

Measuring Time Use: An assessment of issues and challenges in conducting time-use surveys with special emphasis on developing countries

Methodological Inconsistencies, Harmonization Strategies, and Revised Designs

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Report for the UN Women's flagship Programme Initiative
"Making Every Woman and Girl Count" (MEWGC)

Three specific motives for this project

- 1. To better interpret results of national time use surveys, especially measures of time devoted to the care and supervision of dependents
- 2. To improve comparability and methods of harmonization across national surveys
- 3. To inform future survey design and related tools, in particular for making easier the conduct of such surveys across a broader range of countries at different income levels.

Bases for this work

- Reflexions, observations and comments that follow are based on the analysis on time-use surveys defined as
 - National
 - Using diary as method of data collection or a complete (or near-complete) list of activities through stylised questionnaires
 - With metadata and main findings published on national official websites (mainly statistical offices)
- At world level, 192 surveys in 81 countries have been found fitting with these criteria

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- *Issues, challenges and recommendations*

A brief history of the notion of work and of Time-Use Surveys (1)

- The concept of work has not always been as narrow as it has been in the recent past
 - In his monographs of European workers Frédéric Le Play (1855) attempts to establish the precise accounts of income and expenditures at family level and recognizes work performed by family members as main work and a major source of income (be it the production of goods or the production of services for the household)
 - For Alfred Marshall (1879) the national income includes “*all other services which one person may be hired to perform for another*”
 - Nancy Folbre (1991) recalls that the 1875 Census of Massachusetts listed housewife as a productive occupation as opposed to “not engaged wives merely ornamental”
- It is with the setting of national accounts that the production of goods and services for own consumption by the households tended to be excluded from the compilation of production
- Then progressively, the production of agricultural goods - later on of all goods (1993) including construction - was added up to the compilation of GDP

A brief history of the notion of work and of Time-Use Surveys (2)

- The concepts of labour force and employment were coined to fit with the definition of production and economic activity
- However, over time, some discrepancies appeared, such as water and wood/fuel fetching, activities included in the national accounts as early as 1968, or self-construction of houses
- The new standards adopted in 2013 for the definition of labour force and employment may be considered as an attempt to clarify the respective boundaries of production and employment and may be seen as a step towards the future recognition of services for own final use as part of GDP conceived as a measure of well-being

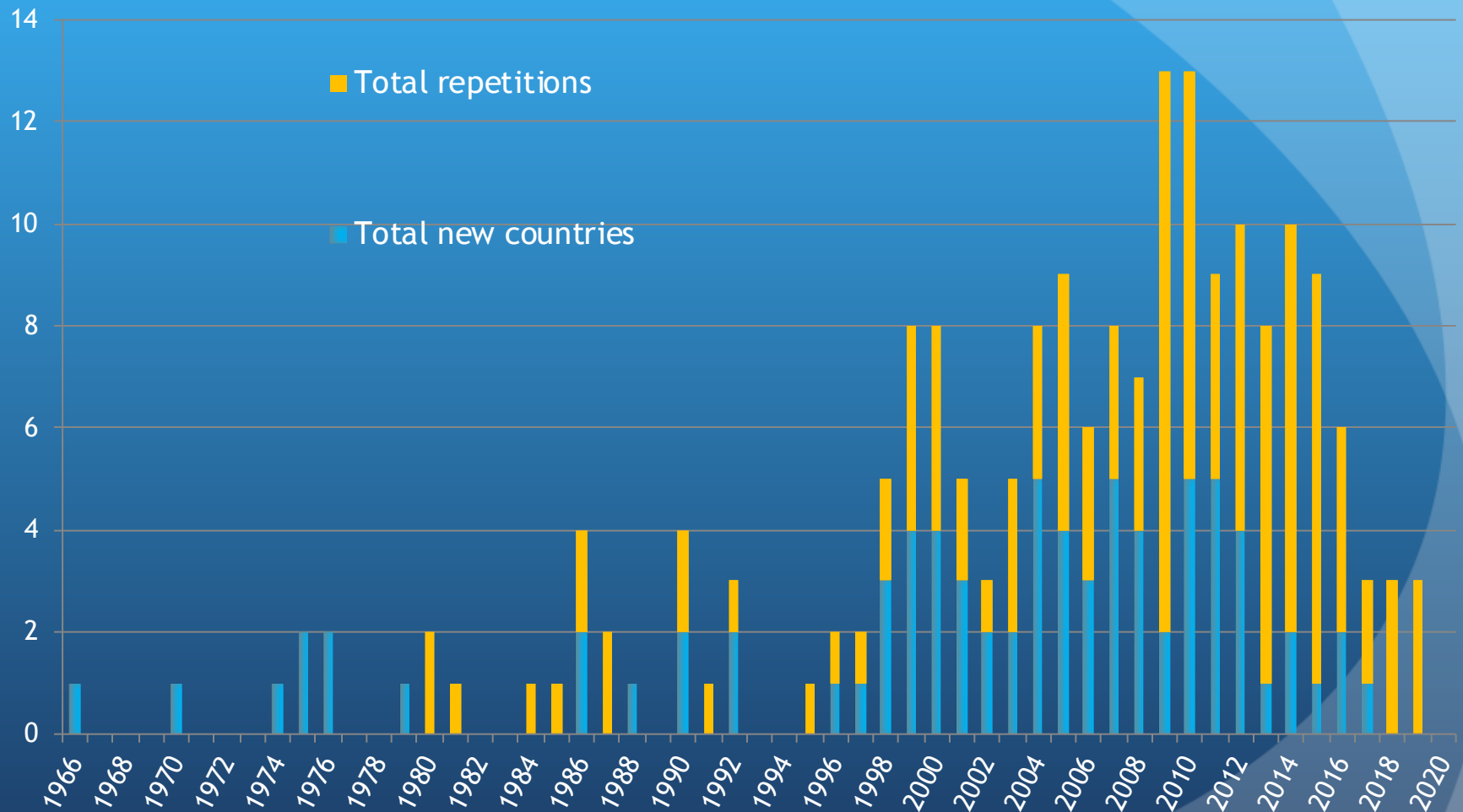
A brief history of the notion of work and of Time-Use Surveys (3)

- Time-use surveys however are not confined to the measurement of work even if it was their primary objective
 - Strumilin in the early 1920s in USSR launched such surveys on industrial workers, then clerical workers, farmers and the unemployed. Detailed categories of time were distinguished, but finally aggregated into three main categories evenly distributed: work, sleep and rest (free time). “A major aim of these surveys was to measure the temporal weight of housework, a category of activity that the soviet regime perceived as archaic and planned to reduce by organizing collective services and cultural activities”
 - In the early 1960s, Alexander Szalai (1972) launched and conducted the Multinational Comparative Time-Budget Research Project (1965-1972) in 12 countries, at the European Coordination Center for Research and Documentation in the Social Sciences, in Vienna. The edited book (Szalai ed. 1972) is simultaneously a manual of Time use surveys (diaries and classification in 99 activities) and a presentation of empirical results highlighting what would become commonalities in the study of time use
 - But the real start of time use surveys at national level can be dated from the end of the 1960s and the beginning of the 1970s with the surveys of Belgium (1966), Norway (1970), France (1974)

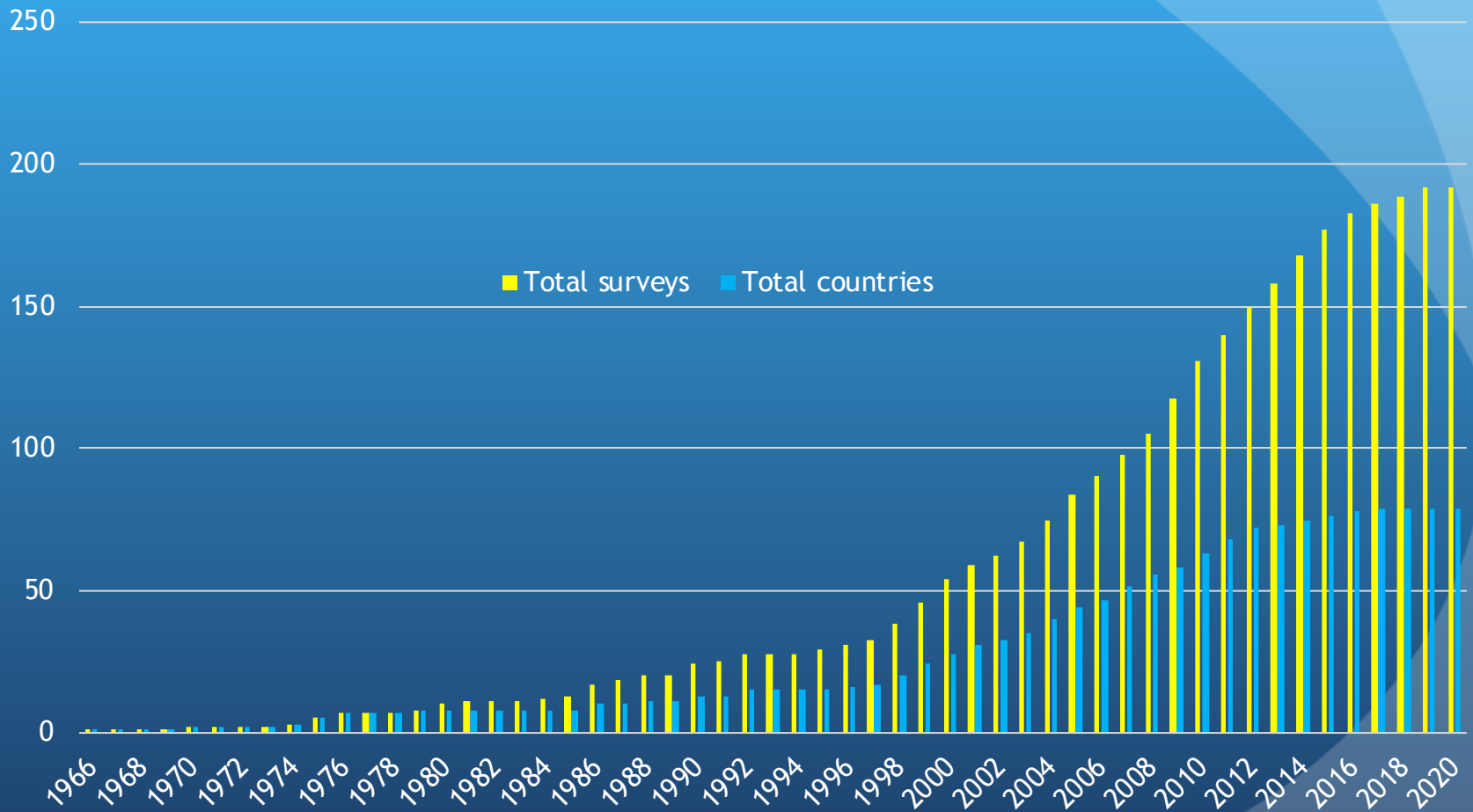
A brief history of the notion of work and of Time-Use Surveys (4)

- It is with the Beijing Conference in 1995 (Strategic objectives A4, F1 and F6 of the PoA) that a real impetus was given to data collection on time-use
- Actions to be taken by national and international statistical organizations:
Devise suitable statistical means to recognize and make visible the full extent of the work of women and all their contribution in the unremunerated and domestic sectors and examine the relationship of women's unremunerated work to the incidence of and their vulnerability to poverty
- Actions to be taken by Governments
 - *Seek to develop a more comprehensive knowledge of work and employment through, inter alia, efforts to measure and better understand the type, extent and distribution of unremunerated work, particularly work in caring for dependents and unremunerated work done for family farms or businesses, and encourage the sharing and dissemination of information on studies and experience in this field, including the development of methods for assessing its value in quantitative terms, for possible reflection in accounts that may be produced separately from, but consistent with, core national accounts*
 - *Examine a range of policies and programmes (...) to determine how to promote gender equality and flexibility in the way people divide their time between and derive benefits from education and training, paid employment, family responsibilities, volunteer activity and other socially useful forms of work, rest and leisure.*

Number of time-use surveys (new and repeated) per year



Cumulative numbers of countries and surveys



TUS by regions

Regions	Number countries	Number surveys	Number surveys/countries
North Africa	3	3	1
Arab countries	4	5	1,3
Sub-Saharan Africa	11	15	1,4
Eastern Asia	5	20	4,0
South-Eastern Asia and the Pacific	4	9	2,3
Southern Asia	3	4	1,3
Central and Western Asia	5	9	1,8
Latin America	14	23	1,6
Northern, Western and Southern Europe	24	70	2,9
Eastern Europe	6	12	2,0
North America	2	22	11,0
Total	81	192	2,4

Regional coverage of time-use surveys

	Nr of surveys	% coverage	In % of HDR countries
Africa	14	25.9	25.9
Latin America and Caribbean	14	38.9	56.0
Arab States	4	36.4	36.4
Eastern Asia	5	62.5	62.5
South Eastern Asia and the Pacific	4	13.8	30.8
Southern Asia	3	33.3	37.5
Northern, Southern and Western Europe	24	70.6	85.7
Eastern Europe	6	60.0	60.0
Central and Western Asia	5	45.4	45.4
Developed countries (high income)	33	49.2	67.3
Emerging countries (middle income)	38	32.2	38.4
Developing countries (low income)	6	20.0	20.0
World	81	37.7	42.9

North Africa	Arab countries	Sub-Saharan Africa	Eastern Asia	South-Eastern Asia and the Pacific	Southern Asia	Central and Western Asia	Latin America	Northern, Western and Southern Europe	Eastern Europe	Northern America
Algeria (2012)	Iraq (2007)	Benin (1998) (2015)	China (2008) (2018)	Australia (1992) (1997) (2006)	India (1998-99) (2019)	Armenia (2008)	Argentina (Buenos Aires) (2005)	Albania (2010-11)	Belarus (2014-15)	Canada (1986) (1992) (1998) (2005) (2010) (2015)
								Austria (1992) (1998) (2008-09)		
								Belgium (1966) (1999) (2005) (2013)		
Morocco (2011-12)	Oman (2007-08)	Cameroon (2014)	Japan (1976), (1981), (1986), (1991), (1996), (2001) (2006) (2011) (2016)	Cambodia (2004)	Iran, Islamic Rep. of (2009)	Azerbaijan (2008) (2012)	Brazil (2016) (2017) (2018)	Denmark (1975) (1987) (2001)	Bulgaria (2001-02) (2009-10)	United States (2003) (2004) (2005) (2006) (2007) (2008) (2009) (2010) (2011) (2012) (2013) (2014) (2015) (2016) (2017) (2018)
								Estonia (1999-2000) (2009-10)		
Tunisia (2005-06)	Occupied Palestinian Territory (1999-2000) (2012-13)	Cabo Verde (2012)	Korea, Rep. of (1999) (2004) (2009) (2014)	New Zealand (1998-99) (2009-10)	Pakistan (2007)	Kazakhstan (2006) (2012)	Chile (2015)	Finland (1979) (1987) (1999) (2009)	Hungary (1986-87) (1999-2000) (2009-10)	
								France (1974) (1986) (1999) (2010)		
	Qatar (2012-13)	Ethiopia (2013)	Mongolia (2007) (2011) (2015) (2019)	Thailand (2004) (2009) (2014-15)		Kyrgyzstan (2010) (2015)	Colombia (2012-13) (2016-17)	Germany (2001-02) (2012)	Moldova (2011-12)	
		Ghana (2009)	Taiwan (2004)			Turkey (2006) (2014-15)	Costa Rica (2004) (2017)	Greece (2011-12) (2013-14)	Poland (1976) (1984) (2003-04) (2013)	
		Madagascar (2001)					Cuba (2001)	Ireland (2005)	Romania (2011-12)	
		Mali (2008)					Dominican Rep. (2016)	Italy (1988-89) (2002-03) (2008-09) (2013-14)		
		Mauritius (2003)					Ecuador (2005) (2007) (2012)	Latvia (1996) (2003)		
		South Africa (2000) (2010)					El Salvador (2010)	Lithuania (1990) (2003)		
		Tanzania, United Rep. of (2006) (2014) (2018)					Mexico (2002) (2009) (2014)	Macedonia, Former Yugoslav Rep. of (2004) (2009) (2014-15)		
								Netherlands (1975) (1980) (1985) (1990) (1995) (2000) (2005-06) (2010-11) (2015-16)		
		Uganda (2017-18)					Panama (2011)	Norway (1970) (1980) (1990) (2000) (2010)		
							Paraguay (2016)	Portugal (1999) (2015*)		
								Serbia (2010-11)		
							Peru (2010)	Slovenia (2000-01)		
							Uruguay (2007) (2013)	Spain (2002-03) (2009-10)		
								Sweden (1990-91) (2000-01) (2010-11)		
								Switzerland (1997) (2000) (2004) (2007) (2010) (2013) (2016)		
								UK (2000) (2005) (2015)		

Objectives of TUS

- Further to the objectives and actions adopted by Beijing PoA, three main objectives deserve to be stressed
 - The measurement of time poverty that helps individualise poverty measures and inform the feminisation of poverty
 - The setting of national time accounts and satellite accounts of household production: a full account of the unpaid care economy and of the household production at large would surely enhance the economic status of women by recognising their essential economic role in building and maintaining the human capital of the household members (children and adults)
 - The design of policies and measures for alleviating the time spent by women in unpaid care work as formulated by SDGs' Goal 5 "Achieve gender equality and empower all women and girls" focuses on the necessity to "Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate"

Indicators of TUS (1)

Three basic indicators

- time spent by participants, that sticks better to the perceived real life but cannot be added up because the participants are not the same for each activity
- participation rates
- time spent by total population (participants and non-participants), sometimes called 'social time' that has the advantage of being able to be added up to 24 hours but may be less well perceived by users because it lowers much the time dedicated to a given activity (for instance child care may be found far too much underestimated as compared with time dedicated by a young mother)

$(\text{Time spent in an activity} / \text{Number of Participants}) * (\text{Number of Participants} / \text{Total population}) = (\text{Time spent in an activity} / \text{Total population})$

Both measures of time may be misleading if not well understood

Publications related to surveys with stylized questionnaires generally emphasise time for participants

Simultaneous activities

- Diary surveys systematically collect data on simultaneous activities whereas stylised questionnaires tend to include simultaneous activities in the responses collected
- However published results have been rather disappointing
- They seem to privilege simultaneous activities such as listening to radio, watching television, or using smartphones, or socialising rather than childcare or adult care
- Noticeable exceptions can be noted in agriculture where cutting grass/fodder or fetching firewood can be performed simultaneously with keeping the herd
- The results are tightly linked with the content and the strength of interviewers' training
- In other words, it could be preferable to include in the diary the type of simultaneous activity we want to measure

Main categories of time

Necessary

Sleep

Other personal
care

Work

Contracted

- Learning
- Paid work

Committed

- unpaid care work
 - domestic chores
 - care of children and adults
 - care work for other households or community

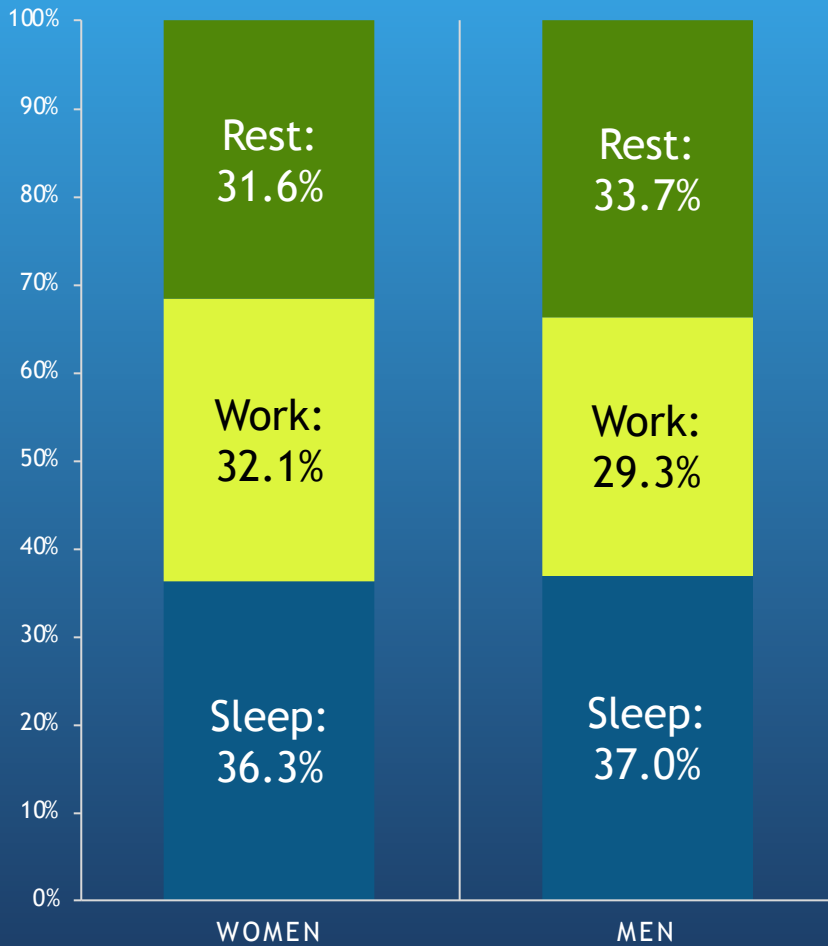
Free

Leisure

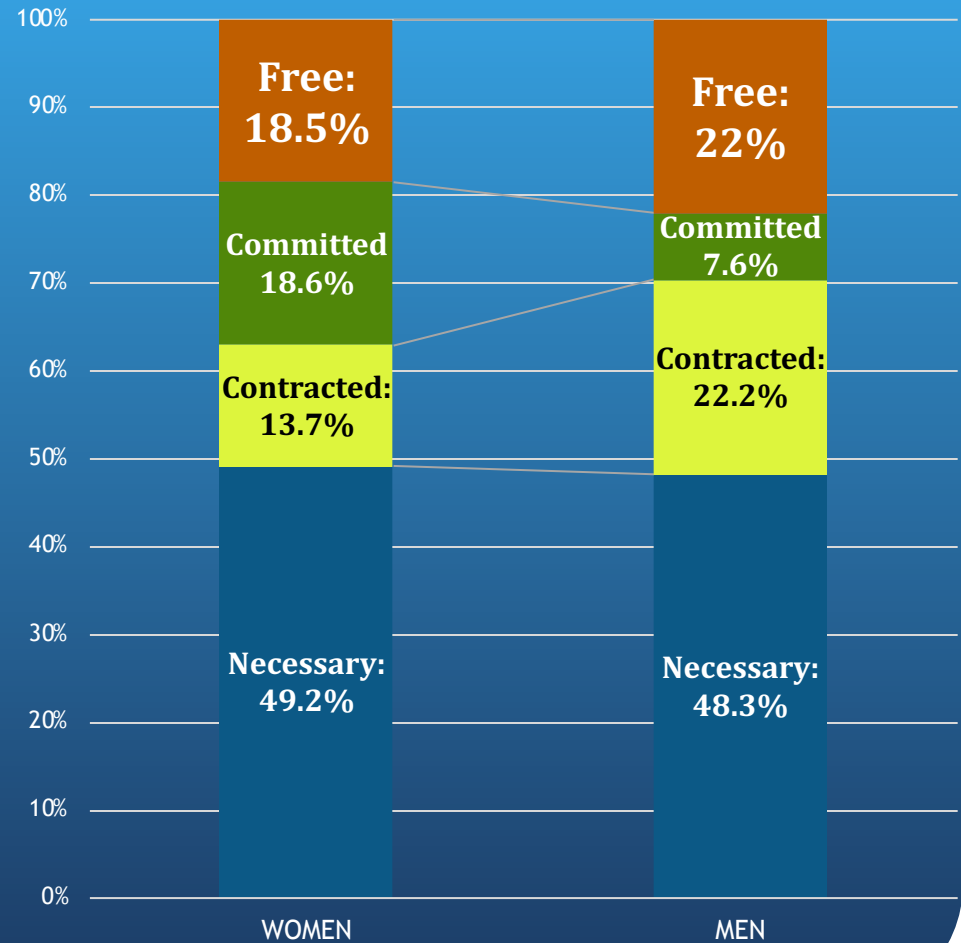
Socialising

A world perspective

WORLD 44 COUNTRIES



WORLD 72 COUNTRIES



Typology of TUS and their methodological characteristics

- Stand-alone TUS based on diaries
- Modular TUS based on diaries attached to, or sub-sampled from other regular household surveys
- Modular TUS based on list of stylised questions (extended list) attached to other regular multi-purpose household surveys
- Modular TUS based on list of stylised questions (short list) attached to other regular multi-purpose household surveys

Pros and cons of diary surveys

- Absence of proxy respondents
- Control of total number of hours per day
- Complexity for the interviewee and the interviewer
- Risk of high non-response rates

And for modular diary surveys (Pros shared with stylised questionnaires):

- Simultaneous collection of all other data useful for analysis (in other modules)
- Cost-effectiveness

Meta data collected for establishing a typology of Time-use surveys (1)

- *year and period* of data collection
- *type of survey*: stand-alone, module of what type of multi-purpose household survey, sub-sample of a household survey
- *minimum age* (and maximum if applicable)
- *sample size* (households and individuals)/sample rates (households and individuals)
- non-response rates (households and individuals) and measures taken for dealing with them (replacement techniques, reweighting procedures)
- *type of sampling procedure* for individuals (if any)
- *survey instrument* (1, 2 or more diaries, list of stylized questions, their number and their complete coverage of activities or not)
- *mode of data collection* (self-filling, interview, computer-assisted, observation, other)
- *classification* used

Meta data collected for establishing a typology of Time-use surveys (2)

- *definition of unpaid work*: inclusion/exclusion (but identification) of specific System of National Accounts (SNA activities) such as fetching water and firewood or other sources of energy, construction of own housing, and all other production of goods for own final use by the household
- *types of publications and availability* (published reports, detailed tabulations, availability in electronic format, micro-data policy)

Meta data collected for establishing a typology of Time-use surveys: stylised questionnaires

- *number of questions* for paid work, for unpaid care work, for personal care, for other non-productive activities
- *variations in the wording* of questions referring to paid work and to unpaid care work
- *period of reference* (day, week, other)
- *are proxy respondents accepted* for completing the individual list of activities, especially in the event of non-response?

Meta data collected for establishing a typology of Time-use surveys: Diaries

- *length* of time slot
- *number* of activities per time slot
- *methods of treatment of weekly variations* (weekdays and weekends days)
- *methods of treatment of seasonal variations* (several rounds, rotating samples, etc.)
- *methods of treatment of simultaneous activities*, especially for supervisory care
- *type of contextual questions* (where, with whom, for whom, ...)
- *type and list of questions for characterizing the individual, the household, the housing premises and, if time-use survey is a sub-sample of a household survey, possibilities of linking time-use data with other data of the household survey*

Main methodological characteristics of TUS across the world

Number countries	Type of survey		Seasonal variations	Sampling methodology		Instrument of data collection			Use of light diary	Mode of data collection			Classifications		
	Stand alone	Modular		Sampling of individual household members	Survey of all eligible	1 diary	2 diaries or more	Stylised questions		Interview	Mixed	Self-completion	ICATUS	HETUS	CAUTAL
78	53	25	49	15	55	29	30	12	8	33	28	7	16	23	4 + 7 *

Instruments and modes of data collection

- There are two main *instruments of data collection*: diaries (83.1% of the surveys) and lists of stylized questions (16.9%), as well as a combined version of the two instruments in what is called “light diary” (13.6% of the diary surveys, including one country - Japan - using both the complete and the light diary) where the 24 hours of the day are declined along a short list of time-use activities (at least corresponding to the one-digit common classifications)
- Three *Modes of data collection* can be distinguished: interviews in the field (that is at interviewee’s home) characterizes surveys with stylized questionnaires, whereas diary surveys can apply self-record by the respondent as well as interviews and mixed methods. In all cases, the interviewer visits the interviewee’s home and eventually leaves the diary behind after providing instructions for fulfilling it and comes back to pick it up. Computer assisted telephone interviews (Canada, USA, Sweden) are another mode of data collection

Non response rates	Households	Individuals/diaries
Algeria	29.5	
Tunisia	4.3	
Benin	33.2	
Cameroon	22.4	11.6
Ethiopia	0.8	0.9
Ghana	0.5	13.5
South Africa	12.5	
Tanzania	0.4	
Argentina	11	
Chile	30	24
Costa Rica		24.9
Dominican Republic	7.2	2.5
Ecuador	7.6	
Mexico	15	3.2
Canada		61.8
USA		54.4
Mongolia	# 0	
India	0.2	
Pakistan	1.1	
Albania	8.5	21.8
Denmark		34.2
Estonia	54.7	4.7
Greece	39.1	
Ireland	42.1	25.6
Lithuania	41.7	54.5
Slovenia	47.5	
Sweden		59
UK	59.6	18.9
Poland	6	67
Average	20.2	25.9

Trial ICATUS 2005	ICATUS 2016	HETUS 2018	ATUS	CAUTAL 2015
<u>01 - Work for corporations/quasi-corporations, non-profit institutions and government (formal sector work)</u>	1 Employment and related activities	1 Employment	7 Working and work-related activities	1 Employment and related activities
<u>02 - Work for household in primary production activities</u>	2 Production of goods for own final use			2 Own-use goods production
<u>03 - Work for household in non-primary production activities</u>				
<u>04 - Work for household in construction activities</u>				
<u>05 - Work for household providing services for income</u>				
<u>06 - Providing unpaid domestic services for own final use within household</u>	3 Unpaid domestic services for household and family members	3 Household and Family Care	3 Household activities	3 Unpaid domestic work for own household
<u>07 - Providing unpaid caregiving services to household members</u>	4 Unpaid caregiving services for household and family members		4 Purchasing goods and services	
			5 Caring for and helping household members	4 Unpaid care for household members
<u>08 - Providing community services and help to other households</u>	5 Unpaid volunteer, trainee and other unpaid work	4 Voluntary Work and Meetings	6 Caring for and helping non household members	5 Unpaid work for other households or community, volunteering
<u>09 - Learning</u>	6 Learning	2 Study	8 Educational activities	6 Learning and study
<u>10 - Socializing and community participation</u>	7 Socializing and communication, community participation and religious practice	5 Social Life and Entertainment	9 Organizational, civic, and religious activities	7 Socialising and leisure activities
<u>11 - Attending/visiting cultural, entertainment and sports events/venues</u>			11 Telephone calls, mail, and e-mail	
<u>12 - Hobbies, games and other pastime activities</u>	8 Culture, leisure, mass-media and sports practices	6 Sports and Outdoor Activities	10 Leisure and sports	
<u>13 - Indoor and outdoor sports participation and related courses</u>		7 Hobbies and Computing		
<u>14 - Mass media</u>				
15 - Personal care and maintenance	9 Self-care and maintenance	0 Personal Care	1 Personal care 2 Eating / drinking	9 Self-care
		9 Travel and Unspecified Time Use	12 Other activities, not elsewhere classified	

Examples of diaries

Diary of HETUS 2018

TIME USE DIARY page 1/8

Time	What were you doing? <i>Record your main activity for each 10-minute period from 07.00 to 10.00!</i> Only one main activity on each line! Distinguish between travel and the activity that is the reason for travelling.	What else were you doing? <i>Record the most important parallel activity.</i>	Did you use a computer, smart device, internet, online tool, or similar technology or device for doing this? Yes	Where were you? <i>Record the location or the mode of transport.</i> e.g. at home, at friends' home, at school, at workplace, in restaurant, in shop, on foot, on bicycle, in car, on motorbike, on bus, ...	Were you alone or together with somebody you know? Mark "yes" by crossing					
					Alone (or with unknown persons)	With other household members			Other persons that you know	
					Partner	Parent	Children (up to 17 years)	Other household member		
04:00-04:10			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
04:10-04:20			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
04:20-04:30			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
04:30-04:40			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
04:40-04:50			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
04:50-05:00			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
05:00-05:10			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
05:10-05:20			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
05:20-05:30			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
05:30-05:40			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
05:40-05:50			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
05:50-06:00			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
06:00-06:10			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Detailed diary of the 2016 Japan time-use survey

All the respondents are asked to reply.

16 Diary

*Please report on you did on each of the two days specified and how much time you spent on each activity, in units of 15 minutes.

(1) Select the feature of this day from the categories listed below. (Please fill in the circle all applicable categories)										(2) How was the weather on this day?			
Travel and excursion	Event, wedding or funeral (lasting over half a day)	Business trip or training, etc.	Work at home	Under medical treatment	Holiday or vacation, etc.	Leave for child rearing or taking care of a sick child	Leave to take care of a family member	Other			Rained all day long	Rained occasionally	Not rained
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

04

[First Day]

Morning

Time	What were you mainly doing? ※ Please report what you were mainly doing in 15 minute units	Using smartphone/PC	Were you doing something else at the same time? ※ When doing several things please report just one	Using smartphone/PC	Place				Persons being together (Please encircle all applicable categories)							Time and hour code
					1 At home	2 At school or work	3 On travel	4 Other	1 Alone	2 Father	3 Mother	4 Son(s) or daughter(s)	5 Spouse	6 Other family member(s)	7 Other person(s) from work, school, etc.	
0:00					1	2	3	4	1	2	3	4	5	6	7	01
.30					1	2	3	4	1	2	3	4	5	6	7	02
1:00					1	2	3	4	1	2	3	4	5	6	7	03
.30					1	2	3	4	1	2	3	4	5	6	7	04
2:00					1	2	3	4	1	2	3	4	5	6	7	05
.30					1	2	3	4	1	2	3	4	5	6	7	06
3:00					1	2	3	4	1	2	3	4	5	6	7	07
.30					1	2	3	4	1	2	3	4	5	6	7	08
4:00					1	2	3	4	1	2	3	4	5	6	7	09
.30					1	2	3	4	1	2	3	4	5	6	7	10
5:00					1	2	3	4	1	2	3	4	5	6	7	11
.30					1	2	3	4	1	2	3	4	5	6	7	12
6:00					1	2	3	4	1	2	3	4	5	6	7	13
.30					1	2	3	4	1	2	3	4	5	6	7	14
7:00					1	2	3	4	1	2	3	4	5	6	7	15
.30					1	2	3	4	1	2	3	4	5	6	7	16
8:00					1	2	3	4	1	2	3	4	5	6	7	17
.30					1	2	3	4	1	2	3	4	5	6	7	18
9:00					1	2	3	4	1	2	3	4	5	6	7	19
.30					1	2	3	4	1	2	3	4	5	6	7	20
10:00					1	2	3	4	1	2	3	4	5	6	7	21
.30					1	2	3	4	1	2	3	4	5	6	7	22

The Ghana 2009 Time-Use Survey

Member ID - -

SECTION 2: TIME USE

1. T I M E C O D E	2. A C T I V I T Y	3. Activity description	4. Activity code	5. Duration of Activity (in minutes)	6. Whom did you do this for?	7. Simultaneous Activity	8. Location 1	9. Location 2
	NO	A MAXIMUM OF 5 ACTIVITIES PER HOUR WITHIN THE 24 HOURS			1 Self 2 Household 3 Work 4 Friend 5 Charity 6 Community 7 Child 8 Other	Y E S N O	1 At home 2 Someone's house 3 School, college 4 Workplace 5 Other 6 Travelling/moving IF NOT 6 GO TO NEXT ACTIVITY	1 Walking 2 Private Car 3 Taxi 4 Train 5 Bus 6 Bicycle 7 Other <input type="text"/>
04:00 To 05:00	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> <input type="radio"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> <input type="radio"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> <input type="radio"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> <input type="radio"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> <input type="radio"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> <input type="radio"/>	<input type="text"/>	<input type="text"/>

Stylised questionnaires

Number of activities or questions in time-use surveys with stylized questionnaires and classifications

	CAOTAL 2016	Brazil 2017	Chile 2015	Colombia 2016-17	Costa Rica 2017	Dominican Rep 2016	Ecuador 2012	Mexico 2014	Paraguay 2016	Peru 2010	ICATUS
Paid work	8	-	3	4	2	2	3	4	2		20
Production of goods for own final use	15	4			8	2	15	9	5		24
Total paid work	23		3	4	10	4	18	13	7		44
Domestic services	27	8	22	22	36	1	51	34	10	51	30
Care of household members	32	6	46	13	23	1	25	26	27	23	23
Care of other household, community, volunteering	9	7	8	11	20	1	7	8		16	14
Total unpaid care work	68	21	76	46	79	3	83	68	37	90	67
Education	6	-	4		6	3	4	3		7	9
Other	23	-	19	19	14	7	24	18	8	24	45
Total (excluding paid work)	97	21	99	65	99	10	111	89	45	128	121

Stylised questions on the Production of goods for own final use in Mexico

Ahora le preguntaré sobre las actividades que hizo para su hogar. Por favor, si al mismo tiempo usted realizó varias actividades, separe el tiempo que le dedicó a cada una.

PRODUCCIÓN DE BIENES PARA CONSUMO EXCLUSIVO DEL HOGAR

6.3 Durante la semana pasada, SÓLO para el consumo de su hogar, ¿usted...

6.3a ¿Cuánto tiempo le dedicó...

REGISTRE EL CÓDIGO CORRESPONDIENTE

REGISTRE CON NÚMERO

Sí..... 1 →

de lunes a viernes?

sábado y domingo?

No..... 2 ↓

HORAS

MINUTOS

HORAS

MINUTOS

1 cuidó o crió animales de corral (ordeñar, recolectar huevos, etc.)?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
2 recolectó leña?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
3 recolectó plantas, hongos, flores o frutos silvestres; pescó o cazó?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
4 sembró o cuidó lo que plantó en el traspatio o huerto?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
5 acarrió o almacenó agua?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
6 elaboró o tejió ropa, manteles, cortinas o textiles, etc.?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
7 elaboró alimentos para conservarse o almacenarse? (mermeladas, conservas, encurtidos, salar carne, chocolate, pan, quesos u otros)	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
8 hizo muebles, utensilios de cocina, blocks, adobes u otros productos?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>
9 amplió o remodeló <u>usted mismo(a)</u> su vivienda o la estuvo construyendo?	<input type="text"/>	:	<input type="text"/>	:	<input type="text"/>

Stylised questions on childcare in the Mexico time use survey (ENUT) 2014

- Several sets of questions for
 - Children aged 0-5
 - Children aged 0-14
 - Dependent persons (disabled, sick)
 - Not dependent, aged 15-59
 - Not dependent, aged 60+

Stylised questions on childcare in the Mexico time use survey (ENUT) 2014



Encuesta Nacional sobre Uso del Tiempo 2014



CUIDADO A INTEGRANTES DEL HOGAR DE 0 A 14 AÑOS, NO DEPENDIENTES

FILTRO 6.13 VERIFIQUE SI HAY INTEGRANTES DE 0 A 14 AÑOS Y SIN CUIDADOS ESPECIALES (SU NÚMERO DE RENGLÓN (NOMBRE) NO ESTÁ EN 3.11a)

CIRCULE UN SOLO CÓDIGO

- Sí {
 Otra(s) persona(s); otra(s) persona(s) y el (la) informante 1 → CONTINÚE Y SÓLO PREGUNTE POR EL CUIDADO QUE EL (LA) INFORMANTE DIO A OTRA(S) PERSONA(S) DEL HOGAR
 Solo el (la) informante 2 }
 No 3 } PASE A FILTRO 6.14

6.13 Durante la semana pasada, ¿usted a (NOMBRE(S))...

6.13a ¿Cuánto tiempo le dedicó...

REGISTRE EL CÓDIGO CORRESPONDIENTE

REGISTRE CON NÚMERO

- Sí 1 →
 No 2 ↓

de lunes a viernes?		sábado y domingo?	
HORAS	MINUTOS	HORAS	MINUTOS

- | | | | | | |
|--|----------------------|---|----------------------|---|----------------------|
| 1 lo(s) llevé y/o recogí de la guardería, de clases, de la casa de algún familiar o amigo para ser cuidado? | <input type="text"/> | : | <input type="text"/> | : | <input type="text"/> |
| 2 le(s) dio terapia especial o ayudé a realizar ejercicios? | <input type="text"/> | : | <input type="text"/> | : | <input type="text"/> |
| 3 lo(s) ayudé en las tareas de la escuela? | <input type="text"/> | : | <input type="text"/> | : | <input type="text"/> |
| 4 asistí a juntas, festivales o actividades de apoyo en la guardería o escuela? | <input type="text"/> | : | <input type="text"/> | : | <input type="text"/> |
| 5 lo(s) llevé, recogí o esperé para que recibiera(n) atención de salud? (vacunas, dentista, chequeo médico, etc.) | <input type="text"/> | : | <input type="text"/> | : | <input type="text"/> |
| 6 mientras hacía otra cosa, lo(s) cuidé o estubo al pendiente? | <input type="text"/> | : | <input type="text"/> | : | <input type="text"/> |

Other TUS

- Many countries have included short modules on time-use, sometimes since a long time, following the efforts in this sense made by the Living Standard Measurement Study (LSMS) of the World Bank or by its substitute or alternative, the Social Dimensions of Adjustment (SDA) Integrated survey (World Bank 1991)
- Some of these surveys were limited to data collection on time spent in water -and firewood- or fuel-fetching (Malawi 2013 where a few questions were also added for unpaid labour for other households). Others extended to a global question on “housekeeping” (LSMS Vietnam 2004) or sometimes more detailed (Nepal 2010; Guatemala MECOVI 2000 or Argentina 2013), but the most recent surveys (for instance LSMS Cambodia 2019) have included what resembles to a light diary (with 26 activities). This LSMS survey for Cambodia could be added to our list of 81 countries

The module on time allocation of the LSMS household survey in Cambodia 2019

Form 3

CONFIDENTIAL

All information collected in this survey is strictly confidential and will be used for statistical purposes only.

Royal Government of Cambodia
Ministry of Planning
National Institute of Statistics

PSU No.

Household ID

HHID:
NAME OF RESPONDENT:

WAKE UP TIME:
SLEEP TIME:

MODULE : TIME ALLOCATION

PLEASE RECORD A LOG OF THE ACTIVITIES FOR THE INDIVIDUAL IN THE LAST COMPLETE 24 HOURS (STARTING YESTERDAY MORNING AT 4 AM, FINISHING 3:59 AM OF THE CURRENT DAY). THE TIME INTERVALS ARE MARKED IN 15 MIN INTERVALS. MARK ONE PRIMARY ACTIVITY FOR EACH TIME PERIOD BY ENTERING THE CORRESPONDING ACTIVITY CODE IN THE BOX. A SECONDARY ACTIVITY (OPTIONAL) CAN BE ENTERED IN CASE OF SIMULTANEOUS ACTIVITIES.

INSTRUCTIONS: THIS MODULE SHOULD BE ADMINISTERED TO ALL HOUSEHOLD MEMBERS AGE 18 AND ABOVE.

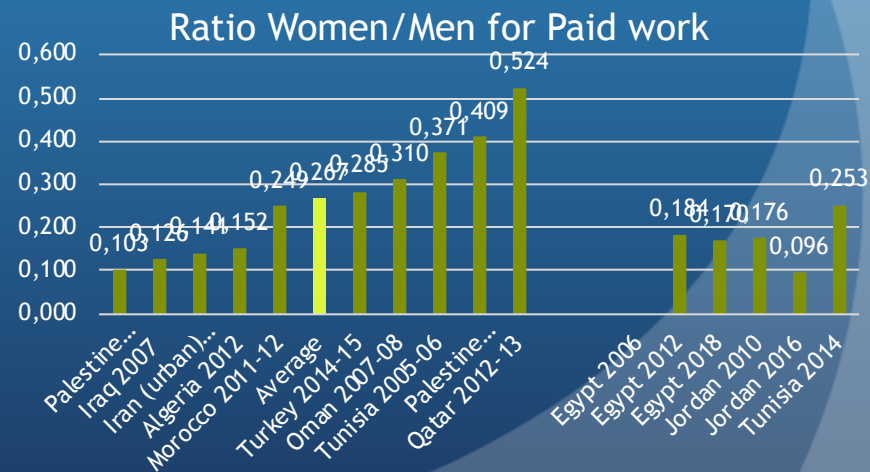
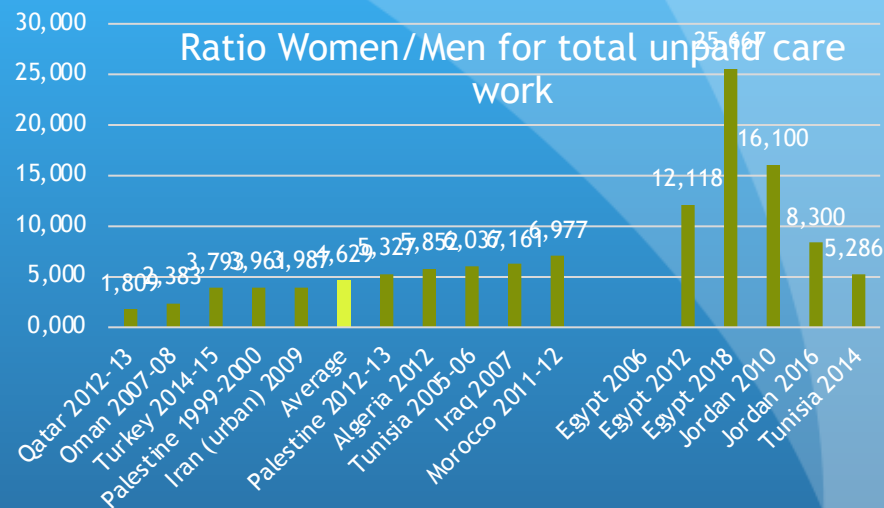
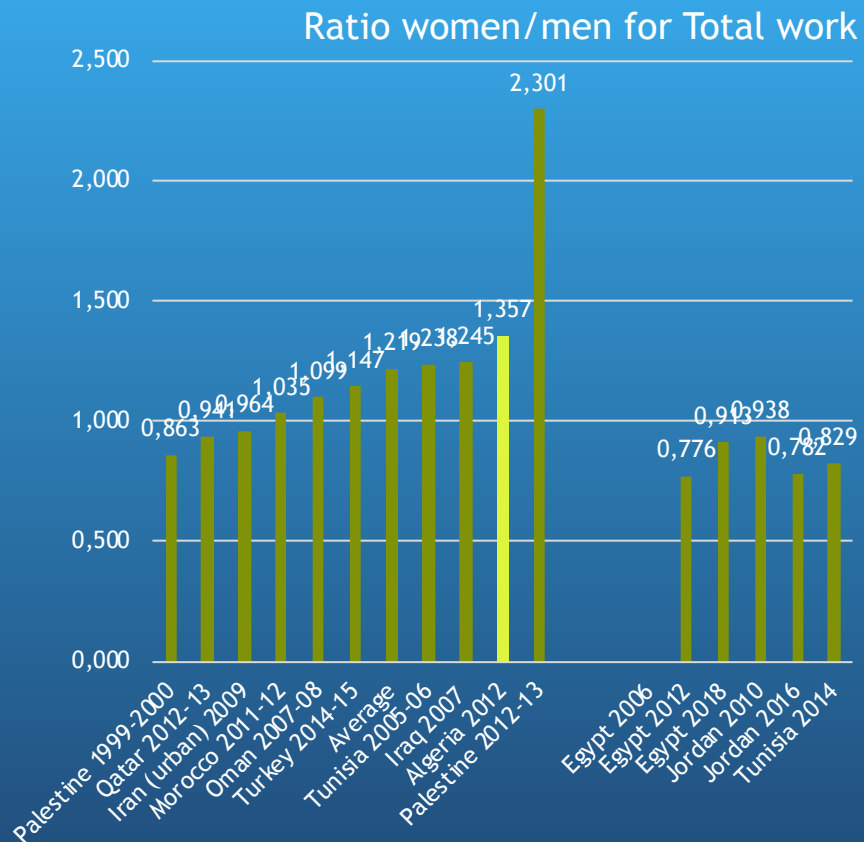
Now I'd like to ask you about how you spent your time during the past 24 hours. We'll begin from yesterday morning, and continue through to this morning. This will be a detailed accounting. I'm interested in everything you did (i.e. resting, eating, personal care, work inside and outside the home, caring for children, cooking, shopping, socializing, etc.), even if it didn't take you much time.

	Night		Morning		Day								
	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	
1. Primary Activity (WRITE ACTIVITY CODE)													
2. Secondary Activity (WRITE ACTIVITY CODE)													
	Day		Evening		Night								
	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	1:00	2:00	3:00	
3. Primary Activity (WRITE ACTIVITY CODE)													
4. Secondary Activity (WRITE ACTIVITY CODE)													

ACTIVITY CODES

A.....Sleeping and resting	E.....Work for a wage, salary, commission or in-kind payment (incl. ganyu , paid apprenticeships)	N.....Cook or prepare food or drinks to preserve them	U.....Plan the household's finances or bills
B.....Eating and drinking	F.....Run, work or help in a non-agricultural and non-fishing household business	O.....Collect firewood or other natural products	V.....Travelling and commuting
C.....Personal care	G...Work for other households free of charge as exchange laborer	P.....Fetch water from natural or public sources	W....Watching TV/listening to radio/reading
D.....School (incl. homework)	H.....Farming	Q.....Clean the house, wash or iron	X.....Exercising
	I.....Livestock	R..Household maintenance or own construction work (e.g. to renovate, extend or build the household's dwelling)	Y...Social or religious activities and hobbies
	J.....Fishing	S.....Provide care or assistance to adults (18+ years)	Z.....Other
	K.....Hunt or gather foodstuffs	T.....Look after children (17 years or younger)	
	L.....Buy food or other items or obtain services		
	M.....Make goods (furniture, pottery, baskets, clothing)		

Gender gaps measured by the ratio of women to men in unpaid, paid and total work in two types of surveys (diaries and short stylised lists)



Issues and challenges

- It would be important to broaden the number of stakeholders so that they can subsequently take ownership of the survey outcomes and convert them into appropriate sectoral measures that would have been discussed beforehand
- There are indeed two pitfalls to avoid when conducting a time-use survey, especially in developing countries:
 - 1) At the initial stage, when the decision to conduct the survey is about to be taken or is in discussion, time-use surveys, which are often funded (at least partially) by external donors, do not sufficiently sensitise policy-makers outside gender ministries or statistical offices in charge of data collection;
 - 2) At publication stage, consultants in charge of drafting the survey report must be knowledgeable and specialists of time-use data: it is striking to note that the sections on time-use resulting from the analysis of short time-use modules embedded in multipurpose household surveys are often disappointing, misleading and not enough gender-disaggregated. Even in developed countries, the most basic and primary tabulations provided to the users on NSO's websites are not systematically disaggregated by sex (sex is treated as a variable among others) whereas any time-use statistic not disaggregated by sex is almost a nonsense. As a consequence, the dissemination of survey outcomes may be deceiving or falling short of the expectations of the stakeholders other than the direct sponsors.

Recommendations (1)

- Data collection through *diaries* should be preferred to lists of stylised questions. Diary is the only method ensuring that the time captured in all activities recorded does not exceed (or is less than) 24 hours. Stylised questionnaires naturally and logically mix main and secondary or simultaneous activities. Furthermore, stylised questionnaires are overburdening the interviewee as well as the interviewer and end in longer time interviews with increased costs
- However, if *stylised questionnaires* are used, *all activities should be covered* in the time-use module: paid work, as well as unpaid work, as well as free time and personal care. The *list of activities* needs to be complete, though non exhaustive in details. If paid work is captured in the employment module, the number of hours worked per week is at risk of not being equal to the number of hours actually worked recorded in parallel with other activities (questions are not identically designed). Moreover, if personal activities are not recorded, it is impossible to check whether the declared number of hours spent in unpaid work is overestimated or underestimated
- *Complete diaries or light diaries* should be chosen depending on national users' needs, the level of experience of national statistical systems, with the possibility of administering the light diary to the full sample and the complete diary to a sub-sample, as in Japan. However complete diaries may be less complex to fill with computer-assisted interview technologies, in particular the codification of activities at detailed level can be greatly facilitated (as in the case of the recent Uganda time-use survey)
- *Light diaries* should be based on a *list of activities* combining ICATUS at one, two or three digits, in order to capture some important activities at national level (such as water fetching, firewood or fuel fetching, or cooking, cleaning, etc.), without exceeding 20 to 30 activities.
- *All household members* over a minimum age should be interviewed rather than a random selection of members. This option is not only time-saving, but also less costly provided that several members are interviewed at the same place. However, the risk of overburdening the household exists and also the risk of uniformization of the responses in case the interviews are conducted in the presence of other members.

Recommendations (2)

- The choice of *minimum age* can be left to countries, but then the results should be systematically presented in three sets: total population, the less than 15 and the 15+ (independently from tabulations by age groups).
- *Time slots* should not be less than 10 minutes (which means 6 slots per hour) and not exceed half an hour (2 slots per hour). The use of time slots is preferable to the record of exact time (beginning and ending time) except for left-behind diaries to be filled by the interviewees themselves.
- *Weekly variations* should be taken into account by recording two diaries for two consecutive days or one weekday and one weekend day rather than one diary combined with an equal representation of all days of the week in the sample (in the reality of fieldwork, it is difficult to ensure that such an equal representation respects the laws of probability).
- *Seasonal variations* should be taken into account through rotating samples over the year or at least two, three or four rounds corresponding to agricultural seasons. This impacts the cost of the survey.
- For developing countries and in general for countries where production activities for own final use by the households are important or are given a particular emphasis (transition countries for example), the *reference to ICATUS* should be preferred as *classification of time-use activities*.
- Other classifications (age group, educational level, marital status, activity status, employment status, age and number of children in the household, etc.) must be in adequation with national practices, but should also provide the equivalences required for international comparisons (as well as for comparisons over time). Age groups have a strong impact on time spent in learning or in paid work. though the definitions of adulthood, youth or old age, vary from one society to the other, it is important to be able to make comparisons on identical age groups. Another example is about categorising households by the presence and the number of children under a certain age: national practices vary extremely (for instance under 5, 5 to 11, 11 to 17, or 6 and 18, or 7 and 18, etc., or also the number of children).

Recommendations (3)

- *Simultaneous activities* should preferably be approached through privileging care of children or of adults, rather than through an open question, in order to avoid that care be in competition with use of mass media or use of electronic devices, for instance. Recent diaries have included a specific question, separate from simultaneous, to capture the impact of new technologies on our use of time. As they are pervasive, they risk to obscure or pollute all other activities, which are carried out in a passive way, especially care (“supervisory care” or “on-call time”). The radio, TV or smartphones are probably switched on all day long and interfere with all other activities, but the gender dimension of time-use surveys should lead us to focus on care, as regard simultaneous activities.
- *Contextual questions* such as where, with whom, for whom and modes of transport should be systematic and also harmonised, particularly the “with whom” (regardless of activity), and “in the same household” rather than “in the same room”. These questions are important for distinguishing between paid work activities, unpaid work activities, especially “supervisory” care, socialising, etc.
- *Non response rates* should be carefully looked at and the necessary sample *adjustments* should be made at individual (diary) level in order to ensure that the population is correctly represented in terms of sex, age, activity status and urban/rural location. It is highly probable that some household members are more at risk of being absent at the time of the visit of the interviewer (adults in paid employment for instance, or children at school)
- In time-use surveys, *gender* is not a variable among others and all tabulations should be disaggregated by sex. For instance, not all variables need to be cross-classified by the educational level, but all need to be cross-classified by sex. Similarly, gender is not a chapter of time-use survey reports. It is cross-cutting all dimensions.
- Limitation of survey reports to a minimum set of tabulations under the pretext that the database is there to respond to any further request, or that micro-data can be made available to users, is not advisable because it means that the information will not be available for the wider audience.
- *Repetition of surveys* should be planned. Though changing slowly, indicators of time-use are invaluable as impact indicators of gender policies outcomes. In developing countries, especially in Africa, living conditions surveys and more and more often labour force surveys are conducted with a certain regularity: on a 5-year basis and even less for labour force surveys. Light diaries could be systematically appended to labour force surveys and complete diaries to living conditions surveys. Where labour force surveys are not yet conducted, light diaries could be appended to living conditions surveys every 5-year and complete diaries every 10-year.

Thank for your attention