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**The Political and Social Economy of Care:
Tanzania Research Report 2**

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March 2008

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TANZANIA

Research Report 2

Analysis of time use data on work/care regimes and macro data on the care diamond

Introduction

This chapter explores the data from the time use module of the Tanzanian Integrated Labour Force Survey (ILFS) carried out by the National Bureau of Statistics in 2006. The chapter systematically explores patterns of time use of males and females in respect of paid work, unpaid care work and care more narrowly defined using a range of different categorisations.

The 2006 time use module of the ILFS represented the first time that the National Bureau of Statistics had attempted this type of investigation. Every fifth household sampled for the ILFS was included in the sample for the time use module. The realised sample for the survey was over 3,000 households (3,146 on the cleaned data). All members of the household aged five years and over were targeted, yielding a realised sample of 10,553 respondents with valid diary information after cleaning. The data were weighted so as to be representative of the country's population aged 5 years and above as a whole.

At the time the ILFS was conducted, the country's population aged five years and above was estimated at close to 30 million people. Because the sample was relatively small relative to the full population, and because respondents were 'clustered' in households, very detailed disaggregations of the data may not always be reliable. The relative sizes of the different sub-groups used for the analysis must thus be borne in mind when considering results. As a rule of thumb, for the most part groups are not used for analysis when they account for less than 5% of the population.

Each targeted household member was meant to be visited for seven consecutive days, and asked what they had done during each hour of the previous day. (The four hours from midnight to 4am were combined into a single slot on the incorrect assumption, based on findings from the pilot, that everyone would be asleep during this period.) For each hourly 'slot', respondents could name up to five activities. Where more than one activity was reported for a particular slot, the respondent was required to specify whether each activity was done simultaneously or separately from other activities. Unfortunately, the seven days covered for the time use component were not the same seven days used as the reference period for categorising a person as currently employed, unemployed or not economically active. This mismatch prevents the use of the time use survey for checking the efficacy of the standard ILFS questions on economic activity.

Defining paid and unpaid work

The various definitions of paid and unpaid work used in this chapter are informed by the categories defined by the System of National Accounts (SNA). This international system sets out the rules that countries must use in calculating gross domestic product (GDP). More specifically, the rules state that only those activities that fall within the 'production boundary' of the SNA should be included when calculating GDP. This production boundary includes all production of goods and services for the market, as well as production of goods for own consumption. The boundary thus includes subsistence production, unpaid work in the family business, and even collection of fuel and water. Tanzania is one of the few countries to categorise people who collect fuel and water as employed. Even Tanzania does not, however, include an imputed value for collection of fuel and water when calculating GDP.

The SNA recognises that the production boundary does not cover all forms of work or production. In particular, the boundary excludes unpaid production of services. This work, which includes housework and care of household members and others in the community, constitutes what we term unpaid care work. It is also sometimes referred to as 'extended' SNA work.

The Tanzanian time use module utilised a slightly adapted version of the United Nations' trial classification for time use surveys. This classification has ten one-digit categories, three of which correspond to SNA work, three of which correspond to extended SNA work (or unpaid care work), and four of which correspond to non-work activities.

Appendix 1 lists the ten broad categories of the classification, while Appendix 2 provides the full list of activity codes used for the Tanzanian module. The broad categories making up SNA work are (a) employment for establishments, which more or less corresponds to formal sector work; (b) primary production activities not for establishments, which includes subsistence production as well as collection of fuel and water; and (c) services for income and other production of goods not for establishments, which more or less corresponds to non-agricultural informal sector work. Examination of the data suggests that some informal activities that should have been classified in the third category were instead classified in the first category. This should not affect the results reported in this chapter as both the first and third categories constitute paid work. The categories making up unpaid care work are (a) household maintenance, management and shopping for own household; (b) care for children, the sick, elderly and disabled for own household; and (c) community services and help to other households. The third of these categories includes several activities relating to care of persons belonging to other households.

Table 1 shows the distribution of time spent per day by the average male and female aged five years and above according to the ten basic categories. In reality, there are 1440 minutes in a day, and the minutes columns should reflect this as the total as the 24-hour minute measure was used for this tabulation. (The 24-hour minute is a measure which has the total of activities for any particular person summing exactly to 24 hours. For example, when two activities are done simultaneously in a given period, the minutes of that period are divided equally between the two activities.) The table was, however, generated using an early version of the data which had not been fully cleaned, hence the totals of 1451 minutes for males and 1448 minutes for females. This should, however, not affect the overall patterns. The table already reveals that a relatively small proportion of the day is spent on care for household members, but that females tend to spend nearly three times as long as males on this activity. This and other patterns are explored in more detail below. The table also reveals that, as in other countries, a large proportion of time is spent on personal care (of self) and self-maintenance, a category that covers activities such as sleeping, eating and dressing.

Table 1 Distribution of time spent on activities per day by sex

	Male		Female	
	Minutes	%	Minutes	%
Employment for establishments	90	6%	35	2%
Primary production activities	181	12%	164	11%
Non-primary, non-establishment production	6	0%	7	0%
Household maintenance etc	53	4%	170	12%
Care of children, the sick, elderly, disabled	12	1%	35	2%
Community services and help to other hhs	9	1%	7	0%
Learning	88	6%	76	5%
Social and cultural activities	131	9%	96	7%
Mass media use	18	1%	8	1%
Personal care and self-maintenance	863	60%	850	59%
Total	1451	100%	1448	100%

Description of the survey population

A standard set of disaggregations were used to explore patterns in time use among different groups, namely by age group, marital status, presence of children under seven years in the household, employment status, educational achievement, geographical area (rural/urban), household income level, and household composition. All of these are cross-tabulated by sex, given the importance of gender in shaping time use. (Overall, 52% of the weighted sample was female, in line with the overall pattern for this age group in the population.) This first sub-section describes the distribution of the survey population in terms of each of these disaggregations. It points out, in particular, which groupings are probably too small to provide reliable results. For each of the disaggregations it provides the distributions both for the sample as a whole and for adults (people aged 18 years and above). This is done to lay the basis for understanding the relevance and relative importance of the later tabulations of time use patterns, most of which are also presented both for the full sample and for adults only so as to uncover possible biases in patterns caused by the children.

In Table 2 three age groups are used, representing children (5-17 years), the primary reproductive and productive years (18-49 years) and the ones in which having young children is most likely, and those who are older (50 years and above). For the purposes of this report, these groups are referred to as children, adults and older people. The middle group accounts for close on half of the weighted sample, with the children accounting for nearly two-fifths. The older age group, while smaller, should also be large enough to produce relatively reliable results. The age distribution across male and female is fairly similar, but with more women in the older age groups. This reflects greater female longevity.

Table 2 Distribution of sample by age group and sex

	5-17	18-49	50+	Total
Male	39%	45%	16%	100%
Female	36%	50%	14%	100%
Total	37%	48%	15%	100%

Table 3 looks at marital status. The “single” group covers those who have never been married i.e. who are not living together with a partner and have not been separated from, or widowed by, one.

Table 3 reveals that almost half of the total sample population has never been married, but that this percentage drops to 19% when analysis is restricted to adults. The married group accounts for 42% of the total sample, and two-thirds (66%) of adults. Males are noticeably less likely than females to

be recorded as widowed or divorced. The gender pattern in respect of widowed people reflects the different age compositions as well as the tendency for women to marry men older than themselves. Both the single and married groups are large enough to produce reliable results. The remaining two categories – widowed and divorced – are too small for reliable analysis in respect of males, but might produce somewhat more reliable results in respect of females.

Table 3 Distribution of sample by marital status and sex

	Single	Married	Widowed	Divorced	Total
	All				
Male	54%	42%	1%	3%	100%
Female	45%	42%	8%	6%	100%
Total	49%	42%	5%	4%	100%
	Adults				
Male	24%	69%	2%	5%	100%
Female	15%	64%	12%	9%	100%
Total	19%	66%	7%	7%	100%

The tables in respect of co-residence with children differentiate between those who live in a household that has no children under seven years and those in households with at least one child under this age. This differentiation is made on the basis that children under seven tend to need more care than older children, and are also less likely than older children to spend part of their day in school. The children concerned need not necessarily be the biological offspring of the respondent.

Table 4 shows just over two-thirds of all respondents living in households with young children. In a few cases, the young child would have been the respondent. When analysis is restricted to adults, the percentage therefore falls slightly, to 63% of respondents. Women are slightly more likely than men to be living in households with young children. All groups are large enough to allow for reliable disaggregation.

Table 4 Distribution of sample by presence of children in household and sex

	All			Adults		
	No	Yes	Total	No	Yes	Total
Male	33%	67%	100%	38%	62%	100%
Female	32%	68%	100%	35%	65%	100%
Total	32%	68%	100%	37%	63%	100%

Table 5 utilises the standard labour force categories of employed (i.e. having done SNA-type work in the last calendar week), unemployed (i.e. not having done SNA-type work, but having been available for work), and not economically active (NEA i.e. not having done SNA-type work). The categorisation is based on the standard international definition of employment. What is unusual in Tanzania, but nevertheless in line with international recommendations, is that the category of employed includes those whose only SNA work was collection of fuel and water. This group accounts for a very small proportion of the employed because most adults are also engaged in some other form of employment. Most of those whose only economic activity is collection of fuel and water are adult women living in Dar es Salaam, as adult women in this city are less likely than other women to be doing other forms of economic work. (Collection of fuel and water accounts for a full 35% of secondary activities among women, but these women would have another main economic activity.) The inclusion of collection of fuel and water when defining employment should not skew the findings in any noticeable way because of the small proportion recording this as their main activity.

Table 5 shows 93% of adult men and 87% of adult women as employed, with the percentages at 73% and 68% respectively when children are included. Unemployed people account for a very small proportion of the population and disaggregation for this group is unlikely to be reliable. The NEA group is substantial for the full sample where it includes children who are not working because of schooling, but constitutes only 6% of the adult sample. Disaggregations should thus be treated with caution, but will be reported because of the importance of the employment factor.

Table 5 Distribution of sample by work status and sex

	Employed	Unemployed	NEA	Total
	All			
Male	73%	2%	26%	100%
Female	68%	4%	28%	100%
Total	70%	3%	27%	100%
	Adults			
Male	93%	2%	5%	100%
Female	87%	6%	7%	100%
Total	90%	4%	6%	100%

Table 6 shows over a quarter of respondents as never having attended formal schooling, with less than one percent having tertiary education. The biggest single grouping consists of those with primary schooling, who account for around two-thirds of respondents. The tertiary group is clearly too small for separate analysis and is combined with the secondary group, which is also relatively small, in the analysis below. A small number, virtually all children, are recorded as having no education. This group is combined with the ‘never attended’ group in further analysis, and labelled as ‘none’ in further tables. There are marked gender patterns, which become stronger when children are excluded, in that 35% of adult women but ‘only’ 21% of adult men have never attended formal schooling. Conversely, the percentage of adult women with secondary education or above is only 6%, compared to 10% for adult men. The patterns for these two groups are reported given that educational achievement could be an important determinant of time use.

Table 6 Distribution of sample by educational achievement and sex

	Never attended	None	Primary	Secondary	Tertiary	Total
	All					
Male	21%	2%	70%	7%	0%	100%
Female	30%	2%	63%	5%	0%	100%
Total	26%	2%	67%	6%	0%	100%
	Adults					
Male	21%	0%	69%	9%	1%	100%
Female	35%	0%	59%	6%	0%	100%
Total	28%	0%	64%	8%	0%	100%

Table 7 gives the distribution between rural and urban areas. Three-quarters of the full sample is recorded in rural areas, with a slightly lower percentage of adults recorded in rural areas. The patterns for male and female are very similar. All groups are big enough for reliable disaggregation.

Table 7 Distribution of sample by geographical area and sex

	All			Adults		
	Rural	Urban	Total	Rural	Urban	Total
Male	75%	25%	100%	72%	28%	100%
Female	75%	25%	100%	73%	27%	100%
Total	75%	25%	100%	73%	27%	100%

The time use questionnaire asks about household income using income categories. For the purposes of analysis, the three highest categories have been collapsed into one as between them these categories account for only 8% of the total sample. Unfortunately, even after doing this, the categories preclude the use of equal-sized groups such as quartiles.

Table 8 shows more than half of respondents living in households with average incomes below Tshs. 50,000 per month. A further 28% of respondents live in households with monthly incomes between Tshs. 50,000 and Tshs. 99,000. This leaves around a tenth of households in each of the two remaining income categories. The patterns for the sample as a whole and adults are very similar. Among adults, males are perhaps slightly more likely than females to live in wealthier households.

Table 8 Distribution of sample by household income and sex

	under 50,000	50,000-99,000	100,000-199,000	200,000 plus	Total
	All				
Male	53%	28%	10%	9%	100%
Female	56%	27%	10%	7%	100%
Total	54%	28%	10%	8%	100%
	Adults				
Male	51%	29%	11%	8%	100%
Female	56%	26%	10%	7%	100%
Total	54%	28%	11%	8%	100%

The final form of disaggregation investigated is based on household composition. To arrive at the different categories, three age groups of members are defined – children (under 18 years), ‘adults’ (19-49 years) and ‘older’ people (50 years and above). Each of the columns reflects a different combination of these three categories. For example, if a household contains at least one member from each of the categories, it is ‘Ch+Ad+Old’, whereas if it has no member in the adult category but at least one member in each of the other categories, it is ‘Ch+Old’. These three categories between them yield seven possible different combinations. The number of respondents reporting that they live in a household consisting only of children is, however, so small (less than 1%) that it is not worth reporting on.

Table 9 shows that among the remaining households, those with children and adults are most common, followed by those consisting of all three ‘generations’. For later tables, the ‘adult and older’ and ‘old’ categories are omitted as too small to produce reliable results. Table 9 also shows that women are somewhat more likely than men to be members of all the household combinations which include children, with one or more percentage points between the female and male percentages in this category for all three household groupings containing children. In contrast, adult-only households are more common for men than women.

Table 9 Distribution of sample by household composition

	Ch+Ad	Ch+Ad+Old	Adult	Ad+Old	Old	Ch+Old	Total
All							
Male	49%	33%	6%	5%	2%	5%	100%
Female	50%	33%	4%	4%	3%	6%	100%
Total	50%	33%	5%	4%	2%	6%	100%
Adults							
Male	44%	31%	10%	8%	4%	3%	100%
Female	46%	32%	6%	7%	4%	5%	100%
Total	45%	32%	8%	7%	4%	4%	100%

In the analysis which follows, sub-groups which account for 5% or less of the sample population are omitted unless stated otherwise.

Meso-level findings in respect of work/care regimes

Paid and unpaid work

The first set of time use tabulations focuses on the amount of time spent by individuals from different groups on what is often loosely referred to as ‘paid and unpaid work’. To tighten the analysis, and to illustrate the differences resulting from different conceptions, the tables show patterns in respect of two measures of what might loosely be termed ‘paid work’ and two measures of what might loosely be termed ‘unpaid work’.

As noted above, there are three categories in the activity classification system used in Tanzania that together cover SNA work, namely (a) employment for establishments; (b) primary production activities not for establishments; and (c) services for income and other production of goods not for establishments. The analysis below uses all three of these categories as a broad measure of ‘paid work’, and the first and third categories as a narrow measure of ‘paid work’. The measures are not exact because, for example, the first and third categories would include unpaid non-agricultural SNA work for establishments or non-establishments respectively, or unpaid help in a family business. The second category includes a large amount of work that is unpaid. In particular, it includes substantial subsistence work in agriculture and collection of fuel and water. The SNA category also includes time reported as being spent seeking employment.

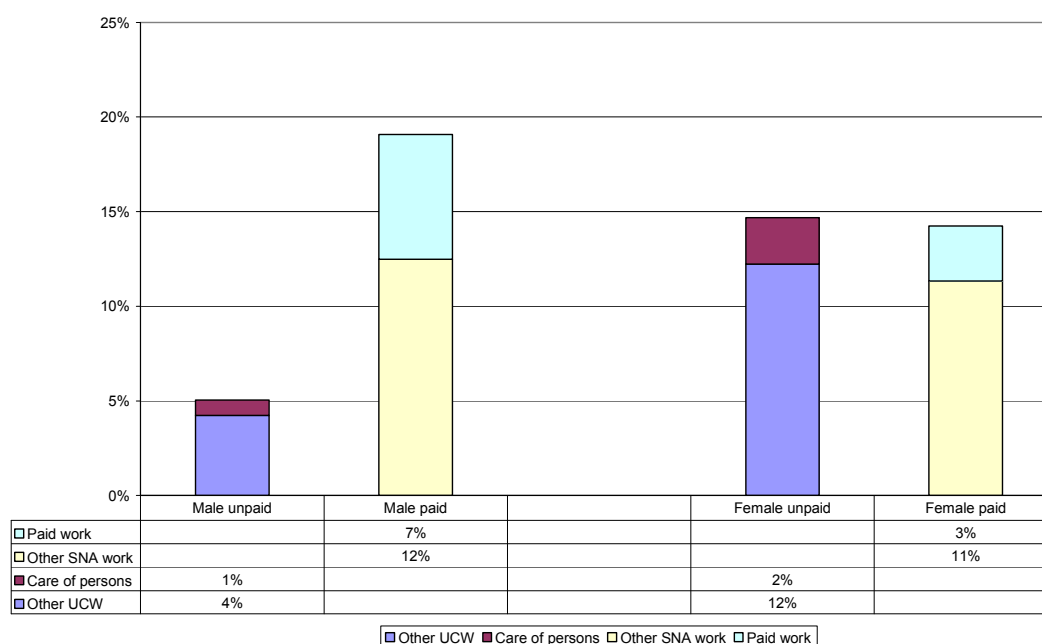
The categories making up unpaid care work are (a) household maintenance, management and shopping for own household; (b) care for children, the sick, elderly and disabled for own household; and (c) community services and help to other households. For the broad measure of unpaid work below all three categories are used. For the narrow measure, termed ‘care of persons’, only (b) is used. Again, these measures are not exact. For example, (c) includes several care of persons activities that relate to non-household members. Nevertheless, the analysis below should give a good idea of the balance (or lack of it) between paid and unpaid work for different groups.

This set of tabulations focuses on the average time spent per day by all members of a group on particular categories of activity, with the average calculated over all members, whether or not they engaged in that activity. Later analysis will investigate the extent of involvement of members of particular groups by looking at the number of ‘actors’. The tabulations use the 24-hour minute. Because the Tanzanian time use module collected seven days’ activities for most respondents, the reported time spent on each activity by a particular person was divided by the number of days for which they reported activities.

The 24-hour minute undercounts activities which are done simultaneously in that the available time is then divided equally between the simultaneous activities. Later analysis in this report uses a ‘full-hour’ minute which drops the 24-hour limitation and measures full duration. Unpaid care work activities – and personal care in particular – is more likely than SNA work activities to be reported as having been done simultaneously. Thus the ratio of ‘full minutes’ to ‘24-hour minutes’ is 1.00 or 1.01 for two of the three SNA categories, while it is 1.07 for household care. Household care has the highest ratio of all of the ten categories except media use, where the ratio is a high 1.18.

Figure 1 below uses a simple male/female split for the population aged five years and above to illustrate how two of the reported categories form subsets of the other two reported categories. Thus the males in the sample spend, on average, 19% of their day on SNA work, which is made up of 7% of the day on ‘paid work’ as defined, and a further 12% on subsistence-type work. In contrast, females spend 14% of their day on SNA work, which is made up of 3% on ‘paid work’ and 11% on subsistence-type work. In respect of unpaid work, males spent a total of 5% on unpaid care work, compared to 14% for females. Care of persons accounts for 1% of the day for the average male, compared to 2% of the day for the average female.

Figure 1 Time spent on paid and unpaid work by sex



The graph is useful in highlighting once again that care of persons accounts for a small proportion of the unpaid care work done by both females and males, although a larger amount in both proportionate and absolute terms for females and males. ‘Paid work’ narrowly defined also accounts for a relatively small proportion of the time spent on SNA work, but a larger proportion of SNA time for males and females. Of the time spent on subsistence work, close on 13% is spent on collection of fuel and water. This factor needs to be borne in mind given that colloquially, and even in analysis, most people conceive of these two activities as part of housework. The basic gender differences seen in the above tables are expected, and will not be commented on every time in the set of tables that follows.

Table 10 presents the same information as shown in the graph, but with the mean number of minutes per day added to facilitate understanding of what the percentages mean in everyday terms. In addition, the final columns show the results of multiplying the mean minutes per day by the total male and female population aged 5 years above to arrive at the volume of different types of work

done. The table reveals, for example, that the 15% of the day that females tend to spend on unpaid care work translates into about 3.5 hours, while the 5% spent by men on this work is less than an hour and a half. Expressed differently, each hour is equivalent to just over 4% of a 24-hour day. In terms of volume, 71.27m hours of unpaid care work are done each day, compared to 117.22m hours of SNA work. Women account for over three-quarters of the volume of unpaid care work, and 45% of the SNA work.

Table 10 Time spent on paid and unpaid work per day by sex

	Mean minutes per day		% of day		Total hours per day (bn)		
	Male	Female	Male	Female	Male	Female	Total
UCW	73	213	5%	15%	17.10	54.17	71.27
Care of persons	12	35	1%	2%	2.75	9.00	11.75
SNA work	277	206	19%	14%	64.67	52.55	117.22
Paid work	96	42	7%	3%	22.33	10.72	33.05

Table 11 shows, as expected, marked differences across age groups in patterns of paid and unpaid work. For both male and female, the 18-49 year olds tend to spend substantially more of their time on SNA work and the more narrowly defined paid work category than the other groups.

Nevertheless, the older men do more SNA work, and also more paid work narrowly defined, than the middle age group of women. Male children spend a tenth of their day on SNA work, while female children spend 8% of the day. Almost all of this is subsistence-type work, including collection of fuel and water. In respect of unpaid work, among females the middle age group again spends more time than others, but this difference does not hold in respect of males. For each age group, males spend noticeably more time on SNA work than on unpaid care work while women the difference between time spent on unpaid care work and SNA work is small for each of the female age groups.

Table 11 Time spent on paid and unpaid work by age group and sex

	Male			Female		
	5-17	18-49	50+	5-17	18-49	50+
UCW	5%	5%	5%	9%	19%	14%
Care of persons	1%	1%	1%	1%	3%	2%
SNA work	10%	27%	21%	8%	19%	16%
Paid work	1%	12%	7%	1%	5%	2%

Table 12 shows married people – both male and female - spending longer than never married (i.e. single) people on SNA and paid work if the full age range is considered. (The results in respect of widowed and divorced are shaded for males to remind the reader that the samples are small and the results thus unreliable). Divorced women, however, tend to spend longer on paid work than married ones. In terms of unpaid work, married women spend longer than all other groups, while there is no noticeable difference between the time spent on unpaid work between married and single men. It is only the patterns for single people that change noticeably when children are excluded. SNA work increases from 14% to 24% of the day for men and from 10% to 18% of the day for women, narrowing the difference between married and single people. For paid work more narrowly defined, single women now spend more time than married women. Unpaid work changes very little for single males, but for single females increases from 10% to 16% of the day.

Table 12 Time spent on paid and unpaid work by marital status and sex

	All							
	Male				Female			
	Single	Married	Widowed	Divorced	Single	Married	Widowed	Divorced
UCW	5%	5%	7%	8%	10%	20%	13%	16%
Care persons	1%	1%	1%	1%	1%	4%	1%	3%
SNA work	14%	26%	16%	25%	10%	18%	16%	20%
Paid work	3%	11%	7%	11%	2%	3%	3%	6%
	Adults							
	Male				Female			
	Single	Married	Widowed	Divorced	Single	Married	Widowed	Divorced
UCW	5%	5%	7%	8%	16%	20%	13%	16%
Care persons	0%	1%	1%	1%	2%	4%	1%	3%
SNA work	24%	26%	16%	25%	18%	18%	16%	20%
Paid work	10%	11%	7%	11%	7%	3%	3%	6%

The fact that married females tend to spend more time than other groups on unpaid care work might in part reflect the greater likelihood that they will be caring for children. Table 13 zeroes in on this element by comparing the patterns for those living in households with no children under seven years of age, and those in households with one or more young child in this age group. As before, the table includes percentages both for the sample as a whole and for adults only. Among adults, there is a five percentage point increase in the amount of unpaid care work done by women, and a three percentage point increase in the proportion of the day spent on care of persons when there is a young child in the household. For men, there is no such effect. Women in household with young children do almost the same amount of SNA work as other women, but less of their work tends to be paid. Among men, those in households with young children tend to do slightly more SNA work than those in other households. When children are included in the analysis, the patterns are similar but less stark than for adults alone.

Table 13 Time spent on paid and unpaid work by co-residence with young children and sex

	Male		Female	
	No children	Children	No children	Children
	All			
UCW	5%	5%	13%	15%
Care of persons	0%	1%	1%	3%
SNA work	20%	19%	15%	14%
Paid work	8%	6%	4%	2%
	Adults			
UCW	5%	5%	15%	20%
Care of persons	1%	1%	1%	4%
SNA work	24%	26%	19%	18%
Paid work	11%	10%	6%	3%

The lower section of Table 14 shows both men and women who are not economically active spending less time, on average, than other men and women on both paid SNA work and unpaid care work. Among both women and men, the unemployed tend to spend more time on unpaid care work than other groups. These findings must be treated with some caution because of the small-ish sample sizes but are marked enough to be worth noting. As expected given the definitions, paid work is far more common among employed men and women than among the other groups. The fact that some unemployed people record spending time on paid work could reflect the inclusion, noted above, of seeking work in the paid work category in terms of the time use classification, under-

recording of employment by the standard labour force questions used to classify respondents by work status, and the fact that the week covered by the time use survey was not the same as the reference week for the main ILFS employment questions.

Table 14 Time spent on paid and unpaid work by work status and sex

	Male			Female		
	Employed	Unemployed	NEA	Employed	Unemployed	NEA
UCW	5%	7%	4%	17%	23%	8%
Care of persons	1%	1%	1%	3%	3%	1%
SNA work	24%	10%	5%	19%	5%	5%
Paid work	9%	3%	0%	4%	1%	0%
	Adults					
	Employed	Unemployed	NEA	Employed	Unemployed	NEA
UCW	5%	7%	3%	18%	24%	12%
Care of persons	1%	1%	0%	3%	3%	2%
SNA work	27%	10%	3%	20%	5%	4%
Paid work	11%	3%	0%	5%	1%	1%

For the sample as a whole, the NEA group is much larger, and is dominated by children. This group nevertheless records 8% of the day for females and 4% of the day for males spent on unpaid care work.

The ILFS questionnaire included, among the relationship codes, one for domestic workers. This information allows us to classify households into two groups – those that have a live-in domestic worker and those that do not. We can then compare the time use patterns of those, other than these domestic workers, who live in each of the two categories of households. Examination of the data shows virtually no difference in time use of men between the two categories of household. For women, those in households without live-in domestic help spend 14% of their day on SNA work, 3% on paid work and 15% on unpaid care work. In contrast, those in households with domestic workers spend 17% of their day on SNA work, 10% on paid work, and 11% on unpaid care work. These patterns suggest that domestic workers help to lighten the unpaid care work load on other females in the household and/or, where women are in paid employment, households are more likely to hire a domestic worker.

Table 15 shows a marked increase in the time spent by both men and women on narrowly defined paid work with increasing education. The same pattern is not found in respect of SNA work as a whole. Instead, women with secondary education or more tend to spend less time on SNA work than their less educated counterparts. In respect of unpaid care work, the patterns are more or less constant for men across all educational groupings. Among adult women, the amount of unpaid care work seems to peak among those with primary education.

Table 15 Time spent on paid and unpaid work by educational achievement status and sex

	Male			Female		
	None	Primary	Secondary+	None	Primary	Secondary+
UCW	5%	5%	4%	14%	15%	15%
Care of persons	1%	1%	1%	3%	2%	2%
SNA work	17%	19%	22%	15%	14%	13%
Paid work	3%	7%	17%	1%	3%	8%
	Adults					
UCW	5%	5%	5%	16%	19%	16%
Care of persons	1%	1%	1%	3%	3%	2%
SNA work	23%	26%	25%	18%	18%	15%
Paid work	4%	11%	20%	2%	5%	10%

Table 16 shows urban men spending a higher proportion of their time on SNA and paid work than rural men. The difference is particularly marked in respect of paid work. This reflects the fact that many rural men will be working in subsistence agriculture. Among women, those in rural areas tend to spend longer on SNA work, but less time on paid work. There is little difference between rural and urban areas in the patterns for either women or men in respect of unpaid care work and care of persons. If the full sample is included, the urban-rural patterns remain for both males and females in respect of SNA and paid work although at lower levels of engagement.

Table 16 Time spent on paid and unpaid work by settlement type and sex

	Male		Female	
	Rural	Urban	Rural	Urban
	All			
UCW	5%	5%	14%	16%
Care of persons	1%	1%	3%	2%
SNA work	19%	20%	15%	12%
Paid work	4%	16%	1%	7%
	Adults			
UCW	5%	5%	18%	19%
Care of persons	1%	1%	3%	3%
SNA work	24%	28%	19%	16%
Paid work	6%	23%	2%	10%

Table 17 shows very little change in time use patterns for either males or females with changes in household income aside from a decrease in the amount of time spent by males on both SNA work and paid work among the poorest households. For SNA work this difference is only evident for the poorest households. For paid work narrowly defined it is evident for both of the two poorest household groupings. This decrease could be part of the reason for the poverty of these households. As with other disaggregations, for each income category, men spend longer on SNA work than on unpaid care work, whereas there is little difference between the time spent by women on the two categories across the income groups. Among men, the time spent on paid work more narrowly defined is greater than time spent on all unpaid care work for all but the poorest group.

Table 17 Time spent on paid and unpaid work by household income (Tshs 1000) and sex

	All							
	Male				Female			
	<50	59-99	100-199	200+	<50	59-99	100-199	200+
UCW	5%	5%	5%	4%	14%	15%	16%	14%
Care persons	1%	1%	1%	1%	2%	3%	3%	2%
SNA work	18%	21%	21%	20%	15%	14%	14%	13%
Paid work	4%	9%	12%	10%	2%	4%	5%	6%
	Adults							
UCW	6%	5%	5%	4%	17%	19%	19%	17%
Care persons	1%	1%	1%	1%	3%	3%	3%	3%
SNA work	23%	27%	28%	26%	18%	18%	18%	17%
Paid work	6%	14%	17%	16%	3%	5%	7%	8%

Table 18 shows that among both women and men, those living in adult-only households tend to spend longer on SNA and paid work than those in other households, while time spent on this work are among the lowest for households that contain only older people and children. This pattern holds whether or not one excludes children from the tabulations. These patterns mainly reflect the fact that children and older people are less likely than adults to do SNA and paid work and would thus affect the averages for the non-adult-only households. The patterns are different in respect of unpaid care work. Male engagement changes very little across the different household types. For females, among adults those in households with children and adults tend to spend the longest time on both unpaid care work and care of persons more narrowly defined. The other household types are similar in the amount of unpaid care work, but care of persons is accounts for the least time in adult-only households, at less than 1% of the average day.

Table 18 Time spent on paid and unpaid work by household composition and sex

	Male				Female			
	Ch+Ad	Ch+Ad+Old	Ad	CH+Old	Ch+Ad	Ch+Ad+Old	Ad	Ch+Old
	All							
UCW	5%	5%	6%	5%	16%	14%	16%	12%
Care of persons	1%	1%	1%	0%	3%	2%	0%	1%
SNA work	19%	18%	30%	14%	14%	14%	21%	13%
Paid work	7%	5%	19%	2%	3%	2%	11%	1%
	Adults							
UCW	5%	5%	6%	5%	20%	16%	16%	16%
Care of persons	1%	1%	1%	1%	4%	3%	0%	1%
SNA work	27%	23%	30%	17%	19%	17%	21%	18%
Paid work	12%	8%	19%	4%	5%	3%	11%	2%

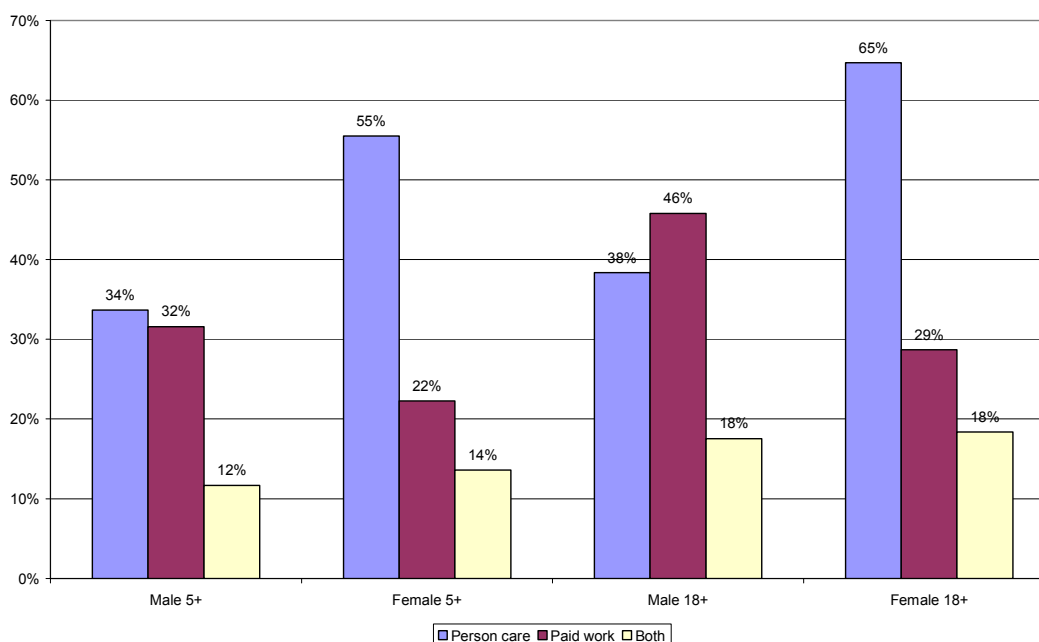
Prevalence of personal care and paid work

The set of tables above yields very small percentages of the day in respect of care of persons, in particular, as well as in respect of paid work for some groupings. One of the main reasons for this is that the percentages are derived from averages across the full grouping. Where only a small proportion of a particular group does a particular type of activity, the average is therefore small for the group as a whole even though particular individuals might be spending fairly substantial amounts of time on these activities. This section explores the extent to which this fact explains small percentages of time reported above by recording the percentage of each group that spent any time at all during the seven days covered by the survey on (a) care of persons; (b) the more narrowly defined category of 'paid work' used above i.e. excluding subsistence-type work and

fetching of fuel and water; and (c) both activities. The fact that the Tanzanian time use survey captured activities over seven days produces higher percentages than surveys that cover fewer days, as a person will be recorded as doing an activity even if this was done on only one of the seven days.

Figure 2 illustrates the overall male and female patterns for engagement in care of persons, paid work, and both activities in the days covered by the survey. It shows that, overall, 55% of females but only 34% of males spent some time on person care in the previous 24 hours, while 22% of females and 32% of males spent some time on paid work. Only 14% of males and 12% of women did both. If analysis is confined to adults, the 65% of females and 38% of males do some care of persons, while 29% and 46% respectively do some paid work. The percentage doing both types of activity is the same for women and men, at 18%.

Figure 2 Percentage of people doing person care and paid work by sex



As noted above, these percentages are higher than they would be if only one day were covered. To get a sense of how the number of days affects the findings, we calculate the percentage of males and females that did some care of persons every day for which a diary was completed. Participation rates fall to 16% for females and 3% for males, rather than the 55% and 34% previously calculated. If we treat each person-day as a different observation, participations rates are 35% for females and 14% for males. This mimics what might happen in a survey that asked about one random day for each respondent.

Table 19 reveals that 69% of females in the prime age group, compared to 39% of males, did some person care on the days they were interviewed. Among older people, the percentages are 51% and 36% i.e. a significant decrease for females but a small one for males. The percentage of children doing person care is lower than for other groups, but the rate for girls is 50% higher than the rate for boys. For paid work, about half of males and a third of females in the prime group were active over the interview days, and three in ten males vs just over a fifth among older people were active. Unlike for the older age groups, there is little gender difference in respect of engagement in paid work among children. There were also very small gender differences across all age groups in the percentages doing both types of work.

Table 19 Prevalence of person care and paid work by age group and sex

	Sex	5-17	18-49	50+	Total
Person care	Male	26%	39%	36%	34%
	Female	39%	69%	51%	55%
	Total	33%	55%	44%	45%
Paid work	Male	10%	49%	36%	32%
	Female	11%	31%	22%	22%
	Total	10%	39%	29%	27%
Both	Male	3%	19%	12%	12%
	Female	5%	20%	12%	14%
	Total	4%	20%	12%	13%

To simplify matters, the remaining tables in this section reflect the patterns only for adults.

Table 20 shows 71% of married women doing some person care, compared to 47% of those who have never married. For men the prevalence of person care is 44% and 25% for these two marital groupings. For both men and women the rates for widowed and divorced lie in between the rates for single and married people. Participation of married men is greater than for single men, but the opposite pattern holds in respect of women. There are thus 20 percentage points between the rate of engagement in paid work for married men and women, but only seven percentage points in respect of their single counterparts. Combining both types of work is more common among married males than married females, but the reverse gender pattern holds in respect of single people.

Table 20 Prevalence of person care and paid work by marital status and sex

	Sex	Single	Married	Widowed	Divorced	Total
Person care	Male	25%	44%	36%	31%	38%
	Female	47%	71%	51%	67%	65%
	Total	34%	58%	49%	56%	52%
Paid work	Male	43%	47%	34%	47%	46%
	Female	36%	27%	24%	38%	29%
	Total	40%	36%	25%	41%	37%
Both	Male	10%	20%	18%	15%	18%
	Female	16%	19%	12%	26%	18%
	Total	13%	20%	13%	22%	18%

Table 21 shows, as expected, that the likelihood of doing person care increases noticeably with the presence of young children. The pattern is clear among both women and men. Thus more than three-quarters of women living together with young children recorded some care of persons during the interview days, compared to 38% of those not living with young children. Among both women and men, the likelihood of doing paid work decreases when they are living together with a young child, but the decrease is smaller for men than women. Nevertheless, the likelihood of doing both types of work is noticeably higher for those living with young children than those not doing so.

Table 21 Prevalence of person care and paid work by co-residence with young children and sex

	Sex	No children	Children	Total
Person care	Male	27%	45%	38%
	Female	38%	79%	65%
	Total	32%	64%	52%
Paid work	Male	47%	45%	46%
	Female	32%	27%	29%
	Total	39%	35%	37%
Both	Male	12%	21%	18%
	Female	13%	21%	18%
	Total	12%	21%	18%

Table 22 shows, as expected, that a markedly greater proportion of employed than unemployed or not economically active persons did some paid work during the interview days. The fact that so many unemployed and NEA persons are recorded as doing paid work would reflect work-seeking (because this is included in the category of SNA work in the activity classification system), under-recording of employment – especially marginal employment – when using the standard labour force questions, and the fact that the reference period used for defining work status differed from the week used for the time use survey. Among both women and men, the NEA are noticeably less likely than employed people to do care of persons. Among employed people, 20% of females and 19% of men do both types of work.

Table 22 Prevalence of person care and paid work by work status and sex

	Sex	Employed	Unemployed	NEA	Total
Person care	Male	40%	32%	15%	38%
	Female	67%	62%	45%	65%
	Total	54%	54%	34%	52%
Paid work	Male	48%	32%	7%	46%
	Female	31%	13%	10%	29%
	Total	39%	18%	9%	37%
Both	Male	19%	11%	2%	18%
	Female	20%	8%	6%	18%
	Total	19%	9%	4%	18%

Table 23 shows lower rates of participation in care of persons for both women and men with secondary education and above. The table also shows a strong pattern, again among both women and men, of increasing participation in paid work with increasing education. A similar clear increasing trend is found in respect of participation in both types of work.

Table 23 Prevalence of person care and paid work by educational achievement and sex

	Sex	None	Primary	Secondary+	Total
Person care	Male	36%	40%	30%	38%
	Female	61%	68%	51%	65%
	Total	52%	54%	39%	52%
Paid work	Male	31%	48%	64%	46%
	Female	21%	31%	46%	29%
	Total	24%	40%	57%	37%
Both	Male	11%	19%	20%	18%
	Female	13%	21%	25%	18%
	Total	12%	20%	22%	18%

Table 24 shows higher levels of engagement in care of persons among rural than urban people for both women and men, and lower levels of engagement in paid work. The urban-rural differences are starker in respect of paid work than in respect of care of persons. The pattern in respect of paid work can be explained by the fact that much of economic activity in rural areas consists of work on family farms, which is unpaid. The urban rates for engagement in both types of work combined are, as expected, also substantially higher in urban than rural areas for both women and men.

Table 24 Prevalence of person care and paid work by location type and sex

	gender	Rural	Urban	Total
Person care	Male	41%	31%	38%
	Female	67%	57%	65%
	Total	55%	45%	52%
Paid work	Male	36%	71%	46%
	Female	22%	47%	29%
	Total	29%	58%	37%
Both	Male	15%	23%	18%
	Female	15%	27%	18%
	Total	15%	25%	18%

Table 25 shows, as expected, an increase in the prevalence of paid work for both women and men as household income increases. For both, the largest increase happens between the lowest-income group and the second lowest. Participation in care of persons is, however, lowest for both women and men in the wealthiest households. Participation in both types of work shows a clear increase with rising household income for women, but a less clear pattern for men.

Table 25 Prevalence of person care and paid work by household income (Tshs 1000) and sex

	Sex	<50	59-99	100-199	200+	Total
Person care	Male	40%	38%	39%	33%	38%
	Female	66%	64%	66%	56%	65%
	Total	54%	51%	53%	44%	52%
Paid work	Male	35%	56%	58%	59%	46%
	Female	23%	35%	37%	39%	29%
	Total	28%	45%	47%	49%	37%
Both	Male	13%	22%	22%	20%	18%
	Female	15%	22%	23%	24%	18%
	Total	14%	22%	22%	22%	18%

Table 26 records the highest rates of engagement in paid work for both women and men among those living in adult-only households, with the second highest rates among households with

children and adults. The lowest rate of engagement in paid work is found among households containing children and older people. These patterns are expected. For care of persons, the rate of engagement reaches a high of 78% among women in households containing children and adults, with a high rate of 66% also found in households with three generations. In households with children and adults, more than a fifth of both women and men engaged in both care of persons and paid work at some time during the interview days.

Table 26 Prevalence of person care and paid work by household composition and sex

	Sex	Ch+Ad	Ch+Ad+Old	Adult	Child+Old
Person care	Male	46%	38%	24%	28%
	Female	78%	66%	27%	56%
	Total	64%	53%	26%	46%
Paid work	Male	49%	38%	63%	27%
	Female	30%	23%	44%	22%
	Total	39%	30%	55%	24%
Both	Male	22%	14%	13%	8%
	Female	23%	15%	11%	13%
	Total	23%	14%	12%	11%

Exploring care of persons in more detail

This section explores care of persons in more detail. It goes beyond participation rates to examine the time spent on this form of care. It uses the ‘full-minute’ rather than the 24-hour minute and thus captures the full duration of time spent on care work by individuals from different groups. The figures reported below thus represent minutes rather than the percentage of the day used in an earlier section. (This section of the report was done on a version of the database that had been further ‘cleaned’ from the version used for the first section of the report. The cleaning – or lack of it – should not significantly affect the overall patterns.)

Tanzania elaborated the United Nations’ international classification for time use survey by disaggregating the codes relating to care of adults. Separate codes were specified for care of sick, disabled and elderly adults. This was done so that the survey could provide more specific information in relation to the care burden imposed by the HIV&AIDS pandemic.

Table 27 shows the mean time per day recorded for all person care activities, including both activities in category 5 and the three person care activities in category 6. The bold rows indicate codes relating specifically to sick adults. The italic row is for care of adults where it was not clear whether it was for the sick, disabled or elderly. The estimates shown in the table are all – except for physical care of children – very small. This is explained by the relatively low participation rates for most of these activities. The estimates are therefore shown to a decimal place to be able to appreciate smaller differences. Comparison of the bold estimates with those for care of elderly and disabled adults shows that the former are consistently larger than the latter, suggesting that care of the sick is posing more of a burden on Tanzanian society than care of the elderly or care of disabled adults. The issue of care for sick adults is explored in more detail in a later section of this chapter.

Table 27 Mean time spent per day on activities related to care of persons by sex, 24-hour minute

Activity	Male	Female
Physical care of children: washing dressing etc	4.3	24.9
Teaching, training and instruction of children	0.2	0.4
Accompanying children to places	0.2	0.2
Waiting to accompany children	0.0	0.0
<i>Physical care of the sick, disabled, elderly</i>	<i>1.1</i>	<i>1.0</i>
Physical care of sick adults	0.8	1.1
Physical care of disabled adults	0.0	0.0
Physical care of elderly adults	0.3	0.4
Accompanying sick adult to receive care	0.1	0.1
Accompanying disabled adult to receive care	0.0	0.0
Accompanying elderly adult to receive care	0.0	0.0
Waiting to accompany adult to receive care	0.0	0.0
Supervising children needing care	1.9	4.3
Supervising sick adult needing care	0.4	0.4
Supervising disabled needing care	0.0	0.1
Supervising elderly needing care	0.2	0.2
Travel related to care of children	0.1	0.3
Travel related to care of sick adult	1.0	1.0
Travel related to care of disabled adult	0.0	0.0
Travel related to care of elderly adult	0.4	0.3
Waiting for travel related to care	0.0	0.0
Other care of children, the sick, elderly & disabled	0.4	0.5
Caring for non-household children	0.0	0.0
Caring for non-household sick adult	0.1	0.0
Caring for non-household elderly adult	0.0	0.0

In this section the category of person care is refined by adding the three codes relating to care of persons from other households. The duration, as with the earlier tables, is averaged over all individuals in a particular group rather than only for 'actors' (those participating in the particular activity). The findings here must thus be read in conjunction with those reported previously on participation rates or 'prevalence'. For the tables which follow, the averages represent minutes per day.

The difference between care of persons (the broader measure) and active care is that the latter excludes supervision of those needing care and travel related to care. Accompanying children or others is classified as active care as it is relatively difficult to do other activities at the same time.

Table 28 confirms the earlier pattern of women in the middle age group bearing the main burden of care of persons. The ratio of active:passive care is also highest for this group, in that 84% of care of persons for women in this age group involves active care, while this is true of 70% of care of persons for women in the other age groups.

Table 28 Duration of care by age group and sex

		0-17	18-49	50+
Care of persons	Male	11	13	13
	Female	20	55	24
Active care	Male	7	8	8
	Female	14	46	17

To avoid overload, when describing later tables, the narrative focuses on the adult group. The tables do, however, include the estimates both for the sample as a whole and for adults only.

Table 29 again records the highest time for married women. Both married men and married women spend about twice as long on active and passive care as their single counterparts. Divorced women constitute the second most burdened group in terms of both person care in general and active care in particular.

Table 29 Duration of care by marital status and sex

		Single	Married	Widowed	Divorced
		All			
Care of persons	Male	10	16	12	8
	Female	22	58	21	42
Active care	Male	7	9	7	3
	Female	16	48	16	33
		Adults			
Care of persons	Male	7	16	12	8
	Female	30	58	21	42
Active care	Male	5	9	7	3
	Female	24	48	16	33

Table 30 shows women co-residing with young children reporting more than two hours on care of persons, and very near two hours on active care. Men co-residing with young children spend only 16 minutes per day on average on care of persons, and only ten minutes on active care. There is little difference in the amount of care done by men living in households with young children and women living in households without them.

Table 30 Duration of care by co-residence with young children and sex

		No children	Children
		All	
Care of persons	Male	7	15
	Female	9	52
Active care	Male	3	9
	Female	5	42
		Adults	
Care of persons	Male	9	16
	Female	12	67
Active care	Male	4	10
	Female	7	57

Table 31 suggests that those who are not economically active spend less time on care than the employed. One reason for this is that those who have people needing care – whether children, old people or sick people – in the household, are often also forced to earn money to be able to support

these dependants. The pattern holds for both women and men, and for both care of persons in general and active care.

Table 31 Duration of care by work status and sex

		Employed	Unemployed	NEA
		All		
Care of persons	Male	13	10	10
	Female	44	47	22
Active care	Male	8	7	7
	Female	36	38	16
		Adults		
Care of persons	Male	14	10	7
	Female	49	51	34
Active care	Male	8	7	5
	Female	40	41	27

Table 32 shows adults with primary education spending longer on care activities than those with less or more education. The pattern is stronger for women than for men.

Table 32 Duration of care by educational achievement and sex

		None	Primary	Secondary+
		All		
Care of persons	Male	13	12	10
	Female	40	38	29
Active care	Male	8	7	6
	Female	32	30	23
		Adults		
Care of persons	Male	12	14	11
	Female	43	52	36
Active care	Male	7	8	6
	Female	35	43	28

Table 33 records less time spent on care of persons by women in urban than women in rural areas. For men, the amounts of time spent on care are very similar for rural and urban areas.

Table 33 Duration of care by location and sex

		Rural	Urban
		All	
Care of persons	Male	12	11
	Female	39	34
Active care	Male	8	7
	Female	31	27
		Adults	
Care of persons	Male	13	13
	Female	49	44
Active care	Male	8	8
	Female	41	36

Table 34 shows little change in time spent on care with changes in household income except that, as noted above, women in the wealthiest households tend to spend less time on care than those in poorer households.

Table 34 Duration of care by household income and sex

		<50 th	50-99 th	100-99 th	200 th +
		All			
Care of persons	Male	13	12	13	9
	Female	39	39	38	28
Active care	Male	8	7	10	6
	Female	31	31	31	23
		Adult			
Care of persons	Male	14	11	14	12
	Female	48	49	48	39
Active care	Male	8	7	10	7
	Female	39	41	39	32

Table 35 shows women in child-plus-adult households spend longer on care of persons than those in other types of household. The next highest expenditure of time is found among women living in three-generation households. Among both women and men, time spent on care of persons drops markedly for those living in adult-only households and those in child-plus-older person households.

Table 35 Duration of care by household composition and sex

		Child+Adult	Child+Adult+Old	Adult	Child+Old
		All			
Care of persons	Male	14	12	9	7
	Female	49	37	7	14
Active care	Male	15	14	9	12
	Female	66	48	7	22
		Adult			
Care of persons	Male	9	7	6	4
	Female	39	30	4	10
Active care	Male	9	8	6	6
	Female	55	39	4	15

Care for sick adults in the household

Care provided for those infected by HIV or ill with AIDS is the primary focus of the Tanzania case study. As noted above, the low participation rates and low overall averages for care of sick adults mean that it is not useful to calculate average minutes for sub-groups of the population. We can, however, examine the profile of those doing activities involving care of sick adults. We report here only on those that are significantly different from the overall profile of the sample population.

Overall, 11% of the population aged 5 years and above records some care related to sick adults. The percentage stands at 10% for males and 11% for females. Expressed differently, 56% of carers for sick adults are female.

In terms of age group, 63% of the carers are in the age group 18-49 years, and a further 23% are older people. Children are thus under-represented among carers for adults. Partly as a result of this age pattern, 63% of the carers are married and 23% single. Nearly six in ten (59%) of the carers live in the poorest households, while a lower 54% of all households are in this category. Poorer people are thus somewhat over-represented among carers. Nearly four in ten (39%) of the carers are in three-generation households, while this category accounts for only 32% of all households in the

sample. It is possible that in some cases the three-generation households are the result of someone being sick, in that a new person moves in to take on some of the care.

In respect of the other variables which have been used in this chapter, there is very little difference between the profile of the carers and the profile of the population as a whole.

Summarising the key determinants of time spent on care

In this section we report the results of Tobit estimations which test the strength of the various relationships shown above through tables. For the first estimation we use ‘full’ minutes (i.e. full duration) of time spent by individuals on care of persons in the household (codes 500-599) as well as care for those in other households (codes 671-674). We regress against being male, being married), being employed, being co-resident with a child under seven years of age (Childed), living in a rural area, having no schooling, having secondary education or higher (SecondPlus), living in a household containing only child/ren and older people (KidAndOld), living in a household containing only child/ren and middle-aged adult/s (KidAndAdult), being in a ‘three-generation’ household, being in the poorest groups of households (PoorHH), age and age squared. In terms of household composition, the implicit comparator is an adult-only household.

Table 36 confirms that living in a rural area, level of education, most forms of household composition and living in a poorer household are not significant determinants ($P \leq 0.005$) of time spent on care of persons. Among those that are significant, co-residing with a child has the strongest effect of the dummy variables, closely followed by being male, and then being married and being employed. Being male tends to reduce the time spent on care of persons, while the other factors all increase the time. All the variables combined accounted for 13.9% of the correlation between the fitted values and actual values for time spent on care of persons.

Table 36 Estimation results on duration of time spent on care of persons

	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Male	-56.1	2.0	-27.56	0.0000	-60.1	-52.1
Married	32.2	2.7	11.89	0.0000	26.9	37.6
Employed	15.5	2.8	5.53	0.0000	10.0	21.0
Childed	61.1	2.9	21.09	0.0000	55.4	66.8
Rural	1.7	2.4	0.72	0.4720	-2.9	6.3
NoSchooling	2.1	2.4	0.85	0.3930	-2.7	6.9
SecondPlus	-3.6	4.2	-0.86	0.3880	-11.9	4.6
KidAndOld	-2.9	5.8	-0.5	0.6190	-14.2	8.4
KidAndAdult	13.8	4.4	3.16	0.0020	5.2	22.3
ThreeGen	8.4	4.3	1.98	0.0470	0.1	16.8
PoorHH	4.6	2.1	2.21	0.0270	0.5	8.8
Age	1.2	0.3	4.32	0.0000	0.7	1.7
AgeSquared	0.0	0.0	-4.33	0.0000	0.0	0.0
_cons	-92.6	5.5	-16.92	0.0000	-103.3	-81.9

The determinants of care change if we define care broadly to define all types of unpaid care work. Table 37 reveals that gender now has the highest coefficient by far among the dummy variables, and the coefficient is much larger than for care more narrowly defined. Being married and being employed are also strong determinants of time spent on unpaid care work. Having no schooling or having secondary schooling and above tends to decrease the amount of unpaid care work done when compared with those with primary schooling. Living in a rural area now has a negative effect on the amount of time spent on unpaid care work, as does living in a household with three generations. Other forms of household composition and living in a poor household do not have a

significant effect on the amount of time spent on unpaid care work. All the variables combined accounted for 13.9% of the correlation between the fitted values and actual values for time spent on unpaid care work.

Table 37 Estimation results on duration of time spent on unpaid care work

	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Male	-157.7	2.51	-62.94	0.0000	-162.6	-152.8
Married	36.1	3.48	10.39	0.0000	29.3	43.0
Employed	29.0	3.44	8.43	0.0000	22.3	35.8
Childed	19.6	3.31	5.93	0.0000	13.2	26.1
Rural	-15.2	2.94	-5.19	0.0000	-21.0	-9.5
NoSchooling	-10.7	3.12	-3.43	0.0010	-16.8	-4.6
SecondPlus	-14.6	5.13	-2.84	0.0050	-24.6	-4.5
KidAndOld	0.1	6.53	0.02	0.9820	-12.7	12.9
KidAndAdult	-9.3	4.99	-1.87	0.0620	-19.1	0.5
ThreeGen	-17.9	4.85	-3.69	0.0000	-27.4	-8.4
PoorHH	4.6	2.66	1.72	0.0860	-0.7	9.8
Age	4.1	0.34	12	0.0000	3.4	4.8
AgeSquared	-0.1	0.00	-13.5	0.0000	-0.1	0.0
_cons	140.5	6.48	21.68	0.0000	127.8	153.2

The above Tobit estimations confirm that many of the patterns shown in the previous tabulations are statistically significant. The factors that result in a particular individual spending more or less time on care obviously extend beyond those tested above and could include the specific week in which the person was interviewed and their own and household's situation at that time. The advantage of the Tobit estimations is that they show the relative strength of the different factors, controlling for other factors used in the estimation. Thus, for example, a simple tabulation of time use by sex and marital status can be misleading because some of the pattern of greater time spend on care by married would be caused by the fact that younger people are less likely to be married, and older people tend to do more care work than younger ones. The estimations, by including both marital status and age, shows the effect of each of these separately.

Finally, the Tobit estimations are useful in reminding us that the strength of the influence of different factors on time spent on care depends to some extent on the definition of care used. This could be important when targeting policy initiatives.

Standard indicators

To facilitate cross-country comparisons, it was agreed that all countries should include a standard set of indicators on time use. The standard indicators cover the age group 15-64 years.

Table 38 is the first of the standard tables. It focuses on the distribution of time between the three SNA-related categories – activities which fall within the SNA production boundary ('SNA'); activities which fall within the general production boundary but outside the SNA production boundary, i.e. unpaid care work ('ExtSNA'); and non-productive activities ('Non-prod'). The first set of estimates shows the mean number of minutes spent on each of these categories per day when averaged across the full population, using the 24-hour minute. The second set of estimates shows the percentage of the total (male and female) population that actually engaged in each of these categories of activities i.e. the 'actors'. The third set of estimates shows the mean number of minutes spent on each of the categories per day averaged only across the actors.

Table 38 Mean minutes per day by SNA-related category and sex

	Mean population time			Participation rate			Mean actor time		
	SNA	ExtSNA	Non-prod	SNA	ExtSNA	Non-prod	SNA	ExtSNA	Non-prod
Male	357	76	1008	96%	86%	100%	370	88	1008
Female	259	261	920	96%	99%	100%	271	265	920
Total	305	174	961	96%	93%	100%	318	187	961

Table 38 confirms that men tend to spend longer than women on SNA work while women spend considerably longer than men on extended SNA. These patterns hold for both mean population time and mean actor time. The time spent is, as expected, longer for all groups when averaged across actors rather than population. In terms of participation rate, there is no difference between men and women in the tendency to participate in SNA work, but women are more likely than men to do extended SNA work. All individuals do some non-productive activity. This is expected given that sleeping and eating are included in this category.

Comparison of Table 38 with similar tables from other countries would tend to reveal that the Tanzanian table records much higher participation rates than for other countries. As a result, the differences between mean population averages and actor averages are relatively small. The reason for this difference between Tanzania and many other countries is that the latter generally calculate participation rates over a single day, because the survey covers only one day per person, while the Tanzanian participation rates are calculated over a full week. There is thus a heightened chance that a Tanzanian will report at least one episode of a particular category of activity.

Table 39 attempts to mimic the results of countries that base their estimates on only one day per person by treating each person-day in the Tanzanian data as a separate person. The participation rates for SNA and extended SNA fall. The latter falls most noticeably for men. With the decrease in denominator caused by this fall, the mean actor time increases for SNA and extended SNA activities for both women and men. The time spent by men on SNA continues to be higher than that for women, while the opposite pattern still prevails for extended SNA.

Table 39 Mean minutes per day by SNA-related category and sex treating each person-day as separate person

	Participation rate			Mean actor day time		
	SNA	ExtSNA	Non-SNA	SNA	ExtSNA	Non-SNA
Male	82%	58%	100%	440	132	1007
Female	83%	94%	100%	315	277	920
Total	82%	77%	100%	373	226	961

Table 40 presents similar estimates to Table 38, but this time in respect of the three categories of activities that make up unpaid care work, i.e. household maintenance ('housework'), care of persons in the household ('person care'), and community services and help to other households ('comm care'). The first of these categories accounts for more time than either of the other two for both women and men, and irrespective of whether we take the population mean or the actor mean. The relative gap in time spent on housework compared to time spent on person care is particularly marked for women. The majority of men and women undertake some housework. For person care, two-thirds of women participate, compared to just over a third of men. A little under a third of women and men report some participation in community care. Women spend noticeably more time than men on average on both housework and person care when calculating the average over the population or over the actors. For community care, however, men are slightly more likely than women to engage in this activity, and also tend to spend longer on it.

Table 40 Mean minutes per day spent per day by categories of unpaid care work and sex

	Mean population time			Participation rate			Mean actor time		
	House-work	Person care	Comm Care	House-work	Person Care	Comm care	House-work	Person care	Comm care
Male	31	13	10	75%	36%	32%	42	35	32
Female	215	47	8	98%	64%	30%	219	74	27
Total	129	31	9	87%	51%	31%	148	61	29

Table 41 is similar to Table 39 in that it tries to produce the results that would have been produced if the Tanzanian time use survey had collected only one day's worth of information for each respondent. Women's rate of participation in housework remains very high, at 91%, but the rate for men falls from 75% to 40%. Participation in person care falls from 64% to 44% for women, and from 36% to 19% for men. The mean time spent rises accordingly with the decrease in the actor denominator. Nevertheless, the mean time for women remains more than that for men for both these categories of unpaid care work. For community care, the rates of participation remain similar for men and women, and the time spent is still somewhat lower for women than men.

Table 41 Mean minutes per day by categories of unpaid care work and sex treating each person-day as separate person

	Participation rate			Mean actor day time		
	Housework	Person care	Comm care	Housework	Person care	Comm care
Male	40%	15%	19%	136	82	56
Female	91%	44%	18%	235	104	46
Total	67%	30%	18%	207	99	51

Most of the time estimates presented in this paper have taken the form of means. Means can be misleading to the extent that they hide the pattern of the distribution of time use. The two figures which follow give some indication of the extent to which the distribution of time spent on unpaid care work and person care is skewed, even among the actors. The figures are based on the full minute, which reflects the full duration of simultaneous activities. The figures reflect the number of minutes spent per day, but these estimates represent an average of the seven day's worth of data collected for each respondent.

Figure 3 shows that close on 14% of males compared to less than 4% of females spend no time at all on unpaid care work on an average day. The distributions for both male and female are asymmetric, but that for females shows a fairly even distribution across each of the half hours between 30 minutes and six hours after which there is a long tail, while for men there is a rapid drop-off. These patterns suggest that males who do UCW do a fairly consistently low amount.

Figure 3: Distribution of time spent on unpaid care work by sex

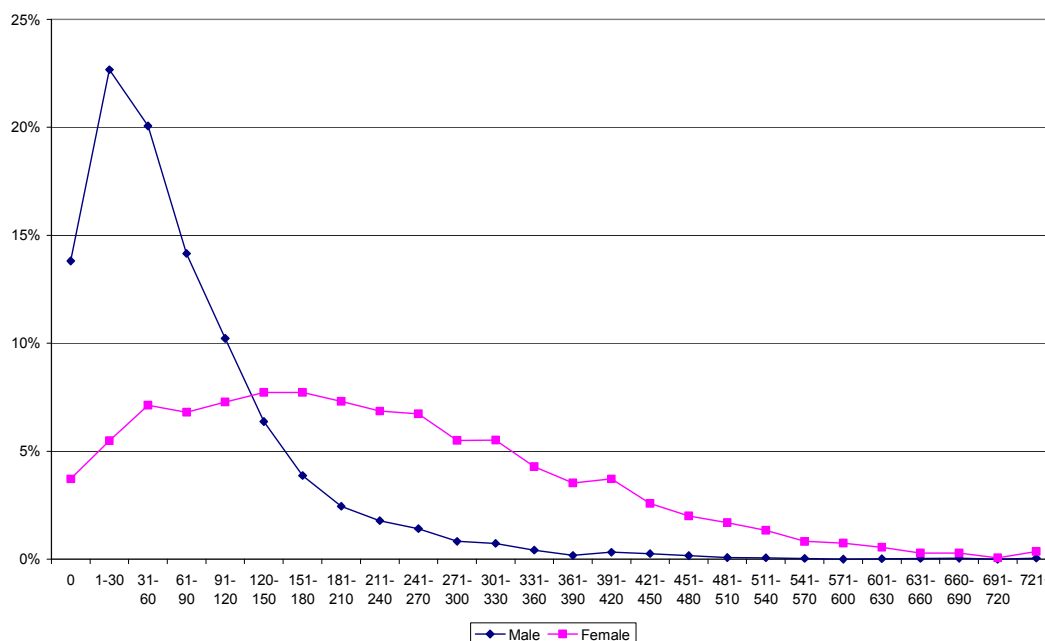
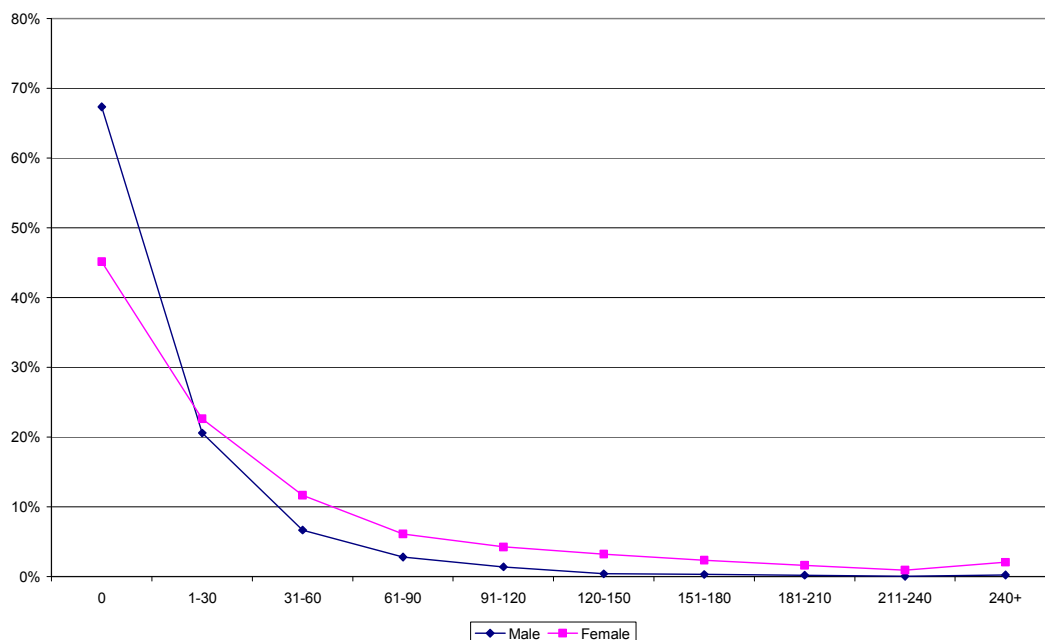


Figure 4 shows that 67% of males and 45% of females spend no time on person care on an average day. At the other end of the scale, negligible numbers of males, but 2% of females spend six hours or longer on this activity. The figure also shows, as with unpaid care work more generally, a more distinct tail for females than males.

Figure 4: Distribution of time spent on person care



In comparing patterns of time use, and time spent on care in particular, across countries, it is useful to have some indication of the extent to which countries differ in terms of the need for care. A care dependency ratio, analogous to the dependency ratio commonly used in comparing economic dependency across countries, was developed for this purpose. The ratio is computed by dividing a weighted measure of ‘carees’ – those likely to need care – by the number of people who could be expected to be available to provide care. For the measure of carees, children 0-6 years are given a

full weight, as are adults aged 85 years and above. Children 7-12 years and adults between the ages of 75 and 84 years are given a half-weight. For the carer measure, we take the total population aged 15-74 years.

Table 42 shows the calculations for 2006, the year in which the Tanzanian time use survey was conducted. The ratio stands at 0.60, reflecting the relatively large number of young children in the population.

Table 42 Care dependency ratio, 2000 and 2007

	Unweighted	Weighted
Carees		
Children 0-6	8677419	8677419
Children 7-12	5937449	2968724
Adults 75-84	507748	253874
Adults 85+	194967	194967
		12094985
Carers		
Adults 15-74	20301244	20301244
Ratio		0.60

Macro measures

In this section we calculate several different macro measures which are intended to give an idea of the size of the care economy relative to other parts of the economy.

Calculating the value of unpaid work

The underlying idea behind the approach to calculating the value of unpaid care work is to estimate the number of hours worked and multiply this by some measure of hourly earnings. This approach may undervalue care services relative to an output valuation approach because it does not take account of the value of non-labour inputs. The approach also has other characteristics, noted below, that tend to under-estimation.

There are four basic standard approaches to such valuation, namely:

- The average earnings approach
- The opportunity cost approach
- The generalist approach
- The specialist approach.

The first two have as an underlying question how much the person doing the unpaid care work would have earned in the market if they had done paid work rather than unpaid care work. The first approach uses the average earnings for all people (or all people of a particular sex) in the economy, while the second approach uses the actual earnings of that person.

Because of the underlying question (what would the person earn in the labour market?) and because average female earnings are usually markedly lower than male ones even where they have equal educational qualifications, the first approach is usually sex-disaggregated. This again tends to result in a lower estimate because the larger number of hours worked by women is multiplied by a lower value, lowering the overall estimate.

The second two approaches have as an underlying question how much a household would need to pay someone else to do the unpaid care work. This approach is not sex-disaggregated on the assumption that the person doing the hiring wants the work done, irrespective of who does this work. The generalist approach uses the average wage paid to a worker, such as a domestic worker, who would do virtually all the unpaid care work tasks. The specialist approach assumes that the household employs a specialist to do each of the different types of work. For example, the household would employ a cook or chef to prepare meals, a nursemaid or teacher to do various tasks associated with child care, a nurse to care for ill people, etc.

For this paper we use two approaches – the average earnings approach and the generalist approach. The opportunity cost approach is not pursued because of the theoretical and practical limitations. On the theoretical side, for example, it assumes that a meal prepared by a university professor has more value than one prepared by an unskilled worker, even if the same ingredients are used. On the practical side, there are difficulties in assigning a value to someone who is not employed. The specialist approach is avoided because of its complexity, and because of the difficulty of finding the appropriate paid workers for all tasks.

A choice which tends to lower estimates is that we have chosen to use median earnings rather than mean earnings for the averages. There are two reasons for this choice, one theoretical and one practical. Theoretically, the median is chosen because earnings tend to be skewed towards the lower end. The mean thus tends to over-state the true ‘middle’. Practically, using the median avoids the problem of how to deal with outliers, at least some of which probably represent incorrect capture of data.

To get the estimates of earnings, we use data from the integrated labour force survey (ILFS) of 2006, the same survey which had time use as a module. A particular challenge in the Tanzanian case is that a large proportion of working people do not report cash earnings. These include the many people whose main work is in subsistence agriculture (64% of employed people are reported to be working on their own farm or shamba), and others doing unpaid work in family businesses or agriculture (16% of all employed people) and as domestic workers who might be paid in kind. The proportion of unpaid workers is increased by the fact that the data cover employed children from the age of five years. For the valuation, we have used only those who report non-zero earnings. As will be seen below, this generates comparative values for unpaid care work and some other macro measures that might seem counter-intuitive. It could be argued that using only non-zero earnings does not provide a true reflection of real ‘earnings’ in the Tanzania labour market. Alternatively, it could be argued that a true valuation, when comparing the value of unpaid care work with that of SNA work, should also impute cash values to the unpaid SNA work.

When using the average wage approach, we include all employed people, whether employees, self-employed or own-account. However, as noted above, we exclude all those for whom zero earnings or no earnings are recorded. For employees, the ILFS asks about gross cash income, while for non-agricultural self-employment and own account work it asks about net income from the business. The median earnings are Tshs 385 per hour for males, Tshs 346 for females, and Tshs 369 for males and females combined.

When using the generalist approach, we use weighted (by the number in an occupation) non-zero wages/salaries for a range of different occupations that do work similar to that done in the home. We exclude teachers, despite some care work resembling teaching, because the large number of teachers would skew the weighted average upwards more than the amount of teaching done in most homes would warrant.

The codes used for the weighted calculation are as follows:

- 5121: Housestewards & housekeepers
- 5122: Cooks
- 5123: Waitrons & bartenders
- 5131: Domestic workers
- 5132: Domestic cooks
- 5133: Housemaids
- 9130/1: Domestic helpers & cleaners
- 9132: Helpers, cleaners & related in offices & hotels
- 9133: Hand-launders & pressers.

A total of 2,704 (unweighted) individuals are recorded across all these categories, of whom 79% are domestic helpers and cleaners. Of concern for our purposes, is that only 444 (16%) of these individuals record non-zero wages. The weighted hourly median wage for these 444 individuals is Tshs. 71.

As noted at the outset, the estimate of earnings needs to be multiplied by the number of hours of unpaid care work done. Here we use two measures, in line with the discussion earlier in this paper. The measures are:

- Unpaid care work i.e. categories 4 through 6 of the activity classification, plus collection of fuel and water as these are not currently included in Tanzania's GDP calculations
- Person care i.e. category 5 of the activity classification, plus codes 671 through 673 representing care of persons in other households.

In estimating the hours, we use the full-minute approach, as this represents the time actually spent on these activities.

We take the following steps to arrive at the value of unpaid care work:

- We calculate the number of hours spent by individuals in a year, by multiplying the daily number of minutes by 365 days and dividing by 60 to convert to hours.
- We multiply the amounts for individuals by the population aged 5 years and above.
- We calculate the appropriate earnings for a particular method.
- We multiply the number of hours by the earnings.
- We calculate the resultant value of unpaid care work as a percentage of Tanzania's GDP of Tshs 16,616,000m for 2006¹.

Comparing the value of unpaid care work with gross domestic product

Table 43 summarises the results represented as a percentage of total GDP. For unpaid care work, the percentage ranges from 35% when using the median generalist wage, to 63% when using median earnings of all earners. This large difference reflects the very low wages paid to domestic workers. For the narrower measure of person care, the value is equivalent to between 5% and 10% of GDP. For both measures, the disaggregated approaches show that the female contribution is far larger than that of males, even though each hour of female work is given a lower value than an equivalent hour of male work.

¹ Conversion rate and GDP obtained on 6 September 2007 from
<http://finance.yahoo.com/currency/convert?amt=13.13&from=USD&to=TZS;>
<https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html>

Table 43 Unpaid care work and person care as percentage of GDP: Different approaches

	UCW			Person care		
	Male	Female	Total	Male	Female	Total
Median earnings all earners	17%	46%	63%	2%	7%	10%
Median generalist wage			35%			5%

In absolute terms, Table 44 reveals that the value of unpaid care work is estimated at between Tshs 5,887bn and Tshs 10,521bn, while the value of person care lies somewhere between Tshs 898bn and RTshs 1,601bn. The following sections compare these values with various other measures of the Tanzanian economy of 2006.

Table 44 Total value of unpaid care work and person care per year (Tshs bn)

	UCW			Person		
	Male	Female	Total	Male	Female	Total
All earners	2,824	7,697	10,521	394	1,208	1,601
Generalist			5,887			898

As noted above, the median earnings approach uses sex-disaggregated estimates of earnings. If the overall median was used rather than separate medians for males and females, this approach would result in unpaid care work being valued at Tshs. 10,904bn, or 66% of GDP.

Comparing the value of paid and unpaid work

For the comparison with the value of paid work, we use the same ILFS that we have used for valuation of unpaid care work. This yields annual total employee wages and salaries of Tshs. 2,460,251m, and annual total earnings of all earners of Tshs. 11,999,439m.

Table 45 reveals that the value of unpaid care work is equal to several times more than the value of employee wages and salaries when measured by either of our two approaches, while it accounts for between 49% and 88% of all cash earnings, depending on the approach. The interesting finding in respect of employee wages and salaries is a result of the relatively small proportion of employees among the employed population Tanzania, as well as low or non-existent wages for some. Person care accounts for between 37% and 65% of the value of employee wages and salaries, and between 7% and 13% of the value of all cash earnings.

Table 45 Unpaid care work compared to earnings for all paid work in economy

	Of employee earnings	Of all earnings
Unpaid care work earnings approach	428%	88%
Unpaid care work generalist approach	239%	49%
Person care earnings approach	65%	13%
Person care generalist approach	37%	7%

Comparing the value of unpaid care work with tax revenue

Ingrid Palmer (quoted in Bakker, 1994) has likened unpaid care work to a tax that people (mainly women) pay before coming to the labour market. We therefore want to compare the value of unpaid care work with tax measures.

The first comparison is with individual income tax, which was estimated at Tshs. 362.8 bn for 2006/07.² The second comparison is with a composite tax measure that includes individual income tax, income tax on security schemes, corporate tax, payroll tax, tax on property, and value-added tax on domestic goods. The estimated amount for this composite was Tshs. 781.5 bn for 2006/07. The final comparator is domestic revenue, at Tshs. 2,461.0 bn for 2006/07.

Table 46 shows that the value of unpaid care work using the earnings approach is nearly 30 times that of individual income tax. Person care alone has a value more than four times that of individual income tax using the earnings approach. Both unpaid care work and person care again have values greater than the composite tax measure whatever approach is used. Using the earning approach, the value of unpaid care work appears to be more than 13 times that of composite tax. Unpaid care work is several times domestic revenue in value whichever valuation approach is used. Person care has a value less than that of domestic revenue, but still amounts to close to two-thirds of domestic revenue using the earnings approach and more than one-third using the generalist approach.

Table 46 Unpaid care work compared to tax revenue measures for 2006/07

	Individual income tax	Composite tax	Domestic revenue
Unpaid care work earnings approach	2900%	1346%	428%
Unpaid care work generalist approach	1623%	753%	239%
Person care earnings approach	441%	205%	65%
Person care generalist approach	248%	115%	36%

Comparing the value of care work with government expenditure on care-related sectors

The next comparison is with government expenditure on care-related sectors. (For other countries the comparison is made with personnel. For Tanzania we use the full sector allocation.) We use the allocations for the education and health sectors for 2006/07. These stood at Tshs. 891.2 bn and Tshs. 427.4 bn respectively if one includes the allocations to districts.

Table 47 reveals that unpaid care work accounts for close on eight times the value of government health and education expenditure using the earnings approach, and more than four times using the generalist approach. Person care has a value greater than that of government expenditure on these two sectors if we use the earnings approach, and more than two-thirds of the value using the generalist approach.

Table 47 Unpaid care work compared to government expenditure on health and education sectors, 2006/07

Unpaid care work earnings approach	798%
Unpaid care work generalist approach	446%
Person care earnings approach	121%
Person care generalist approach	68%

² Thanks are due to Ruth Carlitz of Haki Elimu for finding the tax-related and sector estimates from 2006/07 Budget Digest, and 2007/08 Budget Speech and Budget Estimates (Vol. I: Financial Statement and Revenue Estimate).

Comparing the value of unpaid care work with remuneration of paid care workers

For the final comparison, we compare the value of unpaid care work with remuneration of paid workers, whether employees or self-employed, in care-related occupations as recorded in the ILFS. The occupations used for this calculation are listed in Appendix 3. The choice of occupations is to some extent subjective as many occupations include both care and non-care work. We therefore make judgements about the weight of the care work. For example, we include primary and pre-primary education teaching professionals but exclude secondary and tertiary teachers on the basis that the latter's work will not involve much care.

The calculations yield total earnings of Tshs. 987,360m per annum. Unpaid care work as valued with the average earnings approach is equivalent to more than ten times the paid care workers' earnings. Using the generalist approach, it is still equal to nearly six times as much as paid workers' earnings. The value of person care is equivalent to between one and one and a half times the value of paid care work in the economy.

Table 48 Unpaid care work compared to earnings for paid care work

	Of employee earnings
Unpaid care work earnings approach	1,066%
Unpaid care work generalist approach	596%
Person care earnings approach	162%
Person care generalist approach	91%

In conclusion

This chapter has analysed the data from Tanzania's first national time use survey. The analysis has confirmed the basic patterns found in other countries, namely that women tend bear far more of the burden of unpaid care work, as well as of person care, than men do. Unlike some other countries, women's rate of participation SNA work is very similar to that of men, although the time spent on this work tends to be less. The analysis has gone far beyond these broad statements, however, in investigating other personal and household characteristics that influence the amount of time spent by women and men, girls and boys, on person care and unpaid care work. The analysis has also confirmed that broad statements that claim that women and girls do all the unpaid care work in the Tanzanian economy and society are untrue and not helpful for policy making purposes.

The macro comparisons in the latter part of the paper confirm that the amount of unpaid care work and person care done in the economy is huge. The comparisons are, however, complicated when compared to those done for other countries by the fact that a large amount of the SNA work done in Tanzania is also unpaid. Comparisons of volume of work, using hours, are therefore perhaps more useful in the Tanzanian context than using comparisons based on (imputed) money values.

Whichever numbers we use – whether minutes and hours or shillings – they will not tell us the full story. This chapter therefore needs to be read in conjunction with the other chapters which draw on qualitative research and other sources. In addition, the time use data cannot tell us much about activities that are done by a relatively small proportion of the population. The inclusion of separate codes for care of sick adults and care of other adults gives some indications of time use that might be a result of the HIV&AIDS pandemic. The proportion of all Tanzanians who do this work is, however, too small to give clear patterns. The fact that more time seems to be spent on care of sick adults than on care of other adults is indicative of the HIV&AIDS burden. The other chapters will elaborate on these small indications.

This chapter has focused primarily on work done by people in their own homes, and caring for other household members. The chapters that follow will use other sources and methods to elaborate on,

and try to explain, the quantitative findings above. They will also add to the picture of what people do in their own homes and communities by exploring the care that is produced through the other points of the diamonds, and how this interacts with, and influences, the amount and nature of the household care.

Appendix 1: Broad categories of activity classification system

SNA work

1. Employment for establishments
2. Primary production activities not for establishments
3. Services for income and other production of goods not for establishments

Extended SNA work

4. Household maintenance, management and shopping for own household
5. Care for children, the sick, elderly and disabled for own household
6. Community services and help to other households

Non-productive activities

7. Learning
8. Social and Cultural Activities
9. Mass media use
0. Personal care and self-maintenance

Appendix 2: Detailed listing of activity codes

1. Employment for establishments (Fixed structures such as a shop, office, factory, mine)

- 111 First job or employment on full or part time basis other than domestic work
- 112 Outworkers/home based work for an establishment
- 113 Paid domestic and personal services produced by domestic work
- 114 Work as employer/self-employed for an establishment
- 115 Paid (whether cash or in kind) domestic and personal services produced by domestic work
- 130 Working in apprenticeship, internship and related positions
- 140 Short breaks and interruptions from work
- 150 Seeking employment and related activities
- 180 Travel to and from work
- 188 Waiting to travel to and from work
- 190 Employment in establishments not included/classified elsewhere

2. Primary Production activities not for establishments

- 210 Crop farming and market/kitchen gardening: planting, weeding, harvesting, picking, etc.
- 220 Tending animals and fish farming
- 230 Hunting fishing, gathering of wild products and forestry
- 236 Collecting firewood or dung
- 240 Digging, stone cutting, splitting and carving
- 250 Collecting water
- 258 Waiting to collecting water
- 261 Purchase of (inputs) goods for primary production activities not for establishment
- 262 Sale product arising from primary production activities not for establishment
- 270 Travel related to primary production activities (not for establishments)
- 290 Primary production activities (not for establishments) not included/ classified elsewhere

3. Services for income and other production of goods not for establishments

- 310 Food processing and preservation activities: grain processing, butchering, preserving, curing
- 318 Waiting to Food processing and preservation activities: grain processing, butchering, preserving, curing
- 320 Preparing and selling food and beverage, preparation, baking, making sweets/confectionery and related activities
- 330 Making and selling bricks, textiles, leather, and related craft: weaving, knitting, sewing, shoemaking, tanning, and products of wood
- 338 Waiting to Making and selling bricks, textiles, leather, and related craft: weaving, knitting, sewing, shoemaking, tanning, and products of wood
- 340 Building and extensions of dwelling: laying bricks, making a pole frame for walls, plastering thatching, roofing, repairing buildings, cutting grass, plumbing, painting, carpentry, electric wiring
- 348 Waiting to Building and extensions of dwelling: laying bricks, making a pole frame for walls, plastering thatching, roofing, repairing buildings, cutting grass, plumbing, painting, carpentry, electric wiring
- 351 Petty trade, street/door-to-door vending, selling water in carts, selling charcoal, selling air-time, roadside food selling shoe-cleaning and other similar services in fixed structure
- 352 Petty trade, street/door-to-door vending, selling water in carts, selling charcoal, selling air-time, roadside food selling shoe-cleaning and other similar services not in fixed structure
- 360 Fitting, installing, tool setting, sharpening knives, maintaining and repairing tools

- 370 Provision of services for income such computer services, telephone services, transport (buses, taxis, carts, etc), hairdressing, cosmetic treatment, baby sitting, massages, prostitution
- 378 Waiting for Provision of services for income such computer services, telephone services, transport (buses, taxis, carts, etc), hairdressing, cosmetic treatment, baby sitting, massages, prostitution
- 380 Travel related to services for income and other production of goods (not for establishment)
- 388 Waiting to Travel related to services for income and other production of goods (not for establishment)
- 390 Services for income and other production of goods (not for establishments) not included/classified elsewhere
- 398 Waiting to Services for income and other production of goods (not for establishments) not included/classified elsewhere

4. Household maintenance, management and shopping for own household

- 410 Preparing food and cooking where cannot distinguish
- 411 Preparing food (grinding, milling, cutting, heating water, chopping wood)
- 412 Cooking, making drinks, setting tables and serving
- 413 Cleaning up after meal
- 418 Waiting to prepare food
- 420 Cleaning house and surroundings
- 430 Care of clothes and other textiles (sheets, curtain, etc): washing, ironing, mending and ordering clothes and linen
- 440 Shopping for personal and household goods
- 448 Waiting to access government services
- 441 Accessing government services: Collecting government pension, going to the post office, social welfare, police
- 448 Waiting to access government services
- 450 Household management: planning, supervising, paying bills, buying pre-paid electricity (luku) etc
- 460 Do it yourself home improvements and maintenance, installation servicing and repair of personal and household goods (repair of watch, bicycle, fridge,
- 470 Pet care
- 480 Travel related to household maintenance, management and shopping
- 488 Waiting to access the travel related to household maintenance, management and shopping
- 490 Household maintenance, management and shopping not included/classified elsewhere
- 491 Chopping wood, lighting fire and heating water not for immediate cooking

5. Care of children, the sick, elderly and disabled for own household

- 510 Physical care of children: washing dressing, feeding including breast feeding
- 520 Teaching, training and instruction of children in household
- 530 Accompanying children to places: school, sports. Lessons
- 538 Waiting to access the accompanying children to places: school, sports. Lessons
- 540 Physical care of the sick, disabled, elderly: washing, dressing, feeding, Helping
- 541 Physical care of sick adults
- 542 Physical care of disabled adults
- 543 Physical care of elderly adults
- 551 Accompanying sick adult to receive personal care services
- 552 Accompanying disabled adult to receive personal care services
- 553 Accompanying elderly adult to receive personal care services
- 558 Waiting to access to receive personal care services

- 561 Supervising children needing care
- 562 Supervising sick adult needing care
- 563 Supervising disabled needing care
- 564 Supervising elderly needing care
- 581 Travel related to care of children
- 582 Travel related to care of sick adult
- 583 Travel related to care of disabled adult
- 584 Travel related to care of elderly adult
- 588 Waiting to access to travel related to care of sick, disabled and elderly adult
- 590 Care of children, the sick, elderly and disabled in the household

6. Community services and help to other Household

- 610 Community organized construction and repair.
- 618 Waiting for community organized construction and repair.
- 615 Cleaning of public buildings
- 620 Community organized work.
- 628 Waiting for community organized work.
- 630 Volunteering with or for an organization
- 650 Participation in meetings of local government and informal groups, associations, union
- 658 Waiting to participation in meetings of local government and informal groups, associations, unions
- 660 Involvement in civic and related responsibilities
- 661 Participating in the ILFS/TUS
- 671 Caring for non-household children
- 672 Caring for non-household sick adult
- 673 Caring for non-household disabled adult
- 674 Caring for non-household elderly adult
- 675 Other informal help to other households
- 680 Travel related to community services
- 688 Waiting to travel related to community services
- 690 Community services not included/classified elsewhere

7. Learning

- 710 School, technical institute, college or university attendance
- 718 Waiting to school, technical institute, college or university attendance
- 720 Homework, home studies and course review for general education
- 730 Additional study, non-formal education and courses during free time
- 740 Work related training
- 780 Travel related to media use
- 788 Waiting to travel related to media use
- 790 Learning not included/classified else where

8. Social and Cultural Activities

- 810 Participating in cultural activities, weddings, funerals, births and other celebrations
- 818 Waiting to participating in cultural activities, weddings, funerals, births and other celebrations
- 820 Participating in religious activities, religious services, practices, rehearsals, etc.
- 828 Waiting to participating in religious activities, religious services, practices, rehearsals, etc.
- 831 Socializing with family (visiting family, eating out with family, visiting places together)

- 832 Socializing with non-family (visiting namely, eating out with family, visiting places together)
- 838 Waiting to socializing
- 840 Arts, making music, hobbies and other related courses
- 850 Indoor and outdoor sports participation and related courses (Kutembea)
- 860 Games (e.g. cards, chess, draughts, etc.) and other pastime (not related to media) activities
- 870 Spectator to sports, exhibitions (e.g. saba saba), museums, cinema/theatre/shows/and other performances
- 880 Travel related to social, cultural and recreational activities
- 888 Waiting to travel related to social, cultural and recreational activities
- 890 Social, cultural and recreational activities not included/classified elsewhere

9. Mass Media Use

- 910 Reading
- 920 Watching television and videos
- 930 Listening to music/radio
- 940 Accessing information by computer
- 948 Waiting to accessing information by computer
- 950 Visiting library
- 958 Waiting to library services
- 980 Travel media use
- 988 Waiting to travel media services
- 990 Media use not included/classified elsewhere

10. Person care and self-maintenance

- 010 Sleep and related activities
- 011 Having sex
- 012 Lying down/rest related to illness
- 020 Eating and drinking
- 028 Waiting to eating and drinking
- 021 Drinking alcohol & related
- 030 Personal hygiene and health
- 038 Waiting to personal hygiene and health
- 041 Receiving medical treatment and personal care from professionals (including traditional healers)
- 042 Receiving medical treatment and personal care from household members
- 043 Receiving medical and related treatment from non-household members including home & community based care worker
- 048 Waiting for medical care
- 050 Doing nothing, rest and relaxation
- 060 Individual religious practices and meditation
- 080 Travel related to personal care and self-maintenance
- 088 waiting to Travel related to personal care and self-maintenance
- 090 Personal care and self-maintenance not included/classified elsewhere
- 999 Not stated

Appendix 3: Occupation codes used for estimates of paid care work

Note: Capitalised occupations represent three-digit categories, while non-capitalised represent four-digit categories.

222	HEALTH PROFESSIONALS (EXCEPT NURSING)
223	NURSING AND MIDWIFERY PROFESSIONALS
2445	Psychology & philosophy professionals
2446	Social work professionals
3221	Medical assistants
3223	Dieticians and nutritionists
3226	Physiotherapists and related associate professionals
323	NURSING AND MIDWIFERY ASSOCIATE PROFESSIONALS
324	TRADITIONAL MEDICINE PRACTITIONERS AND FAITH HEALERS
333	PRIMARY EDUCATION TEACHERS
334	PRE-PRIMARY EDUCATION TEACHERS
335	SPECIAL EDUCATION TEACHERS, ASSOCIATE PROFESSIONALS
345	SOCIAL WORK ASSOCIATE PROFESSIONALS
512	HOUSEKEEPING AND RESTAURANT SERVICES WORKERS, INSTITUTIONAL
513	HOUSEKEEPING & RELATED SERVICE WORKERS, DOMESTIC
514	PERSONAL SERVICES WORKERS
913	DOMESTIC HELPERS, CLEANERS AND RELATED
915	MESSENGERS, WATCHERS AND RELATED WORKERS
916	GARBAGE COLLECTORS AND RELATED LABOURERS