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

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SOUTH AFRICA:

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

Introduction

This research paper explores the data from the South African time use survey carried out by Statistics South Africa in 2000. The first part of the paper involves a systematic exploration of patterns of time use of males and females in respect of paid work, unpaid care work and care more narrowly defined using a range of different categorisations. The second part of the paper computes a set of macro measures that aim to provide a sense of the size of the different elements of the care diamond.

The 2000 time use survey represented the first time that Statistics South Africa had attempted this type of investigation. The sample size was much smaller than that used for the institution's regular household surveys, but nevertheless substantial when compared with the surveys that are generally done by other institutions in the country. The realised sample for the survey was 8 564 households and 14 553 respondents. The data were weighted so as to be representative of the country's population aged 10 years and above as a whole. The weights adjusted the data in terms of sex, population group, age group and settlement type. The latter categorisation distinguished between formal urban settlements, informal urban settlements, commercial farming areas, and 'other' rural areas. The last-named category largely coincides with the predominately deep rural and underdeveloped areas that made up the apartheid-era 'homelands'. For the purposes of this report, the category is referred to as 'deep rural'.

At the time the time use survey was conducted, Statistics South Africa estimated the country's population at around 44 million, with just under 36 million people aged 10 years and above. Because the sample was relatively small relative to the full population, and given the significant diversity in the country's population, detailed disaggregations of the data are not reliable. The relative sizes of the different sub-groups used for the analysis must thus be borne in mind when considering results.

Defining paid and unpaid work

The various definitions of paid and unpaid work used in this paper are informed by the categories defined by the System of National Accounts (SNA). This international system sets out the rules that countries must use in calculating gross domestic product (GDP). More specifically, the rules state that only those activities that fall within the 'production boundary' of the SNA should be included when calculating GDP. This production boundary includes all production of goods and services for the market, as well as production of goods for own consumption. The boundary thus includes subsistence production, unpaid work in the family business, and even collection of fuel and water. (Few countries, however, include the latter in calculations of GDP.)

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

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

Appendix 1 lists the ten broad categories of the classification, while Appendix 2 provides the full list of activity codes used in the South African time use survey. The broad categories making up SNA work are (a) employment for establishments, which more or less corresponds to formal sector work; (b) primary production activities not for establishments, which includes subsistence production as well as collection of fuel and water; and (c) services for income and other production of goods not for establishments, which more or less corresponds to non-agricultural informal sector work. The categories making up unpaid care work are (a) household maintenance, management and shopping for own household; (b) care for children, the sick, elderly and disabled for own household; and (c) community services and help to other households.

Description of the survey population

A standard set of disaggregations were used to explore patterns in time use among different groups, namely population group, age group, marital status, relationship to children, employment status, settlement type, personal and household income level, and household composition. All of these are cross-tabulated by sex, given the importance of gender in shaping time use. (Overall, 53% of the weighted sample was female, in line with the overall pattern for this age group in the population.) This first sub-section describes the distribution of the survey population in terms of each of these disaggregations. It points out, in particular, which groupings are probably too small to provide reliable results.

Table 1 shows the distribution by population group and sex. Population group reflects the racial categories used in the apartheid era for classifying the population and thus determining relative advantage. The categories are listed from most disadvantaged to most advantaged in terms of apartheid. The 'coloured' group includes those of mixed-race origin as well as descendants of slaves brought by the Dutch from Indonesia and Malaysia in previous centuries. Africans dominate, at over three-quarters of the population and whole-population statistics thus usually mirror the African patterns to a large extent. The Indian group is too small to produce very reliable results. As expected, the distributions for male and female are very similar.

Table 1 Distribution of sample by population group and sex

	African	Coloured	Indian	White	Total
Male	76%	9%	3%	12%	100%
Female	76%	10%	3%	11%	100%
Total	76%	9%	3%	12%	100%

In Table 2 three age groups are used, representing children (10-17 years), the primary reproductive and productive years (18-49 years) and the ones in which having young children is most likely, and those who are older (50 years and above). For the purposes of this report, these groups are referred to as children, younger adults and older adults. The middle group accounts for more than half of the weighted sample. The other two groups should also be large enough to produce relatively reliable results. The distributions across male and female are similar, but with more women in the older age group reflecting greater longevity.

Table 2 Distribution of sample by age group and sex

	10-17	18-49	50+	Total
Male	29%	56%	15%	100%
Female	26%	56%	18%	100%
Total	27%	56%	16%	100%

In South Africa, the grouping that contains women aged 60 and above and men aged 65 and above is important because they qualify for the state old age pension if they pass the means test, which a large proportion do. This group accounts for 10% of all males and 18% of all females and will be used for further tabulations where considered relevant.

Table 3 looks at marital status. For the tables that followed, the three groupings are, for the purposes of simplicity, termed “single”, “married”, “widowed” and “divorced”. In reality, the categories are slightly more complex than this in that the married group includes those living together “as husband and wife” even if not formally married, while the divorced categories include those who are separated from partners. The “single” group covers those who have never been married i.e. who are not living together with a partner and have not been separated from, or widowed by, one.

Table 3 reveals that over half of the sample population has never been married. In this respect South Africa differs from many other countries. More restricted tabulations reveal that even if we exclude those under 20 or 30 years, 39% and 20% respectively have never been married. The married group, at around a third of the sample population, should also produce reliable results, but this is not the case for the much smaller widowed and divorced (or separated) groupings. The distributions for male and female are relatively similar. Females are, however, less likely than males to be never married and more likely to be widowed or divorced. These patterns partly reflect the different age compositions.

Table 3 Distribution of sample by marital status and sex

	Single	Married	Widowed	Divorced	Total
Male	61%	35%	1%	2%	100%
Female	56%	32%	8%	4%	100%
Total	58%	33%	5%	3%	100%

Status in respect of children is measured in terms of both the age of the children, and whether the children live with the individual. Thus the first category ('7-18 alive') reflects individuals who have at least one biological child aged between 7 and 18 years, but none of these children live with them. The second category ('7-18 with') reflects those who have at least one biological child aged 7-18 years living with them. The third and fourth categories are similar, but defined in relation to children under seven years, which corresponds more or less to the pre-school age in South Africa and is also the age when children generally need greater care.

Table 4 shows that close on two-thirds of respondents claimed to have no biological children. This figure seems low, and examination of the data show that 12% were not asked the questions relating to children. This 12% were therefore classified, for lack of data, as not having children. Results for this group must be treated with some caution as the group might include some who did have children. However, two-thirds of these people lived in households which contained no children. The overwhelming majority (86%) of the remainder were never married, which might have been the reason for the fieldworker not asking this question. This leaves only 1% of those who were ever married and living in households with at least one child without a response to this question.

Lack of children was more common among men than women, reflecting in part the men who might impregnate women but not take further interest in the children produced. The grouping of individuals with children aged under seven years living with them should produce relatively reliable results as might, to a lesser extent, those with children aged under 18 living with them. The other two groups are too small to be reliable. The fact that the two groups comprising those with children who are all living elsewhere between them account for 8% of the sample population, and 22% of those claiming children, nevertheless reveals the extent to which children and parents are separated in the country. Also noteworthy is that 30% (35% male and 21% female) of those claiming children have never been married.

Table 4 Distribution of sample by child status and sex

	No children	7-18 alive	7-18 with	<7 alive	<7 with	Total
Male	68%	4%	9%	6%	13%	100%
Female	58%	3%	13%	3%	23%	100%
Total	63%	4%	11%	4%	18%	100%

Table 5 utilises the standard labour force categories of employed (i.e. having done SNA-type work in the last seven days), unemployed (i.e. not having done SNA-type work, but having actively sought work), and not economically active (NEA i.e. not having done SNA-type work and not having actively sought it). The distribution can nevertheless be

expected to differ from those found in standard labour force statistics for South Africa because of the inclusion of children from age ten years. Just over two-fifths of the sample is employed, with half of the males in this situation compared to 37% of females. This gender pattern is balanced by the NEA group, where over half of the females are NEA compared to 43% of the males. The unemployed group is probably too small to produce very reliable results. The relatively small proportion of the sample that is employed accounts for the fact that the survey shows a relatively low average time spent on SNA work (see below).

Table 5 Distribution of sample by work status and sex

	Employed	Unemployed	NEA	Total
Male	50%	7%	43%	100%
Female	37%	8%	55%	100%
Total	43%	7%	49%	100%

Table 6 gives the distribution by settlement type. Close on half the sample population lives in urban formal settings, and over a third in deep rural areas. Results in respect of the other two groups should be treated with caution, but those for urban informal are presented below given the importance of this often poverty-stricken group in policy terms. The fact that women are somewhat more likely than men to be found in deep rural areas reflects the restrictions placed on the movement of African women during the apartheid years. Also to be borne in mind are the strong racial patterns. In particular, 99% of those in deep rural areas, and 97% in urban informal areas, are African.

Table 6 Distribution of sample by settlement type and sex

	Urban formal	Urban informal	Deep rural	Commercial farm	Total
Male	49%	9%	35%	7%	100%
Female	48%	9%	38%	6%	100%
Total	49%	9%	36%	6%	100%

The time use questionnaire asks about personal and household income using income categories. Personal income referred to the income accruing directly to a particular person, whatever the source i.e. it was not restricted to earned income. Responses of zero income were allowed for this question. Household income referred to all money coming into the household. Responses of zero were not allowed here, on the assumption that all households need to have some amount of money to survive. For the purposes of analysis, these two measures have each been collapsed in each case into four groups. Unfortunately, the categories preclude the use of equal-sized groups.

Table 7 has about a third of the sample claiming no cash income at all, while another third records an income of less than R500 per month. Only about one-fifth have an income of R1,000 or more. The reported patterns in respect of male and female is as expected given employment patterns and other factors, with substantially more men than women in the highest income group. R1,000 was in 2000 (and still is) higher than the monthly amount of the old age and disability grants, which are the largest grants, and which from July 2000 stood at R540 per month.

Table 7 Distribution of sample by personal income and sex

	No cash	1-500	501-1000	1000+	Total
Male	33%	30%	14%	24%	100%
Female	34%	36%	15%	15%	100%
Total	33%	33%	15%	19%	100%

Table 8 shows nearly half of respondents living in households with incomes below R800. This is the level that is meant to be used by many municipalities for distinguishing ‘indigent’ from other households for the purposes of subsidy in respect of water and electricity. The remaining respondents are more or less evenly divided in the two categories R800-R1,799 per month, and R1800 and above. The patterns for male and female are more similar than for personal income, but there is as before a tendency for men to live in better-off households. This reflects, among others, the higher female proportion in the population in the poverty-stricken deep rural areas.

Table 8 Distribution of sample by household income and sex

	0-399	400-799	800-1799	1800+	Total
Male	18%	28%	26%	28%	100%
Female	18%	31%	26%	25%	100%
Total	18%	30%	26%	27%	100%

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

Table 9 shows that among the remaining households, those with children and adults are most common, followed by those consisting of all three ‘generations’. The households consisting only of older people or only of children and older people are probably too few to allow for reliable analysis, while the adults and older people category results should be treated with caution. Table 9 also shows that women are more likely than men to be members of all the household combinations which include children. In contrast, adult-only households are far more common for men than women.

Table 9 Distribution of sample by household composition

	Ch+Ad	Ch+Ad+Old	Adult	Ad+Old	Old	Ch+Old	Total
Male	38%	35%	14%	7%	4%	2%	100%
Female	41%	38%	8%	6%	4%	3%	100%
Total	39%	36%	11%	7%	4%	3%	100%

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

Meso-level findings in respect of work/care regimes

Paid and unpaid work

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

As noted above, there are three categories in the activity classification system used in South Africa that together cover SNA work, namely (a) employment for establishments; (b) primary production activities not for establishments; and (c) services for income and other production of goods not for establishments. The analysis below uses all three of these categories as a broad measure of ‘paid work’, and the first and third categories as a narrow measure of ‘paid work’. The measures are not exact because, for example, the first and third categories would include unpaid non-agricultural SNA work for establishments or non-establishments respectively. This type of work is, however, less common in South Africa than in many other developing countries. The SNA category also includes time reported as being spent seeking employment. Finally, the inclusion of collection of fuel and water as an SNA activity is theoretically correct, but South Africa does not yet include this activity when estimating gross domestic product.

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

Before presenting the tabulations on care and paid work, Table 10 shows the division of the average male and female day into the ten main categories of activity. The table shows that just over half of the average day is spent on personal care, which includes sleeping, eating, dressing and similar activities. This helps to explain what may seem relatively low percentages of the day spent on unpaid care work and paid work. The inclusion of children from age 10 in the sample also helps to explain relatively low amounts of time spent on work when averaged across the sample.

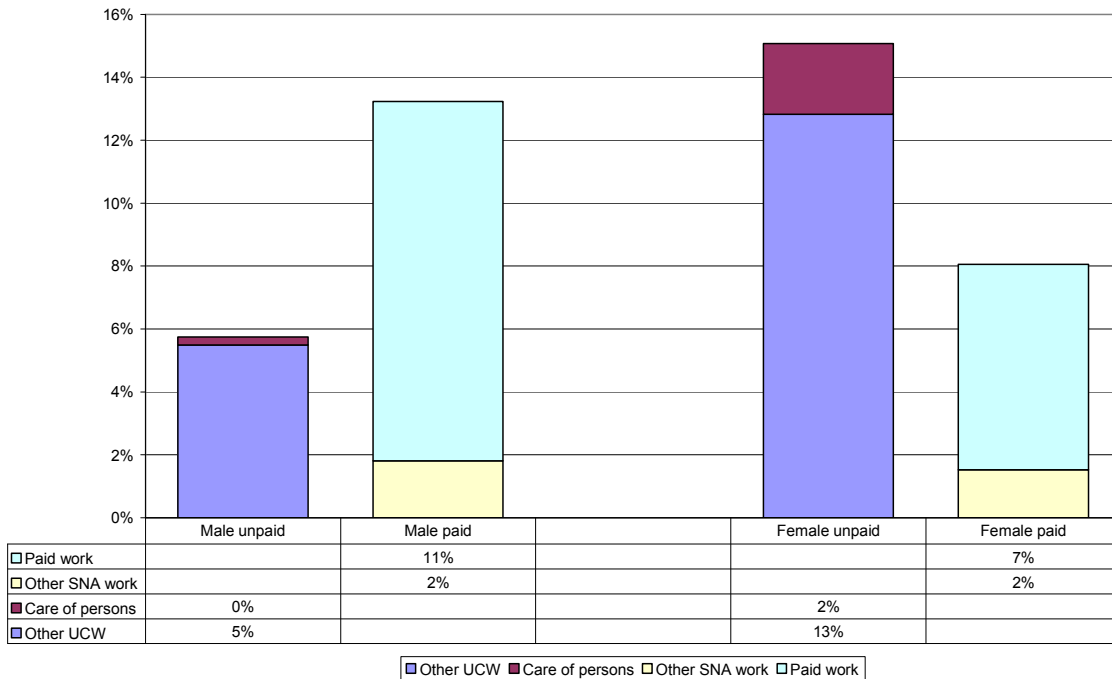
Table 10 Distribution of activities over the day by sex

Activity category	Male		Female	
	Minutes	%	Minutes	%
Establishment work	151	11%	82	6%
Primary production	26	2%	22	2%
Non-establishment work	13	1%	11	1%
Household maintenance	74	5%	181	13%
Care of persons	4	0%	32	2%
Community service	5	0%	3	0%
Learning	109	8%	96	7%
Social & cultural	218	15%	172	12%
Mass media use	112	8%	105	7%
Personal care	728	51%	732	51%
Total	1439	100%	1437	100%

The set of tabulations that follows focuses, as does Table 10 above, on the average time spent by all members of a group on particular categories of activity, with the average calculated over all members, whether or not they engaged in that activity. Later analysis will investigate the extent of involvement of members of particular groups by looking at the number of ‘actors’. The tabulations use the 24-hour minute, i.e. a measure which has the total of activities for any particular person summing exactly to 24 hours. The 24-hour minute undercounts activities which are done simultaneously in that the available time is then divided equally between the simultaneous activities. Later analysis in this report uses a ‘full-hour’ minute which drops the 24-hour limitation and measures full duration. Unpaid care work activities – and personal care in particular – is more likely than SNA work activities to be reported as having been done simultaneously. Thus the ratio of “full minutes” to “24-hour minutes” is between 1.03 and 1.06 for two of the three SNA categories, while it is 1.20 for household care. The analysis which follows will therefore to some extent present different paid:unpaid ratios than what would have been presented if the full minute was used.

Figure 1 below uses a simple male/female split for the whole population to illustrate how two of the reported categories form subsets of the other two reported categories. Thus the males in the sample spend, on average, 13% of their day on SNA work, which is made up of 11% of the day on ‘paid work’ as defined, and a further 2% on subsistence-type work. In contrast, women spend 9% of their day on SNA work, which is made up of 7% on ‘paid work’ and 2% on subsistence-type work. In respect of unpaid work, males spent a total of 6% (the graph does not sum to 6% because of rounding) on unpaid care work, compared to 15% for females. Care of persons accounts for less than half of one percent of the day for the average male, compared to 2% of the day for the average female.

Figure 1 Time spent on paid and unpaid work by sex



The graph is useful in highlighting, at the outset, that care of persons accounts for a small proportion of the unpaid care work done by both women and men, although a larger amount in both proportionate and absolute terms for women than men. ‘Paid work’, in contrast, accounts for the majority of time spent on SNA work in South Africa for both women and men, but a larger proportion of SNA time of women is spent on subsistence type work. In particular, the time use survey finds 13% of all females compared to 7% of all males reporting collection of water in the last 24 hours, and 5% of all females compared to 2% of all males reporting collection of fuel. The time spent by those who did the activity also tended to be longer for females than males, accounting for 175 and 155 minutes on average respectively for the two activities combined. This factor needs to be borne in mind given that colloquially, and even in analysis, most people conceive of these two activities as part of housework. The basic gender differences seen in the above tables are expected, and will not be commented on each time in the set of tables that follows.

Table 11 presents the same information as shown in the graph, but with the mean number of minutes per day added to facilitate understanding of what the percentages mean in everyday terms. In addition, the final columns show the results of multiplying the mean minutes per day by the total male and female population aged 10 years above to arrive at the volume of different types of work done. The table reveals, for example, that the 15% of the day that females tend to spend on unpaid care work translates into more than three hours, while the 6% spent by men on this work is less than an hour and a half. Expressed differently, each hour is equivalent to just over 4% of a 24-hour day. In terms of volume, 85.7m hours of unpaid care work are done each day, compared to 84.5m hours of SNA work. Women account for over three-quarters of the volume of unpaid care work.

Table 11 Time spent on paid and unpaid work per day by sex

	Mean minutes per day		% of day		Total hours per day (m)		
	Male	Female	Male	Female	Male	Female	Total
UCW	83	217	6%	15%	21.9	63.8	85.7
Of which:							
Care of persons	4	32	0%	2%	1.0	9.5	10.5
SNA work	190	116	13%	8%	50.4	34.1	84.5
Of which:							
Paid work	164	94	11%	7%	43.5	27.7	71.2

The ‘of which’ in the care of persons and paid work rows reminds the reader that these numbers and percentages are sub-components of unpaid care work and SNA work respectively. ‘Of which’ is omitted in later tables for the sake of simplicity. Table 12 shows white males and females spending a greater proportion of their day on both SNA and paid work than the other groups. This largely reflects the higher employment rates and lower unemployment rates among white people. For each population group, men – as expected – tend to spend more of their day than women on both paid and SNA work. African women and men have the largest proportionate ‘gap’ between SNA work and paid work, reflecting the fact that it is individuals from this group that are more likely to do subsistence work and collection of fuel and water. (The table suggests that this gap is bigger than it is in reality for white men as a result of rounding. Thus, if a decimal place is added, SNA accounts for 18.8% of this sub-group’s time compared to the 18.4% of time spent on paid work.)

Table 12 Time spent on paid and unpaid work by population group and sex

	Male			Female		
	African	Coloured	White	African	Coloured	White
UCW	6%	5%	6%	16%	13%	14%
Care of persons	0%	0%	1%	2%	2%	2%
SNA work	12%	14%	19%	7%	9%	12%
Paid work	10%	14%	18%	5%	9%	12%

Among men, there is very little difference across the groups in terms of unpaid work. Among women, in contrast, Africans tend to spend a greater proportion of their time on unpaid care work. But the proportion spent on care of persons is more or less constant across the population groups.

Table 13 shows, as expected, marked differences across age groups. Among both women and men, the 18-49 year olds tend to spend substantially more of their time on SNA work and the sub-category of SNA work than the other groups. The children – fortunately – are found to spend a very small proportion of time on SNA work, and the fact that most of this is not paid work suggests that much of it involves collection of fuel and water. The difference between the age groups is less marked for females than for males. In respect of

unpaid work, among women the middle age group again spends more time than others, but this difference does not hold in respect of males. If one restricts the analysis to those in the pension-eligible age groups (60 and above for women, and 65 and above for men), the time spent on unpaid work barely changes, but the time spent on SNA work drops to 8% for men and 4% for women, while that for the narrower category of paid work drops to 5% and 2% respectively. These percentages, while lower than those for younger people, are nevertheless noteworthy given that this age group covers what is considered ‘retirement’ age.

Table 13 Time spent on paid and unpaid work by age group and sex

	Male			Female		
	10-17	18-49	50+	10-17	18-49	50+
UCW	4%	6%	7%	8%	18%	15%
Care of persons	0%	0%	0%	1%	3%	1%
SNA work	3%	19%	13%	2%	11%	8%
Paid work	1%	17%	11%	0%	9%	6%

Table 14 shows married women and men spending longer than those who are never married on paid work. The same pattern holds for women in respect of unpaid work, but holds very weakly, if at all, for men. The patterns in respect of paid work are influenced by the fact that most of the children are in the ‘single’ category. If children are excluded, SNA work increases to 13% of the day for men and 9% for women, while the narrower category of paid work increases to 12% and 7% respectively. The inclusion of children does not explain, though, why single and married males have very similar patterns in respect of unpaid care work, while married females tend to do significantly more of this work than single ones.

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

	Male		Female	
	Single	Married	Single	Married
UCW	5%	6%	13%	20%
Care of persons	0%	0%	2%	3%
SNA work	8%	22%	6%	11%
Paid work	6%	20%	4%	10%

The fact that married females tend to spend more time than other groups on unpaid care work might in part reflect the greater likelihood that they will be caring for children. Table 15 zeroes in on this element by comparing the patterns for those with no reported children, and those with children under 18 years and under seven years living with them. The table records women with children under seven years co-resident spending an average of 7% of their day on care of persons, and close on one quarter of their day on unpaid care work. Interestingly, these women nevertheless tend to spend more of their time on SNA work than those with no reported children. Women with children under 18 years living with them spend noticeably less time on care of persons than those with younger children, and also less time on unpaid care work. They nevertheless spend noticeably more time on unpaid care work than those without children, and more time on

paid work than either of the other two groups. The difference in time spent on unpaid care work between women with older and younger children is the same as the difference in time spent on person care between these two groups. This suggests that younger children do not create a greater need for household chores than older children.

Nevertheless, comparison of the total amount of unpaid care work done by women with and without children suggests that children in general do increase the need for housework. Among men, there is very little change in the pattern of unpaid care work with differences in childed status, but men with children living with them tend to spend much more time doing SNA work than those without children.

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

	Male			Female		
	No children	7-18 with	<7 with	No children	7-18 with	<7 with
UCW	6%	7%	6%	11%	18%	23%
Care of persons	0%	1%	1%	1%	2%	7%
SNA work	8%	21%	26%	6%	13%	10%
Paid work	6%	19%	24%	4%	11%	8%

The patterns for both male and female in respect of those without children are to some extent biased by the fact that children themselves will fall in this category. If children are excluded, there is little difference in unpaid care work for males, but SNA work and paid work increase to 13% and 11% respectively. For females, excluding children results in unpaid care work as a whole increasing from 11% to 14%, while SNA work increases to 9% and paid work to 7%. Excluding children thus results in the same overall pattern of those without children doing noticeably less care work than those with children living with them. Among men, this group also does noticeably less paid work, but this pattern is less evident for women.

Table 16 shows both men and women who are not economically active spending less time, on average, than other men and women on both paid SNA work and unpaid care work. The difference in respect of unpaid care work for NEA and employed women is, however, relatively small. Nevertheless, among both women and men, the unemployed tend to spend more time on unpaid care work than other groups. The same holds strongly in respect of care of persons for women, but not for men. As expected given the definitions, paid work is far more common among employed men and women than among the other groups. The fact that unemployed men record spending an average of 7% of the previous day on paid work could reflect both the inclusion, noted above, of seeking work in the paid work category in terms of the time use classification, and under-recording of employment by the standard labour force questions used to classify respondents by work status.

Table 16 Time spent on paid and unpaid work by work status and sex

	Male			Female		
	Employed	Unemployed	NEA	Employed	Unemployed	NEA
UCW	6%	8%	5%	15%	24%	14%
Care of persons	0%	0%	0%	2%	4%	2%
SNA work	23%	8%	3%	18%	3%	2%
Paid work	21%	7%	1%	16%	1%	1%

The much longer time spent by unemployed women compared to employed on unpaid work cannot be explained by a greater tendency to have domestic workers employed in households of employed women in that there is only a small difference in this respect. Thus 6% of unemployed women, compared to 8% of employed women, are living in households where someone who is not a household member (usually a domestic worker) is responsible for most of the housework. This pattern is, in fact, more marked for men, where 3% of unemployed men but 7% of employed men are likely to have a domestic worker working in their home.

Table 17 shows noticeably lower proportions of time spent on SNA and paid work by men in deep rural areas when compared to men elsewhere. The same pattern is not found in respect of SNA work for women but is found for paid work. The difference in the pattern for SNA and paid work for women would presumably be accounted for by both engagement in subsistence agriculture and fetching of fuel and water. Another difference between women and men is that the average amount of time spent on SNA and paid work does not differ for men between urban formal and informal areas, while for women it is lower among those living in urban informal areas. For both women and men, there is very little difference in patterns across settlement types in terms of unpaid care work and care of persons.

Table 17 Time spent on paid and unpaid work by settlement type and sex

	Male			Female		
	Urban formal	Urban informal	Deep rural	Urban formal	Urban informal	Deep rural
UCW	5%	7%	6%	14%	17%	16%
Care of persons	0%	0%	0%	2%	3%	2%
SNA work	14%	15%	9%	9%	7%	7%
Paid work	14%	14%	5%	9%	7%	3%

Table 18 shows, as seems logical, that those with higher personal incomes tend to spend a greater proportion of their day on SNA and paid work. What is interesting is that women spend a lower proportion of their day on these types of work than men with the same level of personal income. The proportion of time spent by women and men on unpaid care work and care of persons seems to change very little with personal income, although women in the highest bracket spend less time than others. If we confine the analysis to those with personal incomes of R5,000 or more, women spend an average of 23% of their time on paid SNA work, while unpaid care work drops a further percentage point to 12%. These trends could reflect the ability of these women to pay others to do this work.

Among men, in contrast, unpaid care work and person care each increase by one percentage point while the pattern in respect of SNA and paid work remains the same.

Table 18 Time spent on paid and unpaid work by personal income and sex

	Male				Female			
	No cash	1-500	501-1000	1000+	No cash	1-500	501-1000	1000+
UCW	5%	6%	6%	5%	15%	16%	15%	13%
Person care	0%	0%	0%	0%	2%	3%	2%	2%
SNA work	4%	10%	18%	26%	3%	7%	9%	20%
Paid work	2%	8%	16%	26%	1%	6%	8%	20%

Table 19 shows a clearer pattern of unpaid care work by women decreasing with increasing household income. The likelihood of this reflecting employment of a domestic worker is borne out by the fact that 17% of households participating in the survey which had incomes of R1,800 or more reported that a person who was not a member of the household bore the main responsibility for housework. Among all other income groups, the percentage was 3% or less. (There are further race patterns, in that only 4% of African and coloured respondents from households in the highest income bracket appeared to have a domestic worker, compared to 50% of white respondents.) In contrast to the situation for unpaid work, the average time spent by women on SNA and paid work increases with increasing income. This is particularly marked for those living in households with incomes of R1,800 or more per month. Among men, the marked increase in time spent on SNA and paid work happens at the lower level, of R800 per month. Men's engagement in unpaid care work does not seem to be affected by household income.

Table 19 Time spent on paid and unpaid work by household income and sex

	Male				Female			
	0-399	400-799	800-1799	1800+	0-399	400-799	800-1799	1800+
UCW	6%	6%	6%	6%	17%	16%	15%	13%
Care of persons	0%	0%	0%	0%	3%	2%	2%	2%
SNA work	11%	9%	15%	16%	7%	6%	7%	12%
Paid work	8%	7%	13%	16%	5%	3%	6%	11%

Table 20 shows that among both women and men, those living in adult-only households tend to spend longest on SNA and paid work, while rates are lowest for households that include all three generations. These patterns mainly reflect the fact that children and older people are less likely than adults to do SNA and paid work and would thus affect the averages for the non-adult-only households. The patterns are, however, very different in respect of unpaid care work. Here males in households with children tend to spend, if anything, less time than those in other households. This presumably reflects the fact, recorded above, that boy children do less of this type of work than men. Among females, it is those living in adult-only households who do the least unpaid care work.

Comparisons of the time spent on unpaid care work and care of persons reveals that it is the latter component of unpaid care work that accounts for the difference. This reflects the fact that ‘younger’ adult women would often be providing care for the older adults and children when they are co-resident.

Table 20 Time spent on paid and unpaid work by household composition and sex

	Male				Female			
	Ch+Ad d	Ch+Ad+O ld	Ad	Ad+Ol d	Ch+Ad d	Ch+Ad+O ld	Ad	Ad+Ol d
UCW	5%	5%	6%	7%	16%	14%	12%	15%
Care of persons	0%	0%	0%	0%	3%	2%	0%	0%
SNA work	13%	10%	22%	15%	8%	6%	15%	8%
Paid work	12%	7%	21%	13%	7%	4%	15%	8%

Prevalence of person care and paid work

The set of tables above yields very small percentages of the day in respect of care of persons, in particular, as well as in respect of paid work for some groupings. One of the main reasons for this is that the percentages are derived from averages across the full grouping. Where only a small proportion of a particular group does a particular type of activity, the average is therefore small for the group as a whole even though particular individuals might be spending fairly substantial amounts of time on these activities. Nina Hunter’s current doctoral work will give a better picture in this respect because it focuses on households in which there is an ill person needing care.

This section suggests the extent to which this fact explains small percentages of time reported above by recording the percentage of each group that spent any time at all during the previous 24 hours on (a) care of persons; (b) the more narrowly defined category of ‘paid work’ used above i.e. excluding subsistence-type work and fetching of fuel and water; and (c) both activities. Table 21 illustrates the difference that varying participation rates can make to the mean minutes when calculation for the full population and only for actors. The table is based on activities recorded in respect of care of persons, including the three activities in respect of persons from other households. Mean minutes for males increase from 4 to 72 when changing from a full population to only those who did this activity. Mean minutes for females increase from 40 to 133. The much larger relative increase for males is explained by the relatively low participation rate. Nevertheless, females still work substantially more hours than males on either measure.

Table 21 Mean minutes spent on care of persons for full population and actors by age group

Sex		0-17	18-49	50+	Total
Population	Male	2	6	4	4
	Female	10	58	24	40
Actors	Male	63	72	89	72
	Female	95	140	111	133

Figure 2 illustrates the overall male and female patterns for engagement in care of persons, paid work, and both activities in the previous 24 hours. It shows that, overall, 30% of females but only 6% of males spent some time on person care in the previous 24 hours, while 23% of females and 34% of males spent some time on paid work. Only 3% of males and 7% of women did both. In Figure 1, the mean time, averaged across the population, of males on person care was 0 minutes while that on paid work was 11 minutes. For females the comparable estimates were 2 minutes and 7 minutes.

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

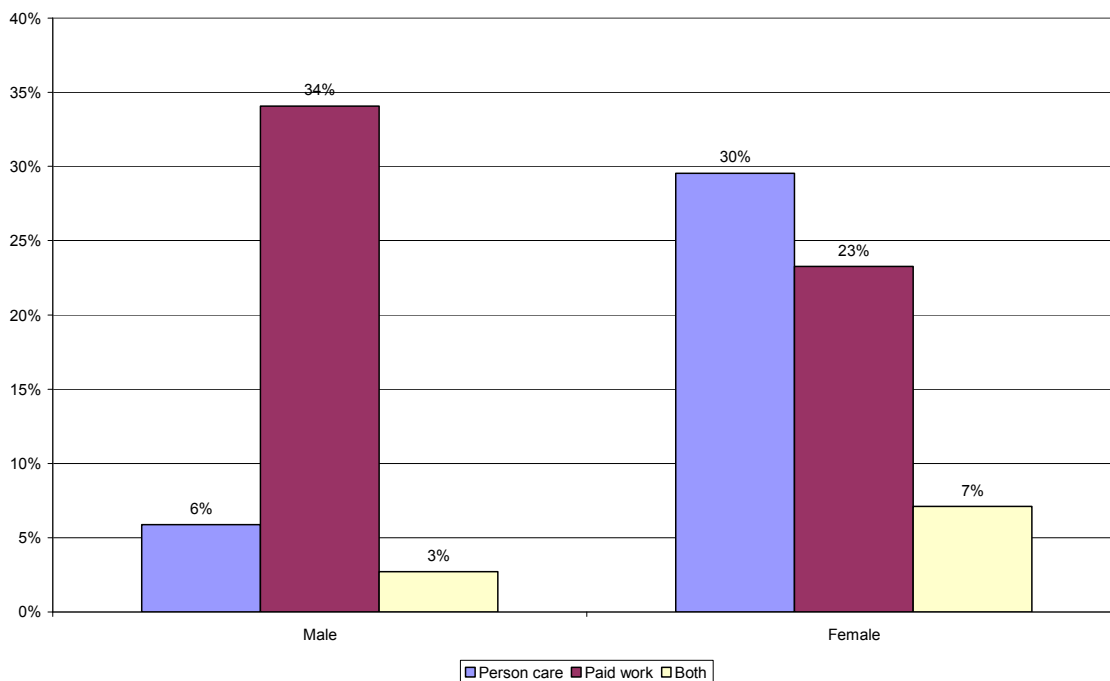


Table 22 shows that across all population groups, females were more likely than males to do some person care and less likely to do paid work. The differences between male and female in respect of person care were more marked for Africans and coloureds than for whites. White men were noticeably more likely than others to do this work, while coloured females were more likely than other females to do so. In respect of paid work, the engagement rates were much higher for whites than for the other population groups, while Africans were lowest. These patterns match the respective employment and unemployment rates. Combining person care and paid work in the same day was most common for white women, and more common for white men than African women.

African women were nevertheless six times more likely than African men to combine these two types of work as only 1% of African men recorded doing both types of work in the previous day.

Table 22 Prevalence of person care and paid work by population group and sex

	Sex	African	Coloured	White	Total
Person care	Male	4%	9%	12%	6%
	Female	29%	36%	29%	30%
	Total	18%	24%	21%	18%
Paid work	Male	30%	39%	51%	34%
	Female	19%	27%	45%	23%
	Total	24%	33%	48%	28%
Both	Male	1%	5%	9%	3%
	Female	6%	11%	14%	7%
	Total	4%	8%	12%	5%

Table 23 reveals that 41% of females in the prime age group, but only 7% of males, did some person care on the previous day. Among older people, the percentages are 21% and 5%. The percentage of children doing person care is lower than for other groups, but girls were more than three times as likely to do this work as boys. For paid work, about half of males and a third of females in the prime group were active in the past 24 hours, with lower but still substantial rates among the older people. Unlike for the older age groups, there is no gender difference in respect of engagement in paid work among children. Virtually no children did both types of work. Combining the two types of work was most common for women aged 18-49 years. These women were nearly three times as likely as their male counterparts to combine the two types of work.

Table 23 Prevalence of person care and paid work by age group and sex

	Sex	10-17	18-49	50+	Total
Person care	Male	3%	7%	5%	6%
	Female	10%	41%	21%	30%
	Total	7%	25%	14%	18%
Paid work	Male	5%	49%	33%	34%
	Female	5%	32%	23%	23%
	Total	5%	40%	27%	28%
Both	Male	0%	4%	1%	3%
	Female	1%	11%	4%	7%
	Total	0%	8%	3%	5%

Table 24 shows 43% of married females doing some person care, compared to 23% of those who have never married. For males the prevalence of person care is, as usual, much lower at 10% and 3% respectively. More than half of married males, but only 21% of single males did some paid work in the last 24 hours. For females the percentages are lower, and the relative difference between married and single is smaller. This probably reflects, in part, the fact that many single women are bringing up children without the father's presence (or assistance) and thus have no choice but to do some paid work.

Woman also account for 88% of the adults (people aged 18 years or over) who are living with children in the household but with no other adults. Over one in eight (13%) of married women combined both types of work, while only 6% of married men did so. Among single women the likelihood of combining paid work and care of persons was lower, at 4%, but this was about four times the prevalence for single men.

Table 24 Prevalence of person care and paid work by marital status and sex

	Sex	Single	Married	Total
Person care	Male	3%	10%	6%
	Female	23%	43%	30%
	Total	13%	27%	18%
Paid work	Male	21%	56%	34%
	Female	15%	33%	23%
	Total	18%	44%	28%
Both	Male	1%	6%	3%
	Female	4%	13%	7%
	Total	2%	10%	5%

Table 25 shows, as expected, that the likelihood of doing person care increases noticeably with the presence of children. For women, this phenomenon is particularly strong when there are children under seven years of age. Thus nearly three-quarters of women with young children living with them recorded some care of persons for the previous day. Among men, the likelihood of doing paid work increases when the man has a child living with him, and even further when the child is young. For women, the likelihood increases when the woman has children, but is lower for women with younger children than for those with older children. Finally, 9-10% of men with children living with them did both paid work and care of persons in the previous 24 hours, while this was the case for 19% of women with young children, and 11% of women with older children.

Table 25 Prevalence of person care and paid work by childed status and sex

	Sex	No children	7-18 with	<7 with	Total
Person care	Male	3%	13%	15%	6%
	Female	13%	31%	74%	30%
	Total	8%	24%	55%	18%
Paid work	Male	22%	52%	64%	34%
	Female	17%	39%	28%	23%
	Total	19%	44%	40%	28%
Both	Male	1%	9%	10%	3%
	Female	2%	11%	19%	7%
	Total	1%	10%	16%	5%

Table 26 shows, as expected, that a markedly greater proportion of employed than unemployed or not economically active persons did some paid work in the previous 24 hours. The fact that so many unemployed and NEA persons are recorded as doing paid work would reflect both work-seeking (because this is included in the category of SNA work in the activity classification system) and under-recording of employment –

especially marginal employment – when using the standard labour force questions. Among men, unemployment and NEA are less likely than employed people to do personal care. The same pattern holds for NEA women, but definitely not for unemployed. Only 5% of employed men, and even fewer in other work status groups, did both types of work on the previous day, while this was the case for 16% of employed women.

Table 26 Prevalence of person care and paid work by work status and sex

	Sex	Employed	Unemployed	NEA	Total
Person care	Male	8%	5%	4%	6%
	Female	33%	48%	25%	30%
	Total	19%	29%	16%	18%
Paid work	Male	60%	25%	5%	34%
	Female	53%	9%	5%	23%
	Total	57%	16%	5%	28%
Both	Male	5%	2%	0%	3%
	Female	16%	3%	1%	7%
	Total	10%	2%	1%	5%

Table 27 shows similar levels of engagement in paid work by men in formal and informal urban areas, but much lower in deep rural areas. Among women, the level is also lowest in deep rural areas, where paid employment opportunities are scarce. But women in informal urban areas are also somewhat less likely than those in formal urban areas to have paid work. For care of persons, there are only small differences for women across the different settlement types, while for men, levels of this type of work are noticeably lower in deep rural areas than elsewhere. The group that is most likely to combine paid work and care of persons is women in formal urban areas.

Table 27 Prevalence of personal care and paid work by settlement type and sex

	gender	Urban formal	Urban informal	Deep rural	Total
Person care	Male	8%	6%	3%	6%
	Female	28%	30%	31%	30%
	Total	19%	19%	19%	18%
Paid work	Male	41%	41%	17%	34%
	Female	30%	25%	13%	23%
	Total	35%	33%	15%	28%
Both	Male	4%	2%	1%	3%
	Female	9%	7%	4%	7%
	Total	7%	5%	3%	5%

Table 28 shows, as expected, a clear increase in the prevalence of paid work among both women and men as personal income increases. Among men, the same pattern holds, although more muted, in respect of care of persons, but among women there is no clear pattern. Females with personal income of R1,000 or more per month are, by a large margin, the group with the highest tendency to combine care of persons and paid work.

One-fifth (20%) of individuals in this group combine the two types of work, compared to 7% or less in all other groups.

Table 28 Prevalence of person care and paid work by personal income and sex

	Sex	No cash	1-500	501-1000	1000+	Total
Person care	Male	5%	4%	6%	10%	6%
	Female	28%	32%	25%	33%	30%
	Total	17%	20%	17%	19%	19%
Paid work	Male	9%	26%	43%	70%	35%
	Female	6%	22%	25%	61%	24%
	Total	8%	24%	33%	66%	29%
Both	Male	1%	1%	3%	7%	3%
	Female	2%	7%	6%	20%	7%
	Total	1%	4%	5%	12%	5%

Table 29 shows, overall, an increasing tendency for women and men to do paid work with increases in household income. For both, however, a higher proportion of those in the lowest income group do paid work than in the next highest income group. This could reflect the fact that the second income group would capture households that are reliant only on a state old age pension. Among men, those in the highest income bracket are markedly more likely than others to do some care of persons. Among women, the pattern fluctuates, but it is those in the poorest group who are most likely to report care of persons.

Table 29 Prevalence of person care and paid work by household income and sex

	Sex	0-399	400-799	800-1799	1800+	Total
Person care	Male	5%	4%	4%	9%	6%
	Female	34%	29%	27%	30%	32%
	Total	20%	18%	16%	19%	20%
Paid work	Male	27%	21%	37%	45%	36%
	Female	18%	14%	23%	38%	25%
	Total	22%	17%	30%	41%	30%
Both	Male	2%	0%	2%	5%	3%
	Female	7%	3%	6%	12%	8%
	Total	5%	2%	4%	8%	5%

Table 30 records the highest rates of engagement in paid work for both women and men among those living in adult-only households, while the lowest rate is found among households containing all three generations. This pattern is as expected as in the three-generation household the children and older people are less likely than adults to do paid work. For both men and women, the rates of engagement in paid work are somewhat lower for child-plus-adult households than for adult+elderly households. This would reflect the larger number of children than elderly captured in the survey, as well as higher rates of engagement in paid work among elderly than children. For care of persons, the rates of engagement are noticeably higher in child+adult households than in all other types. For women, the rates are also noticeably higher in three-generation households

than in those containing only adults, or only adults plus elderly people. This reflects, among others, that more time tends to be spent on care of children than on care of elderly.

Table 30 Prevalence of person care and paid work by household composition and sex

	Sex	Ch+Ad	Ch+Ad+Old	Adult	Ad+Old	Total
Person care	Male	10%	4%	2%	4%	6%
	Female	41%	29%	4%	5%	30%
	Total	27%	18%	3%	4%	18%
Paid work	Male	35%	23%	61%	38%	34%
	Female	25%	17%	45%	28%	23%
	Total	29%	19%	54%	33%	28%
Both	Male	6%	1%	1%	2%	3%
	Female	11%	6%	1%	2%	7%
	Total	9%	4%	1%	2%	5%

Exploring care of persons in more detail

This section explores care of persons in more detail. It goes beyond participation rates to examine the time spent on this form of care. It uses the ‘full-minute’ rather than the 24-hour minute and thus captures the full duration of time spent on care work by individuals from different groups. The figures reported below thus represent minutes rather than the percentage of the day used in an earlier section.

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

The difference between care of persons and active care is that the latter excludes supervision of those needing care. Accompanying children or others is classified as active care as it is relatively difficult to do other activities at the same time. Travel that is not reported as accompaniment is classified as passive care.

Table 31 shows coloured women spending more time than those from other population groups on care of persons, while African men spend less than other men. The difference between the patterns for care of person and active care suggest that white women were somewhat more likely than others to report more passive forms of care such as supervision. Women do significantly more than men of both types of care.

Table 31 Duration of care by population group and sex

		African	Coloured	White
Care of persons	Male	3	8	9
	Female	40	43	37
Active care	Male	2	5	5
	Female	32	35	28

Table 32 confirms the earlier pattern of women in the middle age group bearing the main burden of care of persons. Half of the time reported by men in this age group consists of passive care.

Table 32 Duration of care by age group and sex

		0-17	18-49	50+
Care of persons	Male	2	6	4
	Female	10	58	24
Active care	Male	1	3	2
	Female	8	48	18

Table 33 again records the highest time for married women. For both care of persons as a whole and active care they tend to spend almost twice as long as single women. In gender terms, the difference in time spent is particularly marked for single women and men.

Table 33 Duration of care by marital status and sex

		Single	Married
Care of persons	Male	2	7
	Female	31	61
Active care	Male	1	4
	Female	25	49

Table 34 shows women with children under seven years reporting close on two hours on care of persons, and more than an hour and a half on active care. Women with older children living with them record just over a half-hour on care of persons, and 24 minutes on active care. Men with young children spend only ten minutes on average on care of persons, and an even lower seven minutes on active care.

Table 34 Duration of care by child status and sex

		No children	<18 with	<7 with
Care of persons	Male	3	8	10
	Female	13	33	116
Active care	Male	2	5	7
	Female	10	24	96

Table 35 reveals that, among both women and men, the unemployed record longer time spent on care of persons and active care. But for men this amounts to only eight minutes on care of persons on average. Among women, those in the other work status groups all

record over half an hours on average on care of persons, and about half an hour on active care.

Table 35 Duration of care by work status and sex

		Employed	Unemployed	NEA
Care of persons	Male	5	8	3
	Female	41	65	36
Active care	Male	3	4	1
	Female	32	52	29

Table 36 records less time spent on care of persons by women in formal urban settings, with little difference between the other two settlement types. The pattern is different for men, but the average number of minutes is very small.

Table 36 Duration of care by settlement type and sex

		Urban formal	Urban informal	Deep rural
Care of persons	Male	6	5	2
	Female	35	46	44
Active care	Male	3	4	1
	Female	27	39	36

Table 37 does not show a clear pattern in respect of personal income for women. For men, more time is recorded for the highest-earning group in respect of both care of persons and active care.

Table 37 Duration of care by personal income and sex

		No cash	1-500	501-1000	1000+
Care of persons	Male	3	3	3	7
	Female	37	47	31	38
Active care	Male	2	2	2	4
	Female	30	38	25	29

Table 38 shows women in the poorest households spending longer on care of persons than those in better-off households. There is, however, little difference between the three other income groups. Among men, if anything time spent on care of persons again increases with household income.

Table 38 Duration of care by household income and sex

		0-399	400-799	800-1799	1800+
Care of persons	Male	4	3	4	6
	Female	47	40	37	39
Active care	Male	3	2	2	3
	Female	37	31	31	31

Table 39 shows women in child-plus-adult households spend noticeably longer on care of persons than those in other types of household. The next highest expenditure of time is

found among women living in three-generation households. Among both women and men, time spent on care of persons drops markedly for those living in adult-only households.

Table 39 Duration of care by household composition and sex

		Ch+Ad	Ch+Ad+Old	Adult	Ch+Old
Care of persons	Male	7	4	1	2
	Female	58	38	5	23
Active care	Male	4	2	0	2
	Female	47	31	3	20

Care for adults in the household

One focus of interest of the research is care provided for those infected by HIV or ill with AIDS. Unfortunately, the activity classification used for the South African time use survey did not distinguish between care for those who are ill and care for other children or adults. Because HIV infection is concentrated among adults, care for adults is probably the closest approximation of this type of care. This activity category would, however, also include care for the elderly and disabled, among others.

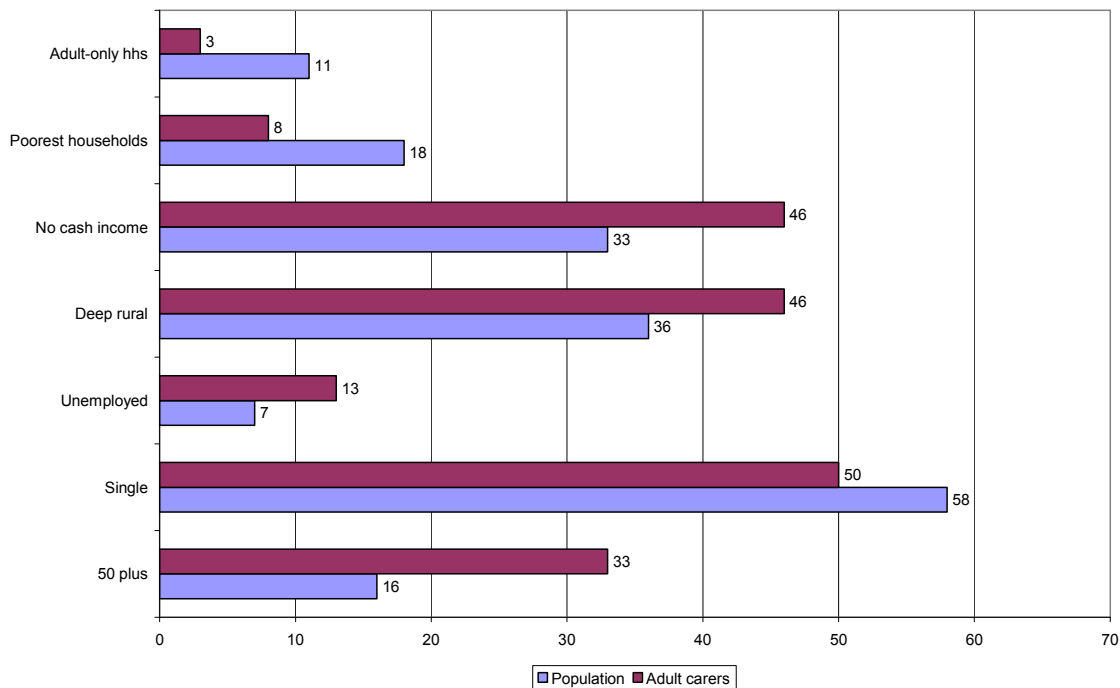
A further problem is that the activity classification contains only three codes relating specifically to care for adults. Two relate to care of adults in the household. The specified activities are physical care of non-child household members (code 540) and accompanying adults (code 550). Supervision of adults in the household is classified together with supervision of children. The third adult care code is care for non-household adults (code 673). Only 7 males and 23 females (unweighted) were recorded as doing any care for non-household adults. Overall, 24 males and 168 females were recorded as participating in at least one of the three adult care activities. This accounts for less than half a percent of males and only 1% of females. The average time spent on adult care by these ‘actors’ is, however, substantial, at 79 minutes.

The low participation rates and low overall averages mean that it is not useful to calculate average minutes for sub-groups of the population. We can, however, examine the profile of those doing adult care activities. We report only on those that are significantly different from the overall profile of the sample population.

In terms of age group, 33% of adult carers are aged 50 plus, whereas this group constitutes only 16% of the sample population. Correspondingly, only 50% of adult carers are single, whereas this group accounts for 58% of the sample population. Those with children living with them are over-represented among adult carers by six percentage points, suggesting multiple care burdens for this group. Unemployed people are over-represented among adult carers, accounting for 13% of this group, but only 7% of the sample population. Adult carers are disproportionately present in deep rural areas, where 46% of them are found but only 36% of the sample population. This could reflect the over-representation of older people in these areas and thus greater need for care. It could also reflect sick people being sent ‘home’ to rural areas to be cared for. In line with over-

representation of unemployed people and deep rural dwellers among carers, 46% of adult carers report no cash income, compared to 33% of the sample population. In contrast, only 8% of adult carers are from the poorest households, compared to 18% of households dwelt in by the sample population. Finally, only 3% of adult carers come from adult-only households while 11% of the sample population lives in this situation. Balancing this out is that 10% of adult carers live in households containing only older people, while these households constitute only 4% of the sample. These contrasts in the profile are illustrated in Figure 3.

Figure 3: Comparison of characteristics of adult cares with full population (% of total group)



Summarising the key determinants of time spent on care

Finally, we run a Tobit estimation to test the strength of the various relationships shown above through tables. For this estimation we use ‘full’ minutes (i.e. full duration) of time spent by individuals on care of persons in the household (codes 500-599) as well as care for those in other households (codes 671-673). We regress against being male, being married, being employed, having a child under seven years living in the household (Childed), being white, falling in the highest household income bracket (HiIncome), years of schooling (Highested), age and age squared.

Table 40 confirms that all of these factors except race, household income and marital status are significant ($P \leq 0.005$) determinants of time spent on care of persons. Among the dummy factors, having one’s young child co-residing has the strongest effect, followed by gender. Being employed also has a marked effect. Being male and being employed tends to reduce the time spent on care of persons, while the other factors all

increase the time spent. The above variables combined account for 18.7% of the variation in the amount of time spent by a particular individual on person care.

Table 40 Regression results on duration of time spent on care

	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
Male	-195.4	6.6	-29.71	0.0000	-208.3	-182.5
Married	12.5	6.2	2.01	0.0450	0.3	24.7
Employed	-43.7	5.8	-7.52	0.0000	-55.1	-32.3
Childed	255.2	6.5	39.16	0.0000	242.4	268.0
White	-0.6	9.8	-0.06	0.9550	-19.8	18.7
HiIncome	11.4	7.1	1.62	0.1050	-2.4	25.3
Highested	2.4	0.8	3.05	0.0020	0.8	3.9
Age	4.1	0.8	4.99	0.0000	2.5	5.7
AgeSquared	0.0	0.0	-4.73	0.0000	-0.1	0.0
_cons	-264.6	14.7	-18.01	0.0000	-293.4	-235.8

The determinants of care change if we define care broadly to define all types of unpaid care work. Table 41 reveals that gender now has the highest coefficient among the dummy variables. The effect of the presence of the person's child in the household is at second place, but with a lower coefficient than before. Race and household income become significant determinants, with whites and those in the wealthiest households less likely than others to do this work. The coefficient for age is positive, while that for age squared is negative. This reflects the fact that the likelihood of doing unpaid care work tends to increase with age, but tails off at older ages. Marriage is now the only factor which is not significant. All the other factors together account for about 28.9% of the variation in time spent doing unpaid care work by particular individuals.

Table 41 Regression results on duration of time spent on unpaid care work

	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Male	-172.1	3.2	-53.6	0.0000	-178.4	-165.8
Married	5.8	3.9	1.48	0.1380	-1.9	13.4
Employed	-72.4	3.6	-20.19	0.0000	-79.4	-65.4
Childed	91.5	4.3	21.43	0.0000	83.1	99.9
White	-21.2	6.0	-3.52	0.0000	-33.0	-9.4
HiIncome	-35.9	4.3	-8.31	0.0000	-44.4	-27.4
Highested	4.0	0.5	8.57	0.0000	3.1	4.9
Age	10.9	0.5	23.6	0.0000	10.0	11.8
AgeSquared	-0.1	0.0	-21.11	0.0000	-0.1	-0.1
_cons	36.8	7.7	4.79	0.0000	21.8	51.9

Standard indicators

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

Table 42 is the first of the standard tables. It focuses on the distribution of time between the three SNA-related categories – activities which fall within the SNA production boundary ('SNA'); activities which fall within the general production boundary but outside the SNA production boundary, i.e. unpaid care work ('ExtSNA'); and non-productive activities ('Non-prod'). The first set of estimates shows the mean number of minutes spent on each of these categories per day when averaged across the full population, using the 24-hour minute. The second set of estimates shows the percentage of the total (male and female) population that actually engaged in each of these categories of activities i.e. the 'actors' or what is referred to above as prevalence. The third set of estimates shows the mean number of minutes spent on each of the categories per day averaged only across the actors.

Table 42 Mean minutes per day by SNA-related category and sex

	Mean population time			Participation rate			Mean actor time		
	SNA	ExtSNA	Non-prod	SNA	ExtSNA	Non-prod	SNA	ExtSNA	Non-prod
Male	234	89	1116	56%	73%	100%	420	123	1116
Female	143	246	1052	44%	95%	100%	324	259	1052
Total	185	173	1081	49%	84%	100%	375	205	1082

Table 42 confirms that men tend to spend longer than women on SNA work while women spend considerably longer than men on extended SNA. These patterns hold for both mean population time and mean actor time. The time spent is, as expected, longer for all groups when averaged across actors rather than population. In terms of participation rate, men are also more likely than women to do SNA work, while women are more likely than men to do extended SNA work. All individuals do some non-productive activity. This is expected given that sleeping and eating are included in this category.

Table 43 presents similar estimates to the previous table, but this time in respect of the three categories of activities that make up unpaid care work, i.e. household maintenance ('housework'), care of persons in the household ('person care'), and community services and help to other households ('comm care'). The first of these categories accounts for much more time than either of the other two for both women and men when we calculate the population mean, but this pattern changes when we look at mean actor time. This reversal of the pattern is explained by the fact that the majority of men and women undertake some housework, but the level of participation in community care is very low for both women and men, while it is also very low for men in respect of care of persons. Women spend noticeably more time than men on average on both housework and person care when calculating the average over the population or over the actors. For community care, however, men are slightly more likely than women to engage in this activity, and also tend to spend longer on it.

Table 43 Mean minutes per day spent per day by categories of unpaid care work and sex

	Mean population time			Participation rate			Mean actor time		
	House-work	Person care	Comm Care	House-work	Person care	Comm care	House-work	Person care	Comm care
Male	86	5	7	70%	7%	4%	123	74	176
Female	225	48	4	94%	35%	3%	241	137	139
Total	160	28	5	83%	22%	3%	194	128	158

Most of the time estimates presented in this paper have taken the form of means. Means can be misleading to the extent that they hide the pattern of the distribution of time use. The two figures which follow give some indication of the extent to which the distribution of time spent on unpaid care work and person care is skewed, even among the actors. The figures are based on the full minute, which reflects the full duration of simultaneous activities.

Figure 4 shows that close on 30% of males compared to less than 10% of females spent no time at all on unpaid care work on the previous day. At the other end of the scale, a negligible number of males, but 2% of women spent longer than 12 hours on unpaid care work.

The distributions for both male and female are asymmetric and clearly not normal distributions, but the distribution for women has an extremely long tail, while the distribution for men has a short tail. The short tail for males suggests a low variability i.e. that males do a fairly consistently low amount of UCW. The long tail for women suggests the opposite – high variability and, as a consequence, a notable level of inequality. The high variability confirms that a point estimate, such as the overall mean or median, can mislead, particularly in respect of females, as there is substantial in-group inequality.

Figure 4: Distribution of time spent on unpaid care work by sex

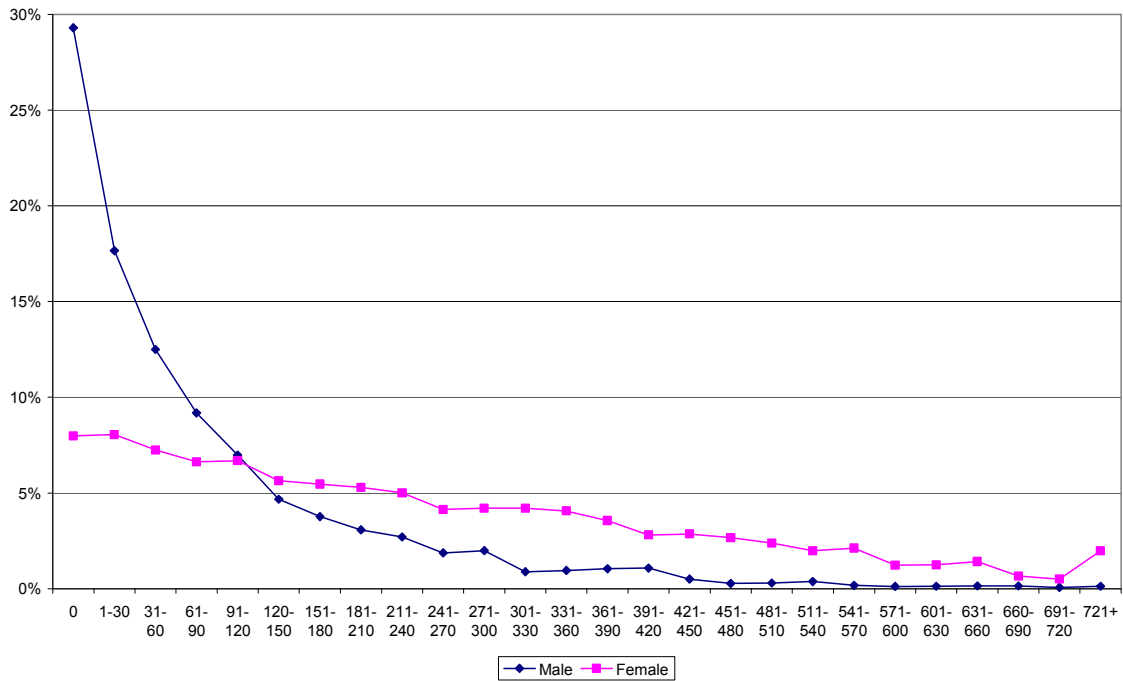
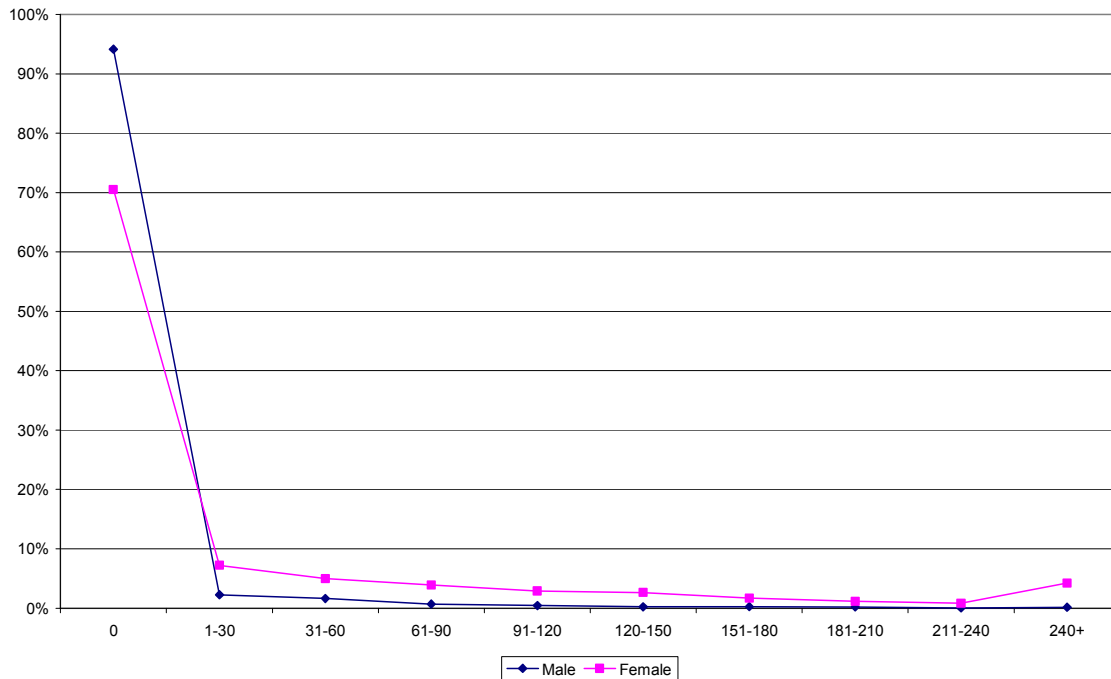


Figure 5 shows that 94% of males and 70% of females spent no time on person care in the previous day. At the other end of the scale, negligible numbers of males, but 4% of females spent six hours or longer on this activity. The main message from this figure is that most people do not do direct care. The figure also shows, as with unpaid care work more generally, a more distinct tail for females than males.

Figure 5: Distribution of time spent on person care



In comparing patterns of time use, and time spent on care in particular, across countries, it is useful to have some indication of the extent to which countries differ in terms of the need for care. A care dependency ratio, analogous to the dependency ratio commonly used in comparing economic dependency across countries, was developed for this purpose. The ratio is computed by dividing a weighted measure of ‘carees’ – those likely to need care – by the number of people who could be expected to be available to provide care. For the measure of carees, children 0-6 years are given a full weight, as are adults aged 85 years and above. Children 7-12 years and adults between the ages of 75 and 84 years are given a half-weight. For the carer measure, we take the total population aged 15-74 years.

Table 44 shows the calculations for 2000, the year in which the South African time use survey was conducted, and 2007. The ratio stands at 0.36 for 2000 and 0.33 for 2007. The change between the two years is caused by a relative decline in the proportion of children in the population.

Table 44 Care dependency ratio, 2000 and 2007

	Unweighted		Weighted	
	2000	2007	2000	2007
Carees				
Children 0-6	7237197	7191337	7237197	7191337
Children 7-12	5850425	6041983	2925213	3020992
Adults 75-84	569892	663541	284946	331770
Adults 85+	117906	171549	117906	171549
			10565261	10715648
Carers				
Adults 15-74	29123384	32210621	29123384	32210621
Ratio			0.36	0.33

Macro measures

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

Calculating the value of unpaid work

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

As described in more detail in Budlender & Brathaug (2002), there are four basic standard approaches to such valuation, namely:

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

The first two have as an underlying question how much the person doing the unpaid care work would have earned in the market if they had done paid work rather than unpaid care work. The first approach uses the average earnings for all people (or all people of a particular sex) in the economy, while the second approach uses the actual earnings of that person. Because of the underlying question (what would the person earn in the labour market?) and because average female earnings are usually markedly lower than male ones even where they have equal educational qualifications, the first approach is usually sex-disaggregated. This again tends to result in a lower estimate because the larger number of hours worked by women is multiplied by a lower value, lowering the overall estimate.

The second two approaches have as an underlying question how much a household would need to pay someone else to do the unpaid care work. The generalist approach uses the average wage paid to a worker, such as a domestic worker, who would do 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 do various tasks associated with child care, a nurse to care for ill people, etc.

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

A further choice which results in lower estimates is that we have chosen to use median earnings rather than mean earnings for the averages. There are two reasons for this, one theoretical and one practical. Theoretically, the median is chosen because earnings tend to be skewed towards the lower end. The mean thus tends to over-state the true ‘middle’. Practically, using the median avoids the problem of how to deal with outliers, at least some of which probably represent incorrect capture of data. (The calculations in Budlender & Brauthaug (2002) use the mean rather than the median, resulting in marked differences from the results obtained here.)

To get the estimates of earnings, we use the labour force survey (LFS) of September 2000. This household survey covered approximately 30,000 households around the country and contains (labour-related) earnings data for both employees and other employed people. The estimates are in respect of employed people aged 15 years and above. The difference in age group covered from the time use survey should not affect the results given the small number of income-earning children aged 10-14 years. As in other countries, reported earnings are often substantially lower than actual earnings. It has been estimated, for example, that the earned incomes reported in the 2004 LFS would need to be adjusted upward by somewhere between 75% and 100% to reach the national income figures less grants and investment income (Meth, 2006: 25; 32-3). This is not all that unusual internationally, in that Deaton (2003: 8) notes that, on average, survey data tend to provide an estimate that is less than 60% of GDP. Adjustments to adjust for this are not made in this paper because of the difficulty of knowing the correct adjustment given that national income figures might over-state real income. In addition, even if one knew the size of the necessary overall adjustment, there is no way of knowing how much a particular individual's income was under-reported. We therefore have to accept figures that tend to result in a serious under-estimate of the true value.

When using the average wage approach, we include all employed people, whether employees, self-employed or own-account. (This, again, is a deviation from the approach used in Budlender & Brathaug, where only wage/salary earners were used for all calculations. The result is a somewhat lower estimate as earnings of non-employees are, on average, lower than those of employees.) We exclude only those for whom zero earnings or no earnings are recorded.

When using the generalist approach, we include two options. For the first option, we use weighted (by the number in an occupation) wages/salaries for a range of different occupations that do work similar to that done in the home. We exclude teachers, despite some care work resembling teaching, because the large number of teachers would skew the weighted average upwards more than the amount of teaching done in most homes would warrant. For the second option, we use wages/salaries recorded for all domestic workers (occupational code 9131).

The codes included for the first option are as follows:

- 5121: Housekeeper & related
- 5122: Cooks
- 5123: Waitrons
- 5131: Personal care of children & babies
- 5132: Institution-based personal care workers
- 5133: Home-based personal care workers
- 5139: Personal care workers not elsewhere classified
- 9131: Domestic helpers & cleaners
- 9132: Helpers & cleaners in establishments
- 9133: Hand-launderers & pressers

The earnings questions in the LFS ask for gross earnings, the period over which these earnings are calculated, and the usual numbers of hours worked per week. We combine the responses to these questions to get an hourly figure for each person. (Examination of the LFS data suggests that there is a tendency to over-estimate hours worked. Unfortunately, there is no obvious way to correct for this error, and the value estimates will thus again tend to be lower than they should be.)

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

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

In estimating the hours, we use the full-minute approach, as this represents the time actually spent on these activities. Table 45 shows the resultant mean minutes per day and hours per year for the male, female and total population aged 10 years and above.

Table 45 Mean time spent on unpaid care work and person care by sex

Sex	Unpaid care work		Person care	
	Minutes per day	Hours per year	Minutes per day	Hours per year
Male	96.3	586	4.4	27
Female	257.9	1569	39.8	242
Total	182.2	1109	23.2	141

Following Budlender & Brathaug (2002), we take the following steps to arrive at the value of unpaid care work:

- We calculate the number of hours spent by individuals in a year, by multiplying the daily number of minutes by 365 days and dividing by 60 to convert to hours.
- We multiply the amounts for individuals by the population aged 10 years and above. (This again results in under-estimation as any unpaid care work done by younger children is not included.)
- We calculate the appropriate earnings for a particular method.
- We multiply the number of hours by the earnings.
- We calculate the resultant value of unpaid care work as a percentage of South Africa's GDP of R887 797 million for the year 2000.

Comparing the value of unpaid care work with gross domestic product

Table 46 summarises the results represented as a percentage of total GDP. (The detailed workings are shown in an appendix.) For unpaid care work, the percentage ranges from 30.4% when using the median wage for all employees, to 10.9% when using the median wage of domestic workers. This large difference reflects the very low wages paid to domestic workers, exacerbated by the fact that there was no minimum wage for domestic workers in 2000. For the narrower measure of person care, the value is equivalent to between 1.4% and 3.7% of GDP. For both measures, the disaggregated approaches show that the female contribution is far larger than that of males, even though each hour of female work is given a lower value than an equivalent hour of male work.

Table 46 Unpaid care work and person care as percentage of GDP: Different approaches

	UCW			Person care		
	Male	Female	Total	Male	Female	Total
Median earnings all earners	8.8%	19.2%	28.1%	0.4%	3.0%	3.4%
Median wage all employees	8.8%	21.6%	30.4%	0.4%	3.3%	3.7%
Median generalist wage			14.7%			1.9%
Median domestic worker wage			10.9%			1.4%

In absolute terms, Table 47 reveals that the value of unpaid care work is estimated at between R96.72bn and R269.75bn, while the value of person care lies somewhere between R12.32bn and R33.15bn. The following sections compare these values with various other measures of the South African economy of 2000.

Table 47 Total value of unpaid care work and person care per year (Rbn): Different approaches

	UCW			Person		
	Male	Female	Total	Male	Female	Total
All earners	78.54	170.60	249.14	3.59	26.30	29.89
All employees	77.83	191.92	269.75	3.56	29.59	33.15
Generalist			130.20			16.58
Domestic worker			96.72			12.32

As noted above, the median earnings approach uses sex-disaggregated estimates of earnings. If the overall median was used rather than separate medians for males and females, this approach would result in unpaid care work being valued at R279.00bn, or 31.4% of GDP.

Comparing the value of paid and unpaid work

For the comparison with the value of paid work, we use two different sources. Firstly, we use the same LFS that we have used for valuation of unpaid care work. Secondly, we use the quarterly surveys for formal sector enterprises that Statistics South Africa conducted during that period.

The advantage of the LFS source is that we can disaggregate by sex. A disadvantage is that we must confront the problem of both outliers and missing data in aggregating earnings of all earners. To deal with outliers, we exclude all those with recorded earnings of more than R1,000 per hour. This results in exclusion of 1,8% of those with earnings recorded. We do not make any adjustments for missing data because the number of earners with no earnings recorded is relatively small, and the under-count for paid work is – as seen above – matched by a range of different under-counts in calculating the value of unpaid care work. We arrive at a total of R507,004m earnings across the economy, of which R323,440 accrues to male earners and R183,560 to female earners. Table 48 shows unpaid care work being equivalent to somewhere between 19% and 53% of the value of paid work, depending on the approach used for valuation. For person care, the respective minimum and maximum percentages are 2% to 7%. For men, unpaid care work is equivalent to less than a quarter of the value of paid work, while for women the value of unpaid care work is much the same as that of paid work despite the lower earnings used in the valuation.

Table 48 Unpaid care work compared to earnings for all paid work in economy

	UCW			Person care		
	Male	Female	Total	Male	Female	Total
All earners	24%	93%	49%	1%	14%	6%
All employees	24%	105%	53%	1%	16%	7%
Generalist			26%			3%
Domestic worker			19%			2%

The advantage of the survey of employment and earnings (Statistics South Africa, 2001) is that one does not have to do any calculations as the totals are published. A disadvantage is that this survey, unlike the LFS, did not attempt to cover the informal sector. In addition, the survey was by 2001 referred to as being “in selected industries” in acknowledgement of the fact that coverage was imperfect even in respect of the targeted formal sector. This was due, among others, to an out-of-date business register and non-coverage of more recently emerged sectors.

For the comparison we use the estimate for gross salaries and wages including severance, termination and redundancy payments. For the four quarters of 2000 combined, the amount was R296,752.5m for a quarterly average of 4.7m full-time and part-time employees covered. The fact that it is lower than the LFS estimate is explained by, among others, exclusion of the informal sector and exclusion of those who are not employees. The survey report also provides estimates for particular sectors. The community, social and personal services sector is equivalent to all of government plus laundry and dry-cleaning. For this sector, total earnings for four sectors combined was R111,316.7m in respect of 1,473,403 employees. This is equivalent to R10,45bn for the year.

Table 49 suggests that unpaid care work is equivalent in value to between a third and 91% of formal sector employee earnings, while person care is equivalent to between 4% and 11%. For community and related services, the value of unpaid care work exceeds that of earnings except when using the domestic worker valuation.

Table 49 Unpaid care work compared to formal sector earnings

	All sectors		Community services etc	
	UCW	Person care	UCW	Person care
All earners	84%	10%	224%	27%
All employees	91%	11%	242%	30%
Generalist	44%	6%	117%	15%
Domestic worker	33%	4%	87%	11%

Comparing the value of unpaid care work with tax revenue

Ingrid Palmer (quoted in Bakker, 1994) has likened unpaid care work to a tax that people (mainly women) pay before coming to the labour market. In this sub-section we therefore compare the value of unpaid care work with two tax measures for the 2000/01 financial year. The first measure is that for personal and individual tax, in the amount of R86,478.0m. The second is total gross tax, in the amount of R220,334.2m (National Treasury, 2003a: 198). Of this amount, R86,478 was sourced from personal direct income tax.

Table 50 suggests that the value of unpaid care work clearly exceeds that of personal tax, whatever approach to valuation is adopted. For two approaches, the value of unpaid care work even exceeds total tax. Person care alone accounts for more than a third of the value of personal tax using two measures.

Table 50 Unpaid care work compared to taxation

	Personal tax		Total tax	
	UCW	Person care	UCW	Person care
All earners	288%	35%	113%	14%
All employees	312%	38%	122%	15%
Generalist	151%	19%	59%	8%
Domestic worker	112%	14%	44%	6%

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

In South Africa, social services such as education, health and social welfare are primarily delivered by the provincial sphere of government. For this comparison we therefore aggregate the consolidated expenditure on the national and provincial departments of education (R39,308m), health (R16,408m) and social development (R921m) (National Treasury, 2003b: 57; 78; 97) to arrive at a total estimate of social services expenditure of R56,637m for the 2000/01 financial year. (Social development is similar to the sector described as (social) welfare in many other countries.) This value is an over-estimate to the extent that it includes administrative and managerial staff. It is an under-estimate to the extent that it excludes the salaries of services that are contracted out or subsidised, including grant delivery and a range of social welfare services performed by non-governmental organisations.

In addition, while the comparison is for personnel alone, we note that this item accounts for very different percentages of total expenditure across the three departments. Thus in 2000/01, personnel expenditure accounted for 90.9% of total expenditure on education, for 64.2% of total expenditure on health, and for 12.8% in respect of social development. The very low percentage in the last-named is explained by the fact that in 2000 the social assistance grant amounts were still included in this budget.

Table 51 suggests that the value of unpaid care work could be more than four times that of government's social services. Even on the modest measure based on domestic worker wages, the value is nearly double that of the social services spending on personnel. Person care accounts for more than half of the value of government social services using two valuation approaches, and close on a quarter of the value using the most modest measure.

Table 51 Unpaid care work compared to government social services

	UCW	Person care
All earners	440%	53%
All employees	476%	59%
Generalist	230%	29%
Domestic worker	171%	22%

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

For the final comparison, we compare the value of unpaid care work with remuneration of paid workers in care-related occupations as recorded in the LFS. The occupations used for this calculation are listed in Appendix 4. The choice of occupations is to some extent subjective as many occupations include both care and non-care work. We therefore make judgements about the weight of the care work. For example, we include primary and pre-primary education teaching professionals but exclude secondary and tertiary teachers on the basis that the latter’s work will not involve much care.

As for the earlier calculations, we exclude any worker for whom earnings of more than R1,000 per hour are recorded or for whom no earnings are recorded. The calculations yield total earnings of R83,928m, of which R24,128m accrues to male earners and R59,800m to female earners.

The most “generous” measure suggests that unpaid care work is equivalent to more than three times the earnings of care workers in the paid economy. The most modest measure also shows unpaid care work having a higher value than these earnings. As before, the extent to which unpaid care work exceeds paid care work is greater for females than for males. The gender gap is smaller than for the earlier comparisons because of the preponderance of women in paid care work. In respect of the narrower person care, the value is close on 40% of paid care work with the most generous measure, and 15% for the most modest.

Table 52 Unpaid care work compared to paid care work

	UCW			Person care		
	Male	Female	Total	Male	Female	Total
All earners	326%	285%	297%	15%	44%	36%
All employees	323%	321%	321%	15%	49%	39%
Generalist			155%			20%
Domestic worker			115%			15%

In conclusion

As so often when analysing care work, there are no big surprises in the overall patterns described above. In particular, the Tobit estimation confirms the expected factors are influencing the amount of care work that women and men, girls and boys do in South Africa. What might be surprising, however, is that marriage is not a significant determinant of the amount of unpaid care work or person care done. Having one’s young child living in the same household is, in contrast, a very strong determinant.

The macro comparisons in the latter part of the paper confirm, by using a range of comparisons, that the amount of unpaid care work and person care done in the economy is huge. Policy making that ignores something of this size and significance cannot but fail to produce optimal societal outcomes.

Numbers cannot, however, tell us the full story. There might, for example, be factors – such as biases in reporting of person care – that influence some of the patterns. The time use data also cannot tell us much about activities that are done by a relatively small proportion of the population, and or done for relatively short times. The data thus tell us much less about care of elderly and sick adults than they tell us about care of children. These gaps are especially important in a society in the middle of a severe HIV&AIDS pandemic.

This chapter has, nevertheless, provided the overall picture of unpaid care work and care of persons in the country as at 2000. The picture focuses primarily on work done by people in their own homes, and caring for other household members. The chapters that follow will use other sources and methods to elaborate on, and try to explain, the quantitative findings above. They will also add to the picture of what people do in their own homes and communities by exploring the care that is produced through the other points of the diamonds, and how this interacts with, and influences, the amount and nature of the household care.

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Appendix 1: Broad categories of activity classification system

SNA work

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

Extended SNA work

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

Non-productive activities

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

Appendix 2: Detailed listing of activity codes

1. Employment for establishments

Time used for:

- 111 Wage and salary employment other than domestic work*
- 112 Outworkers/home-based work for an establishment*
- 113 Domestic and personal services produced by domestic work*
- 114 Unpaid employment in establishment*
- 115 Work as employer/self-employed for an establishment*
- 130 Working in apprenticeship, internship and related positions*
- 140 Short breaks and interruptions from work*
- 150 Seeking employment and related activities*
- 180 Travel to/from work and seeking employment in establishments*
- 190 Employment in establishments not elsewhere classified*

2. Primary production activities not for establishments

Time used for:

- 210 Crop farming and market/kitchen gardening: planting, weeding, harvesting, picking, etc.*
- 220 Tending animals and fish farming*
- 230 Hunting, fishing, gathering of wild products and forestry*
- 236 Collecting fuel, firewood or dung*
- 240 Digging, stone cutting, splitting and carving*
- 250 Collecting water*
- 260 Purchase of goods for and sale of outputs arising from these activities*
- 280 Travel related to primary production activities (not for establishments)*
- 290 Primary production activities (not for establishments) not elsewhere classified*

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

Time used for:

310 *Food processing and preservation activities: grain processing, butchering, preserving, curing*

320 *Preparing and selling food and beverage preparation, baking, confectionery and related activities*

330 *Making and selling textile, leather and related craft: weaving, knitting, sewing, shoemaking, tanning, products of wood*

340 *Building and extensions of dwelling: laying bricks, plastering, thatch, roofing, maintaining and repairing buildings; cutting glass, plumbing, painting, carpentering, electric wiring*

350 *Petty trading, street/door-to-door vending, shoe-cleaning and other services performed in non-fixed or mobile locations*

360 *Fitting, installing, tool setting, maintaining and repairing tools and machinery*

370 *Provision of services for income such as computer services, transport, hairdressing, cosmetic treatment, baby-sitting, massages, prostitution*

380 *Travel related to services for income and other production of goods (not for establishments)*

390 *Services for income and other production of goods (not for establishments) not elsewhere classified*

4. Household maintenance, management and shopping for own household

Time used for:

410 *Cooking, making drinks, setting and serving tables, washing up*

420 *Cleaning and upkeep of dwelling and surroundings*

430 *Care of textiles: sorting, mending, washing, ironing and ordering clothes and linen*

440 *Shopping for personal and household goods*

441 *Accessing government service, such as collecting pension, going to post office*

448 *Waiting to access government service*

450 *Household management: planning, supervising, paying bills, etc.*

460 *Do-it-yourself home improvements and maintenance, installation, servicing and repair of personal and household goods*

470 *Pet care*

480 *Travel related to household maintenance, management and shopping*

490 *Household maintenance, management and shopping not elsewhere classified*

491 *Chopping wood, lighting fire and heating water not for immediate cooking purposes*

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

Time used for:

511 *Physical care of children: washing, dressing, feeding – mentioned spontaneously*

512 *Physical care of children: washing, dressing, feeding – not mentioned spontaneously*

521 *Teaching, training and instruction of household's children – mentioned spontaneously*

522 *Teaching, training and instruction of household's children – not mentioned spontaneously*

531 *Accompanying children to places: school, sports, lessons, etc. – mentioned spontaneously*

532 *Accompanying children to places: school, sports, lessons, etc. – not mentioned spontaneously*

540 *Physical care of the sick, disabled, elderly household members: washing, dressing, feeding, helping*

550 *Accompanying adults to receive personal care services: such as hairdresser's, therapy sessions, etc.*

561 *Supervising children and adults needing care – mentioned spontaneously*

562 *Supervising children and adults needing care – not mentioned spontaneously*

580 *Travel related to care of children, the sick, elderly and disabled in the household*

590 *Care of children, the sick, elderly and disabled in the household not elsewhere classified*

6. Community services and help to other households

Time used for:

610 *Community organised construction and repairs: buildings, roads, dams, wells, etc.*

615 *Cleaning of classrooms*

620 *Community organised work: cooking for collective celebrations, etc.*

630 *Volunteering with or for an organisation*

650 *Participation in meetings of local and informal groups/caste, tribes, professional associations, union, political and similar organisations*

660 *Involvement in civic and related responsibilities: voting, rallies, etc.*

671 *Caring for non-household children – mentioned spontaneously*

672 *Caring for non-household children – not mentioned spontaneously*

673 *Caring for non-household adults*

674 *Other informal help to other households*

680 *Travel related to community services*

690 *Community services not elsewhere classified*

7. Learning

Time used for:

710 School, technikon, college or university attendance

720 Homework, studies and course review

730 Additional study, non-formal education and courses during free time

740 Work-related training

780 Travel related to learning

790 Learning not elsewhere classified

8. Social and Cultural Activities

Time used for:

810 Participating in cultural activities, weddings, funerals, births, and other celebrations

820 Participating in religious activities: religious services, practices, rehearsals, etc.

831 Socialising with family

832 Socialising with non-family

833 Socialising with both family and non-family

840 Arts, making music, hobbies and related courses

850 Indoor and outdoor sports participation and related courses

860 Games and other pastime activities

870 Spectator to sports, exhibitions/museums, cinema/theatre/concerts and other performances and events

880 Travel related to social, cultural and recreational activities

890 Social, cultural and recreational activities not elsewhere classified

9. Mass media use

Time used for:

910 Reading

920 Watching television and video

930 Listening to music/radio

940 Accessing information by computer

950 Visiting library

980 Travel related to mass media use and entertainment

990 Mass media use and entertainment not elsewhere classified

0. Personal care and self-maintenance

Time used for:

- 010 Sleep and related activities*
- 020 Eating and drinking*
- 030 Personal hygiene and health*
- 041 Receiving medical and personal care from professionals (including traditional healer)*
- 042 Receiving medical and personal care from household members*
- 043 Receiving medical and personal care from non-household non-professionals*
- 048 Waiting for medical and personal care*
- 050 Doing nothing, rest and relaxation*
- 060 Individual religious practices and meditation*
- 080 Travel related to personal care and self-maintenance*
- 090 Personal care and self-maintenance not elsewhere classified*

Appendix 3: Details of valuation calculations

Table 53 Median earnings of all earners

	UCW			Person care		
	Male	Female	Total	Male	Female	Total
Minutes per day	96.3	257.9	182.2	4.4	39.8	23.2
Hours per year	585.7	1568.7	1108.5	26.8	241.8	141.2
Population 10+	15885322	17672377	33557699	15885322	17672377	33557699
Total hours per year	9303772576	27722282138	37200166522	425499112	4273707478	4737296017
Earnings per hour	8.44	6.15	7.50	8.44	6.15	7.50
Total earnings p.a. (Rm)	78538.16	170598.66	249136.81	3591.87	26299.74	29891.61
% of GDP	8.8%	19.2%	28.1%	0.4%	3.0%	3.4%

Table 54 Median wage of all employees

	UCW			Person care		
	Male	Female	Total	Male	Female	Total
Minutes per day	96.3	257.9	182.2	4.4	39.8	23.2
Hours per year	585.7	1568.7	1108.5	26.8	241.8	141.2
Population 10+	15885322	17672377	33557699	15885322	17672377	33557699
Total hours per year	9303772576	27722282138	37200166522	425499112	4273707478	4737296017
Earnings per hour	8.37	6.92	7.75	8.37	6.92	7.75
Total earnings p.a. (Rm)	77829.64	191923.49	269753.13	3559.46	29587.21	33146.67
% of GDP	8.8%	21.6%	30.4%	0.4%	3.3%	3.7%

Table 55 Median generalist wage

	UCW	Person care
Minutes per day	182.2	23.2
Hours per year	1108.5	141.2
Population 10+	33557699	33557699
Total hours per year	37200166522	4737296017
Earnings per hour	3.50	3.50
Total earnings per year (Rm)	130200.58	16580.54
% of GDP	14.7%	1.9%

Table 56 Median domestic worker wage

	UCW	Person care
Minutes per day	182.2	23.2
Hours per year	1108.5	141.2
Population 10+	33557699	33557699
Total hours per year	37200166522	4737296017
Earnings per hour	2.60	2.60
Total earnings per year (Rm)	96720.43	12316.97
% of GDP	10.9%	1.4%

Appendix 4: Occupation codes used for estimates of paid care work

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

222	HEALTH PROFESSIONALS (EXCEPT NURSING)
223	NURSING AND MIDWIFERY PROFESSIONALS
233	PRIMARY AND PRE-PRIMARY EDUCATION TEACHING PROFESSIONALS
234	SPECIAL EDUCATION TEACHING PROFESSIONALS
2445	Psychologists
2446	Social work professionals
3221	Medical assistants
3223	Dieticians and nutritionists
3226	Physiotherapists and related associate professionals
323	NURSING AND MIDWIFERY ASSOCIATE PROFESSIONALS
324	TRADITIONAL MEDICINE PRACTITIONERS AND FAITH HEALERS
331	PRIMARY EDUCATION TEACHING ASSOCIATE PROFESSIONALS
332	PRE-PRIMARY EDUCATION TEACHING ASSOCIATE PROFESSIONALS
333	SPECIAL EDUCATION TEACHING ASSOCIATE PROFESSIONALS
346	SOCIAL WORK ASSOCIATE PROFESSIONALS
512	HOUSEKEEPING AND RESTAURANT SERVICES WORKERS
5131	Personal care of children and babies
5132	Institution-based personal care workers
5133	Home-based personal care workers
5139	Personal care and related workers not elsewhere classified
514	OTHER PERSONAL SERVICES WORKERS
913	DOMESTIC AND RELATED HELPERS, CLEANERS AND LAUNDERERS
915	MESSENGERS, PORTERS, DOORKEEPERS AND RELATED WORKERS
916	GARBAGE COLLECTORS AND RELATED LABOURERS