

## 4 Collecting and analyzing statistics on unpaid care work

---

This section discusses tools and methodologies for data collection, production and analysis on unpaid care work. The first part looks at the range of available methods, focusing on the more statistical side. The second part summarizes the work that has been done in Africa on this topic to date.

### 4.1 Methods

Unpaid care work is difficult to measure. There is no obvious money measure, because the work is unpaid. There is no obvious measure of what is produced, because unpaid care work produces intangible services. The main available option is to find out (a) whether people did any unpaid care work; and (b) how much unpaid care work they did. Time use surveys studies of different kinds are the most common way of implementing this option.

INSTRAW provides a detailed description of the commonly available methods for collecting information on time use (1995: 61 onwards). These methods can be used to monitor the time spent on any type of activity. They are most commonly used to measure unpaid care work because of the difficulties of measuring this activity in any other way. They could, however, also be used to capture other forms of undercounted activity, such as subsistence work and informal sector work. For example, Statistics South Africa used its time use study to show that even with the prompted question on work described above, it was not picking up on all the SNA work done in the country. For example, 2% of people who reported doing SNA activities in the previous day were classified as unemployed by their answers to the 'work' questions, while 16% of people who reported doing SNA activities in the previous day were classified as not economically active (Budlender, 2001: 52).

The INSTRAW publication includes illustrations of instruments (such as questionnaires) used in different countries. The methods they describe are the following:

### Observation

This method is used more by anthropologists than by statisticians, while the other methods described below are more commonly used in questionnaires for statistical research. The observation method involves the researcher observing what the person is doing at particular times and recording the activities. There is no direct involvement by the person being observed.

The advantage of the method is that it does not require that the person whose activities are recorded can read and write, or that they have a western concept of time. The disadvantage of the method is that it is very researcher-intensive, because the researcher can only follow and observe one person at a time. One alternative is to do random observations, for example coming back every hour to see what the person is doing. This method allows one researcher to monitor more than one person in a day. But it gives an incomplete picture of activities.

### Stylised questions

This method would normally be used in a questionnaire, among a series of other questions. It involves questions such as:

Yesterday, how much time did you spend preparing meals?

How much time do you spend each day preparing meals?

During the past week, how much time have you spent preparing meals?

One disadvantage of this method is that there is no way of checking whether the answers make sense. For example, the different activities prompted do not need to add up to 24 hours for a day. Also, where a person does unpaid care work intermittently – a bit early in the morning (breakfast), some late morning (lunch), some mid-afternoon (snack), some in the evening (supper), it may be difficult for them to estimate the different bits and get an accurate total. Meals may be fairly easy because there are standard times. Looking after children may be more difficult.

## Activity log

With an activity log, the person whose activities are being studied is asked to write down on the questionnaire each time they do a particular activity. For example, the questionnaire might look like this:

During the next three days, each time you prepare any food, or get or prepare a drink, please provide the following information:

Time started:

Time ended:

Purpose: (morning meal, midday meal, etc):

This method assumes that the person is literate, and that they have a watch or clock. It also assumes that the person is motivated enough to remember and write down each time they do the activity.

## Stylised activity list

This method would also usually be part of a questionnaire, or constitute a questionnaire on its own. It involves a question such as the following, with a block in which the person can write the number of hours and minutes for each activity:

What does your actual day look like? How many hours per day do you usually spend upon the following activities:

- Housework and related errands:
- Child care:
- Occupation (include travel to work and secondary work):
- Training/education:
- Handiwork/repairs in the home and car
- Garden work:
- Television/video:
- Hobbies and other free time activities:

Ideally, the question should be asked separately for weekdays and weekend days, as the activities are likely to be different. As with the stylised questions, there is no way of checking the answers, unless you are sure that the activities listed cover every possible activity.

## Stylized time-activity matrix

This method is similar to the activity list, but includes all possible activities and should add to 24 hours. One suggestion for the list of activities is:

- Paid gainful employment
- Education
- Eating, sleep, personal hygiene, other essential personal needs
- Domestic work, including shopping, childcare
- Maintenance and repair of home
- Leisure

This method assumes that the person is able to remember all the activities undertaken and assign them to the categories. It assumes both a good memory, and good calculation skills.

## Time activity matrix

This method is similar to the stylised time-activity matrix in having an activity list. However, it adds a list of time periods. The INSTRAW example has the activities listed along the top, creating a column for each of the activities. The time periods are listed along the side, creating rows. The periods could be 10-minutes for a very detailed sub-division, or an hour, for a much cruder division. The person recording the activities marks off in each row which activity was being done. There must be at least one activity for every time period.

This method assists the respondent with remembering. By insisting on at least one activity for every time period, it produces a comprehensive record. It does not avoid the conceptual problem whereby the respondent must be able to classify each of their activities according to the activity categories provided.

## Time diary

INSTRAW names this method as the 'tool of preference' (1995: 69) because it avoids some of the problems associated with the other methods described above. With the time diary, the questionnaire does not provide a list of activities. Instead, the respondent describes each activity in their own words, from the beginning of a day until the end of a day. In some cases, the diary will have time slots along the side or top against which the activities must be recorded. In other cases, the respondent just names each activity, with a beginning and ending time.

There are two main types of time diaries.

- ▶ In the 'yesterday' diary, the respondent is asked what they did for each period of the previous day.
- ▶ In the 'tomorrow' diary, the respondent is given a diary and asked to fill it in during the following day as they do each activity.

The 'yesterday' diary has the advantage that it can be filled in through an interview. It is therefore a good method if respondents are illiterate or have difficulties with writing and reading. Its main disadvantage is that the person may not remember well what they did on the previous day.

The 'tomorrow' diary has the advantage that it does not require the respondent to remember what happened. One disadvantage is that it requires commitment from the respondent to carry the diary with them during the following day and remember to write things down. In both South Africa and Mauritius, the statistical agencies found that many people did not fill in their diaries as requested. A second disadvantage is that it requires literacy skills.

All methods are open to bias. All methods may not give a true picture of a 'normal' day. For example, with observation, the fact that the person knows they are being observed could result in a change in behaviour. With self-reporting, the person can decide which activities they want to report and which they do not want to report.

All methods struggle to cope with simultaneous activities. Simultaneous activities happen when, for example, a woman looks after her child at the same time as cooking supper, or someone watches TV at the same time as eating supper. Some methods simply do not allow for multiple activities. Where methods allow for multiple activities, respondents may not always remember them. In particular, previous research suggests that women do not remember to mention all the child care work that they do. It seems that many women assume that their children will always be with them and must be cared for – they do not see it as an 'activity'. Where simultaneous activities are remembered, analysts struggle to find ways to analyse them. In particular, they struggle with the fact that simultaneous activities suggest that more than 24 hours work is done in a 24-hour day.

The simultaneous activity problem is an important one for us, as most research suggests that it is women, more than men, who do simultaneous work. Ignoring simultaneous work thus results, once again, in an undercounting of women's work.

## 4.2 Strength and weaknesses of the different methods

INSTRAW (1995) provides two matrices which reflect the strengths and weaknesses of the different methods of collecting information on time use. In both matrices INSTRAW distinguishes between ‘constrained’ methods – where the activities must add up to 24 hours and so can be checked – and ‘unconstrained’ methods. As noted above, constrained methods tend to be more exact than unconstrained methods.

The first matrix looks at strengths in terms of ‘inputs’ – what is required from the researcher and respondents. It categorises each method in terms of respondent cooperation, respondent knowledge, cost, and how easy the data is to process.

### Strengths and weaknesses of methods by input

	Respondent cooperation	Respondent knowledge	Cost	Processability
<b>Unconstrained</b>				
Stylised questions	Medium-high	Variable	Medium	Medium
Activity list	Medium-high	Variable	Medium	Medium
Activity log	Medium	Medium	Medium	Medium
<b>Constrained</b>				
<b>Interviewer administered</b>				
Activity matrix	Medium	Medium	Medium+	Medium+
Recall diary	High	Medium	High	Low-medium
<b>Respondent completed</b>				
Tomorrow diary	Medium	High	Low-medium	Low-medium
<b>Observation</b>				
Continuous	Low-medium	N/A	Very high	Medium
Random spot	Medium	N/A	High	Medium

Source: INSTRAW, 1995: 89

The second matrix looks at strengths and weaknesses in terms of output – the information produced. It categorises each methods in terms of:

- Validity – whether it gives an accurate picture;
- Reliability – whether a particular activity is likely to be reported accurately;
- Usability – how easy it is to use the data; and

- Flexibility – how much variety can be included in the reporting of activities.

### Strengths and weaknesses of methods by outputs

	Validity	Reliability	Usability	Flexibility
<b>Unconstrained</b>				
Stylised questions	Low	Low	Medium+	Low
Activity list	Low	Low	Medium+	Low
Activity log	High	High	High	Medium
<b>Constrained</b>				
<b>Interviewer administered</b>				
Activity matrix	Medium+	Medium+	Medium+	Medium+
Stylised questions	Medium+	Medium+	High	Medium
Recall diary	Medium	Medium	High	Very high
<b>Respondent completed</b>				
Activity matrix	High	High	High	Medium+
Tomorrow diary	High	High	Medium	Very high
<b>Observation</b>				
Continuous	Medium+	Medium+	Medium+	Very high
Random spot	Very low	Medium	Medium	High

Source: INSTRAW, 1995: 89

Which method you choose will depend on many things. Often the best method is not possible because of cost or time or personnel constraints.

### Big vs small studies

A statistical agency will be in a better position to do a full-scale time use survey. If the study is big enough, it can reveal patterns in who does the different activities – women or men, young or old, rural or urban, rich or poor. These disaggregations are important. Too often we talk loosely about ‘women’, and the disadvantages they face. But we must avoid a simple division into women and men, or female and male. In addition to these differences, there are also differences among women and among men. Many better-off women are not particularly disadvantaged by the burden of unpaid care work because they have the resources to employ other, poorer women to do the work for them. Some who are not particularly rich, have the status because of their age or because they are a mother-in-law which ensures that other (female) family

members bear the responsibility of the unpaid care work. There are also differences between women with young children and those who are childless. Generally, women with children do more unpaid care work than others.

A few people working together, for example in a non-governmental organisation, will want to do something smaller scale and less ambitious. These small studies can be useful, especially if government has not conducted a full-scale survey. Small studies can illustrate the nature of the problem and why it is important that government investigates further. Small studies can suggest patterns that can be investigated in bigger studies.

### Quantitative vs qualitative methods

Most of the methods described above are quantitative. They attempt to produce numbers on which types of activities are done and how much time is spent on them. Mark Blackden notes that quantitative time use studies 'say little about the social and cultural conditions that determine why people do what they do, or why the gender division of labour is the way it is' (Blackden, 1996: 1). He also quotes a UNDP report which suggests that the amount of effort and drudgery involved in unpaid care work will differ between different countries and different situations. Small studies allow for more qualitative insights. These insights add to our understanding of what the numbers from the bigger studies mean. Often NGOs or academic researchers are better placed to do the qualitative studies, while government statistical agencies are better placed to produce the big numbers.

Tshatsinde's (1998) work in a rural area of what is now Limpopo province of South Africa illustrates some of the benefits of a qualitative approach, particularly if we are interested in changing current patterns of unpaid care work. Tshatsinde's methodology included direct observation and informal interviews. Some of her quotes suggest the resistance that will come from women to attempts to change the gender division of labour.

An older woman told Tshatsinde: 'It is proper for men not to help with household duties, so that family members can respect them... If I can find my son cooking, while the wife is not sick, I will definitely refuse to eat and bid them goodbye because I will be most hurt.' (1998: 164). Another woman said it 'does not feel right for my husband to go and fetch water, people will think that I am failing in my duties because I am married for that purpose.' (1998: 165).

These views are understandable in the context of socio-cultural norms and values which classify certain types of work as only to be done by men and



boys other types only to be done by women and girls. It is these same socio-cultural values and norms that need to be changed if unpaid care work, considered women and girls' work, is to be recognized as having both a social and economic value.

### 4.3 Classifying activities

In stylised questionnaires the different activities that make up unpaid care work are asked about directly. In full-scale time diaries, on the other hand, respondents are usually asked to describe activities in their own words. The researcher or analyst must then classify and code all the activities to distinguish between unpaid care work and other categories of activities.

In the late 1990s, the United Nations Statistical Division (UNSD) came up with a trial International Classification of Time Use Activities (ICATUS). ICATUS was intended to provide a classification that would work for all countries – developed and developing. The UNSD started work on ICATUS because most of the earlier time use studies had taken place in developed countries and did not suit activities in developing countries very well. South Africa was one of the first countries to use ICATUS, in its 2000 time use study. Mauritius is now using the same classification in its 2003 study.

One of the strengths of ICATUS is that it divides activities into categories according to the way different activities are treated in the SNA. All activities are divided into ten broad categories numbered 1 through 9 and 0. The ten categories are:

- Work in establishments, e.g. working for government, in a factory or mine;
- Primary production, e.g. growing maize on a household plot or collecting fuel and water;
- Work in non-establishments, e.g. doing hairdressing at home;
- Household maintenance, e.g. cooking and cleaning the house;
- Care of persons, e.g. looking after children or the elderly;
- Community service, e.g. attending a political meeting or helping other households;
- Learning, e.g. attending school or doing homework;
- Social and cultural, e.g. socialising with family or friends;
- Mass media use, e.g. watching TV or listening to the radio; and
- Personal care, e.g. sleeping, eating, drinking, dressing, washing.

These ten categories are then grouped together into three bigger categories. Categories 1 through 3 are activities within the SNA production boundary. These activities should be included in calculations of the GDP. Categories 4 through 6 are 'work' activities, but fall outside the production boundary. They are the unpaid care work that is the topic of this guidebook. Categories 7 through 9 and 0 are 'non-productive' activities.

We can distinguish between productive and non-productive activities by using the 'third-person' rule. This rule says that any activity which we cannot pay anyone else to do for us – i.e. which cannot be marketised – is not production. So, for example, we cannot pay anyone to sleep for us, to learn for us, to watch TV for us, or to eat for us. But we can pay someone to look after children for us, or to do the housework.

The UNSD is planning to publish a manual on time use studies during 2003. You can find out about the manual and about ICATUS on their website, at [www.un.org/unsd/depts/timeuse](http://www.un.org/unsd/depts/timeuse).

#### 4.4 Work on unpaid care work in Africa

In 2000, the UNSD (UN, 2000) reported on recent time use surveys in five African countries:

- Morocco had a stand-alone time use survey in 1997/8. The survey only covered women aged 15-70 years old;
- Benin had a time use module in their multi-purpose household survey in 1998. The survey covered all people 6-65 years. The time use questionnaire used pre-listed activities rather than open-ended time slots;
- Chad included some questions on time use in their household survey of 1995;
- Nigeria conducted a stand-alone time use survey in 1998. The survey covered people aged 10 years and older, in four states and in Lagos. It included both rural and urban areas; and
- South Africa conducted a stand-alone time use survey in 2000. The survey covered people aged 10 years and older in all parts of the country.

More recently, Mauritius decided to do a time use survey. They are doing the survey throughout 2003, as an add-on module to their existing continuous multi-purpose household survey. The Central Statistical Organisation is drawing heavily on South Africa's experience in doing the survey. But it is making adaptations to suit their country.

As can be seen from the five country examples, some of the surveys are conducted as stand-alones – they focus only on time use. Others are conducted as modules – extra sections added on to an existing survey. The stand-alone approach is more expensive, because you need to find money for a full survey. The advantage is that there is more 'room' for the time use questions without the questionnaire becoming too long. The modular approach is cheaper, and makes it more likely that time use surveys can be conducted regularly.

The above surveys were not the first studies of time use in Africa. The World Bank has compiled a bibliography of earlier time use studies in sub-Saharan Africa. The bibliography includes only quantitative studies, although the methodologies include participant observation as well as questionnaires. The table which follows summarises the studies covered in the World Bank bibliography. The table shows which country each study was conducted in, the date of the study, the main methodology, the 'unit' or object which was the focus, and the sample size (the number of units covered).

The table reveals that many of these studies had very small samples. Six studies focused primarily on agriculture and related time use. Further, many focused only on women, and thus do not allow for gendered comparisons of how men and women spend their time. In evaluating both these and the qualitative time use investigations, the Bank commented that most studies did not make the links between macro policies and their impact on the time use patterns of women and men.

## Quantitative time use studies in sub-Saharan Africa

Country	Date	Methodology	Unit studied	Sample size
Nigeria	1998	Participant observation Questionnaire	Women	40
Uganda	1993		Women	
Kenya	1998	Questionnaire	Women	
Botswana	1981	Survey 12 months	Entire household	4600 persons
Kenya	1990		Women	
Kenya	1990	Questionnaire	Household	69
Kenya	1990	Participant observation Survey	Entire household	75 households
Kenya	1990	Participant observation Open-ended interview	Women	44
Senegal	1986	Participant observation Questionnaire	Women	122
Zimbabwe	1992		Households	331
Botswana	1981	Survey	FHH & MHH	
Nigeria	1976	Participant observation Questionnaire	Women	82
Ghana, Botswana, Cameroon	1984			
Kenya	1985	Participant observation	Entire household	115
Cote d'Ivoire	1982	Interview	Women	880
Kenya	1998	Interview	Family	317
Nigeria	1982	Interview	Household	69
Kenya	1989	Participant observation	Entire household	260 individuals
Zimbabwe	1991	Interview Direct measure	Household	132
Senegal	1983	Spot observation	Mothers & children	139
Nigeria	1992	Participant observation	Household	429

Source: Derived from World Bank, undated.

### 4.5 Children's time use

Often we think only about women when we talk about unpaid care work. We forget that other people – and children in particular – may also do this type of work.

Most time use surveys have a minimum age cutoff. They do this because of the difficulty of asking children about what they do. For example, South Africa used a cutoff of ten years in its time use survey.

A good source for information on children's unpaid care work is the child labour surveys which have been conducted under the ILO's International Programme for the Eradication of Child Labour (IPEC). The objectives of these surveys is to determine how many children are engaged in child 'labour' rather than simply child 'work'. In other words, they accept that some work may not be harmful, and attempt to focus instead on work that is detrimental for children's well-being. The surveys differ in their methods. However, most of them include some types of unpaid care work among the issues covered.

The Zimbabwe child labour survey was conducted as an add-on to the June 1999 Indicator Monitoring Labour Force Survey. The survey adopted the usual ILO definition of employment described above. In producing the tables for the report, the analysts used the following cutoffs to define possible child labour:

- A cutoff of three hours or more per day for economic activities;
- A cutoff of five hours or more per day for 'housekeeping'.

The Zimbabwe report notes that the ILO recommends that seven hours or more *per week* of household chores be regarded as child labour. However, Zimbabwe reports on these activities mainly in terms of those who do five hours or more *per day* – amounting to 4% of children. Of those doing five hours or more, 60% are female.

In addition to the direct impact on children who actually do the unpaid care work, there are also ways in which unpaid care work affects the well-being of children indirectly. For example, a 1987 study in the United States of America found that single mothers spend about three hours a week less than married mothers providing child care. Overall, children in fatherless families have about six hours less care per week than those with both parents. This is particularly serious in respect of babies and very young children.

