection with the vehicle, its passengers or its load.

Periods of mere attendance or stand-by, either on the vehicle or at the workplace and during which the workers are not free to dispose of their time as they please, as well as time spent by them on training and advanced training when agreed upon between the organisation of employers and workers concerned, may be regarded as hours of work to an extent to be prescribed in each country by the competent authority or body, by collective agreements or by any other means consistent with national practice

## II. NORMAL TIME

Convention concerning Statistics of Wages and Hours of Work, 1938:



The statistics of time rates of wages and of normal time of work shall show the rates and hours -

- (a) fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards;
- (b) ascertained from organisations of employers and workers, from joint bodies, or from other appropriate sources of information, in cases where rates and hours are not fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards.

...

"Normal hours of work", where not fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards, shall be taken as meaning the number of hours, per day, week or other period, in excess of which any time worked is remunerated at overtime rates or forms an exception to the rules or custom of the establishment relating to the classes of wage earners concerned.

Reduction of Hours of Work Recommendation, 1962:

"Normal hours of work" shall mean, for the purpose of this Recommendation, the number of hours fixed in each country by or in pursuance of laws and regulations, collective agreements or arbitration awards, or, where not so fixed, the number of hours in excess of which any time worked is remunerated at overtime rates or forms an exception to the recognised rules or custom of the establishment or of the process concerned.

### **III. OVERTIME**

Reduction of Hours of Work Recommendation, 1962:

All hours worked in excess of the normal hours should be deemed to be overtime, unless they are taken into account in fixing remuneration in accordance with custom.

### **IV. DAILY REST**

Hours of Work and Rest Periods (Road Transport) Convention, 1979:

No driver shall be allowed to drive continuously for more than four hours without a break. The competent authority or body in each country, taking into account particular national conditions, may authorize the period referred to ... to be exceeded by not more than one hours...

The daily rest of drivers shall be at least ten consecutive hours during any 24-hour period starting from the beginning of the working day.

### **V. WEEKLY REST**

Convention concerning the Application of the Weekly Rest in Industrial Undertakings, 1921:

The whole of the staff ... shall ... enjoy in every period of seven days a period of rest comprising at least twenty-four consecutive hours. This period of rest shall, wherever possible, be granted simultaneously to the whole of the staff of each undertaking. It shall, wherever possible, be fixed so as to coincide with the days already established by the traditions or customs of the country or district.

Convention concerning Weekly Rest in Commerce and Offices, 1957

All persons ... shall ... be entitled to an uninterrupted weekly rest period comprising not less than 24 hours in the course of each period of seven days. The weekly rest period shall, wherever possible, be granted simultaneously to all the persons concerned in each establishment. The weekly rest period shall, wherever possible, coincide with the day of the week established as a day of rest by the traditions or customs of the country or district. The traditions and customs of religious minorities shall, as far as possible, be respected.

**VI. ANNUAL REST**Convention concerning Annual Holiday with Pay, 1936

Every person ... shall be entitled after one year or continuous service to an annual holiday with pay of at least six working days. Persons, including apprentices, under sixteen years of age shall be entitled after one year of continuous service to an annual holiday with pay of at least twelve working days. The following shall not be included in the annual holiday with pay:

- (a) public and customary holidays;
- (b) interruptions of attendance at work due to sickness

Recommendation concerning Holidays with Pay, 1954:

Every person covered by this Recommendation should be entitled to an annual holiday with pay. The duration of the annual holiday with pay should be proportionated to the length of service performed with one or more employers during the year concerned and should be not less than two working weeks for twelve months of service.

Interruptions of work during which the worker receives wages should not affect entitlement to or the duration of the annual holiday with pay. Interruptions of work which do not give rise to a termination of the employment relationship or contract should not affect any entitlement to holiday with pay which has been accumulated prior to the interruption. The appropriate machinery in each country should determine the manner in which the principles set out in subparagraphs (1) and (2) above should be applied to interruptions of work occasioned by -

- (a) sickness, accident and periods of rest occasioned by pre- and post-natal care;
- (b) absences on account of family events;
- (c) military obligations;
- (d) the exercise of civil rights and duties;
- (e) the performance of duties arising from trade union responsibilities;
- (f) changes in the management of the undertaking;
- (g) intermittent involuntary unemployment.

The entitlement of a worker to the annual holiday with pay and the duration of such holiday should not be affected by interruptions occasioned by pregnancy and confinement if the worker concerned resumes employment and if her absence does not exceed a specified period.

Convention concerning Annual Holidays with Pay (Revised), 1970:

The holiday shall in no case be less than three working weeks for one year of service.

Public and customary holidays, whether or not they fall during the annual holiday, shall not be counted as part of the minimum annual holiday with pay ... periods of incapacity for work resulting from sickness or injury may not be counted as part of the minimum annual holiday with pay ...

### Annex 3. Resolution concerning Statistics of Hours of Work, 1962 (extracts)

1. This resolution applies to wage earners and salaried employees.

4. (1) Normal hours of work are the hours of work fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards.

(2) Where not fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards, normal hours of work should be taken as meaning the number of hours per day or week in excess of which any time worked is remunerated at overtime rates or form an exception to the rules or custom of the establishment relating to the classes of workers concerned.

5. (1) Statistics of hours actually worked should include --

1. hours actually worked during normal periods of work;
2. time worked in addition to hours worked during normal periods of work, and generally paid at higher rates than normal rates (overtime);
3. time spent at the place of work on work such as the preparation of the workplace, repairs and maintenance, preparation and cleaning of tools and the preparation of receipts, time sheets and reports;
4. time spent at the place of work waiting or standing-by for such reasons as lack of supply of work, breakdown of machinery. or accidents, 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;
5. time corresponding to short rest periods at the workplace, including tea and coffee breaks.

(2) Statistics of hours actually worked should exclude --

1. hours paid for but not worked, such as paid annual leave, paid public holidays, paid sick leave;
2. meal breaks;
3. time spent on travel from home to work and vice versa.

6. Because of the wide differences among countries with respect to wage payments for holidays and other periods when no work is performed, it does not seem feasible at this time to adopt international definitions of hours paid for. Many countries will find, however, that statistics of hours paid for, while not suitable as a substitute for hours actually worked, can be useful for internal purposes and that they will commonly be readily available from payrolls and other records.

14. (1) For international comparisons, averages of hours actually worked per worker should preferably refer to a week, ...; international comparisons on the basis of other reference periods may, however, also prove useful.

(2) Data on hours actually worked originally obtained for periods other than a week should be converted to data referring to a week on the basis of the ratio between the number of working days in the period covered and in a normal week.

#### **Annex 4. Resolution concerning Statistics of the Economically Active Population, Employment, Unemployment and Underemployment, 1982 (extracts)**

9. (1) The "employed" comprise all persons above a specified age who during a specified brief period, 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 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.
- This formal job attachment should 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 to return to work following the end of the contingency, or an agreement as to the date of return;
- (iii) the elapsed duration of absence from the job which, wherever relevant, may be that duration for which workers can receive compensation benefits without obligations to accept other jobs.
- (3) Persons temporarily not at work because of illness or injury, holiday or vacation, strike or lock-out, educational or training leave, maternity or parental leave, reduction in economic activity, temporary disorganisation or suspension of work due to such reasons as bad weather, mechanical or electrical breakdown, or shortage of raw materials or fuels, or other temporary absence with or without leave should be considered as in paid employment provided they had a formal job attachment.
10. (1) The unemployed comprise all persons above a specified age who during the reference period were
1. without work
  2. currently available for work, i.e., were available for paid employment or self-employment during the reference period; and
  3. seeking work.
18. (1) Persons visibly underemployed comprise all persons in paid or self-employment, whether at work or not at work, involuntarily working less than the normal duration of work determined for the activity, who were seeking or available for additional work during the reference period.
- (2) For the purpose of classifying persons as visibly underemployed, normal duration of work for an activity should be determined in the light of national circumstances as reflected in national legislation to the extent it is applicable, and usual practices in other cases, or in terms of a uniform conventional norm.

## **Annex 5. Report of the Working Group on the Implications of Employment Promotion Schemes on the measurement of Employment and Unemployment (extracts)**

10. With respect to the statistical treatment of participants in job-training schemes, it was generally agreed that:
- (a) when training took place within the context of the enterprise, it could be assumed that participants, like apprentices, were associated with the production of goods and services of the enterprise, at least for an hour during the reference period (one week or one day), and in that case the participants should be considered as "at work" and classified as employed, whether the employer or another entity paid the wage or salary;
  - (b) when training did not take place within the context of the enterprise (e.g., training took place outside the enterprise, or inside the enterprise but without association with the production activity of the enterprise), the statistical treatment would depend non whether or not the participant was employed by the enterprise before the training period (including cases classified as employed under (a) above):
    - (i) if employed by the enterprise before the training period, the participant should continue to be considered as employed while on training if he or she maintained a "formal job attachment", as set forth in the international definition of employment (cf. paragraph 9(1)(12) of Resolution I of the 13th ICLS).

In this context, to establish whether or not "formal job attachment" exists, the criterion of "assurance of return to work" should be considered to be the essential one. "Assurance of return to work" should be interpreted as assurance of a return to work with the same employer.

In situations where such assurance of a return to work did not exist, "formal job attachment" should be assessed on the basis of the criterion of "continued receipt of wage or salary". That criterion should be considered as satisfied if the employer paid directly all or a significant part of the wage or salary.

The third criterion, "elapsed duration of absence", might also be used in particular situations, e.g., in connection with long-term training schemes.

- (ii) if the participant was not employed by the enterprise before the training period, the participant could not be considered as "with a job but not at work" and the notion of "formal job attachment" would not apply.

Consequently, if the scheme provided a definite commitment to employment at the end of training, the statistical treatment might follow that of persons who had made arrangements to take up employment at a date subsequent to the reference period (i.e., unemployed).

## Annex 6. National household survey titles

### AFRICA

Botswana	Labour Force Survey 1984/85
Côte d'Ivoire	Enquête permanente auprès des ménages
Kenya	Urban Labour Force Survey 1986 Rural Labour Force Survey 1988
Egypt	Labour Force Sample Survey
Lesotho	Labour Force Survey 1985/86
Nigeria	National Integrated Survey of Household Current Labour Force Status, 1985
Rwanda	Enquête nationale sur l'emploi
Sierra Leone	Labour Force Survey
Tanzania	Labour Force Survey 1990/91
Zimbabwe	Labour Force Survey 1985-87

### AMERICA

Guyane	Enquête sur l'emploi, 1986
Martinique	
Bahamas	Household Survey, 1989
Barbados	Continuous Labour Force Sample Survey
Belize	Belize Labour Force Survey, 1983/84
Brasil	Questionário de mão de obra (monthly)
Brasil	Pesquisa Nacional por Amostra de domicílios (yearly)
Canada	Labour Force Survey
Colombia	Encuesta Nacional de Hogares: Fuerza de Trabajo
Costa Rica	Encuesta de Hogares de Propósitos Múltiples
Dominica	Labour Force Survey, 1989
Ecuador	Encuesta Periódica sobre Empleo y Desempleo en el área urbana del Ecuador
El Salvador	
Grenada	Labour Force Survey, 1988
Guatemala	Encuesta Nacional Socio-Demográfica 1986-87
Honduras	Encuesta Continua sobre Fuerza de Trabajo
Jamaica	Labour Force Survey, 1983
Panamá	Encuesta de Hogares
Perú	Encuesta de niveles de empleo, 1986
Puerto Rico	Encuesta sobre el grupo trabajador
Trinidad and Tobago	Continuous Sample Survey of Population
United States	Current Population Survey
Uruguay	Encuesta Continua de Hogares

### ASIA

Hong Kong	
India	Socio-Economic Survey, 1987
Indonesia	National Labour Force Survey
Israel	Labour Force Survey
Japan	Labour Force Survey (monthly) Special Survey of the Labour Force (yearly)
Korea	
Malasya	Labour Force Survey, 1984
Pakistan	Labour Force Survey
Phillipines	Quarterly Labour Force Survey

Singapore	Monthly Labour Force Survey (metropolitan Manila)
Sri Lanka	Labour Force Survey of Singapore, June 1981 Labour Force Survey, 1989-90
<b>EUROPE</b>	
Belgium	Enquête sur les Forces de Travail
Denmark	Labour Force Sample Survey
Finland	Finnish Employment Survey
France	Enquête sur l'Emploi
Germany	Mikrocensus
Ireland	Labour Force Survey
Italy	
Luxembourg	Enquête sur les Forces de Travail
Netherlands	Labour Force Survey
Norway	The Labour Force Sample Survey
Portugal	Employment Survey
Sweden	Labour Force Survey
Turkey	Household Labour Force Survey
United Kingdom	Labour Force Survey
<b>OCEANIA</b>	
Australia	Population Survey
Fiji	Economic Activity Schedule for all economically active persons
Guam	Current Labour Force Survey
New Zealand	Household Labour Force Survey



## Annex 7. National establishment survey titles

### AFRICA

Botswana	Annual survey of employment and employees, 1986
Mauritius	Survey on salary rates and normal hours, earnings and hours of work of adult employees, 1987

### AMERICA

Canada	Survey of employment, payrolls and hours
Chile	Encuesta sobre empleo y remuneraciones
Colombia	Informe Mensual de la Industria Manufacturera
Ecuador	Encuesta trimestral de empleo y remuneraciones, 1988
Panamá	Encuesta sobre industria manufacturera, 1987
Puerto Rico	Employment, Payroll and Hours - Trade, Transport, Mining and Construction
United States	Employment, Payroll and Hours - Trade, Transport, Mining and Construction
Venezuela	Ficha para la declaración de empleo, renta y horas de trabajo

### ASIA

Cyprus	Survey of wages, salaries and hours of work, 1987
Hong Kong	Survey of wages, salaries and employee benefits
Korea	Monthly Labour Survey
Singapore	Survey on labour costs, 1987
Sri Lanka	Labour Department Sample Survey of Establishments on employment, earnings and hours of work, 1986

### EUROPE

Belgium	Enquête semestrielle sur les salaires, 1988
France	Enquête sur la durée annuelle du travail, 1986
Greece	Quarterly sample survey on labour remuneration of salaried employees in mines and quarries
Greece	Quarterly sample survey on labour remuneration of salaried employees in industry - handicraft
Hungary	Number of full-time manual workers, their working hours and wages
Ireland	Building and Construction Industry
Ireland	Employment, Earnings and Hours Worked
Italy	Relevazione statistica trimestrale su occupazione, retribuzioni ed onerizarendali, giornate et ore di lavoro
Luxembourg	Enquête semestrielle harmonisée
Norway	Wage statistics for employees in business services and in business, professional and labour associations, 1987
Norway	Wage questionnaire for workers in mines and manufacturing, 1988
Switzerland	Enquête sur les salaires et traitements d'octobre, 1987
United Kingdom	New earnings survey, 1987

### OCEANIA

Australia	Survey of employee earnings and hours, 1988
Fiji	Annual employment survey, 1981
New Zealand	Quarterly employment survey