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The effects of informal care on paid-work participation in Great Britain: a lifecourse perspective

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ABSTRACT
Several recent studies have documented a negative relationship between informal care-giving and labour market attachment in Great Britain. This paper examines the relationship from a longitudinal perspective using data from the Great Britain 1994–95 *Family and Working Lives Survey*. The first part of the paper studies the timing of informal care-giving to a sick, disabled or elderly person. This information is used in the second part to examine the effects of caring on employment. The results show that most carers look after only one dependant during their lives, and only around one-fifth to one-third look after a second dependant before the age of 65 years. Of all informal carers, about one-third had not been employed when they started caring for the first time in their lives, another third said that caring had no effect on their work arrangements, and about one-third reported one or several effects on their work arrangements, most commonly that they stopped working. Multivariate analyses show that semi-routine and routine manual workers report the strongest effects of care-giving. Part-time workers were more likely than full-time workers to reduce their hours of paid employment when they started caring.

KEY WORDS – informal caring, lifecourse, employment.

Introduction

In recent decades, two of the most prominent changes in western societies have been the increase in women's labour-force participation and the rise of life expectancy. These developments have led to concern about the ability of families to provide informal care for an increasing number of frail friends and relatives (Allen and Perkins 1995; Dooghe 1992). Informal carers of a sick, disabled or elderly person are typically spouses and, to a lesser extent, daughters and daughters-in-law (Office for National Statistics 1998). While many – though not all – spouses have left the labour market

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when their partner needs care, many daughters and daughters-in-law are still in the labour market when their parents reach old age, and a rising percentage of middle-aged women are in paid work (Armitage and Scott 1998). As the hours spent working limit the time that a person has for providing care, future generations might face a shortage of informal carers who are available for more than occasional care-giving. In addition, the wellbeing of informal carers might be put at risk if they combine care-giving, employment and other obligations (Neal *et al.* 1993; Scharlach and Boyd 1989; Scharlach, Sobel and Roberts 1991).

These concerns are based on the assumption that care-giving and employment are negatively related, as indeed many studies have found. Few papers have, however, addressed the process that leads to carers' relatively weak attachment to the labour market. The main questions that have motivated the present paper are whether and to what extent informal carers reduce their labour-market attachment during the process of care-giving, and whether informal carers in general had below-average attachment to the labour market when they started to provide care. The first hypothesis is supported insofar as informal carers report that they reduce their working hours (see the review in Scharlach, Lowe and Schneider 1991; and Brody *et al.* 1987) or are very likely to leave their job (Scharlach, Sobel and Roberts 1991).[1] Indirect arguments in favour of the second hypothesis lie in the evidence about who of several siblings becomes the main carer. For example, Matthews and collaborators (1989) reported that non-employed sisters assumed a disproportionate share of responsibilities for the tasks that are difficult to combine with paid employment. Dautzenberg and her colleagues (2000: 182) suggested that, 'a selection process takes place, with the daughter who lives nearby and who has the least competing demands being most likely to become the care-giver'. Another relevant argument for the second hypothesis emphasises that to ensure their availability for care-giving, women take into account expected future care demands when they make decisions about employment (Merrill 1997).

This paper investigates the effects of caring on employment in a dynamic lifecourse framework. It is concerned with any care-giving that is undertaken between the ages of 15 and 69 years in men's and women's lives. By applying a lifecourse perspective, several dynamic aspects of caring are considered (Elder 1992; Hagestad and Neugarten 1985; Moen, Robison and Fields 1994). For example, care-giving often extends over a long period of a person's life, and some people provide several episodes of care during their lifetimes. The effects of caring on employment are in some cases sudden and in other cases unfold gradually. One can also hypothesise that a past caring experience affects a person's attitude to

prospective caring. In addition, the lifecourse approach emphasises the inter-relatedness of different role trajectories. The effects of informal caregiving on employment depend on other aspects of carers' lives, for example, on the carer's family configuration (Askham, Grundy and Tinker 1992; Brody *et al.* 1987; Evandrou and Winter 1993; Jenkins 1997; Neal *et al.* 1993). Furthermore, the life trajectories of the dependant and the potential carer are linked. When the care need arises, the potential carer is at a specific life stage associated with specific resources and constraints, and these respectively enable and inhibit the informal care.

The analysis reported in this paper takes many of these aspects into account but focuses on the employment effects. Some work arrangements can accommodate informal caring better than others. Research on the number of hours worked and their flexibility has shown that flexible arrangements reduce the stress experienced by carers (Neal *et al.* 1993; Scharlach and Boyd 1989). However, no nationally representative study in Britain has related job flexibility to the consequences of caring. The 1994–95 *Family and Working Lives Survey* (FWLS) in Great Britain provides data by which this can be done. The FWLS uniquely included continuous longitudinal data about caring and employment for a representative sample of the adult British population. In addition, it asked informal carers about the perceived effects of caring on their work arrangements. By linking these reported effects to the actual life circumstances at the time of caring, it is possible to explore the effects of informal caring in considerable depth.

Informal care and employment: recent studies

The main sources of information about informal carers in Britain are the *General Household Surveys* (GHS) of 1985, 1990 and 1995 (Office for National Statistics 1998). According to the GHS, 13 per cent of British adults provided informal care at the time of the interview in 1995 (11% of men and 14% of women). More than one-third of all carers provided care for more than 20 hours per week. Informal care is often a long-term commitment. According to the GHS, 24 per cent of carers had been looking after their dependants for 10 or more years (Office for National Statistics 1998: Table 17). Many informal carers with heavy caring duties were employed at the same time. More than one-quarter of informal carers aged 16–64 years who looked after a dependant for at least 20 hours per week were working full time, and another 15 per cent were working part time (Office for National Statistics 1998: Table 26).

Compared with the GHS, the FWLS reports a lower prevalence of caring activities, for only 4.6 per cent of British adults were found to

provide informal care at the time of interview (Barnes, McKay and Walker 1997: 20). Possible reasons for the difference are addressed below. Evandrou, Glaser and Henz (2002) used the retrospective caring information in the FWLS to estimate the likelihood of ever providing informal care, and reported that 15 per cent of men aged 45–64 years and 28 per cent of women aged 45–59 years had been a carer at some point in their lives.[2]

Studies of informal care in Britain have reported that carers have lower incomes than non-carers (Corti, Laurie and Dex 1994; Evandrou and Winter 1993; Hancock and Jarvis 1994), and that co-resident carers are less likely to be employed than extra-residential carers and non-carers (Arber and Ginn 1995; Corti *et al.* 1994). Furthermore, it has been found that carers are less likely to be full-time employed than non-carers, and if they are employed, that female carers are more likely to be in part-time jobs than non-carers (Evandrou and Winter 1993; Martin and Roberts 1984: 113). Similar results were found in a Dutch study which reported that women in paid work were less likely to become carers than women who were not working (Dautzenberg *et al.* 2000). This pattern does not hold for the United States, for according to Robison, Moen and Dempster-McClain (1995), employment and care-giving were positively related. Pavalko and Artis (1997) found that employed women in the United States were equally likely to start care-giving as non-employed women.

Other researchers have identified some aspects of carers' personal and working situations that make it difficult to combine caring and employment. A study by Scharlach, Sobel and Roberts (1991) used data from a major southern California employer, and found that the most important predictors of a negative impact of caring on employment were the care-giver's personal and care-giving situation, *e.g.* the dependant's level of impairment, the support with care-giving, and the care-giver's health. From a long list of workplace characteristics, including hours worked, job flexibility, and co-worker support, only job flexibility was found to lower the negative impact of caring on work. A large Canadian survey used a similar design, and found that while job-related variables did not predict family interference with work (in terms of time restriction, fatigue, mental preoccupation, and the quality of involvement), carers who were working unusual hours or had variable shifts reported higher job costs, such as missed training sessions, supplementary projects and job-related social events, and reduced business travel and promotions (Gottlieb, Kelloway and Fraboni 1994). In Great Britain, the 1980 *Women and Employment Survey* had asked female carers about the effects of caring on their work or opportunity to work (Martin and Roberts 1984: 113). Twenty nine per cent of non-working carers and 12 per cent of working carers reported such effects, the most common being that caring prevented them from going

out to work, and affected the number of hours, or restricted which hours they worked.

So far, few studies have used longitudinal information to analyse the effects of caring. Dautzenberg and colleagues (2000) analysed longitudinal caring data collected from middle-aged women in four Dutch municipalities in 1994 and 1996, to test whether changes between the two dates in the hours of work performed were associated with changes in the amount of caring. The correlation between the changes was insignificant. When those who had reduced their working hours were asked the reasons, only seven per cent said because they were caring for their parents (Dautzenberg *et al.* 2000: 178).

Pavalko and Artis (1997) used the 1984 and 1987 waves of the US *National Longitudinal Survey of Mature Women* to examine the relationship between employment and caring for an ill or disabled friend or relative over three years. They reported that employment-related indicators had no significant effect on starting to care, and this held if only more intensive care-giving was considered. Women who started care-giving, however, appeared in the following years to reduce their hours of work more than women who were not involved in care-giving. Pavalko and Artis also examined the changes in working hours associated with the end of caring, and found no increase in working hours.

A recent replication of their study using 1994 and 1996 data from the *European Community Household Panels* concluded that work-related factors did not explain why women became care-givers (Spieß and Schneider 2002). In the 12 countries studied, employment status did however matter for women who started to provide heavy or intensive care. Starting a caring episode and increasing the hours of care provided were negatively associated with the number of hours in paid work. The authors found that when a care-giving spell was terminated, there was no increase in the number of hours worked (Spieß and Schneider 2003).

An influential longitudinal analysis which examined 1956 and 1986 panel data for female care-givers in upstate New York found no difference between working and not-working women in the entry to caring, and that care-giving did not interrupt women's labour-force participation (Moen, Robison and Fields 1994). The only exceptions to this pattern were among older women carers, who tended to have given up paid work.

In summary, while there is ample evidence of a relatively weak attachment of informal carers to the labour market in Britain, the process that leads to this outcome has rarely been examined, partly because of the lack of longitudinal data. The one exception is the study by Spieß and Schneider (2003), which found a negative association between working hours and the hours of care.

The role of employment in making decisions about caring

Most people have a sense of moral obligation to help a close relative in need of care, but the actual amount of care-giving varies with the particular circumstances (Finch 1989; Qureshi and Walker 1989; Winqvist 1999; Wolfson *et al.* 1993). In this paper, it is assumed that the decision to start caring depends upon the characteristics of the dependant and the resources and constraints that are associated with the carer's life stage. Resources include finance with which to purchase care, and social resources in the form of a support network. Constraints include other caring duties, such as for children, and the family's or household's dependency on the carer's earnings or the strength of the carer's need to build up a pension.

On the one hand, the family may be the principal helping resource for the carer, but on the other hand, relatives make demands on carers that limit their time and energy for the care of a frail person. Small children need much time and attention and thereby restrict the parents' discretion in the allocation of their time. Older children can contribute to care provision or to domestic chores of the household to relieve the carer. Expenditure on children varies with their age, and is high when they are in secondary and tertiary education. A partner can alleviate caring duties in the same way as a teenage or young adult child, and can increase their earnings if the carer reduces their hours of work; but a spouse also makes demands on a carer's time, and sometimes even on the carer's earnings.

Employment provides income that might be used to purchase care, but it also imposes several constraints, for working hours limit the time available for caring. When an employed or self-employed person takes on caring, she or he may have to reduce the number of hours worked, limit their commitments to the employer or, in extreme cases, stop work. If the work arrangements are not flexible, informal carers may try to change to a more suitable job, but interrupting, reducing or ceasing employment could mean that the carer loses out on career-related benefits. One expects respondents with flexible work arrangements to accommodate care demands more easily than respondents with rigid schedules. Financial considerations play an important part in whether an employed person becomes the carer, not least whether the carer and his or her family can manage with the lower income implied by reduced labour market participation. Because many carers are in mid-life, to become a carer impacts on future pension rights.

This raises the question of which carers experience the strongest effects on their employment. Working hours are most flexible for intermediate

labour-market positions: compared to other occupations, these give most opportunities not to work at certain times of the day or to work fewer hours. Some intermediate positions also have high levels of part-time work, and many workers in these positions are entitled to care leave.[3] It is also expected that the respondents in managerial and professional positions would report few effects of caring because they can purchase private services. In addition, many employees in these occupations are entitled to career-related benefits, which increases the costs of changing jobs. While such jobs give considerable autonomy in the organisation of the work, the flexibility of daily work arrangements and the option to work part-time can be limited. Some carers try to change their jobs to obtain more suitable work arrangements. One can hypothesise that this strategy prevails among semi-routine and routine workers who lose few advantages by changing employers. The extreme decision of leaving the labour market should be most common among employees without career-related benefits and with low wages and little chance to find more flexible employment. Semi-routine and routine occupations should predominate.

To conclude this section, two points should be emphasied. First, it has been shown that the implications of informal care depend on the personal characteristics of the carer, on the intensity of caring, and on the type and quality of the carer's relationship with the dependant (Arber and Ginn 1995; Askham *et al.* 1992; Neal *et al.* 1993; Scharlach, Sobel and Roberts 1991). Some of these aspects are not considered in this paper because there is little relevant information in the available retrospective caring histories. If these aspects do not differ by the type of employment and by household composition, they will not disturb the results of the multivariate models. Secondly, there are differences in the effects of caring on employment by gender. Several studies have noted that fewer men than women take on intensive caring roles (Corti *et al.* 1994; Evandrou *et al.* 2002; Martin, Matthews and Campbell 1995; Office for National Statistics 1998). One reason could be that more women than men work part-time and are consequently more readily available for informal caring duties (Office for National Statistics 1996: Table 4.3). It might also be the case that women more often adjust their work arrangements in response to a care need. If a woman earns less money per hour, or if the man but not the woman has a career structure with accruing benefits, it is likely to be financially advantageous for the couple if the woman reduces her paid work hours. The traditional division of work between spouses can therefore deter men from assuming intensive caring duties during their working ages. Because on average men take on lighter caring duties, it is expected that there will be fewer employment effects of caring among male than female carers.

Data

The *Family and Working Lives Survey* (FWLS) of 1994–95 was a nationally representative survey of people aged 16 to 69 years living in the community in Great Britain.[4] It collected a rich body of retrospective information about the respondents, including detailed employment histories and retrospective accounts of informal caring experiences. Carers were identified by the question: 'Do you currently or have you ever looked after someone, for at least three months, who is sick, disabled or elderly?'[5] Informal carers were asked with reference to each dependant when they started to provide care. If they had stopped to look after a dependant before the interview, they were asked to give the date when they stopped.[6] A caring 'episode' or 'spell' was defined as the period spent caring for one specific dependant. Different caring spells could overlap. The analysis reported here has used the main sample of 9,139 respondents, of whom 1,395 had ever provided informal care, and 565 were carers at the time of the interview. After excluding some cases with missing or inconsistent data on relevant variables, 1,259 carers remained (361 males and 898 females).

The extent of caring at the time of the interview can be compared with other national data sources such as the 1995 *General Household Survey*. This revealed that episodes of caring of less than 10 hours per week were underreported in the cross-sectional FWLS, which has been attributed to differences in question wording: the FWLS offered fewer examples and triggers than the GHS, and it emphasised that the help provided should be regular (Barnes, McKay and Walker 1997). Compared with the 1994–95 *Family Resources Survey*, the FWLS found fewer female carers to be employed full time, a difference that was explained by the more intensive care requirement of the FWLS question (1997: 27).

The detailed FWLS information about employment included a description of all jobs ever held as well as their start and end dates. While providing rich information about caring, family and employment histories, there are shortcomings. The FWLS response rate was only 54 per cent, and the retrospective caring histories did not provide information about the number of hours of informal caring. Light caring obligations therefore cannot be distinguished from more intensive care. Nonetheless, the FWLS is currently the only longitudinal source of caring data for a representative sample of the British population and it has other positive features, such as the respondents' own assessments of the effects of informal care-giving on their work arrangements. The subjective assessments usefully complement the 'objective' evidence deducible from the job histories.

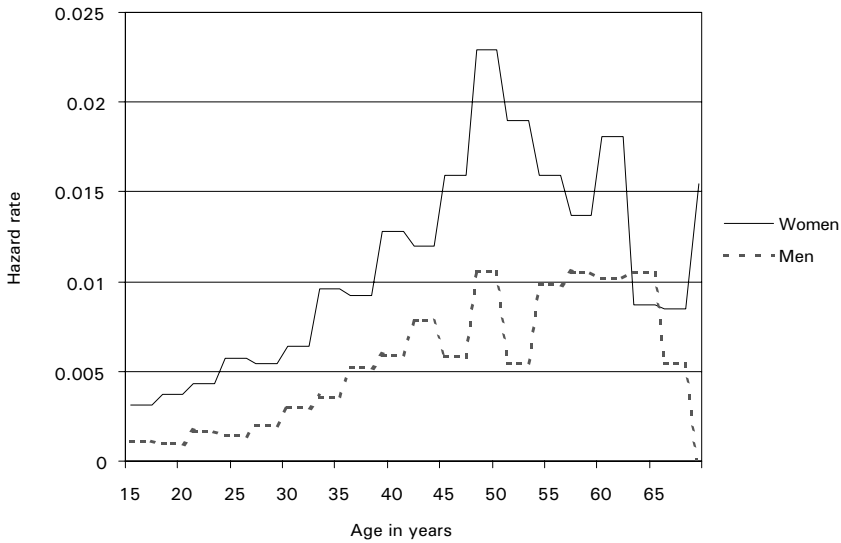

Figure 1. Hazard rate of first caring by gender.

Lifecourse patterns of informal care

Incidence of care-giving and number of dependants

Informal caring is a relatively common experience during the lifecourse in Britain. By applying techniques of event-history modelling to the retrospective caring histories, the lifetime probability of providing informal care before the age of 65 years has been estimated as 0.42 for women and 0.24 for men (Blossfeld and Rohwer 2002). Most carers do not look after more than one dependant: the estimated probabilities of starting a second caring episode before the age of 65 years are 0.38 for female carers and 0.19 for male carers.[7] Female carers have on average more dependants than male carers.

Timing of first caring

While informal care occurs at virtually any time during the lifecourse, the incidence varies with age. Figure 1 shows that the hazard rate for starting the first caring episode increases steadily from the teen ages to the late forties.[8] Among women at the age of 20 years, four in 1,000 who have not yet started caring become a carer each month. At age 50 years, the entry-to-care rate peaks at 23 per 1,000, and with further increases in age, it falls. For men, the hazard rate is lower at most ages. Women's hazard rates

are highest from the mid-forties to the mid-fifties, while for men the rate remains high in the early sixties.

Lifetime duration of caring

Using the retrospective caring histories, one can estimate the probability that a carer provides care for at least a given number of years during their life. These so-called survival functions show that people care for very different durations: 21 per cent of male carers and 15 per cent of female carers provide informal care for less than one year of their lives, but 45 per cent of male and 48 per cent of female carers are carers for more than five years (Blossfeld and Rohwer 2002). It is also estimated that 31 per cent of male and 34 per cent of female carers provide care for at least 10 years, and 14 per cent of male and 16 per cent of female carers for at least 20 years.[9] These findings show, first, that some informal carers experience extremely long lifetime durations of caring, and secondly, that the estimated total duration of caring differs little between male and female carers.

The relationship with the dependant

Different relationships between the carer and the dependant are associated with different caring intensities. Caring for a partner or for a child are on average associated with more weekly hours of caring than, for example, caring for a grandparent or a friend. Different dependants are also associated with different durations of caring. Caring for a sick or disabled child is often associated with very long caring durations.[10] Figure 2 shows the survival functions for selected dependants.[11] Care episodes that involve looking after a spouse last about as long as care-giving for a mother, while in contrast, caring for fathers is strikingly shorter.[12] The median duration of caring for partners is four years, for mothers nearly $4\frac{1}{2}$ years, and for fathers only 27 months. Informal carers on average look after a friend or a neighbour for longer than a father. The FWLS data do not reveal the reasons for the relatively short duration of caring for fathers. It may be due to men's higher mortality or to different care arrangements. For example, mothers might be the sole informal carers for fathers for a time until additional help is needed, and only then do children join in.

Sequences of caring

The caring experience varies also by the sequential pattern of caring spells over time. While some carers have times between successive caring episodes when they are not providing care, others experience no non-caring interval between two spells, with clear implications for the strains upon

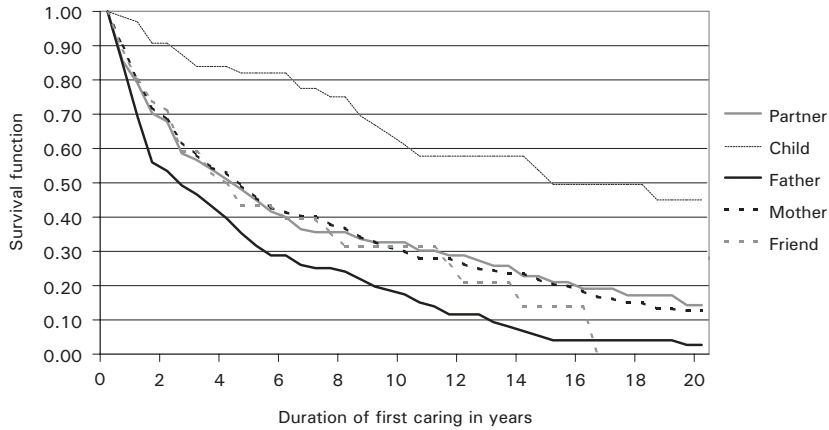

Figure 2. Duration of caring for different dependants.

carers. Table 1 shows the frequencies of various patterns of caring revealed by the FWLS data. For carers with two dependants, three patterns are distinguished: episodes separated by at least one month; the second episode starts immediately after the end of the first episode; or the two episodes overlap. It turns out that overlapping caring episodes are quite common among carers with more than one dependant. As will be shown in the next section, the reported (employment) effects of caring for one dependant vary by whether the episode overlaps with another. Few respondents cared for three or more dependants.

Effects of informal care on work arrangements

A distinctive feature of the FWLS is that it asked all carers about the perceived effects of caring on their work arrangements. For each dependant, they reported the effects of caring on their work arrangements by selecting from a list that included stopping work, working fewer hours, changing the type of work, earning less money, restricted time for working, and missing out on career opportunities. If the carer reported such effects and had ceased to look after the dependant by the time of the interview, he or she was also asked to identify all changes in work arrangements that had been associated with the end of the caring episode. The list of potential effects included reversals of the effects prompted by the start of caring.[13]

Asking respondents about their perception of the past effects of caregiving is a potentially fruitful way of capturing the inter-relationships

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TABLE 1. *Sequences of caring by gender*

	Number of carers	%	Male carers %	Female carers %
Single care episode	983	78.1	87.5	74.3
Two separate episodes with gap of one month	81	6.4	2.5	8.0
Two consecutive episodes	21	1.7	1.1	1.9
Two overlapping episodes	130	10.3	7.8	11.4
Three separate episodes	9	0.7	0.3	0.9
Three episodes, overlaps	29	2.3	0.8	2.9
More than three episodes	6	0.5	0.0	0.7
Total		100	100	100
Sample size	1259	1259	361	898

Note: The Pearson chi-squared statistic for the last two columns was 30.7 (6 degrees of freedom, $p < 0.001$).
Source: Great Britain 1994–95 *Family and Working Lives Survey* (for details, see text).

between various lifecourse events. It provides information about the subjective effects of caring and about the effects on employment that are difficult to map systematically in a retrospective survey. In addition, it relaxes the requirement for reporting the precise timing of effects. In these respects, the effects of caring can be captured more comprehensively than when the analyst needs to deduce potential effects from detailed caring and employment histories. A weakness of using the respondents' perceived effects lies in the possibility of memory errors and variations in interpretation. The FWLS, however, permits some reported subjective effects to be compared with elements of the respondent's employment history. These comparisons endorsed the reported effects of stopping work.[14]

Reported effects: the first caring episode

Table 2 gives the reported effects of the first lifetime caring episode on work arrangements. For the majority of first-time carers, caring did not cause any change in work arrangements: 36.0 per cent kept on working as before, and 34.3 per cent remained outside the labour market. More male than female first-time carers said that they continued working without any change in their work; and more women than men reported that they stayed outside the labour market. The remaining 30 per cent of carers reported one or several changes in their work arrangements, the most prominent being 'stopping work altogether' (14.7%) and 'working fewer hours' (10.7%). 'Stopping work altogether' was more common among women than among men first-time carers. About one in 20 carers claimed

TABLE 2. *Effects of start and end of caring on work arrangements*

	Effects of start of first lifetime caring							
	Stop work	Fewer hours	Different type of work	Earn less money	Only certain times	Miss out promotion	No effect (working)	No effect (not working)
	Percentages							
All first caring episodes:								
Men and women	*14.7*	*10.7*	*2.1*	*5.3*	*4.6*	*3.1*	*36.0*	*34.3*
Sample sizes (N = 1173)	173	125	25	62	54	36	422	402
Men only (N = 332)	*9.0*	*10.5*	*1.8*	*6.0*	*3.3*	*2.1*	*46.4*	*30.4*
Women only (N = 841)	*17.0***	*10.7*	*2.3*	*5.0*	*5.1*	*3.4*	*31.9***	*35.8*†
	Effects of end of first caring episode[1]							
	Start work	Longer hours	Different type of work	Earn more money	Flexible hours	Career opportunity	No effect	
	Percentages							
First episodes that did *not* overlap with second episodes	*31.6*	*31.1*	*6.2*	*10.0*	*8.1*	*2.9*	*33.0*	
Sample sizes (N = 209)	66	65	13	21	17	6	69	
First episodes that overlapped with second episodes	*15.0*	*12.5*	*7.5*	*2.5*	*15.0*	*5.0*	*52.5*	
Sample sizes (N = 40)	6	5	3	1	6	2	21	

Note: 1. Only finished episodes for which the respondent reported any effect at start.
Significance levels: For gender differences, ** $p < 0.01$, † $p < 0.1$.

that he or she earned less money from work because of caring, and a similar proportion said that caring meant that he or she could only work at certain times during the day. Even fewer carers reported that they changed their job because they were caring, or that they missed out on career opportunities.

The question about the effects of the end of caring was asked only about episodes that had ended before the interview and when the carer had reported some effect of caring on their work arrangements. Overall, about two out of three carers said that the end of the first caring episode had an effect on their work arrangements. The effects varied by whether the carer continued to care for another dependant, or whether the end of the episode marked the cessation of all informal care until the time of the interview. Table 2 lists the reported effects separately for carers with a gap of at least one month between caring episodes (209 observations) and carers who continued caring (40 observations). Because of the few cases, it was not appropriate to distinguish between the effects for men and women.

The most striking difference between the two groups was in reports that the end of caring had 'no effect' on work arrangements. A majority of the carers who continued caring reported 'no effect', compared to only one-third of the carers who did not have immediately continuing caring obligations. Among the carers who reported one or more effects of the end of caring, the most frequently reported were 'started work again', 'could work longer hours', and among the continuous carers, 'could work more flexible hours'.[15] In summary, there were several ways in which carers dealt with the demands of care-giving. The first was found among carers who were not in the labour market before or after caring; the second consisted of alternating periods in and out of the labour market; and the third was found among the carers who remained in the labour market. Table 2 shows also that limitations on work arrangements mainly applied to the caring period, and that many carers could, to some extent, return to the earlier work arrangement when the caring episode ended.[16]

Reported effects: second and third caring episodes

The effects reported so far may be special to the first caring episode, and carers might face a different situation when they care for a second or a third dependant. The distributions of the effects of starting to care for a second dependant – with or without a gap after the first caring episode – are remarkably similar to the effects reported for first caring episodes.[17] About one-third of carers kept working without making specific adaptations, and another third remained outside the labour market. About every sixth carer reported that he or she stopped working because of caring, and

about one-in-ten reported a reduction in working hours. The FWLS contains only 37 caring episodes for second dependants that ended before the interview. Sixteen carers reported that the end of caring had no effect on their work arrangements, nine that they started working, and nine that they worked longer hours. The pattern implies slightly stronger effects than at the end of first caring episodes.

Finally, when examining the reported effects for the 42 third caring episodes, it is found that 43 per cent of the carers were not on the labour market, which is higher than the corresponding figures for first and second caring episodes. Also, the share (19 %) of carers who reported that they stopped working was higher than in the two previous instances. The small number of cases prevents a strong conclusion, but the reported effects could indicate that carers with at least three caring episodes were more weakly attached to the labour market than carers with fewer dependants.

The relationship between the effects of the first and the second caring episodes

Theories about the lifecourse suggest that earlier events have an impact on later decisions in life. Leaving the labour market puts people on specific lifecourse trajectories that predispose them towards certain options and rule out others at later stages in life. If a carer had left the labour market during the first caring episode and had not subsequently returned, it might be relatively easy for them to begin caring for another dependant. In addition, once the carer had established a living arrangement that could be sustained without being employed, he or she might not be eager to return to work. The considerable share of carers who do not start working again at the end of caring suggests that this trajectory exists.

Other carers try to stay in touch with the labour market, possibly because they cannot afford to leave the labour market or do not wish to leave. If a carer has stayed in the labour market and the first caring episode did not interfere strongly with his or her work arrangements, it might be relatively easy for them to start caring for another dependant. If it had been very difficult to combine work and caring, however, the respondent might be more reluctant to assume new caring duties. Comparing the reported effects of the first and the second caring episodes enables tentative tests of these ideas. Table 3 shows the effects associated with caring for the second dependant by the effects reported for the first. The 'other' category captures the less frequent effects as well as the respondents who reported more than one effect for a care-giving episode. According to the data in the upper area of the table, respondents who reported any effect of first caring were *more* likely to have a second care episode than those who did not report any effect.

TABLE 3. *Reported effects of start of second caring by the effects of start of first caring*

	Reported effect of first caring				
	No effect working	No effect not work	Stop work	Other	Total
All first carers:					
Percentages reporting any second caring episode	*22.4*	*20.3*	*27.5*	*23.8*	*22.7*
Sample sizes	429	409	178	181	1197
	Reported effect of first caring				
Second carers only:	*Percentages*				
Reported effects of second caring					
No effect, working	*65.3*	*14.3*	*30.3*	*21.9*	*36.5*
No effect, not working	*16.7*	*77.8*	*18.2*	*9.4*	*35.0*
Stop work	*8.3*	*3.2*	*42.2*	*21.9*	*14.5*
Other	*9.7*	*4.8*	*9.1*	*46.9*	*14.0*
Total	*100.0*	*100.0*	*100.0*	*100.0*	*100.0*
Sample sizes	72	63	33	32	200

Source: 1994–95 Family and Working Life Survey of Great Britain.

In the lower part of Table 3, the effects of first and second caring are cross-tabulated.[18] The data display a strong association between the reported effects for the two episodes. More than half of the carers with at least two care-giving episodes reported the same effects for both episodes (including the absence of any effect for both episodes). Carers who stopped working when they provided informal care for the first time deserve special attention. Four-in-ten of these carers stopped working again at the second caring episode, nearly one-third remained working, and about one-in-five were no longer in the labour market. In summary, Table 3 presents three particularly interesting messages: first, that carers are not deterred from second caring when they had to change their work arrangements in connection with the first care-giving episode; secondly, carers with at least two caring episodes report quite similar effects for both episodes, which is plausible if the respondent holds the same type of job on both occasions; and finally, there was no indication that care-giving for a second dependant interfered more with employment than did caring for the first dependant.

The determinants of the effects of caring on work arrangements

The previous section described the reported effects of caring on employment. In this section, logit models are presented for the most frequently

reported effects. They test whether the reported effects are related to a carer's life circumstances, especially their family configurations and work conditions. There are models for the effects of the start of the first caring episode (separately for women and for men), for the effects of the end of the first caring episode (women only), and for the start of the second caring episode (separately for women and men).

Logit models: data and variables

To analyse the effects of the start of caring, only the carers were selected who were employed just before the start of the caring episode. On the other hand, the models of the effects of the end of caring include carers who were both in and outside the labour market. The models estimate the effects of the carer's age, family configurations (having a partner and having children of a certain age) and employment characteristics (occupational class and working hours). Models for the end of first caring and the start of a second caring episode take the possible overlap of the first and the second caring episode into account as well as the duration of the first.

Age was measured in years and divided into four groups that represented different phases of the lifecourse. In the models based on small samples, only two parameters were estimated for age centred on 40 years. The linear age effect gave the expected change in the odds-ratio for the effect of each additional 10 years of age. A 'squared age' variable allowed for non-linear effects. *Having a partner* was a dichotomy that distinguished carers in marital and cohabiting unions ('1') and others ('0'). A categorical variable *children* captured carers' responsibilities for children in the household.[19] It was based on the number of children less than 16 years of age ('dependent child') and the number aged 16 or more years ('adult child'). Five circumstances were distinguished: no child, one dependent child and no adult child, two or more dependent children and no adult child, only adult children, and having at least one dependent and one adult child in the household.

A categorical variable *occupation* was based on the Office for National Statistics (2002: 10) *Socio-Economic Classification* (NS-SEC). Five-class and three-class versions were used: (1) managerial and professional occupations (including higher technical and higher supervisory occupations), (2) intermediate occupations, (3) small employers and own account workers, (4) lower supervisory and technical occupations, (5) semi-routine and routine occupations. In the three-class version, classes (2) and (3) were merged into an 'intermediate' class, and classes (4) and (5) merged into 'routine and manual occupations'.[20] *Working part-time* took value '1' if the main employment was at most 30 hours per week, and '0' otherwise. A marker variable for *second care episode started before end of first caring episode*

was created, with value '1' when the second caring episode started before or right at the end of the first, and value '0' for the carers with no caring duties for at least one month after the end of the first care episode or if the respondent reported no second care episode. The models also estimated the effect of the *duration of the first caring episode*. The values of the variables were usually taken for the month before the event in question, that is the start of the specific caring spell or the end of the specific caring spell. To analyse the effects of 'start working', however, the carer's occupational class was based on the job just before the start of caring, and a category for carers with 'no job' was added.

Results: the start of first caring

Table 4 presents the estimated logit models for the two most frequently reported effects for female carers and for 'no effect – kept working'. The effects are reported as odds-ratios. As an example, in the model for 'stopped working', for the youngest age group, the odds that the respondent (reported) stopped working (*versus* not reporting that effect) was 0.44 of the odds in the reference age group of age 55 or more years. In other words, carers in the youngest age group had a 56 per cent lower odds-ratio for reporting that they stopped working because of caring than carers in the oldest age group.

From the theoretical framework, it was assumed that age was associated with different strategies of coping with caring demands at different life stages. After controlling for the family and employment situations, older women had a higher propensity to drop out of the labour market than young women. A likely explanation is acquired pension rights. Once the respondent has obtained certain entitlements, leaving the labour market has less costly effects on the carer's future material standard of life. Younger carers, in contrast, reduce their commitment to the labour market without stopping work, as evinced by the estimated age effects for 'worked fewer hours'. A non-linear age pattern can be observed for 'no effect – kept working', whereby the two middle age groups claimed more often than the youngest and the oldest female carers that caring did not affect their work arrangements. None of the models showed a statistically significant impact of having a partner, despite the considerable variation (between 0.88 and 1.20) of the estimated odds-ratios.

At their first lifetime caring episode, half of all women were childless, partly reflecting a higher probability that a childless woman (or man) takes up caring. It was estimated that mothers of dependent children had a 28 per cent higher odds-ratio of stopping work than childless carers, while mothers of adult children had a relatively low rate of stopping work.

TABLE 4. *Odds-ratios from logit models for reported effects of start of first caring on work arrangements: women who were working at start of first caring*

	Stopped working	Worked fewer hours[1]	No effect – kept working[2]
Constant	0.88	0.07	0.53
Age groups (years):			
13–29	0.44†	1.97	0.82
30–44	0.38*	1.99	1.57
45–54	0.61	1.69	1.39
55+ (reference group)	1	1	1
Having a partner	0.88	1.20	0.88
Children:			
No child (reference group)	1	1	1
One dependent, no adult	1.28	0.68	0.77
2+ dependent, no adult	1.20	0.90	1.20
Adult, no dependent	0.59	0.69	0.87
Both dependent and adult	0.22*	0.66	2.31*
Occupation:			
Managers, professionals	0.66	1.19	1.32
Intermediate	0.53*	1.03	2.22**
Small employers, own account	0.12*	1.97	1.49
Low supervisors, technical	0.66	2.88†	1.57
Semi-routine, routine (reference gp)	1	1	1
Working part-time	0.74	2.20**	0.79
Sample sizes: reported effects	100	75	225
Sample sizes: did not report effects	402	427	277
Chi-squared	25.7	13.0	31.0
Degrees of freedom	13	13	13
p	0.016	0.42	0.004

Notes: 1. The presented model does not have a satisfactory chi-squared value but is similar to the other models. If the model was simplified to include only the indicator for working part-time and the constant, the estimated odds-ratio of working part-time is 1.9, and the *p*-value for the change in the chi-squared statistic is 0.01. 2. In this model, the overall age variable is significant at the 10 per cent level. *Significance levels*: For coefficients: * $p<0.05$, ** $p<0.01$, † $p<0.1$.

However, only the comparison of childless mothers with mothers of at least one dependent and one adult child was statistically significant. In the third model, the same group of mothers had a high odds-ratio for not experiencing any effect of caring on employment. The very low dropout rate of mothers with an adult and a dependent child was unexpected, and might be related to these families' financial needs – typically they had two teenage children.

Among carers who were employed in the month before they started care-giving, semi-routine and routine manual workers had the highest odds-ratios for stopping work and the lowest odds-ratios for 'no effect'. This group, therefore, reported the most extreme effects of caring. Small

TABLE 5. *Odds-ratios from logit models for reported effects of start of first caring on work arrangements: men working at start of first caring*

	Stopped working	Worked fewer hours	No effect – kept working
Constant	0.35	0.18	0.23**
Age group (years):			
13–29	0.73	0.87	2.00
30–44	0.40	0.54	3.78**
45–54	0.70	1.49	2.17†
55+ (reference group)	1	1	1
Having a partner	0.41	0.74	1.50
Children:			
No child (reference group)	1	1	1
One dependent, no adult	6.55**	0.76	0.43†
2+ dependent, no adult	0.38	2.71	0.68
Adult child, no dependent	0.80	1.12	0.87
Both dependent and adult	1.17	1.18	0.33†
Occupation:			
Managers, professionals	0.61	0.82	2.42**
Intermediate	0.60	1.26	3.84**
Small employer, own acc.	0.001	1.26	1.07
Low supervisory, technical	0.82	0.29	2.80*
Semi-routine, routine (reference gp)	1	1	1
Sample sizes: reported effects	27	32	139
Sample sizes: did not report effects	249	244	137
Chi-squared	23.5	10.2	30.7
Degrees of freedom	12	12	12
p	0.036	0.60	0.002

Significance levels: For coefficients: * $p<0.05$, ** $p<0.01$, † $p<0.1$.

employees and own-account workers had the lowest odds-ratios for leaving the labour market. Women in intermediate positions had higher odds-ratios for reporting 'no effect – kept working' than women in other occupational classes. In the theoretical framework it was assumed that full-time work was more difficult to combine with caring than part-time work. The estimated effects of part-time work were quite large, but only the positive effect 'worked fewer hours' was statistically significant. Surprisingly, it was mainly *among* part-time workers that working hours were reduced to balance caring and employment (see note 14). This might reflect the flexibility of these jobs. Although not statistically significant, full-time working women more often stopped working altogether than part-time working women. The finding might indicate a reluctance of employers of full-time workers to allow their employees to work fewer hours.

The corresponding models for men are shown in Table 5.[21] The only significant effect in the first model referred to fathers of one

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dependent child, who had a very high odds-ratio for leaving the labour market. This group was, however, small and a few influential cases may be responsible for the large estimated effect. As for women, semi-routine and routine workers had the highest odds-ratio for leaving the labour market, but it was statistically insignificant. The only statistically significant age effects for men were in the model for 'no effect – kept working'. Men aged 30–54 years were much more prone to 'keep working' than older men. There is a weak indication that childless men reported more often than fathers that the start of care-giving had no effect – that they kept working. As for women, semi-routine and routine workers had the lowest odds-ratio for reporting 'no effect – kept working', while men in all other occupations had much higher odds-ratios for continuing to work as before.

Results: the end of first caring

Table 6 presents the results of the logit models for various effects at the end of the first caring episode for women. The models for 'started working' and 'no effect' were based on all first caring episodes that ended before the interview, while the model for 'worked more hours' was based only on the episodes during which, in addition, the carer was employed at the end of her first caring episode.

The age effects indicate that younger carers had a higher probability of starting work again than older carers. Carers aged 33 years at the end of the first caring episode had the highest propensity to re-start work. Their estimated odds-ratio was 1.1 when compared with carers aged 40 years. At older ages, the estimated odds-ratios decreased to 0.5 for carers aged 50 years, and to 0.2 for carers aged 60 years. Having a partner, the child configuration and occupational class exerted no significant impact on whether the carer started work again. If carers had taken on caring responsibilities for another dependant before the end of the first caring spell, the odds-ratio for starting work again was less than one-fifth of that for carers without a continuing caring responsibility. The duration of the first caring spell was also influential, for the longer the respondent had been caring, the lower the odds-ratio for returning to the labour market – it decreased by eight per cent for each additional year of caring. This effect can be explained in two ways. On the one hand, carers might lose contact with the labour market and their skills might become obsolescent, which would reduce their expected gains from working. On the other hand, the longer duration of caring may indicate a selection effect. The informal carers who kept caring for long might find much satisfaction in their role and decide to focus on their private lives.

TABLE 6. *Odds-ratios from logit models for reported effects of end of first caring on work arrangements: women who reported any effect of the start of caring*

	Start working	Worked more hours	No effect
Constant	1.45	0.15*	0.16**
Age:			
Linear	0.71†	1.15	1.47*
Squared	0.76	1.41	1.23
Having a partner	0.70	3.31*	1.03
Children:			
No child (reference group)	1	1	1
One dependent, no adult child	1.64	0.64	0.83
2 + dependent, no adult child	0.63	1.65	0.90
No dependent, adult child	0.46	0.20	2.80
Both dependent and adult child	0.66	2.23	1.11
Occupation:	At start	At end	At end
No job	1.68	—	3.03*
Managerial and professional occupations	0.72	2.85†	0.27
Intermediate occupations	0.91	0.58	0.92
Routine and manual occupations (reference group)	1	1	1
Working part-time	—	2.50†	0.41
Second care episode started before end of first care episode	0.18*	1.20	1.60
Duration of first caring episode (years)	0.92†	0.97	1.13**
Sample sizes: reported effects	51	41	75
Sample sizes: did not report effects	123	66	110
Chi-squared	29.6	22.4	72.7
Degrees of freedom	12	12	13
p	0.003	0.033	0.000

Significance levels: For coefficients: * $p < 0.05$, ** $p < 0.01$, † $p < 0.1$.

Two variables exerted a significant influence on whether the respondent worked more hours after the end of the first caring episode. Having a partner increased the probability of working more hours: this indicates that these women restored the initial arrangement, for women with a partner had a higher propensity to reduce the number of hours worked at the start of the episode (Table 4). This finding might indicate that these women had more scope to reduce their working hours, and that they returned to their preferred number of working hours when it became possible. Similarly, carers who were working part-time increased the hours that they worked at the end of their first caring spell, mirroring the earlier finding that part-time working women had a higher propensity to reduce their working hours when they started to care than women who worked full-time.[22]

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The third model in Table 6 examined which carers reported 'no effect' at the end of their first care-giving episode. Age had a positive effect: the estimated odds-ratio was 0.8 for 30-year-old carers, and reached 1.0 for 40-year-old carers, 1.8 for 50-year-olds and 5.0 for 60-year-olds. In addition, duration of caring had a positive effect: the longer the first caring episode, the less frequent were changes in work arrangements at the end of aring. The other significant predictor of 'no effect' was occupational status. Women who were out of the labour market at the end of their first period of caring had an odds-ratio for 'no effect' that was three times that of routine and manual workers.

Results: the start of the second caring episode

Because of the few cases, the only presented models of the effects of starting to care for a second dependant are for 'no effect – kept working'.[23] Table 7 shows separate estimates for men and women. Both sexes were more likely to report 'no effect' when they were young, and the child configuration mattered for the effects of caring by female carers. Among women, those with only adult children were more likely to report that the second care-giving episode did not affect their work arrangement. This finding supports the idea that adult children take over some household chores and support their mother's care-giving. Men and women who were routine or manual workers reported 'no effect' to a lesser extent than men and women in managerial, professional or intermediate occupations.

If the second caring episode started before the first ended, fewer carers reported that it had no effect on their work arrangements. This emphasises the truism that caring for two dependants at the same time puts extra demands on the carer. The longer the duration of the first caring episode before the start of the second, the less likely were female carers to report an effect on their work arrangements. Taken together with the estimated effects of the end of caring, long episode durations were associated with only small effects on work arrangements. This could indicate that carers with extended experience of caring arrange their daily lives to accommodate the activity.

Summary and conclusions

The clearest finding from these analyses is that the caring experiences are immensely diverse. On the temporal patterns of care-giving in people's lives, the incidence (or starts) of first lifetime caring was highest among those aged from the mid-forties to the mid- or late-fifties. At most ages,

TABLE 7. *Odds-ratios from logit models for reported effect 'no effect – kept working' of start of second caring episode on work arrangements: employed carers*

	Women	Men
Constant	1.20	0.98
Age:		
Linear	0.34**	0.28†
Squared	0.51**	0.65
Having a partner	1.04	4.32
Children:		
No child (ref.)	1	
One dependent child, no adult	0.66	
2 + dependent, no adult child	1.66	
Adult child, no dependent	5.13*	
Both dependent and adult children	1.00	
Occupation:		
Managerial and professional	4.42*	8.93
Intermediate	1.98	8.20†
Routine and manual (ref.)	1	1
Working part-time	1.00	
Second care episode started before end of first care episode	0.41†	0.11†
Duration of first caring episode prior to start of second care episode (years)	1.10*	
Sample sizes: reported effects	62	20
Sample sizes: did not report effects	65	18
Chi-squared	37.7	13.2
Degrees of freedom	12	6
p	0.000	0.04

Significance levels: For coefficients: * $p < 0.05$, ** $p < 0.01$, † $p < 0.1$.

women had higher rates than men of starting a first caring episode. Between men and women informal carers, however, there was little difference in the number of years that they provided informal care. Most informal carers look after only one dependant during their lives, and only one-fifth to one-third can expect to have a second dependant before they reach 65 years of age. If a carer has a second dependant, the chance is high that both episodes overlap. Such overlaps have for the most part negative effects on work arrangements, as shown by the multivariate analyses.

Being an informal carer considerably restricts a person's access to the labour market. Two main groups have been identified: those who are outside the labour market even before they start caring for the first time, and those who stay in the labour market. Among the latter, some carers hardly change their work arrangements, while others stay employed but

make changes. A smaller group leaves the labour market for the duration of the care-giving. From the self-reports of the effects of caring, it was estimated that one-third of carers were firmly outside the labour market, one-third were employed and made no changes to their work arrangements, and about one-third adapted their work arrangements. Among those who needed to make adaptations, roughly every other carer left the labour market, but half of these returned to the labour market when the caring episode ended. The next most frequent adaptation reported by carers was to reduce the hours worked. This was reported by roughly one-third of the carers who made adjustments in their working lives. At least half of them reported an increase in working hours at the end of the caring episode.

Leaving the labour market and reducing the hours worked has consequences for a carer's future wellbeing. The results from the logit-models show that semi-routine and routine workers report the most frequent and the strongest effects of care-giving on work arrangements. Both male and female semi-routine and routine workers are the most likely to stop working at their first episode of care-giving, and they are the least likely to report that care-giving has no effect at the start of their first or second care-giving spell. For some of them, however, these effects are limited to the period during which they provide care, and they change their work arrangements again at the end of caring. The results might point to a lack of flexibility in this group's work arrangements, but might also indicate that this group has least to lose from leaving the labour market.

The analyses have shown that reducing the number of hours worked is only weakly associated with occupational status. Among women, workers in low supervisory or technical occupations have a high propensity to reduce the hours that they work. More interestingly, reducing working hours is more common among part-time than full-time workers (for women only). This may reflect differences in how strongly the women are attached to the labour market, but such an explanation is inconsistent with another observation, that stopping work when caring begins is more likely among full-time than part-time working women. The high odds-ratio for reduced hours worked among part-time workers might indicate a lack of flexibility in the employment conditions of full-time workers, including restricted opportunities to work part time.

As expected, the longer the first caring episode lasts, the higher is the propensity to make no change to the work arrangements at the end of caring. Exceptionally long-term carers have a low propensity to start work again at the end of caring. This finding has important implications for policies that seek to support informal carers. It is necessary to combine

benefits that compensate for lost income during the caring episode with other measures that help carers to re-enter the labour market when caring ends.

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NOTES

1 In addition, studies have found other impacts of caring on work, *e.g.* rearrangements of the work schedule, absenteeism and constricted careers (Neal *et al.* 1993; Phillips 1994; Scharlach and Boyd 1989).

2 Other estimates of the lifetime probability of caring are based on *British Household Panel Survey* (BHPS) data. Using BHPS waves from 1991 to 1998, Hirst (2002: 583) estimated that 'virtually everyone is likely to provide informal care outside their own household at some stage during a full life span'. An accompanying graph suggests that more than 90 per cent of women and 80 per cent of men at the age of 60 years had provided extra-resident care at some point in their lives. The experience of co-resident care needs to be added to arrive at the total caring probabilities. The discrepancies among the estimates from different surveys are considerable and not entirely the result of inconsistent definitions of caring. A detailed examination of the reasons is beyond the scope of the present paper.

3 As found from the author's evaluations of the British *Work-Life Balance* 2000 survey (Hogarth *et al.* 2001).

4 For further details of the survey, see King and Murray (1996).

5 The interviewers were instructed not to count caring that was the respondent's job, but this did not exclude informal caring for which the respondents received benefits or gifts from the dependant. The care-giving also had to be regular.

6 More precisely, the information was collected only for up to three extant caring relationships and up to three completed caring relationships. These limitations affected very few cases.

7 There are too few observations to estimate the probabilities for having more than two dependants. Less than four per cent of female carers and one per cent of male carers had three or more dependants before the interview.

8 Some respondents were still very young at the interview and might have started caring later in life. The hazard rate takes into account the fact that the survey information covers only part of their lives and that they could start caring at a higher age (Blossfeld and Rohwer 2002).

9 These percentages are much higher than the 23 per cent of carers in the GHS who were caring for their main dependant for at least 10 years (Office for National Statistics 1998). There are two main reasons for the differences: the FWLS includes all periods of caring while the GHS recorded only periods of caring for the main dependant at the time of the interview. In addition, the GHS reported the actual caring durations until the interview, while the calculation of a survival function takes into account that caring episodes can continue after the interview (Blossfeld and Rohwer 2002).

10 Caring for a child includes care for own, foster or adopted children *when sick or disabled*, but does not include general parenting care for foster children.

11 The figure is only based on first dependants. There was no difference in the distributions of the types of relationships with the dependant as between first and second caring episodes. By far the most frequent care recipient was the respondent's mother (39.6% of first and 36.6% of second caring spells), followed by a partner (17.6% and 19.7% respectively), a father (13.4% and 16.9%) and a mother-in-law (7.4% and 8.5%). If the respondent cared for more than one dependant, it was not always possible to allocate a specific relationship to a specific caring episode in the FWLS. These cases were excluded from the calculation.

12 According to the log-rank, Breslow and Tarone-Ware tests, the survival functions of caring for a spouse and caring for a father were significantly different, as were those for a mother and a father. The survival function of caring for a child was significantly different from all other survival functions (Figure 2).

13 The FWLS asked for each of up to three completed caring episodes: 'Did caring for your (dependant) mean that you did any of the things listed on this card?' The respondent should select all codes that applied among the following: stopped work altogether, worked fewer hours, did a different type of work, earned less money from work, could only work at certain times of the day, missed out on promotional/career opportunities, did not affect work – kept working, did not affect work – kept *not* working. If any of the first six answers were chosen, the interview continued: 'Since you stopped looking after your (dependant), did your working arrangements change again?' This time the respondent selected all codes that applied from the following: started work again, could work longer hours, did a different type of work, earned more money from work, could work more flexible hours, had more promotional/career opportunities, did not affect work. For continuing episodes the respondent was also asked about the effects of care-giving on work arrangements, referring to the same potential effects (as above), but the effects were reported jointly for all caring episodes that were extant at the time of the interview. It is not always possible therefore to identify the effects of a single specific caring episode. Carers who were looking after more than one dependant at the time of the interview were excluded from the analysis unless they had started to look after these dependants at the same time.

14 When examining employment histories within six months before and after the start of the first caring episode, eight per cent of carers who did not report that they stopped working because of care-giving, compared with 42 per cent of carers who reported that they stopped working, dropped out of the labour market. Increasing the time interval to one year before and after the start of first caring episode finds that respectively 11 per cent and 50 per cent of carers stopped work. Similarly it is possible to compare the reported effect of working fewer hours with the changes from full-time to part-time work in the employment histories. Only a few such changes were identified around the time when the first caring episode started even among carers who reported the effect. This suggests that most changes of working hours took place in full-time or in part-time work. Full-time workers may have reduced overtime, and part-time workers may have worked fewer hours.

15 Many respondents reported for the end of caring the reverse of the effect that they had reported for the start of caring. This applied especially to carers who were free from caring duties at the end of their first caring episode. In this group, 60 per cent of carers who had stopped work at the start of their first caring episode started work again. Similarly, 62 per cent of those who had reported that they had reduced their working hours, worked longer hours after the caring episode. Also among carers who earned less money and who could only work at certain times, many reported opposite effects at the end of their first caring episode (48.8% and 38.2%). In contrast, only a

few carers who reported that they had turned to a different type of work or who reported that they had missed out on career opportunities reported corresponding changes of the end of the spell (18.8 % and 18.2 %).

16 Of course this does not exclude the possibility that they have long-term effects on carers' lives (Hancock and Jarvis 1994). It should be pointed out that the effects of the end of caring are only studied for those carers whose first caring episode ended before the interview. As a result, short caring episodes might be over-represented in the analysis and give an over-positive picture of the effects of caring.

17 The dataset includes 93 carers whose first and second caring episodes did not overlap, and 148 carers for whom they did overlap. The distributions of the reported effects of caring for second and third dependants can be provided by the author on request.

18 61 cases where both episodes started at the same time are excluded from Table 3.

19 Based on the FWLS child histories, which contain the dates of birth, death, leaves, returns and adoption (if applicable) for all children who ever have lived with the respondent in the same household. Ages for step and adopted children cannot be calculated. Therefore, the variable *Children* takes into account only the respondent's natural children.

20 In contrast to the suggestions in the NS-SEC User Manual, the classes are based only on the current job and do not take past jobs into account.

21 For male carers, the variable *part-time work* is not included in the model because only four were so employed before they started caring for the first time.

22 In the model for 'start working', the indicator for part-time work was dropped because the dependent variable did not distinguish whether the respondent started to work full or part time.

23 For the same reason, some variables are left out from the model for men.

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