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**TIME-USE STATISTICS FOR PROMOTING GENDER
EQUALITY IN PAID AND UNPAID WORK**

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Time-use statistics for promoting gender equality in paid and unpaid work¹

I. Introduction

1. In recent years there has been a growing interest in time-use survey techniques. This interest stems not only from the central and strategic importance of time-use statistics for both policy and research purposes, but also from the versatility and the wide range of applications of time-use statistics in numerous areas of policy concern.² One such application is the promotion of gender equality. Time-use surveys are increasingly being used to acquire insight on how women and men allocate time to different activities, and as a basis for formulating gender sensitive policies in such areas as work, education, childcare, etc.³ This paper focuses mainly on how time-use statistics can be used to measure and value the paid and unpaid work of women and men and increase the visibility of their work both at home and in the labour market.

2. Section II gives an overview of the gender gap in paid and unpaid work. Sections III and IV describe the main concepts and definitions used in the paper and present some of the basic elements of a time-use survey using as examples the time-use surveys of Morocco, the Occupied Palestinian Territory and Oman. Sections V and VI focus on selected findings of the time-use surveys of Morocco and the Occupied Palestinian Territory, while section VII discusses some of the policy implications of these findings.

II. The gender gap in paid and unpaid work and the need for statistics

3. Today many countries formulate their economic and labour policies based on data that cover only paid activities. Unpaid work and its contribution to the welfare of society are not represented in the overall picture of the economy. The exclusion of unpaid work often results in an underestimation of national income and an overestimation of poverty.⁴ From a social point of view, this exclusion undervalues the contribution of unpaid workers and reduces their status in society.⁵

4. In many countries the brunt of unpaid domestic work falls on women⁶. Time-use surveys in Australia, France, Japan, Latvia, the Netherlands, New Zealand and the Republic of Korea have

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² United Nations (Forthcoming). *Guide to producing statistics on time use: measuring paid and unpaid work*, Series F, No. 93

³ United Nations (2000). *The world's women 2000: Trends and statistics*, Sales NoE.00.XVII.14

⁴ Economic and Social Commission for Asia-Pacific (ESCAP) (2001) *Guidebook on integrating paid and unpaid work into national policies*, Draft

⁵ United Nations. (1995). "Beijing Platform for Action". Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995, A/CONF.177/20

⁶ United Nations (2000), Op. cit

shown that women spend more time in unpaid work than men (see Table 1).⁷ A recent study in Finland found that women spend a greater number of hours involved in activities such as cooking and cleaning than men regardless of their employment status.⁸ Likewise, time-use surveys in Australia and New Zealand have shown that while the presence of small children greatly increases the number of hours women spend in unpaid work, men's participation in unpaid activities is not equally affected by the presence of children.⁹

5. As these studies indicate, women often enter the labour market bearing a disproportionate amount of domestic responsibilities. Because they have to balance the requirements of both paid work and unpaid domestic work, women are in some cases disadvantaged in the labour market. It has been observed, for example, that due to their domestic responsibilities women develop lower human capital than men¹⁰. Likewise women frequently exit the labour market to take care of small children or other family members, which in turn can have a negative impact on their status in the labour market and reduce their opportunities for promotion.¹¹

Table 1. Time spent by women and men in paid and unpaid activities (hours per week), 1995-1999

	Total work		Paid work		Unpaid work	
	W	M	W	M	W	M
Australia	51	49	15	30	35	18
France	46	42	15	26	31	17
Japan	46	42	20	39	26	3
Latvia	62	56	22	32	40	24
Netherlands	36	37	10	25	26	11
New Zealand	49	49	16	29	33	19
Republic of Korea	40	38	23	36	17	2

Source: United Nations (2000). *The world's women 2000: Trends and statistics*, Sales NoE.00.XVII.14

6. It is interesting to note that the value of unpaid work can be very significant. A recent time-use survey has shown, for example, that the value of unpaid work in New Zealand in 1999 was \$40 billion USD, equivalent to approximately 39 percent of gross domestic product (GDP). Women's work accounted for 64 percent of the total value, or \$25 billion.¹² Likewise, a study in the Republic of Korea concluded that the general value of unpaid work in 1999 accounted for roughly 30 to 40 percent of the GDP depending on the method of computation used. Women performed 80 percent of this unpaid work.¹³

⁷ Ibid.

⁸ Pentti Takala (2002). "Gender roles, time use and daily rhythm among families with children. The Social Insurance Institution (Helsinki, Finland)". Paper to be presented at IATUR Annual Conference, Lisbon, Portugal, 15-18 October, 2002

⁹ ESCAP (2001), Op. cit

¹⁰ Ibid.

¹¹ United Nations (1995), Op. cit.

¹² Patrick Ongley (2001). "Gender and unpaid work: findings from the Time Use Survey, of the Social Policy Division of Statistics New Zealand". Statistics New Zealand (2001) *Around the Clock: Findings from the New Zealand Time Use Survey*, Wellington.

¹³ ESCAP (2001), Op. cit

7. These examples underscore the importance of collecting information on paid and unpaid work, not only to have a more accurate picture of the GDP of countries, but also to allow household members to make a better assessment of the costs and benefits of engaging in paid employment. As countries increasingly take steps to ensure that women and men are equally represented in the labour force, the importance of collecting statistics on paid and unpaid work increases. Time-use statistics provide an important tool in this respect.

III. What is paid and unpaid work?

8. In order to fully appreciate the potential of time-use statistics for measuring the gender gap in paid and unpaid work, it is important to have a clear understanding of some important concepts such as work, productive and non-productive activities, system of national accounts (SNA) production boundaries and market and non-market outputs.

9. The term “work” has numerous interpretations and meanings depending on the context. In a general sense, work has been defined as “any conscious, purposeful activity which with satisfaction serves the material and spiritual needs of the individual and community”.¹⁴ Most of the literature, however, adopts a narrower definition of work associated with *productive activities*.

10. An activity is considered productive when it satisfies the so-called “third person criterion”. This means that its performance can be delegated to another person and yield the same desired results. Activities which do not satisfy this criterion are considered *personal*. Examples of such activities might be eating or learning (a person cannot delegate eating or learning to another person and obtain the same results). However, it is not always easy to distinguish between *productive* and *personal* activities. Activities such as washing oneself or dressing, for example, are generally treated as *non-productive* although they can be provided by a third party. On the other hand, bathing a child or dressing a disabled person are considered *productive activities*.¹⁵

11. Productive activities can be further subdivided into SNA and non-SNA. Activities within the “SNA production boundary” comprise:

- Production of all individual or collective goods or services that are supplied to units other than their producers, or intended to be supplied, including the production of goods and services used up in the process of producing such goods and services;
- Own-account production of all goods that are retained by their producers for their own final consumption or gross capital formation;
- Own-account production of housing services by owner-occupiers and of domestic and personal services produced by employing paid domestic staff.¹⁶

¹⁴ Anderson, N. (1961). *Work and Leisure*. New York: Free Press of Glencoe. Cited in United Nations (Forthcoming). *Guide to producing statistics on time use: measuring paid and unpaid work*, Series F, No. 93

¹⁵ United Nations (forthcoming) Op. cit

¹⁶ Commission of the European Communities, International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), United Nations and World Bank (1993). *System of National Accounts 1993*. Brussels/Luxembourg, New York, Paris, Washington, D.C. ST/ESA/STAT/SER.F/2/Rev.4, para 6.18 Cited in United Nations (Forthcoming). *Guide to producing statistics on time use: measuring paid and unpaid work*, Series F, No. 93

12. Non-SNA production, on the other hand, includes domestic and personal services produced and consumed *within* the same household (except those produced by paid domestic staff) including cleaning, servicing and repairs; preparation and serving of meals; care, training and instruction of children; care of the sick, infirm and elderly; transportation of members of the household or their goods; etc; as well as unpaid volunteer services to other households, community, neighbourhood associations, and other associations.¹⁷

13. Another important distinction is whether an output is considered market or non-market. Market producers comprise financial and non-financial corporations, quasi corporations, and unincorporated household enterprises. Non-market producers, on the other hand, include the government, private non-profit institutions and household subsistence producers. Goods and services that are produced for the market are valued at prices that are economically significant. Non-market outputs, on the other hand, are valued at prices that are not economically significant. This information is important for imputing the value of unpaid work. Depending on data availability and the assumptions used, countries can impute the value of work both within and outside the SNA production boundary.¹⁸ Table 2 provides an overview of how paid and unpaid work is allocated within the framework of the SNA production boundaries.

Table 2. Market and non market producers by type of institution, by type of work

Type of work	Institutional producers						
	Market		Non market				
	Corporation, Quasi corporation	Household	Household		Non profit institutions		Government
		Household unincorporated enterprise	Household subsistence producer	Household producers of domestic & personal services for own consumption	Non profit institutions producing goods and services with employed workers	Informal non profit institutions (community & neighbourhood associations)	General government at national and subnational levels
	SNA	SNA	SNA	Non-SNA	SNA	Non-SNA	SNA
Paid	Employment with compensation/ Membership in Corporate board	Compensation as employee			Employment with compensations		Employment and elective position
Unpaid (counted in output)	Worker as apprentice or trainee	Incorporated in mixed income of the household	Imputed compensation of household members				
Unpaid (not counted)				No valuation	Free volunteer service, no valuation	Free volunteer service, no valuation	

Source: Economic and Social Commission for Asia-Pacific (ESCAP) (2001) *Guidebook on integrating paid and unpaid work into national policies*

¹⁷ Ibid. paras. 6.17 and 6.20

¹⁸ ESCAP (2001) Op. cit

IV. What are time-use statistics?

14. Time-use statistics are quantitative summaries of how people allocate their time to various activities over a specified time period¹⁹. These statistics generate information on the type of activities²⁰ people engage in, the amount of time allocated to these activities and the context in which these activities take place (such as the place in which a certain activity occurred or the purpose of the activity).²¹ Examples of time-use statistics might include the average number of hours spent in formal work in a day, the total number of hours spent during a weekend preparing meals or the total number of hours watching television during a week.

15. Data on time-use are collected at a national level through time-use surveys. The basic elements of design of a time-use survey are:

- Type of survey instrument used for recording activities and related aspects of design (time diary²² or stylised analogues²³);
- The mode of data collection (interview, self-reporting or observation);
- The type of household survey (independent or component of a multi-purpose survey).

16. Depending on national priorities and resources, countries can choose different combinations of these components. Other dimensions that need to be specified in designing a time-use survey are the sample design and selection²⁴ and the activity classification. The later is especially important as it provides a guide in the design of survey instruments and the selection of methods, as well as assisting interviewers in eliciting information from respondents and developing rules for coding.²⁵

¹⁹ Ideally time-use statistics offer a representation of the activities an individual engages in during a whole year, although in many cases the actual data are generated by sampling one or more 24-hour periods during the course of a year. These 24-hour periods are generally chosen in a way that takes into consideration variations in activities due to seasonality, special holidays, weekends, etc. ESACP (2001), Op. cit

²⁰ Individuals can either engage in:

- Single, prime or main activities
- Secondary, simultaneous or multiple activities

An example of the later might be preparing a meal while supervising a child's homework or driving the car while listening to the radio. ESACP (2001), Op. cit

²¹ Ibid.

²² Time use diaries are used to collect information on when each activity was undertaken (beginning and ending times), as well as a detailed description of the activity and the context in which it was performed. ESACP (2001), Op. cit

²³ In stylised analogues respondents are asked to recall the amount of time they allocated to specific activities during a certain period of time. It is different from the time diary because the respondent reports the total time spent on an activity rather than the specific time of day in which the various activities were performed. ESACP (2001), Op. cit

²⁴ For time-use surveys there are three types of sampling units: the household, the household members and time (hours, days, seasons). Generally considerations for sampling households in time-use surveys do not differ from those of typical households surveys. Special considerations have to be made, however, in relation to household members and the design of the time sample. Examples of such considerations might be: whether or not to include all household members belonging to the reference population and whether the surveys should cover all days of the year, or all seasons of the year. ESACP (2001), Op. cit

²⁵ Ibid.

17. Table 3 provides an overview of the design components of the time-use surveys of Morocco, the Occupied Palestinian Territory and Oman. As this table indicates there are significant differences in the way in which the three countries designed their surveys. The *National Survey on Women's Time Budget* of Morocco and the *Time Use Survey* of the Occupied Palestinian Territory, for example, were conducted as independent surveys, while the time-use survey of Oman was conducted as a module of the overall survey of household income and expenditure. Likewise, the *National Survey on Women's Time Budget* of Morocco and the *Time Use Survey* of the Occupied Palestinian Territory adopted a full time diary²⁶, while the survey of Oman utilized a "light" time diary²⁷ (see Annex A).

18. Another difference relates to the choice of reference population. In the case of Oman this included all persons 15 years old and over (subdivided according to whether they live in urban or rural areas and whether they are nationals of Oman or not). The survey of the Occupied Palestinian Territory adopted a broader approach by including all persons 10 years of age and over, while the Moroccan survey limited its reference population to female household members 15 to 70 years of age.

Table 3. Design components of recent national time-use surveys of selected countries						
	Survey	Type of survey	Survey instrument	Mode of data collection	Sample size	Activity classification
Morocco	National Survey on Women's Time Budget 1997/98	Independent	Full diary; open interval	Face-to-face recall interview; 1 diary day	2,776 female household member 15-70 years old randomly selected from 4,487 sample households	4-digit classification: 9 major groups; 36 2-digit groups
Occupied Palestinian Territory	Time Use Survey 1999-2000	Independent	Full diary; 30 minute intervals	Leave-behind; 1 diary day	A total of 8,038 respondents were selected from 4,018 sample households	UN trial classification: 10 major groups; 80 2-digit groups
Oman	Overall Monitoring of Annual National Indicators Survey 1999	Module of household expenditure & income survey	"Light" time diary; 23 activities; 15 minute intervals	Face-to-face recall interview and self-reporting; 1 diary day	All eligible persons in 50 percent of the 4,148 sample households of the HEIS	23 activities listed in survey instrument

Source: United Nations (Forthcoming). *Guide to producing statistics on time use: measuring paid and unpaid work*, Series F, No. 93

19. Similar differences also exist in relation to the type of activity classification adopted. As Table 3 indicates, the *Time Use Survey* of the Occupied Palestinian Territory piloted the draft

²⁶ In a full time diary respondents report each activity undertaken successively. The interval of time for reporting each activity may be fixed (the 24 hours may be subdivided into interval of 10, 15, 30 or 60 minutes). The activities are coded later on (or 'after-coded') using an activity classification. United Nations (forthcoming) Op. cit

²⁷ In the "light" time diary respondents report activities in relation to a pre-identified list of comprehensive but necessarily limited 'pre-coded' activities. This list may consist of a small number of broadly described activity groups such as paid employment, education, domestic work, etc., or may comprise a more detailed list of activities such as cooking, washing dishes, ironing, etc. ESACP (2001), Op. cit.

ICATUS²⁸, while the *Overall Monitoring of Annual National Indicators Survey* of Oman used the 23 activities listed in its survey instrument, and the *National Survey on Women's Time Budget* of Morocco adopted a 4-digit classification consisting of 9 major groups and 36 2-digit groups (see Annex B).

V. Time-use statistics for measuring paid and unpaid work: Morocco

20. This section focuses on some of the main outcomes of the Moroccan *National Survey On Women's Time-Budget*. This survey aimed at examining, among others, women's participation in economic life through an in-depth analysis of the different aspects of women's employment and the socio-cultural norms and practices that constrain women's full participation in the labour force.²⁹ As mentioned in the section above, the survey limited its reference population to women. As a consequence it cannot be used to inform on gender gaps in employment or other policy spheres.³⁰

Table 4. Comparison of female activity rates observed with data collected with the time use survey and other sources (%), Morocco, 1997-1998

	Time-use survey			Other sources		
	Urban	Rural	Total	Urban	Rural	Total
Age groups						
15 to 25 years	31.9	70.0	50.1	31.8	60.0	45.1
26 to 40 years	44.9	67.5	53.8	44.2	61.9	51.2
41 to 60 years	24.9	77.7	47.4	23.2	69.0	42.1
61 to 70 years	17.9	79.5	44.8	11.0	56.8	31.6
Marital status						
Single	46.3	76.3	58.2	46.1	66.1	54.3
Married	26.2	68.6	46.2	21.4	60.2	39.5
Level of schooling						
None	26.0	73.9	54.9	24.2	65.3	48.4
Basic	37.5	56.6	41.6	36.7	45.1	38.5
Literacy						
Literate	41.8	54.4	43.7	41.2	44.8	41.8
Illiterate	25.4	73.9	54.7	24.4	65.1	48.5
Size of household						
1 to 4 members	36.0	69.8	48.3	35.0	60.4	43.9
5 to 7 members	33.1	70.2	46.8	32.9	62.6	44.0
8 members or more	36.0	73.0	56.3	33.5	63.3	49.6
Total	34.6	71.4	50.6	33.6	62.5	46.0

Source: Direction de la statistique, Royaume du Maroc (1999). *Les Emplois du temps de la femme au Maroc, Enquête nationale sur le budget temps des femmes 1997/98*, Vol. 2.

²⁸ A detailed list of activities is provided by the draft International Classification of Time-Use Activities (ICATUS) is available on the United Nations Statistics Division's website at the following address: http://unstats.un.org/unsd/methods/timeuse/icatus/icatus_1.htm

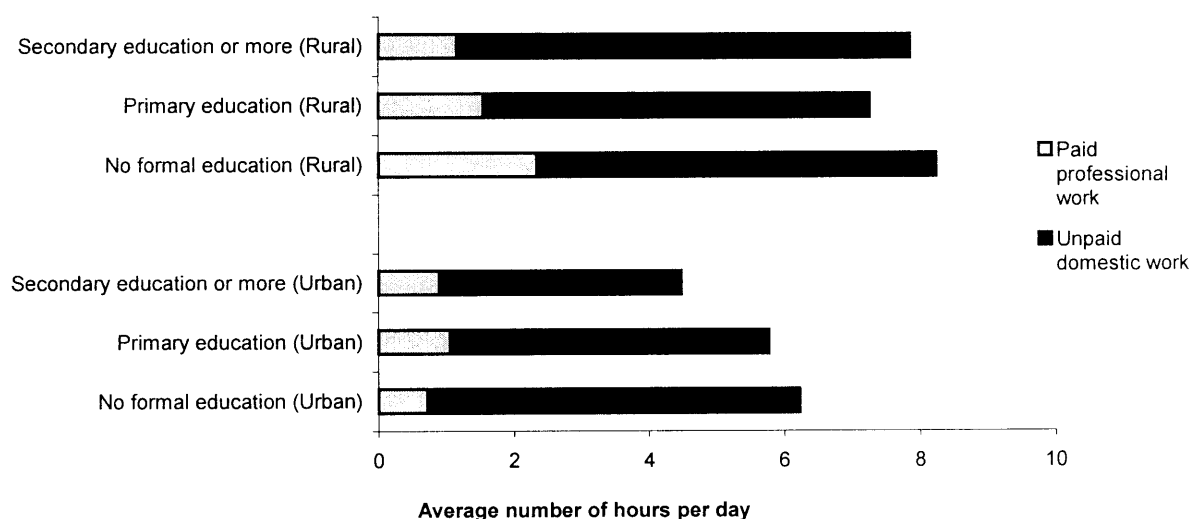
²⁹ Direction de la statistique, Royaume du Maroc (1999). *Les Emplois du temps de la femme au Maroc, Enquête nationale sur le budget temps des femmes 1997/98*, Vol. 2.

³⁰ "Gender statistics are numerical information collected and presented to reflect the status of women in comparison to men. They draw on all fields of national statistical systems and require the collection and presentation of all data by sex (girls and boys, women and men)." See the ESCWA website: <http://www.escwa.org.lb/gsp/statistics/main.html>

21. Data from the Moroccan time-use survey, however, can be compared with data collected through other sources. According to the publication *Les Emplois du temps de la femme au Maroc* the time budget survey yields a female activity rate of 71,4 percent in rural areas and 34,6 percent in urban areas. This rate is higher than the one obtained using the conventional definition of economic activity by approximately one percentage point in urban areas (respectively 33,6 and 34,6 percent) and 8,9 points in rural areas (respectively 62,5 and 71,4 percent). As Table 4 indicates, this increase is particularly evident for rural women in the 15 to 24 and 61 to 70 age groups (respectively 10 and 23 percentage points higher than the activity rate obtained using the conventional definition of economic activity). Likewise the activity rate of married and single women in rural areas increases by 10 and 8 percentage points respectively when computed on data from the time budget survey.

22. Data from the Moroccan *National Survey On Women's Time-Budget* can also be used to draw comparisons between various groups of women. In rural areas for example, women spend approximately 5 hours and 53 minutes in unpaid domestic work (preparation of meals, doing laundry, shopping for food, collecting water and wood³¹, taking care of children, etc.), while in urban areas this time is reduced to 4 hours and 49 minutes. When houses are not furnished with running water women spend approximately 1 hour and 2 minutes in rural areas and 34 minutes in urban areas collecting water.

Figure 1. Average number of hours per day spent by women in paid professional work and in unpaid domestic work by level of education and place of residence (urban/rural), Morocco, 1997-1998



Source: Direction de la statistique, Royaume du Maroc (1999). *Les Emplois du temps de la femme au Maroc, Enquête nationale sur le budget temps des femmes 1997/98*, Vol. 2.

³¹ It is important to note that the Moroccan activity classification classified “collecting water” and “collecting wood” as household maintenance activities, while the draft ICATUS classify them as primary production activities.

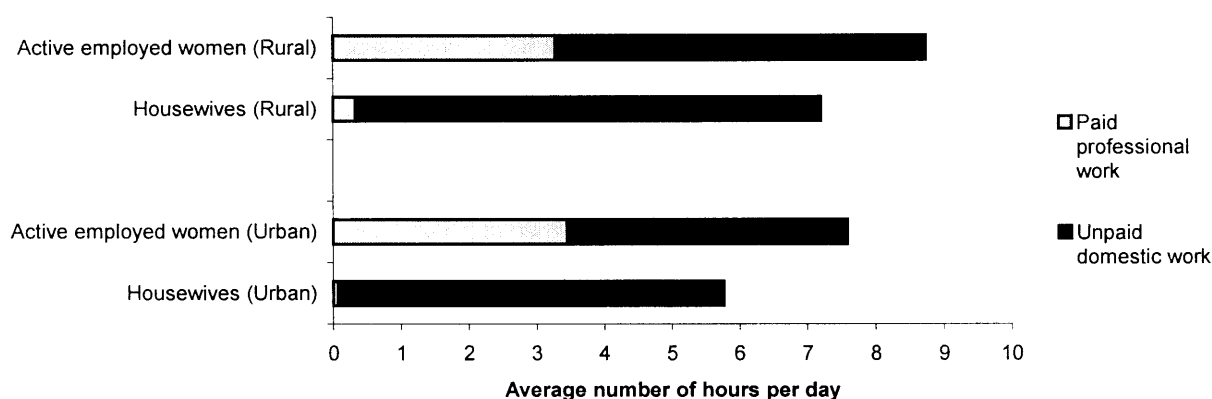
23. Another interesting finding is that in rural areas education has an inverse effect on women's participation in professional work. Women who have completed secondary education or above spend on average 1 hour and 9 minutes in paid work, compared to the 2 hours and 20 minutes spent by women with no formal education and the 1 hour and 33 minutes of women with primary education. Only 26 percent of rural women with secondary level education or more participate in professional work activities. In contrast 63 percent of women with no schooling and 49 percent of women with primary education are engaged in professional work.

24. In urban areas education has a positive impact on women's participation in professional work for primary education, but less so for secondary education and above. Women with no education spend 43 minutes engaged in professional work, while women with primary education spend 1 hour and 3 minutes. Almost 20 percent of urban women with primary education are engaged in professional work, compared to the 15 percent of women with no formal education. However only 17 percent of women with secondary education or more are engaged in professional activities, and the average time of their work is 54 minutes (see Figure 1).

25. The Moroccan *National Survey On Women's Time-Budget* also shows that the number of children has little impact on the amount of time women spend in professional work. Urban women with no children spend 57 minutes per day in paid professional activities, while women with 1 to 2 children or with 3 children and more spend 50 and 51 minutes respectively. Women in rural areas spend 2 hours and 29 minutes (no children), 2 hours and 12 minutes (1 to 2 children) and 2 hours and 8 minutes (3 or more children) per day.

26. The number of children, however, does influence the amount of time women spend in unpaid domestic work. In urban areas women with 1 or 2 children spend on average 20 minutes more per day in unpaid domestic work than women with no children. Women with 3 children or more spend roughly 1 hour and 21 minutes per day more than women with no children. In rural areas women with 1 or 2 children spend 52 minutes more in unpaid domestic work than women with no children, and women with 3 children or more spend 1 hour and 16 minutes more than women with no children.

Figure 2. Average number of hours per day spent by housewives and employed women in paid work and in unpaid domestic work by place of residence (urban/rural), Morocco, 1997-1998



Source: Direction de la statistique, Royaume du Maroc (1999). *Les Emplois du temps de la femme au Maroc, Enquête nationale sur le budget temps des femmes 1997/98*, Vol. 2.

27. It is interesting to observe that urban women who are formally employed spend more time engaged in unpaid domestic than in paid professional work (respectively 4 hours and 8 minutes and 3 hours and 27 minutes per day). For women living in rural areas this gap is even greater with employed women spending 3 hours and 17 minutes in paid work and 6 hours and 12 minutes in unpaid domestic activities. As Figure 2 indicates, the total working time of women formally employed is greater than that of housewives, both in urban and in rural areas.

VI. Time-use statistics for measuring paid and unpaid work: the Occupied Palestinian Territory

28. The second example relates to the *Time Use Survey* of the Occupied Palestinian Territory. This survey was conducted to highlight gender issues and bring into focus women's contribution to the development process by measuring women's participation in the informal sector and in housework.³²

Table 5. Average number of hours per day spent on certain activities and percentage of persons 12 years and over that performed them by marital status and sex. Occupied Palestinian Territory, 1999-2000

		Persons who performed a certain activity (%)				Average time spent on the various activities (H, Mn)			
		Ever married		Never married		Ever married		Never married	
		W	M	W	M	W	M	W	M
1.	Employed in establishments	5.3	57.4	6.2	33.5	0.19	4.33	0.26	2.22
2.	Primary production activities not in establishments	7.6	10.1	3.0	8.6	0.10	0.29	0.03	0.19
3.	Services for income and other production goods not in establishments	5.6	23.0	3.2	12.3	0.07	1.52	0.06	0.58
4.	Household maintenance, management and shopping for own household	94.9	40.3	85.9	37.3	4.44	0.34	2.16	0.29
5.	Care for children, the sick, elderly and disabled for own household	65.1	31.9	25.1	6.2	1.38	0.20	0.15	0.03
6.	Community services and help to other households	11.7	6.5	8.6	8.1	0.12	0.10	0.08	0.10

Source: Palestinian Central Bureau of Statistics (2000) *Time Use in the Palestinian Territory. Main Findings*.

29. The survey shows that women spend 20 percent of their time in household activities compared to men who spend approximately 3 percent of their time. Table 5 offers an overview of the amount of time spent by women and men in various activities according to their marital status. Almost 95 percent of ever married women have been involved in activities such as cooking, cleaning, shopping or household maintenance compared to 40 percent of ever married men. Ever married women spent more than 4 hours daily engaged in these activities, compared to men in the same marital category, who spent roughly 30 minutes. Similar differences also

³² Palestinian Central Bureau of Statistics (2000) *Time Use in the Palestinian Territory. Main Findings*.

exist with respect to never married men and women. While almost 86 percent of never married women participate in household maintenance, management and shopping, only 37 percent of the never married men do.

30. Conversely, 57 percent of ever married men are employed in establishments, compared to 5 percent of women in the same marital category. The average time spent by ever married men in establishments is 4 hours and 33 minutes, against the 19 minutes of their female counterparts. Although the gender gap between men and women engaged in primary production activities and services for income is smaller, women are less frequently engaged in these activities and spend less time in them than men, regardless of their marital status.

31. A similar pattern is shown for Table 6, which presents the average time spent by men and women in various activities according to four major age groups. Women in all age groups spend less time in paid activities than men, and more time in performing unpaid activities within the household. Women in the 18 to 24 age group spend on average 4 hours and 16 minutes in household maintenance, management and shopping compared to men in the same age group who on average spent 22 minutes in the same activities. In the age group 25-44 the amount of time spent by women on these activities increases to 5 hours and 15 minutes, while men spend 32 minutes.

Table 6. Average number of hours per day spent on various activities by sex. Occupied Palestinian Territory, 1999-2000

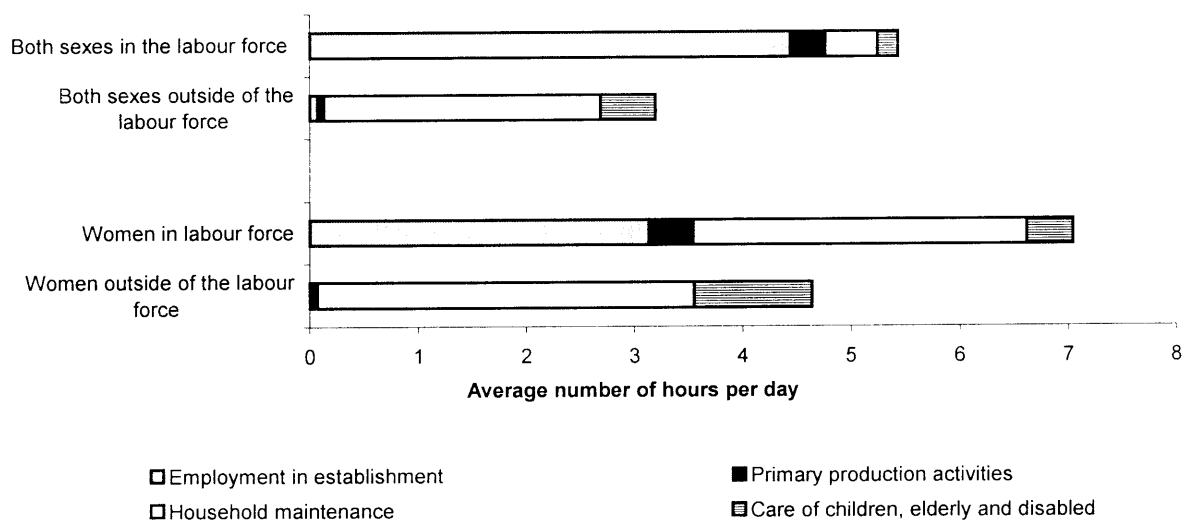
Age groups	10-17		18-24		25-44		45 +	
	W	M	W	M	W	M	W	M
1. Employed in establishments	0.03	0.53	0.20	3.38	0.32	5.12	0.21	3.17
2. Primary production activities not in establishments	0.01	0.19	0.06	0.19	0.05	0.23	0.20	0.40
3. Services for income and other production goods not in establishments	0.02	0.22	0.08	1.53	0.07	2.09	0.09	0.46
4. Household maintenance, management and shopping for own household	1.50	0.32	4.06	0.22	5.15	0.32	3.34	0.41
5. Care for children, the sick, elderly and disabled for own household	0.15	0.04	1.37	0.05	2.03	0.22	0.15	0.12
6. Community services and help to other households	0.07	0.09	0.14	0.11	0.11	0.10	0.08	0.08

Source: Palestinian Central Bureau of Statistics (2000). *Time Use in the Palestinian Territory. Main Findings.*

32. Figure 3 illustrates how the overall burden of work is unequally distributed between men and women in the Occupied Palestinian Territory. Women, regardless of whether they are in the labour force or not work more hours than men. It is interesting to observe that women in the labour force face the greatest total work burden. They spend almost the same amount of time engaged in household maintenance (3 hours and 7 minutes versus 3 hours and 48 minutes) and in child care (43 minutes versus 1 hour and 9 minutes) as women outside of the labour force. Women in the labour force, however, also spend on average 3 hours and 13 minutes employed in establishments and 41 minutes working in primary production not in establishments, making

their total average working time 7 hours and 43 minutes compared to the 4 hours and 57 minutes of women outside of the labour force.

Figure 3. Average number of hours and minutes spent by *women* compared to the amount of time for *women and men combined* in four major groups of activities, Occupied Palestinian Territory, 1999-2000



Source: Palestinian Central Bureau of Statistics (2000). *Time Use in the Palestinian Territory. Main Findings.*

VII. How can these statistics be used to formulate gender policies?

33. The above examples illustrate how data collected from time-use surveys can be used to achieve a better understanding of the gender gap in paid and unpaid work. This information in turn can assist policy makers in designing and formulating better policies. In the case of the Morocco, for example, policy makers could take note of the fact that in rural areas the level of school attainment has a negative impact on the amount of time women spend in paid professional work. Considerations might have to be made on why women with secondary education or more are less likely to engage and spend less time in paid work. Are there fewer paid jobs for educated women in rural areas? Is there a social stigma attached to being a working women? Does the socio-economic background of women influence their level of schooling and their propensity to participate in paid work? Understanding these questions might contribute to formulating policies that put to better fruition the human capital acquired by these women.

34. Likewise policy makers might have to develop strategies to lessen the burden of unpaid domestic work on women engaged in the labour force. The time budget survey of Morocco indicates that the total amount of time spent in work (both professional and unpaid domestic) is greater for employed women than for housewives. This is true both in rural and in urban areas. Likewise, the *Time Use Survey* of the Occupied Palestinian Territory shows that even when women are employed in the labour force, the number of hours they spend in household maintenance and in child care does not diminish. In order to encourage greater participation in the labour force, policies may have to try to lessen the burden of unpaid domestic work.

Examples of the interventions that might be considered are assisting women with childcare or improving their access to water. As the Moroccan time budget survey shows women, especially in rural areas, spend more than one hour per day fetching water.

VIII. Conclusions

35. The Beijing Platform for Action stated that there is a need for “suitable statistical means to recognise and make visible the full extent of the work of women and all their contributions to the national economy including their contribution in the unremunerated and domestic sectors” and “to develop a more comprehensive knowledge of work and employment through efforts to measure and better understand the type, extent and distribution of unremunerated work, particularly in caring for dependents”.³³

36. Information on the distribution of paid and unpaid work is essential for formulating more effective labour policies and promoting equality in access to work. Policies and programmes need to take into consideration the burden of domestic responsibilities and develop strategies to assist working women.³⁴ Examples of such strategies might be compensating workers for child bearing and child rearing, financial incentives for employers that adopt family friendly policies, promoting the human resource development of women before and after they enter the labour market, etc.³⁵ As countries become more aware of how information on paid and unpaid work can assist them in formulating more gender sensitive policies and interventions, they may recognise the need to integrate time-use surveys into their national survey programmes.

37. As a recent paper presented by ESCWA has shown, only a few countries in the region have conducted a time-use survey to date.³⁶ This paper is intended to clarify some questions concerning time-use methodologies and provide an impetus for countries interested in conducting time-use surveys. The forthcoming United Nations *Guide to producing statistics on time use: measuring paid and unpaid work* will provide a more detailed description of the different approaches countries may wish to take in designing and conducting a time-use survey. Likewise the draft International Classification of Time-Use Activities (ICATUS), which will be shortly available on the website of the United Nations Statistics Division, will offer a useful set of guidelines for national statistical offices that are interested in studying the impact of paid and unpaid work in their country.

³³ United Nations (1995) Op. cit.

³⁴ Indira Hirway (1999). “Estimating workforce using time use study results and its implications for employment policy in India”. Paper presented at the International seminar on time use studies at Ahmedabad, 7-10 December, 1999

³⁵ ESCAP (2001), Op. cit.

³⁶ Ahmed Hussein (2002) “ESCWA role in developing gender statistics programmes in the Arab countries”. Working paper No. 13. Paper presented at ECE Work Session on Gender Statistics, Geneva, Switzerland, 23-25 September 2002

Table A1. A page from the “light” time diary used in the *Overall Monitoring of Annual National Indicators Survey* of Oman

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Table A2. A page of the full time diary used in the *National Survey on Women's Time Budget of Morocco*

1. N° De clas sem ent	2. Occupations et activités, même les plus courtes: inscrire toutes les occupations professionnelles, ménagères, domestiques, loisirs, sommeil, allaitement, toilette, trajet, soins aux enfants, etc., ... 2.1. OCCUPATIONS PRINCIPALES	3. Intervalle de temps de l'exercice de l'occupation				4 Temps d'exercice de l'occupation	5 Lieu de l'occupation 1. Domicile 2. Ailleurs	6. Cette occupation est-elle faite pour ? un salaire un bénéfice l'autoconsommation vous même ménage famille communauté autres	7. Faites-vous encore autre chose en même temps ? Indiquer de quoi il s'agit ? (lecture, conversation, radio, télévision, tricot, etc.,...)	
		Début		Fin					7.1 OCCUPATIONS PARALLELES	7.2 Code
		3.1 H	3.2 Mn	3.3 H	3.4 Mn	4.1 H				
01										
02										
03										
04										
05										
06										
07										
08										
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10										
11										

Annex B. Examples of the activity classification used in the three time-use surveys

Table B1. Activity classification used in the *Time Use Survey* of the Occupied Palestinian Territory

1	EMPLOYMENT FOR ESTABLISHMENTS
11	First Job or Employment
12	Second, Third and Other Jobs
13	Working in Apprenticeship, Internship and Related Positions
14	Short Breaks and Interruptions from Work
15	Seeking Employment and Related Activities
18	Travel To/From Work and Seeking Employment in Establishments
19	Employment in Establishments not Elsewhere Classified.
2	PRIMARY PRODUCTION ACTIVITIES NOT FOR ESTABLISHMENTS
21	Crop Farming and Market/Kitchen Gardening: Planting, Weeding, Harvesting, Picking, Agriculture, etc.
22	Tending Animals and Fish Farming (Herdin, care and feeding of animals within compound, fodder collection, castration, breeding, milking)
23	Hunting, Fishing, Gathering of Wild Products and Forestry
24	Digging, Stone Cutting, Splitting and Carving
25	Collecting Water
26	Purchase of Goods Used for and Sale of Outputs arising from these activities
28	Travel related to primary production activities (not for Establishments)
29	Primary Production Activities (not for establishments) not elsewhere classified.
3	SERVICES FOR INCOME AND OTHER PRODUCTION OF GOODS NOT FOR ESTABLISHMENTS*
31	Food Processing and Preservation Activities: Grain Processing, Butchering, Preserving, Curing, Preparation of Dairy Products
32	Preparing and selling food and beverage preparation, baking, confectionery and related activities
33	Making and selling textile, leather and related craft: weaving knitting, sewing, shoe-making, tanning, products of wood, rope/basketry.
34	Building and extensions of dwelling: laying bricks, plastering, thatch, bamboo, roofing, maintaining and repairing buildings (own compound-or field, animal sheds and out-building), well digging, cutting glass, plumbing, painting, carpentering, electric wiring.
35	Petty trading, street/door-to-door vending, shoe-cleaning and others
36	Fitting, installing, tool setting, maintaining and repairing tools and machinery
37	Provision of services for income such as computer services, transport, hairdressing, cosmetic treatment, baby-sitting, massages, prostitution, making and repairing of tools.
38	Travel related to services for income and other production of goods (not for Establishments)
39	Services for income and other production of goods (not for Establishments) not elsewhere classified.
4	HOUSEHOLD MAINTENANCE, MANAGEMENT AND SHOPPING FOR OWN HOUSEHOLD
41	Cooking, making drinks, setting and serving tables

42	Cleaning and up keep of dwelling and surroundings, and plastering
43	Care of textiles: sorting, mending, washin9, ironing and ordering clothes and linen
44	Shopping for goods and non-personal services: Capital, goods, household appliances, equipment, food and various household supplies
45	Household management: planning, supervising, paying bills, etc
46	Do-it-yourself home improvements and maintenance, installation servicing and repair of personal and household goods
47	Pet care
48	Travel related to household maintenance, management and shopping
49	Household maintenance, management and shopping not elsewhere classified
5	CARE FOR CHILDREN, THE SICK, ELDERL Y AND DISABLE FOR OWN HOUSEHOLD
51	Physical care of children: washing, dressing, feeding
52	Teaching, training and instruction of own children
53	Accompanying children to places: school, sports, lessons, etc
54	Physical care of the sick, disabled, elderly household members; washing, dressing, feeding, helping
55	Accompanying adults to receive personal care services; such as hairdresser, therapy sessions, etc.
56	Supervising children and adults needing care
58	Travel related to care of children, the sick, elderly and disabled in the household
59	Care of children, the sick, elderly and disabled in the household not elsewhere classified.
6	COMMUNITY SERVICES AND HELP TO OTHER HOUSEHOLDS
61	Community organised construction and repairs: building, roads, dams, well, etc.
62	Community organised: cooking for collective celebrations, etc.
63	Volunteering with for an organisation (which does not involve working directly for individuals)
64	Volunteer work through organisation extended directly to individuals and groups
65	Participation in meetings of local and informal groups/cast, tribes, professional associations, union, fraternal and political organisations
66	Involvement in civic and related responsibilities: voting, rallies, etc.
67	Informal help to other households
68	Travel related to community services
69	Community services not elsewhere classified
7	LEARNING
71	General Education: School/University Attendance
72	Studies; Homework and course review related to general education
73	Additional study, non-formal education and courses during free time
74	Work-related training
78	Travel related to learning
79	Learning not elsewhere classified
8	SOCIAL AND CULTURAL ACTIVITIES
81	Participating in cultural activities, wedding, funerals, births and other celebrations
82	Participating in religious activities: church services, religious ceremonies, practices, rehearsals etc.
83	Socializing at home and outside the home

84	Arts, making music, hobbies and related courses:
85	Indoor and outdoor sports participation and related courses
86	Games and other pass-time activities
87	Spectator to sports, exhibitions/museums, cinema/theatre/concerts and other performances and events
88	Travel related to social, cultural and recreational activities
89	Social, cultural and recreational activities 110t elsewhere classified
9	MASS MEDIA USE
91	Reading
92	Watching television and video
93	Listening to music/radio
94	Accessing information by computing
95	Visiting Library
98	Travel related to mass media use and entertainment
99	Mass media use and entertainment not elsewhere classified
0	PERSONAL CARE AND SELF-MAINTENANCE
01	Sleep and related activities
02	Eating and drinking
03	Personal Hygiene and health
04	Receiving medical and personal care, from professionals and household members
05	Doing nothing, rest and relaxation
06	Individual religious practices and meditation
08	Travel related to personal care and self-maintenance
09	Personal care and self-maintenance not elsewhere classified

Table B2. Activity classification used in the *Overall Monitoring of Annual National Indicators Survey* of Oman

1. Sleeping and resting
2. Eating
3. Personal care
4. School (also homework)
5. Work as employed
6. Own business work
7. Farming
8. Animal rearing
9. Fishing
10. Shopping/getting services
11. Weaving, sewing, other textile care
12. Cooking
13. Domestic work (washing, cleaning)
14. Care for children/adults/elderly
15. Commuting
16. Travelling
17. Watching TV
18. Reading
19. Sitting with family
20. Exercising
21. Social visits
22. Practicing hobbies

Table B3. Activity classification used in the *National Survey on Women's Time Budget of Morocco*

0	PROFESSIONAL WORK
01	Main professional occupation or economic activity
1	LEARNING
11	Education and training (non formal studies)
12	Formal education
13	Other training/education
14	Travel related to education, learning and studying
2	HOUSEHOLD MAINTENANCE
21	Food preparation
22	Water supply
23	Wood supply
24	Cleaning and upkeep of dwelling
25	Cleaning outside the household
26	Clothes and linen
27	Purchase of goods and services
28	Administrative services
29	Other activities related to domestic work
3	CARE FOR CHILDREN
31	Provision of material needs and medical care for children
32	Playing and educating
33	Care and provision of material needs for adults (15 years and over)
34	Helping and doing volunteer work for neighbors or family
4	TRAVEL NOT CONSIDERED ELSEWHERE
41	Travel not considered elsewhere
5	MEALS
51	Meals taken inside the household or outside the household not related to receptions or visits
52	Meal related to visits and receptions
53	Exceptional meals inside the household or outside the household
6	PERSONAL CARE
61	Personal care
62	Medical care
63	Other private activities
7	LEISURE: LEARNING, RECEPTIONS, VISITS, CONVERSATION, RELIGION, TRAVELLING, SPORTS, MEDIA, ETC.
71	Education and learning (not including professional training and formal studies)
72	Receiving guests and making visits
73	Conversations, phone calls, receiving and writing correspondence, arguing, etc.
74	Religious practices

75	Civic participation, community activities and volunteer work
76	Sports' participation
77	Excursions, hunting and fishing, walking, trips and going out
78	Media
79	Doing nothing, sleeping, resting
8	OTHER LEISURE: SPECTACLES, RECREATION ACTIVITIES
80	Attending an spectacle
81	Playing games, musical instruments, dancing, doing crosswords
82	Semi-leisure