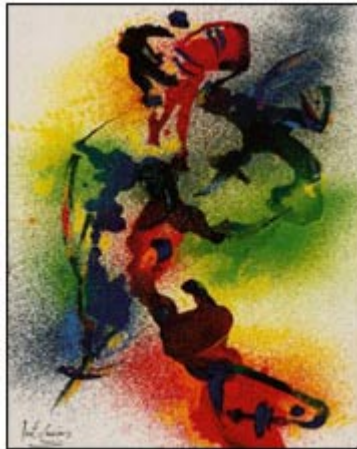


6th ESA CONFERENCE
MURCIA



2 0 0 3

RESEARCH NETWORKS 22
Youth and Generation



*The changing availability of grandparents as carers
and its implications for childcare policy in the UK*

Anne Gray

THE CHANGING AVAILABILITY OF GRANDPARENTS AS CARERS AND ITS IMPLICATIONS FOR CHILDCARE POLICY IN THE UK

Paper for the ESA conference in Murcia, Sept 23-6 2003

Dr. Anne Gray, Families and Social Capital Research Group, South Bank University, London; e-mail grayam@sbu.ac.uk

1. Introduction

Since Britain has relatively low provision of childcare services by comparison with other N. European states, grandparents continue to be an important source of help with childcare for working parents. Different estimates of the proportion of working mothers who regularly call upon grandparents for childcare vary from 20-25%. There is concern that the availability of grandparents as child-carers may be declining, due to rising employment rates amongst older women, and due to increasing geographical dispersion of extended families (Wheelock and Jones, 2002; Dench, Ogg and Thomson, 2000, p. 137; Arthur, Snape and Dench 2003). Although the paper focuses on the UK, some of its concerns and the demographic part of the methodology have relevance to other European states. Raising employment rates amongst the over 50s is an established objective of EU employment policy, yet it may conflict with the role of younger grandparents in childcare. What Arthur et al. describe as the 'moral economy' of grandparent childcare, often given without reciprocation by the parents, is a significant social resource which in countries with stronger family structures, especially in Southern Europe, may be even more important a form of 'social capital' than in Britain.

This paper reviews literature on the role of grandparents as child-carers. It then offers new evidence from the UK Time Use Survey on the amounts of time spent by women over the age of 45 in providing childcare to other households, and the number of hours of care received by children from their grandparents. Thirdly, these findings are combined with demographic evidence about the likelihood that mothers in successive cohorts have had their own mother still alive, living in the same local authority district and not in paid employment, during the period when their first child was aged 0-11.

As life expectancy rises and the health of the elderly improves, more parents should find that their own parents can still help them during their childrearing years. Against this are three factors tending to make grandparents less available. Firstly, although the number of births to teenagers in Britain has risen in recent years, other women are having children later in life than in previous generations, so that the grandparents of these children will be older than grandparents used to be. Secondly, increasing life expectancy of grandparents' own parents means that they are more likely to be alive and may mean they need care. Thirdly, increased migration within Britain is tending to disperse families so that young children and their parents are less likely than in previous generations to have their grandparents living nearby. Moreover, in the case of Britain's growing ethnic minority populations and migrants from elsewhere in Europe, the grandparents may even be in another country.

Previous evidence on the role of grandparents in childcare

Childcare from grandparents often supplements 'formal' sources of childcare such as pre-school classes and playgroups, day nurseries and childminders, especially if parents cannot afford paid childcare services, or if the mother works during evenings and weekends when these services are less available. Findings from several different sources are summarised in Fig. 1.

One of the earliest sources of information on grandparents' role is a 1990 survey carried out for the Department of Health on childcare arrangements for pre-school children, that is the under 5's (Meltzer 1994). This survey found that over a fifth of these children were regularly looked after by their grandparents. Often this seems to have been evening or weekend babysitting rather than supporting an employed mother, since only around 40% of grandparents who provided care did so for at least 16 hours per week and only around one third did so on more than two days per week.

Dench et al (2000), reporting the British Social Attitudes Survey 1999, find that 25% of grandparents with grandchildren under 6 look after them during the day, but this is not all employment-related; 15% do so even where the child's mother is not in paid work. The proportion rises to 32% where the child's mother works part-time but falls to 20% where she works full-time. Additionally 11% of grandparents of children under 13 take them to or from school at least once weekly, if the mother works full-time, and 8% do if she is employed part-time¹ (pp. 148-9). A consistent estimate for the overall number of grandparents involved in childcare of grandchildren is given from the UK Omnibus Survey module on kinship in 1999 (Grundy and Murphy 1999). Whilst 27% of grandmothers help their eldest child with childcare, 19% of grandfathers do. Grandparents are more likely to take part in childcare where the child's parents offer some help to them with domestic tasks, shopping, lifts, or other tasks, or with money.

La Valle et al. of the National Centre for Social Research, in a survey of over 5000 parents of children aged up to 14 in England and Wales conducted in 1999, found that grandparents had cared for 24% of all children under 12 in the last week, a proportion sustained in a parallel study carried out by the same research centre two years later. Grandparents had cared for 25% of children under 3 in the last week, 20% of 3-4 year olds, and 17% of 5-11 year olds. La Valle et al. found that a higher proportion of families receiving childcare help from grandparents where the mother had a job, particularly if she works full time. Employed lone parents receive more help from grandparents than two- earner couples, as shown in Fig.1 and as confirmed by McKay (2002). Dench et al (2000), also confirm this from the British Social Attitudes Survey.

Wheelock and Jones (2002) carried out a survey of 425 working parents in Newcastle. The role of grandparents here was much higher than in the national studies; later we shall see that this is confirmed by inter-regional differences revealed in the Time Use Survey. Just over half the parents regularly called upon childcare help from grandparents once a week or more. Many of the grandparents provided care for a considerable number of hours, saying that it was 'like a job'. Grandparents and other

¹ Dench et al. give different figures in the text on page 148 from the table on page 149; the figures cited here are from the latter

'informal' carers played an especially important role during school holidays or family emergencies like when child or parent was sick. One third of the working parents used only 'informal' sources of childcare – including grandparents and others – whilst only 7% relied entirely on 'formal' childcare. Often grandparents were not the sole or even the main source of childcare, but were used in conjunction with formal care which is often only available (or affordable) for part of the parents' hours of work. This is not to say that grandparents were called upon mainly because 'formal' childcare was hard to obtain; rather, for many parents, the grandparents were considered the best carers for their children, people who knew and loved the children and could be trusted.

Other studies however provide pointers to a preference for formal care over grandparents in some situations. In La Valle et al's study, grandparents were again considered the 'ideal' providers by many parents, but the proportion of parents who felt this fell off with the child's age. Thus the 'ideal' provider was considered to be a grandparent for 21% of 0-2 year olds, but only 13% of 3-4 year olds and 13-16% of school age children depending on their age group. The reasons for this are not analysed, but possibly parents feel their children need social stimulation from other children by the time they are 3 or 4. McKay (2002) finds that amongst these lower-income families 20% of children were looked after by grandparents during school terms, and 34% during school holidays. In McKay's study, grandparents care for 46% of children under 5 and 40% of 5 to 9 year olds. Thus the proportions being cared for by grandparents were higher than for children of the same age in the La Valle study, which suggests that affordability of alternatives for these lower-income families may have been a factor. If grandparents are the 'ideal' childcare providers, one would not expect to find an income-related difference in their use.

Both grandmothers and grandfathers contribute to informal childcare, but the bulk of it is done by grandmothers, especially the mother's mother (Wheelock and Jones 2002). The economic activity rate of women over 50 rose during the period 1989 to 2001 (Fig. 2). This might lead one to expect that grandmothers would be less available for childcare. Dench et al. (2000) find from the British Social Attitudes Survey that although 2/3 of grandmothers under 60 have paid jobs, this does not reduce contact with grandchildren. However, 'contact' may take many forms; in a small-scale follow-up study Arthur, Snape and Dench (2003) find that there is some conflict between grandmothers' paid jobs and their participation in care of their grandchildren. Men in the grandfather age group have had a declining employment rate for many years and should be more available (see Fig. 2) – perhaps but for the fact that early retirement is often associated with ill health; 55% of economically active men aged 50-65 are inactive for health reasons (Barham, 2002). This may account for the fact that Dench et al (2000) find that employed grandfathers have more contact with their grandchildren than retired ones.

One effect of longer life expectancy (Fig. 3) is that more grandparents still have at least one of their own parents alive. Dench et al (2000) find that although over 54% of grandparents under 60, and 30% of those aged 60 or more, have a living parent, this does not mean they have less contact with grandchildren, but a tension is felt where the parent needs care. The risk of a 'middle generation squeeze' on those with both grandchildren and an elderly parent has long been recognised (Bengston, 1993; Jonsson 2003). Tension felt between obligations to grandchildren and to elders is also

reported by Mooney and Statham (2002). However their data imply that responsibility for an elderly or disabled person does not, in fact, make people less likely to provide care for grandchildren. Their survey of over 1000 local government employees aged 50 or more found that 41% provide care for elderly or disabled people, who may be relatives, neighbours or friends. By comparison 17% provided some care for grandchildren and one in ten of the whole sample (that is, over half of those caring for grandchildren) also cared for an elderly or disabled adult. From this we can deduce that employees caring for elderly/disabled were, in practice, significantly more likely to care for grandchildren². Data from the Time Use Survey, as described later, supports the conclusion that there are 'high carers' and 'low carers' rather than an actual choice made between care for different generations.

Another factor affecting grandparent availability is proximity of residence. Murphy and Grundy (1999), using the UK Omnibus Survey module on kinship, find that around 60% of adults aged 30-50 with their mother still living, live within 30 minutes journey (by their usual mode of transport) of their mother's home. Dench et al. (2000) find that 40% of grandparents have their closest grandchild living within 15 minutes journey. How close must they be for daily childcare to be feasible? Meltzer (1994) found that 4 out of every 5 children cared for by their grandparents lived within 20 minutes' journey of their grandparents' home, and such arrangements were often thought unsatisfactory by mothers if the journey took longer. Arthur et al. (2003; page 33) find evidence for a lower threshold of 15 minutes' journey. If 15-20 minutes' journey represents a 'threshold', the change in the proportion of people moving between local authority districts in a given year may very roughly indicate the change in the proportion of families with grandparents close to make childcare practical – even though some journeys within one district, especially if made by public transport, take longer. Later we examine Census and other data on this.

If grandparents are more 'available' as childcarers in cases where they still live close to their grandchildren, what then determines whether they actually do provide childcare? Arthur et al. (2003) find that grandparents are more likely to provide care where they feel the parent generation has a strong need for it – because their son or daughter is a lone parent, because formal childcare is unaffordable, has broken down or is not available for particular time patterns (e.g. staying late at work). Grandparents are less likely to provide care if the parents can afford alternatives. Grandparents' willingness to provide childcare appears to be influenced by their own health, employment status and work hours. In the next section, some of these determinants of grandparents' offer of childcare are examined through the UK Time Use Survey.

2. Evidence on informal childcare from the Time Use Survey

According to the Time Use Survey 2000, grandparents provide at least some childcare to 25.6% of parents of under 12's, confirming the other sources described above. However, contrary to several of them, this proportion varies very little between lone parents and couples. Mothers of children under 5 receive even more help from

² Out of those employees caring for elderly or disabled people, 100 out of 410 also care for grandchildren, but amongst those not caring for elderly or disabled the proportion is less; only 70 out of 590 care for grandchildren. A difference of proportions tests shows significance at the 0.01 level.

grandparents; altogether 30.3% get some childcare assistance from them, ranging from 39.5% for mothers in paid work to 20.1% for those who are not. So grandparents are helping more than in Meltzer's study a decade earlier. The number of hours of grandparent care per week, and the proportion of families in which it is received, falls off rapidly where the youngest child is over the age of 12. Grandparent childcare for all mothers of under 12s averages 6.64 hours per week, with slightly less for mothers of under 5s. Predictably, the mother's employment status makes a big difference both to the proportion of families receiving childcare from grandparents and to weekly hours of grandparent care (Fig.6).

Weekly average hours of grandparent childcare, when analysed for employed mothers, are positively associated in analysis of variance tests with the following factors³:

- being 'white' as distinct from 'ethnic minority', although this is not significant
- the youngest child being in certain age groups; there are peaks of help at age 0, age 3 and age 6-7
- being in lower supervisory/technical occupational group ; the variable NSSEC5 (dividing occupations into five groups, plus students and those who have never worked) explains 11.6% of variance
- being in full time employment
- having several children under 12
- being aged under 40

Weekly hours of grandparent care are negatively associated with:-

- being in a managerial or professional occupation
- working only part time
- being in an ethnic minority group (not significant)
- the hours of paid childcare services used

Weekly hours of grandparent childcare are not affected by:

- being a lone parent
- having a car
- having a child under 5
- population density of the area of residence
- the hours of informal childcare help from other relatives or friends
- length of residence of the parent/children family at their current address (even though if this is short, one might expect it could be associated with not living close to grandparents)

However, none of these variables have any considerable explanatory power. A regression with hours of grandparent childcare as the dependent variable on four variables⁴ explains only 3.2% of variance⁵. The four independent variables found to have significant regression coefficients are:

³ Full details of these results are available from the author on request

⁴ Selected by the 'stepwise' method in which the computer chooses significant variables to put into the equation from a larger number offered

⁵ Full results are available from the author on request

- the number of children under age 12 (positive),
- hours of formal care services used per week (negative),
- a variable for full-time or part-time work (given the value 0.5 if the mother works part-time, 1 if she works full time, and 0 if she has no paid job) (positive)
- age group of mother in 10-year bands (negative).

Children who receive some childcare from a family member other than a resident parent are more, rather than less, likely to have some care from a grandparent. However this result is not statistically significant and the number of hours of childcare from other (non-grandmother) sources such as fathers, neighbours, ex-partners and other relatives is not significantly correlated with grandparent care. For couples only (excluding lone parents) the number of children under 12 for some reason falls out of the described regression equation, but the explanatory power of the other three variables rises, giving $r=0.237$ but still with a mere 5.6% of variance explained. Is this an indication that what really counts is just whether grandmother is available? If this was true, one would expect that even if none of the variables so far investigated do much to explain the number of hours of grandparent care, the use of grandparents' help could explain something about mothers' work behaviour. In other words, the causation runs from grandparent availability to mothers' work patterns, rather than from work patterns and use of other childcare forms to take-up of help from grandparents.

The Time Use Survey data set does not tell us whether any of the family's grandparents are alive or where they live; we only know the extent of their involvement in childcare. The 'baseline' amount of childcare provided by grandparents to mothers with a child under 12 who are not in paid work averages 3.84 hours per week. This differs very little between mothers who have higher educational qualifications and those who do not. However, the mothers who do have higher education are much more likely to work (72.5% of them do, compared to 54.2% of those with no higher education). For this highly educated group, the proportion in paid work is slightly higher amongst those who do receive childcare help from grandparents (78.1%) than those who do not (70.5%); however, this difference is not significant. Amongst those with no higher education (and consequently a lower hourly earnings capacity) the effect of grandparent childcare is much greater; amongst those in the less educated group receiving childcare help from grandparents, 73.3% work, compared to only 47.7% of those who get no such help. (This difference is significant at the 0.001 level). Altogether 34.7% of employed mothers of under 12s with no higher education do get help from grandparents, whilst only 27.7% of highly educated mothers do. For partnered mothers with a full-time job and a child under 12, the working week is longer where grandparents are involved in childcare; 17.88 hours on average compared to 13.99 hours if grandparents do no childcare. (This difference is significant at the 0.01 level. The correlation between hours of grandparent childcare per week and the mother's weekly working hours is 0.131 (significant at the 0.001 level).

The conclusion is that the availability of grandparent childcare helps some mothers to enter paid work, especially those without higher education, and also helps them to work longer hours. To what extent is the educational variable a proxy for income

here? Obviously better educated women, because they earn more per hour, will be in a better position to pay for formal childcare. It is certainly true in the Time Use Survey that amongst mothers with full time jobs, weekly hours used of formal childcare services rise with weekly income. Moreover, amongst all mothers of under 12s there is a significant though weak negative correlation between hours of grandparent childcare and hours of formal childcare ($r = -0.078$, significant at the 0.03 level). Mothers with full time jobs who use grandparent childcare do earn slightly less than those who do not – consistent with the possibility that grandparents are called upon because the working mother cannot afford formal care – but this difference is not significant. On the other hand when we look at mothers in part-time jobs, those with help from grandparents earn considerably more (average £140.3 per week) than those who have none (average £99.3 per week); this is significant at the 0.001 level. Grandparents' help seems to make much more difference to the mothers who work only part-time, assisting them to work longer hours and earn more money. One reason for this may be that there are logistic difficulties in finding formal childcare for short periods in the day or week, as evidenced by our recent survey work in Northern Ireland (Gray and Bruegel 2002) which showed that mothers often pay more per hour for part-time childcare than for full-time, and have difficulty finding childcare for erratic hours or to cover jobs at weekends or in the evenings.

Which older women, and in what circumstances of their own, provide childcare to other households? We know from the Time Use Survey how many people provide childcare, how much time they spend on it and many of their own personal characteristics, although the survey does not tell us whether they are providing care to grandchildren or to others. For women on weekdays, this activity peaks in the 55-64 age group with almost 12% of women doing some, and an average of almost 14 minutes per weekday. For women of all ages on weekdays, 4% of women in employment do provide some childcare to other households whilst 6.7% do amongst non-employed women. (Fig. 7) Within the grandparent age group, there is a sharp difference by employment status; women aged 45-64 are almost twice as likely to help other households with childcare if they themselves do not have a job (11.9%) than if they do (5.9%; significant at the 0.01 level). Looking at weekend diaries, this difference is even sharper; 8.1% of women in employment aged 45-64 do some childcare for other households at weekends, compared to 18.1% of non-employed women. Caring for another adult outside her own household does not seem to be negatively associated with providing childcare for others; in fact women who do provide childcare for other households, in the 45+ age groups, spend more time on average caring for an adult in another household (3.07 minutes per day, averaged over all women aged 45+ childcaring for other households) than those who do not provide childcare (0.88 minutes). Despite the attention given in the literature to journey time to the grandchildren's home, having a car does not seem to make any difference to the proportion of women who provide childcare to other households.

What proportion of informal carers are grandparents? Against 25.6% of families with children under 12 who receive childcare assistance from grandparents⁶, 10.2% receive care from other relatives outside the household, and 21.6% receive care from the parent's ex-partner (usually the separated or divorced father) or another informal carer

⁶ Grandparents are distinguished as a separate category in the questions on childcare whether or not they live in the household; but in practice very few British grandparents share a home with their married adult children; however 5% of lone parents live with their parent(s) (Haskey, 1998)

who is not a relative. Further research is needed to investigate whether help from these parties has the same effect on mothers' employment as help from grandparents.

3. The trend in childcare help from grandparents over time

No UK national data set shows the trends in grandparents' contribution to childcare over a long period of time. Childcare information was first included in the Labour Force Survey in 2002. Several 'once off' reports on the use of different forms of childcare at various dates do not provide us with sufficient comparability, except in Northern Ireland, where there is some suggestion that childcare by grandparents has declined since the early 1990s (Gray and Bruegel 2002). Some important information about trends over time in childcare provided by relatives in general can be obtained from the British Household Panel Survey. This has surveyed the same households (and new households being formed by their members) from 1991 to 2000. Unfortunately the questionnaire used for this survey does not distinguish childcare provided by grandparents and childcare provided by other relatives (not counting the mother's current partner), but we know from the Time Use Survey and other sources that childcarers are very likely to be grandparents. If we make the (perhaps brave) assumption that grandparents provide a constant share of care provided by all relatives, we can use the BHPS data as an indicator of trends in grandparent care. The main reason why this assumption might be incorrect is that relatives could include the children's non-resident father, so that his role increases with the rising divorce/separation rate. However, this is not very likely since the rise in lone motherhood had already levelled off by 1992-3 (Haskey, 1998; p.27).

The BHPS data (presented in Fig.8) show some increase in the use of relatives between 1991 and 2000. The increase is concentrated amongst families with a child under 5, and is largest for families with 4 year olds. This is associated with a higher employment rate for mothers of under 5s, and a particularly large jump in the proportion of mothers of 4 year olds in employment. These women get part-time childcare free or almost free through the new policy of pre-school places for 4 year olds implemented in 1998-99, but since these places are part-time mothers may be asking relatives to make up childcare 'cover' for a full working day.

High childcare costs may also have led more mothers to call on relatives in 2000 than in 1991. The average weekly cost of formal childcare for working mothers in the BHPS was £53.34 in 2000 (with confidence interval of +/- £6.7) but only £31.22 in 1991 (with confidence interval of +/-£4.54). According to the Day Care Trust, the cost of a full-time nursery place has risen by 6.7% in the last year (<http://www.daycaretrust.org.uk>, accessed 13.7.03). In Northern Ireland, our survey of childcare providers also suggested that childcare costs per hour are rising faster than the general rate of inflation (Gray and Bruegel 2002). Childcare costs impact more on mothers of pre-school children than mothers of older ones, so it is logical that there is most increase in recourse to relatives amongst the mothers of under 5s.

Amongst working mothers of under 12s there does appear to be considerable difference in the use of relatives as childcarers between regions, although these are not statistically significant due to small sub-sample sizes. London mothers have very

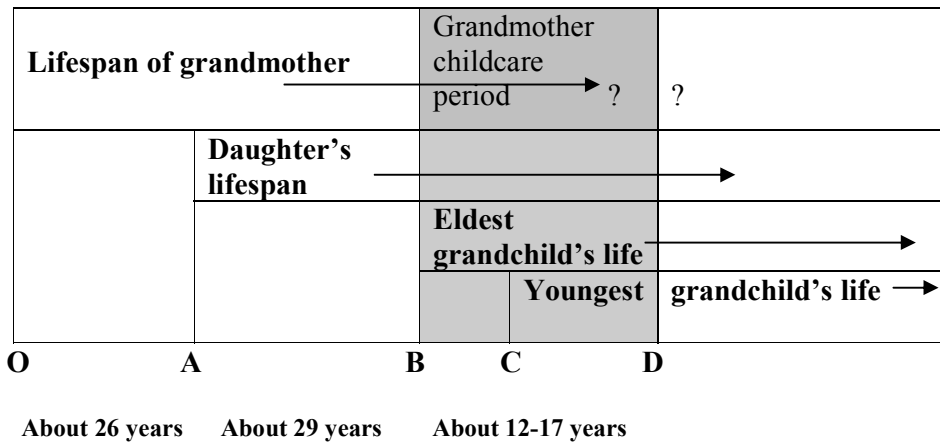
little help from relatives in both years. Those in central and northern conurbations such as the West Midlands conurbation (around Birmingham), Manchester, Merseyside, and the Northern Region including Tyneside, have over four times as much. The regions with a very high use of grandparent care are precisely those in which migration was lowest in 1990-1, whilst London then had a very high proportion of recently moved households (as shown in Fig. 5). Over the 1990s the regions where most help is given from relatives show little further increase, and in some cases a decline, whilst those where few mothers were helped by relatives in 1991 – London and East Anglia - show large increases by 2000. London, as a city with a large number of migrants (both from elsewhere in the UK and overseas) is especially likely to have many families who are living far from their relatives. In the Time Use Survey, more or less the same regional differences emerge, although sample numbers are again too small for reliability; London has a very low proportion of women over 45 providing childcare to other households, but the North West, North East, and in this data set Wales, all providing well above the national average.

4. Demographic trends in the availability of grandparents

In a three-generation extended family, the 'grandchild-caring years' for grandparents begin from the time the woman in the middle generation has her first child – and in particular from the time she re-enters work, usually when the child is between one and six years old. The grandparents' grandchild-caring years may extend until the youngest grandchild is around twelve years old. After that, childcare is rarely needed during the mother's working hours, unless perhaps both she and her partner work evenings or nights, in which case the need for an evening carer may continue for two or three years longer. Even before the youngest is 12 years old, an older sibling may care for a younger one after school, dispensing with the grandparents' role. However, a working assumption about the period of the family life cycle when grandparents may be called upon to provide childcare is that it lasts from the birth of the eldest grandchild until the youngest attains the age of 12.

Also as a working assumption, we can focus on the role of the maternal grandmother, of all the four grandparents the most involved in childcare and the one most likely to be alive and well during the years when childcare is needed. (Mothers are generally younger than fathers, and women more long-lived than men). Given the grandmother's life expectancy, three demographic factors determine the probability that the grandmother is alive and under a certain age during these years; the age gap between the grandmother and her daughter (the mother); the age gap between the daughter and the eldest grandchild, and the age gap between the eldest and youngest grandchildren. This is illustrated in the family history diagram below.

Fig. 9; Stylised family history of grandmother, her daughter and her grandchild



In Fig. 9, the age of the grandmother at the birth of her eldest daughter is OA. The daughter may be her eldest or her youngest child. The age of the daughter at the birth of her eldest child (the grandchild) will be AB. The span of years during which childcare is needed lasts from the birth of that grandchild until that grandchild – as well as any younger ones – reach the age of 12. The distance BC represents the age gap between the eldest and youngest grandchildren, and the span of the childcaring years will be BC+12.

The mean age at first birth fell from 26 in 1940 to under 24 in 1970, then rose again to around 26 by 2000 (Smallwood, 2002, p. 40). The average age at which mothers gave birth to children in the UK – including both first and subsequent children - has also changed during successive cohorts of women, as shown in Fig. 4, but in a slightly different way; smaller families mean the average age at giving birth was lower in the early 1990s than in the 1940s because women finished childbearing sooner, although it has now started to rise again. Women who are now mothers of at least one child under 12 will be almost all in the age range 17 to 56, with a distribution at the child's birth which follows that in Fig 10. The probability of adults aged 40 having a mother still alive has barely fallen in the last twenty years (Murphy and Grundy 2003) whilst the probability for adults aged 50 has fallen very slightly; but most mothers of under 12's are younger than that.

We now consider the age of these women's own mothers at the time the grandchildren were born. Although the age distribution of starting a family has changed over successive generations, the scale and shape of the 'tails' of this distribution have not changed very much (Population Trends 108, 2002, pp39-40). In 2001, less than 5% of births have been to women under 15 or over 40. Before 1970, there were less early teenage births but a few more births to women over 40, both 'tails' of the distribution adding to 6.2%. The grandmother's age at the birth of the mother is probably correlated with the mother's age at the birth of the grandchild, since age of first childbearing is correlated with social class (Botting and Cooper, 1993). Working

class women are more likely to have a short 'generation gap'. That is, if the mother is relatively young at first childbearing, her mother (the grandmother) also probably gave birth at a young age and this will entail a relatively small gap between the ages of grandmother and grandchild.

Given the age distribution of 'daughters' (the middle generation of women) at first childbirth, how can we link this to the age distribution of the grandmothers at the time they had their daughters? The age distribution of grandmothers at their daughters' birth depends on the age-cohort (birth year) of the grandmothers themselves. But that is precisely what we want to find out. This circularity can only be resolved by making some simplifying assumptions. We therefore assume that the probability of the daughter being born to a grandmother of age x is given by the age distribution of mothers giving birth in the year the daughter was born. However, we do not attempt to take into account the likely correlation between these two distributions (that is, early childbearing running in families). This is because insufficient information is available. If the likely association between grandmothers' and daughters' ages could be taken into account, those daughters starting a family at an early age would be more likely than our chosen model shows to have a young grandmother available to help them, and those starting a family at a late age would be less likely.

Firstly, we pose the question; how are newborn children distributed by age of the mother? Using data such as that in Fig. 10 enables us to construct a frequency distribution of mothers giving birth in 2001 by their dates of birth. The Office of National Statistics supplies tables showing the distribution of all births by age of the mother for a range of five year bands; births to teenagers born in 1982-6 back to women giving birth now in their 40s who were born in 1957-61. Secondly, given the year in which a woman was born, what is the probability that her mother (the 'grandmother') was of a certain age? The ONS tables were used to construct an estimate of the frequency distribution by birth dates (and hence ages) of grandmothers of babies born in 2001. The same exercise was then repeated for babies born in 1981, with fertility data going another 20 years further back.

The results of the calculations are shown in Fig 11. Although the availability of fairly young grandmothers (under 50) fell slightly over the 20 years to 2001, the probability of a baby born in 2001 having a grandmother aged between 50 and 70 (the peak years of giving childcare help for grandchildren, according to the Time Use Survey) rose from 51% in 1981 to 59.7% in 2001. Two important questions remain; how likely are these grandmothers still to be alive, and how has that changed since 1981? And if they are alive, are they more or less likely than in 1981 to be living in the same district?

The chances of the grandmother surviving to a certain age are given by the life expectancy tables provided by the Government Actuary's Department (available on request from the ONS). They show that on the basis of age-specific death rates in 1980-82, women had a 95.16% chance of surviving to age 50, and a 76.4% chance of surviving to age 70. By 1999-2001, their chances of survival had improved slightly; 96.58% were surviving to age 50 whilst 82.95% were living till age 70. Feeding this information into Fig 11 gives the estimate of living grandmothers in the second section of the table. After taking increased life expectancy into account, there is a

slightly larger increase in the proportion of babies with grandmothers aged 50-69, by around 10 percentage points from 45% in 1981 to 55% in 2001.

However, the chances that these grandmothers will live in the same area as their grandchildren have probably fallen. In the 2001 Census, 12.2% of persons in England and Wales had moved from a different district (or from another country) in the previous 12 months; there was some variation between regions, with London (15%) showing a much higher proportion than average (Fig. 5). However in the 1991 Census only 10.2% of persons had moved from a different district in the previous 12 months. It seems, therefore, that migration is increasing and that the proportion of families with conveniently nearby grandparents is likely to have fallen in the last two decades. Going further back, the Survey of English Housing shows that in 1981 1.6 million households moved (9% of the national total), but by 2000/1 the number had risen to 2.3 million, 11% of the total. Those who did move, were moving further at the end of the period; in the three years to 2000/1 16% of all moves were between regions, compared to only 7% in the three years to 1981. It seems clear that the English population is becoming more mobile, especially with regard to moves over a long distance, which are often for work reasons. Moreover, people in the grandparent age groups are themselves increasingly likely to move; with more people becoming house owners, retired persons have a greater opportunity to move to a coastal or rural area. ONS population estimates show that between 1989 and 2001, the absolute number of residents over 60 has fallen in London, for example, despite rising life expectancy. Similarly, the elderly population of popular retirement areas such as East Sussex and Devon has risen. Where elders move to the country or the seaside, and their children and grandchildren are left behind in urban employment centres, grandparents will become less available as childcarers. In particular, such moves may mean that children are left with neither set of grandparents living nearby, whereas a sizeable proportion of inter-district moves by the parent generation are likely to be associated with settling near to one parent's extended family when a man and a woman from different areas set up house together, or returning to such an area after a period of working or studying away.

The next step in assessment of grandmothers' availability for a major childcaring role is to take into account the changing employment rate of older women. In the last section of Fig. 11 we estimate the effects of this on the probability that grandmothers will offer childcare. We apply the activity rates of women aged 50-59 in 1981 and 2000 (those looking for work are assumed to be in principle no more available for childcare than those actually working). We then assume that the proportions of employed grandmothers who actually do childcare for their grandchildren is given by the proportion, in the Time Use Survey 2000, of employed women in this age group who engage in childcare for other households. The same is done for non-employed grandmothers. For the period around the year 2000, the Time Use Survey tells us how many older women were actually providing childcare to other households; so if they were doing so, they must have been living close enough. But applying the Time Use Survey estimates of childcaring by employment status to 1981 is merely a way of taking into account the effect on grandmothers' childcare of change in economic activity. The grandmothers of 1981 might actually have been providing more care than this, whether they were employed or not, if more of them then lived close by. Fig. 11 estimates that the effect of rising work rates amongst women aged 50-59 almost cancels out the effect of the increased chances by 2001 of having a living

grandmother in this age group. However, taking into account the increase in the number of living grandmothers in their 60s (less than 10% of whom work) the combined effects of demography and changes in economic activity amongst all grandmothers aged 50-69 make them more available to help their daughters with childcare now than in 1981. This is consistent with the finding from the BHPS data that childcare provided by relatives has risen during the last decade.

Conclusions

Over the period 1991-2000, there has been a rise in the provision of childcare to working mothers by relatives from outside the household. This has been particularly important for mothers of children under 5, and most of all for mothers of four-year-olds, whose employment rate has shown a major increase during this period. Relatives, most of whom are probably grandparents and particularly grandmothers, appear to be supplementing the new state childcare services which offered part-time childcare for four-year-olds from 1998-1999, and which are now being gradually extended to three-year-olds. Informal care, much of which comes from grandparents, is helping more mothers to work and to work longer hours than before, thus earning higher incomes. This effect is concentrated amongst women who do not have higher education qualifications, consistently with the findings of earlier studies that informal care is of greatest importance to lower-income households.

Demographic changes in the period 1981-2001 have increased the chances of a newborn child having a living grandmother aged under 70. This is due to a combination of three factors; declining family size has reduced the average age of women at childbirth; many of the women now giving birth were born in the 1970s, at a time when the age of mothers at first childbearing had dipped to a historic low; and life expectancy has been rising. However, increased mobility of households between districts means that even if grandparents are alive, they may be less likely than 20 years ago to be living near their grandchildren, although it is difficult to quantify this. In particular, the growing exodus of better-off elders from large cities to a rural retirement threatens their availability to support the middle generation with regular childcare during working hours.

The peak age range at which older women provide childcare to other households is 50-70 years. In Britain, this spans the current standard retirement age for women, who can for the time being start receiving their state pension at 60 years, although for younger cohorts of women this will be gradually raised to 65. The question must therefore be raised; as the employment rate of older women rises, and as they retire later due to changes in pension rules, what will be the effect on their provision of childcare ? The Time Use Survey shows that women over 50 who are in employment are only half as likely to provide childcare to other households as those who are not. Thus, if the employment rate of those in their early 60s rises, the supply of grandparent childcare may start to dwindle.

There is therefore a potentially serious conflict between two current goals of employment policy in the UK, and possibly in the EU more widely; on the one hand the goal of raising the employment rate of seniors in order to improve labour supply and address difficulties in provision on adequate pensions, and on the other hand the goal of increasing the proportion of mothers in work. Moreover, the impact of this

conflict will be greater for lower-income families, thus also affecting the government's strategy on poverty. Raising the state pension age will impact most on seniors who have no non-state pension provision and/or few savings, and thus little opportunity to retire early on an alternative income. It is precisely these people who are likely to be grandparents of children in lower-income families, where the mother most needs the grandparents' help with informal childcare. Future planning of childcare services must take into account the likely fall-off in grandparent care, which will change the way in which mother's employment rates respond to the government's childcare strategy.

References

- Arthur, Sue, Snape, Dawn, and Dench, Geoff, 2003; The moral economy of grandparenting, National Centre for Social Research, London
- Barham, Catherine, 2002; Economic inactivity and the labour market, Labour Market Trends, February, pp 69-77
- Bengston, V.L., 1993; Is the contract across generations changing? in Bengston, V.L. and Achenbaum, W.A., eds., The changing contract across generations, Aldine de Gruyter, New York, pp 3-23.
- Botting, Beverley and Cooper, Jacqui, 1993; Analysing fertility and infant mortality by mother's social class as defined by occupation – Part II, Population Trends, no. 74, winter, pp 27-33
- Dench, Geoff, Ogg, Jim and Thomson, Katarina, 2000, The role of Grandparents, in Jowell, R., Curtice, J., Park, A. and Thompson, K., British Social Attitudes Survey, 16th Report, Aldershot, Aldgate, pp 135-156
- Government Actuary's Department; Interim Life Tables
- Gray, Anne and Bruegel, Irene, 2002; The demand for, and supply of, childcare services in Northern Ireland, report for the Equalities Commission of Northern Ireland, Belfast.
- Haskey, John, 1998; One-parent families and their dependent children in Great Britain, in Ford, Reuben and Millar, Jane, Private lives and public responses: lone parenthood and future policy in the UK, Policy Studies Institute, London; pp 22-41
- Jonsson, Ingrid, 2003; Policy Perspectives on changing inter-generational relations, Social Policy and Society, vol. 2, issue 3, pp 241-8.
- [La Valle, I., Finch, S., Nove, A., and Lewin, C., 2000, Parents' demand for childcare, DfEE research report RR 176](#)
- McKay, Stephen , 2002, Low/moderate-income families in Britain; Work, Working Families Tax Credit and childcare in 2000, Department for Work and Pensions with the Inland Revenue
- Meltzer, H, 1994; Day care services for young children, Department of Health, HMSO, London
- Mooney, Ann and Statham, June, 2002; The pivot generation; informal care and work after fifty, Policy Press, Bristol
- Murphy, Michael, Grundy, Emily, and Shelton, N, 1999; Looking beyond the household; intergenerational perspectives on living kind and contact with kin in Great Britain, Population Trends, autumn, pp 19-27
- Murphy, Michael, and Grundy, Emily, 2003; Mothers with living children and children with living mothers; the role of fertility and mortality in the period 1911-2050; Population Trends no. 112, summer, pp 36-44

Smallwood, Steve, 2002; The effect of changes in timing of childbearing on measuring fertility in England and Wales, Population Trends, 109, autumn, pp 36-45
Wheelock, Jane and Jones, Katharine; Grandparents are the next best thing: informal childcare for working parents in urban Britain, Journal of Social Policy, July 2002
Woodland, Stephen, Miller, Melissa and Tipping, Sarah, 2002; Repeat study of parents' demand for childcare, Research Report RR 348, Department for Education and Skills, Sheffield.

List of tables

Fig. 1; Summary of grandparents' role from different surveys

Fig. 2: Trend in the economic activity rate of women and men over 50

Fig. 3: Changes in life expectancy

Fig. 4: Trend in the average age of mothers at the birth of their children

Fig. 5: Persons moving from another district or country; UK Census 1991 and 2001

Fig. 6: Childcare help from grandparents as shown in the UK Time Use Survey 2000

Fig. 7:

Fig. 8: Main results from BHPS relating to childcare

Fig. 9: inserted in main body of text, see above

Fig. 10: Average annual female births by 5 year date bands and age band of mother

Fig. 11: Summary of grandparent availability; 1981 and 2001

Fig 1: Summary of different studies reporting information on grandparents' role in childcare

Date of field-work	Survey	Sample size	Geographical area; other sample characteristics	% of children regularly cared for by grandparent(s)	Age range of children to whom findings relate	Differences between employed and non-employed mothers; lone parents and couples
1990	Meltzer	Several thousand	Great Britain	Over one fifth (but some of these for very short hours)	Under 5	Not given
1999	La Valle et al.	5152	England and Wales	24% 25% 20% 17%	Under 14 Under 3 3-4 year olds 5-11 year olds	Couples both full time; 29% Couples, mother part time; 27% Lone parents full time; 35% Lone parents part time; 32%
2001	Woodland et al	5416	England and Wales	24%	Under 14	
2000	McKay	6557	Great Britain; low income families, excl. unwaged	20% during school terms; 34% during school holidays 46% 40%	Under 16 Under 16 Under 5 5 to 9	Couples both employed; 20% Lone parents, employed; 37%
1999	Dench et al.	Several thousand	Great Britain	25%	Under 6	Mother works part-time; 32% Mother works full-time; 20% Mother no job; 15%
1999	Wheelock and Jones	425	Newcastle	Over half	Under 14	

Fig. 2; Economic activity rates of men and women aged 50+

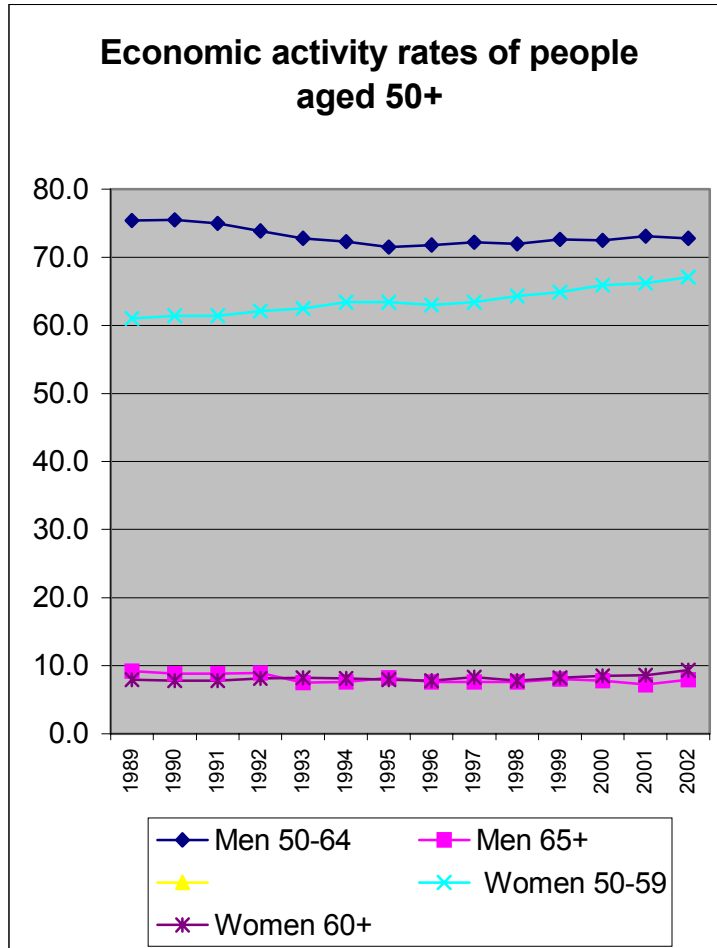


Fig. 3: Changes in life expectancy; 1980-82 compared to 1999-2001

Proportion of women surviving to the age given
at the left of the row:-

Age	1980-82	1999-2001
50	95.16	96.58
60	89.35	92.62
65	84.05	88.84
70	76.43	82.95
80	50.06	59.94

Fig. 4: Average age of mother at birth of child, 1911-2000

Date (single years)	Average age at childbirth	Date (five year averages)	Average age at childbirth
1911	30.0		
1926	29.2		
		1941-1945	30.1
1946	29.3	1946-1950	29.9
1951	28.4	1951-1955	29.1
		1956-1960	28.7
1956	29.0	1961-1965	28.2
1960	27.3		
1964	27.3		
1966	26.9	1966-1970	27.2
1971	26.2	1971-1975	26.5
1976	26.4	1976-1980	26.4
1977	26.5		
1980	26.7		
1981	26.8	1981-1985	26.7
1986	27.0	1986-1990	26.9
1987	27.1		
1988	27.2		
1990	27.5	1991-1995	27.8
		1996-2000	28.5
2000	29.1		

Fig 5: Percentage of persons moving residence from another district or country in the 12 months before the Census; England and Wales 1991 and 2001

Region	All residents	All residents	Migrants as % of persons 1991	Migrants as % of persons 2001
North East	2461354	217164	8.8	11.3
North West	6458782	566250	8.8	11.2
Yorkshire and the Humber	4656011	442196	9.5	12.3
East Midlands	3812378	355244	9.3	12.1
West Midlands	4963256	422858	8.5	10.8
Eastern	4846059	515069	10.6	11.8
London	6152908	758206	12.3	15.0
South East	7132968	814530	11.4	12.7
South West	4392230	507337	11.6	12.9
Wales	2719223	233199	8.6	11.2
England and Wales	47595169	4832053	10.2	12.2

Fig 6: Childcare help from grandparents as shown in UK Time Use Survey 2000

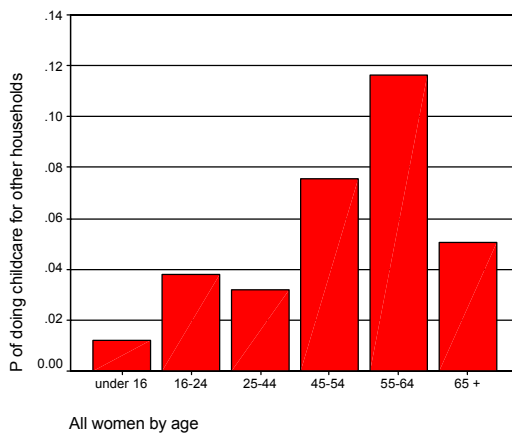
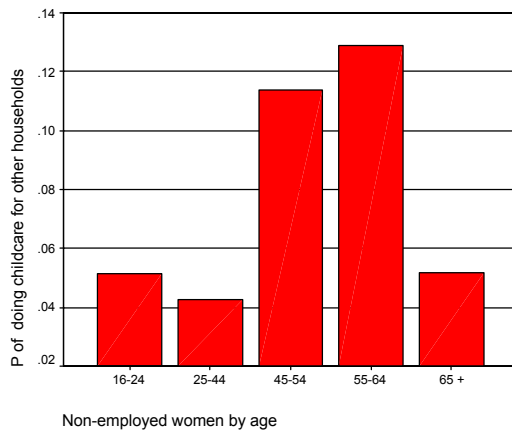
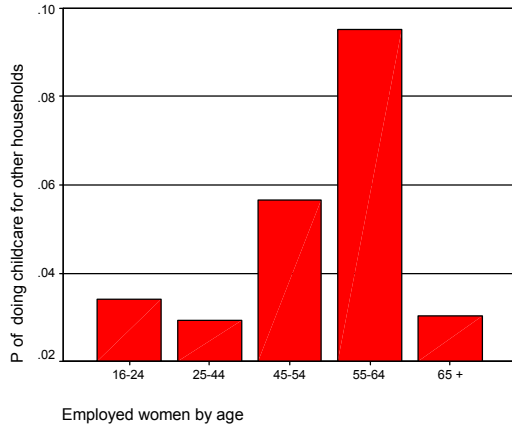
a) Hours of grandparent care per family per week

	Child under 5	Child under 12
Mothers with paid job	8.64	8.57
<i>N</i>	344	795
Mothers with no paid job	3.64	3.84
<i>N</i>	314	548
All mothers	6.26	6.64
<i>N</i>	658	1343
Difference between working and non-working mothers	5.00	4.73

b) Percentage of families receiving childcare help from grandparents

Mothers with paid job	39.5	32.3
Mothers with no paid job	20.1	16.0
All mothers	30.3	25.6

**Fig. 7: Proportion of women providing childcare to other households;
Results from Time Use Survey**



The last few pages should print out in `landscape`. If they do not, please adjust your word processor settings.

Figs 8, 10 and 11 are further on.

Fig. 9 is in the main body of the text.

Fig. 8: MAIN RESULTS FROM BHPS RELATING TO CHILDCARE

	WAVE A	WAVE J
	1991	2000
No. in sample	10264	15605
No. of men in sample	4833	7178
No. of women in sample	5431	8427
No. of mothers of children under 12	1427	2251
of whom: mothers in couples	1194	1813
lone mothers	233	438
Amongst mothers/female guardians:of under 12s:		
% getting help with childcare from a relative	16.0	22.4
% getting help with childcare from a friend/neighbour	5.3	5.8
% making any use of childcare from outside household	29.4	35.5
Average weekly cost of childcare from relatives	17.11	31.37
Average weekly cost of childcare from friends/neighbours	18.18	22.46
Average weekly cost of all childcare from outside household	31.29	54.3
Amongst mothers/female guardians of under 12s in employment:		
% getting help with childcare from a relative	27.7	34.8
<i>Proportion in employment (%)</i>	55.3	61.9
% getting childcare help from a relative by various characteristics:		
Lone mothers	15	19.2
Mothers in couples	16.1	23.3
Mothers working 40 or more hours per week	23.3	38.3
<i>Proportion of mothers working these hours</i>	3.0	4.1
Mothers working 21-39 hours per week	31.9	36.1

<i>Proportion of mothers working these hours</i>	26.8	35.7	
Mothers working under 20 hours per week	11.9	13.4	
<i>Proportion of mothers working these hours</i>	56.1	59.8	
Region with lowest proportion helping, and %	London	5.4 London	13.6
Region with highest proportion helping, and %	Tyne/Wear	31.6 Tyne/Wear	32.4
SEG with highest proportion helping, and %	Skilled	Skilled	
	non-manual	32.6 non-manual	40.8
SEG with lowest proportion helping, and %	Partly skilled	19.6 Professional	13.3
Mothers with a child under 5	12.7	24.1	
<i>Proportion with a child under 5</i>	59.6	59.9	
Mothers with a child aged 4	9.8	24.8	
<i>Proportion with a child aged 4</i>	7.7	6.3	
Age of youngest child at which the highest % get childcare from relatives	10 (with 31.9%)	2 (with 30.4%)	
Proportion of mothers working by age of youngest child			Change 1991-2000
Youngest aged <1	30.1	41.5	11.4
Youngest aged 1	39.3	54.1	14.8
Youngest aged 2	51.9	55.9	4.0
Youngest aged 3	49.1	59.8	10.7
Youngest aged 4	48.0	64.5	16.5
Youngest aged 5	61.0	59.6	-1.4
All with child under 5	45.6	57.2	11.6
All with child 5-11	69.5	69.1	-0.4

Proportion of mothers getting childcare help from relative:-	1991	2000	change
Youngest aged <1	11.2	25.9	14.7
Youngest aged 1	16.2	27.5	11.3
Youngest aged 2	18.2	30.4	12.2
Youngest aged 3	16.4	27.9	11.5
Youngest aged 4	9.8	24.8	15.0
Youngest aged 5	16.9	21.2	4.3
Youngest aged 6	19.1	17.9	-1.2
Youngest aged 7	21.2	16.9	-4.3
Youngest aged 8	25.0	24.6	-0.4
Youngest aged 9	18.7	19.6	0.9
Youngest aged 10	31.9	25.2	-6.7
Youngest aged 11	12.9	15.8	2.9
All with child under 5	12.7	24.1	11.4
All with child 5-11	20.6	20.1	-0.5

Proportion of working mothers getting help from relative:-		N		N	change
London	10.0	7	20.8	72	10.8
Rest of South East	19.7	157	22.9	166	3.2
South West	21.1	57	28	75	6.9
E. Anglia	10.3	29	36.1	36	25.8
E. Midlands	26.8	64	30.5	82	3.7
W. Midlands conurbation	44.0	25	35.5	31	-8.5
Rest of W. Midlands	29.6	54	36.7	60	7.1
Greater Manchester	44.8	29	37.5	32	-7.3
Merseyside	45.0	9	46.7	15	1.7
Rest of North West	27.9	43	40.3	62	12.4
South Yorkshire	27.8	18	40	25	12.2
West Yorkshire	27.0	37	40	25	13.0
Rest of Yorks and Humberside	47.6	21	33.3	33	-14.3

Tyne and Wear	60.0	6	57.9	19	-2.1
Rest of North	54.8	31	40.5	37	-14.3
Wales	25.0	36	38.1	273	13.1
Scotland	39.5	86	39.5	324	0.0
All regions	28.1	789	34.8	1395	6.7

Fig 10

Average annual female births by 5 year date bands and age band of mother

Source: derived from data on ONS web site

		Total births (both sexes)	Female births only	Row shows % of births to mothers of age at head of column; the date of birth of mothers having that age in the period to which the row relates is given underneath each entry Under										
		all ages	all ages	15	15-19	20-24	25-29	30-34	35-39	40-44	45+			
1941- 45	% of births in this period	21032	9739	0.01	3.30	20.02	24.63	24.61	18.63	7.94	0.86			
	<i>Mother's DOB</i>			1926	1921	1916	1911	1906	1901	1896	1891			
1946- 50	% of births in this period	19228	8846	0.01	3.28	20.40	27.27	22.51	18.35	7.40	0.78			
	<i>Mother's DOB</i>			1930	1925	1920	1915	1910	1905	1900	1895			
1951- 55	% of births in this period	15866	7443	0.01	4.18	23.59	27.42	22.28	15.21	6.58	0.71			
	<i>Mother's DOB</i>			1935	1930	1925	1920	1915	1910	1905	1900			
1956- 60	% of births in this period	16206	7796	0.03	5.52	24.76	27.49	21.10	15.20	5.34	0.58			
	<i>Mother's DOB</i>			1940	1935	1930	1925	1920	1915	1910	1905			
1961- 65	% of births in this period	14913	7177	0.01	7.68	25.89	26.75	19.91	13.77	5.55	0.45			
	<i>Mother's DOB</i>			1945	1940	1935	1930	1925	1920	1915	1910			
1966- 70	% of births in this period	11724	5645	0.04	10.06	30.59	26.11	16.63	11.66	4.43	0.46			
	<i>Mother's DOB</i>			1950	1945	1940	1935	1930	1925	1920	1915			
1971- 75	% of births in this period	8021	3985	0.08	10.92	30.94	31.47	14.55	8.51	3.19	0.35			
	<i>Mother's DOB</i>			1955	1950	1945	1940	1935	1930	1925	1920			
1976- 80	% of births in this period	5224	2517	0.04	11.01	29.32	32.58	17.60	6.95	2.26	0.20			
	<i>Mother's DOB</i>			1960	1955	1950	1945	1940	1935	1930	1925			
1981- 85	% of births in this period	3813	1775	0.06	10.20	29.41	29.92	19.66	8.45	1.97	0.39			
	<i>Mother's DOB</i>			1965	1960	1955	1950	1945	1940	1935	1930			
1986- 90	% of births in this period	3369	1549	0.06	10.26	26.34	31.76	20.21	9.17	1.94	0.32			
	<i>Mother's DOB</i>			1970	1965	1960	1955	1950	1945	1940	1935			

1991- 95	% of births in this period	3493	1625	0.06	8.06	22.83	30.71	24.00	11.20	3.02	0.12
	<i>Mother's DOB</i>			<i>1975</i>	<i>1970</i>	<i>1965</i>	<i>1960</i>	<i>1955</i>	<i>1950</i>	<i>1945</i>	<i>1940</i>
1996-	% of births in this period	3381	1603	0.06	8.17	18.53	28.26	27.39	13.79	3.43	0.25
2000	<i>Mother's DOB</i>			<i>1980</i>	<i>1975</i>	<i>1970</i>	<i>1965</i>	<i>1960</i>	<i>1955</i>	<i>1950</i>	<i>1945</i>

Fig 11: SUMMARY OF GRANDMOTHER AVAILABILITY; 1981 AND 2001

	1981	2001	Change
Grandmothers by expected age, before taking into account death rate (1):-			
Proportion of grandmothers of newborns aged 70-79	3.54	5.43	1.89
Proportion of grandmothers of newborns aged 60-69	15.69	20.10	4.41
Proportion of grandmothers of newborns aged 50-59	35.16	39.58	4.43
Proportion of grandmothers of newborns aged under 50	35.80	33.71	-2.09
Proportion of newborns with a living grandmother aged 50-69			
Grandmother aged 60-69	13.19	17.86	4.67
Grandmother aged 50-59	32.66	37.62	4.96
Total aged 50-69	45.84	55.48	9.63
Proportion of newborns with a living grandmother aged 50-59 who is not in paid employment			
	12.9	12.7	-0.2
Proportion of newborns with a living grandmother aged 50-59 who is likely to offer help with childcare (prediction based on Time Use Survey)			
	7.9	8.2	0.3

Note 1; a very small number of grandmothers are excluded from the calculation by omitting births to under 15s and over 45's in each generation.