
Resolution I

Resolution concerning the measurement of working time

The 18th International Conference of Labour Statisticians,

Having reviewed the relevant texts of the resolution concerning statistics of hours of work adopted by the Tenth International Conference of Labour Statisticians (October 1962) as well as of the resolution concerning statistics of strikes, lockouts and other action due to labour disputes adopted by the 15th International Conference of Labour Statisticians (January 1993) and of the resolution concerning the measurement of employment-related income and the resolution concerning statistics of occupational injuries, both adopted by the 16th International Conference of Labour Statisticians (October 1998),

Recalling the requirements of the Labour Statistics Convention, 1985 (No. 160), and the accompanying Labour Statistics Recommendation, 1985 (No. 170), and the need for coherence with other international statistical standards, including with regard to informal employment and child labour,

Recognizing the need to revise the existing standards on statistics of hours of work in order to reflect the working time of persons in all sectors of the economy and in all forms of productive activity towards the achievement of decent work for all, and to provide measurement methodologies and guidelines on a larger number of measures than previously defined internationally, thereby enhancing the standards' usefulness as technical guidelines to States and hence the consistency and international comparability of the statistics,

Acknowledging that the relevance of the various measures of working time in a given State depends on the nature of its workforce, labour markets and user needs, and so their implementation will be determined largely by national circumstances;

Adopts this fifth day of December 2008 the following resolution in substitution for the resolution concerning statistics of hours of work (1962) and paragraphs 46 to 48 of the resolution concerning the measurement of employment-related income (1998).

Objectives

1. Each State should aim to develop a comprehensive system of statistics of working time that can adequately account for all labour inputs into productive activity by all persons of any sex, in order to provide an adequate statistical base for the various users of the statistics, taking into account national needs and circumstances.
2. In particular, such a system should:
 - (1) Complement the statistics of the economically active population and of the demand for labour in production, with statistics on the number of hours that persons actually worked and the number of hours usually worked on all activities.
 - (2) Aid the examination and monitoring of conditions of work, including health, safety and gender justice for all population groups, in formal and informal employment, with statistics on the number of hours actually worked and hours usually worked, how they are organized over time, and on the number of hours of absence from work in relation to the hours established by national legislation.
 - (3) Construct indicators useful for labour-management negotiations and for economic and social analyses (such as labour productivity, time rates of wages, average hourly earnings, average labour cost per time unit, rates of occupational injuries or estimates of time-related underemployment), using statistics of hours actually worked for the same reference period and by the same group of working persons as for statistics of production, earnings, labour cost, employment-related income and occupational injuries.

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- (4) Serve as a basis for the design, implementation, monitoring and evaluation of economic, social and labour market policies and programmes targeting labour market flexibility, social exclusion, work–life balance and the distribution of working time in families, etc., with statistics on the number of hours actually worked and the number of hours usually worked and the arrangement of these hours for all members within families and all population groups.
 3. For all these purposes, States should aim at consistency between the different statistics on working time, and with other labour market statistics as well as with the general statistical system. Statistics on working time should be developed in line with other international statistical frameworks, and so as to promote international comparability.

Scope

4. *Working time* comprises the time associated with productive activities and the arrangement of this time during a specified reference period.
5. Working time is determined in reference to productive activities within the general production boundary as defined in the System of National Accounts (SNA). Working time includes the time spent towards the production of all goods and services whether paid or unpaid. Working time does not take account of the legality of the activity, the type of contractual agreement covering it or the age of the persons performing it.
 - (1) Working time can relate to the activities *within the SNA production boundary* and to employment statistics, as defined in the international definition of employment. In this case working time is the standard for compilation of national production accounts. It is also used for labour market, productivity and other economic and social analysis.
 - (2) Working time can also relate to activities which are *beyond the SNA production boundary* such as services produced and consumed within the same household and activities of volunteer workers in households that produce services for own final use by the household. In this case the aim is to produce statistics of working time on “unpaid household service and volunteer work” necessary for the production of satellite accounts and for a broader understanding of, and approach to, labour market, economic and social policies.
6. Working time is measured for a job defined as “a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self-employment” whether formal or informal. A job can refer to unpaid household service and volunteer work performed by one person for a household outside the SNA production boundary but within the general production boundary. Use of job as the basic observation unit for working time is consistent with the international classifications of occupation (ISCO) and status in employment (ICSE) and with the principles of classification by industry according to the International Standard Industrial Classification of all Economic Activities (ISIC). A person may have one or several jobs.
7. Working time can be measured for short measurement units, such as minutes or hours, or for long units such as half-days, days, weeks or months. The measurement unit of “hours” is used for ease of reference.
8. Working time can be observed over a short reference period, such as one day or one week, or a long reference period, such as one month, one year or beyond, including a lifespan. For national accounts and production statistics in general, working time should be measured for a long reference period.
9. Working time does not reflect the quality, intensity or efficiency of work.

Concepts and definitions

10. (1) This resolution provides definitions for:
 - (a) Seven concepts of working time associated with the productive activities of a person and performed in a job, namely *hours actually worked*, the key concept of working time defined for statistical purposes applicable to all jobs and to all working persons; *hours paid for*, linked to remuneration of hours that may not all correspond to production; *normal hours of work* that refer to legally prevailing collective hours; *contractual hours of work* that individuals are expected to work according to contractual relationships as distinct from normal hours; *hours usually worked* most commonly in a job over a long

observation period, *overtime hours of work* performed beyond contracts or norms; and *absence from work hours*, when working persons do not work;

- (b) Two concepts of working-time arrangements that describe the characteristics of working time in a job, namely the *organization* and *scheduling* of working time, regardless of type of job, and formalized working-time arrangements, that are specific combinations of the characteristics having legal recognition.
- (2) Not all working time concepts are applicable to all types of jobs. Their application is specified in each concept defined below.

Hours actually worked

11. (1) *Hours actually worked* is the time spent in a job for the performance of activities that contribute to the production of goods and/or services during a specified short or long reference period. Hours actually worked applies to all types of jobs (*within and beyond the SNA production boundary*) and is not linked to administrative or legal concepts.
- (2) Hours actually worked measured *within the SNA production boundary* **includes** time spent directly on, and in relation to, productive activities; down time; and resting time.
- (a) “Direct hours” is the time spent carrying out the tasks and duties of a job. This may be performed in any location (economic territory, establishment, on the street, at home) and during overtime periods or other periods not dedicated to work (such as lunch breaks or while commuting).
 - (b) “Related hours” is the time spent maintaining, facilitating or enhancing productive activities and should comprise activities such as:
 - (i) cleaning, repairing, preparing, designing, administering or maintaining tools, instruments, processes, procedures or the work location itself; changing time (to put on work clothes); decontamination or washing up time;
 - (ii) purchasing or transporting goods or basic materials to/from the market or source;
 - (iii) waiting for business, customers or patients, as part of working-time arrangements and/or that are explicitly paid for;
 - (iv) on-call duty, whether specified as paid or unpaid, that may occur at the work location (such as health and other essential services) or away from it (for example from home). In the latter case, it is included in hours actually worked depending on the degree to which persons’ activities and movements are restricted. From the moment when called back for duty, the time spent is considered as direct hours of work;
 - (v) travelling between work locations, to reach field projects, fishing areas, assignments, conferences or to meet clients or customers (such as door-to-door vending and itinerant activities);
 - (vi) training and skills enhancement required by the job or for another job in the same economic unit, at or away from the work location. In a paid-employment job this may be given by the employer or provided by other units.
 - (c) “Down time”, as distinct from “direct” and “related hours”, is time when a person in a job cannot work due to machinery or process breakdown, accident, lack of supplies or power or Internet access, etc., but continues to be available for work. This time is unavoidable or inherent to the job and involves temporary interruptions of a technical, material or economic nature.
 - (d) “Resting time” is time spent in short periods of rest, relief or refreshment, including tea, coffee or prayer breaks, generally practised by custom or contract according to established norms and/or national circumstances.
- (3) Hours actually worked measured *within the SNA production boundary* **excludes** time not worked during activities such as:

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- (a) Annual leave, public holidays, sick leave, parental leave or maternity/paternity leave, other leave for personal or family reasons or civic duty. This time not worked is part of absence from work hours (defined in paragraph 17);
 - (b) Commuting time between work and home when no productive activity for the job is performed; for paid employment, even when paid by the employer;
 - (c) Time spent in educational activities distinct from the activities covered in paragraph 11. (2) (b) (vi); for paid employment, even when authorized, paid or provided by the employer;
 - (d) Longer breaks distinguished from short resting time when no productive activity is performed (such as meal breaks or natural repose during long trips); for paid employment, even when paid by the employer.
- (4) Hours actually worked measured *beyond the SNA production boundary* **includes** time spent directly on, and in relation to, productive activities as defined in paragraph 5.(2); down time; and short resting time.
- (a) “Direct hours” is the time spent carrying out the tasks and duties of the job, which may include: preparing meals, care for members of the household; cleaning and maintaining the house, grounds, clothes and household equipment; purchasing and transporting goods for the household, transporting household members, household accounting and management.
 - (b) “Related hours” is the time spent maintaining, facilitating or enhancing productive activities, and comprises activities such as travelling to meet persons, waiting for persons in one’s care, or training required for the job;
 - (c) “Down time” is less relevant for a job *beyond the SNA boundary* because substitution of one household task for another can be more immediate.
 - (d) “Resting time” is time spent in short periods of rest, relief or refreshment, including tea, coffee or prayer breaks.
- (5) Hours actually worked measured *beyond the SNA production boundary* **excludes** time not worked during activities such as civic duty and educational activities other than the training covered in paragraph 11. (4) (b).

Hours paid for

12. (1) *Hours paid for* applies to a paid-employment job and to a self-employment job paid on the basis of time units (*within the SNA production boundary*).
- (2) For a paid-employment job, hours paid for is:
- (a) The time for which persons have received payment from their employer (at normal or premium rates, in cash or in kind) during a specified short or long reference period, regardless of whether the hours were actually worked or not;
 - (b) This **includes** time paid but not worked such as paid annual leave, paid public holidays and certain absences such as paid sick leave.
 - (c) This **excludes** time worked but not paid by the employer, such as unpaid overtime, and absences that are not paid by the employer, such as unpaid educational leave or maternity leave that may be paid through transfers by government from social security systems.
- (3) For a self-employment job (formal or informal) paid on the basis of time units, hours paid for is equivalent to hours actually worked.
- (4) It may be useful to separately identify hours paid for that are actually worked (as overtime or not) from other hours paid for (that are not worked).

Normal hours of work

13. (1) *Normal hours of work* are the hours fixed by or in pursuance of laws or regulations, collective agreements or arbitral awards to be performed in specified paid-employment jobs over a

specified reference period, such as per day, week, month or year (*within the SNA production boundary*). Normal hours of work may also apply to a job in self-employment when the hours are in accordance with the hours fixed for all jobs in a specific industry or occupation (such as for drivers to ensure public safety).

- (2) Normal hours of work may vary, between jobs for different groups of persons in paid employment, by occupation or industry, depending on their regulatory source.
- (3) Normal hours of work of a self-employment job may be compared with the normal hours of a paid-employment job in the same occupation or industry.
- (4) In States where normal hours of work are widely used they may serve as the reference to define full-time and part-time hours.

Contractual hours of work

14. (1) *Contractual hours of work*, is the time expected to be performed according to a contract for a paid-employment job or for the provision of services in a self-employment or volunteer job (*within and beyond the SNA production boundary*). The contract may include leave entitlements and be either explicit (written contract) or implicit (verbal agreement).
- (2) The number of contractual hours of work in a job may be fixed over a short or long reference period or may vary from one period to the next depending on the organization of the job and the length of the measurement reference period. When the reference period is long, leave entitlement periods should be excluded.
- (3) The number of contractual hours of work may vary between jobs in the same occupation, industry or establishment.
- (4) The number of contractual hours of work may be equivalent to or established in conformity with prevailing normal hours of work and may be above normal hours, some of which may be hours stipulated as contractual overtime hours.

Hours usually worked

15. (1) *Hours usually worked* is the typical value of hours actually worked in a job per short reference period such as one week, over a long observation period of a month, quarter, season or year that comprises the short reference measurement period used. Hours usually worked applies to all types of jobs (*within and beyond the SNA production boundary*).
- (2) The typical value may be the modal value of the distribution of hours actually worked per short period over the long observation period, where meaningful.
- (3) Hours usually worked provides a way to obtain regular hours worked above contractual hours.
- (4) The short reference period for measuring hours usually worked should be the same as the reference period used to measure employment or household service and volunteer work.

Overtime hours of work

16. (1) *Overtime hours of work* applies to all types of jobs (*within and beyond the SNA production boundary*) and is defined as:
 - (a) the hours stipulated as overtime in a contract during a specified short reference period, plus hours actually worked in excess of contractual hours of work, if these exist; or
 - (b) the hours actually worked in excess of hours usually worked in a job where no contractual hours exist.
- (2) Overtime hours of work **excludes** hours actually worked in excess of contractual hours of work as a result of rotation periods in established work arrangements (such as flexitime or shift work) in a short or long reference period.
- (3) Overtime hours of work for paid-employment jobs may be paid or unpaid. Payment may be in cash at the same rate as the other hours in the job or in cash at higher rates; or in kind and/or in the form of compensation with time off.

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- (4) It may be useful to distinguish between:
 - (a) Overtime hours that are paid and unpaid;
 - (b) Overtime hours and the different forms of compensation;
 - (c) Overtime hours defined as overtime in employment contracts from other overtime hours, where relevant;
 - (d) Overtime hours that are regular and other overtime hours, where regular overtime is hours usually worked in excess of contractual hours;
 - (e) Overtime hours in paid-employment jobs and in self-employment jobs.
 - (5) It may also be useful to distinguish overtime hours from hours actually worked in excess of contractual hours as a result of working arrangements.

Absence from work hours

17. (1) *Absence from work hours* applies to all jobs (*within and beyond the SNA production boundary*) and is defined as:
 - (a) The number of contractual hours of work not actually worked during a short reference period such as a week when contractual hours exist; these include periods of leave taken according to the employment contract where relevant, including part-time contracts;
 - (b) The number of hours usually worked but not actually worked during the short reference period when contractual hours do not exist.
- (2) Absence from work hours **excludes** time not worked as a result of established work arrangements (such as flexitime off or shift work).
- (3) Absence from work hours in a paid-employment job may be paid or unpaid and initiated by workers or by employers.
- (4) It may be useful to distinguish between:
 - (a) Absence from work hours that are paid and unpaid; initiated by the worker and initiated by the employer;
 - (b) Absence from work hours that are regular and irregular, where regular absence hours is the number of contractual hours in excess of hours usually worked;
 - (c) Absence from work hours in paid-employment jobs and in self-employment jobs.
- (5) It may also be useful to distinguish absence from work hours from all contractual hours in excess of hours actually worked as a result of working arrangements.
- (6) Absence from work hours may occur as a result of annual leave (including forced annual leave), illness, injury or occupational injury, maternity, paternity and parental leave, compensation for overtime, care for others – including family members, educational leave, other personal absence (such as military conscription, civilian service, jury duty, family death), technical or economic breakdown (other than specified in paragraph 11, subparagraph 2(b)), industrial relations processes (labour–management negotiation, strike activity, suspension, etc.), bad weather, public or other holidays, or another reason.

Working-time arrangements

18. (1) *Working-time arrangements* describes measurable characteristics of a job that refer to the organization (length and timing) and scheduling (stability or flexibility) of work and non-work periods during a specified reference day, week, month or longer period and applies to all types of jobs (*within and beyond the SNA production boundary*), including in informal employment and in agricultural communities.
 - (a) The organization reflects the length and timing of the working time in a job:
 - (i) the length may be shorter or longer than a norm based on national circumstances, there may be fewer or more daily or weekly hours, fewer or more days worked per

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- week for a short reference period or fewer weeks (part-year) for a long reference period;
- (ii) the timing may be inside or outside core hours or core days (performed at night or at weekends).
- (b) The scheduling reflects the stability or flexibility of the length and timing of working time in a job from one day, week or longer period to the next, shifts that vary every day or week, different entry and exit times, etc.
- (2) *Formalized working-time arrangements* relate to specific combinations of the organization and scheduling of working time that are recognized by law, collective agreement, etc. They may be stipulated in explicit or implicit employment contracts.
- (a) Formalized working-time arrangements may be more relevant to States where terminology and established practice is reasonably well regulated and/or standardized, and where the number of persons covered is numerically significant;
 - (b) A self-employment or household service and volunteer job may practise a formalized working-time arrangement based on work requirements, personal or household preference (such as customer contracts or fixed opening hours of shops, schools, etc.);
 - (c) In order to document the extensive range of existing formalized working-time arrangements in States, which may be known by different names, a typology of formalized working-time arrangements is presented in the Annex to this resolution.
- (3) It may be useful to distinguish further characteristics regarding working-time arrangements such as:
- (a) The choice, control or influence of persons over the arrangement itself or its characteristics; the extent arrangements are agreed, imposed or chosen; the predictability of characteristics (such as advance notice given, discussion or consensus between parties); the duration of the arrangement for the specific (or main) job;
 - (b) The number of arrangements practised, by the nature of their stipulation (by law, contract, custom or self);
 - (c) The type of work location where practised (fixed, mobile, in establishments, at home) by arrangements practised.

Methods of data collection

19. (1) Statistics of working time can be collected through statistical censuses and surveys of households and establishments, and through access to administrative registers.
- (2) When possible and pertinent, the use of a combination of data sources may be preferable to meet user requirements (such as coverage, scope, response rates, sample size, response burden and costs) and to evaluate the quality of statistics obtained.
- (3) To ensure greater coherence for analytical purposes, working time statistics should be collected for the same reference period and for the same disaggregations or groups of jobs as the statistics collected for employment, wages and labour costs, etc.
- (4) In order to achieve the most efficient use of information on working time for statistical purposes, to harmonize statistical measures and improve coverage, and to ensure appropriate recording, reporting and quality of the resulting statistics, the statistical authorities need to coordinate with the users and the providers of the information, namely administrative systems and establishments.
- (5) States will need to establish the balance between the aim to obtain detailed information and the capacity of respondents to provide it. For instance, when collecting data on working time for a reference period beyond a day, the definitions of overtime hours of work and of absence from work hours may result in an underestimation of the total number of overtime or absence hours. To capture all these hours, specific collection for each concept in the reference period will be necessary, where relevant.

Household-based surveys

20. (1) Household-based surveys are well suited to collect data:
- (a) On hours actually worked and hours usually worked, on formalized working-time arrangements and the characteristics of arrangements. They may also produce statistics on hours paid for, normal or contractual hours;
 - (b) For all persons working and all jobs, including in informal employment and household service and volunteer work;
 - (c) For a short reference period such as a day or a week and when the survey is continuous; for a long reference period such as a month or a year;;
 - (d) For persons individually and for the economy as a whole.
- (2) Household surveys are less well suited to obtain data:
- (a) For concepts that have an administrative or regulatory base;
 - (b) Covering all jobs in the State (domestic production according to the SNA).
- (3) In order to reduce errors due to problems of recall, proxy response and rounded answers it is recommended that questionnaires targeting working time be designed to:
- (a) First ascertain the status in employment of respondents in order to filter paid and self-employment jobs for separate question sequences;
 - (b) Collect information for each job separately or, at the minimum, for the main job and other jobs;
 - (c) Obtain information on contractual hours or hours usually worked before information on hours actually worked, since variables that relate to employment contracts or to the typical work situation are generally easier to remember, especially for proxy interviews;
 - (i) for paid-employment jobs, the hours actually worked can be arrived at after prompting for hours of overtime or absence from work that may have occurred during the reference week;
 - (ii) for self-employment jobs, for employees in informal employment and for jobs in household service and volunteer work; to improve data quality of the hours actually worked, collecting or prompting for information for each of the days of the reference week separately rather than for the whole week is recommended; as well as prompting for all time spent on household service type activities;
 - (d) To improve the measurement of hours actually worked for certain jobs and groups of persons in employment, additional questions or prompts may target specific working time components such as work at home, commuting time, short breaks, overtime and absence from work;
 - (e) To determine hours usually worked if not obtained through a direct question, refer to the modal value of the distribution of hours actually worked per week over a long observation period. When this value is not meaningful because the hours actually worked each week are irregular, or because work schedules are defined for periods other than the week, then the value may be determined using either:
 - (i) the median of hours actually worked in the job over the observation period; or
 - (ii) the average number of hours actually worked in the job excluding periods of unemployment or inactivity within the long reference period.
- (4) When based on household surveys, the best estimates of hours actually worked will come from continuous surveys that focus on the measurement of employment and cover all the weeks in the year. When the survey is not continuous, States should aim at estimating the periods not covered and spreading the frequency of survey observation periods over the year, rather than expanding the reference period.
21. Other household-based data collection exercises may be used to provide statistics on working time.
- (1) Time-use surveys are able to produce good-quality statistics of hours actually worked, absence from work hours and on the length and timing of working-time arrangements. They capture

particularly well the hours actually worked in self-employment jobs that are irregular, atypical, or carried out together with household service work in the home. They may face the difficulty of assigning time spent on simultaneous activities to a job, and of distinguishing paid activities outside of the household. This source can also be used to assess and compare the quality of and adjust hours actually worked measured by other survey instruments. Time-use surveys as a data source may be constrained by their frequency (generally non-annual or irregular), small sample size, high response burden and data compilation costs.

- (2) The population census is able to provide statistics on hours actually worked or hours usually worked for jobs in small geographic areas and for small population groups. Census operations may however not have the questionnaire space and interview time required to incorporate a set of questions for each concept, for each day of the reference period and for each job or activity. Where the census is the only available data source it may as a minimum incorporate a single question either on hours actually worked during a short period prior to the census reference date, or on hours usually worked, for the main job.
- (3) Mixed household-enterprise surveys of the informal sector are able to provide statistics of hours actually worked or hours usually worked for an informal sector job for a short or long reference period. They use interview techniques close to household-based survey interviews of self-employed persons to capture the working time of informal employees, many of whom are working in private dwellings. These mixed surveys may be constrained by overall costs resulting in limited data quality.
- (4) Surveys of agricultural employment and farm structure may collect statistics of hours usually worked in farm employment for agricultural labourers and over a long reference period such as a year.

Establishment-based surveys

22. (1) Establishment-based surveys are well suited to collect data:
 - (a) On hours paid for, contractual hours, paid overtime hours and absence from work hours usually recorded to monitor entitlements to leave, and on formalized working-time arrangements. They may also produce statistics on normal hours of work or hours actually worked;
 - (b) For all or a subset of paid-employment jobs in the establishment, or all or a subset of establishments;
 - (c) For a reference period, such as a week, month, year or pay period;
 - (d) For jobs individually, as averages for groups of jobs or for the establishment as a whole.
- (2) Establishment-based surveys are less well suited to measure concepts which do not have an administrative or regulatory base. The data from establishment-based surveys relate mainly to concepts linked to payments and employment contracts and to certain types of formal working-time arrangements.
- (3) In order to reduce errors due to differences in payment and administrative systems between establishments, it is recommended that the questionnaire obtain information about the:
 - (a) Payment practices for particular work-related activities, including lunch breaks, commuting time, preparation time (including changing time), short breaks, absence from work periods and overtime;
 - (b) Self-employment jobs covered.
- (4) Working time statistics from this type of source, even where the coverage of jobs is not complete, may be used to indicate changes.
- (5) The contractual hours may be specified in groups of hours, as a percentage of normal hours of work for full-time work, as full-time/part-time units, or as the number of hours. Information should be collected by components of non-contractual paid overtime hours, absence hours not paid, and contractual hours, that will allow the producers of statistics to perform quality checks or to calculate hours paid for or hours actually worked, if establishments do not provide these directly.

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- (6) If contractual hours or hours paid for are not collected specifically, other data could be used to derive them. An estimate of total contractual hours may be obtained by multiplying the number of workers distinguished by full-time and by part-time hours and adding the two products. An estimate of the total number of hours paid for may be obtained by multiplying the number of workers by their wage rates and dividing the total wage bill by this product.

Administrative registers

23. (1) Administrative registers are useful to provide information:
- (a) On contractual hours, hours paid for, paid absence from work hours, and normal hours of work including leave entitlements;
 - (b) For jobs and persons covered;
 - (c) For long reference periods, such as a month, quarter or year.
- (2) Data from administrative registers may come from records of social security institutions and labour inspectorates, or from collective agreement records or legislation. Depending on national circumstances, records of income or tax registers on income from paid and self-employment can also be used with other information to calculate hours paid for and certain paid absence hours.
- (3) Data from administrative records are generally useful to verify and may correct, or adjust data from, establishment or household-based surveys to obtain estimates of hours actually worked and absence from work hours due to illness, maternity, occupational injuries, and strikes and lockouts.
- (4) Registers of information for filled jobs usually contain more working time data than for job vacancies or jobs sought.

Derived measures

Total hours actually worked

24. (1) Total hours actually worked is the aggregate number of hours actually worked by all persons in all jobs for required groups (such as economic sector or geographical region, and *within or beyond the SNA production boundary*) during a specified reference period.
- (2) Total hours actually worked is also known as the volume of work or labour input, and refers to all jobs in the State. The reference period may be short or long.
- (3) Total production divided by total hours actually worked produces labour productivity indicators. Total hours actually worked should have the same coverage of jobs and use the same reference period as the measurement of production, normally defined as *within the SNA production boundary*.
- (4) Total hours actually worked is useful to construct many other labour related social and economic indicators. Such indicators may require that the total hours actually worked be distributed by characteristics of jobs, establishments and persons.
25. (1) Continuous household-based surveys can produce estimates of total hours actually worked for a long reference period, based on observations for all weeks in the period. Obtaining estimates of the hours actually worked throughout the period and adjusting for days not included where relevant, produces total hours actually worked for the long reference period.
- (2) In a non-continuous survey, targeting the desired reference period implies extrapolation to periods not directly covered. If the survey is not repeated with sufficient frequency and the reference week is chosen to avoid special weeks (containing public holidays, etc.), adjustments should be made to take account of possible calendar effects, working time regulations and working time information from other sources.
- (3) When the household-based survey only collects hours usually worked, the measure of total hours actually worked will be the number of hours usually worked adding any irregular overtime hours and subtracting all irregular absence hours.

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- (4) For the purpose of estimating labour productivity for a long reference period, household survey-based estimates of hours actually worked need to be supplemented with estimates for jobs not covered in the survey (such as jobs held by persons living in collective households or in a foreign State). The hours actually worked in jobs in economic units outside the State held by persons living inside the State need to be excluded.
26. (1) Compiling total hours actually worked from establishment-based surveys will generally start from hours paid for, or from contractual hours or hours usually worked that must be transformed into hours actually worked. The computations will depend on the data elements available:
- (a) Total hours actually worked is equal to hours paid for plus unpaid overtime hours minus paid absence from work hours;
 - (b) Total hours actually worked is equal to contractual hours plus non-contractual overtime hours minus absence from work hours.
- (2) Care must be taken to cover the long reference period and the total population by repeated or continued observations or adjusting for any missing periods; and incorporating estimates of the hours actually worked of self-employment jobs or of employees in out-of-scope units, such as small establishments, agricultural or informal units, as well as for household service and volunteer work.

Average annual hours actually worked

27. (1) Average annual hours actually worked are the total hours actually worked during a year relative to a reference denominator, depending on the measurement purpose and available data sources. The numerator and denominator should be consistent, where possible. The denominator may be:
- (a) The average number of persons in employment (whether at work or not at work) per week over the year;
 - (b) The average number of jobs over the year that corresponds to the total hours actually worked;
 - (c) The average population size over the year.

Tabulation of data and analysis

28. (1) Statistics on working time can be tabulated to serve a number of different descriptive and analytical purposes, and *within or beyond the SNA production boundary*, depending on national circumstances and priorities.
- (2) Statistics on the hours actually worked, the hours paid for, the contractual hours of work and the hours usually worked may relate to (a) the number of jobs or persons by different hour bands, as well as to (b) the average hours per job, person or economic unit, during the reference period. The hour bands should allow presentation by specific hour thresholds stipulated in national laws or regulations. The average hours per person should cover the hours in all jobs held during the reference period.
- (3) Statistics on the normal hours of work may relate to the number of jobs or persons in employment practising different levels of hours.
- (4) Statistics on overtime hours may relate to:
- (a) The number of jobs, persons or economic units experiencing overtime;
 - (b) The average overtime hours per job, person or economic unit during the reference period.
- (5) Statistics on absence from work hours may relate to:
- (a) The number of jobs, persons or economic units experiencing an absence from work during the reference period, by type of absence;
 - (b) The average duration of absence from work hours per job, person or economic unit during the reference period, by type of absence;

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- (c) The average elapsed duration of absence from work up until the reference period per job, person or economic unit.
 - (6) Statistics on working-time arrangements may relate to:
 - (a) The number of jobs, persons or economic units practising relevant formalized working-time arrangements, by type of arrangement;
 - (b) The number of jobs, persons or economic units experiencing various types of lengths, timing and scheduling of working time.
 - 29. For the calculation of average hours actually worked per week, States that do not calculate them by dividing the annual hours actually worked by the total number of weeks in the year should specify whether they relate to average hours actually worked:
 - (a) Per employed person “at work” during one or more reference periods during the year;
 - (b) Per employed person during one or more reference periods during the year;
 - (c) Per job during one or more reference periods during the year;
 - (d) Any other calculation.
 - 30. (1) For the computation of sectoral productivity, statistics on total hours actually worked need to be classified by industry or sector, and in a manner that is consistent with production statistics.
 - (2) For labour market analysis, statistics of working time should be presented at least by sex and in respect of status in employment, specified age groups and level of education. Tabulations and analysis may include other significant demographic, social and economic characteristics important for users as well as appropriate cross-classifications, such as by occupational group, institutional sector, branch of economic activity, and, where relevant, by formal/informal sector (or formal/informal employment).
 - (3) To bring to light gender justice and reconciliation of work and family life, including for public policy purposes, it is essential to classify working time, in addition to sex, by variables such as marital status, presence of dependent or accompanying persons (young children, the elderly and others requiring care) and the working time of other/all household members.
 - (4) Working time statistics of persons is the sum of the hours in all jobs in a reference period; to classify these hours in relation to a job or economic unit, the characteristics should refer to the main job. For working time statistics it is preferable to define main job as the job having the longest working time (preferably as measured through contractual hours or, when not available, the hours usually worked).
 - 31. In order to analyse changes in hours actually worked over time and across States, it may be useful to produce indices in addition to level estimates. In this case, it is important that precise information about the statistical sources and methods of calculation used to produce these complex estimates accompany the disseminated results.
 - 32. All statistics on working time and accompanying methodological information should be compiled, made available for all users, and produced in line with the need for confidentiality of persons and establishments, and the requirement of proper documentation. As much as possible, public-use files (anonymized, confidentialized micro data sets) should be made available to analysts and other interested users.

International reporting

- 33. (1) For international reporting of working time statistics, States should endeavour to report at least (*within the SNA production boundary*):
 - (a) Total hours actually worked on an annual basis; and
 - (b) Average annual hours actually worked per person in employment (in all jobs); or
 - (c) Where the above are not possible, then the average hours actually worked per week.
- (2) States measuring working time *beyond the SNA production boundary* should compile and report the statistics in such a way that it is possible to distinguish them from working time statistics for activities *within the SNA production boundary*.

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- (3) For international comparisons the derived measures should be disaggregated by sex so as to enable analyses from the gender perspective, as well as status in employment. Where possible these derived measures should also be disaggregated by age, industry or institutional sector. Other variables of interest are level of education, occupation, working-time arrangements and formal/informal sector or employment.
34. States may also be in a position to report statistics on:
- (1) The average weekly contractual hours or average weekly hours usually worked;
 - (2) The number of jobs or persons by bands of hours actually worked or hours usually worked per week. For statistics on the number of jobs or persons working different hour bands, data should be collected so that it may be reported according to certain hour bands. These hour bands may be of four or five hours, and in all cases should include the following:
 - (a) Less than 15 hours;
 - (b) 40 hours;
 - (c) Up to and including 48 hours;
 - (d) 60 hours or more.
 - (3) The number of persons experiencing an absence, and by type of absence that should distinguish at least the following groups of reasons for absence:
 - (a) Annual leave (with forced annual leave separately identified, if possible), holidays and compensation leave;
 - (b) Illness and injury (including occupational injuries separately identified, if possible);
 - (c) Maternity/paternity/parental and care leave;
 - (d) Strikes and lock-outs.
 - (e) Other reasons.
35. In order to enhance the transparency and comparability of all working time statistics reported internationally, States are urged to compile and disseminate the requisite information on national concepts, definitions and methodology and any departures from the recommendations of this resolution. States should, therefore, design their data collection and processing procedures to enable them to fully document:
- (a) Differences between the international and national statistical definitions of working time, where relevant;
 - (b) Differences between the national statistical definitions compared with legal and administrative definitions in the State;
 - (c) Adjustments performed to arrive at estimates that correspond to the analytical and international statistical concepts and, in particular, inquiries undertaken from time to time to determine for each industry the ratio between the number of hours actually worked and the number of hours paid for (defined in paragraphs 11 and 12).
36. All reported statistics on working time and accompanying methodological information should be compiled and produced in line with the need for confidentiality of persons and establishments, and the requirement of proper documentation and availability for all users, in accordance with the United Nations Fundamental Principles of Official Statistics.

Future work

37. The ILO should provide for the timely updating of the annex to this resolution, and prepare a technical manual to present best practices in the measurement of working time.
38. Regarding the measurement of working time for jobs *within and beyond the SNA production boundary*, the ILO should conduct a review, within a decade, of national capacities to implement the scope of this Resolution and assess the implications of the findings on future work in this area.

Annex

Working-time arrangements

1. Working-time arrangement is the term to describe measurable characteristics that refer to the organization (length and timing) and scheduling (stability or flexibility) of work and non-work periods for all jobs as defined in paragraph 18 of this resolution. These characteristics also apply to ad hoc as well as unusual arrangements. Multiple characteristics (such as a part-time, flexible shift schedule) may apply as they are not mutually exclusive.
2. Specific working-time arrangements defined for different combinations of these characteristics exist in States and are referred to as formalized working-time arrangements. These are based on laws and regulations, collective agreements or arbitral awards and formalized in written employment contracts and/or practised implicitly in establishments by persons in paid-employment jobs. Certain types of formalized arrangements (such as part-time work) are also practised in self-employment jobs.
3. The elements of the typology of formalized working-time arrangements presented in this Annex may serve as a tool for consultation, in particular for purposes of comparison at the international level.

Organization (length and timing)

4. (1) *Annualized or mensualized hours arrangements*, characterized by variations in daily, weekly and monthly working time within a weekly or monthly average or an annual total, without any requirement that the employer pay overtime rates as long as hours actually worked stay below an agreed maximum in the specified period. Under the annualized/mensualized hours contract, the distribution of the number of hours over the month or throughout the year is generally determined in advance by the employer, depending on production or service needs; but employees may be allowed to negotiate the length of their daily and weekly hours, so long as output targets can be met.
- (2) *Compressed working week arrangements*, characterized by organizing the working time over fewer days than what is considered the normal or standard working week.
- (3) *Fixed working arrangements*, characterized by set starting and finishing hours or core hours for individuals or groups of persons in paid employment or for persons in self-employment.
- (4) *Job-sharing arrangements*, characterized by the filling of an existing full-time position by two or more persons (including transitional arrangements), each working part time, possibly with different arrangements, on an ongoing, regular basis.
- (5) *Min-max arrangements*, characterized by a variable number of *hours actually worked* and paid for, depending on production or service needs, but with a guarantee of a minimum and maximum number of hours to be worked per reference period.
- (6) *Part-time work arrangements*, characterized by a voluntary or involuntary reduction of hours or a job that reduces contractual hours or hours usually worked, which are less than those of comparable full-time work (in the same industry or occupation) recognized in the Part-Time Work Convention, 1994 (No. 175).
- (7) *Regular overtime hours arrangements*, characterized by hours worked in addition to the contractual or hours usually worked and that are compensated by the employer for paid-employment jobs.
- (8) *Staggered and block working arrangements* (also known as start and end of working day), characterized by established different starting and finishing hours around compulsory core hours, for individuals or groups of persons in paid employment, including split shift work consisting of multiple work periods on the same day.
- (9) *Time-saving account arrangements*, characterized by hours worked in addition to the contractual or hours usually worked with the understanding that the persons will be able to take, for example, early retirement.

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- (10) *Working time banking arrangements*, characterized by the possibility of accumulating hours, which can be taken off as extended leave in a subsequent period or used to reduce the total overall lifespan of work.
 - (11) *Combined extended work and leave periods*, characterized by a number of weeks on, at special work sites (remote areas, on board ships, oil platforms at sea, etc.) and a number of weeks off work.

Scheduling (stability or flexibility)

5. (1) *Flexible working-time arrangements*, characterized by possible daily and weekly working time scheduled outside core hours when presence at the place of employment is compulsory. Hours worked in addition to contractual hours of work for the week (pay period or month) may be taken as leave during subsequent weeks or months, often within a deadline and up to a maximum number of hours.
- (2) *Own working schedule*, characterized by the possibility of scheduling one's daily and weekly hours and presence at the work location.
- (3) *On-call work, zero hours or "as and when required" arrangements*, characterized by no fixed schedule of contractual hours, but a requirement that persons be available to work when called with a specified notice period, for as many hours as the employer requires up to legally specified or contractual limits.
- (4) *Shift-work arrangements*, characterized by successive daily work periods involving teams of persons, known as shifts. Shifts enable the establishment to maximize use of equipment and ensure operations for periods longer than the working time of individuals. Shifts may be organised as morning, evening, night or weekend shifts. Shifts may be constant, alternate with different types of shift on a weekly or fortnightly basis (including certain free days).
- (5) *Shift-change work arrangements*, characterized as *shift-work arrangements* with the additional feature that persons may trade their shifts with other workers practising the same arrangement.
- (6) *Absence-leave scheduling*, characterised by the choice, control or influence of persons over periods of absence and leave and the extent to which this scheduling is agreed, imposed or chosen, the predictability of periods (as a result of advance notice, discussion or consensus between parties) and the duration of the period over which the scheduling refers.