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Clarification C16
Measurement of labour inputs

FOR INFORMATION

WORKING TIME MEASUREMENT

by Paris Group Bureau

NATIONAL ACCOUNTS ADVISORY EXPERT GROUP (AEG) MEETING, JANUARY-FEBRUARY 2006

INPUT FROM PARIS GROUP: WORKING TIME MEASUREMENT – ISSUE C16

This brief note prepared by the Paris Group Bureau¹ is intended to provide input on the measurement of working hours to the SNA 1993 update.

The focus of discussions at the last two meetings of the Paris Group (London 2003, Lisbon 2004) has been the revision of the 1962 ICLS Resolution on working time measurement. In 2003 national agencies presented current work on measuring hours worked and the collection of information on the myriad of working time arrangements that have become more prevalent since 1962. The 2004 meeting saw the crystallization of a number of problem areas that would need to be dealt with in the revision of the Resolution. Detailed reports from both meetings are available on the Paris group website hosted by INSEE at http://www.insee.fr/en/nom_def_met/colloques/citygroup/citygroup.htm.

The 2006 Paris Group meeting, scheduled to be held in Budapest on 15-17 May, will discuss the actual text of the draft revised Resolution now being prepared and proposed for dissemination to attendees on 28 February 2006. A subsequent draft Resolution will be discussed at the next ICLS, tentatively scheduled for 2008. Refer below for further information on the content of the revised Resolution.

During discussions at the above meetings, labour force statisticians pointed to a number of grey areas in the SNA 1993 (in particular, in Chapter XVII) in the context of working time measurement which they believed would benefit from clarification and revision during the current SNA update. On 1 June 2005, national agencies that had attended the 2004 Paris Group meeting were requested to identify specific problem areas in the SNA. Responses to this request were received from Australia, Canada, Denmark, Finland, Italy, Netherlands, Portugal, Sweden, Switzerland and the United States. A synthesis of national comments prepared by the ILO (for discussion at a Eurostat LAMAS Working Group meeting in early October 2005) is attached to this summary note. This synthesis contains the actual text provided by national agencies.

From both the discussion at Paris Group meetings and the ILO synthesis, the main problem areas in Chapter XVII from an LFS statistician perspective are summarised below:

Areas in SNA 1993 Chapter XVII requiring clarification / revision for working hour measurement from LFS statistician perspective

Para. No.	Main issue(s)
17.9 (a)	To identify types of self-employed that could be classified into separate groups the SNA should take ICSE-93 as a reference. Clarification required for self-employed in unincorporated units of production. Add or explicitly mention (unpaid) contributing family workers at the outset in Chapter XVII.
17.10	Guidance is required in Chapter XVII on how to classify temporary employees recruited through an agency. Such consultants could be classified either to the industry where they work or to the industry of the enterprise that actually pays them (in some cases the agency). The difference between the two approaches can have a large impact on the number of persons employed in

¹ The Paris Group Bureau currently comprises representatives from: Eurostat; Hungarian Central Statistics Office; ILO; INSEE; OECD; Portuguese Ministry of Labour and Security; Sweden; UK ONS

Para. No.	Main issue(s)
	specific industries and hence on productivity measures.
17.11	<p>Clear reference to the substantially revised ICLS Resolution on working time measurement needs to be retained – together with its revised list of inclusions and exclusions.</p> <p>Need to clarify hours concepts as well as place of work at the outset of Chapter XVII which would then further minimize some of the problems of semantics and clarity in subsequent paragraphs. This could entail a rewrite of parts of Chapter XVII so as to remain consistent with the revised Resolution.</p> <p>Need for stronger statement that target measures are estimates of total annual hours worked (for all persons employed) and average annual hours worked (per person employed)</p> <p><u>Proposed additional inclusions</u></p> <p>Hours worked at home - particularly important for the self-employed and for some occupations, e.g. teaching, e-work.</p> <p>Unpaid hours – should be included when productive including overtime, extra work, etc?</p> <p>Boundaries and definition for training and education? Does it have to be job related and if so, to the current job or include some future job, e.g. to facilitate employment in an expanding industry? Does it have to be paid for by current employer?</p>
	<i>Inclusions</i>
17.11 (a)	<p>Concepts of “normal” and “usual” working hours may be less relevant in today’s work environment. Revised Resolution will present working time as a continuum of different working time arrangements defined on the basis of number of hours worked, scheduling of those hours, location(?), etc.</p> <p>For labour input purposes, emphasis in the revised Resolution will be given to target measures (e.g. total annual hours worked, average annual hours worked) and the distinction with measurement concepts (normal, usual hours, etc) which are primarily (but not only) reference periods for the collection of data in LFS and enterprise surveys, etc</p>
17.11 (b)	<p>Emphasis in current SNA wording is the inclusion only of paid overtime. Countries believe that non-paid overtime (if productive, although clarification is need to determine this) should also be included as their exclusion would result in an overstatement of productivity. Key emphasis is on contribution to production.</p>
17.11 (c)	<p>“Place of work” needs either clarification, because in today’s environment this is less the physical establishment, or one suggestion was to simply remove the term “place of work”. Time spent on training could be added to the list of tasks considered as “work”.</p> <p>The wording of para. 17.11(c) mainly refers to jobs in manufacturing and could be modernized to include the service sector as well. The same point also applies to para. 17.11 (d). An example of the wording of the text could be along the lines of”the place where the worker normally carries out his or her activities or duties and which is determined in accordance with the terms or conditions laid down in the relationship or employment contract applicable to the worker.”</p>
17.11 (d)	<p>Notion of “place of work” reflects a less relevant manufacturing environment. Could it be removed? Suggest a statement that these are <u>short-term</u> interruptions within the work day which would help explain / provide a rationale as to why such unproductive time (examples modernized) is included but other longer periods (meal breaks, etc.) are excluded.</p>

Para. No.	Main issue(s)
	Inclusion or exclusion of on-call time and the distinction between active or inactive periods within the on-call time need to be clarified. Such time ranges from being on-call at the employer's establishment (e.g. hospital) or to time required to get back to duty, or to restrictions on employees' ability to do other non job-related things, thus a restriction on the ability to do other things and /or be at another place.
17.11 (e)	Countries agreed in principle with current wording. Could also include short breaks and stand by time, though again the wording could be modernized and examples of short breaks included. One country suggested merging with 17.11(d).
	<i>Exclusions</i>
17.11 (a)	Expand list to incorporate some additional exclusions such as other types of leave that are now more common among workers, such as leave for family reasons, or paid leave to attend training not directly related to current employment. The list should be kept short, with a few examples representing newer forms of leave. Needs to be a link to on-call hours, for example, inactive part of on-call time should be excluded.
17.11 (c)	Further clarification required with regards to work related travel. Generally, no problem with excluding "usual" commuting time (even if fares / transport paid by employer) but there are some grey areas: What if work is performed during travel – paid or unpaid? What if place of work is not fixed or clear? <u>Possible additional exclusions (mixed views on these)</u> Treatment of conscript armed forces – excluded in most LFS statistics but included in national accounts. Needs clarification (or exclusion?). Countries have asked why an hour of productive work by a conscript should be excluded. Residents working for non-resident producer units – included in LFS statistics but excluded from national accounts.
17.12	First time inclusion of self-employment jobs is mentioned. Treatment of self-employed needs to be given more emphasis at beginning of Chapter XVII. Needs further exploration as to how hours for self-employed are to be treated. Need to expand text to also clarify treatment of (unpaid) contributing family workers.
17.13	This para. is rather a comment and is the only attempt to address measurement issues, albeit only for establishment surveys. Could be expanded to provide more guidance covering different modes of collection such as household surveys, time use surveys and administrative data. Could become a footnote or even be dropped.
17.15	Touches on issue that definitive definitions of full-time / part-time are not agreed on internationally. If the focus is on total hours worked, for what purposes are FTEs required? Need to move away from the part-time / full-time dichotomy, avoid use of these terms in Chapter XVII and refer to hour thresholds (as for age groups). The revised Resolution will also refer to hour thresholds. Consideration could be given to deleting para, as full-time estimates can be computed if good annual hours data are available.

Para. No.	Main issue(s)
17.16	Revised Resolution will give emphasis to the provision of data on hours worked for different hours thresholds / groups. In this context serious consideration could be given to deleting paras. 17.14 – 17.18.
17.17	What if annual hours worked, etc., cannot be compiled by a country? Should something else be suggested? Obviously, the first choice should always be annual hours and if such data are available the concepts of part time / full time and FTEs are not needed in the text.
17.18	See above.

Revision of 1962 ICLS Resolution on working time measurement

Because of substantial changes in the labour market environment that have occurred over the last 40 years, national agencies attending both the 2003 and 2004 meetings of the Paris Group felt strongly of the need for a substantial revision (rather than update) of the 1962 Resolution. These changes include the increased diversity and prevalence of working time arrangements and the decreased (in developed economies at least) importance of employment in agriculture and manufacturing vice services.

It was agreed that the revised Resolution needed to provide a strong conceptual framework that would encompass a range of user needs (labour market analyses and labour input) which would at the same time anticipate future developments in labor market conditions. In this context, diverse working time arrangements would be presented as a continuum defined on the basis of a small number of measurable dimensions - such as number hours actually worked, the scheduling of those hours (in a day, week, month, year, etc) and perhaps the location of work performed. The revised Resolution would also list a small number of different working time arrangements by way of examples.

The revised Resolution would draw a clear distinction between key target concepts (actual hours worked per person, total annual hours, average total annual hours) and (primarily) measurement concepts (usual hours, normal hours, paid hours). Finally, the revised Resolution would provide guidance on the strengths and weaknesses of the different sources of statistics on working time – household surveys (LFS and time use), enterprise/ establishment surveys and administrative records. Emphasis here would be on the need where possible to confront data derived from different sources to arrive at accurate measures of the target concepts.

As mentioned above, the revised Resolution is intended to meet the needs of a number of different users and uses (both labour input and labour market analyses) for accurate and comparable statistics on hours worked. The extent to which the requirements (defined on the basis of the inclusion or exclusion of some specific uses of time) of these different uses of data overlap is still to be determined and the final treatment of a number of grey areas (most of which are listed in the above table) will be discussed in May 2006. These grey areas include: unpaid hours / overtime; training (especially training not directly related to current employment); some aspects of travel; etc.

In conclusion, the Paris Group Bureau would welcome any future involvement in the updating of SNA Chapter XVII.

Paris Group Bureau

18 November 2005

Synthesis of Paris Group Inputs to the Update of SNA 1993

1. Introduction and background

The following synthesis outlines comments received from national agencies on issues in the SNA 93 (in particular, in Chapter XVII. Population and Labour Inputs) they believe require clarification from a labour statistician perspective in the context of measuring working time. The synthesis was prepared by the ILO to serve as a tool for further discussion, both within the Paris Group and in other forums such as the Eurostat LAMAS Working Group.

Comments received from these forums will be incorporated into a revised version of the document and forwarded to the National Accounts Advisory Expert Group (AEG), together with an initial outline / summary of issues, etc., for the revised ICLS Resolution on working time measurement, by end November 2005 for discussion at the January 2006 meeting of the AEG.

Delegates at the LAMAS Working Group are therefore now invited to:

- identify any additional issues which should be brought to the attention of the AEG in the context of working time measurement;
- further refine issues / points raised already in the synthesis; and
- perhaps provide initial views on suggested rewording of Chapter XVII from a labour statistician perspective.

The comments received from national agencies follow a request for such input forwarded to Paris Group participants on 1 June 2005. The summaries prepared are based on replies, not necessarily formal submissions, from the following institutions in ten countries:

Australia	Australian Bureau of Statistics (ABS)
Canada	Statistics Canada
Denmark	Statistics Denmark
Finland	Statistics Finland
Italy	Italy
Netherlands	Statistics Netherlands
Portugal	NSI Portugal
Sweden	Statistics Sweden
Switzerland	OFS Switzerland
United States	Bureau of Labour Statistics

Following this Introduction, the paper is organized into three remaining Sections for easy reference. Section 2 presents the actual text of the SNA Chapter XVII, B. Each of the currently stipulated inclusions and exclusions of hours, and each sub-paragraph, is followed by the comments or position of each agency in respect of the current text.

Section 3 provides some agencies' general comments, and Section 4, actual proposed redrafts of SNA text (when provided) and a revised figure 17.2.

2. SNA Chapter XVII: Population and labour inputs.

B. Population and labour concepts without national boundaries

2. Jobs

Para. 17.9 (a)

Both employee jobs and self-employment jobs are covered....

One country commented on addition of a special group of self-employed jobs.

Italy: To identify types of self-employed that could be classified in separate groups SNA should take as reference ICSE-93. 'Self-employed job' defined by SNA93 belongs to unincorporated units of production. Self-employed in an enterprise census or survey with the legal status of 'corporation', where owners work in the production unit, would be classified in SNA as employees. A useful group to distinguish, (particularly for Italian requirements) are 'owner-managers of incorporated enterprises' who are workers who hold a job in an incorporated enterprise in which they:

1. alone or together with others hold controlling ownership of the enterprise;
2. have authority to act on its behalf as regards contracts with other organisations.

Italian national accounts do not comply with SNA for these workers. Their income is part of 'distributed income of corporations' (different from 'dividends' and 'withdrawals from income of quasi-corporations') called 'other distributed income of corporations and quasi-corporations' - a 'property income' and it still contains the remuneration of the job offered by these self-employed (both for quasi-corporation and corporations).

Modify: SNA93 to explicitly consider as self-employed the above typology of workers, if relevant in a country. Foresee a kind of 'mixed income' for their remuneration. (See Part 2, Figure 17.2 rev.)

Para. 17.10

Jobs may be classified not only as employee or self-employment, but also according to the standard activity classification.

Sweden: The Swedish LFS includes persons employed at temporary or flexible employment agencies in the industry of the employment agency. ESA95 (para. 11.13 i) states that these employees be included in the industry of the agency employing them - not the industry of the enterprise for which they work.

Since this classification issue can have a large impact on number of persons employed and hours worked in some industries, and hence on productivity measures, clarification is important.

SNA paragraph should be extended to give guidelines on how to handle this and perhaps other classification issues as well.

3. Total hours worked

Para. 17.11

Output per job would be an excessively crude measure of productivity

Output per job would be an excessively crude measure of productivity and total hours worked is the preferred measure of labour inputs for the System.

[ABS: Need a new paragraph here – first para. focusing on what we are measuring, second para. on issues for hours of work.]

The ILO "Resolution concerning statistics of hours of work", adopted by the tenth International Conference of Labour Statisticians, defines hours worked as follows:

Statistics of hours worked should include:

Switzerland: Add a list of all types of included "special work" (paid and unpaid overtime, including work at home, non-commuting travel time to work, short breaks, passive activities). Clear reference to the ILO resolution has to be maintained, but it is not sufficient.

Netherlands: If this statement is to remain, it should be extended to: Output per job or persons employed would be an excessively crude measure of productivity. A better measure would be output per full-time equivalent. The best measure is output per hour actually worked.

(a) Hours actually worked during normal periods of work:

Three countries commented, all in favour of removing "normal periods of work"

Australia: Remove statement: What is normal? If used, such terms should be defined, but not essential here.

United States: Remove: concept "normal periods of work" = vague, becoming meaningless in today's work environment.

Canada: Problematic: may guide National Accountants to the use of actual hours; less useful for clarity on the concept. Definition is open for interpretation, especially for those working outside of the standard employee-employer arrangement (with so-called "normal periods of work"). For many workers, does not exist, so not helpful to measure hours worked. Furthermore, this statement seems to imply the use of all hours worked, as opposed to only paid hours worked.

(b) Time worked in addition to hours worked during normal periods of work, and generally paid at higher rates than normal rate (overtime);

Five countries commented, four in favour of including non-paid overtime – if productive.

Australia: Not a relevant concept for all jobs, shouldn't be the basis of the definition.

Finland and Spain: Include: non-paid overtime also, the 'general assumption' is that 'overtime' is paid overtime only.

Denmark: Include in principle, if regarded as contributing to production. If the employer regards as necessary for the production process, the hours will typically be compensated in terms of higher normal wage (otherwise hard to keep qualified labour supply).

Canada: Two problems to measure actual hours: 1) it better fits the old work paradigm (employee-employer relationship: fixed contracts, more predictable work hours; 2) is vague; could be interpreted as excluding some paid overtime (at normal rates of pay), as well as unpaid overtime hours --Include both, so long as the time is spent in the productive realm.

(c) 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;

Two countries commented, reference to “place of work” needs clarification; and for certain activities regarding home-based work.

Australia: This type of clarification useful in some aspects, but examples only relevant to some jobs.

Canada: Generally useful, helps clarify some grey areas. However, “place of work” might suggest it only applies to people working outside of the home - which should not be the case. Substantive change needed relating to people working from home. **See also page 5.**

(d) 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;

Six countries commented on different aspects.

Australia: Reflects manufacturing view.

Canada: Suggest a statement to explain that these are short-term work interruptions within the workday. This would help the reader understand why, for example, we are counting this unproductive time, but exclude other periods for which the person might be paid, such as holidays or vacation, which are normally longer-term in nature, and spent outside of the facilities of the employer.

United States: Prefer to remove last part: "time spent at the place of work during which no work is done but for which payment is made under a guaranteed employment contract" - equates to hours paid rather than hours worked.

Denmark: Included if paid by the employer, and hourly wage rate > (50%) of a (national?) threshold of normal wage rate.

Problems:

- 1) On-call work arrangements where sleep/other private activities – especially if physically placed at home – only receive small percentage of normal wage until called and becomes actively productive.
- 2) Delimitation based on “at home/at workplace” becomes complicated for self-employed where home=workplace, in many circumstances.

Possible solutions:

- 1) The wage rate signal is a practical way to rule out most unproductive, on-call work, where workers are seldom called.
- 2) Self-employed with no explicit wage rate (need to consider a specific formulation thoroughly). If wage rate cannot be calculated, evaluate passive activities as more or less than ½ the value of active working time: "If you instead had employed other persons to do your work, would you accept that these passive activities were part of the time you would be willing to pay for or not?"

Spain: Always considered as working time in the work place. Some criteria should be stated when the location differs (e.g. Mobile workers). General criterion: could the person be working or not in another job?

Finland: Include.

(e) Time corresponding to short periods of rest at the workplace, including tea and coffee breaks.

Two countries commented, agree in principle.

United States: Include short breaks and stand-by time.

Canada: Clear and agreed upon - could be included in paragraph (d).

Proposed additional inclusions:

Hours worked at home

Four countries commented, in favour of including if productive / paid.

Denmark: Include: in principle if regarded as productive (goods and services). If employers regard these as necessary for the production process, the hours will typically be compensated in terms of extra wage or higher normal wage (otherwise the employer will have difficulties in keeping qualified labour supply).

Finland: Include if paid. Important for measurement of e-Work. If not paid: problematic.

Canada: Substantive change needed: people working from home, be they employees or self-employed, may engage in activities outside the production boundary.

Exclude: so-called “own-account production of domestic and personal services by members of the household for their own final consumption” (cleaning, cooking, caring for children – also need to explicit the exclusion of activities that may seem similar to those already in the SNA) if the person is interrupted from work to attend to such activities.

Include: if a person is clearly conducting both productive work and own-account production of domestic and personal services simultaneously – but only if the productive work is the main activity.

Spain: In case of problems due to unclear location of the working place or working hours, some additional criterion on the direct relationship of the travel to the job should be stated. Should refer to the home as one possible working place. Need specific guidelines for this particular case: cannot apply the criterion of “working place” as a location outside the dwelling.

Personal training or education

Five countries commented, mainly in favour of inclusion with clarifications.

Denmark: Covers training on the job, training required/financed by employers to improve job efficiency or benefit employers otherwise, non-job-specific training and education paid by employers as a bonus. Include: if paid by employers, payment signalling necessity for production (and indirect necessity - in terms of costs to ensure keeping qualified workers).

Canada: Include: time spent in meetings and training facilities outside of the normal workplace among actual hours worked.

Finland: Include: if paid by employer at workplace or outside. Exclude: all non-job-training/education, even if supported by employer.

Spain: Need clear criteria to consider different training activities as working hours or not. Dimensions to consider for inclusion: a) (direct) link with the activity of the job; b) whether training takes place within normal working hours; c) training is paid or not by the employer. The relationship with payment-in-kind should be determined accordingly.

Sweden: Neither SNA nor ESA95 clarify whether these hours should be included or excluded. Eurostat indicates that education be treated as hours worked in the National Accounts. Swedish LFS earlier received information that education during paid working hours should be excluded from total hours worked. SNA should clarify how to handle this.

Statistics of hours actually worked should exclude:

(a) Hours paid for but not worked, such as paid annual leave, paid public holidays, paid sick leave;

Two countries commented.

Canada: Expand to other types of leave - now more common among workers, such as paid leave for family reasons, or paid leave to attend training not directly related to the work.

Switzerland: Should present a list of all excluded types of absence (sickness, accident, maternity, parental leave, non-professional military, civil service, strikes and lock-outs (?), training (only if paid by employer...?), other absences...?)

(b) Meal breaks; [No comments]

(c) Time spent on travel from home to work and vice versa.

Four countries commented, in favour of including business travel, other varying opinions.

Denmark: Include: commuting time and non-commuting (travel) time: if employer pays for the transport - both commutes and non-commutes (e.g. official journeys/business trips); if work is performed during travel hours, in principle - as these activities contribute directly to the production process.

Exclude: if no work is performed during travel and employer does not pay the hours. Explanation: Payment signals that employers regard the hours as necessary for production (e.g. the workplace is physically in the middle of nowhere (e.g. oil platforms) whereas if they could employ someone nearer to the workplace, ceteris paribus, they would not have this cost. If their workplace is far away from where labour input lives, must typically compensate the employed by means of higher wages.

Argument: Higher wages due to general compensation for awkward transportation can be difficult to relate to travelling time (not different to the treatment of unpaid overtime).

Spain: Main criteria are based on work place (spatial reference) and working time (temporal reference); when the location is not fixed or clear, or working time (hours) is flexible, additional criteria concerning the direct relationship of the travel to the job could be stated.

Finland: Exclude: Commuting travel time, even if paid by employer.

Include: Non-commuting (business travel) time organized in employers' time. Finland

Canada: Helpful to labour statisticians, wording could be improved. Include: Non-commuting travel time among actual hours worked.

Proposed additional exclusions:

Finland: Conscript armed forces, not included in (most) labour force statistics, but included in national accounts; and

Residents working for non-resident producer units, included in labour force statistics, but excluded from national accounts.

Para. 17.12

Total hours worked is the aggregate number of hours actually worked during the year in employee and self-employment jobs.

Australia: First time inclusion of self-employment jobs is mentioned – needs a lot more exploration as to how hours are to be measured in these cases!

United States: Expand definition to include unpaid family workers.

Para. 17.13

The truism, for employee jobs, that hours worked equal hours paid less hours paid but not worked, plus hours worked but not paid, is a useful one, since many establishment surveys record hours paid, not hours worked, so that hours worked have to be estimated for each job group, using whatever information is available about paid leave, etc.

Australia: The only attempt to address measurement issues, and specific to establishment surveys – more general guidance covering various modes of collection might be useful – as we discussed, there are issues also for household surveys and administrative data.

4. Full-time equivalence

Para. 17.14

An inferior alternative to expressing labour input in terms of total hours worked is to measure it in terms of full-time equivalent work years. Full-time equivalent employment is the number of full-time equivalent jobs, defined as total hours worked divided by average annual hours worked in full-time jobs.

Netherlands: In actual practice, often contractual hours are used rather than hours actually worked. Contractual hours do not include paid and unpaid overtime and do not exclude sick leave and other forms of leave.

The full-time equivalent (FTE) is only useful for international comparisons if it is standardised. This means that 1.0 FTE applies to same amount of hours worked (be it contractual or actually worked) for each country and each economic activity. This could be for instance a working week of 40 hours and 50 days off a year (be it vacation or national holidays). Accepting such a standard would imply that we accept the counter intuitive notion that some jobs account for more than 1.0 fte each.

The FTE defined in such a way could still be useful for direct international comparison of labour input of for confrontation with the number of persons employed (relative labour activity per person) or the number of jobs (relative job size).

Para. 17.15

The definition does not necessarily describe how the concept is estimated. The method sometimes used, of simply counting all part-time jobs as half a full-time job, is the crudest possible way of making an estimate. Since the length of a full-time job has changed through time and differs between industries, more sophisticated methods, which establish the average proportion and average hours of less than full-week full-time jobs in each job group separately are preferable.

Australia: Touches on the issue that definitive definitions of full-time/part-time are impossible to agree upon – given this, the quality of full-time equivalence data (particularly for comparisons of level rather than change) must be very dubious. If enough data is available for the second method suggested, it would seem possible to develop a more comparable measure of hours of work, not involving varying definitions of full-time/part-time.

Para. 17.16

Even if the data are good enough to permit an estimation of total hours worked, full-time equivalent employment should nevertheless also appear in the national accounts.....

Even if the data are good enough to permit an estimation of total hours worked, full-time equivalent employment should nevertheless also appear in the national accounts. One reason is that this facilitates international comparisons with countries which can only estimate full-time equivalent employment. The other reason is that, since the full-time annual hours of a job group vary through time, the two concepts carry a partially different message. If, for example, more sickness or annual leave is taken, both shortening average annual full-time hours and, *ceteris paribus*, reducing total hours worked, full-time equivalent employment will scarcely change, while total hours worked will fall. So if the former rather than the latter is used as the denominator in calculating productivity changes, productivity will rise less or fall more. A similar point applies to international comparisons. If, however, full-time annual hours did not exclude paid sick leave, but total hours worked continued to do so, more sickness would cause full-time equivalent employment to rise more or fall less than would an equal increase in annual leave, so that productivity would rise less or fall more. This would make good sense - sickness undesirably interferes with production, while annual leave is a desirable alternative to it. But if information on absence from work through sickness is not available for estimating full-time annual hours, it will not be available either for estimating total hours worked.

Australia: Inconclusive – could be tightened – not really relevant to hours, except whether the focus should be on hours or full-time equivalents.

Switzerland: Dilemma: should full-time equivalents be calculated solely on the basis of actual hours (numerator & denominator) or should they be obtained by dividing the number of hours actually worked by the number of contractual hours in full-time jobs? First method is used in Switzerland.

Para. 17.17.

In practice, total hours worked and average annual full-time hours may have to be estimated. In many countries, especially for monthly paid employee jobs, only normal or usual hours, any paid overtime, and annual and holiday leave entitlements can be ascertained, and it may be impossible to estimate the subtraction to be made for average sickness leave from either total hours worked or annual full-time hours. This error will not affect full-time equivalent employment if sickness rates in part-time jobs are the same as in full-time jobs, so can be tolerated if it is unavoidable.

Para. 17.18

If the reference weeks used in the surveys that provide the data are not fully representative, the best available information on variations throughout the year should be used in estimating data for the year as a whole.

Australia: There are probably more issues involved in the estimation than just those mentioned here – such as getting estimates for self-employed. If it is to be a comprehensive list of issues, then it should be explored further.

3. General comments

Denmark

A too thorough harmonisation of the concept in different statistical fields (Economic, Business, Labour Market, Education, Social Statistics and Statistics of Earnings) that have differences in focus of interest should only be carried out to a certain extent.

A feasible strategy: One figure for hours worked for each statistical field and more extensive documentation of the differences between fields. We suggest to start by considering inclusions/exclusions in each field. Then consider practical problems: what are we able to measure in each country at a specific time; how to document differences for clarity of users etc.

Portugal

LFS being an important statistics input for compiling national accounts must adopt concepts that are directly linked with the needs of National Accounts or can be easily translated into National Accounts framework.

Australia

The SNA does not include many general principles - no mention of the link to the production boundary (hours contributing to production), discussed in the Paris Group. Would be far more useful if general principles were stated clearly - that would help clarify treatment of any grey areas. At the moment, a few grey areas and a few collection issues are addressed, but the lists are small and incomplete. Given that new issues will continue to arise, the aim should be to have more useful statements of principles.

Canada

Section 17.11 is a useful starting point to develop a more comprehensive definition of actual hours worked; section structure (inclusions/exclusions) is logical, clear and many main points addressed should remain. However, should refine the definition of hours worked as a measure of time spent in the productive realm, i.e. paid or unpaid time spent on activities that other parts of the SNA manual would see as "economic": define work hours of the self-employed, and people working from home.

Italy

One of the most important issues for revision is related to the definition of self-employment. The Italian national accounts suggest to modify the current approach used by SNA and to explicitly recognize special groups of self-employed in corporations that need particular statistical treatment and to facilitate both labour market analysis and international comparisons. SNA93 considers self-employment belonging to unincorporated units of production. However, census and sample enterprises surveys conducted by Istat collect self-employed even in the above units. This is one important difference between a self-employed job as defined by SNA93 and self-employed considered by surveys. The above differences are clearer when economic aggregates have to be classified by institutional sector. In Italy, there are a lot of enterprises with the legal status of 'corporation' in which the owners work in the production unit; according to SNA, they should be classified as employees. However, household surveys and enterprise surveys register them as self-employed. Consistency should be ensured between the definitions in SNA and statistical sources on enterprises and on households. Moreover, a correct definition of the volume of work done by the self-employed as well as of its "compensation" is relevant for productivity analysis.

4. Proposed text

Australia

Population and labour concepts without national boundaries 3. Total hours worked

17.11. To estimate labour productivity, ideally an estimate of labour outputs would be used. As such a measure would be at best a crude estimate and often meaningless or impossible to obtain, a measure of labour inputs is used instead. The preferred measure is total hours worked during the year.

Total hours worked are those hours of labour that have contributed to production, and are defined with reference to the production boundary (cross reference to the relevant section). The measure of hours worked is consistent with the revised ILO resolution (some appropriate reference)

Hours of work cover hours worked by both employees and self-employed and include:

- (a) Hours actually worked directly contributing to production;
- (b) time spent in training, preparation.....;
- (c) time spent (at the workplace?) waiting due to lack of work, breakdown of machinery.....;
- (d) Time corresponding to short periods of rest at the workplace, including tea and coffee breaks.

(and whatever else is going to be in the new resolution – but with a general application)

Statistics of hours actually worked should exclude:

- (a) Hours paid for but not worked, such as paid annual leave, paid public holidays, paid sick leave;
- (b) Meal breaks;
- (c) Time spent on travel from home to work and vice versa.

Netherlands: The list of time components should be made more exhaustive. To the list of items to exclude should be added:

1. Sick leave.
2. Pregnancy and parental leave.
3. Maternity leave (including alternative arrangements for care leave).
4. Short leave (paid): a variety of paid leaves granted on several occasions such as medical visits, marriages and removals.
5. Bad weather leave.
6. Short-time: a temporary agreement to work less, because of shortage of work.
7. Strikes

17.12. Total hours worked is the aggregate number of hours actually worked during the year in employee and self-employment jobs (this bit probably not needed?)

17.13. The truism, for employee jobs, that hours worked equal hours paid less hours paid

but not worked, plus hours worked but not paid, is a useful one, since many establishment surveys record hours paid, not hours worked, so that hours worked have to be estimated for each job group, using whatever information is available about paid leave, etc

Expand with more discussion about different methods of measurement and different issues – e.g. Include unpaid overtime (should be in list above, but a particular issue if using establishment surveys), include self-employed..,

Canada

Proposed new paras. Also suggestion for new ILO Resolution.

Para. 17.11

The volume of hours actually worked includes all the paid or unpaid time devoted to all human activities within the production boundary of the System of National Accounts. More specifically, statistics on hours worked should comprise:

- a) all the time devoted to work by employees for wages, salaries, in-kind payment, tips and commissions, including paid and unpaid overtime;
- b) all the time spent by individuals intending to earn an income or profits in his/her own business, a farm or professional practice alone or in partnership; the person needs not receive immediate or guaranteed compensation for this work.
- c) all the time worked by individuals directly toward the operation of a family farm or business intended to earn income or profit without formal pay arrangements;
- d) time spent working at home to earn income or profit, non-commuting travel time for work, time on training required and paid by the employer, in meetings outside of the regular place of work;
- e) 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; If the home is the place of work, time spent preparing, repairing and maintaining the workspace and tools of work should be included as time worked, while some other similar activities around the home should be excluded under point d) in the exclusions below.
- f) time spent at the place of work waiting or standing-by because of a short term interruption in the productive process. This could include 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. Also to be included is time corresponding to short periods of rest at the workplace, including tea and coffee breaks.
- g) time spent at the place of work in the provision of protective services (fire, police), ambulatory services or security services, even if the worker is not actively attending to any emergency. For example, time spent by a doctor on night duty at a hospital, even while not caring for patients, should be counted. Other “passive” time spent by workers on-call and outside of the place of work should not be counted, as mentioned in exclusion e) below.

Statistics of hours actually worked exclude:

- a) hours paid for but not actually worked, such as paid annual leave, paid public holidays, paid sick leave, paid family related leave, paid training by the employer but not related to the job.
- b) meal breaks;
- c) time spent on travel to and from home and the workplace.
- d) time spent while working at home on domestic and personal services produced for own final consumption, as listed in 6.20 of the 1993 SNA manual, even if these activities are short-term during the workday. When the domestic and personal services are conducted simultaneously

with activities within the production boundary (e.g. reviewing office paperwork while supervising children), this time should be counted among the actual hours worked, only if the activity within the production boundary is the main activity.

- e) time spent on-call, outside of the place of work. For example, doctors, fire-fighters and others who provide similar services who are at home while on-call for emergencies should not have these hours counted.

Figure 17.2 Rev ITALY - Distinguishing between employment as employee and in self-employment
 Is B's job with an enterprise an employee or a self-employment job?

