

# **What do Time Use Studies Tell Us about Unpaid Care Work? Evidence from Seven Countries**

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## **Introduction**

Unpaid care work—the housework and care of persons that occurs in homes and communities of all societies on an unpaid basis—is an area that has generally been neglected by economists, as well as by many development actors. This neglect is evident across virtually all schools of economics, whether neoclassical, political economy or Marxist. Yet the amount of unpaid care work done, the way that the burden of the work is distributed across different actors, and the proportion and kinds of care work that are unpaid or paid have important implications for the well-being of individuals and households, as well as for the economic growth and well-being of nations.

The bulk of unpaid care work across all economies and cultures is performed by women. It is therefore not all that surprising that feminist economists have led the call for unpaid care work to be “counted” in statistics, “accounted for” in representations of the economy, and “taken into account” in policy making (Elson 2000:21). It is also feminists who have argued that theorizing and research into welfare states and regimes need to have gender as a central focus (see Razavi 2007 for a summary of this literature).

Like the general literature on welfare states and regimes, much of the feminist work on this topic has, up to now, focused on more developed countries. Similarly, until fairly recently, most of the large-scale attempts to measure unpaid work through time use surveys occurred in the more developed economies of Europe, North America and Australia. In developing countries, there were some explorations of the unpaid work of women, but these tended to be small scale, were often qualitative in nature and tended to focus on the unpaid production of goods (such as subsistence agriculture) rather than the unpaid production of services (care). Over the last decade or two an increasing number of developing countries have conducted large-scale time use surveys that

provide more reliable and representative data. However, evidence of the sort presented in this book for developing countries is not widely known or available, and has not previously been presented in a way that facilitates comparison cross countries. The book is thus intended to help fill a noticeable gap in available knowledge.

Time use surveys differ from standard labour force surveys in that they ask respondents to report on all activities carried out in a specified period, such as a day or a week. In contrast, labour force surveys focus only on the forms of work that classify a person as “employed” and that are utilized in estimations of gross domestic product (GDP). Labour force surveys can therefore tell us the likelihood of a person (male or female) of a particular age or group being employed or unemployed, the type of work they do in employment and the conditions under which they work. Time use surveys, in contrast, tell us how much time an average person from a particular social group (such as male or female, young or old, rich or poor) spends on sleeping, eating, employment-related work, socializing, and unpaid care work, such as housework and caring for children, the disabled, elderly, ill and so on, in an average day or week. Time use surveys thus provide a good basis for discussing unpaid care work in more concrete terms, and in exploring how responsibility for this interacts with the performance of other activities, such as earning an income, and how it varies along a range of individual and social characteristics.

The project of the United Nations Research Institute for Social Development (UNRISD) on *Political and Social Economy of Care* aims to explore the way in which care—and in particular, care of persons—is provided by the institutions of family/household, state, market and community, and by the people within these institutions. The project has been designed to bring together the findings from in-depth quantitative and qualitative research across a range of countries so as to arrive at a nuanced understanding of the similarities and differences in care provision across different contexts.

The six “core” countries for the research project are Argentina and Nicaragua in Latin America, India and the Republic of Korea in Asia, and South Africa and Tanzania in Africa. Two countries were chosen from each of these three continents in order to have one country that was more developed, both in terms of its economy and welfare services, and another that was less so. In addition, smaller research initiatives have been

conducted in Switzerland and Japan so as to include examples of care in more developed economies.

All eight countries were chosen on the basis that time use survey data were available for analysis. In the first year of the project, the research teams for each of the six core countries produced a detailed research report that analysed data from these surveys in their respective countries. A similar report was subsequently produced for Japan. Although the surveys differ in some important respects (as discussed below), the reports utilized a relatively similar framework and attempted to analyse similar issues. This chapter summarizes and compares some of the findings from the analysis of time use data from the six core countries as well as those from Japan. The country-specific chapters that follow provide more detailed analysis of the findings in each country. However, because of space restrictions, most of the country chapters do not include all the analysis included in the reports prepared for the project. This chapter thus at times includes findings from a particular country that are not covered in the country chapter.

The socioeconomic variables used by the country teams are similar in many respects. They are, however, not always completely the same or strictly comparable. The differences between countries arise, among others, from the particular situation within each country (for example, the South African concept of race and the Indian concept of caste are not relevant for the other countries). Further differences arise because of the population covered by the surveys. These include differences in the age group covered, as well as the fact that the Argentina survey covered only the city of Buenos Aires. Further differences arise as a result of the particular instruments and methodology used for the surveys in different countries, the number and nature of days covered, the information gathered through these surveys, and the options provided for answering questions. Many of these differences are described in a paper produced for the project (Budlender 2007). Despite these differences, there is sufficient common ground to allow cross-country analysis.

This chapter consists of seven sections after this short introduction, as follows.

- *Key concepts* briefly introduces time use-related concepts utilized in later discussion in the chapter.

- *Methodologies* describes and compares some of the relevant characteristics of the methodologies used for the time use surveys in each of the seven countries.
- *Basic gender patterns* presents a set of graphs derived from standardized sex-disaggregated tables compiled for each country. These graphs give a sense of the variation in male and female levels of engagement in, and the time spent on, employment-related work, unpaid care work and care of persons more narrowly defined.
- The *Tobit estimations* reports on the econometric analysis conducted in each of the countries to determine the main factors influencing the time spent on unpaid care work and person care across the six countries.
- *Gender combined with other factors* discusses differences and similarities across countries in the way in which gender interacts with other factors explored in the Tobit estimations in determining how much care is undertaken by different individuals. In particular, it looks at how time spent differs between women and men in each of the countries in relation to the presence of young children in the household, employment status and age.
- *The care dependency ratio* presents country results for a care dependency ratio proposed by the project as an indicator of care demand, in contrast to other sections which focus primarily on the supply of care.
- *The “monetary” value of unpaid care work* discusses various approaches to assigning value to unpaid care work, and compares the results with a range of macroeconomic indicators for the six countries. These indicators include GDP, paid work, government revenue, and government expenditure on social services.
- The *conclusion* offers some final remarks on the relevance of the findings.

The methodology used in the different surveys, of which the results are presented below, can affect the findings. The chapter thus, of necessity, includes some technical discussion.

## **Key Concepts**

The analysis of care in the UNRISD project, and the time use component in particular, draw on a definition of care which is, in turn, based on the System of National Accounts (SNA). The SNA is a set of internationally accepted rules for calculating GDP. These rules, in essence, define how economic growth is measured. The SNA distinguishes

between “production” (or “work”) and non-productive activity by defining production as any activity that one could, at least in theory, pay someone else to do. Work in a factory, as well as housework, thus constitute production, whereas getting dressed, sleeping, socializing and studying do not.

The SNA goes further than this to distinguish production that should be included in calculations of GDP and that which should not. It states that all production of goods should be included in the calculation (in the SNA “production boundary”), whether or not the goods are sold on the market. As a result, subsistence agricultural activity, for example, would be included, as would the collection of fuel and water for household consumption. In respect of services, in contrast, only those that are sold on the market are included. Therefore, housework in one’s own home, and unpaid care for children, elderly people, the ill and disabled are not included in the calculation of GDP. It is these excluded services which this book categorizes as unpaid care work or “extended SNA”.

Unpaid care work thus forms a key focus of this chapter, and the book as a whole. But unpaid care work can itself be disaggregated into different types of work. At a broad level, the International Classification of Activities for Time Use Surveys (ICATUS), which was used as the basis for coding in three of the seven countries, distinguishes between three sub-categories, namely (unpaid) household maintenance (broadly equivalent to housework), (unpaid) care of persons in one’s own household, and (unpaid) community services and help to other households.

The UNRISD project has a special interest in care of persons, and some of the analysis below focuses on activities that constitute such care. The classification systems of all countries covered in this book allow for care of persons to be distinguished, although in some countries the sub-categories do not cover all possible types of care of persons. Further, while the ICATUS provides explicit codes for the more passive care activities of ‘supervising’ children and adults in need of care, similar provision is not made in the coding systems for Nicaragua, Japan and Korea. Korea is the only country that includes a specific code for care of spouse.

In the analysis, in some cases person care is defined as equivalent to the second sub-category (that is, unpaid care of persons in one’s own household). In other cases, care of

persons in other households, from the third sub-category, is also considered. In practice, the inclusion of care of persons beyond the household does not substantially affect the results at the broad level presented below, because care of persons in one's own household is generally far "larger" in terms of rates of participation and time spent on it than care of persons beyond the household.

A complicating factor in using an SNA-related definition is that, according to the SNA, the collection of fuel and water is considered to be production of goods, and is thus included in the production boundary. In practice, however, very few countries—and none of the six considered here—include the value of these activities when computing GDP. In addition, most people who carry out these activities would consider them part of household maintenance. The discussion below highlights, at relevant points, how the collection of fuel and water is classified. This question is obviously of more importance for less developed countries, where the activity is common, than for Japan, the Republic of Korea or the city of Buenos Aires.

In five of the countries the time use surveys were based on a *diary approach*. In this approach, respondents were asked to report what they did for each period of a 24-hour day. The periods (or "time slots") of the day used ranged from 10 minutes in the Republic of Korea to one hour in India and Tanzania. Whatever the period, this approach provides a full day's picture, including the time at which particular activities were undertaken. Japan used both a stylized approach, with 20 broad activities specified, for one part of the sample and a diary approach, post-coded into 62 activities, for the other part of the sample. Nicaragua used only a *stylized approach*. The Nicaragua questionnaire included 22 questions related to specific activities of the form: "Did the person spend time on family or commercial agriculture? (Yes/No)" "If yes, how much time (in hours and minutes)?" The 22 questions were followed by a further question asking about any "other activities different to those mentioned". The fieldworker was required to check that the hours and minutes totalled 24 hours, thus ensuring the full coverage of a day. Nevertheless, as noted in Budlender (2007; see also Bittman and Wajcman 2004:174), research suggests that such stylized questions produce less accurate results than a full diary.

A further potential advantage of diary-based methods is that, if designed and implemented appropriately, they are better able to capture *simultaneous activities*. This is especially important in a study of care, as care of persons—particularly “passive” care that involves supervision—is more likely than some other activities to be conducted concurrently with other activities. Ironmonger (2004:96), for example, cites Canadian data that suggest that the amount of time spent on unpaid childcare is four times as high when childcare conducted simultaneously with other activities is included. The surveys in all six countries attempted to capture simultaneous time. Argentina, South Africa and Tanzania were relatively successful in capturing simultaneous activities. In India, Japan and the Republic of Korea, respondents could name more than one activity for a particular period, but were required to rank these activities. In Argentina, South Africa and Tanzania, in contrast, simultaneous activities were given equal weight. Examination of the data reveals that relatively few simultaneous activities were recorded in India and the Republic of Korea. For Japan, the researchers did not have access to the data on “secondary” simultaneous activities and the analysis is thus confined to the “main” activities.

In Nicaragua, the prompts on specific activities described above were followed by two further double-barrelled questions: “Did the person spend time on caring for children at the same time as other activities?” “If yes, how much time?” and “Did the person spend time on other simultaneous activities? Yes/No”, “If yes, how much time?” Unfortunately, these final questions were so poorly answered that the Instituto Nacional de Estadísticas y Censos (National Institute of Statistics and Census) decided not to include them in the analysis. These data are—for the same reason—excluded from the analysis presented in this chapter. Therefore, the Nicaraguan results do not include simultaneous activities. In fact, even if the questions had been better answered, this method of asking about simultaneous activities does not identify which other activities were combined with childcare or other simultaneous activities.

Where simultaneous activities are recorded, the question arises as to what measure of duration to allocate for purposes of analysis. For example, if two activities are carried out simultaneously in a given 30-minute period, should each be allocated a period of 15 or 30 minutes? For the purposes of the analysis below, the chapter distinguishes between two options. For the 24-hour minute, the available time is divided between the

simultaneous activities so that all activities in a given day add up to 24 hours. The advantage of this approach is that it allows for simple comparisons of the distribution of activities over a full day, as presented, for example, in figure 1 below.

For the “full minute”, each activity is given its full duration. The advantage of this approach is that it is possible to see the full extent of time devoted to particular activities. This is particularly important in the case of an activity such as care, where performance of the activity may limit the carer in terms of what other activities can be performed at the same time, and where. In the case of Argentina, where simultaneous activities were captured to a greater extent than in other countries in the sample, the full minute approach gives an average of over 28 hours per person per day. In the case of the Republic of Korea, there was little difference in the results of the two approaches, and little analysis was carried out using the full minute approach. For Argentina, India, South Africa and Tanzania, the full minute approach was used more regularly for analysis, as deemed appropriate, although the difference between the two measures for India was small. The discussion below looks at which of the two approaches is used for each type of analysis.

### ***Methodologies***

Table 1.1 summarises characteristics of the methodologies used for the country surveys that are relevant in understanding the findings and comparing findings across countries. As can be seen, all surveys analysed in this book are relatively recent, from 1999 or later. For two countries, Japan and Korea, analysis was done for surveys in two different time periods, thus allowing for some trend analysis.

The column on design establishes that a diary method was used in all countries except Nicaragua. In Nicaragua the time use information was obtained through a series of 22 questions about specific activities, as described above.

For the countries using diaries, in Japan and Korea these were mostly self-completed, while the other countries used face-to-face recall interviews. For all surveys except the Nicaraguan one and Questionnaire A in Japan, relatively detailed activity coding systems were used. In all these systems travel is coded separately, but according to the type of activity for which it is undertaken.



Most countries that used a diary-based method used a pre-set time period. The time period ranged from ten minutes in Korea to one hour in Tanzania. Countries using longer time periods generally allowed for more than one activity to be recorded per time period – ranging from five per period for Tanzania to three per period for South Africa and Argentina, both of which used a half-hour period. India’s questionnaire did not provide pre-set time periods.

The column on design further establishes that the time use survey was conducted as a stand-alone exercise in India, Japan, Korea and South Africa, while in the other countries it constituted a module of a household survey of broader scope.

**Table 1.1 Summary of methodological characteristics of surveys**

	<b>Design</b>	<b>Scope &amp; information</b>
Argentina	2005 Administered full 24-hour diary Post-coded Module in household survey	Buenos Aires 1,408 households 1,408 individuals 15-74 years One member per household One day
Nicaragua	1998 Administered stylised (22 categories) In household survey	2,325 households 8,756 individuals 6+ years
India	1999 Administered full 24-hour diary Post-coded Stand-alone	6 states 18,591 households 75,000 individuals 6+ years Up to three days
Korea	1999 and 2004 Self-completed 24-hour diary Post-coded Stand-alone	17,000 households 42,973 individuals 10+ years Two days
Japan	2001 and 2006 Self-completed 24-hour diary Both pre- and post-coded Stand-alone	70,000-100,000 households 200,000-250,000 individuals 15+ years Two days
South Africa	2000 Administered full 24-hour diary Post-coded Stand-alone	8 564 households 14,553 individuals 10+ years Two members per household One day
Tanzania	2006 Administered full 24-hour diary Post-coded Module in household survey	3 146 households 10,553 individuals 5+ years Seven days

The size of the samples varies widely across countries, from 1,408 individuals in Buenos Aires, Argentina to between 200,000 and 250,000 individuals in Japan. In all cases responses were weighted so as to be representative of the population of the relevant

age group. The age group differed across countries. Tanzania had the widest age range, including all household members aged 5 years and above, while Argentina had the smallest age range, covering only those aged 15-75 years. For this chapter, analysis is restricted to those aged 15-64 years so as to allow more reliable comparisons to be made.

The number of days covered per respondent also varied. In Tanzania, each respondent was visited daily for seven consecutive days, and asked about activities done in the previous 24 hours. At the other end of the spectrum, only one day was covered for each respondent in Argentina and South Africa.

The number of respondents per household also differed across surveys. For most countries, all household members in the relevant age group were approached. However, in Argentina and South Africa one and two respondents respectively were randomly selected from members of the relevant age group.

## **Basic Gender Patterns**

To facilitate comparison across countries, each team generated a set of age-standardized tables in relation to time spent on productive and non-productive activities, as well as time spent on the sub-categories of unpaid care work. The age group used for these tables was 15–64 years, which corresponds to the age group commonly used internationally when reporting on labour market engagement.

The graphs and tables below compare patterns across the countries in terms of three measures, namely, mean population time, participation rate and mean actor time. The *mean population time* gives the number of minutes that an “average” person in the sample spent on a particular type of activity. The *participation rate* gives the proportion of the surveyed population that was recorded as engaging in a particular type of activity. The *mean actor time* provides the number of minutes that a person spent on a particular type of activity averaged only over those who performed that activity. The mean population time is thus, in effect, a composite measure made up of the second and third measures, as “proved” by the following formula:

$$\frac{\text{Total time}}{\text{Population}} = \frac{\text{Participants}}{\text{Population}} \times \frac{\text{Total time}}{\text{Participants}}$$

Where virtually everybody undertook a particular type of activity (such as sleeping) over the period recorded in the time use survey, there is no difference between mean population time and mean actor time. Where, in contrast, only a small proportion of the population carried out a particular activity, the mean actor time might be relatively high but the mean population time relatively low as the denominator for the latter includes many people who recorded zero minutes spent on this activity. In the figures presented below, the difference between mean population time and mean actor time is most marked for unpaid community services, for which participation rates are very low. Interpretation of all comments about greater or lesser time spent by particular groups on particular activities must thus consider which of the two time measures is at stake.

The estimates are presented separately for men and women in acknowledgement of the significant gender differences that prevail in respect of unpaid care work as well as some other types of activity.

The results presented for the seven countries must be read against the background of what has been found in previous studies which, as noted above, have focused more on developed, rather than developing, countries. They must also be read against what labour force surveys and other sources of data tell us about paid work and employment.

Elson's (2000:73–74) graphical presentation of the change in the female share of paid employment in industry and services over the period 1980–1997 reveals that the share increased or remained the same for most countries, with the most notable exceptions occurring in the transition countries of Eastern Europe. Nevertheless, in an overwhelming majority of countries, the share remained below 50 per cent. Increasing participation by women in the paid labour force should be reflected in increasing participation in SNA activities in time use surveys. One might also expect that an increased participation of women in the paid labour force would be accompanied by a decreased participation by these same women in extended SNA activities, and compensated for by increased participation by men in extended SNA. In other words,

the gender division of labour in respect of SNA and extended SNA could be expected to become less stark over time.

The evidence from developed countries is mixed in this respect. Bittman (2004:226), using Australian data covering the period 1974–1992, finds that the amount of hours spent by men on childcare increased, but their share of childcare did not because the number of hours spent by women also rose over the same period. Bittman also finds that the amount of time spent by adult men on unpaid care work hardly changed over their life cycle. In contrast, Budig and Folbre (2004:52–54) suggest that the amount of time spent by women in the United States on housework has declined since 1995, and that the amount of time spent by married fathers on care increased by a small amount. Bittman et al. (2004:146–149), again using Australian data, suggest that mothers who engage in paid work do less “low-intensity” care, such as housework and supervision, but no decrease occurs in respect of “developmental” care, such as reading to and other close contact with the child. They suggest that this pattern reflects a shift in the mothers’ patterns of time use closer to that of the fathers, in which “the most rewarding activities” are prioritized.

Some of the apparent contradictions in the above findings might be explained by differences in patterns in respect of unpaid care work as a whole and person care (or childcare, in particular) more narrowly defined. Overall, however, the evidence suggests that an increase in female engagement in paid work in developed countries has not been matched by a similarly sized increase in male engagement in unpaid care work.

The factors at work in developing countries will differ in some respects from those in more developed countries. The countries covered in this book do not exhibit substantial increases in labour force participation or in female percentage share of the labour force, at least for the period reported on by Elson. The *World’s Women 1995: Trends and Statistics* includes statistics for six of the seven countries, with only Japan – which is the most developed – missing. The data are shown in Table 1.2 below, and suggest a few very small increases together with some larger decreases. It is only Nicaragua that records a substantial increase in both the rate of economic activity for women and women’s share of the economically active. However, the estimates for 2005 as recorded in the *Human Development Report 2007/08* record clear increases for all six countries in

the subsequent period. Unfortunately, it is not possible to analyse how this might have affected time use patterns because of the absence of time use data for the earlier period. Further, Table 1.2 records the standard economic activity rate whereas Elson’s observation relates to engagement in paid work. As discussed elsewhere, the two are very different measures in some of the countries covered in this book, and there might be a difference in the trends in respect of economic activity and engagement in paid work

**Table 1.2 Female economic activity rate and share, 15+ years, 1980, 1994, 2005**

Country	Economic activity rate (%)			Female share of economically active (%)	
	1980	1994	2005	1980	1994
Argentina	27	28	53	27	29
India	32	28	34	26	24
Republic of Korea	39	41	50	34	34
Nicaragua	23	30	36	22	30
South Africa	38	41	46	34	36
Tanzania	85	75	86	50	47

Source: United Nations, 1995: 143-5; United Nations Development Programme, 2007: 339-340.

A further important consideration for developing countries is that the time that needs to be spent on unpaid care work will be influenced by the availability of basic services, such as safe water and electricity on site, as well as access to modern appliances. It will also be influenced by the availability – or lack of availability – of “commercial” alternatives, such as domestic workers, laundromats and ready-made meals.

The time spent on care of persons should be influenced by the proportion of the population needing care (see the section on care dependency below), the ideological or cultural emphasis placed on different types of care and—perhaps most important—the likelihood that respondents will perceive and report care as a separate activity. The latter is affected, among others, by the time use methodology used. On the ideological aspect Budig and Folbre (2004:53, 58) suggest that, in the United States, “growing social concern about the amount of time that mothers spend with their children may lead mothers to reclassify their own use of time, perceiving care activities as more salient and therefore reporting them in more detail”. They suggest further that the lesser

physical effort required for housework with advances in technology might encourage respondents to report childcare as a primary activity. Smeeding and Marchand (2004:26) suggest that a reduction in family size, by decreasing other demands on the time of parents, could increase the time spent on care of children. It is also likely that where large amounts of time are needed to undertake basic household maintenance, for example, as a result of poor infrastructure and limited income, less time might be available for focused care of persons. All these factors could result in less time being recorded for care of children in less developed countries.

The temporal comparisons discussed above for some developed countries are, unfortunately, rarely available for developing countries, as there are very few developing countries with multiple comparable time use surveys. In their absence, cross-country comparisons can reveal possible trends. Franzoni's (2005) analysis of time use data for Mexico, Nicaragua and Uruguay is a rare example of cross-country analysis of time use data from developing countries. Franzoni uses level of education as an indicator of social standing for Mexico, poverty for Nicaragua, and socioeconomic status for Uruguay. In all three countries, she finds that women of lower social standing tend to do more preparation of meals but less childcare than those with higher standing. To the extent that "development" results in higher overall social standing of a country's inhabitants, related changes in patterns of time use over time might be found as a country "develops".

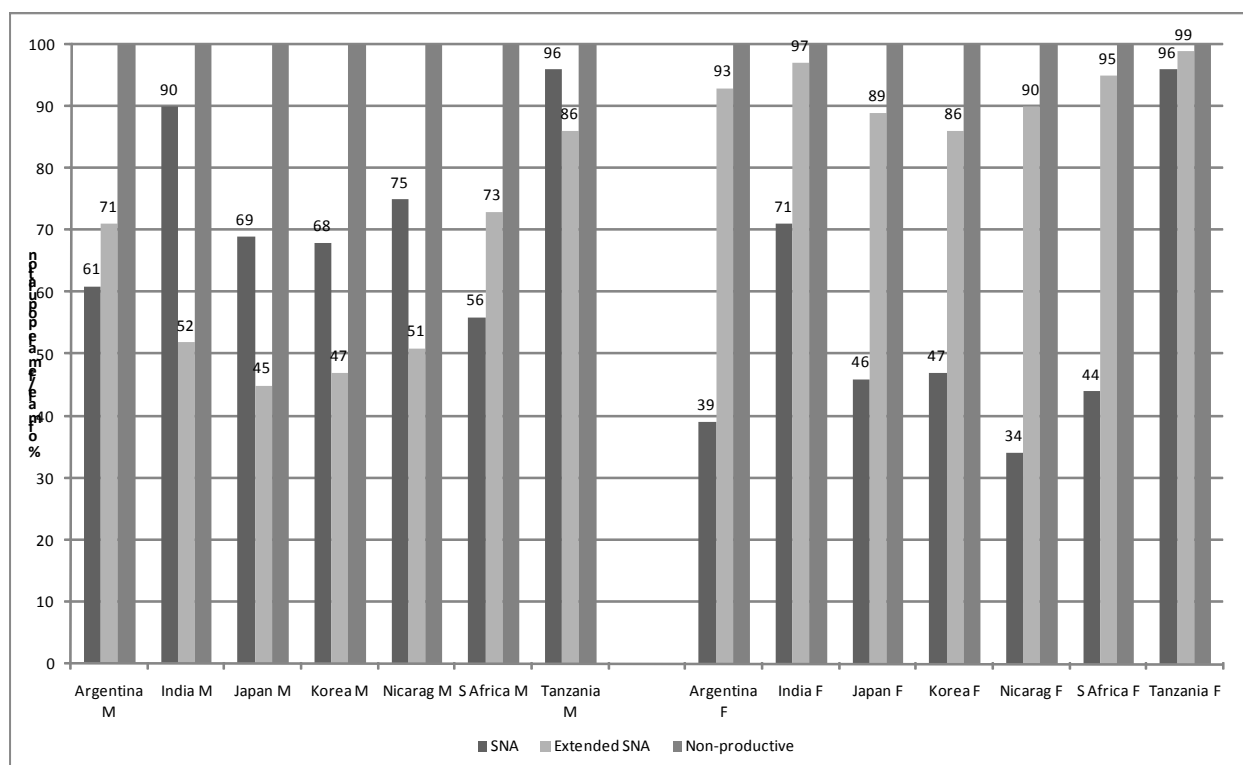
### ***The SNA-related categories***

Figure 1.1 shows the patterns across the three major categories into which all activities can be divided, namely SNA, extended SNA and non-productive activities. The first includes all activities that should be included when calculating a country's GDP because they fall within the narrow production boundary of the SNA. The second category is equivalent to unpaid care work and represents all activities that are recognized in the SNA as production or work, but are not included when calculating GDP. The final category encompasses all those activities that are not considered to be work.

As expected, across all countries, and across both male and female, 100 per cent of the population does some non-productive activity. In particular, virtually all people will sleep or eat in any 24-hour period. A further constant across all countries is that among women, participation rates are higher in respect of extended SNA than for SNA proper.

For most countries, there is a large difference in female participation rates between these two categories. The exception is Tanzania, where the participation rate for SNA is 96 per cent, and there is thus inadequate “space” for a large difference between this and extended SNA. Although, as explained in the next paragraph, the Tanzanian participation rates are biased upward compared to those of other countries, as a result of the methodology, the high SNA rates also reflect the fact that in 2006, 89.6 per cent of the population aged 15 years and above was recorded as economically active, with rates of 90.5 per cent for males and 88.8 per cent for females (Meena 2007).

**Figure 1.1 Participation rates by SNA category, country and sex**



Tanzania has by far the highest female rates of participation in SNA work, followed by India. The Tanzanian pattern is partly explained by the fact that Tanzania’s participation rate represents participation recorded over a seven-day period, whereas for other countries only one or two days of activities were recorded for each person. Increasing the number of days increases the chances of a person undertaking a particular activity. A proxy one-day participation rate for Tanzania, obtained by treating each person-day as a separate observation, yields a female participation rate of 83 per cent in SNA activities and 94 per cent for extended SNA.

SNA work is not necessarily equivalent to paid work. In Tanzania, for example, 71.7 per cent of employed females work on their own farm or *shamba*, and many of these are subsistence farmers (Meena 2007). Further, in India, South Africa and Tanzania collection of fuel and water was included under SNA work despite the fact that it is not included in the estimation of GDP. The very low rate of female SNA participation for Nicaragua can thus be partly explained by the fact that the collection of fuel and water was considered part of unpaid care work for this country. The relatively low rate for South Africa despite the inclusion of fuel and water collection reflects the low employment (and high unemployment) rates for both women and men. In September 2000, for example, the employment rate for South African women aged 15 years and above was 48.6 per cent (author's calculations and labour force survey data).

There is far less variation among women in the countries included in the survey in respect of participation in extended SNA work. Engagement is lowest in the Republic of Korea, at 86 per cent. The fact that Japan and Nicaragua have very similar rates suggests that level of development is not a major determinant of participation.

For men, the participation rate in SNA work is higher than in extended SNA for five countries (India, Japan, the Republic of Korea, Nicaragua and Tanzania), but lower in the remaining two. The difference in the male participation rates in SNA and extended SNA work is largest for India, although a similarly large gap in the reverse direction is not found for Indian women. The two countries—Argentina and South Africa—for which the pattern is reversed (that is, male SNA is lower than male extended SNA) have the lowest male SNA participation rates, while male participation in unpaid care work is not particularly high when compared to the other countries. For South Africa, the low rate for male SNA is explained by the high unemployment rates in the country.

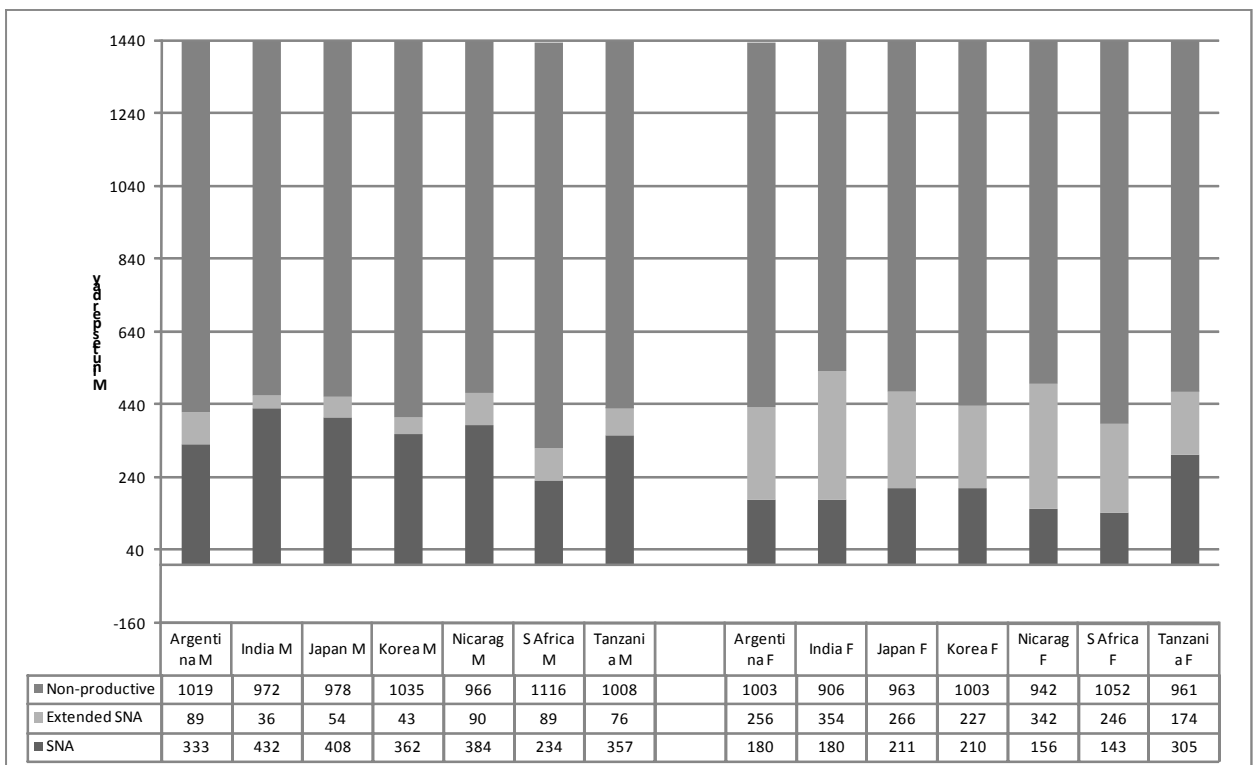
For all countries except Tanzania, the SNA participation rate is noticeably higher for men than women. Tanzania's "exceptionalism" remains, even if we use the one-day proxy described above. For all countries the extended SNA participation rate is noticeably higher for women than men. The gender gap in participation is larger in respect of extended SNA than in SNA across all countries. This is somewhat similar to the findings for developed countries reported above, where female engagement in paid work tends to converge more to male engagement, while the reverse does not occur in



respect of male engagement in unpaid care work. A crude interpretation of these patterns is that, using this measure, women are more likely than men to work across all countries if all types of work are considered, and that women are more likely than men to combine both types of work. Further evidence in this respect is presented below.

Figure 1.2 gives the mean population time, that is, the average time that a man or woman would spend on each of the three activities, including in the calculations those who spend no time. For this particular graph, the mean number of minutes for the three categories adds up to 1,440, equivalent to one day.

**Figure 1.2: Mean time spent per day on activities by SNA category, country and sex for full sample population**



The figure confirms that men and women across all countries spend a major part of each day on non-productive activities. For both women and men, India records the smallest proportion of the day spent on non-productive activities, while South Africa records the largest proportion. Within each country, men and women tend to spend similar amounts of time on non-productive activities. For South Africa, the high proportion of the day spent on non-productive activities mirrors the fact that the country also reports the shortest proportion of time spent on SNA activities. This, in turn, reflects the high

unemployment rates in the country. For India, the relatively small amount of time spent on non-productive work reflects particularly high times recorded for men on SNA work, and high times for women on extended SNA.

Where there is a male-female difference, women tend to spend less time than men on non-productive activities. The converse is that women tend to spend more time working than men do, if all types of work are considered. Pacholok and Gauthier (2004:211) report a similar pattern for Canada and Germany, but find that in Sweden men tend to spend more time than women on paid and unpaid work combined. Similarly, in a larger sample of 27 “high human development” and six “medium and low human development” countries listed in the 2007/08 *Human Development Report*, only three—the Netherlands, Norway and Sweden—report longer combined hours on SNA and expanded SNA for men than women (UNDP 2007:342).

While non-productive activity consumes the largest proportion of people’s time, extended SNA accounts for the least time of the three categories for men across countries, and the least time for women in one country—Tanzania. As noted above, much of the SNA work of Tanzanian women would be unpaid, including the collection of fuel and water.

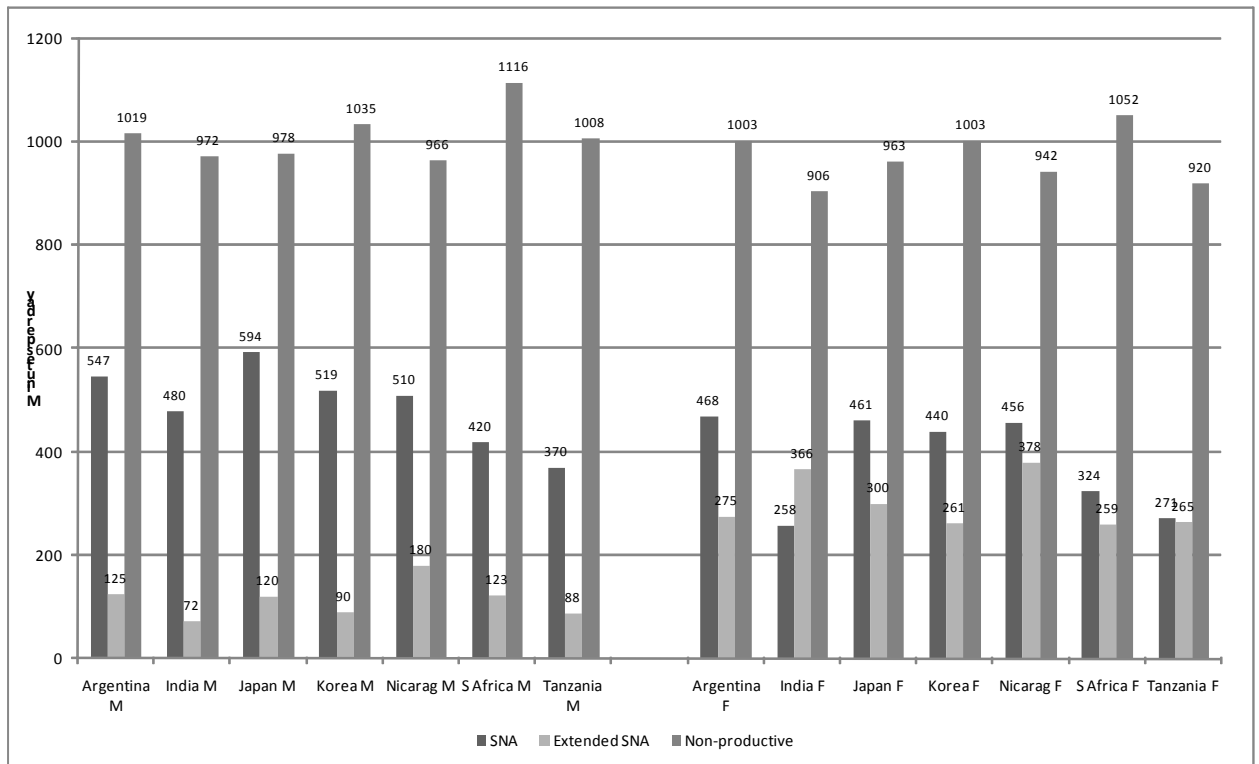
The figure clearly shows that women tend to spend more time on unpaid care work than men. For all countries, the mean time for women is more than twice that for men. The gender gap is most marked in India, where women spend nearly 10 times as much time on extended SNA work than men. The mean time for Indian women is about double that for Tanzanian women. Men from the three Asian countries, India, Japan and the Republic of Korea, tend to do noticeably less unpaid care work than men in the other countries. The gap for India is similar to that reported by Bittman and Wajcman (2004:178) for “‘familistically’ oriented” Italy, while that for Tanzania is similar to that for “gender equity conscious” Sweden.

Men tend to spend more time than women on SNA work across all countries. The gender difference is relatively small in Tanzania. In India, in contrast, men spend nearly two and a half times as much time on SNA work as women do, mirroring the much longer times that women spend on unpaid care work. Thus, while the previous graph

suggested high rates of participation in SNA work for Indian women, the time spent is not particularly high. The patterns accord with those for economic activity of females aged 15 years and above as a percentage of male activity, where the Tanzanian percentage is the highest for the six countries, at 97 per cent, while the Indian percentage is second lowest, at 42 per cent (the percentage for Nicaragua is even lower, at 41 per cent) (UNDP 2007:338ff). The mean time spent by Tanzanian women on SNA work is more than double that for women in South Africa, and nearly double that of Nicaragua. South African men record the shortest mean times for SNA work, while Indian men record the longest average times. As before, the South African pattern reflects the high unemployment rates. Conversely, the Indian pattern reflects high employment rates and long hours of work.

Figure 1.3 shows the mean time spent by actors on each of the SNA-related activity types. There is no change in the time spent on non-productive activities, as these had participation rates of 100 per cent. The bars for non-productive activities are nevertheless included to allow comparison with the time spent on the other two categories. For SNA and extended SNA, the actor times are by definition longer than the population mean times. Further, because men tend to have higher participation rates in SNA-related activities, the difference between mean population time and mean actor time on these activities is greater for women than it is for men. The opposite gender pattern holds in respect of extended SNA activities, that is, the difference between mean population time and mean actor time is greater here for men than for women. All this results in smaller apparent gender gaps for mean actor time than for mean population time. For Argentina, for example, the mean population time spent on unpaid care work for men is 35 per cent that of women's time, while the mean actor time is 45 per cent that of women's time.

**Figure 1.3: Mean time spent per day on activities by SNA category, country and sex for actors**



As with mean population time, the mean actor time spent by men on SNA activity exceeds that spent on extended SNA activity across all countries. The difference is largest for Japan and smallest for Tanzania.

For women, the focus on mean actor time results in a reversal of the pattern in figure 1.2 in respect of time spent on SNA and extended SNA activities in all countries but India. This pattern is explained by the fact that the bars refer to different groupings of women. Thus the longer times are recorded for relatively small numbers of women engaged in SNA work, while the shorter times are recorded for relatively larger numbers of women engaged in extended SNA work.

Perhaps the most important message from the actor means is that population means can obscure the fact that within groups which overall engage very little in a particular type of activity, some individuals might spend extensive time on it. Conversely, high actor means can obscure the fact that only some individuals may be engaging intensely in a particular activity while the majority do very little or do not engage at all. The

discussion of distribution patterns below highlights the differences between women and men in this respect.

This section concludes with a graph (figure 1.4) that provides a simple comparison of the volume of SNA and extended SNA work done in each country. The comparison differs from that presented in figure 1.2 in that the average hours per individual male/female are multiplied by the size of the male and female population aged 15–64 years.

The size of both the population and the economy varies enormously across the six countries, and a graphic comparison in absolute volume of hours is therefore not sensible. Instead, the data are standardized across the countries by assuming that all hours spent on SNA work and unpaid care work in a particular country constitute 100 per cent of the full economy. The percentage of this total volume that constitutes SNA and unpaid care work performed by women and men is then calculated. Thus the percentages shown in the bars for Argentina demonstrate that 23 per cent of all hours of work performed by the population aged 15–64 in the city of Buenos Aires consist of SNA work done by women, 35 per cent of the hours consist of SNA work done by men, and 32 per cent and 9 per cent are accounted for by hours of extended SNA work done by women and men respectively.

Figure 1.4 shows marked variation among countries in terms of both relative size of the SNA and unpaid care work components and the sex composition of each component. This chapter focuses first on the first aspect, namely the relative “size” of SNA and unpaid care work in the different countries.

In Nicaragua and South Africa, the SNA and unpaid care work components are almost equal in size. In all the other countries, the SNA component is noticeably larger than the unpaid care work component. In Argentina, Japan and the Republic of Korea, this pattern could reflect commercialization of care services. In Tanzania, the predominance of SNA work reflects the small proportion of time spent by both women and men on unpaid care work, and high levels of engagement in SNA work. In India it is caused, among others, by the very long hours on SNA work recorded for men. Alternatively, if

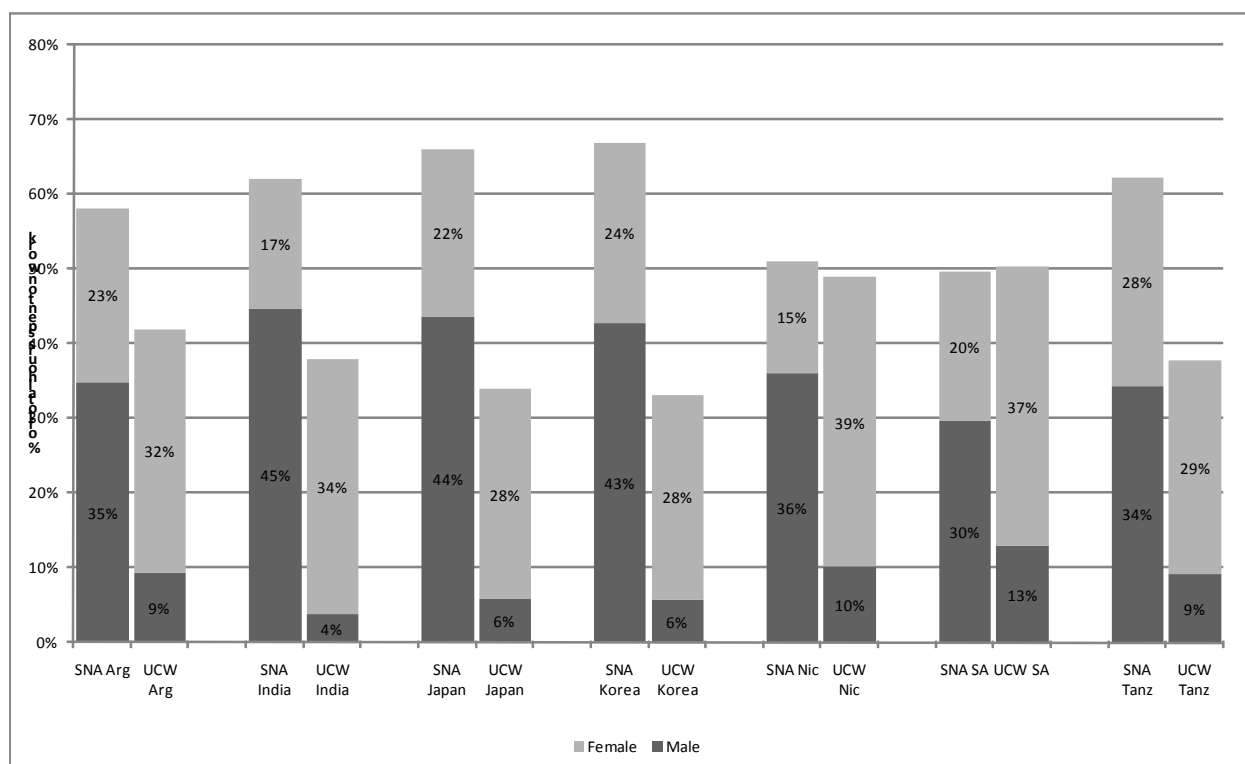
Nicaragua and South Africa are taken as exceptions, the relatively low amount of SNA work could be partly explained by high unemployment rates.

Earlier estimates of the division of total work time between SNA and non-SNA for several developing and developed countries show a similar wide range (UNDP 1995:91). For developing countries (covering urban areas of six countries, rural areas of five countries, and combined areas of one country), on average SNA work accounted for 54 per cent of total work time. However, the SNA percentage ranged from 45 per cent for the Republic of Korea in 1990 to 73 per cent in the Philippines in 1975–1977. For 13 developed countries, on average SNA work accounted for 49 per cent of total work time and ranged from 35 per cent in the Netherlands in 1987 to 68 per cent in Denmark in 1987. With the exception of these two outliers, the SNA percentage for all remaining developed countries lay between 44 per cent and 52 per cent.

The earlier estimates are probably less reliable than those for the seven countries studied here because of a greater variation in methodology, with some of the samples being small, and some data sources dating from the 1970s. In addition, for developing countries the estimates were often reported separately for urban and rural areas, and sometimes only for one of these. Nevertheless, the figures suggest that the extent of the dominance of SNA work in the Japan, Republic of Korea, Tanzania and India is unusual.

In terms of sex composition, all countries have, as expected, more hours spent by men on SNA work and by women on unpaid care work. Male dominance with SNA work is, however, much more marked in India and Nicaragua than in other countries and least marked for the city of Buenos Aires and South Africa. The larger number of women doing unpaid care work is most marked in India, and far less obvious in Tanzania. In terms of overall sex division, if all work is included, South Africa stands at one extreme, with men's volume of work equivalent to only 74 per cent of the volume performed by women. India stands at the other extreme, with men's work equivalent to 94 per cent of the volume attributable to women.

**Figure 1.4: Composition of hours spent on SNA and unpaid care work by sex**



### The components of unpaid care work

The previous sub-section focused on three major divisions into which activities can be categorized, namely SNA, extended SNA and non-productive activities. This section examines the second division—extended SNA or unpaid care work—in more detail. For purposes of analysis a three-way (sub-)categorization is used, namely, household maintenance, unpaid care for persons in the household, and unpaid community services and help to other households (care for persons beyond the household, or unpaid community services). This finer disaggregation of the three main categories helps explore the extent to which the differing patterns found for developed countries in respect of unpaid care work in general, and person care in particular, are replicated in developing countries. It also helps explore whether the level of development might affect the amount of time spent on care of persons.

In the previous sub-section, the analysis was carried out in terms of 24-hour minutes so that the mean population time would add up neatly to 24 hours. In this sub-section, full minutes are used for those countries (Argentina, India, South Africa, Tanzania) where the recording of simultaneous activity allowed this distinction. Full minutes are the preferred measure here, as evidence from other countries (see, for example, Ironmonger

2004) has revealed that care of persons is especially likely to be done simultaneously with other activities. Further, person care tends to be reported as a secondary rather than main activity when performed in conjunction with other activities.

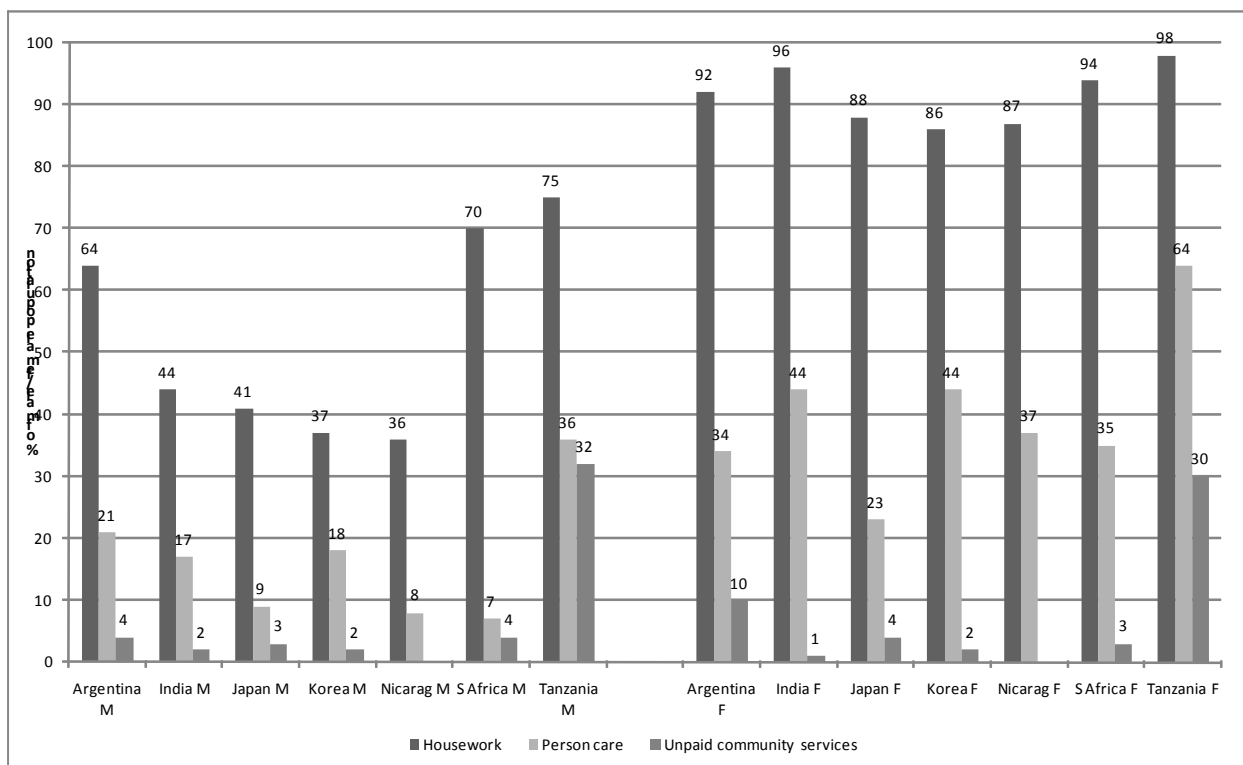
Figure 1.5 shows the participation rates for men and women across the countries. Participation rates in household maintenance are markedly higher than for the other sub-categories for both men and women across all countries. Participation rates in unpaid community services are lower than for all other sub-categories for both men and women in these countries. The gap between participation in person care and unpaid community services is generally large, with the exceptions of Tanzania and for men in South Africa. In Tanzania, the participation rate for unpaid community services is noticeably higher for both men and women than in all other countries. This is a result of the methodology used rather than any real difference in engagement in unpaid community services as time spent being interviewed for the time use survey was interpreted as an unpaid contribution to the community and given an activity code in this sub-category. If participation in the time use survey is excluded, Tanzanian participation rates in unpaid community services fall to 2 per cent for men and 4 per cent for women. This is very similar to the patterns found in other countries.

The second exceptional case where there is a relatively small gap between participation in care of persons and unpaid community services involves South African men. Here the explanation is that very few South African men engage in either of these sub-categories of activities.

The relatively low participation rates in care of persons for both men and women in Japan could, at least in part, be a result of the activity coding system used, which provided only one code – “help to a family member” – for care of persons other than babies and children.



**Figure 1.5: Participation rates by sub-category of unpaid care work, country and sex**



Women are far more likely than men to engage in both household maintenance and care of persons across all the countries. For unpaid community services, in contrast, levels of participation are very similar for men and women, except in Argentina. The fact that the Argentine rates for women are relatively high when compared to other countries (except Tanzania) is especially interesting, given that the survey in Argentina excluded some activity codes for this sub-category that were used in other countries. These were community work, such as cooking for collective celebration, and participation in meetings and involvement in civil responsibilities. The high rates seem to accord with a widespread perception that Latin America, and Argentina in particular, have very active community-based and voluntary sectors, and that women tend to be especially active in these sectors (Jelin 1990). However, half of the unpaid community care services recorded for Argentine represent care of children outside the household rather than other forms of community engagement. The exclusion of participation in meetings could account for the unusual gender pattern in that men are probably more likely than women to attend meetings.

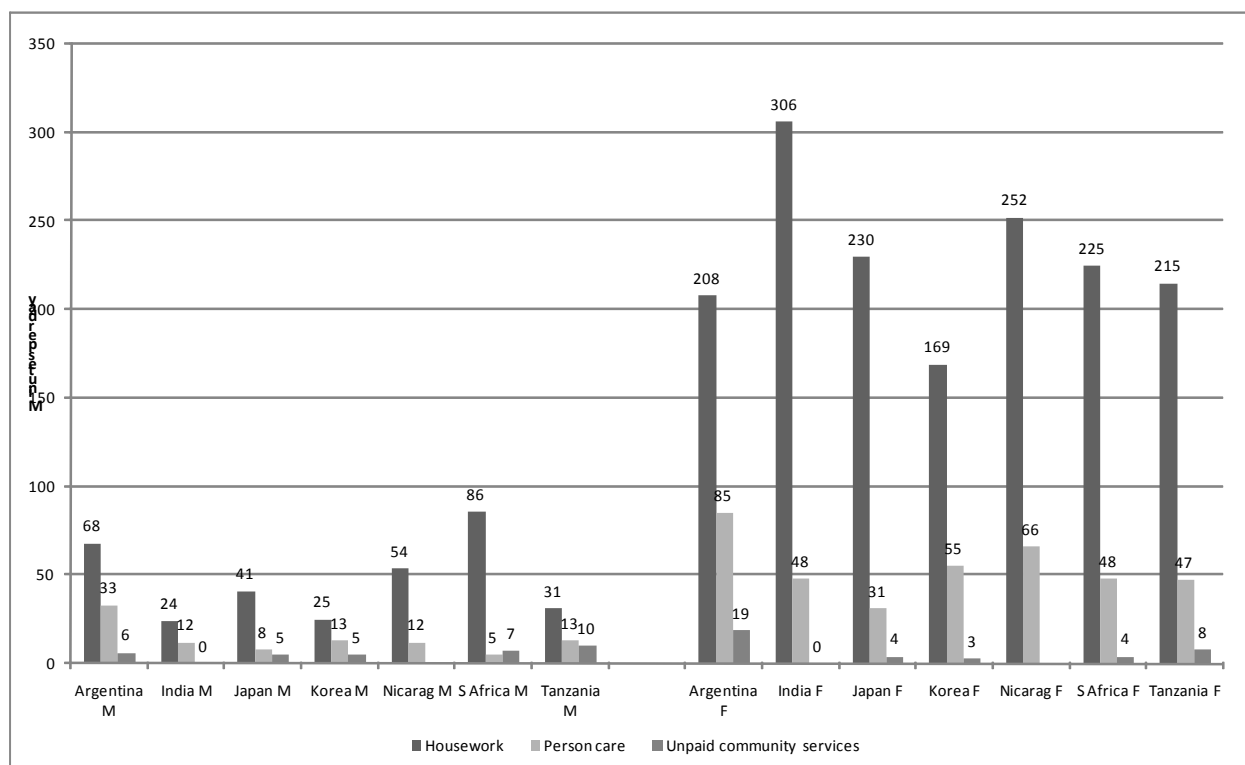
The fact that men’s performance relative to that of women is “best” in respect of unpaid community services could constitute yet another reflection of the public-private divide,

in that men might be more open to participating in unpaid care work when it is in a more public sphere.

Figure 1.6 shows the mean time spent on the different sub-categories of unpaid care work. The clearest message from this graph is that women tend to spend substantially more time than men on both household maintenance and care of persons across all countries. The gender gap is largest for India and Tanzania in respect of household maintenance, and smallest for South Africa. In India, where there is also a large gender gap for unpaid care work more generally, men do less than a tenth of the amount of housework done by women. The smaller gap for South Africa could reflect the diverse household and family composition and lower marriage rates than in other countries. This could mean that fewer men are able to rely on women partners to do housework for them.

The gender gap in respect of care of persons, in contrast, is largest for South Africa and smallest for Argentina. In South Africa, men do just over a tenth of the amount of person care carried out by women. The South African pattern could perhaps again be partly explained by the fractured family set-up, where fewer than half of all children live with their fathers and many adults do not live with their partners.

**Figure 1.6: Mean time spent per day on activities by sub-category of unpaid care work, country and sex for full sample population**



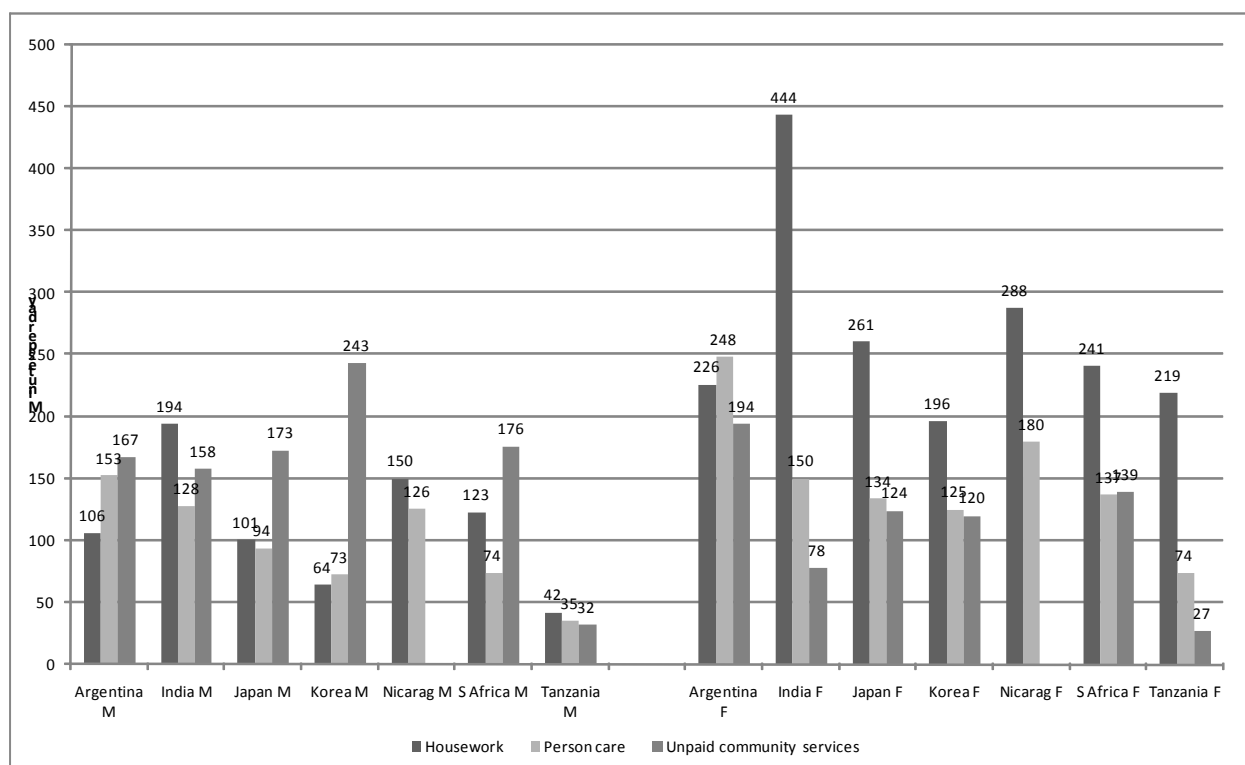
The relatively small amounts of time spent on care of persons accord with findings for more developed countries. In the 2007/08 *Human Development Report*, only two (Ireland and Finland) of the 27 high human development countries, and one (Nicaragua) of the six medium and low human development countries, record an average of more than one hour per day on care of children for women aged 20 to 74 years. For men, the same two high human development countries are again the only ones reporting more than 20 minutes per day, while this situation is not found in any of the less developed countries (UNDP 2007:342). The relatively small amounts of time are, in part, a reflection of the fact that a much smaller proportion of the population engages in care of persons than in housework. This results in reduced means for care of persons. The small amounts of time could also reflect under-reporting of care of persons, particularly where this work is done simultaneously with other activities and does not involve direct physical interaction with the person being cared for.

For unpaid community services it is difficult to comment, beyond noting the very small amounts of time recorded across all countries. The definition and understanding of unpaid community services probably also differs more across countries than that of care of persons or housework. In the case of India, the low participation rates combined with

relatively small amounts of time results in a mean close to zero minutes. The higher amounts for Tanzania have been explained above. If participation in the time use survey is excluded, the means fall to 3 minutes for men and 2 minutes for women. Argentine women thus become the real exception, with their record of 19 minutes per day across the population.

The final figure in this section, figure 1.7 presents the mean actor time for the three sub-categories of unpaid care work. As noted above, the mean actor times tend to reduce gender and other gaps when compared with mean population times. The graph still shows women spending more time than men on both household maintenance and care of persons across countries. The relative gender difference is, as expected, much smaller than before. It is, however, still very marked, particularly for Tanzania in respect of household maintenance. Comparing across countries, Indian women who engage in this activity—and 96 per cent of them do—far outclass all other groups in the amount of time spent on housework. This could partly reflect less developed infrastructure, although the collection of fuel and water is not classified as part of unpaid care work for India.

**Figure 1.7: Mean time spent per day on sub-categories of unpaid care work by country and sex for actors**



For unpaid community services, men record longer times than women in all countries except Argentina. (The estimates, after excluding time spent responding to the time use survey, would be 44 minutes for men and 28 for women in Tanzania.) The gender difference in time spent on unpaid community services is particularly noticeable in the Republic of Korea.

The graphs presented in this section have shown the cross-country gender patterns in respect of the three SNA categories, and the three sub-categories of unpaid care work.

## **The Tobit Estimations**

The Tobit estimations discussed in this section explore which factors beyond gender influence the time spent on unpaid care work and care of persons in different countries, as well as the direction of their influence (whether a factor tends to increase or decrease the amount of time spent on care). Subsequently, the chapter explores the way in which gender and three of the variables available for all countries—age, employment status and having children in the household—interact.

The Tobit estimations, like other regressions, make it possible to separate out the influence of different factors on the amount of care undertaken. This is especially important in situations where one factor is itself dependent on another factor. For example, a simple tabulation by age would show a clear pattern of increased engagement in, and time spent on, care of persons with increasing age. In reality, however, part of this pattern could be explained by the fact that older people are more likely to be married, and more likely to have children, with both of these characteristics in and of themselves tending to result in increased engagement in the care of persons. The Tobit estimation thus, in effect, “controls” for each of the other factors included in the estimation when calculating whether, and to what extent, a factor is influential.

The Tobit estimation method is especially designed for situations where the data are “censored” at one or either end. This makes the method particularly appropriate for time use data where the values are censored at value zero because an individual cannot spend less than zero minutes in a day on any activity. The records with zero values are included in the estimations. (The Argentina chapter presents marginal values that are calculated only in respect of observations with non-zero values.) The estimations are performed on unweighted data.

Table 1.3 summarizes the results of the Tobit estimations performed for the various country datasets. It includes only those factors that were tested for at least two countries. Showing the relative strength of the association for different factors for each of the countries in a way that would allow meaningful comparison is difficult, and the table therefore shows only whether the factor has a positive or negative influence, that is, whether it tends to increase or decrease the amount of care undertaken. A plus sign indicates that the factor has a positive influence on the amount of unpaid care work at the 95 per cent confidence level, while a minus sign indicates a negative influence. “Y” indicates that there is a significant influence at the 95 per cent confidence level, but either the direction of the influence or the nature of the factor are too complicated to allow simple plus or minus indicators. For example, with some indicators, the amount of care might first increase and then fall, while with factors such as family structure, more than a binary choice (such as male/female) is involved. The letters “ns” indicates that the factor was tested but not found to be significant at this level. A cell left blank indicates that the factor was not included in the Tobit estimation. For the purposes of assigning plus or minus in respect of race and caste, white (in South Africa) is considered higher status than other races, and special caste (in India) lower status than others.

**Table 1.3 Summary of results of Tobit estimations on unpaid care work**

	Argentina	India	Japan	Korea	Nicaragua	S Africa	Tanzania
Male	-	-	-	-	-	-	-
Employed	-	-		-		-	+
Total personal income							
Age	+	+	+	+	+	+	+
Age squared	-	-	-	-	-	-	-
Child in household	+	+	+	+	+	+	+
Education	ns	ns	+	Y		+	Y
Married		+	+	+	+	ns	+
Household income/ expenditure	+	ns	-		-	-	-
Caste/race		-				-	
Rural		-			+		-

For several factors, the results are fairly consistent across countries. As expected, being male tends to result in doing less unpaid care work across all countries. This factor has

the greatest influence (largest coefficient in absolute terms) of all tested factors in all countries except Argentina. In Argentina, being male is the second strongest factor, after being a spouse/partner. For all countries, having a (young) child in the household tends to increase the amount of unpaid care work done.<sup>1</sup> The coefficient for age is always positive, while that for age squared is negative. This suggests an initial increase in the amount of unpaid care work performed with increasing age, followed by a decrease. The strength of this association will vary according to the age range covered for the estimation.

Where the influence of household and individual income or expenditure were tested and a significant association found, the amount of unpaid care work tended to decrease with increases in income. This could be explained by several factors, including the poorer infrastructure and technology available to poor households, less ability to buy paid care and larger household size.

Being employed tends to decrease the amount of unpaid care work carried out in all countries except Tanzania, where employed people were inclined to do more unpaid care work. The difference may be partly explained by the very high employment rate for adults in Tanzania. For most countries, being married tends to increase the amount of unpaid care work done.

For the developed countries that they examine, Pacholok and Gauthier find that women's engagement in housework tends to decrease as the level of education increases (2004:199). In the present study, the influence of education differs across countries, and sometimes across levels of education in a particular country (that is, there is a non-linear relationship). In Japan and South Africa, the amount of unpaid care work is likely to increase with the level of education. In the Republic of Korea, those with a middle level of education tend to do less unpaid care work than those with lower or higher levels, while in Tanzania the pattern is reversed, in that those with no schooling or with secondary education and above do less than those with primary education. In India, the association with education is not statistically significant. The cross-country comparisons

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<sup>1</sup> In Argentina and Japan the presence of a child under six years was used, while in South Africa and Tanzania it was a child under seven years; in the Republic of Korea the cut-off age was eight years, and in India and Nicaragua it was eighteen years.

are complicated by the different levels of education prevailing in a country. Thus, “middle level” for the Republic of Korea means something very different to “middle level” for Tanzania. The comparisons are further complicated by the fact that some countries used categories (discrete variables) for the estimation, while others used a continuous variable.

Table 1.4 presents the results for the Tobit estimation in respect of care of persons. In this case, having a young child in the household is the strongest factor across all countries except Nicaragua. The association with children might have been muted in Nicaragua because the presence of children up to age 18 was used, while a younger cut-off point was used in most other countries. Again, being male again tends to result in less care work being done. The pattern in respect of age is similar to that for unpaid care work. However, age is not significant for Nicaragua, neither age nor age squared is significant for Japan, and the coefficients for age squared are very close to zero for some of the other countries. The Nicaraguan and Japanese exceptionalism here is probably explained by the fact that a separate factor, being a child (aged 6-17 years), was also included in the estimation for Nicaragua, while a separate factor for being old was included for Japan.

Being married tends to increase the amount of care of persons, even in South Africa, where this factor was not significant for unpaid care work. The pattern in respect of education still varies, with less care of persons being done by the more educated in India and Tanzania, but more in the Republic of Korea and South Africa. In Japan, those with lower and higher levels of education do more care of persons than those with middle level. Tanzania is again an exception in terms of employment, with more person care being done in Tanzania by those who are employed but less in other countries.

Where household income is found to be influential, those who are poor tend to undertake more care of persons in Tanzania, but less in India. This factor is, however, not found to be significant in Argentina, Japan or South Africa. And personal income is not found to be significant in Argentina, despite being significant for unpaid care work. Race (in South Africa), caste (in India) and rural residence (in Tanzania) are no longer significant, but living in rural areas tends to result in a decrease in care of persons in India and Nicaragua.



While the Tobit estimations provide some support for the hypothesis that, within countries, the amount of unpaid care work decreases with income and status, they do not provide clear support for the hypothesis that the amount of person care also decreases with income or status.

**Table 1.4 Summary of results of Tobit estimations on care of persons**

	Argentina	India	Japan	Korea	Nicaragua	S Africa	Tanzania
Male	-	-	-	-	-	-	-
Employed	ns	-		-		-	+
Total personal income							
Age	+	+	ns	+	ns	+	+
Age squared	-	-	ns	-	-	-	-
Childed	+	+	+	+	+	+	+
Education	ns	-	Y	+		+	-
Married		+	+	+	+	+	+
HHInc	ns	+	Y		ns	ns	-
Caste/race		Ns				N	
Rural		-			-		ns

## Gender Combined with Other Factors

As noted above, the Tobit estimation “controls” for each of the other factors included in the estimation when calculating whether, and to what extent, a factor is influential. It thus shows the relative strength of each factor. What the Tobit estimations presented above do not show clearly, however, is how the patterns for male and female might differ in respect of each of the other factors. (The chapter on Japan includes separate male and female Tobit estimations that explore this aspect.) This section draws out some of the patterns emerging from the tabulations presented in the country papers in respect of participation rates and means. It focuses on the factors that were tested for virtually all countries and shown above to be influential across most of the countries: age, employment and having a child in the household. The discussion focuses on unpaid care work rather than care of persons, but for the most part the patterns in respect of care of persons are very similar to those for unpaid care work as a whole.

## ***Age***

For all countries, men and women in the “middle” age groups (typically 18–45 years, or a smaller sub-group) are more likely to engage in SNA work, and tend to spend longer on it. Across all countries adult males were more likely than adult females to engage in SNA work and also more likely to spend more time on this work. While the Nicaraguan team pinpointed the 18–30 year age group as the one with the greatest gender difference in participation in SNA and paid work, it also noted a sharper fall off in engagement in SNA work for older women than older men. A similar pattern is likely in other countries. In India, older urban women (aged 46–64) who did SNA work tended to spend more time on it than younger women. In some countries (the Republic of Korea and Tanzania), the strong overall gender pattern in respect of SNA work did not hold for children.

For most countries, the middle age groups of both women and men were also more likely to do unpaid care work than those of other age groups. In Nicaragua, however, participation rates in unpaid care work were highest for men among those who are 50 years or older. While Nicaraguan women’s rates declined somewhat with age, they were still twice as likely as men to perform unpaid care work. In Argentina, hours spent on unpaid domestic work for those who engaged in it tended to be longer for older people, especially among women. In India, a similar pattern was found for older men in respect of unpaid care work more generally. In Nicaragua there was little variance with age in the time spent by women and men on unpaid care. In South Africa and Tanzania, there was little difference across age groups in the male mean population time spent on unpaid care work. Young South African girls were three times as likely to do unpaid care work as young boys.

## ***Presence of children in the household***

In almost all countries, there were indications that engagement in unpaid care work, as well as direct care of persons, was more intense when there were children in the household, and decreased as the age of the youngest child increased. Nevertheless, women were always far more likely than men to do this work. Further, while the pattern of increased engagement in unpaid care work held across all countries for women, this was not the case for men. Thus in India, men in households with no children spent the most time on extended SNA, while the age of the child in households with children had

no noticeable effect on men's engagement in this work. Similarly, in Nicaragua, South Africa and Tanzania, the time spent by men on unpaid care work stayed more or less constant when there were children in the household.

In Argentina, South Africa and Tanzania, women with young children in the household were not noticeably less likely than other women to engage in SNA work. In South Africa, women with children in the household were more likely than others to do SNA work, although women with young children were less likely to engage than those with older children. This pattern could reflect the greater likelihood of mothers and their children living apart from the children's father, forcing the mother to provide both financial and other care to the children. In Tanzania, the SNA work performed by women with young children was less likely to be paid than the work done by those living without children. This could, at least in part, reflect the greater presence of children in rural areas, where unpaid SNA work is very common.

In strong contrast to the above countries, women with young children in India, Japan, the Republic of Korea and Nicaragua were less likely to engage in, and spent less time on, SNA work. In Japan, the Republic of Korea, Nicaragua and South Africa, men living with preschool children were far more likely than others to engage in SNA work, although the time spent on this work was not always longer than for other employed men. In Tanzania, the same trend was found, but was not as strong as in the other countries, perhaps because of the overall high rates of engagement in SNA work. In South Africa, 9–10 per cent of men with young children living with them did both paid work and care of persons in the previous 24 hours, while this was the case for 19 per cent of women with young children.

### ***Employment***

Strictly speaking, work status distinguishes between three situations—employed, unemployed and not economically active. The unemployed are those who are not doing SNA work but would like to do so, while the not economically active are those who do not want to, or are unable to, work. The most common reasons offered for the not economically active status are that the person is a full-time student, full-time homemaker, ill or disabled, or too old to work. In the country papers, the unemployed groupings were often very small, especially when analysis was restricted to adults. The

unemployed and not economically active are thus combined in the analysis below, with the main distinction being between those who are employed and those who are not.

By definition, both women and men who are employed are expected to have higher rates of engagement in SNA work than those who are not employed. One might even expect an exact match between work status and engagement (or not) in SNA activities. There are several reasons why the match is not perfect. First, the collection of fuel and water in most countries does not classify a person as employed even though it is, strictly speaking, an SNA activity. Second, the diary day used for the time use survey, in most cases, fell outside the reference period used to classify a person as employed or not employed. Third, the standard survey questions may not fully capture all forms of labour force engagement.

In all countries where employment was considered, employed women were less likely to do unpaid care work than those who were not employed. In India, this pattern was stronger in respect of urban than rural women. Nevertheless, across all countries, employed women still had very high participation rates in this form of work.

In Argentina, employed men were more likely to do unpaid care work than those not employed. In India and Nicaragua, the opposite pattern held. In the Republic of Korea, employed men were less likely to do unpaid care work in 1999, but by 2004 this trend was no longer evident. In South Africa and Tanzania, unemployed men did more unpaid care work than those who were employed, but those not economically active did the least. However, employed men undertook more care of persons than unemployed men. These contrasting patterns for South Africa and Tanzania could be partly explained by age factors, in that those who are slightly older are also more likely to be employed and to have children.

This relatively short section highlights the fact that even where general patterns in respect of individual factors influencing the amount of care work carried out are similar across countries, there could be substantial differences among countries in how these factors operate in respect of women and men. These differences include the direction of influence (that is, whether the amount of unpaid care work tends to increase and fall)

and the strength of the influence. In general, the factors tend to have a greater effect on women than on men, with men's patterns varying less with life cycle.

## **The Care Dependency Ratio**

The fact that the presence of children in the household tends to result in respondents taking on more unpaid care work and more care of persons calls for discussion of the “demand” for care within and across countries relative to the potential supply. This is done by developing a proxy “care dependency” ratio.

The standard dependency ratio is usually defined as the ratio of the economically dependent population to the population in the age group that can be expected to support itself and others economically through work. The latter group is generally defined as those aged 15–64 years, while those under 15 or over 64 are considered dependent because they are either too young or too old to be expected to support themselves. A high dependency ratio suggests there is greater stress placed on those aged 15–64 as they must then support more “others” in addition to supporting themselves.

The standard dependency ratio considers only financial dependency. For the UNRISD project, the care dependency ratio is intended to reflect the relative burden placed on carers in society. As with the standard ratio, the care dependency ratio is defined in terms of age groups. This is likely to undercount the number needing care, as it does not take into consideration those in the carer age group who are disabled or ill to the extent that they need care. The undercount is probably most marked in respect of South Africa and Tanzania, where the AIDS epidemic has significantly increased the likelihood that an adult will need care. It was, however, not possible to include this factor in the ratio because, for Tanzania, reliable data on HIV prevalence and data distinguishing the AIDS sick from those who are HIV positive were not available. The ratio also disregards the fact that all people need a certain amount of care. The ratio was nevertheless considered useful in allowing comparisons between the relative burden across countries and across time.<sup>2</sup>

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<sup>2</sup> After calculating this ratio, the research team discovered that a similar index, named the Madrid Scale, was used in a publication on gender equality in Latin America and the Caribbean (Montaño 2007). While the age groups used differ somewhat between the Madrid Scale and the UNRISD approach, the two measures are very similar.

To provide some nuance, the ratio distinguishes between those needing intensive care and those needing a lesser level of care. The former include those aged 0–6 years and those aged 85 years and older, and are given a full weight. The latter are those aged 7–12 years and 75–84 years, and are given a weight of 0.5.<sup>3</sup> The potential carers are defined as those aged 15–74 years, all of whom are given a full weight. Those aged 13 or 14 years are not included in the calculation on the assumption that they will be able to provide more or less the same amount of care as they receive. Their inclusion in both the nominator and denominator would change some of the ratios, but the likely effect was not considered big enough to warrant including them on both sides of the “care equation”.

The calculation can thus be summarised as follows.

*Those needing care in all countries:*

- A = 0–6 years; weight: 1
- B = 7–12 years; weight: 0.5
- C = 75–84 years; weight: 0.5
- D = 85+; weight: 1

*Potential care givers in all countries:*

- E = 15–74 years

*Care dependency ratio* = (A+B+C+D)/E

Figure 1.8 shows the resultant care ratios. The ratio is lowest for Japan and the Republic of Korea, and highest for Nicaragua. The ranking to some extent matches the relative fertility rates, with a higher ratio in countries with higher total fertility rate. This match is, however, far from exact. For example, Tanzania and Nicaragua have very similar care dependency ratios, but the total fertility rate for Nicaragua was around 3.0 in the period 2000–2005, while that for Tanzania was 5.7 (UNDP 2007:243ff). This particular

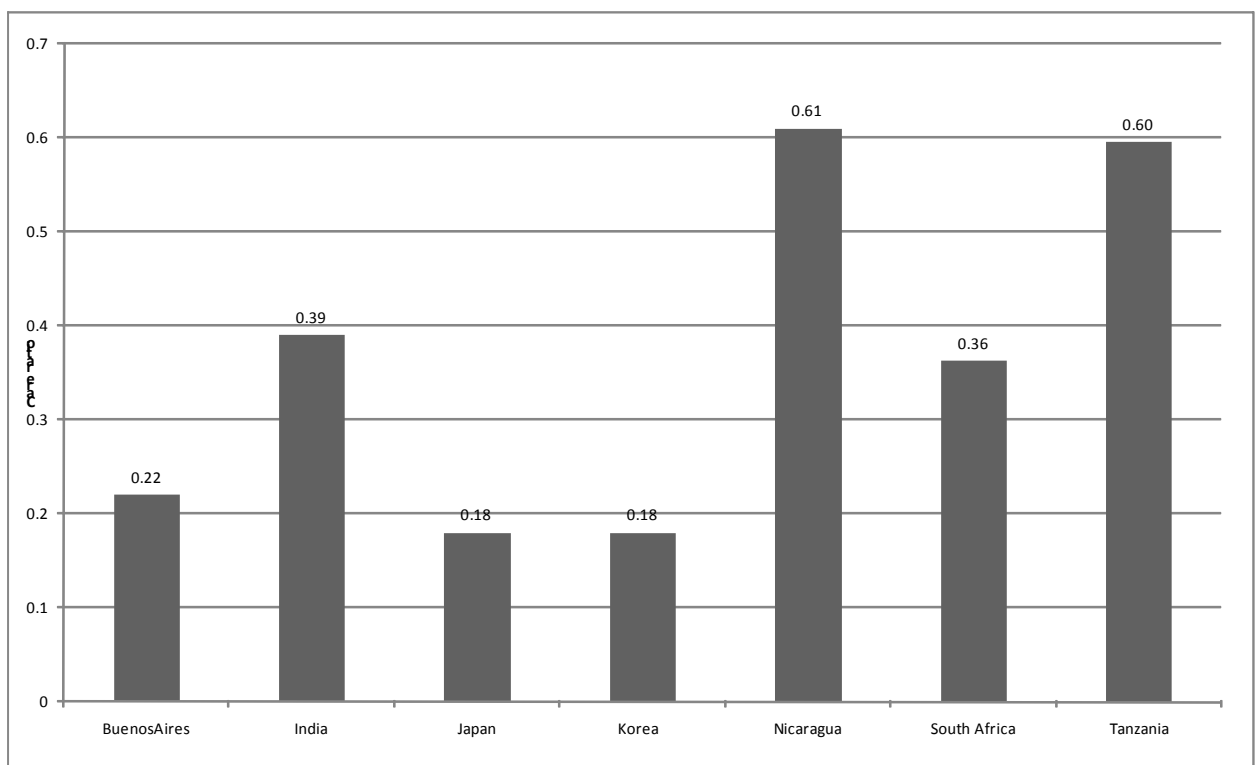
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<sup>3</sup> The age groups covered for India also differed slightly from those specified above as the census data were not published in the desired age groups. Thus the age groups used in India were 0–6, 7–14, 75–79 and 80 plus.

anomaly might be partly explained by the severity of the HIV/AIDS epidemic in Tanzania, and the fact that it tends to increase the infant mortality rate.

The differences in the actual levels are large—ranging from 0.18 to 0.61. This suggests that a caregiver in the Republic of Korea would, on average, share the responsibility for caring for a single person with at least five other people, while a caregiver in Nicaragua or Tanzania would be responsible for more than half of all the care needed by another person.

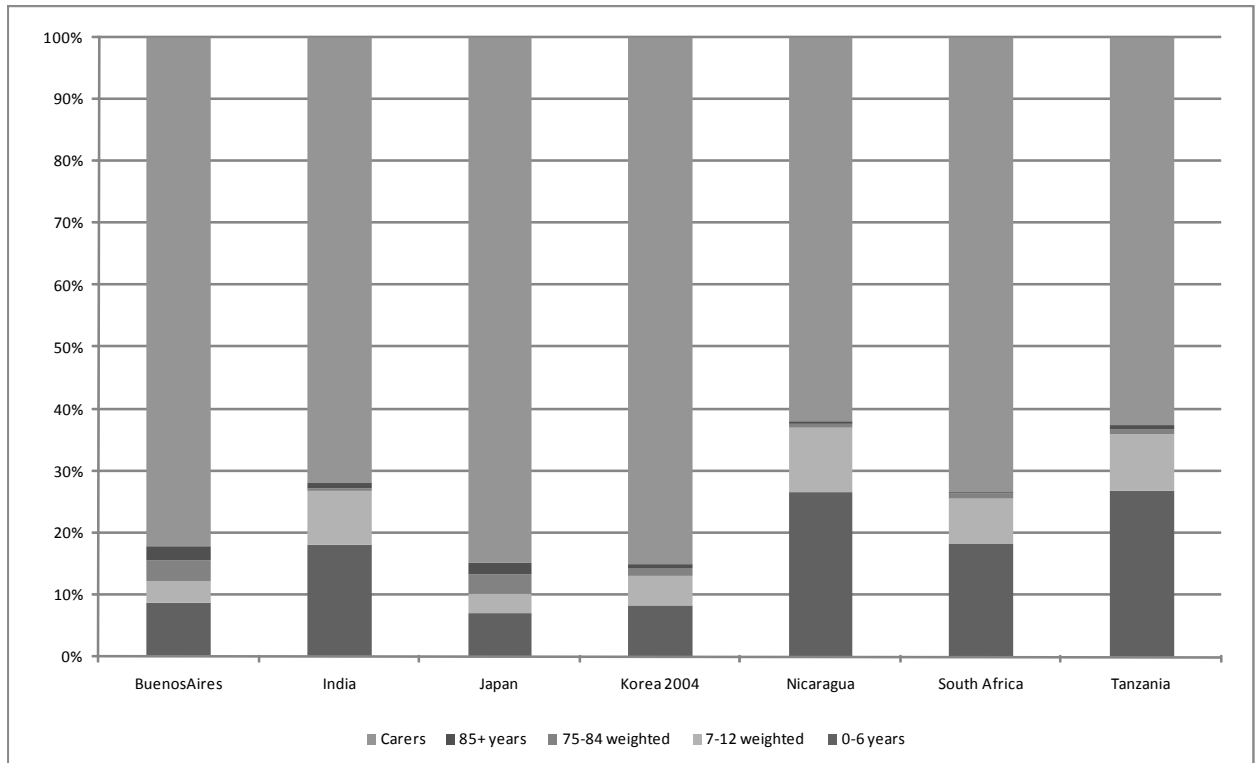
**Figure 1.8: Care dependency ratios**



In order to understand how such large differences arise, figure 1.9 illustrates the components that make up the care dependency ratio. The components are reflected as weighted. The figure suggests that the size of the population aged 0–6 years is a major determinant of the care dependency ratio, followed by the population aged 7–14 years. (The ratio for Tanzania may be slightly exaggerated by clustering of the sample at age 4. This could have been caused by fieldworkers wanting to avoid having to ask all the child labour-related questions of this group.) While the older age groups are most evident in the Japan and city of Buenos Aires samples, they account for much less of a

care-giving burden than the children. (The care dependency ratio for Argentina as a whole is somewhat higher, at 0.21.)

**Figure 1.9: Components of care dependency ratios**



Comparison of the care dependency ratios, with the amount of time spent on care of persons as shown in figure 1.6, suggests that, contrary to expectation, the amount of time spent on care of persons tends to be larger where care dependency ratios are low, and vice versa. Thus the city of Buenos Aires has one of the lowest care dependency ratios, but the mean time spent by women aged 15–64 years on care of persons is higher than for all other countries. Conversely, Tanzania has the second highest care dependency ratio, even before considering the HIV-related need for care, although women in this country record less time spent on care of persons than in all other countries. This counter-intuitive finding might to some extent be explained by the fact that where families have many children, someone can take care of more than one child simultaneously. One would therefore not expect the amount of time spent on care to increase proportionately to the proportion of children in the population. However, there are clearly other factors at play that also determine the time people in different countries perceive and report themselves as spending on care.



## **The Monetary Value of Unpaid Care Work**

This section discusses the country teams' attempts to assign a monetary value to unpaid care work and compares the resultant values with a range of macroeconomic measures. This exercise is in accordance with the SNA recommendation that, although unpaid care work should not (currently) be included in the calculation of GDP, countries should compile "satellite accounts" that reflect this work and its value to the economy.

Undertaking this valuation is not intended to imply that this work should necessarily be paid. It is also not meant to imply that money could accurately reflect the real value of the work for society. Instead its purpose is to promote more "accurate and comprehensive" valuation of the work that takes place in economies (UNDP 1995:98), and to provide support for arguments that those who do this work are entitled to a fair share of, and control over, the income generated by the paid work done by members of their family or household.

As discussed below, there are many complications associated with the exercise. There are, however, also far more complications and heroic assumptions associated with the estimation of GDP than most who use this measure generally recognize. Despite the complications, a measure on unpaid care work that reflects pesos, rupees, rand, shillings, yen or won, might have greater success in attracting the attention of economists than measures that simply record time. Assigning monetary value to care also allows comparison with a range of other macroeconomic measures, thus highlighting the relative importance of care in the different economies.

### ***Deriving the value of unpaid care work***

The underlying idea behind assigning a monetary value to unpaid care work is to estimate the number of hours worked, and multiply this by some measure of hourly earnings. As described in more detail in Budlender and Brathaug (2002), there are four basic standard approaches to choosing the measure of hourly earnings, namely:

- the average earnings approach;
- the opportunity cost approach;
- the generalist approach; and
- the specialist approach.

The first two approaches have as an underlying question: how much would a person undertaking unpaid care work have earned in the market if the person had performed 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 the person who did the unpaid care work. 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 tends to result in a lower overall estimate of the value of unpaid care work because the greater number of hours worked by women is multiplied by a lower value, lowering the overall estimate. Wolf (2004:117) notes that some researchers reject this approach because it reflects the gender discrimination in the labour market. However, if one accepts the underlying question as being what a person would otherwise have earned doing paid work, then existing discrimination must be reflected if a realistic estimate is to be arrived at. Disaggregation does not imply endorsement of the lower earnings that women earn in paid work. Instead, it reflects the fact that female actors would be likely to earn less than male actors if they substituted paid work for the unpaid care work.

The next two approaches have the following underlying question: how much would a household need to pay someone else to do the unpaid care work, that is, the replacement cost? As Wolf (2004:118) argues, this estimate reflects the savings achieved by not paying for this work on the market.

The generalist approach uses the average wage paid to a worker, such as a domestic worker or housekeeper, who would carry out virtually all the 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 perform various tasks associated with childcare, a nurse to care for ill people, and so on. For this approach, the calculations are not sex-disaggregated as, in theory, the household's concern would be to have the work performed rather than with the gender of the worker. In practice, for the domestic worker approach (see below), the overwhelming majority of workers in most countries are female.

The UNRISD project used two approaches—the average earnings approach and the generalist approach. The opportunity cost approach was not pursued because of its theoretical and practical limitations. On the theoretical side, for example, this approach 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 the time of someone who is not employed. The specialist approach was avoided because of its complexity, and because of the difficulty of finding appropriate paid workers for all tasks. Both these choices do, however, tend to result in lower estimates of the value of unpaid care work.

For both the average earnings and generalist approaches, two variants were possible. For average earnings, the first, and preferred, variant was based on the average earnings of all employed people with non-zero earnings, whether they were employees or self-employed. The second variant, using only employee wages, was the only possible option for Japan and India, given the non-availability of reliable information on self-employed earnings. For India, the available wage data are for regular salaries or waged employees in farm and non-farm enterprises, and spanning both organized and unorganized, including domestic workers. The non-availability of self-employed earnings is, however, unfortunate as the self-employed account for about half of all employed people in India, and their earnings are generally lower than those of regular employees, with much of the work unpaid. The second variant was also calculated for several countries, even where earnings more generally were available. For the city of Buenos Aires and the Republic of Korea, where the informal sector is not significant, there is little difference in the value of the average earnings and average wage variants.

For the generalist approach, the first variant entailed the inclusion of all occupations involving work similar to housework, such as cleaning and cooking, whether performed in institutions or in the home. Technically, this generally included a range of occupations in major category 5 of the International Standard Classification of Occupations or its equivalent. Teachers were excluded in the measures reported below, except in the case of Argentina. Although some teaching includes a large measure of care, teachers were excluded because they constituted a relatively large presence in most countries, and their wages—which are generally higher than those of the average

domestic worker, cleaner or cook—would have skewed the value upward. The second variant focused only on wages of domestic workers more narrowly defined. Nicaragua included the reported value of in-kind earnings for this variant. In Argentina the hourly wage for domestic workers was found to be similar to that for other social services, excluding education. The research report (Esquivel 2008) notes, however, that actual earnings of domestic workers tend to be lower than those of the other workers because hours worked are likely to be fewer, and there are usually no added benefits.

In almost all cases the earnings data were sourced from household surveys. It is well-known that respondents tend to under-report earnings in such surveys. No correction was made for this, as the extent of the under-reporting is not reliably known either for the employed population as a whole, or in terms of its variation across groups. This lack of correction for under-reporting usually results in lower estimates of the value of unpaid care work.

Further downward bias results from the fact that all approaches to valuation reflect gender discrimination in the labour market. Thus the opportunity cost/average earnings approach is biased downward because women tend to do more care work than men and also to have lower earnings. The replacement cost approach is biased downward because it uses earnings of care workers, who are predominantly women, and tend to have lower earnings than many others in the economy.

In all countries, only non-zero earnings were considered when calculating the various averages and means. This choice inflates the value for countries such as Tanzania and India, where large numbers of employed people work unpaid on family farms or in family businesses. In Tanzania, for example, 64 per cent of employed people were reported to be working on their own farm or *shamba* in 2006, with a further 16 per cent doing unpaid work in family businesses or agriculture. Similarly, when calculating the first variant of the generalist wage for Tanzania, only 16 per cent of the relevant respondents were found to record non-zero wages.

A choice, which again results in lower estimates for some countries, is the use of 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 clustered at 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 in the data, at least some of which probably represent incorrect capture of data. The results presented below for Nicaragua, South Africa and Tanzania are based on values using medians rather than means. For Argentina, the median is used for all but the generalist approach.

Each country team was free to choose what age group to include when valuing unpaid care work. India and Nicaragua focused on the age group 15–64 years, even though their data covered a larger age group. Other countries used the age group covered in their time use survey.

All countries valued at least two aggregates of unpaid care work, the first relating to unpaid care work as a whole and the second relating to care of persons. For unpaid care work, the scope was very similar across countries, except that Nicaragua, South Africa and Tanzania included the collection of fuel and water. This was done because the primary comparison was with GDP, and the collection of fuel and water is not included when calculating GDP in these countries (and most others). In any event, for Argentina, Japan and the Republic of Korea, this activity would not have been significant.

There was more variation in what was included in the care of persons aggregate. Nicaragua used only unpaid care of children. All other countries included care of persons in the respondent’s household. Argentina, South Africa and Tanzania also included care of adults and children in other households.

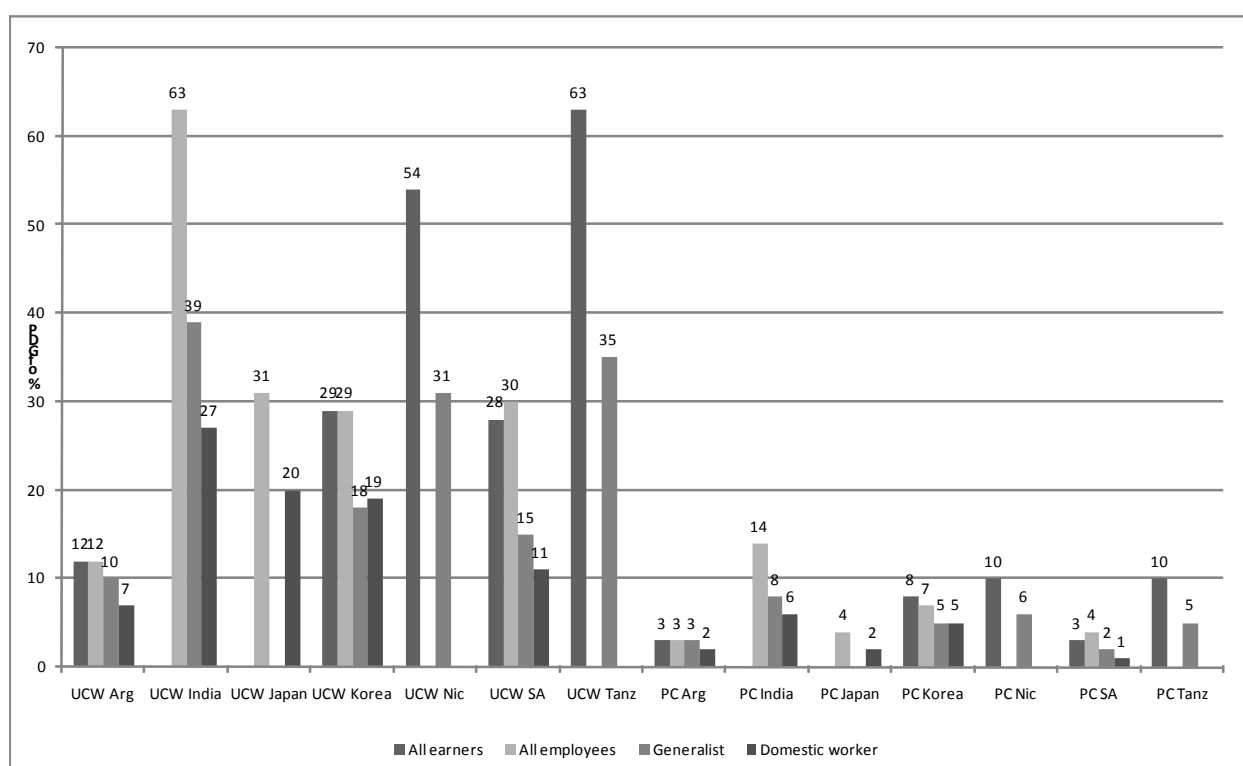
### ***Comparisons with macroeconomic indicators***

The first comparison is with GDP. This comparison is important as the basis for advocacy that aims to change the SNA rules so that the production boundary includes unpaid production of services for one’s own use, just as they were changed in 1993—as a result of advocacy—to cover subsistence production of goods and the collection of fuel and water. Essentially, the GDP comparisons provide support for the argument that the amount of unpaid care work done and its value are too large to be ignored in economic decision making.

Figure 1.10 shows the results of the comparison with GDP in respect of both unpaid care work (to the left) and care of persons (to the right). (For Argentina, the value of

unpaid care work was compared with the gross geographical product for the city of Buenos Aires.) The value of unpaid care work is estimated to be between 7 per cent (using the generalist wage in Argentina) and 63 per cent (using the employee wage in India and earnings in Tanzania) of GDP. For care of persons, the range is between 1 per cent (using the domestic worker wage in South Africa) and 14 per cent (using employee wages in India). The high measures for India and Tanzania could be regarded as misleading to the extent that many workers doing GDP/SNA work in these countries are unpaid, and GDP is thus probably lower than it would otherwise be.

**Figure 1.10: Value of unpaid care work and care of persons as a percentage of GDP**



The figure shows substantial variation in the percentage for each of the two values, both between and within countries using different measures. The variation in values within country is particularly marked in the case of India and South Africa. In both these countries the highest value for unpaid care work (or person care) is more than twice as high as the lowest value. One reason for this is the very low wages paid to domestic workers in both these countries when compared to wages of other employees. In South Africa, for example, the median wage recorded for domestic workers is R2.60 per hour compared to R7.75 per hour for all employees. In the Republic of Korea, in contrast, the domestic worker wage measure is higher than the generalist measure. Nevertheless, across all countries the generalist and domestic worker measures are lower than the

average earnings and average wage measures. This is, in part, a reflection of the dominance of females in care-related occupations and the relatively low wages paid for these types of work. For the countries where there is a measure in respect of both average earnings and average wages, the measures tend to be very similar. The biggest difference in this respect is found for South Africa, which has a bigger informal sector than the other two countries—Argentina and the Republic of Korea—which have both measures.

Comparison of the GDP-related patterns with those reflecting “volume” of unpaid care work and SNA work shown in figure 4 above illustrates the extent to which differences in the earnings used for valuation affect the value attributed to unpaid care work. For example, while South Africa has among the lowest values for unpaid care work in the GDP comparison, the volume analysis suggests that it should be higher than for all other countries except Nicaragua.

Comparisons were also made with a few further macroeconomic measures. To simplify presentation, the graphs below first show the results only in respect of unpaid care work.

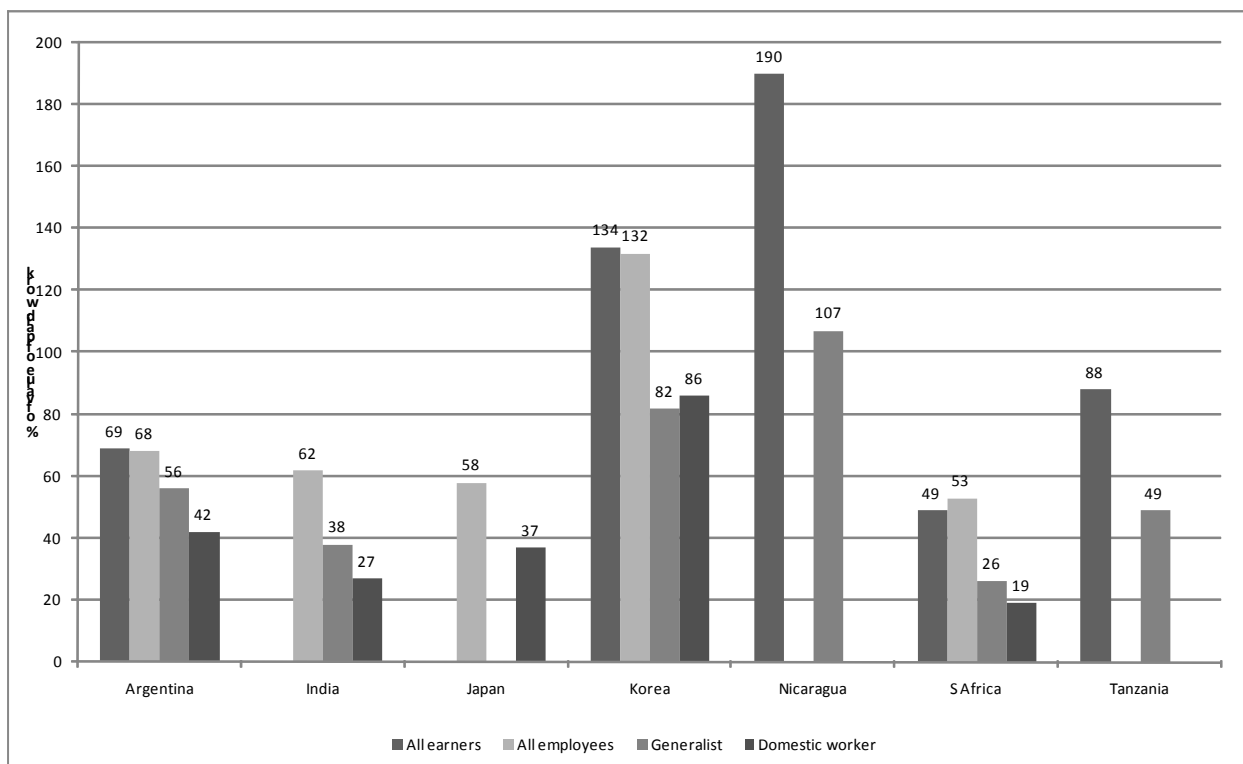
The first comparison is with the *value of paid work* in the economy. This comparison is an alternative version of the volume comparison presented in figure 4 above. The two main differences with the volume comparison are, first, that the hours of paid and unpaid work performed are multiplied by relevant earnings and, second, unpaid SNA work is excluded.

The value for paid work used in the comparison was generally obtained from the same survey as the time use data or another household survey. For Argentina, Nicaragua, South Africa and Tanzania, the value represents the income of all earners, whether employees or self-employed. For India, the value represents income of regular salaried employees. Similarly, in Japan and the Republic of Korea only employees are included in the calculation. This restriction will have more of an impact on the Indian comparison than the Japan or Korean comparisons, given the high levels of self-employment in India.

Figure 1.11 shows the value of unpaid care work ranging from 19 per cent (domestic worker wage in South Africa) of the value of paid work in the economy to 190 per cent

(all earners in Nicaragua). The high value in Nicaragua could be regarded as misleading to the extent that it only reflects SNA work that is paid. The low value in India is interesting, given that the comparison is only with employees.

**Figure 1.11: Value of unpaid care work as a percentage of paid work in the economy**



The patterns in the graph above are influenced by the type of earnings used for the valuation. These differ between countries for a range of reasons, including different methods, differences in available datasets and the degree of under-reporting of earned income, and real differences in the economies, the levels of remuneration and degree of inequality.

The next comparison is with *personal tax revenue*. Ingrid Palmer (quoted in Bakker 1993:6) has likened unpaid care work to a tax that people (mainly women) pay before engaging in income-earning activity. Men and women are required, if they earn enough, to pay a monetary tax which is their contribution to the public good. This tax is more often paid by men, and men tend to pay more of this tax than women. Most women and some men, irrespective of whether they earn, also contribute through their unpaid care work to the public good. Indeed, in 2001, Germany's highest court ruled that it was



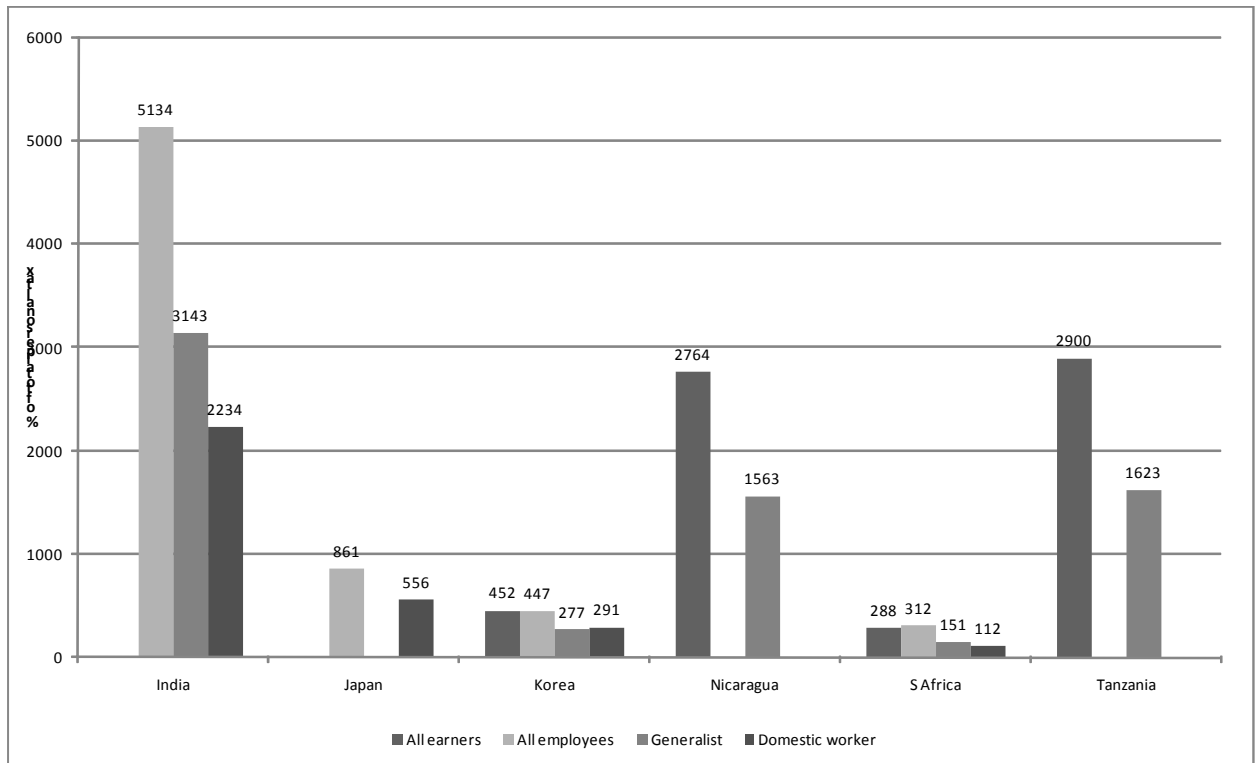
unconstitutional to tax parents at the same rate as the childless, given that parents “produce the future workers needed to keep the system solvent” (Wolf 2004:126–127).

The unpaid care work “tax” contribution can constrain the carers’ opportunities to earn monetary income. Further, the unpaid care tax adds a regressive element to the tax system given that, overall, women (who do most of the care) tend to be poorer in monetary terms than men. The regressive element is increased to the extent that, in some countries at least, poorer people tend to do more unpaid care work than wealthier ones. It is therefore interesting to compare the value of unpaid care work with various tax measures.

Figure 1.12 compares the value of unpaid care work with measures of *personal tax*. For India and Japan the comparison is with personal tax revenue, for Nicaragua with income tax revenue, for South Africa with personal and individual tax revenue, and for Tanzania with individual income tax revenue. In the Republic of Korea, the comparison is with the total for direct taxes, which include income, corporation, inheritance and gift, and comprehensive real estate holding taxes.

In this graph, the low values for the Republic of Korea and South Africa are explained by the fact that both countries have substantial formal sectors with relatively effective taxation of those employed in these sectors. The higher values for Japan are therefore noteworthy as one would expect a similarly substantial formal sector and effective taxation in this country. The other countries, with large proportions of the population engaged in informal and unregistered work, show much larger percentages when comparing unpaid care work and personal tax. For India, in particular, the highest measure shows unpaid care work equivalent to 5,134 per cent of the value of personal tax revenue.

**Figure 1.12: Value of unpaid care work as percentage of personal tax**



The comparisons above show very different patterns for the different countries, and variation across the different comparisons. The variation is the result of differences in the labour market, including the level of inequality in earnings by gender and occupation; and differences in the distribution of care provision across the home, market and state. Unpaid care work tends to loom larger, in comparative terms, in less developed countries because of the smaller size of government and the paid economy. It is consistently less than one might otherwise expect in South Africa because of the extreme inequalities in earnings, which result in particularly low (relative) earnings for care work and for women, which in turn influenced the value ascribed to unpaid care work. Nevertheless, across all countries, the relative size of unpaid care work is sufficiently large that it is difficult to justify ignoring it in policy making.

## **In Conclusion**

This chapter has shown some constant basic gender patterns in engagement in SNA and unpaid care work across seven countries: Argentina, India, Japan, the Republic of Korea, Nicaragua, South Africa and Tanzania. As expected, men are more likely than women to engage in SNA work, and to do so for longer than women, while women are

more likely than men to engage in unpaid care work and care of persons, and to do so for longer than men. The analysis has also confirmed that across countries a range of similar factors influences the amount of time spent on unpaid care work and care of persons: work (employment) status, having children in the household, being married and age. Other factors that reflect social standing—such as income, caste, race and educational achievement—also influence participation in, and the amount of time spent on, care. Here, however, the patterns vary to some extent across countries.

Overall, there are at least as many differences as similarities. In particular, there are significant variations in the “size” of care work undertaken in the sense of the level of participation rates, average times spent by women and men on different activities, and absolute and relative differences between women and men. Some of these variations reflect methodological differences in terms of instruments, number of days covered, classification schemes, age group covered, and so on. However, the methodological differences cannot explain away more than a small proportion of the differences.

This finding of diversity should not be surprising. Nor should the difficulty of finding simple reasons for some of the patterns be a cause for surprise. In this respect, Pacholok and Gauthier’s (2004) examination of patterns in respect of paid work, housework and childcare in Canada, Germany, Italy and Sweden confirms that in developed countries, too, even quite simple hypotheses are not supported in any simple way by the available data.

Pacholok and Gauthier test four hypotheses:

- countries with a smaller wage gap between women and men will exhibit a less marked division of labour;
- the extent to which a country’s population has traditional beliefs in respect of gender will increase the gender gaps;
- the existence of opportunities for reducing the time spent in paid work, for example, through availability of part-time work, will result in more time being spent with children; and
- the level of state support for families will increase the time spent with children.

These hypotheses are interesting in that they touch on issues, such as the influence of government policies and practices, that were a core focus of analysis within the UNRISD project on *Political and Social Economy of Care*. However, despite restricting the analysis to dual-earner couples so as to avoid confounding factors, it is only for the third of these hypotheses that Pacholok and Gauthier find real support. Even then the support is “partial” (Pacholok and Gauthier 2004: 215-216). Clearly, the determinants of the types and amounts of work done by women and men are complicated. With the much more diverse set of countries used in the UNRISD project, and without the restriction to dual-earner couples, the variation is not all that surprising.

Essentially time use surveys offer a way to measure the gender division of labour, which many consider to be an underlying feature of gender patterns and inequality in society. The differences found between countries in this chapter serve to confirm that gender is not “god-given” and immutable. Instead, it is something that varies across countries and cultures.

For policy purposes, however, what happens in a particular country is as important, if not more so, than cross-country comparisons. This chapter and the country chapters present cross-sectional comparisons of different groups within a particular country at a particular point in time. Also needed are longitudinal comparisons of patterns of time use within the same country. Of the countries covered in this book, longitudinal data are available only for Japan and Korea, and the chapters on these countries present some analysis of trends.

All countries need to conduct time use surveys at regular intervals, using a standard methodology that allows reliable comparisons over time, similar to the current practice of ongoing labour force surveys. However, time use surveys would not need to be conducted as regularly as some countries conduct labour force surveys because time use patterns are unlikely to shift as quickly, unless there are economic shocks, major disasters and epidemics or policy shifts in areas such as public support for childcare.

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