

The Value and Costs of Informal care

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Abstract

This paper draws on time use and other social surveys to assess the value of time spent providing informal care to the frail elderly and to evaluate the costs to society that reliance on informal care can incur. Using conservative estimates of the value of carers' time, and of the output that carers might contribute if they were engaged in "market" work, it suggests these values to be considerable. With respect to the output informal carers produce, this might be as high as the value recorded for formal care provision, and with respect to output lost by non-participation in formal employment, this is also a non-negligible amount. The paper argues for more sophisticated data to be collected, but also suggests that current public policies, which place increasing emphasis on care that is provided informally, need to be re-assessed.

Keywords

Long-term care, Health care expenditure, Economics, Informal carers, Time use

The Value and Costs of Informal Care

Although informal care services are not reflected in the national health accounts, never trigger a payment from an insurer, do not inflate the federal deficit, and are rarely included in any calculation of the overall cost of long term care, they nonetheless represent a genuine opportunity cost burden.

Grabowski, Norton, and Van Houtven, forthcoming

1. Introduction

Ageing societies, together with pressures to restrain the growth of public expenditure, have led to policymakers stressing the importance of the family, friends and neighbours as having an important part to play in the care of the frail elderly. This paper reviews the available material on time spent caring for older people. On this basis, it seeks to place a value on the input provided by informal caregivers. It also tries to assess costs to the economy of reliance on informal care – costs that should be set against the savings made from the absence of public provision.

The rest of this paper is arranged in four parts. Part two reviews available evidence on time spent caring. It assesses problems of measurement and the value and shortcomings of a variety of data sources. Part three considers the impact of care-giving on caregivers. It refers to the various stresses imposed on them by their care activities and pays particular attention to the extent that caring impacts upon participation in paid employment. Part four tries to

estimate the economic value of informal care and the costs that having to devote time to care imposes on the economy. It places a value on caregivers' time and uses this to illustrate the value of their household production and, where relevant, the value of formal production lost. The final part draws brief conclusions.

2. Measuring time spent on caring

Time-use surveys (TUSs) might seem an obvious place to start such an investigation. However, whilst these provide an extensive breakdown of respondents' activities, TUSs do not normally identify the beneficiary of these activities. An exception to this is with respect to childcare activities – most TUSs collect extensive information about these, and TUSs have often been used as the basis for analysing the gender division of caring. By contrast, few TUSs identify care of adults, and if they do, are much less clear about what is actually being done.¹ The consequence is that tasks such as “doing the cleaning or shopping for an elderly parent” might well be categorised merely as “cleaning” or “shopping”. Moreover, few TUSs have sought to identify “secondary” as well as “primary” activities. For example, a carer might be keeping a person company, or even keeping an eye upon that person, but might, simultaneously, be doing something else, from watching television to having a meal. The recorded activity will be the latter rather than the caring activity. In some cases, TUSs might fail to recognise care activities at all. In particular, (elderly) people caring for their spouses might see themselves as performing an accepted part of married life rather than performing “care”, even if their adult children who help them might record themselves as “carers”.²

Specialist surveys of informal carers might overcome these deficiencies by being more directed in their questioning. However, they too fail to overcome the problem of measuring time correctly. Those caring for people who need constant attention might suggest that they spend all their time caring. What is often only a “secondary” activity becomes a “primary” activity. This is a reverse of the problem encountered with TUSs.

Examples of time spent caring for adults are given in the following table

< Table 1: Hours spent on caring per week by carers >

¹ Until its latest release, the Multi-national Time Use Survey – which provides access to national studies on a standardised basis – aggregated care of other adults with “pet care” as a single activity.

² A detailed examination of a TUS that looked both at what people identified themselves to be and at what they did – that of Australia 1997 – concluded that only one in three of those who could, on the basis of their activities, be categorised as carers actually identified themselves as such (Bittman, Fisher, Hill and Thomson, 2006).

However, the numbers in the table conceal as much as they reveal. The Canadian data might well understate the amount of care, since the proportion of people reporting caring for a spouse/partner is low – only one in 20 (Frederick and Fast, 1999). In Germany, the relevant proportion is much higher – one in three (Infratest, 2003). In the UK, where the reference is to carers as a whole, and not merely of carers of older people, it is one in five (Royal Commission, 1999).

Where Canadian carers are giving care to a spouse, the average time spent caring rises to 16 hours per week from the average of rather over four reported in the table. The British data show substantial differences in time spent on caring by those who are looking after someone in their own home – usually a spouse – and those who are looking after someone outside – a parent, relation or friend. Those looking after someone with whom they are sharing a home claim to spend, on average, nearly 51 hours per week caring; those looking after someone living elsewhere, fewer than nine hours. Of frail and disabled Germans living at home, half claim that their principal carer is available round the clock, even if they claim that the time this person spends on care activities is much lower. The data for Japan cover caring activities specifically and do not appear to count any “on call” time, sleeping, or “merely” keeping company. The data from the USA is less specific, but the survey did allow respondents to state that they provided “constant care”.

The very high average number of hours reported by people caring for someone within their own home is, in part, a consequence of particularly such carers claiming to give care on a continuous basis – i.e., for 168 hours per week. Some indication of this can be seen in the diagram below.

< Figure 1: Distribution of time spent caring - all hours (Great Britain) >

However, even where time spent “on call but sleeping” is excluded, a similar distribution is apparent. This can be seen in the results from a second survey.

< Figure 2: Distribution of time spent caring - excluding time spent on call but sleeping (Great Britain) >

3. The impact of caring on carers

There is no doubt that caring for adults is as much a source of strain upon people as caring for children is. Once responsibilities for childcare have disappeared, many women –

and women are the principal carers of the disabled and frail adults as much as of children – have but a short break before they become carers of their frail parents or other close relations. After that, many become carers of their frail husbands.³ One study of carers in Germany found over half of all principal carers claiming that caring imposed a “large” or a “considerable” burden upon them, with those caring for the more frail finding the burden greater.

< Table 2: Pressure as seen by principal carer (Germany) >

Caring clearly impedes the activities that can otherwise be undertaken. What these are is not always easy to cite with clarity. A Canadian study shows that social activities, recuperation time and sleep all suffer. Carers who are still of working age are more likely to feel an impact on their social activities; those who are above retirement age, an impact on their sleep. Women carers, not surprisingly, are more likely to suffer an impact than are male carers.

< Table 3: Impact of caring on non-work time (Canada) >

Similar results are available for Japan where some comparison of time spent on particular activities can be obtained. Again, it seems as if sleep suffers, as does relaxing and participation in conventional leisure activities. Carers spend less time in paid work, but they do spend more time doing shopping, although little or no more time doing other house work.

< Table 4: Differences in time spent on selected activities between carers and non-carers – hrs per week (Japan) >

For those who were working before the need for being a carer commenced, caring can result in their reducing their participation in paid work, or at least reducing the intensity of their working – by taking lighter work or working fewer hours. A Canadian study of people caring for older people suggested that of those aged 45-64, one in seven had reduced the hours they worked, and in about one in 10 of these cases they had reduced them to zero hours – i.e., they had quit (StatsCan, 2002). However, it is not clear how many were working in the

³ This has led to the discovery of “the sandwich generation”. The term is sometimes used to describe those (women) who are caring for both children and aged parents, and it is sometimes used to describe those who perform task sequentially. See Grundy and Henretta, 2006.

first place. More instructive, although on a smaller scale, is a study of German caregivers. This compares people's labour market situation "before starting to care" and "after starting to care".

< Table 5: Effect of caring on work (Germany) >

From the table, it can be seen that the number of carers not working at all increases, whilst, amongst those who do work, fewer work full-time and more work part-time. Similar results are apparent in the USA, where carers could be divided into those who were "intense carers" and those who were less intense ones, whereby the categorisation reflected both the needs of the person cared for and the amount of time spent with them.

< Table 6: Effect of caring on work (USA) >

These findings are consistent with those of other studies. In particular, most conclude that "heavy caring" – defined as caring in excess of 20 hours per week – is largely incompatible with employment (Royal Commission, 1999; see also Carmichael and Charles, 2003; Leontaridi and Bell, 2001; NAC/AARP, 2004; Carmichael, Charles and Hulme, 2010).

4. Assessing the social value of informal caring

Although people might place their own value upon what their time is worth, such judgements are, by definition, subjective and might lead either to understatement or to overstatement. Moreover, collecting such data is fraught with difficulty. One approach is to take the cost of equivalent services as purchasable on the market. Given that there is a range of services that informal carers perform – from help with going to the lavatory through to dealing with household accounts – the costs of a potentially wide range of services need to be accounted for. Some analysts have had sufficient data to be able to attempt this approach (Fast and Frederick, 1999). Others have adopted summary values – for example, the cost for a service provider of employing a homecare worker (Carers UK, 2007), or the much lower – because it includes none of the employers' on-costs or payments for unsocial hours – basic wage of a care worker (AIHW, 2003; Leontaridi and Bell, 2001). Some have distinguished between care provided by people of working age and those who are of retirement age. The cost of the former has been taken as the cost of using a home help aid paid for by a social service provider, the cost of the latter as the minimum wage (Karlsson, Mayhew, Plumb, and

Rickaysen, 2006). In this case, the costs of time provided by a person of working age are assumed to be 2.5 times as high as the costs of time provided by a person of retirement age.

The attempt at valuing informal care made in this paper prices carers' time as if they were paid as "home-helps" paid for by social service authorities. The pay for "home-helps" is rather low – often close to or at the minimum of any organised pay scale or close to or at any minimum wage. There are many who might argue that home-help workers are grossly underpaid, and that remuneration fails to take account of the complexity or the unpleasantness of some of the work undertaken. On the other hand, and as already shown, a simple costing of the hours that informal carers identify as having spent caring might also lead to overstatement.

Of course, the objection can be made that valuations on this assume that the tasks undertaken by informal carers are not always performed in the most productive fashion. If they were to be carried out by a formal care worker, subject to external guidelines about what was to be done and how, the same tasks might be performed more quickly. Equally, if the people being cared for were required to pay for the services they received, they might insist upon them being done more quickly. The same would apply if carers sought to find substitutes for their services in the market. On the other hand, the care actually provided in this fashion might be deemed inferior in quality. Physical tasks might be performed, but the cared-for person might receive much less company or emotional support – something that they, and the informal carers, might value. In this respect, it is to be remembered that reliance on voluntary production rather than market production can enhance both the quantity and the quality of a social good (for example, Titmus, 1970, on blood for transfusion services, and, more generally, Frey and Jagen, 2001). Nevertheless, some judgement has to be made about how reported hours should be adjusted downwards.

Estimates have been possible for five countries: Australia, Canada, Germany, Great Britain and the USA. The results are presented in Table 7. The results for Australia draw from the most sophisticated attempt to measure time spent caring, and this might explain why they indicate a substantial contribution by informal carers. By contrast, the relatively low value calculable for Canada reflects the fact that the survey on which it is based probably does not pick up many people who are "merely" caring for their spouse/partner. The rather low value for the UK is primarily attributable to the low wage payable to care staff. The minimum for these is only about 10 per cent above the legal minimum rate. Although the estimate for the USA assumes a minimum wage being paid, it uses a relatively high number

of hours devoted to caring and is biased by the inclusion in the calculation of average hours of the contribution of the hours of those offering “continuous” care.

< Table 7: Estimates of the value of informal care for older people – as percentage of gross domestic product >

The estimates of the value of informal care can be compared with estimates of the costs of formal care as provided by the state or paid for by recipients – either “out of pocket” or via private insurance policies – even if it has to be recognised that the estimates of formal care costs are also less than perfect (see OECD, 2005; Huber and Rodrigues, 2008). The value of informal care might well exceed expenditure on formal care.

It is not only the value of the care provided that needs to be considered. Engaging in care activities can prevent the carer from engaging in paid work. The employer is the first to experience the impact of this. In the USA there have been attempts to assess the “productivity losses” that eldercare, and caring for disabled adults more generally, implies (MetLife/NAC, 2006). Such exercises are, of course, extremely sensitive to the way in which the way in which the disruptions to production are measured and to the way in which such disruptions are then costed.⁴ Under “disruptions” are included those caused by carers quitting work entirely and switching to part-time work. Also included are absences from work as a result of having caring responsibilities and even interruptions during a working day that result from “crises” or the need to leave early or come in late. It might not be only the carers who experience the impact of caring; those supervising the carers, in so far as they help smooth out disruptions, might also become involved.

< Table 8: Estimate of “productivity losses” caused by informal caring (USA, 2004) >

Disruptions to work imply a loss of potential output. So, too, does the decision to quit or reduce hours. In an economy with less than full employment, it might be argued that this has no impact – the individual employees leaving are simply replaced or part-time workers are hired to make up hours lost. On the other hand, it could also be argued that labour supply as a whole is reduced and thus that the productive capacity of the economy is diminished.

The value of production lost by people withdrawing in full or in part from the labour force can be calculated in an equivalent fashion to the calculation of the value of informal

⁴ The MetLife/NAC estimates seem to involve considerable double counting and unexplained overestimates of certain costs. However, they provide the starting point for the author’s own calculations given in Table 8.

care work. The market wage of the carer could be used, but the information that would allow this to be done is seldom obtainable. An alternative to using this wage would be to assume that informal carers would command a relatively low wage were they to enter the labour market. This approach can be justified by reference to the acknowledged fact that there is a two-way relationship between personal characteristics and the choice of whether to care or to work. Work is more often chosen by those who command a high wage (and perhaps use some of this to pay for care services); caring is chosen, by those who command only a low wage. An assumption that the informal carer could not command a wage higher than that of a general carer employed by a service provider – i.e., a low wage – would be a reasonable lower estimate. The value of output would be the value of the cost of such labour to the employer – the wage plus any employer overhead labour costs.

The process of estimating cost could be refined if it were possible to take account of the fact that the decision to care resulted not in carers leaving the labour market or reducing their hours of work but in their taking lower paid jobs than they might otherwise have done. The decision to care might have led to promotion being refused or to a change of jobs. The average part-time job is associated with a lower hourly rate than the average full-time job.

It has proved possible to make estimates only for two countries – Germany and the UK.

< Table 9: Estimate of output loss caused by informal caring (Germany, 2003) >

The total loss of output is, in Germany, rather less than half of one per cent of GDP. In the UK, it is rather over 0.8 per cent of GDP.

< Table 10: Estimate of output loss caused by informal caring (UK, 2001) >

In both cases, account has been taken of the fact that a substantial share of principal care-givers do not work at all. In both cases account is taken of the fact that, whilst care-giving does lead to a substantial reduction in participation in full-time employment, not all whose employment is affected give up work entirely; some simply switch to part-time or occasional work.

5. Conclusions

This paper has sought to review estimates of the incidence and extent of informal caring and to summarise some of the implications of such caring for individuals providing it. Its principal task, however, has been to make an assessment of the potential value of informal caring. In this respect, it has also sought to address one of the issues raised by the Commission on the Measurement of Economic Performance and Social Progress (Commission, 2009) – namely, how “services that households produce for themselves are not recognized in official income and production measures, yet ... constitute an important aspect of economic activity”. This is not a new concern – attempts to value household production have a long history (for example, Reid and Reid, 1934). Attempts to value the input of informal carers are much newer. However, they are becoming increasingly important as policymakers seek to assess ways in which they might respond to a growing population of frail elderly, and they have become yet more important in the current economic crisis as governments seek ways to reduce the expenditures they are making.

This can be seen by reference to the policy debate in the UK. In spring 2010, it was reported how

[t]he row over social care funding escalated ... with ... the [opposition] health spokesman claiming that the government’s proposal for a compulsory tax-funded system would “all but kill informal care”, pushing huge extra costs on to the state. He [condemned] what he has dubbed [the government’s] “death tax” option, in which all but the least well-off would pay about £20,000, either at around retirement age or from their estate, for free social care. ... [He] said 700,000 people in England spent more than 50 hours a week looking after an elderly resident and these families “would have no choice” but to pay the levy. Some, no doubt, would carry on caring, he said, but “there would be a strong incentive to push the burden of care on to the state”. That would not only be “a huge blow for social responsibility”; it would produce escalating costs that even on the lowest estimate would be £8bn and could be £28bn (Timmins, 2010).

Behind this assertion was the assumption that informal and formal care were close substitutes, and that the provision of more of the latter diminished the provision of the former. In fact, there appears to be little evidence for the “crowding out” thesis and, if anything, there is evidence to the contrary – that the availability of formal care services encourages the supply of informal care. Indeed, one of the few studies that has sought to confront this question concluded that “a reduction in welfare spending may create less family solidarity, the reverse of what supporters of a smaller welfare state would predict” (Künemund and Rein, 1999). The Commission, itself does not seem to subscribe to the “crowding out” thesis. Its call for evidence repeatedly emphasises how “the contribution made by families and wider communities should not be overlooked” and how “valuable” this contribution is (Commission, 2010).

Using conservative assumptions, this paper suggests that the input made by informal carers is considerable. In size, its value is comparable to, or exceeds, the value of care provided formally by the state. Time spent caring can reduce labour supply and, thus, can reduce output. Nonetheless, attempts to measure this cost are at a primitive stage. Further research is needed.

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Tables and figures

	Australia 1997	Canada 1996	Germany 2002	Great Britain 1996/7	Japan 2001	USA 1996
av. hours per week	10.2 (median)	4.2 3,0m, 5,0w	21.7	14.0	5.8 all, 3.4m, 7.2w	17.9
measure	median	average	average	average	average	average
respondent	“all adult carer types”, not only self- identified	self- identified carers of elderly people	principal carers of frail and disabled people	people declaring caring activities	“people usually caring”	people caring for person aged 50+
source	Time Use Survey	Survey of carers of elderly people	Survey of people needing care – refers to principal carer	Survey of population with special question on caring for elderly	Time Use Survey	Survey of population with special question on caring for elderly

Sources: Australia, Bittman *et al*, 2006; Canada, Frederick and Fast, 1999; Germany, Infratest, 2003; Great Britain, Leontaridi and Bell, 2001; Japan, Japan TUS (2001); USA, Arno *et al*, 1999.

pressure	cared for person		
	recipient of care benefits*	other	all
a lot	41%	8%	19%
quite a lot	42%	31%	35%
not much	10%	40%	30%
not at all	7%	21%	17%

Source: Infratest, 2003 (Grafik 3.5 and own calculations)

* recipients of benefits are likely to be frailer than non-recipients

status	1997		2002	
	before	after	before	after
not working	55%	67%	57%	64%
working occasionally	7%	9%	8%	10%
working part-time	12%	12%	12%	13%
working full-time	26%	13%	22%	14%

Source: Runde, Giese and Stierle, 2003 (Tabellen 19, 20 and own calculations)

carers who are or were working who ...	all carers	low-intensity carers	high-intensity carers
left job entirely or take (early)	9%	3%	15%

retirement			
reduced hours from full-time to part-time	10%	4%	18%
take leave of absence	17%	11%	24%
go in late, leave early, take time off	57%	44%	73%

Source: own calculations MetLife/NAC, 2006

Table 5: Impact of caring on non-work time (Canada)			
	proportion of carers reporting consequences for		
	social activities	holiday	sleep
all	31%	23%	13%
men	27%	20%	10%
women	34%	25%	17%
45-64	32%	1%	1%
65+	20%	16%	10%

Source: GSS, 2002 (Table 3.1 and own calculations)

Table 6: Differences in time spent on selected activities between carers and non-carers – hrs per week (Japan)				
	sleeping	working	housework	all leisure
all	-1.6	-4.9	6.3	-3.6
women	-1.9	-2.6	5.3	-4.6
men	0.2	-2.7	2.2	-1.3
aged 50-59	-1.3	-6.1	4.7	-3.2
aged 60+	-2.5	-0.8	4.8	-8.9

Source: Japan TUS, 2001; own calculations

Table 7: Estimates of the value of informal care for older people – as percentage of gross domestic product						
	Australia	Canada	Germany	Great Britain	USA	USA
year	2000-01	1996	2002	2002	1997	2005
care of all frail/disabled adults	3.0		2.5	1.3-1.9		2.7
care of older people		0.6-0.7	1.7	0.9-1.5	1,39	
% of population aged 65+ and 80+ (2000)	12/3	12/3	16/4	18/4	12/3	
comments	using costs of general care worker employed in formal sector	range depends on whether cost relates to that of general care worker employed in formal sector or that of specialist service providers	using costs of general care worker, based upon wages and employer's social security contributions, assumes productivity is half of that of a paid employee	range depends on assumed pay rate but based upon public and private sector rates, assumes hours of those caring for person in same home overstated by factor of three	using minimum wage but assuming employer's social security contributions	
source	derived from AIHW, 2003	derived from Fast and Frederick, 1999	author's calculations using data from Infratest, 2003	author's calculations using data from Leontaridi and Bell, 2001	adjustment to Arno <i>et al.</i> , 1999 "low" estimate	calculated from AARP, 2007
data on informal carers' hours from:	Time Use Survey	special General Social Survey	special survey	Family Resources Survey	special survey	special survey
formal care (public and private) as % of GDP for year 2000 (OECD)	1.19	1.23	1.35	1.37	1,29/1.63*	

Source: Australia, AIHW, 2003; Canada, Fast and Frederick, 1999; Germany, UK and USA, see explanations in this table.

* calculated from Long-Term Care Financing Project (2007) for 2005

	intensive carers	all carers
replacements, \$bn		
– replacement of leavers (quitters and retirees)	0.40	0.92
– hiring temporary workers (for longer absences)	0.30	0.74
– hiring to replace hours of switchers to part-time work	0.71	1.04
<i>all replacement of leavers and absentees</i>	<i>1.41</i>	<i>2.69</i>
disruptions, \$bn		
– whole day absences	2.72	4.08
– part day absences	0.64	1.52
– interruptions during working time	2.24	5.04
– “crises in care” (absences of more than one day)	1.28	3.04
– supervisor involvement	0.64	1.44
<i>all disruptions to work</i>	<i>7.52</i>	<i>15.12</i>
<i>all sources of “productivity loss”, \$bn</i>	<i>8.93</i>	<i>17.81</i>
GDP, \$bn	11657	11657
productivity losses as % GDP	0.08%	0.15%

Source: own calculations using data from MetLife/NAC, 2006 and NAC/AARP, 2004.

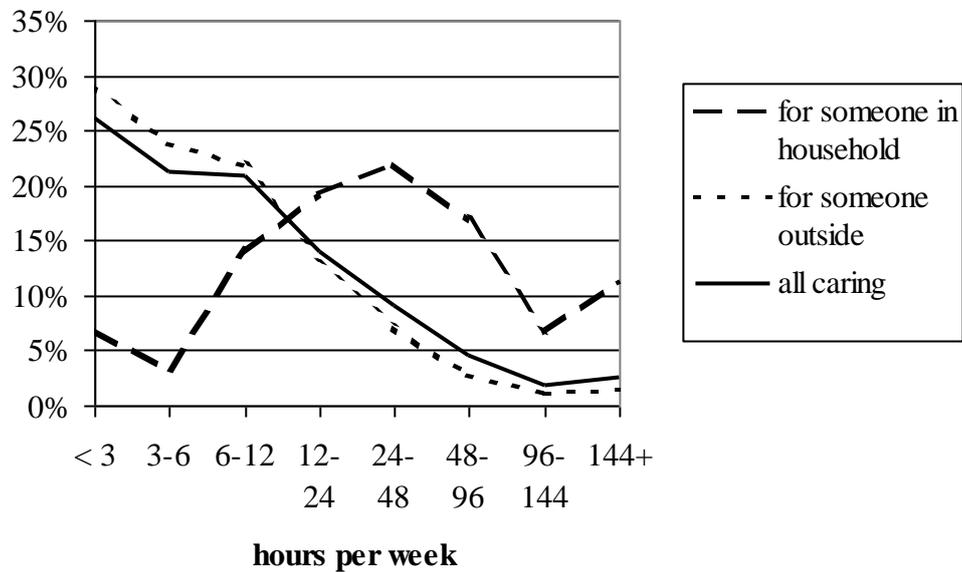
total number of principal carers (mns)	4.4
total value lost, €bn	9.5
<i>of which, more time in occasional jobs</i>	<i>0.2</i>
<i>of which, more time in part-time jobs</i>	<i>0.3</i>
<i>of which, less time in full-time jobs</i>	<i>-9.0</i>
GDP, €bn	2108.2
output loss as % GDP	0.5%

Source: own calculations (based upon Table 3)

	number of working age carers (and assumed weekly hours before caring)	number giving up work	number cutting hours (assumed cut of 50%)	total number of hours lost
men	1.9m (40 hours)	0.25m	0.29m	813m
women	2.8m (25 hours)	0.74m	0.47m	1,267m
total	4.7m	0.99m	0.75m	2,080m
total cost £				8,603m
GDP £bn				1,022bn
output loss as % GDP				0.8%

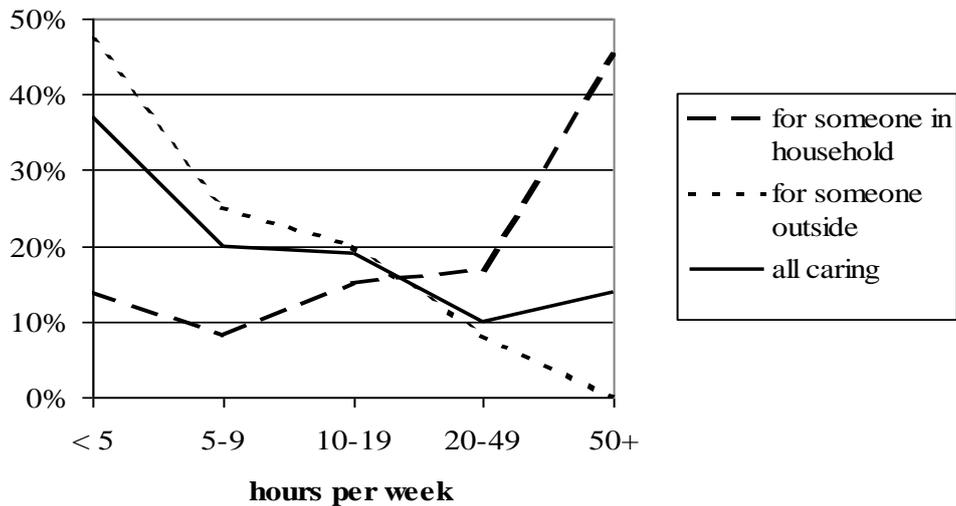
Source: own calculations from Henz, 2004, assuming hours paid at minimum rate and including employers’ national insurance paid.

**Figure 1: Distribution of time spent caring - all hours
(Great Britain)**



Source: own calculations from FRS 1996/97 (Leontardi and Bell, 2001)

**Figure 2: Distribution of time spent caring - excluding
time spent on call but sleeping (Great Britain)**



source: Green, 1988 (figure 4.a)