

IN-DEPTH REVIEW OF TIME-USE SURVEYS

Country comments

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PART I. SUMMARY

1. The following twenty two countries and organizations replied to the request for comments on the in-depth review paper on time-use surveys (TUS) prepared by Germany: Azerbaijan, Belarus, Bulgaria, Brazil, Canada, Czech Republic, Finland, France, Hungary, Japan, Latvia, New Zealand, Norway, Portugal, Romania, Slovenia, Spain, Sweden, Turkey, US Bureau of Labor Statistics, Eurostat, OECD.

2. The response was very active and provided a lot of constructive comments on issues raised in the paper, as well as useful information on time-use surveys carried out by countries. To make it easier to get an overview of the rich contributions provided by countries, the paper is divided into the following parts: Part I. Short summary of the replies, Part II. General comments, Part III. Comments on specific issues highlighted in the in-depth review paper, Part IV. Information on TUS carried out by countries, Part V. Other useful information, and Part VI. Corrections to the text of the report. The parts I-III may provide additional input to the in-depth review by the Bureau and a basis for a possible future work on time-use surveys. The parts IV-VI are mainly for information.

3. Below are some conclusions that can be drawn from the replies by countries and international organizations:

- Many countries are interested to exchange experience and to obtain more information on carrying out the TUS;
- The need for common guidelines (beyond the EU region) and compilations of best practices are highlighted. In some cases the lack of harmonised methodologies and guidelines is considered as an impediment to carrying out the survey;
- Support was expressed to setting up an expert group or task force, as proposed in the in-depth review paper, and several countries indicated interest to participate in its work;
- It would be useful to extend the review of the TUS to more countries in the region;
- Some issues in addition to those listed in the paper were highlighted by countries, for example:
 - The TUS carried out in countries have different objectives and the results are used for different purposes. Examples of good practices in the use of TUS data, in particular for policy making, would be useful to advocate for this complex and resource demanding survey and to ensure that the results are efficiently used.
 - Different classifications of time-use activities are used (HETUS, ICATUS, CAUTAL (Latin America), Australian classification), it would be helpful to move towards a common classification system.

PART II. GENERAL COMMENTS

4. **Azerbaijan:** We are interested in receiving the methodological materials and recommendations on carrying out the TUS. It will also be interesting to obtain documents on TUS sampling.

5. **Belarus:** We consider the recommendations of international organizations and the experience of other countries in the area of time-use surveys to be of great interest to us because the study of time-use by the country's population is a topical question. The National

Statistical Committee of the Republic of Belarus is planning to conduct the TUS in the near future.

6. **Bulgaria:** Bulgaria is interested in future work on time-use surveys, and is ready to share their experience and lessons learned in carrying out time-use surveys.

7. **Brazil:** The decision of the CES Bureau to make this in-depth review of time-use surveys comes at a very opportune moment for Brazil. The Brazilian Institute of Geography and Statistics (IBGE) is working on the results of its first pilot time-use survey, which was conducted in the last quarter of 2009. The paper presented for evaluation is therefore very useful for us, and the recommendations that will arise from the discussions at the CES Bureau November meeting will certainly bring new insight on the best methodology for the country to adopt.

8. **Canada:** Statistics Canada recognizes the importance and ongoing benefits of sharing expertise on time-use surveys through conferences, international meetings and information exchange. Statistics Canada has participated as a member of various international Expert Groups in the past and would support the creation of an Expert Group on time-use surveys.

9. Canada regularly looks to the approaches and best practices of time-use surveys in other countries in order to implement survey improvements and enhance comparability.

10. **Czech Republic:** The paper “In-depth review of time-use surveys in different countries” is quite interesting for the Czech Republic, because of our non-participation in TUS conducted to date. We are therefore not competent to answer the questions in paragraphs 62-64.

11. We would be able to carry out TUS only if there were a legal TUS framework with clear and harmonized methodology and sample design, variables and guidelines, coding, etc. In the current situation, it does not seem necessary for the Czech Republic to conduct a survey that is not yet comparable between countries because it is not sufficiently harmonized.

12. **Finland:** Supranational and international recommendations for the implementation would be needed. In compiling these recommendations, the experiences from processing the HETUS guidelines in two rounds should be exploited. An international Expert Group would be needed for this work.

13. **Latvia:** Latvia made a positive assessment of the document prepared by the German Federal Statistical Office and regards it as timely and topical. Our opinion is that when preparing for the next Time-Use Survey (TUS), it is important not only to solve methodological and development issues but also to assess the use of the previous TUS results for setting different policies. We think that opportunities provided by the 2003 TUS data in our country were not exploited to their full extent (they were used only in academic circles of scientists) because policy-makers lacked positive experience in the use of these survey data for setting different policies. We believe that, before planning the organization of the next survey, it would be necessary to summarise and post on Internet examples of good practices in the use of TUS data for setting different policies. This would enable data users to ask questions and receive feedback on line. One possibility would be to organize an international conference to discuss, together with data users, positive experiences in the use of TUS data in achieving aims unrelated to statistics.

14. **Romania:** We agree with the need for a Resolution for the TUS implementation, similar to the one on World Population and Housing Census Programme, as well as the establishment of a group of experts under the aegis of the UN to improve data collection methods and tools through this type of survey.
15. **Slovenia:** We agree that an international expert group is needed to coordinate the work in this field.
16. **Sweden:** Statistics Sweden faces the same problems as most other countries and, in order to have comparable data, discussions should be held internationally.
17. **Turkey:** TurkStat places great importance on improving the survey methodology, including questionnaire design and field application techniques, definitions of concepts and coverage, and on following up on these changes and/or improvements to increase the quality of the data.
18. **OECD:** On the background of the issues mentioned above, we would suggest two activities that could be included in the Review's recommendations for further work in this field.
19. Extending the review of Time-use Surveys to more countries in the region. The current Review highlights a number of important issues around time-use surveys for three countries (Germany, Finland and the United States). There would be value in extending the study to all major countries in the CES region. Such a study would have three objectives:
 - (a) Outline the rationale and uses for time-use surveys, and connect these with the content and frequency of time-use surveys conducted around the world;
 - (b) By providing a comprehensive overview of current practices, lay the groundwork for any subsequent attempt at further harmonisation of time-use studies;
 - (c) A study of time-use surveys across the region would be valuable in bringing together information on the various initiatives to produce a "light" time-use surveys, such as those underway in Finland and Korea, and to collect information on the use of time (e.g. experiences of time crunches, control by individuals on the use of their time, absence of holidays away from home) through other general surveys.
20. Taking steps towards greater harmonisation of Time-use Data. Time-use surveys are currently not harmonised in terms of mode of collection, frequency of surveys, distribution of the sample throughout the year, recording of secondary activities, classification system used. This limits the degree to which cross-country analysis is possible, and reduces the 'value for money' of these surveys. International guidelines in this field could allow greater ex ante harmonisation.

PART III. COMMENTS ON SPECIFIC ISSUES HIGHLIGHTED IN THE IN-DEPTH REVIEW PAPER ON TIME-USE SURVEYS

I. COMMENTS ON ISSUES AND CHALLENGES

A. Coding

21. **Hungary:** The development of coding is determined by the aim of the questions, thus the modalities of answers determine the coding. So the currently used three-level coding system should be kept for the analysis although within this system the coding can be reformed. It is important to have a code for every new activity in the system.

22. **Latvia:** The initiative of Finland (Paragraph 49) to code parallel activities related to the use of computers and internet and their classification by type and purpose of use should also be positively evaluated.

23. **Norway:** Our experience is that the coding functions reasonably well. Most activities are quite easy to code, only a small part needs evaluation;

24. **Slovenia:** The coding system is, to the best of our knowledge, satisfactory. It is necessary to leave a certain freedom for each country to introduce special codes for its own needs, but it is also necessary that such a code be easily incorporated into the coding system on an EU level. Different culture is not so problematic, because the majority of activities in which people participate are similar in all cultures.

25. **Sweden:** Technological tools have caused some problems with coding certain activities. Using an Iphone, for example, communication is possible with friends in numerous ways, by telephone, by skype (use of Internet), SMS, chatting (Internet) and so on. When coding calls over the phone, how should a skype-call, which should be coded as computer use, be treated? Another issue which should be discussed is whether interest is in the social communication or in which tool is used for communication.

26. Statistics Sweden has modified the diary for this survey to include columns for the respondents to fill in when they are using Internet/computer. This will help Statistics Sweden to differentiate between different activities like reading a newspaper or reading news on the computer/Internet.

27. Regarding coding of travel, Statistics Sweden has not adopted the new recommendation of coding travels. This is mainly to do with comparability with the previous survey. This issue should be easily corrected, however.

B. Sample design

28. **Sweden:** The issue the U.S. Bureau of labour Statistics (BLS) has been confronted with (parents who would not let their children participate in the TUS) has not been discussed at Statistics Sweden, but surely this might be an issue in the future. Statistics Sweden has changed the lower age limit to 15 years of age. The interview unit has not confronted the same problem yet (again, not to the author's knowledge).

29. The ideas of handling respondents with unknown telephone numbers are interesting and Statistics Sweden might try to use this approach because they do have a problem with this in general.

C. Underreporting

30. **Sweden:** Statistics Sweden faces the same problems as all other countries in trying to cope with these issues. If the survey objective were to look at sensitive activities or socially unaccepted time-use, then the survey needs to be designed in another way. So far, this is not a big issue in Sweden due to user demands.

D. Response rate

31. **Canada:** Statistics Canada has seen declining response rates in many of its telephone household social surveys. Collection costs are becoming more difficult to contain as the efforts to reach respondents are growing, especially due to the reliance on a diminishing quality telephone frame for Random Digit Dialing (RDD) surveys. The growing use of new communication technologies (cellular phones, call display, call screening) require new approaches to collection.

32. Response rate declines have been a particular concern for time-use surveys (1998 – 77.6%, 2005 – 58.6%). This is in part due to the fact that respondents are assigned to a specific reference day without being offered an alternative. In addition, time-use is particularly burdensome for respondents who have to recall specific activities on a retrospective 24-hour Diary. It is recognized however, that in order to obtain good quality data on time-use patterns and to account for variations in activities throughout the day, on various days of the week and throughout the year, these methods are necessary.

33. In order to address declining response rates in its time-use surveys, Statistics Canada makes use of introductory and follow-up letters that are mailed to respondents, explaining the purpose of the survey and how the results will be used. Because of the use of Random Digit Dialing methodology, however, address information is not available for all survey respondents.

34. **Finland:** Low response rates are a big problem in time-use surveys. In countries like Finland, individual samples give better response rates than household samples. Using telephone interviews is also easier for individuals than for whole households. Household information could be gathered for a subsample, for example.

35. A challenge to the interviewers is how to motivate the respondents to fill in the diaries. How to remind the respondents to fill in the diaries and send them back? Using telephone calls and text messages would be useful. Utilising new technologies could also be considered.

36. **Hungary:** The low response rate is typical of every social survey and of TUS as well. The characteristics of the non-respondent can be analyzed when the TUS is connected to an obligatory survey. On the other hand, using the system of core variables in obligatory surveys allows data to be matched. The response rate promotion should be based on national characteristics and it should not be treated in the same way for every EU member state.

37. **New Zealand:** Statistics New Zealand's better-than-expected response to its current TUS is being attributed to improved interviewer training (i.e. through training material, training courses and having subject matter experts participate in all interviewer training). The TUS interview process is complex and with subject matter experts present at training, all questions could be answered on-the-spot. Interviewers reported that the enthusiasm of the subject matter experts helped create their own enthusiasm and understanding of the importance of the survey.

38. There was an issue in the current NZ TUS with loss of some diary data, due to respondents completing the diaries on the wrong day (although this was not a large number of diaries) these diaries were excluded from the final file. This is something Statistics New Zealand would seek to address for the next TUS.

39. **Norway:** It is more difficult to encourage people to participate in the survey than before. It is harder to find the correct addresses and telephone numbers. In addition, it is not so easy to obtain answers, because people are not at home. When we reach them, people are less willing to participate than before.

40. We clearly see that the response rate is going down over time. One solution we have chosen is to cut down on the length of the interview, so that the respondents are not exhausted before they begin to fill in the diary. We also follow up our interviewers closely, for instance using telephone conferences to increase their activity and interest for the survey;

41. **Slovenia:** Low response rates are a problem in all surveys, although in Household Budget Survey and TUS the problem is even bigger because of the diaries. Sometimes incentives in the form of a gift help to raise the response rate. The statistical office should do everything possible and build the strategy to raise the response rate.

42. **Sweden:** Statistics Sweden does offer the respondents another diary day if necessary but still the response rate is very low so far. One important reason for low response rate is the fact that no interviewers have conducted this survey before. They might find it difficult to explain to the respondents what it is all about. If the interviewer does not have a good knowledge of the survey, it might also be difficult to persuade the respondent to take part in it.

43. Like other surveys using telephone interviews, the proportion of unreachable respondents due to unknown telephone numbers increases over time. How to handle this situation? Perhaps the whole collecting process might need to be reformed in some way.

44. Do people answer calls from a number they do not recognize? There are a number of web pages on the Internet where people discuss unknown numbers and if you should answer it or not. Probably this is a question of a generational character. Do younger people not answer unknown numbers? If this is true, it will be even more difficult to collect statistical data in the future by using the telephone. How to solve this?

45. Incentives might also affect the response rate but this is connected to biased-related issues.

46. Statistics Sweden offers the respondents lottery tickets worth 10 Euros which are sent out when one diary is returned.

47. An alarming issue is the fact that response rates are decreasing over time. How to deal with this in the future?

E. Request form researchers

48. **Sweden:** More questions might affect the response rate negatively! The use of modules might be a good idea.

F. Periodicity of TUS

49. See Part III. Conclusions and recommendations. B

G. Sampling technology

50. **Sweden:** If the sampling technology affects the response rate, Statistics Sweden will have to look at these possibilities as well.

H. Background information

51. **France**, like Finland, took the use of computer or the Internet into account in its last Time- Use Survey. Respondents must specify when they are doing an activity on a computer or on the Internet, except during work at workplace. There is no distinction between computer and the Internet (a lot of people do not know whether they are online, on a local network, on the computer only, etc.). Then, the interviewer must tick a box when entering the data - this means that we have a binary code for each 10-minute interval. Thus, like in the example, if someone was using the Internet to read a newspaper, the activity is coded as reading and the box is ticked. As a result, we can know how much time is spent on the computer or Internet.

52. **Norway:** To gather information about the use of new technology has been a problem in these surveys. The design that is used now may solve this problem to a certain degree. When the data are gathered, this can be evaluated.

53. Trying to obtain information on expenditure incurred during the activities could certainly be interesting, but with the response rate problems we already have, it is probably not very reasonable to place even more burden on the respondents.

54. **Slovenia:** How to include the use of new technologies? Hard to say, because a lot depends on the general knowledge of the use of new technologies in the country.

55. **Sweden:** The kind of background data required has to do with survey objectives. If the data should be used for satellite accounts, a certain kind of information is needed, for gender issues some other information is needed. The discussions in the document presuppose that all countries have the same survey objective, which is not totally true.

I. Other issues

i) Time intervals

56. **France:** The change in the time intervals had some effects on the French survey. Alain Chenu and Laurent Lesnard explained in "Time-Use Surveys : a Review of their Aims,

Methods and Results” that the change in time intervals between the survey conducted in France in 1986 with a line corresponding to 5 minutes and the survey conducted in France in 1998 with a line corresponding to 10 minutes created a discontinuity in the French survey series. It led to the deletion of quick domestic tasks. Thus the average number of episodes per 24 hours fell from 27 to 20 episodes.

ii) International harmonisation and comparability of results

57. **Brazil:** Since it is in all countries’ interest that time-use data produced be internationally comparable, and since paragraph 64 of the paper points to the recommendation of the creation of an international Expert Group to discuss improvement of time-use surveys, it would be interesting if both the proposals of the ICATUS and the CAUTAL were to be taken into consideration when this group analyzes the possibilities of international harmonization of TUS. During the seminar in Brazil, Erlinda Go also announced that a review of the ICATUS is to be undertaken in the next few months, with the participation of members of different countries that had experiences adopting the classification in their TUS. Both CAUTAL and ICATUS are still in their trial versions, so this can be a good moment for an international review of the existing coding methodologies.

58. **Canada:** The comparability of results of time-use surveys in Canada has been a priority. While the coding system has been expanded to include new and emerging activities, national comparability has been maintained over time.

59. The use of the Eurostat classification system allows for comparisons with other countries who use the same coding system and there is a correspondence between the European and the International Classification for Time-Use Statistics (ICATUS). However, whether or not classification systems can be aligned, other factors, including such things as cultural differences, survey design, methodology, collection mode, question and survey structure can affect the ability to make international comparisons. The Guidelines on harmonized European Time-Use surveys provides a useful reference for improving international comparability.

60. **Finland:** The harmonised methods and guidelines developed in the two rounds of HETUS provide a good basis for international comparisons. In addition, the second round of HETUS offers a unique opportunity for longitudinal multi-national comparisons. An extension of the HETUS database is necessary to make this possible.

61. **Hungary:** International comparison should be based on output harmonisation as it gives a larger scope for the national approaches and characteristics instead of input harmonisation.

62. **New Zealand:** International best practice guidelines for Time-use Surveys are essential.

63. **Norway:** The comparability of data between countries and within the country can not be regarded as a big problem. The data from the 2000 survey wave give reasonable comparability concerning activities on a certain level and particularly when we look at time-use in different groups in the population, like age, gender etc.;

64. **Romania:** We consider that using these common guidelines for HETUS truly represents a cornerstone for harmonization of the Time-Use Surveys in order to obtain data comparable across countries.

65. In order to ensure comparability of the results across countries, the survey should be carried out in the same period on the basis of harmonized classifications and methodologies.

66. **Slovenia:** We think that comparability is assured with the project HETUS. Some differences still exist, but countries have exceptions which can not be covered on an EU (or even world) level.

67. **Sweden:** The work with the HETUS guidelines has been going on since the mid-nineties and Statistics Sweden has taken an active part in that Working Group. Despite the guidelines, the surveys are still not fully comparable because of national deviations. Possible reasons for this are:

- (a) It is important to have comparability with previous national surveys which were conducted before the guidelines;
- (b) The users' needs affect the survey design. In Sweden, the main survey objective is gender issues. Other countries might have other objectives connected to organizations and/or other users who might also be financing the survey. The Finnish survey, for example, relies on external funding from many different users, which affected their survey design;
- (c) It depends on who is the producer. It is not only national statistical offices who produce the statistics which probably affects the survey objectives and how they are designed;
- (d) Technical and methodological issues. Statistics Sweden has chosen to sample individuals instead of households (we do sample households as well, but only a few). The main reason is to avoid lower response rates as households most probably affect the response rate negatively.

68. In Sweden, we use the Total population register which makes it easier for us to sample individuals. Other countries might have difficulties sampling individuals and therefore have to sample households instead. Another issue concerns the use of telephone or face-to-face interviews. The guideline recommends the face-to-face procedure but in some cases (at least in Sweden) the respondents are reluctant to have the interview face-to-face;

- (e) Budget restraints. The recommended method of collecting time-use data is by using an open diary, which means the respondent has to describe the activity in his own words. A survey using this type of diary is much more expensive than, for example, using a closed diary with pre-coded activities (Light-TUS).
- (f) Collecting information using telephone interviews is also a lot cheaper (at least in Sweden).

69. Some claim that the classification system (ICATUS) is difficult to implement because it demands a lot from the survey tools. This means that to be able to use the ICATUS code system, very detailed information must be collected from the respondents, which might be difficult for many reasons.

70. The HETUS classification system and ICATUS are not totally compatible. This is another issue that should be discussed in the future.

71. **OECD:** The report notes that three distinct systems for classifying activities are in common use (Eurostat, the Australian system, and the United Nations international trial system). While there is a clear rationale for the differing structure of the UN classification system (meeting the needs of developing countries), it is less obvious why two distinct systems are used by developed countries. Although the Eurostat and the Australian systems can be reconciled ex post to a common classification, this requires access to detailed micro-records that is not always available. The importance of moving towards a common classification system could be stressed more strongly in the paper.

iii) Training of interviewers

72. **Canada:** Providing appropriate training to interviewers to maximize respondent participation is an important priority, given that the topic of time-use is a particularly challenging one. As part of their training, interviewers are provided with solid arguments to encourage participation and very clear messages to understand and relay to respondents regarding the direct benefits of the time-use survey results in the lives of all Canadians. In 2010, a conversational style of interviewing was incorporated into the interviewer training in order to ease the respondent burden associated with the collection of data for the time diary component of the survey.

73. It is vital to allot the appropriate amount of training time to allow interviewers to fully comprehend the time-use diary, its episode components and the coding of activities. Interviewers are provided with extensive training on how to negotiate the classification table in order to categorize a response, and assign it to an activity code.

74. The training approach for the time-use survey consists of in-class instruction, mock interviews and interviewer manuals including a manual on activity coding. Periodic reviews of coding techniques and practices by senior interviewers are also undertaken.

75. **Hungary:** The training of interviewers' depends on national characteristics. If this is included in a work flow of data collection and control, it will improve data quality.

76. **New Zealand:** See above comments on response rates. In addition, interviewers said during their training that the easy-to-understand information given to them on the purpose of the survey and its usefulness for policy making enabled them to be more effective. It was also helpful to give examples of how time-use statistics have been used. Furthermore, because TUS interviewers needed to absorb a lot of learning, in order to achieve good results during the data collection, they were sent regular short email newsletters covering both aspects they were handling well and areas for improvements.

77. **Norway:** We have courses for the interviewers on how to conduct the survey ahead of the field work. We also hold telephone conferences during the field work period. In addition, we give help and information continually during the data gathering phase. Problems with recruiting new interviewers is also an important point here;

78. **Romania:** At least two days should be allocated for training the interviewers and other persons participating in the survey (for coding, checking, validation activities). Training should cover practical examples and exercises for testing the interviewers.

79. **Slovenia:** Following the example of other statistical surveys, a good practice is for interviewers to fill in the diary for one or two days themselves so that they can acquire experience of what the statistical office expects.

iv) Multiculturalism, no knowledge of language, low literacy

80. **Canada:** Since the Canadian time-use survey is conducted using telephone interviewing, low literacy rates is not currently a concern. However, when future efforts involve the development of an internet survey, this will become an important issue. Data from Statistics Canada literacy survey will provide information on the extent of the problem.

81. Statistics Canada surveys are currently conducted in both of Canada's official languages which are English and French. This means that the population that cannot speak either language is excluded from the survey. According to the 2005 Time-use survey, 2.5% of the sample was a non-response due to language.

82. It will be important in an ongoing way to review the classification of activities and survey documentation in order to ensure that the activities and examples provided reflect the growing cultural diversity of the Canadian population with future time-use surveys.

83. **Hungary:** In the case of certain social groups, the direct connection by interviewers has to be kept due to different reasons such as undereducated respondents or lack of Internet connections.

84. **New Zealand:** Statistics New Zealand now has a significant number of multi-lingual interviewers working in those sampling regions that are the most multicultural, and for TUS this has resulted in significantly less non response due to language difficulties than for the previous TUS. We have also ensured that during data collection, the Statistics New Zealand client liaison officers used all possible opportunities to promote the benefits of the TUS to the various community groups they were visiting.

85. Also, Statistics New Zealand TUS allowed the use of proxies for respondents who unable to complete a diary. Statistics New Zealand has yet to analyse the quality of proxy diaries, however there is no way to identify diaries that were proxies on account of low literacy or language. Field supervisors did have discretion to allow an interviewer to code a case as non response on account of language difficulties. There were just a small number of non response cases for this reason.

86. **Norway:** An increasing group of immigrants in the population is a challenge, first of all considering the response rate. The language barrier makes the response rate low among people who have come to the country during recent years. A greater effort would change this but it is a question of money, since a good time-use survey among immigrants demands a survey specially designed for these groups;

87. **Slovenia:** How to include people with low literacy or people who do not know the survey language? In such cases, the interviewer him/herself should fill the diary for the interviewee.

v) Ensuring the required resources for TUS

88. **Hungary:** The increase of financial resources is not supposed to be the task of the statistical professionals; they can only improve methodology, data collection methods and statistical matching methods to supply data of better quality.

89. **New Zealand:** Funds for any new Statistics New Zealand TUS will be more likely in the future if the NSO ensures that data from the current TUS is both easy to use and well used by stakeholders.

90. **Romania:** Financial resources play an important role in the achievement of this survey. Providing sufficient financial resources will allow the use of advanced technologies for data collection (CAWI, CATI, etc.).

91. **Slovenia:** How to raise the funds required for implementing new TUS? If there is a need for the data, more importance should be placed on this survey and interest stimulated not only within statistical offices but also elsewhere among users, the research community and political decision makers.

vi) Survey objectives

92. **Sweden:** It would be a good idea to discuss mutual survey objectives (at least in the European community). Today, most countries have different survey objectives which affect the survey design. The Stiglitz-Sen-Commission might be a good start.

93. The demand for time-use data is increasing year after year as more researchers and policy makers realize the TUS data potential to observe economic performance and social progress. TUS data is one (the only?) key to visualize unpaid work and unpaid activities - the most important activities in all societies.

94. **OECD:** Pages 2 to 4 of the report provide a high-level overview of the purpose of time-use surveys. Given the relatively large costs imposed by time-use surveys in terms of both respondent burden and NSOs resources, we believe that it is not sufficient to demonstrate that time-use surveys produce data that describes some hitherto un-described aspect of human activity. Rather, it is critical that the reasons for undertaking such surveys are clearly identified, and the ways in which the data could be used are well spelled-out. In this respect, the importance of time-use data for the construction of non-market accounts and for the assessment of people's well-being should be underscored. Providing such motivation would help NSOs to articulate to sceptical financial authorities why such surveys are worth the investment.

95. In this respect, the Commission on the Measurement of Economic Performance and Social Progress established by the French Presidency in 2008 made a number of recommendations that have implications for time-use surveys. These recommendations pertain to:

- (a) The production of satellite accounts on non-market household activities;
- (b) The importance of measuring various aspects of people's activities (e.g. leisure, commuting, social connections, civic engagement);

(c) The measurement of subjective well-being.

vii) Dissemination of TUS data

96. **Sweden:** The discussion on dissemination of the data is important. The TUS data are extremely informative but also very complex. How to make it easier to use for the users? This is one example of why the HETUS web tool is so important.

II. COMMENTS ON CONCLUSIONS AND RECOMMENDATIONS

A. Sufficiency of guidelines and classifications to meet the new challenges: Stiglitz report, measuring unpaid work

Para 63a: Whether the existing guidelines and harmonized classifications are sufficient to meet the new challenges like the recommendation of the Stiglitz-Sen-Commission or the calculation of unpaid work for Household Satellite Accounts.

97. **Canada:** Based on recommendations from the Stiglitz-Sen Commission, each aspect of subjective well-being should be measured separately (cognitive evaluations of one's life, happiness, satisfaction, positive emotions such as joy and pride, and negative emotions such as pain and worry). Among other recommended measures, the Commission suggests measures of the proportion of one's time in which the strongest reported feeling is a negative one. Current classifications do not allow for the ability to produce these comprehensive indicators of well-being and statistical offices would require the resources to implement each of these recommendations.

98. Statistics Canada has measured subjective well-being in its time-use surveys through a general life satisfaction question and some more specific questions on satisfaction with health, job or main activity, how other time is spent and finances.

99. During the development of its next time-use survey, Statistics Canada will consider the approaches of other countries in measuring the various aspects of well-being as outlined by the Stiglitz-Sen Commission. Specifically, it will be useful to look to the experience of the 2010 time-use survey in France, which currently includes measures of enjoyment of time in its time-use diary for a sub-sample of respondents. The recommendations of this Commission will be balanced with the information needs of key survey stakeholders.

100. The Canadian time-use survey will provide the national source of information on unpaid work. Collecting information on simultaneous activities in addition to primary activities allows for a more comprehensive measure of unpaid work, especially with regard to activities such as the care of children. The Canadian survey does not currently use a formal definition of child care. As there are varying definitions of what constitutes child care, development in this area could lead to further improvements in the measure of unpaid work. Pending the availability of resources, it would be possible to update Statistics Canada's satellite accounts in order to provide the most recent unpaid work estimates.

101. **France:** The last French Time-Use Survey tried to take the Stiglitz-Sen Commission report into account by adding a subsample. This sample had a new diary, with a supplementary column asking "Was that moment pleasant or unpleasant?" Respondents had to give a mark to

a moment, not only to the main activity. We hesitated between two scales: 1 to 5 or minus 3 to plus 3. French tests showed that:

- (a) Plus vs. minus was better to convey the idea of positive vs. negative feelings;
- (b) 1 to 5 gave a slightly more balanced distribution of answers.

102. Finally, we chose minus 3 to plus 3, even if negative values are far less used than the positive ones, and even less than the small values on an entirely positive scale.

103. We chose a visual scale rather than letting the individuals write down an appreciation score by themselves. It is intellectually less complicated because the scale is actually present before the eyes of the respondent, and it avoids errors, illegible answers or difficulties in reading the answer.

104. **Hungary:** We think the current guidelines are suited to the challenges formulated by the Stiglitz Report. Reactions to the challenge should be based on data from other social surveys (e.g. EU-SILC) as well.

105. **New Zealand:** The Stiglitz-Sen report recommends the measurement of quality of life, and notes the importance of data on how people spend their time (and their enjoyment in performing these activities) in this context. The existing time-use guidelines and harmonised activity classifications cover well the measurement and production of outputs on time spent on different activities and the context in which the activities were undertaken. They do not cover the measurement of the enjoyment of the people performing different activities and feelings of time crunch. To meet the Stiglitz-Sen recommendations, the guidelines would need to incorporate various measures of subjective wellbeing and standardised questions on feelings of time crunch in time-use surveys.

106. The calculation of unpaid work and compilation of a Household Satellite Account (HSA) is on the workplan of Statistics New Zealand over the next 1-3 years. Data on hours of informal unpaid work will be sourced from the 2009/10 Time-Use Survey. The unpaid activity classification is based on the Australian classification system. At level 1 of the classification there are 4 main activities - necessary time; contracted time; committed time; free time. All informal (and formal) unpaid work is categorised to committed time and below this, the classification extends down to 4-digit level. While this classification system differs slightly from the European system, Statistics New Zealand believes it will allow for the calculation of unpaid work for a HSA. A key difficulty will be distinguishing the blurred line between informal unpaid work, and free time. Furthermore, in some parts of New Zealand society, family members are obliged to do work around the household or within their group of households or community, casting doubt on whether this is truly voluntary work. Statistics New Zealand is aware of work being carried out by Johns-Hopkins University on a manual on the measurement of volunteer work, and awaits those results with interest, as a further clarifying step for the guidelines of measuring unpaid work.

107. **Norway:** It is not clear if the data we now gather will provide a complete basis to meet the challenges that may come in connection with the Stiglitz-Sen-Commission or calculations of unpaid work for Household Satellite Accounts. This must be evaluated and eventually be included in future surveys;

108. **Romania:** We consider that the existing harmonized methodologies and classifications for carrying out the Time-Use Survey meet the Stiglitz-Sen Commission recommendations on how to measure economic performances and social progress, and also for computing the unpaid labor for Household Satellite Accounts.

109. **Slovenia:** The existing documents are a good basis and starting point to further prepare and continue the activities to meet new challenges. However, a quick and rational review of the methodology and classification might be needed beforehand; therefore, we support the discussion on this topic.

110. **Spain:** a harmonized methodology for the calculation of unpaid work for Household Satellite Accounts is needed, rather than harmonized guidelines to conduct TUS at more frequent intervals, in order to meet the recommendation of the Stiglitz-Sen-Commission.

111. **Sweden:** No, the guidelines are not sufficient to meet new challenges like the recommendations of the Stiglitz-Sen-Commission. What kind of information is needed to be able to calculate satellite accounts and how to ask for it?

112. **OECD:** The Review contains no explicit discussion of the Stiglitz Commission's proposals: adding such references could strengthen the case for further investment in this field. In this respect, we also draw attention to our own work to develop a set of guidelines for the measurement of subjective well-being. The Stiglitz Commission refers to measures of positive and negative feelings collected via the Day Reconstruction Method (DRM), arguing that these techniques produce measures that perform well relative to quasi-experimental measures. Such measures require a time-use diary in order to be implemented, and could be collected through official time-use surveys. Some NSOs are considering the possibility of collecting the information required to implementing the DRM in their time-use surveys, and our project will make recommendations in this area.

B. Periodicity

Para 63b: In Europe and in the international area, TUS should be conducted at least **every ten years**. The next round of TUS should be on the agenda of the National Statistical Institutes in 2011/2012. This HETUS could be a cornerstone not only at the national level but also for the European development as a whole.

113. **Canada:** Canada has been conducting time-use surveys on a regular schedule of 5 to 7 years and incorporating time-use into an ongoing repeated cross-sectional social survey. This has allowed for an analysis of trends and a monitoring of change over time that would have been more difficult with a longer gap between surveys. The shorter time gap may enable the detection of fast-moving change that might alter time-use and have broader applicability within society. This aspect seems particularly important when one considers the rapid integration of emerging technologies into daily life. Because of its more frequent time-use surveys (5-7 years), a light diary proposed for countries with 10-year survey intervals is not foreseen for Canada.

114. The more time points one has, the richer the conclusions that can be drawn. Furthermore, more frequent cross-sectional cycles allow for a system of comparability that is better able to take into account and correct for changes in survey design and execution.

115. **Czech Republic:** We agree on the ten years periodicity of TUS with a “light version” of TUS in the middle of this interval (after five years for a complete TUS). The Czech Republic is impressed by the way the TUS is conducted in Finland and Germany, but we are not currently in a position to implement this survey. TUS is not a priority of the Czech Statistical Office in the area of social statistics. There is a lack of finances and a labour shortage and, furthermore, the state administration plans to economise on finances in 2011.

116. **Hungary:** Time-use survey (TUS) is carried out once in ten years according to the current right practice. We think it is too early to carry out the next survey in 2011/2012, particularly because the demand was only made in July 2010, and a considerable number of countries conducted a TUS in the recent past or have planned one for 2012. A data collection connected to the micro census in the middle of the decade would be accepted by us as a cornerstone of harmonization. Such a collection should be prepared well in advance with the possibility of obtaining detailed background information about the respondents and non-respondents. It could be a simplified data collection and it should be repeated between two sole data collections. The Hungarian Central Statistics Office considers a sole TUS around 2020 to be appropriate.

117. **New Zealand:** Statistics New Zealand conducted the nation's first national time-use survey in 1998/99 and the next time-use survey commenced data collection in 2009, giving a gap of just over 10 years between surveys.

118. **Norway:** We follow the plan with a survey every 10 years;

119. **Slovenia:** Probably yes, but considering the high cost of conducting the TUS and the recession we think now is not the best time for such a demanding survey. On the other hand, the data which would be obtained in recession would have a high value, so it is the trade-off between cost and the need for data.

120. We should really consider if we need the data more often and what the results will be used for, especially because of the high costs of carrying out the survey. If the survey is conducted at more frequent intervals, it should be simplified.

121. **Sweden:** The Swedish TUS has been conducted every tenth year since 1990. As has been mentioned earlier, society tends to change more rapidly due to technological and social progress. We do not live our lives today as we did ten years ago. The periodicity has to do with survey objectives.

122. The recommendation in the guidelines is a periodicity of every tenth year. 1990, 2000 and perhaps even 2010 have been close to times of recession. How has that affected the results?

123. In the conclusion, the Stiglitz-Sen-Commission is mentioned, which discusses how to measure economic performance and social progress. It stresses that the GDP-measure might need complementary indicators where TUS data is very important, especially when producing satellite accounts (calculating the value of unpaid work). If so, TUS needs to be conducted more frequently in the future.

124. In order to meet users' demands, Statistics Sweden is planning to conduct a so-called Light-TUS later this year. The main purpose is to look at how the population time-use changes over time, i.e. what happens between the full scale surveys? This survey will not be as detailed

as the full scale survey but it will be much cheaper to conduct. The plan is to conduct a light version every 2 or 3 years.

125. **OECD:** The report recommends that time-use surveys are undertaken at least every 10 years. This is already the current practice in many countries, and contrasts with the annual collection of such data in the United States. In view of the increasing demand for ‘more timely social indicators’ (e.g. EU Communication on ‘GDP and beyond’), we would believe more frequent collection of TUS data (e.g. every 5-years) would be warranted.

C. Use of a “light version” of a diary

Para 63c: With regard to the fact that TUS are usually conducted every ten years, the Finnish pilot project of using a “light version” of a diary to conduct TUS at more frequent intervals should be considered as an appropriate instrument to collect data on time use between the full scale surveys every ten years.

126. **Canada:** Given the frequency of conducting time-use surveys in Canada, the development of a light version of a diary may not be required in the Canadian context but could be considered a feasible alternative for those countries who conduct their time-use surveys on a more infrequent basis.

127. **Finland :** Statistics Finland has carried out TUS every ten years. Between the full scale surveys, a “light version” of a diary could be used. Statistics Finland has developed a light diary using a focus group interview procedure. Experiences gained by testing this diary through a postal inquiry indicate that assistance from interviewers would be needed to reach a satisfactory response rate and to guarantee the quality of the completed diaries. Using a web questionnaire could also be tested as an alternative to a light paper diary. This could also increase the quality of the diaries.

128. **New Zealand:** Statistics New Zealand is undertaking work on its social statistics architecture, and is planning to move to an integrated household survey model. Under the new model, we are proposing to conduct the Time-use Survey as a supplement to the General Social Survey. We are also investigating the option of conducting a Time-use Lite version of the diary as part of this new approach.

129. **Norway:** 62c. The idea of a light version of a diary at more frequent intervals is interesting. We await conclusions from Finland and Sweden, where tests are underway at the moment;

130. **Romania:** Because the achieving of the Time-Use Survey requires large financial and human resources, we agree to do it once every 10 years and we support the Finnish pilot proposal for using the “light version” of a diary to carry out TUS at more frequent intervals between the recommended 10 years.

131. **Spain:** to reduce the cost of the surveys and to conduct TUS at more frequent intervals, we prefer to reduce, in light of our experience, the fieldwork of the survey to three or four months (instead of twelve consecutive months) rather than to use a ‘light’ diary with 35 or 100 pre-coded activities. The sample can be divided into two sub-samples: one to be collected in the autumn-winter and the other in the spring-summer.

132. **Sweden:** I agree, but these light versions are not at all as informative as the full scale surveys. They should be treated as complements, not as an alternative.

133. **Turkey:** Although TurkStat has no experience in using light diaries, we think that they can be used for any intermediate period other than determined reference years. Light diaries may be more useful for low-educated or illiterate individuals.

134. **US Bureau of Labor Statistics:** BLS is not exactly sure what is meant by a “lighter version” of the time-use diary, though the paper does present one example. Based on the Finnish explanation of their traditional- and light-versions of the diary, it sounds like the ATUS diary would be classified as a “light” version because ATUS respondents are interviewed about their time-use on only one day. Further, the ATUS survey design is “light” in that only one person in the household is interviewed about her time-use. This information has proven useful to a wide variety of researchers, as evidenced by the long list of publications on our Web site: <http://www.bls.gov/tus/papersandpubs.htm> and <http://www.bls.gov/tus/research.htm>.

135. **OECD:** The paper notes that a number of national statistical agencies are experimenting with various forms of ‘reduced’ or ‘light’ time-use surveys. Approaches of this sort are less costly to run, impose a lower level of burden on respondents, and can potentially be implemented on a more frequent basis, allowing to monitor changes over the business cycle. Specific questions on people’s use of time could also be inserted in general household surveys. Having a clearer view of the rationale and purpose for time-use surveys would help focus work on developing a ‘light’ time-use surveys that collect the ‘right’ information. A more comprehensive review of these experiences is important.

D. Time use survey Panel

Para 63d: Furthermore, a ‘Time use survey Panel’ should be taken into consideration. Through an annual time use panel of repeatedly asked individuals or households, it would be possible to gain important longitudinal information.

136. **Canada:** The choice of longitudinal versus repeated cross-sectional data is a complicated one especially in the case of time-use data. One must carefully weigh whether the benefits from longitudinal data will outweigh the costs, and whether cross-sectional can meet most data needs at a reasonable cost and level of respondent burden.

137. A longitudinal survey, unless it is accompanied by cross-sectional sample top-ups, cannot provide a picture of the population as a whole at a specific point in time except in the first cycle. Unless new panels are later introduced, subsequent cycles in a longitudinal survey reflect the population as selected in the base year of the survey. This limitation suggests that it is not simply a case of replacing the cross-sectional survey with the longitudinal survey, but using the longitudinal survey in conjunction with the cross-sectional survey and bearing the additional costs that come with such an arrangement.

138. Careful consideration must be given to weighing the analytic gain from longitudinal data in comparison to repeated cross-sectional data. Are there specific questions that cannot be answered by analyzing repeated cross-sectional data that only longitudinal time-use data will be adequate for? Is there more interest in individual life-stage changes or in societal level period changes? What would the longitudinal survey design need to look like to answer these questions? For instance, what questions, in addition to the diary, would be needed in order to provide enough context to understand changes seen in the diary.

139. **Finland:** Using a 'Time-use survey panel' should be considered with caution. If the time-use of individuals or households is recorded only during two days, this would give biased information on the change in the time-use of those individuals or households. Those two days can be coincidental in a person's time-use. Panel samples are also laborious to upkeep.

140. **France:** It is true that a "Time-use survey Panel" would be very interesting for longitudinal studies. But the low response rates and the difficulty to motivate the individuals to fill in two diaries must be taken into account. In France, we had a lower response rate in the last TUS compared to previous ones. Moreover, we do not give financial incentives to the respondents. So we consider a TUS panel would be difficult to implement in France.

141. **Hungary:** We think it is difficult to execute a time-use panel survey, considering the current data collection methods and response rates. Although a self-completed questionnaire or an Internet- based questionnaire would be acceptable to us.

142. **Latvia:** Use of panel elements in TUS is controversial. If the survey is taken once every ten years, then the panel is not of great importance, because the composition of a household and priorities of the household members could have changed so significantly that the data comparison between several waves in their longitudinal sections would be almost impossible;

143. **New Zealand:** Longitudinal time-use has not been identified as a priority information need in New Zealand. We therefore have no plans to develop a time-use panel at this stage.

144. **Norway:** A time-use survey panel is an interesting idea. The expenses of such a survey must, of course, be considered;

145. **Romania:** We consider it useful to carry out an annual panel type Time-Use Survey, in order to obtain longitudinal information, which would allow the recording of economic and social trends over a shorter period of time.

146. **Slovenia:** According to our experience from EU-SILC, the longitudinal part requires a lot of additional data processing. We found out that the use of the longitudinal part of the data is scarce, because the data analysing is much more complicated.

147. **Spain:** We agree on the use of an annual 'time-use survey Panel'.

148. **US Bureau of Labor Statistics:** It would probably not be that useful to collect longitudinal time-use data, unless a lot of data were collected each period. Without a lot of data, it would be difficult to disentangle day-to-day variation from true changes in time-use.

E. Use of new methods and instruments

Para 63e: Since the last round of TUS, new methods and instruments for the collection of time use data have been developed. Therefore, it has to be discussed how these new sampling tools based on mobile devices using internet, cell phones, and mail can be incorporated in the next round of TUS.

149. **Brazil:** Another issue that the paper points out as an important topic for discussion, is how to include the use of new technologies in TUS. The Brazilian experience using a handheld

computer in the pilot time-use survey can be a good contribution to this topic. The design of the Brazilian survey included two interviewing moments: in the first visit, the respondent received a diary to fill in during a specific day. In the second visit, a face-to-face interview was conducted, and the interviewer reviewed the diary with the respondent and made the transcription of the information to the handheld computer. The software developed for the survey facilitated this task: the interviewers selected each activity from a list of 280 sentences that included the most usual expressions adopted by the informants to tell what they were doing. A search engine made it easier to find the activities in the list, and there was a code already associated to each activity. This made it possible to codify 75% of all the activities collected at the moment of the interview, reducing the coding efforts after the phase of data collection. This feature of the handheld computer, besides making typing easier and reducing the duration of the interview, also released the interviewers from the need to understand coding — all they had to know was the list of activities and the proper sentences to choose for each case. At the present moment, we are working on refining this list and defining its optimal format.

150. **Canada:** Given the growing and expanding uses of technology, new methods and instruments for collecting time-use data are important considerations. Some of the issues to take into account include the comparability of data over time and the development of the technology, including the costs and complexity.

151. Canada is looking at developing multi-mode options, including an internet-based option for a number of its surveys. The feasibility of developing an alternative to the traditional telephone survey will be considered for the next Canadian time-use survey. The broad objectives of this initiative will be to improve response rates, offer respondents an alternative to traditional telephone collection methods and reduce costs over the medium and long term by automating collection/capture with an internet option.

152. Once a web-based survey has been developed, it would be possible to explore the collection of both a weekday and a weekend diary. In addition, a web-based survey for diary collection could facilitate collecting diary information from more than one household member. It may be more challenging, however, to monitor and ensure compliance with the completion of the diary on the assigned reference day(s) and to be able to develop a mechanism through which respondents can self-report and code their own activities correctly.

153. Innovations with respect to collection efforts have also been implemented for the 2010 survey. For example, collection tools have been developed to ensure that the calls for each case are adequately allocated throughout the day and across the collection period, thereby maximizing the likelihood of contact.

154. In order to attempt to improve response rates, a model that aims to predict each sampled unit's response status has been developed. The model has been designed using information from the call history and other respondent information from the questionnaire (the number of calls made during the week, number of calls made during the weekend, number of contacts made, number of non-contact telephone calls, calls made during various time slices, information on refusals, etc.).

155. **Hungary:** Internet-based or computer-assisted questionnaires can be a great improvement in the case of TUS similar to other social surveys. Data collected using mobile phones or posted questionnaires is not considered to be appropriate according to our national practice.

156. **Latvia:** The use of Computer Assisted Web Interviewing (CAWI) should be positively evaluated. However, in order to save economic resources and apply the best solutions and experiences in this field, it would be necessary to develop at least a unified ESS CAWI application;

157. **New Zealand:** The use of new technologies for the next Statistics New Zealand TUS will be influenced by outcomes of the 2011 and 2016 Census and the rate of take-up achieved for the internet option. It would certainly be possible to create an internet diary; however the issue is more around the cost benefit.

158. Having an internet option would not remove the need for a paper diary option altogether. However, next time round, the efficiency of tracking and receipting the paper diaries would be significantly improved if they were individually bar-coded (as this was not the case for the current NZ TUS).

159. If Statistics New Zealand trialled a TUS Lite then that would afford more opportunity to incorporate new technologies.

160. It would be useful for NSOs to discuss sharing their Blaise-based diary capture systems, especially where any of those systems incorporate current best practice for the capture of time-use diaries.

161. **Norway:** During the planning of our present survey, we evaluated the possibility of using Internet as an instrument for gathering data. We received little support for this idea from other time-use researchers. It is expensive to develop such a design, particularly for a survey where data are not gathered on a continual basis.

162. **Romania:** The proposal on improving the data collection methods and tools is welcomed, but the possibilities of each country must be taken into account. Thus, currently in Romania the data will be collected using the PAPI method, even if though it is more expensive.

163. **Slovenia:** We agree that new techniques and instruments should be discussed.

164. **Sweden:** First of all, technological progress in a developed country like Sweden will not stop. 20 years ago, just a few people had access to a mobile telephone. Almost everyone in Sweden had a regular telephone which made it easy to reach them. Ten years ago, a large proportion of the population had a mobile telephone. Today, almost everyone has not only a mobile telephone but also smartphones which are connected to the Internet. The number of regular telephones is decreasing year after year. What will situation be in ten years from now?

165. SCB somehow needs to adapt to these technological changes. If not, then the methodological base for collecting good quality data needs to be reformed.

166. In what way are the statistical offices preparing for future demands? Will there be a SCB Iphone application or do we still try to reach the respondents by calling them (and accepting lower response rates)?

167. A natural step is, of course, to adapt the collecting process to the Internet but how will this be financed? It does not solve the problem of contacting the respondents first.

168. SCB has been contacted by a professor in Linköping who is working on such a project. The group is working on a project to facilitate the collection of time-use data. SCB has been asked to take part in this project.

169. Of course, this is not only a TUS related issue, but because TUS data is expensive to collect and demands a lot from the respondents, TUS will experience the related problems earlier than will other surveys.

PART IV. INFORMATION ON TUS CARRIED OUT BY COUNTRIES

170. This part includes the information on time-use surveys carried out in the following countries: Azerbaijan, Belarus, Brazil, Canada, Japan, New Zealand, Norway, Portugal, Romania, Sweden and Turkey. Eurostat provides short information on the current round of time-use surveys in EU countries, and the ongoing and future work on TUS in Eurostat.

Azerbaijan

171. The last TUS was carried out by the Statestatcom of Azerbaijan Republic in 1 January-31 December 2008 (9633 households and their members over 15 years of age by HETUS recommendations). The next TUS in Azerbaijan Republic is planned for 2012.

Belarus

172. State statistical bodies conduct a time-use survey on the basis of a sample survey of household expenses and incomes. Up to 1990, this survey was conducted every five years. However, the first time-use survey since then was conducted in April 2004 with the financial support from UNDP. The purpose of the survey was to collect data on daily time-use by various social-demographic population groups (urban and rural population, sex-age groups, groups by marital status and by employment status).

173. The data was collected from among 4400 persons from 2000 households. Since the individuals who took part in the time-use survey belonged to the sampled population of an annually conducted survey of household expenses and incomes, the response rate was 98.5%. The time-use survey structure and program had been developed in accordance with international standards in this area.

174. According to the survey program, household members aged 12 years and older were supposed to keep a diary of time-use record. The different kinds of activity were recorded in 10 minute slots during a 24-hour period. If household members performed several activities simultaneously, then they reported the second (parallel) activity alongside the main activity. In addition, the respondent indicated who he/she was performing the main activity with (alone or with other family members).

175. A three-level time-use coding system was used during the survey. The first numeric character of the code denoted the name of the aggregated group, then, within each group, separate subgroups, consisting of various kinds of activity, were identified. The names of the subgroups were denoted by the second character of a three-digit code. The third level allowed for a further specification of kinds of activity.

176. As a result, in the 2004 survey the Codifier of time-use record comprised 144 codes of third-level kinds of activity, which were further grouped into 34 second-level groups and 10 basic first-level groups.

177. In the course of the survey, the detailed and reliable information on time-use by various population groups on working days and days off was acquired. Additionally, the information on time and location, where the most recent labor/study vacation was spent, was also collected.

178. The conduction of the TUS within the framework of the sample survey of household expenses and incomes permitted the study of the issues of female employment, the use of free time by women according to their age, marital status, presence of children and level of material security, and also to obtain the indicators characterizing the correlation between low incomes and main behavioral patterns of low-income population.

Brazil

179. The Time-use surveys in Brazil is conducted in a sample of around 11 thousand households in six different states across the country. At present, the Institute is evaluating the lessons learned from the test to improve the design of the future Brazilian TUS, which will be part of the regular schedule of household surveys in the next decade.

Canada

180. Statistics Canada has been conducting Time-use surveys since 1986 as part of its ongoing repeated cross-sectional social survey program (the General Social Survey). Time-use surveys in Canada repeat approximately every five to seven years (1986, 1992, 1998, 2005, 2010). During the development phase of each of its time-use surveys.

181. There are a wide variety of uses of data from time-use surveys in Canada. One of the most widely known is to measure and value unpaid household activities (commonly known as unpaid work). In addition, time-use data have been used to explore paid work arrangements, leisure and sports activities, child and eldercare, social contacts, commuting patterns, shopping and consumption behaviours and sleep patterns. In recent years, the ability of time-use surveys to measure the use of new technologies, time crunch, work-life balance, stress and well-being has been increasingly recognized.

182. The 2010 Time-Use Survey is currently in collection, and initial results are expected to be available in the spring of 2011. The target sample for the survey is 22,000 respondents, aged 15 years and older. The survey is conducted in Canada's 10 provinces.

Concept

183. As in the United States, Canada's time-use surveys are conducted using Computer Assisted Telephone Interviewing (CATI) technology. This method leads to lower survey costs compared to in-person interviews and improved data quality compared to paper surveys. Unlike the U.S., however, households are selected for the survey by Random Digit Dialling.

184. In contrast to Germany and Finland, and like the United States, Statistics Canada collects data from only one individual per household. Households are randomly selected and within a

household the respondent is also randomly chosen. Respondents' time-use is collected by way of a retrospective 24-hour Diary for one pre-designated day of the week. The interview takes place no more than 48 hours following the designated day and the sample is distributed across days of the week to ensure an equal representation of weekdays and weekends. Data are collected on each day of each month from January to December to account for seasonal variation in activity and time-use patterns.

185. The Diary provides a comprehensive account of participation in, and time spent on, a wide variety of day-to-day activities. In addition, information is collected on the location where these activities occurred (e.g., at home, at work, etc.) and the social contacts (for non-personal care activities), i.e., who the respondent was with at the time.

186. For the first time, the 2010 Time-Use Survey includes simultaneous activity questions on the Diary. This has resulted in an improvement to the data produced from the survey since these questions will allow for a better understanding of multitasking, particularly in situations where passive childcare is combined with other activities (e.g., a parent cooking dinner while watching over the children). The survey can collect up to 3 simultaneous activities for each primary activity.

187. While primary activities are restricted to those of at least five minute duration, simultaneous activities can be of any length. Simultaneous activities are asked for all primary activities except paid work, religious observance, educational activities and personal care.

188. In addition to the Diary component, Statistics Canada's time-use survey also includes questions on household composition, labour force status, well-being, unpaid work, time perceptions and pressures, and a host of descriptive variables such as education, housing, religion, ethnic background, visible minority status, mother tongue, income, etc.

189. The activity coding system in Canada's time-use survey is based on the Eurostat Classification System as described in the guidelines for Harmonized European Time-Use Surveys (HETUS), but is more detailed. The coding system has been expanded and improved over time in order to allow for better comparability and to collect information on emerging areas. Canada's extensive coding system allows for the ability to address some of the coding challenges raised by Finland and the United States (e.g. capturing detailed activities related to modern communication and travel episodes). As of 2010, the survey uses a three-tier, four digit system with 264 activity codes. This classification system also offers international comparability.

190. Canada has a comprehensive dissemination strategy with its time-use surveys that includes the release of analytical articles based on key results, data table products, the availability of an analytical file through Statistics Canada Research Data Centres throughout the country, the availability of a Public Use Microdata File (PUMF), and the possibility of client-based custom tabulations.

191. **Canada:** For data entry, respondents' activities are coded by the interviewer using a classification table programmed into the application using Blaise software. Any activities which cannot be coded into one of the 264 codes are entered manually, reviewed by subject matter and recoded, if necessary.

Appendix

Time-Use Surveys in Canada

(as presented in Table comparing surveys in Germany, Finland and the US (paragraph 11))

Sample design

- (a) First conducted in 1986
- (b) Repeated approximately every 5 years (1986, 1992, 1998, 2005, 2010)
- (c) Randomly selected individuals from randomly selected households
- (d) The fifth cycle is currently in the field
- (e) 12-month collection period (January to December) divided into two-month waves (six waves in total)
- (f) Targeted sample of 22,000 individuals
- (g) Population living in private households in the 10 provinces, aged 15 years and over (excludes full-time residents of institutions and residents of the Yukon, Nunavut and the Northwest Territories).

Time allocation

- (a) Each respondent assigned a particular day to ensure that all days of the year are equally covered
- (b) The interview has to occur within 48 hours of the day being discussed
- (c) One person per household interviewed about his/her day
- (d) Respondents are asked where they were and who they were with for most activities (excluding personal activities)

Collection method

- (a) Telephone interviews using Computer Assisted Telephone Interviewing (CATI)
- (b) Collection of data through the time-use diary method (over the phone)
- (c) Simultaneous activities collected for the first time in Canada in 2010:
 - What types of activities are done simultaneously?
 - How much time is spent on childcare—active and passive?
 - What is the relationship between new technologies and multitasking?
 - When does most multitasking take place?
 - Who is most likely to be involved in multiple activities?

- (d) Primary activities are five-minutes or longer in duration; simultaneous activities can be of any length
- (e) In addition to the Diary, information is also collected on household composition, labour force status, unpaid work, health and well-being, education, participation in sports or culture, religion, mother tongue, country of birth, ethnic ancestry, visible minority status, income and others.

Coding of activities

- (a) Coding list is based on the on the Eurostat classification system as described in the guidelines for Harmonized European Time-Use Surveys (HETUS), but is more detailed and includes own national codes
- (b) Coding list aligned to HETUS
- (c) Three-tier, four digit system with 264 activity codes.

192. For data entry, respondents' activities are coded by the interviewer using a classification table programmed into the application using Blaise software. Any activities which cannot be coded into one of the 264 codes are entered manually, reviewed by subject matter and recoded, if necessary.

Japan

I. Japanese time-use survey as official statistics

193. The "Survey on Time-Use and Leisure Activities (STULA)" is the only official time-use survey in Japan, conducted every five years since 1976 by the Statistics Bureau of the Ministry of Internal Affairs and Telecommunication. The next survey will be conducted in 2011.

194. STULA is conducted to observe people's time allocation of two straight days which have been designated for each enumeration district within the nine-day period in the middle of October, and people's leisure activities¹ for the past one year.

195. Thus, the data for the time-use survey in Japan are collected not throughout a year but at the particular time of the year when the survey is to be conducted.

196. In STULA, two methods to collect time-use data are used: one is the "pre-coded" method (using "Questionnaire A") which has a large sample size (about 190,000 people); and the other is the "after-coded" method (using "Questionnaire B") which has a small sample size (about 10,000 people). The method using Questionnaire B has been adopted for international comparison since 2001.

II. Method of collecting the time-use data in STULA

197. More detail information about STULA is shown below.

¹ The leisure activities are five activities such as "Studies and researches", "Volunteer activities", "Sports", "Hobbies and amusements", and "Travel and excursion". Besides, in both 2001 and 2006 surveys, "Internet use" was also surveyed as one of the leisure activities.

198. Respondents to Questionnaire A report their time-use of the day in 15 minutes slots, selecting one activity from 20 pre-coded main activities² which have already been classified by the Statistics Bureau. In this Questionnaire, “company during the activities”³ has also been surveyed since 1996.

199. Concerning the collection of data, the same method as most other surveys conducted by the Statistics Bureau of Japan is adopted in STULA. The method requires the sample households to deliver and collect questionnaires which the households’ members should fill in by themselves. They (respondents) should fill in the questionnaires with the help of the “guide to filling in the questionnaires” after listening to the fieldworkers’ explanation. Nevertheless, nowadays it is becoming increasingly difficult to maintain this method because respondents have become sensitive to the protection of private information.

200. The pre-coded method is simple and easy for respondents, who select their activities by themselves from amongst the 20 activities listed on questionnaire A. The following table shows both the advantages and disadvantages of the pre-coded method:

(a) Advantages

(i) It enable us to obtain the result of the TUS earlier than would be the case with the After-coded method (using the ordinary time-use diary) because we don’t need to code after the collection of the questionnaires;

(ii) It makes it possible to enlarge the sample size of the survey for the same reason mentioned above;

(b) Disadvantages

(i) The ordinary time-use diary is an easier method for collecting detailed time-use data on respondent’s activities;

(ii) Respondents should code their activities by themselves for reporting;

(iii) It is difficult to design a survey of the secondary activities on questionnaires.

201. Questionnaire A has been designed to be processed by OCR (or OMR) to enter all data including those in the space of time-use questions. In this space, the grid table, whose “rows and columns” represent “activities and time” respectively, is printed. Respondents draw a single line along the frame of the grid table, so that OCR (or OMR) can distinguish activities and time by the position of the line drawn by respondents.

202. For Questionnaire B, the after-coded method of using the ordinary time-use diary has been adopted with reference to the HETUS guidelines and other TUS, and designed to survey “primary and secondary activities”, “the place of activities”, “company during the activities”⁴ and also “using the internet”.

² Since 1991, Statistics Bureau have classified 20 activity codes such as “Sleep”, “Personal care”, “Meals”, “Commuting to and from school or work”, “Work”, “Schoolwork”, “Housework”, “Caring or nursing”, “Child care”, “Shopping”, “Moving(excluding commuting)”, “Watching TV, listening to the radio, reading newspapers or magazines”, “Rest and relaxation”, “Studies and researches(excluding schoolwork)”, “Hobbies and amusements”, “Sports”, “Volunteer and social activities”, “Social life”, “Medical examination or treatment” and “Other activities”.

³ “Alone”, “Families”, “Persons that you know in schools or offices” and “Other persons”.

⁴ “Alone”, “Father”, “Mother”, “Son(s) and Daughter(s)”, “Spouse”, “Other family member(s)”, “Other person(s) that you know in schools or offices and so on”.

203. Great importance has been attached to international comparability with respect to the design of the activity coding list of Questionnaire B.

III. Planning the survey design of STULA 2011

204. The survey design of STULA 2011 fundamentally follows that of the former survey. However, it is currently planned to add some questions which will help us to grasp the information of Work-life Balance. In the case of Questionnaire B, the online reporting system via the Internet will be introduced in order to collect as many questionnaires as possible from those households which are difficult for fieldworkers to meet (e.g. households of young people or both husband and wife working).

205. For the 2011 survey, we will modify the activity coding list of Questionnaire B so that it will enable us to compare the result of STULA with that of HETUS at 49 activities coding level of the HETUS Data Base.

IV. Another major time-use survey in Japan

206. Another major time-use survey in Japan is the “National Time-Use Survey”, which has been conducted every five years since 1960 by NHK (Japan Broadcasting Corporation).

207. In NHK’s time-use survey, the after-coded method of using the ordinary time-use diary was used up until 1995 but, since 2000, the pre-coded method similar to Questionnaire A of STULA has been used. This survey features the detailed activity codes of watching TV and listening to the radio in order to accomplish NHK’s own objective as a broadcasting company.

New Zealand

I. Brief summary of New Zealand time-use survey

208. The last New Zealand Time-Use Survey was conducted in 1998/99. Statistics New Zealand is currently processing the data for the second Time-Use Survey conducted in 2009/10, with results expected to be released in mid 2011.

Sample Design

- (a) Sample of approximately 8500 households randomly selected from the population;
- (b) One member of the randomly selected household aged 15 years and older completes a household questionnaire. Two randomly selected eligible people aged 12 years and over complete a 48-hour diary and a personal questionnaire. The questionnaire is a CAPI instrument.

Time Allocation

- (a) Time-use recorded on two consecutive days in a diary month;
- (b) A year-long collection, covering all seasons.

Collection Method

- (a) Collection of data through time-use diaries;
- (b) Respondents report their time-use continuously and in their own words;
- (c) Reporting of time in 5 minute slots;
- (d) Recording of primary and up to three simultaneous secondary activities;
- (e) Respondents also record information on with whom activities were done, for whom, and where;
- (f) Information on household composition and labour force status collected through Household Questionnaire;
- (g) Personal Questionnaire via face-to-face by Interviewers;
- (h) When interviewer collects the diary they conduct a diary debrief interview both to aid diary grooming and to identify or add detail to passive child/adult care activity, work activity, and unpaid work for organisations or for other households recorded in diaries.

Coding of the Activities

- (a) Coding through Blaise system with Trigram search tool;
- (b) Four tiered, five digit coding system;
- (c) Modified Australian classification system;
- (d) Standardised responses into simple present tense literal responses and synonyms.

209. Our practice was to code diaries as closely to the responses given as possible, including recording the literal activity text that the respondent recorded in their diaries. Literal Strings as well as synonyms have been coded, which will assist with data validation and allow for wider searches of the final data set. To assist with automatic matching between literal strings and synonyms, we have entered them in simple present tense (which increased matching by at least 20%), and should aid word searches of literal strings.

210. Business rules were created from the beginning of the coding process to standardise the way in which diary ambiguities were coded. Subject matter experts were responsible for approving all business rules through a documented query resolution process, where investigation and decisions could be recorded. Business rules were then added to the user manuals for each of the coding team roles, and can be supplied to end users.

Quality assurance

211. Paper diaries have been captured by a coding team using a purpose-built capture tool written in Blaise. The tool has functionality for three distinct roles - data capture manager,

quality assurer and data coder. The coding of diary activities and episodes are key features in this tool.

212. The diaries are dual captured until the accuracy rate meets a required standard, then each coder has their dual capture rate progressively reduced or increased, based on their accuracy rates, with a minimum dual capture rate of 10%. The quality assurer can view on screen both sets of data for the dual coded diary and use the system tools to choose one set of data as the final, or create a hybrid diary which takes some episodes from each and/or includes some new episodes.

213. The quality assurer is also responsible for recording feedback items for each coder and giving regular feedback that facilitates both the maintenance of coding standards and minimising dual capture rates.

214. The tool enables diaries and episodes to be flagged if there are coding queries needing subject matter expert query resolution. If the resolution of a query is just to add a new activity synonym, then once that synonym has been loaded into the system any flagged data which has that exact synonym recorded as a literal string will be automatically coded, unflagged and the diary closed and moved to the next stage of processing. The system allowed coders to nominate a diary for dual capture if they felt there was significant ambiguity. After the capture process, the data is loaded into a macro-data viewer tool where subject matter experts are able to identify any overall activity coding inconsistencies.

Coding of internet use

215. Synonyms were created for each activity where the respondent noted that it took place on the internet. This did not affect the classification of the activity, eg "read book" and "read book on internet" would both be coded to the same category, but the synonym is searchable by the addition of "on internet". If it was unclear whether the activity necessarily took place on the internet, the default was to use a synonym with "on computer". Eg "load music onto ipod" would be coded as a computer related activity, but not an internet related activity unless specifically stated. It is expected that there will be good estimates of internet usage, as this has generally been well reported in the diaries.

Simultaneous activities

216. Statistics New Zealand's TUS coding system was designed to handle up to four activities at one time. In the few cases where more than four activities were reported, the business rules were used to decide which activities to include or drop. In order to meet stakeholder needs, Statistics New Zealand's classification of activity includes "available-for-care" categories both for the care of children and dependent adults. This is coded as a simultaneous activity where a respondent indicated that they were responsible for someone who could not be left alone. It is too early in the processing cycle to comment on the reliability of estimates from these simultaneous activities.

Coding travel

217. The coding rule was to associate "travel" with the next primary activity, and associate "travel home" with the previous activity. This will mean an under reporting of travel to/from work, where some other activity takes place on the way, which is quite common.

Further information

Statistics New Zealand Activity Classification:

http://www.stats.govt.nz/surveys_and_methods/methods/classifications-and-standards/classification-related-stats-standards/activity-time-use-survey.aspx

Statistics New Zealand 2009/10 Time-use Diary:

http://www.stats.govt.nz/browse_for_stats/people_and_communities/time_use/time-use-survey-diary.aspx

Statistics New Zealand 2009/10 questionnaire:

http://www.stats.govt.nz/browse_for_stats/people_and_communities/time_use/time-use-survey-2009-10-paper-questionnaire.aspx

Norway

218. Statistics Norway is now gathering data for our 2010 time-use survey, and we strictly follow the recommendations from Eurostat. This round will give us experience about how the survey design works. When the data gathering is finished, we will draw conclusions on what we achieved and what possibly may be changed in our next survey.

Portugal

1	Unique TUS conducted in 1999				
2	Sample design	Samplig unit:	Dwelling		
		Statistical unit:	Person		
			Private household		
		Type of sampling	Multistage probabilistic		
		Reprentativeness :	1. National level		
			2. Metropolitan areas of Lisbon and Oporto		
		Sample size:	National		
			initial	4515 dwellings	
			achieved	3086 dwellings	
		Stratified by:	1. Households with only one adult		
2. Households with at least one adult and one child					
3. Households with at least two adults					
Target population:	Persons aged 6 and over years old				
Selection of individuals per HH	1. Households with only one adult				
	2. Households with at least one adult and one child	1 adult and 1 child Randomly if more then 1			
	3. Households with at least two adults	2 adults Randomly if			

			more than 2
3	Time allocation	Fieldwork	From October to December 1999
		Time distribution of sample:	1. equitably along the data collection period
			2. equitably along all days of the week
		Reference period	pre-defined 24 h (from 7:00 to 7:00 a.m.)
4	Collection method	Questionnaires (5)	1. Individual diary (15 and over years old) - Primary and secondary activities, place and means of transport, presence/non presence of other person(s)
			2. Individual diary (6 - 14 years old)- Primary and secondary activities, place and means of transport, presence/non presence of other person(s)
			3. Individual (15 and over years old) activity, profession, time use leisir /recreation home work, family support, others support, volunteer work
			4. Individual (6 -14 years old - activity, profession, time use leisir /recreation home work, family support, others support, volunteer work
			5. Household (number of persons, demographic characteristics, level of education, familiy support, use of some equipmente - TV, PC,etc. -, aggregated income and sources
		Mode of interview:	1. CAPI
		2. Face to face (proxy allowed)	
		3. First contact - fullfil of Individual questionnaire (characteristics/usual behaviors) and explanatio how to fullfill individual diary	
		4. Second contact - collection of individual diary and any requested help to complete it	
5	Coding of the activities	Coding lists	International list available in other countries (adjusted)
6	National net response rate (%)		87,4
	National refusal rate:(%)		5,9

Romania

I. General comments

219. Romania was one of the 20 European countries which carried out a pilot survey on time-use in 2000, within the program launched by Eurostat for the harmonization of Time-use Surveys at the European level. The survey was carried out according to the “Guidelines for the harmonization of European Time-use Surveys”.

220. The methodological and organizational concept of the survey was achieved with the technical assistance of the Italian experts from the Italian National Statistical Institute (ISTAT) and the experts from the Statistical Office of the European Communities (Eurostat).

221. The survey was carried out over a period of two consecutive months, on a sample of 9018 households, distributed in monthly independent sub-samplings, each one consisting of 4509 households. Each household included in the sample was surveyed for two days in a week (one working day and one day off), aiming at a uniform distribution of the sample by weekdays.

222. The sample size was calculated for a probability to guarantee 95% of the results and a 5% error of representativeness, ensuring representivity at national and regional level for the main survey variables (household income, average number of persons per household, residence area).

223. Data collection on time-use has been undertaken using the PAPI method, using the individual daily diaries completed through self-registration by the persons in the household aged 10 years and over. All the household members completed in their own words the activities performed during 24 hours, at 10-minute intervals, during a working day and a day off. These days were allocated to all household members who participated in the survey.

224. Also, in 2006, Romania participated in the project for achieving a “Multinational database on time-use”. For this purpose, we prepared the time-use microdata, according to the format established and recommended by the statistical office in charge of developing the tabulation system. The list of metadata information defining the Romanian Time-Use Survey was sent to Eurostat and Statistics Finland (in charge of the harmonization of the national database).

225. The Romanian data files were checked and it was established that microdata are harmonized with the European level. Although Romanian microdata are harmonized, the final file has not been pooled with the countries participating in the project, because the data were based on a pilot survey and the reference period was of only two months and not a complete year.

226. The coding of activities has been done according to the HETUS list.

227. INS Romania plans, in its PSNA (Annual National Statistical Programme), to carry out the TUS during the period 2011-2012 according to the “Guidelines for the harmonization of European Time-use Surveys” 2009 edition, namely: data collection in 2011 and processing and dissemination of the results in 2012.

228. We should also mention that the Romanian representatives presented various papers at the annual IATUR conferences on the basis of the results of the Time-Use Survey carried out in

2000, and the INS representative – Mrs. Georgeta-Marinela ISTRATE, Director of Social Services Statistics Department – is a Council Member for Eastern Europe of the Steering Committee of International Association of Time-Use Research since 2004.

Sweden

The Swedish time-use survey

229. Currently, Statistics Sweden (SCB) is conducting the third time-use survey (TUS) in Sweden. As was the case for the previous TUS in Sweden, the main objective is gender equality, and the Ministry of Integration and Gender Equality is financing the project. The survey began in April 2010 and will continue until March 2011. The first results will be published in late August 2011. When designing the survey, SCB has taken both the comparability with the previous surveys and the HETUS guidelines into account.

Concept

TUS2010

230. As in both the Finnish TUS and the German TUS, in Sweden the data is collected through interviews and time-use diaries and also from different registers (income, education etc.).

231. The survey builds on a sample of individuals and some households. Though the main focus is on individuals (6 000 persons), SCB also sampled 1 200 households to be able to meet some users' needs. The total number of individuals will be approximately 8 000 (depending on the composition of the households), which is slightly higher (approximately 1 000) than in previous surveys.

232. The sample design is almost identical to the TUS of 2000/01 (stratified by age and gender), but a major difference concerns the lower age limit. The sample now includes people between 15 – 84 years of age. The previous survey only sampled people between 20 – 84 years of age. SCB decided to include younger people because of users' needs and because the HETUS guidelines recommended it. In fact, the recommendation is from minimum 15 years of age. Certain countries sample even younger people.

233. Like Statistics Finland, SCB had to convert from face-to-face interviews to telephone interviews (CATI) in order to keep/extend the previous sample size (due to budget restrictions). All interviews are conducted over the phone which was not the case ten years ago where approximately 70 percent of all interviews were conducted face-to-face. The interview questions cover many different areas, from the household composition to questions about health and care for children/elderly people. The number of questions and what the questions are all about has been discussed with both users and producers but, as stated in the In-depth review on time-use surveys, just a few important questions have to be collected in order to produce interesting time-use statistics. Of course, this has to do with survey objectives!

234. The respondents are asked to report their activities in two diaries. The diaries correspond to one week day and one weekend day, as recommended by the HETUS guidelines. The respondents fill in the diaries in their own words and the diary is divided into 10-minute intervals.

235. The diary includes:

- (a) Primary activity;
- (b) Secondary activity;
- (c) Information on location or method of travel;
- (d) Information on who was present during the activity;
- (e) A short questionnaire.

236. Major improvements since the previous survey include:

- (a) The respondents are now asked to report which activity involves the use of Internet/computer (both primary and secondary activity);
- (b) The diary did not previously cover Location, which turned out to be a problem during the previous survey;
- (c) The diary has been designed for scanning which was an important step towards improving the coding process;
- (d) The new design of the diary makes it easier for the respondent to complete the diary (for example: every opening in the diary now covers four hours, like the German diary, and there are brief instructions on each page explaining how to complete the diary);
- (e) The survey now covers young people between 15 and 20 years of age.

237. In order to code the information in the diaries, a group of coders has been formed. The coding is done consecutively and meetings are arranged on a regular basis to discuss problems and to ensure the activities are coded in the same way during the whole coding process.

238. The classification system complies with Eurostat recommendations but is modified to fit national needs (users' needs, but also to keep the results comparable to previous surveys). The Swedish classification system covers around 240 different activities.

239. Major improvements in the coding process include:

- (a) Some information in the diary is coded automatically as a result of the scanning process. It is important to stress that no activities are coded automatically, only information about Internet use, information on with whom the activity has been undertaken and the questionnaire information. The coder still has an overview of the whole diary which means he/she will be able to control and verify the information;
- (b) The coders now have a simple and very useful software tool to search for descriptions of activities used earlier. From a quality point of view, this is very important because it ensures:

- (i) that every coder handles identical activities the same way;
- (ii) that activities will be handled the same way as in the previous survey;
- (iii) that users in the future will know how the activities have been coded.

240. Coding the diary information is a very expensive process and hopefully these improvements will make it less expensive.

LIGHT-TUS 2010

241. SCB is planning to conduct a so-called Light-TUS during 2010/11. The main objective is to connect the two surveys in order to compare the results. The aim is to conduct these less expensive surveys in order to obtain time-use information about the years between the full scale surveys (although not such detailed information).

242. The Swedish Light-TUS is planned to start in October 2010 and will be conducted during 12 months.

243. Lessons learned (so far):

- (a) During the first months of the survey, SCB was confronted with a very low response rate. As in the Finnish experience, there is an indication that the use of telephone instead of face-to-face interviews lowers the respondent's commitment to return the diaries. The experience from the previous survey revealed that most people who were interviewed also contributed with a diary. It is important to remember, however, that the survey has just started;
- (b) Approximately 85 percent of all interviewed respondents actually complete the diaries;
- (c) Approximately 98 percent of all respondents return both diaries;
- (d) Only 45-50 percent of all respondents are interviewed. There is a problem reaching the respondents. The use of mobile telephones, ip-phones etc. makes it difficult to reach them;
- (e) In order to adapt and prepare the diary for scanning, it had to be designed in A4-format. Some respondents might find it too large to carry around during the day. In an effort to facilitate the issue, respondents also receive a smaller notebook;
- (f) Since it has been almost ten years since the previous survey, much of the knowledge regarding TUS within SCB has been forgotten. Many of those who worked with this survey are now doing other things (retired, for example), which has negatively affected not only the preparations but also the collecting process (i.e. the interviewers are not familiar with the survey);
- (g) Keeping a scanned version of the diary improves the process of handling the data. It makes it easier to code and easier to control.

Turkey

I. General information

244. In the context of the international comparable time-use studies (Eurostat), the Turkish Statistical Institution (TurkStat) applied the survey for the first time in the 1 January-31 December 2006 period to 5070 households selected randomly according to the sampling technique.

245. Eurostat's recommendation book "Guidelines on Harmonised European Time-use Surveys, 2000" was used as a reference source in designing the questionnaire, survey methodology, concept and coverage.

246. The final sampling unit was the household living at the identified addresses within the sampling frame. The observation unit was the person living in the sample household, older than 15 years of age. A multistage stratified cluster sampling method was used in the survey.

247. 85.7 % of all households in the sample household list participated in the survey. The rate of diaries filled by the respondents of the sample households was 91.5 %.

248. In the study, 390 sample households were visited four or five times every month during 2006, and the following methodologies were used together:

- (a) Face to face interview: the questions asked corresponded to households' social and economical situation (several characteristics of the dwelling inhabited, income, helping another household or income for the sample household, etc.) and individuals' general situation (education, age, gender, employment, activity income, health, cultural and sports activities);
- (b) Diary keeping: in the survey, every person of a household, older than 15 years of age, wrote down their activities during 24 hours in ten-minute time slots in a diary. Each person completed two diaries - one for a weekday and one for a weekend day. When a household member participated in more than one activity (while eating something, watching TV), one activity was determined as the main one. The distribution of an individual's average time spent at the main activity in 24 hours was demonstrated in the press release.

II. Problems

249. As mentioned above, TurkStat implemented TUS in 2006 for the first time and open diaries were used only. Individuals, aged 15 years and more, recorded their daily main and secondary activities in their own words. The secondary activity columns were left blank in most cases and the variety of daily activities was very limited particularly in low-educated or illiterate individuals. The most important issue is to increase awareness in people of the importance of the survey.

III. Future plans and comments

250. TurkStat plans to carry out a Time-use Survey at 5-year intervals. Normally the next survey would be implemented in 2011. But according to the Official Statistics Program of

TurkStat, "population and housing census" will be carried out in 2011. Therefore the next TUS may be carried out in 2012 or more likely in 2013.

Eurostat

I. The time use survey in Europe

251. The table below summarises the timetable for the current round of time use surveys in Europe. Most of the countries have applied or are planning to apply the Harmonised European Time Use Survey Guidelines.

<u>Timetable of the current round of Time Use Surveys in European countries</u>	
Period	Country
2008/2009	DK, IT, AT
2009/2010	BG, EE, ES, FR, HU, FI, HR*, MK
2010/2011	RO(?), SE, NO, AL, BA**, RS
2011/2012	BE, NL, ME
No schedule or not before 2012	CZ, LU, SK, UK, IE, PL, CY*, LT, MT, LV, DE, EL, PT, SI, TR, CH, XK*
<i>* No answer to the request of updating the national situation</i>	
<i>** Pilot survey</i>	

II. The Time Use Survey in Eurostat

Ongoing work:

252. Eurostat is currently exploring how the results of the ongoing TUS round can best be made available. In particular, we are examining the feasibility of a TUS database hosted by Eurostat. As a first step the current harmonised TUS database, currently hosted in Statistics Sweden, will be transferred to the Eurostat's secure servers.

253. Eurostat is also finishing a "rolling review". The rolling review is a complete assessment of the statistical process, which includes user and partner surveys. It is carried out in close cooperation with an external contractor, the Quality Unit of Eurostat and the process manager of the survey. The results will be available in September 2010.

Future work:

254. When the results of the new round of surveys become available Eurostat intends to publish comparable results as it has been done in the past. The plan is also to extend the current HETUS database.

PART V. OTHER USEFUL INFORMATION

Brazil: II International Seminar on Time-Use Surveys (Rio de Janeiro, September 2010)

255. IBGE has also recently organized the II International Seminar on Time-Use Surveys: Methodological Features and International Experiences, which took place in Rio de Janeiro last September 9-10. This seminar brought together TUS experts from 14 different developed and developing countries (besides Brazil - Canada, Spain, France, England, Portugal, Mexico, Chile, Bolivia, Uruguay, Argentina, Ecuador, and representatives of the ILO office in Geneva and of the UNSD in New York). On this occasion, we discussed the different countries' experiences in TUS, contrasting alternatives for data collection, for the coding of activities and other methodological features of the surveys. There was also a strong debate on how to apply time-use data in social policy, particularly gender-focused policies. Besides IBGE, other organizations supported the seminar: the Secretariat for Women's Policies of the Presidency of Brazil, IPEA (Institute for Applied Economic Research), the ILO and UNIFEM. All these institutions integrate the Committee on Gender and Time-Use Studies, which was created by the Brazilian government to stimulate and improve gender research in Brazil, with a special focus on time-use research.

256. The discussions in the seminar confirmed that, in Latin America, there is no consensus about the best data collection methodology (in contrast to European and North American countries, where the 24-hour diaries are widely adopted). This can be a challenge for the international comparability of the results — a concern raised in paragraph 63 of the paper. There is a preference in the region towards the “task list” approach, that is, a questionnaire about time spent in specific listed activities, usually during a week. This instrument format is adopted by Mexico, Uruguay, El Salvador, Peru, Honduras and Colombia, for example. One of the arguments to support the use of task lists is that this method is better suited for the high illiteracy rates of the Latin American population — and dealing with low literacy in TUS is one of the topics selected for discussion by the CES Bureau, as indicated in paragraph 63 of the paper. Also, the countries that adopt task lists claim that this design provides a better control of what activities will be measured. On the other hand, as pointed out in the UNSD Guide to Producing Statistics on Time-Use, stylized questions can lead to a high degree of error, since over-reporting or under-reporting of some activities is highly probable. This format also doesn't allow the estimation of simultaneous activities.

257. Other countries, like Brazil, Argentina (Buenos Aires and Rosario cities), Chile, Bolivia and Venezuela are adopting 24-hour diaries. There are still some differences in how data is collected, however: Buenos Aires and Rosario cities and Chile opted for recall diaries, while Bolivia and Venezuela adopted self-administered diaries. One interesting discussion raised in the September seminar in Brazil is that recall diaries could be a good alternative to deal with low literacy, although some information can be lost due to respondents' memory failure. When using this methodology, it is necessary to ensure that the interview happens in a maximum interval of 48 hours after the day to be analyzed. Brazil opted to adopt a mixed model in the pilot survey: a self-administered diary followed by a face-to-face interview. This intended to ensure more accuracy in obtaining information, although the need for at least two visits to the selected households can increase response burden.

258. Another very important discussion that took place in the seminar was about coding methodologies — another issue to be discussed by the CES Bureau, according to paragraph 63 of the paper. Ms. Erlinda Go from the United Nations Statistics Division was present at the

seminar, to talk about the ICATUS; and Ms. Maria Eugenia Gómez Luna, a representative of the statistical office in Mexico (INEGI) who is working with the Conference of the Statisticians of the Americas, ECLAC, was also present to talk about a proposal of classification of activities for the Latin American region (CAUTAL – Clasificación de Actividades de Uso del Tiempo para América Latina y el Caribe). The CAUTAL is based on the ICATUS, and proposes three main groups of activities:

- (a) Remunerated work (with some changes on the subdivisions, when compared to the ICATUS);
- (b) Non-remunerated work (including household activities, care to household members and voluntary work/help to other households);
- (c) Personal activities (including learning, use of mass media, personal care and recreational activities — this last category grouping four different divisions of the ICATUS into one).

259. This scheme intends to allow easier identification of the activities that are inside or outside the National System of Accounts, to facilitate the construction of the Household Satellite Accounts — another topic to be discussed, according to paragraph 62a of the paper.

US Bureau of Labor Statistics. On interviewing respondents on more than one day and more than one person in a household:

260. Regarding multiple days, for there to be a gain we think it would be necessary for the days interviewed to be reasonably widely separated and for the day-of-week to be sampled independently for each interview (so there would be a possibility for day-of-week to be the same, or not the same, across multiple interviews). Otherwise, there will be a dependence between the time-use on the different days sampled and it will be impossible to estimate the variance in an individual's time-use. We are not aware of any actual surveys that do this.

261. We think that most surveys that collect multiple days collect two consecutive days or they collect a weekday and a weekend day. It would be hard to argue that these days are independent.

262. While information is collected from only one person within a household (in the ATUS), intrahousehold allocation of time can be studied by comparing mean time in activities for married men and married women. This can be done for different categories (such as by employment status of the man and woman), or by regression analysis to predict means for given characteristics.

263. For multiple persons, very little is gained if only one day is sampled. It is impossible to disentangle co-ordination of schedules, holding long-run time in activities constant, with long-run correlation between husbands' and wives' time in an activity. (Methods that can disentangle the different associations don't require multiple diaries.) With multiple days/multiple-persons, there would be a gain if the independence criterion above is met for sampling multiple days.

Sweden. The HETUS web tool

264. Statistics Sweden, together with Statistics Finland, has developed a web tool for producing user defined tables and graphs. This has been done with financial support from the European Commission. There are several hundred users from all over the world and from all kinds of organizations.

265. The data base consists of harmonized data from 15 European countries and is open to all interested users. The users do not access the raw data; instead they define tables for their own needs. The calculations are made in real time on a server at Statistics Sweden. The tool is most important for presenting harmonized time-use data and to make it easy for users.

266. The fact that the costs for maintaining this system were not covered by the European Commission meant that Statistics Sweden realized negative results. Eurostat has now asked all contributing countries if they can access the data to be able to develop a new version of the tool themselves. In the meantime, Statistics Sweden has agreed to maintain the tool until 2012.

267. One very important issue for Statistics Sweden, if Eurostat manages the development of this tool, is the issue of secrecy. Statistics Sweden may not be able to continue this work or profit from the positive aspects by offering users this tool. This has to do with raw data delivered outside Sweden. NOTE: Statistics Sweden will discuss this with the legal officer in a couple of weeks.

268. If this were to be the case, the data base will include all European countries who have conducted time-use surveys except Sweden!

269. Finally, the work with the guidelines should continue because many parts keep changing over time. For example, new activity codes will be needed and discussed due to technological development in our society which will affect our everyday lives.

PART VI. CORRECTIONS TO THE TEXT OF THE REPORT

US Bureau of Labor Statistics:

270. Paragraph 7: The sentence “For example, in the United States, TUS data on work hours were compared...labour force.” This comment should include a footnote to the research that compares the ATUS and CPS work estimates:
<http://www.bls.gov/opub/mlr/2004/12/art1full.pdf>. The link that currently is provided directs readers to a paper that provides a general overview of how time-use data can be used to analyze various issues; this link is relevant to the entire paragraph/item.

271. Paragraph 11: In the section of the table labelled “Sample design” The first bullet reads “since 2004, 2,200 cases per month.” It should read “In 2003, 3,375 cases; 35% sample size reduction in 2004, and since 2004, 2,200 cases per month.”

272. Paragraph 29: Please update the last sentence: ATUS data for over 98,000 individuals interviewed in 2003 to 2009 currently are available.

273. Paragraph 31: Since this item describes how respondents are selected from households that have completed the last interview of the CPS, which is representative both at the national and state levels, please clarify that the ATUS is representative at the national level only.

274. Paragraph 33: The order of this paragraph seems odd. If this paragraph is to discuss secondary activities only, BLS would recommend the following wording:

275. Accordingly, secondary activities except childcare are not included in the ATUS. Other secondary activity information has been collected on a temporary basis. Information about secondary eating and secondary drinking were collected from 2006 to 2008.

Add a section on modules before the section on Lessons learned:

276. Paragraph x: The design of the ATUS allows government agencies to sponsor a five-minute module of questions that are asked after the regular ATUS questions have been completed. From 2006 to 2008, data on Eating and Health were collected as part of a module. In 2010, the ATUS ran a module focusing on Well-being; it contained questions about how respondents felt during selected activities, as well as on their general health.

Under 2. Lessons learned

277. Paragraph 35 (b): The way this section is currently worded suggests that there are separate coders and interviewers. It is more accurate to note that ATUS interviewers are trained to code ATUS interviews as well, and in fact code interviews that they have not conducted. This is an important key to the quality of our interviewers -- knowing how to collect activities in a way that makes them easy to code accurately and consistently.