Parent and Adult-child Interactions: Empirical Evidence from Britain

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Abstract

The paper uses new data from the British Household Panel Survey to study frequency of contact of parents with their adult children, and help received by parents from them. It also investigates the extent to which adult children benefit from their parents' help, both financial and in-kind, such as childcare. The empirical analysis is motivated by a theoretical model of an efficient extended family, and a number of predictions about the impact of parents' and children's economic resources on these interactions are consistent with the model. But there are also some findings that are hard to reconcile with it or other economic theories of family interaction.

Non-technical Summary

Contact with their adult children, as well as help from them, is usually valued by parents. Adult children also benefit from their parents' help, both financial and in-kind, such as childcare. While children usually care about their parents' welfare, and so also wish to see them and help them, this contact/help comes at some cost, at least at the margin. The paper presents a simple theoretical model that captures these ideas and is used to structure the empirical analyses that follow. In this model, parents and adult children are assumed to care about each other's welfare, and it is based on the assumption that the extended family makes efficient decisions about help, contact, financial transfers and individual consumption. Parental contact with and help from adult children are viewed as particular examples of 'services' from children to their parents that do not have clear market substitutes. While provision of these may initially increase the child's welfare as well as that of the parents, at the margin they are provided at some cost to the adult child because it may undermine his or her independence and uses scarce time. The model entails predictions about how the economic resources of parent and child affect contact between them, and receipt or provision of in-kind and financial help by parents.

The ability to study how these interactions vary in the British population has been hampered by lack of data. In the eleventh annual wave of the British Household Panel Survey (2001), information about frequency of contact with each parent, help provided by parents and help given to parents was collected from respondents who had a living parent not residing with them (this was collected in 2002 for the Scottish and Welsh booster samples). They were also asked how long it would take to travel to each parent's

residence. Similar questions were asked of parents who had adult children living elsewhere.

Analysis of the BHPS data has uncovered a number of relationships that are consistent with the model of an efficient extended family. First, more affluent parents are more likely to provide regular or frequent financial help to their adult children and more affluent children are less likely to receive it. Second, more affluent children see their mother or father less frequently, which suggests that bargaining power effects of children's resources dominate income effects in the transfer-service arrangement. Third, the previous relationship primarily reflects a tendency for more affluent children and parents to live farther apart, with greater distance reducing contact. Thus, an important part of the story about parents' contact with adult children and help provided to them concerns parents' and children's location decisions relative to each other. Fourth, controlling for distance, more affluent children are more likely to receive regular or frequent help with childcare, consistent with a dominance of bargaining power effects over income effects. But more affluent parents are more likely to provide other types of in-kind help to their adult children, suggesting dominant income effects of parents' resources.

There are also some findings that are harder to reconcile with the theoretical model or other economic theories of family interaction. First, we would expect that parents with more resources would have more contact with their adult children, both because more resources improve their bargaining power and because the demand for contact increases with joint family resources. The negative effects of parents' economic resources on frequency of contact with adult children, even after controlling for distance,

are not consistent with this prediction, nor with that of the strategic bequests theory. Second, the 'strategic family geography' theory predicts that the first child leaving the parents would live farther away from them then his/her siblings and that only-children would live closer to their parents. While our evidence is consistent with the first prediction, it is not with the second.

Non-economic attributes of parents and adult children are also important in accounting for variation in help and contact between generations. For instance, daughters have more frequent contact with their mother or father (in person or by phone) than sons, particularly if they have a dependent child. Mothers are more likely to receive regular or frequent in-kind help from an adult child and see them more frequently than fathers, and they are also more likely to provide regular or frequent childcare for their grandchildren than fathers. Fathers are more likely than mothers to provide financial help to their adult children. The likelihood of parental in-kind help to their adult children declines with the parent's age, while the probability of receiving in-kind help from their children increases with parent's age. The more dependent children that the parent still has in his/her household, the less likely that he/she gives financial or in-kind help to their adult children, that he/she sees them frequently and that he/she provides childcare for his/her grandchildren. Parents whose health limits their daily activities are more likely to receive in-kind help from and have contact with their adult children, and retired parents are more likely to provide childcare for their grandchildren. Adult offspring with more brothers and sisters have less frequent contact with their parents, and they are less likely to receive financial help or in-kind help from their parents.

Distance between parents and child is a very important factor in accounting for variation in contact and in-kind help given and provided, but not financial help. While better-educated and more affluent parents and children live farther apart from each other, having a grandchild reduces the distance between them. Controlling for economic resources and education, parents and children who are homeowners live closer to one another, and adult offspring who are married or who have a dependent child live closer to their parents.

1. Introduction

Contact with their adult children, as well as help from them, is usually valued by parents. While children usually care about their parents' welfare, and so also wish to see them and help them, this contact/help comes at some cost, at least at the margin. The next section presents a simple theoretical model that captures these ideas and is used to structure the empirical analyses that follow. In this model, parents and adult children are assumed to care about each other's welfare, and it is based on the assumption that the extended family makes efficient decisions about help, contact, financial transfers and individual consumption. The third section describes the data that is analyzed, and the fourth discusses statistical issues that arise in trying to estimate the relationships suggested by the theoretical model. Section 5 presents the results for frequency of contact between adult children and parents in relation to children's attributes, particularly their economic resources; section 6 discusses how financial help from parents varies among families and section 7 examines how in-kind help received by parents from adult children varies with parents' and children's attributes, including their resources. The eighth section analyzes 'family geography'—the location of adult children relative to parents, and the ninth studies in-kind help provided by parents to adult children in relation to the parents' and children's attributes. The final section summarizes the main conclusions.

A number of the paper's findings are consistent with the theoretical framework. First, more affluent parents are more likely to provide regular or frequent financial help to their adult children and more affluent children are less likely to receive it. Second, more affluent children see their mother or father less frequently, which suggests that bargaining power effects of children's resources dominate income effects in the transfer-

service arrangement. Third, the previous relationship primarily reflects a tendency for more affluent children and parents to live farther apart, with greater distance reducing contact. Thus, an important part of the story about parents' contact with adult children and help provided to them concerns parents' and children's location decisions relative to each other. Fourth, controlling for distance, more affluent children are more likely to receive regular or frequent help with childcare, consistent with a dominance of bargaining power effects over income effects. But more affluent parents are more likely to provide other types of in-kind help to their adult children, suggesting dominant income effects of parents' resources.

There are also some findings that are harder to reconcile with the model of section 2 or other economic theories of family interaction. In particular, there are negative effects of parents' economic resources, including wealth, on frequency of contact with adult children, even after controlling for distance. This is not consistent with a prediction of the model, nor with that of 'strategic bequests theory'. Non-economic attributes of parents and adult children, such as sex and the presence of grandchildren, are also found to be important in accounting for variation in help and contact between generations.

2. Theoretical model

Parental contact with and help from adult children are particular examples of 'services' from children to their parents that do not have clear market substitutes. While provision of these may initially increase the child's welfare as well as that of the parents, at the margin they are provided at some cost to the adult child because it may undermine his or her independence and uses scarce time. A parent may elicit these services by paying

transfers to the child, but this is not necessary if children care about the welfare of their parents. The following simple model, developed from Cox (1987), formalizes these ideas.

Let x_p be the parents' consumption, x_c is the child's consumption, and S is 'services' provided by the child to the parents ($S{\geq}0$). The parents' 'private' utility index is given by $U^p(x_p,S)$, and the child's 'private' utility index is $U^c(x_c,S)$. Both parents and children may care about the other's welfare; that is, they may have caring 'social' preferences, which are represented by $W^j=W^j[U^p,U^c]$, $j=p,c$. Of course, the child and parent must both be willing to participate in the transfer-service arrangement, and this gives rise to another two constraints: $W^j[U^p(x_p,S),U^c(x_c,S)] \geq W^j[U^p(y_p,0),U^c(y_c,0)]$ $j=p,c$, where y_p and y_c are respectively parents' and child's resources, or 'income' for short.

We shall assume that parents and child cooperate to achieve an efficient outcome. The weak separability in social preferences $W^j[U^p,U^c]$ implies that the efficient allocation will be found amongst those that are efficient in terms of private preferences; that is, amongst the allocations that maximize $U^p(x_p,S)$ for each $U^c(x_c,S)$ subject to the budget and participation constraints (Chiappori 1992). We can characterize the efficient outcome by maximizing $U^p(x_p,S) + \mu U^c(x_c,S)$ subject to $y_p+y_c=x_p+x_c$, where μ is a Lagrange multiplier that, in effect, reflects a weighting of child's utility relative to parents, which may be an outcome of bargaining. In general, μ is a function of individual incomes and the utility function parameters; it determines where on the utility possibility frontier the efficient allocation is located. An interior solution to this problem gives rise to the conditions for the efficient choices for consumption (x_p and x_c) and of child services (S):

(1a) $U^p_x = \mu U^c_x$

(1b) $U^p_S = -\mu U^c_S$

where $\partial U^j/\partial x_j = U^j_x$, $\partial U^j/\partial S = U^j_S$, $j=p,c$.

Cooperation involves financial transfers (T) from the parents to the child that satisfy the first of these conditions (provided the parents are sufficiently richer than their child—see below for when this is not the case). It equates the marginal utility of the parents' consumption with the product of the marginal utility of their child's consumption and the weight given to child's utility. The second condition indicates that the parents' marginal utility of services is equated to the weighted marginal disutility of services to the child. Combining these two equations,

(2) $(U^p_S/U^p_x) = -(U^c_S/U^c_x)$

That is, at the efficient choice of S and T, the parents' marginal rate of substitution between child services and consumption equals their child's. As $U^j_x>0$ ($j=p$,c) and $U^p_S>0$, $U^c_S<0$ at the optimum. That is, the provision of services by the child is costly at the margin.

The conventional comparative static exercise applied to (1a) and (1b) yields:

(3) $\partial S/\partial y_j = \{ -\mu(U^c_{xS}U^p_{xx}+U^p_{xS}U^c_{xx}) + B(\partial\mu/\partial y_j)\}/D, j=c,p$

where $B=(\mu U^c_{xS}-U^p_{xS})U^c_x - (\mu U^c_{xx}+U^p_{xx})U^c_S$, $U^j_{SS}=\partial^2 U^j/\partial S^2$, $U^j_{xS}=\partial^2 U^j/\partial x_j\partial S$, etc., $D=(\mu U^c_{SS}+U^p_{SS})(\mu U^c_{xx}+U^p_{xx})-(\mu U^c_{xS} -U^p_{xS})^2>0$, $(\mu U^c_{xx}+U^p_{xx})<0$ and $(\mu U^c_{SS}+U^p_{SS})<0$ from the second order conditions for a maximum. The term in (3) involving B can be interpreted as reflecting bargaining in the family, and so we expect that $(\partial\mu/\partial y_p)\leq0$ and $(\partial\mu/\partial y_c)\geq0$, because a person's bargaining power is likely to increase with their share of joint family income (y_c+y_p). For instance, if Nash bargaining were the relevant bargaining solution, then the threat points in the Nash bargain would be the values of

parents' and child's utilities if the participation constraints were binding (with equality), and these increase with the individual incomes of parents' and child respectively. If there were no bargaining effects ($\partial\mu/\partial y_j=0$), $\partial S/\partial y_c=\partial S/\partial y_p$; that is, child services only depend on joint family income, and so income redistribution between parents and child has no effect on S. Higher joint family income would increase S if $U^c_{xS}U^p_{xx}+ U^p_{xS}U^c_{xx}<0$, where we expect $U^j_{xx}<0$, $j=p,c$, because of diminishing marginal utility. Thus, a sufficient condition for a positive income effect is $U^c_{xS}\geq0$ and $U^p_{xS}\geq0$, with at least one of these inequalities being strong.

If, for example, preferences are additively separable ($U^j_{xS}=0$, $j=c,p$), then equation (3) indicates that there are only bargaining effects of individual income changes on child services. In this case, the second order conditions imply that $B<0$, and so a higher child's (parents') income reduces (increases) child services. More generally, there tend to be negative bargaining effects and positive income effects on services associated with higher child's income, and positive bargaining and income effects of higher parents' income. Extending the model to allow for imperfect market substitutes for child services introduces the possibility that that $\partial S/\partial y_p<0$, because of a negative substitution effect. This extension would make it more likely that $\partial S/\partial y_c<0$, as parents reduce transfers to children and buy more of the market substitutes for services.

The model is easily extended to more than one child. An equation analogous to (2) holds for each child, implying that $(U^{c1}_S/U^{c1}_x) = (U^{c2}_S/U^{c2}_x)$.[1] Thus, we expect that children whose marginal costs of providing services are higher will supply fewer services to their parents, and a redistribution of income from one child to another will reduce

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[1] This assumes that services from each child are perfect substitutes, but this assumption could be relaxed.

services supplied by the gainer and increase services supplied by the loser, because of bargaining effects.

An increase in the child's income has two opposing effects on parents' transfers:[2]

(4) $\quad \partial T/\partial y_c = \{ -(\mu U^c_{xx})(\mu U^c_{SS} + U^p_{SS}) - \mu U^c_{xS}(\mu U^c_{xS} - U^p_{xS})$
$$+ [(\mu U^c_{xS} - U^p_{xS})U^c_S - (\mu U^c_{SS} + U^p_{SS})U^c_x](\partial \mu/\partial y_c) \}/D$$

It tends to reduce them because, when the child's income increases, the consumption of the parents must increase to equate the marginal utilities of consumption of parents' and children (condition (1a)). But a higher child's income tends to increase her bargaining power, which shifts the distribution of utilities and income in her favour, thereby tending to increase transfers from parents. Similarly, an increase in the parents' income tends to increase transfers because of the equal weighted marginal utility condition (1a), but more bargaining power for the parents tends to work in the opposite direction:

(5) $\quad \partial T/\partial y_p = \{ (U^p_{xx})(\mu U^c_{SS} + U^p_{SS}) + (\mu U^c_{xS} - U^p_{xS})U^p_{xS}$
$$+ [(\mu U^c_{xS} - U^p_{xS})U^c_S - (\mu U^c_{SS} + U^p_{SS})U^c_x](\partial \mu/\partial y_p) \}/D$$

In the absence of bargaining power effects of individual incomes, a redistribution of family income from the parents to the child brings an equal reduction in transfers from parents ($\partial T/\partial y_c - \partial T/\partial y_p = -1$).

It is possible that parents are too poor to make any transfers. In this case the child chooses the level of services to satisfy the following:

(6a) $\quad (\partial W^c/\partial U^p)U^p_S = -U^c_S(\partial W^c/\partial U^c)$

(6b) $\quad (\partial W^c/\partial U^p)U^p_x = U^c_x(\partial W^c/\partial U^c)$

If children are selfish (i.e. $\partial W^c/\partial U^p = 0$), then no services are provided. But with caring preferences some services are provided, and the child may also make transfers to his/her

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[2] The terms involving $(\partial \mu/\partial y_p)$ and $(\partial \mu/\partial y_c)$ again reflect bargaining in the family.

parents. Higher income of parent or child increases services to parents (for $U^c_{xS}>0$ and $U^p_{xS}>0$).[3] This contrasts with the possible negative effect of child's income when there are bargaining effects and parents make transfers to the child.

3. Data

In the eleventh annual wave of the British Household Panel Survey (2001), information about frequency of contact with each parent was collected from respondents who had a living parent (not residing with them). They were also asked about help given to and received from parents, and how long it would take to travel to the parent's residence. Similar questions about contact were asked of parents who had adult children living elsewhere (about the one with whom they had most contact if more than one adult child was living apart from them), and they were also asked about help given to and received from children not living with them. These measures of contact and help correspond to 'services' in the theoretical model.

The average age of the adult child respondent is 37, while his/her mother (father) is aged 64 (63) on average. Tables 1-3 illustrate the data on their contact with their parents; the sample is confined to persons who do not live with either parent.[4] For example, 13% of adult children see their mother daily, and 24% telephone her daily. They see and speak on the phone to their fathers less frequently than to their mothers. Daughters see and telephone their mother or father more frequently than sons. Table 3 shows that both visits and telephone calls are much more frequent if the child lives closer to his/her mother, and the results are similar for fathers. Nearly three-fifths of adult

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[3] When children are also too poor to make transfers, $\partial S/\partial y_c = -\mu U^c_{Sx}/(\mu U^c_{SS}+U^p_{SS})$ and $\partial S/\partial y_p = -U^p_{Sx}/(\mu U^c_{SS}+U^p_{SS})$, where $\mu=(\partial W^c/\partial U^c)/(\partial W^c/\partial U^p)$. When the child makes transfers, only joint income matters for service provision (i.e. $\partial S/\partial y_c = \partial S/\partial y_p$).

children live within a half-hour's travel time to their mother, with little difference between daughters and sons.

The average age of the parent responding to the questions about contact and help is 60. Table 4 shows the types of help that parents receive regularly or frequently from children living elsewhere, and also the types of help they provide children (they may receive or give more than one type). Receiving lifts in their child's car, shopping and home maintenance and improvement are the most popular forms of help received by parents, but over one-half of parents receive no regular or frequent help from their children (according to either parents' or children's responses[5]). Mothers are more likely to receive regular or frequent help (50%) than fathers (35%). The most common forms of regular or frequent help provided by parents to their adult children are child-care, financial help, providing and cooking meals and giving lifts in their car. A larger proportion of parents interviewed report providing help than is reported as received by the adult children interviewed. Two-fifths of parents provide no regular or frequent help according to parents' responses and 57% according to adult children's responses.

The statistical analysis that follows focuses on ordered and dichotomous indicators of adult children's contact with parents, help received by parents from adult children and help provided by parents to their adult children. The analysis also examines the distance in travel time between the parent's and child's residence. These variables are related to attributes of the child and parent, as suggested by the simple theoretical model above, and also by the theories of 'strategic bequests' and 'strategic family geography' outlined below.

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[4] The sample includes only original panel members interviewed in 2001 and temporary sample members living with them, not members of the ECHP and Scottish and Wales booster samples.

4. Statistical issues

Testing the 'predictions' of the theoretical model encapsulated in equation (3) requires data on both parents' and adult children's economic resources when they live apart. Except for a small sample of relatively young adult children who can be matched with their parents in the BHPS (because they lived with them at sometime during the panel), we usually lack information on income from one side of the 'service transaction'.[6] To illustrate the bias that may result, suppose we were trying to estimate $\partial S/\partial y_c$ using information obtained from adult children; that is, we have information on y_c, but not y_p. Let the relationship suggested by equation (3) be linear: $S=\beta y_c+\delta y_p+e$, where e is a random variable capturing residual influences on S. The problem we face is that y_p is omitted from the equation that we estimate. As a consequence the OLS estimate of β is inconsistent: $\text{plim}\beta_{ols}=\beta + \delta[cov(y_c,y_p)/var(y_c)]$. Studies of intergenerational income mobility (Solon, 1992; Ermisch and Francesconi, 2003) suggest that $cov(y_c,y_p)/var(y_c)\cong0.4$. The theory above suggests that $\beta<0$ and $\delta>0$ when preferences are additively separable (or, more generally, when bargaining effects are relatively large), and in these circumstance the estimate of β is biased toward zero because of the omitted variable (i.e. it is "less negative" than the true value). Similarly, if we have data obtained from the parents, y_c is omitted from the estimating equation, and the estimate of δ is downward biased in these circumstances. If, however, there are no (or weak) bargaining effects, then $\beta>0$ and $\delta>0$, and omitted variable bias would over-state the impacts of each

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[5] Note that, for the most part, these are not the parents of the children interviewed and vice versa.
[6] It is possible to match 563 mothers and 383 fathers living apart to their adult children. The average age of the children is 27. The correlation between the parent's and child's current equivalent household income is about 0.1.

party's income. This bias must be taken into account in interpreting the estimates of β and δ obtained below.

Three measures of 'economic resources' are used in the analysis, each of which is an imperfect indicator of resources available to parent or adult child. One is the logarithm of current 'equivalent household income', which is defined here as the monthly household income (in the month preceding the interview) of a person's household divided by the square root of household size. Another is current 'net financial wealth', which is financial assets less debts (other than mortgages) of the tax/benefit unit in which the person lived in 2000, as estimated from the BHPS wealth data by Banks et al (2002).[7] The third is the value of the person's house in 2001 for owner-occupiers, with tenants' value being set to zero. As expected, persons with higher current equivalent household income tend to have higher net financial wealth and higher house values, and house value is positively correlated with net financial wealth.[8]

These three measures of resources are combined into one indicator of 'economic resources' using *principal components analysis*, which finds mutually uncorrelated linear combinations of the three measures that have maximal variance. The first principal component, which accounts for the largest proportion of the variance, is taken as our indicator of economic resources. That it is sufficient, in this particular case, to use only the first component is suggested by the fact that the second and third characteristic roots of the correlation matrix are less than unity and close to one another.[9] This indicator has

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[7] These data are available from the UK Data Archive, University of Essex.

[8] For instance, in the BHPS 2000 wealth data, homeowners have a mean net financial wealth of £17,500 compared with £3,100 for tenants. Other data also indicate that owner-occupiers are much more likely to have other financial assets, particularly riskier investments, and they also have higher average levels of wealth (Banks and Tanner, 1999, Tables 5.2 and 5.5).

[9] A factor analysis approach, which makes weaker assumptions about the decomposition of the correlation matrix of the three variables, finds only one positive characteristic root, which indicates the presence of one

unit variance by construction, and so a unit change is interpreted as a one standard deviation change in economic resources. The coefficients ('factor loadings') combining the income, net financial wealth and house value indicators are estimated separately for the adult child and parent samples, but in each case they are, to the first decimal place, 0.4, 0.4, 0.5 respectively. While related to economic resources, educational attainments and homeownership may have separate impacts from resources, because, for example, they may affect the geographic location of the adult child relative to his/her parents, and so they are also included as explanatory variables in the analysis.

Frequency of contact, either in person or by telephone, are 'ordered responses', with the categories given in Tables 1 and 2. As any particular aggregation of categories may be arbitrary, these are analyzed using an ordered logit model. Let y_i be a latent variable for frequency of contact of the i-th individual, and $y_i = \beta x_i + u_i$, where x_i is a vector of attributes, β are parameters to be estimated and u_i has a logistic distribution. The probability that the i-th individual is in frequency-of-contact category j is given by:

(7) $\Pr(c_{j-1} < y_i \leq c_j) = F(c_{j-1} - \beta x_i < u_i \leq c_j - \beta x_i)$

where c_{j-1} and c_j are 'threshold' parameters to be estimated and $F(.)$ is the logistic distribution function.[10] This model has the following property:

(8) $ln[\Pr(y_i > c_j)/\Pr(y_i \leq c_j)] = \beta x_i - c_j$

This shows that the log-odds of being in a frequency-of-contact category larger than j depends linearly on x_i, with the impact of any element of x_i being the same irrespective of the particular category j. That is, β measures the proportionate impact of a variable on

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factor in this set of three variables. The 'factor score' associated with it is correlated with the first principal component with correlation coefficient of 0.998.

[10] The parameters c_0 and c_n are minus and plus infinity respectively, where n is the number of categories; thus, n-1 threshold parameters need to be estimated.

the odds-ratio associated with the *j*-th category. Distance between parent and child is modeled in the same way (i.e. y_i now indicates distance), and the categories are those in Table 3, after combining the 3 farthest distance categories into one: 'more than one hour'. The other variables analyzed are dichotomous: whether or not a parent (1) receives regular or frequent in-kind help from an adult child; (2) provides regular or frequent financial help to an adult child; (3) provides regular or frequent childcare; (4) provides other in-kind help to adult children regularly or frequently. Equations (7) and (8) then collapse to an ordinary logit model.

5. Adult children's contact with parents

We first consider contact with mothers. The average age of the adult child respondent, 55% of whom are women, is 37 (three-fourths are aged less than 44), while his/her mother is aged 64 on average. Fifty-eight per cent of these children are married, another 22% cohabit and 48% have a dependent child (averaging 1.8 children). One-half have a qualification above 'A-level', 74% are owner-occupiers and in 26% of the cases their mother lives alone. Seven out of eight have a living sibling, and among these the average number of brothers and sisters is about 2. The first two rows of Table 5 show estimates of the impacts of economic resources, educational attainments and housing tenure on the frequency of seeing one's mother controlling for the demographic and other characteristics listed in the footnote to the table, with the second set of estimates also controlling for distance from the mother's residence. The standard errors of the parameter estimates are adjusted for multiple respondents from the same household, because, for example, spouses' decisions about contact with parents may be correlated in unknown ways.

The model in the first row does not control for distance on the presumption that the person's location relative to his/her mother is also a choice variable (see Konrad et al 2002 and the discussion in section 8 below). Adult children with more economic resources and higher educational qualifications see their mothers less frequently. For instance, one standard deviation more economic resources reduces the odds of seeing her weekly (or daily, monthly, etc.) by about 20%. Daughters, homeowners, those with a dependent child and only-living-children see their mothers more frequently (results for other attributes not shown). Contact tends to decline with the number of siblings that the adult child has, and it also declines with child's age until about 50 and then rises again.

The estimates in the second row indicate that, given distance from the mother, the effects of economic resources, educational qualifications and homeownership on the odds of seeing their mother more frequently virtually disappear. Thus, it appears that the impact of economic resources in the first row of Table 5 operates through its association with the adult child's residential location relative to his/her mother's. As expected, adult children who live closer to their mother see her more often. Conditional on location, married and cohabiting children see their mother less frequently, and given the respondent child's age, those with older mothers see them more often. Being a daughter and having a dependent child continue to have large positive impacts on the frequency of seeing one's mother, and contact declines with the number of siblings.

Frequency of telephone contact is only weakly related to the education and economic resource variables, as the third and fourth rows of Table 5 show. Despite the fact that distance should not have a large effect on the cost of contacting one's mother by phone, adult children who live closer to their mother call her more frequently. There may

be 'more to talk about' if a child sees his/her mother more often, and it is indeed the case that those who see their mother weekly are much more likely to phone her daily than those who see her less often (39% compared with 7%). It appears that visiting and phoning are complementary. Frequency of telephone contact declines with the child's age and increases with the mother's age; it also declines with the number of siblings. In addition, daughters call their mother more frequently than sons do, and children call their mothers more often if their mother lives alone. Home-owning children call their mother more often, and those with a partner phone less often.

The fifth row shows the estimates from an ordered logit model applied to four categories of distance from the mother: less than 15 minutes, 15-30 minutes, 30-60 minutes and an hour or more. As we might expect from comparing the results in the first two rows, better-educated and better-off offspring tend to live farther from their mother. All else equal, adult children who are homeowners live much nearer. The analysis also finds that children with a live-in partner (married or cohabiting) and those with a dependent child live closer to their mother. The distance between child and mother declines with the child's age until 55 and then rises, while the distance increases with the mother's age. Similar to our results for economic resources and educational attainments, the empirical analysis of German data in Konrad et al (2002) finds that higher economic status children live farther from their parents, but in contrast to our findings, they find that married children live farther from, not closer to, their parents. We consider children's location relative to their parents further in section 8 in relation to Konrad et al's theoretical model of the child's location decision.

Adult children are less likely to see their fathers frequently than their mothers (e.g. 46% see their fathers weekly, cf. 54% who see their mothers weekly), and they speak on the phone to their fathers less often than to their mothers (e.g. 12% talk on the phone daily with fathers, cf. 24% who speak to their mothers daily). But the relationships between the children's attributes and the probability of seeing their father frequently are similar to those for mothers (see Table 5). In particular, this applies to their educational qualifications, housing tenure and economic resources when distance is not controlled, effects that disappear when we condition on distance from father. One important difference is that the adult children see their father *less* frequently if he lives alone. This effect remains strong when we control for his location relative to the child.

There are few significant associations between frequency of telephone contact with the father and attributes of the child. Daughters speak on the telephone with their father more often than sons; the frequency of telephone contact is higher if the adult child has a dependent child, but it declines with the number of his/her dependent children and with his/her number of siblings. There is a higher frequency of telephone contact for older fathers; and there is a decline in frequency with the child's age until his/her early 50's followed by a rise. Sons and daughter speak to their father *less* often if he lives alone, which is an important contrast with mothers, whose children speak more often to them if she lives alone.

The associations of attributes with the time-distance between the adult child and the father are similar to those of the mother—not surprising given that in three-fourths of the cases in which both parents are alive the parents live together in the same household.

One difference worth noting is that, in contrast to mothers, adult children do not live farther from fathers when the father is older.

How do these results relate to the theory in section 2? It predicts that children with more economic resources have less frequent contact with their parents if parents are making transfers to them and bargaining power effects are large relative to income effects. In general, that is what we find, but contact is lower because they live farther away from their parents. Thus, to interpret the result as consistent with the theoretical model with parental transfers and strong bargaining effects, residential location must be jointly determined with decisions about contact with parents. Section 4 showed that the estimates of the effects of child's resources are probably understated in size because of omitted variable bias. This evidence is against a model without parental transfers or with weak bargaining effects, particularly as the estimated impact of child's resources would be biased upwards in this case. The results also indicate that home-owning adult children are more likely to have frequent contact with their parents, in large part because they live nearer to them. This may reflect the relative ease at which owner-occupiers can adjust their location compared with tenants, most of whom rent in the social housing sector.

6. Financial transfers from parents to adult children

In the theoretical model of section 2, parents make financial transfers to their adult children when they are affluent enough relative to their adult children. The model predicts that transfers increase with the parents' resources and decline with the child's resources if the income effects dominate the bargaining effects on transfers (equations (4) and (5)). Evidence relevant to this prediction is available in the BHPS data from the questions addressed to parents with an adult child living outside their household and to

children living apart from parents. In particular, each parent is asked whether or not he/she provides *frequent or regular* financial help to the adult child with whom he/she has most contact, and each child is asked if they receive such help. Overall, 26% of parents say they provide such help, and 16% of adult children say they receive it (see Table 4).[11]

Whether or not parents give/children receive frequent or regular financial help is the dependent variable in two analyses, one using the parents' responses, the other the children's. The average age of the responding parent is 60, 54% are mothers, 65% have grandchildren, two-thirds are married, one-fifth live alone, three-fourths are owner-occupiers, one-third have educational qualifications beyond 'A-level', one-tenth have a dependent child in the household(the average number is 1.5) and three-tenths have just one child living outside the parents' household. Because we only have data on one side of the transfer-service arrangement in each analysis, the estimated impact of parents' economic resources on the probability of providing regular or frequent financial help would be biased downwards (upwards) if higher child's resources reduce (increase) transfers. Similarly, the estimated impact of child's resources would be biased upward if higher parents' resources increase transfers. The estimated impacts of the parent's economic resources, educational attainments and housing tenure on help and contact are shown in the first row of Table 6, and the impacts of child's economic resources etc. are shown in the second and third rows. The standard errors of the parameter estimates are

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[11] Note that this does not imply that 74% (84%) of parents will never make transfers; they may do so in the future or did in the past, or their transfers may be irregular and infrequent. Thus, the minority making regular or frequent transfers at present is not necessarily in contradiction to the theoretical model in which parents make some transfers to adult children, which we found to be consistent with the empirical results in the previous section.

adjusted for correlation between respondents from the same household (e.g. two parents may be reporting financial help to the same child).

The first row of Table 6 shows that parents with more economic resources and higher educational attainments are more likely to provide regular or frequent financial help, and the second and third rows show that more affluent children are less likely to receive such help. This is consistent with the theoretical model when income effects dominate bargaining effects on transfers to children. Fathers are more likely to provide financial help, and the probability of regular or frequent financial help increases with the number of grandchildren and declines with the number of dependent children in the parent's household (for those with more than one). From the children's perspective, homeowners, those in a partnership and those with more siblings are less likely to receive regular or frequent financial help, but the presence of a grandchild increases the probability of receiving it.

On the basis of the parents' responses, the distance between the parent's residence and that of the adult child's with whom he/she has most contact does not significantly affect the probability of regular or frequent financial help (results not shown; chi-square(3)=2.60). Children who live within 30 minutes of their parents are more likely to receive regular or frequent financial help according to the children's responses, but controlling for distance has little effect on the impact of the child's economic resources (or the impacts of other child attributes) on the probability of receipt (cf. rows 2 and 3).

7. Parents' receipt of in-kind help from and contact with adult children
An adult child's provision of 'services' to his/her parents can also be examined from the parents' reports of contact and receipt of help, and from the children's reports of

providing help to parents. About 45% of parents with an adult child living apart from them receive *regular or frequent* in-kind help from an adult child (i.e. at least one of the types of help listed in Table 4 other than financial help), according to either the parents or children's reports. Mothers are more likely to receive such help than fathers (47% compared with 32%). In analyzing the probability of receiving such help, we are only able to control for either the parents' resources and qualifications, or the children's, but not both at the same time. The first row of Table 7, which does not condition on distance from their adult child with whom they have most contact, shows that parents with more economic resources are less likely to receive regular or frequent in-kind help from their adult children. The second row shows that, after controlling for how far the parent lives from her adult son or daughter, the impact of economic resources is smaller, but still on the margin of statistical significance. Parents who are homeowners are less likely to receive such help, while mothers, older parents, those who live closer to their child and those whose health limits their daily activities are more likely to receive regular or frequent in-kind help (Appendix Table 4).

The third row indicates why the effect of economic resources declines. It shows that a parent with more economic resources and higher educational qualifications lives farther from the adult child with whom he/she is in most contact, and we have seen that living closer substantially increases the probability of receiving regular or frequent in-kind help. Parents with a grandchild live much closer, and those who are homeowners or whose health limits their daily activities live nearer. Parents with only one adult child living elsewhere tend to live farther from their adult child, and even farther if the child is an only child.

19

The theoretical model of section 2 predicts that more affluent parents would receive more in-kind help from and contact with their adult children, both because more resources improve their bargaining power and because the demand for 'child services' increases with joint family resources. The negative effects of economic resources and owner-occupation on receipt of regular or frequent in-kind help, even after controlling for distance, are not consistent with this prediction. This may reflect the omitted variable bias discussed in section 4, as more affluent parents tend to have affluent children. More affluent children are less likely to provide in-kind help for parents if the bargaining effects dominate the income effects, as the results in row 6 (and section 5) suggest. But row 7 indicates that these negative effects of child's resources disappear when we control for distance. The negative effect of parents' resources may also reflect the availability of imperfect market substitutes for many of these types of in-kind help, which richer parents substitute for their children's help.

In the analysis of variation in the frequency that the parent sees the child, the estimated impact of economic resources is again negative, being statistically significant in row 4 of Table 7 and on the margin of significance in row 5.[12] This is also not consistent with the model of section 2. In this case, the imperfect market substitutes rationale for a negative effect is less compelling, but the omitted variable bias may account for it. Another possibility is that more affluent parents spend more time seeing friends and neighbours. In the BHPS, people were asked how often they talked to their neighbours and how often they meet friends or relatives not living with them. Similar

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[12] Even controlling for distance, parents with a grandchild see their children more frequently, mothers see them more frequently than fathers, and frequency declines with the number of dependent children still in the parents' household.

analysis of these responses indicated that more affluent parents spoke less frequently with their neighbours and met with friends and relatives less frequently. The puzzle remains.

The negative impacts of economic resources on receipt of regular or frequent in-kind help and frequency of contact also do not appear consistent with the predictions of the strategic bequest theory of Bernheim et al. (1985). In that theory, parents threaten their child with disinheritance if he or she does not provide them with sufficient attention and help. The disinheritance threat may not be credible if there is only one child, because the parents are assumed to care for their child's welfare. But among families with two or more children the threat is credible, and we expect attention and help to increase with bequeathable wealth. That is not what is found when we substitute the income, net financial wealth and house value variables for the economic resources variable. In this case, net financial wealth has a significant negative effect on frequency of contact and receipt of in-kind help, even after controlling for distance between parent and child. Furthermore, this continues to be the case for frequency of contact when the sample is confined to those parents with two or more children; the net financial wealth effect on receipt of in-kind help remains negative, but is no longer statistically significant in this sample.

The negative effects of parents' economic resources on in-kind help received by parents and on the frequency of seeing their adult child are hard to interpret as an 'exchange', because we would expect both transfers and help/contact to increase with parents' net wealth, while only the former does. There is, however, other evidence that favours an exchange interpretation of transfers and help/contact. The equations for financial help provided by parents and in-kind help received by them (or the chances of

21

seeing their adult child weekly) are estimated jointly (assuming normality rather than a logistic distribution), allowing for correlation between their error terms. The parameter estimates are generally similar to those discussed above (taking account of the differences between a probit and logit model), and the error terms are correlated positively: a correlation coefficient of about 0.25 in the financial help/in-kind help pair of equations and about 0.10 in the financial help/weekly contact pair (irrespective of whether or not there are controls of distance). Thus, parents with unobserved attributes that make them more likely to make regular or frequent financial transfers to an adult child are also more likely to receive regular or frequent in-kind help from that child and to see that child weekly.

8. Family geography

The results in sections 5 and 7, strongly suggest that location choices by adult children, and perhaps parents, account for a large part of the systematic co-variation in parents' contact with, and in-kind help received from, adult children in relation to economic resources and educational qualifications of parents and adult children. This suggests that having a theory of 'family geography' is important.

Konrad et al (2002) propose the following theory. Children care about the attention and help that parents receive from them, but it is costly to provide it, and its cost increases with distance from the parents. When the parents have more than one child, attention and help is a public good for the offspring; each would like to see large amounts of it provided to their parents, but each would rather that their sibling(s) provided it. Suppose that there are two brothers. If one knows that the other will provide little attention and help, because his cost of providing it is high, then the other will provide

more. Thus, each brother has an incentive to change his cost, and he can do so by changing where he lives relative to his parents. If it is very costly to move again, then the brother who leaves the parental home first has a strategic advantage. If he locates sufficiently far away from his parents, he contributes so little attention and help that his brother is better off to locate close to his parents even though this implies that he is the sole provider of attention and help to his parents. It is in the interest of the brother who leaves first to behave in this way, and so the theory predicts that the sibling leaving first (often the oldest) will locate farther from his parents. Konrad et al (2002) provide supporting evidence from German data, which shows that first-born children live farther from their parents than their younger siblings. Children without brothers or sisters have an incentive to live close to their parents, because they are the only providers of attention and help.

In the BHPS data, we do not know the adult child's birth order, but parents report the number of living children who live outside their household, as well as the number of children in the household, both dependent and non-dependent. If there is only one adult child living elsewhere, then either he or she is the first to leave the parental home or an only-child. As an indicator of whether or not he or she is an only child, we construct a variable indicating whether or not the child is the only one living elsewhere *and* there are not other children in the household. The estimated positive coefficient of 0.241 (s.e.=0.135) of being the only adult child living elsewhere on distance between parent and child (from the equation in row 3 of Table 7) is consistent with the prediction of the theoretical model in the previous paragraph. But that model also predicts that only-children should live closer, while the coefficient of 0.363 (s.e.=0.172) indicates that they

appear to live even farther away than the first child to leave the parental home in families with more than one child. Note that we do not control for children's attributes. If only children obtain higher educational qualifications (as Ermisch and Francesconi 2001 suggests), then this may account for the estimated relationship, because Table 5 has shown that better educated children live farther from their parents.

We can consider the impact of being an only-child on distance from parents using the child's responses—the distance equations producing the results in rows 5 and 10 of Table 5 and row 8 of Table 7. In these equations, which control for the child's education, an only-child lives about the same distance from parents as an adult child with one living brother or sister. Beyond one sibling, distance increases with the number of siblings.

9. Parents' provision of help to adult children

In section 6, we discussed how financial help to children varied with parents' resources. Parents can also provide in-kind help to their children. It is straightforward to extend the theoretical model in section 2 to include 'services' from parents to children that do not have a market substitute. Denoting these as H, there is a new efficiency condition in addition to (2): $(-U^p_H/U^p_x) = (U^c_H/U^c_x)$. Thus, at the margin, help to children is costly $(U^p_H<0)$.[13] If bargaining effects dominate income effects, then $\partial H/\partial y_P<0$ and $\partial H/\partial y_c>0$.

Because childcare is the most important non-financial help given by parents (see Table 4) and it is of particular interest, it is considered separately from other non-financial help. The availability of market substitutes for the grandparents' time in childcare would reinforce the prediction that higher grandparents' economic resources

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[13] This holds when either parents or children make financial transfers to the other.

reduce their child care time ($\partial H/\partial y_p$<0).[14] This is because higher grandparents' resources would also tend to increase transfers to their adult children (consistent with the evidence in section 6), who would buy more market childcare, thereby substituting market care for grandparents' time.

The first two rows of Table 8 show, for parents who have a grandchild, that economic resources have little impact of the probability of providing childcare regularly or frequently. Grandparents who live closer are, not surprisingly, much more likely to provide such childcare. Controlling for distance, mothers and retired parents are more likely to provide regular or frequent childcare. Parents whose health limits their daily activities, or who have more dependent children of their own, are less likely to provide it. The probability of providing regular or frequent childcare increases with the parent's age up to about 63 and then declines.

Once we control for distance, adult children with more economic resources are more likely to receive their parents regular or frequent help with childcare (row 6 of Table 8), as are those who are homeowners. This suggests that bargaining effects dominate income effects. In addition, having more brothers and sisters and having a partner reduce the probability of receiving such help.

In contrast to the results for childcare, more parental economic resources increase the probability that parents provide other types of in-kind help regularly or frequently, after controlling for distance between parent and child (rows 3 and 4 of Table 8). Thus, it appears that income effects dominate bargaining effects for non-childcare, in-kind help. Younger parents and those who are retired are more likely to provide such help, while the

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[14] There is an additional efficiency condition: $(-U^p_H/U^p_x)=h'(H)p$, where $h(H)$ is a function converting grandparents' childcare time into market childcare time equivalents, h' is its derivative and p is the market

probability of providing it declines with the number of dependent children living with the parents, and it is lower for parents whose health limits their daily activities.

While children with more resources appear less likely to receive such in-kind help (row 7 of Table 8), the impact of their economic resources disappears when we control for distance (row 8). Women, those who are an only child and those who have a dependent child of their own are more likely to receive it, while those with a partner, more brothers and sisters and more dependent children are less likely to receive such help.

As discussed earlier, it is possible to model the probability of giving regular or frequent financial help to an adult child jointly with the probability of giving regular or frequent in-kind help, assuming joint normality. It is found that unobserved attributes that make parents more likely to make regular or frequent financial transfers to an adult child are also more likely to provide in-kind help to that child, both childcare and other-in-kind help: the error-term correlation coefficients are about 0.30 and 0.45 respectively (irrespective of whether or not there are controls of distance). Thus, there is a tendency for parents to provide more than one type of help to their child.

10. Conclusions

Analysis of the BHPS data has uncovered a number of relationships that are consistent with the model of an efficient extended family developed in section 2. First, more affluent parents are more likely to provide regular or frequent financial help to their adult children and more affluent children are less likely to receive it. Second, more affluent children see their mother or father less frequently, which suggests that bargaining power effects of children's resources dominate income effects in the transfer-service

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price of childcare.

arrangement. Third, the previous relationship primarily reflects a tendency for more affluent children and parents to live farther apart, with greater distance reducing contact. Thus, an important part of the story about parents' contact with adult children and help provided to them concerns parents' and children's location decisions relative to each other. Fourth, controlling for distance, more affluent children are more likely to receive regular or frequent help with childcare, consistent with a dominance of bargaining power effects over income effects. But more affluent parents are more likely to provide other types of in-kind help to their adult children, suggesting dominant income effects of parents' resources.

There are also some findings that are harder to reconcile with the model of section 2 or other economic theories of family interaction. First, we would expect that parents with more resources would have more contact with their adult children, both because more resources improve their bargaining power and because the demand for contact increases with joint family resources. The negative effects of parents' economic resources on frequency of contact with adult children, even after controlling for distance, are not consistent with this prediction, nor with that of the strategic bequests theory. Second, the 'strategic family geography' theory predicts that the first child leaving the parents would live farther away from them then his/her siblings and that only-children would live closer to their parents. While our evidence is consistent with the first prediction, it is not with the second.

Non-economic attributes of parents and adult children are also important in accounting for variation in help and contact between generations. For instance, daughters have more frequent contact with their mother or father (in person or by phone) than sons,

particularly if they have a dependent child. Mothers are more likely to receive regular or frequent in-kind help from an adult child and see them more frequently than fathers, and they are also more likely to provide regular or frequent childcare for their grandchildren than fathers. Fathers are more likely than mothers to provide financial help to their adult children. The likelihood of parental in-kind help to their adult children declines with the parent's age, while the probability of receiving in-kind help from their children increases with parent's age. The more dependent children that the parent still has in his/her household, the less likely that he/she gives financial or in-kind help to their adult children, that he/she sees them frequently and that he/she provides childcare for his/her grandchildren. Parents whose health limits their daily activities are more likely to receive in-kind help from and have contact with their adult children, and retired parents are more likely to provide childcare for their grandchildren. Adult offspring with more brothers and sisters have less frequent contact with their parents, and they are less likely to receive financial help or in-kind help, including childcare, from their parents.

Distance between parents and child is a very important factor in accounting for variation in contact and in-kind help given and provided, but not financial help. While better-educated and more affluent parents and children live farther apart from each other, having a grandchild reduces the distance between them. Controlling for economic resources and education, parents and children who are homeowners live closer to one another, and adult offspring who are married or who have a dependent child live closer to their parents.

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Table 1: Frequency that Child Sees his/her Mother or Father

	Sees Mother			Sees Father		
	Male	Female	Total	Male	Female	Total
daily	7.9%	17.8%	13.3%	7.6%	10.4%	9.1%
at least once a week	39.5	41.8	40.7	34.1	38.6	36.5
at least once a month	22.3	15.8	18.7	21.6	20.4	21.0
several times a year	20.2	16.8	18.3	20.2	16.9	18.4
less often	7.4	6.0	6.6	9.3	7.7	8.5
never	2.8	1.9	2.3	7.1	6.1	6.6
Total	**100**	**100**	**100**	**100**	**100**	**100**
Unweighted N*	1943	2352	4295	1643	1940	3603

* The sample includes only original panel members interviewed in 2001 and temporary sample members living with them, not members of the ECHP and Scottish and Wales booster samples. Weighted using cross-section weights.

Table 2: Frequency that Child Telephones his/her Mother or Father

	Sees Mother			Sees Father		
	Male	Female	Total	Male	Female	Total
daily	11.6%	34.4%	24.1%	6.9%	16.2%	11.9%
at least once a week	55.4	49.4	52.1	47.0	47.2	47.1
at least once a month	18.2	7.7	12.5	20.0	16.1	17.9
several times a year	4.9	1.5	3.0	8.4	4.4	6.2
less often	3.3	1.5	2.3	6.0	5.4	5.7
never	6.5	5.6	6.0	11.8	10.7	11.2
Total	**100**	**100**	**100**	**100**	**100**	**100**
Unweighted N*	1943	2352	4295	1643	1940	3603

* The sample includes only original panel members interviewed in 2001 and temporary sample members living with them, not members of the ECHP and Scottish and Wales booster samples. Weighted using cross-section weights.

Table 3: Distance to Mother's Residence and Contact with Mother

	Pct. Who See her at least weekly	Pct. Who Telephone her daily	Pct. at Each Distance
less than 15 minutes	88.3%	36.2%	39.4%
between 15 and 30 min.	70.0	24.8	19.6
30 60 minutes	41.2	19.8	11.0
one-two hours	8.8	12.1	10.2
more than two hours	2.2	9.7	16.3
lives abroad	0.4	2.6	3.6
Total	**54.3**	**24.2**	**100**
Unweighted N	2293	1018	4272

* The sample includes only original panel members interviewed in 2001 and temporary sample members living with them, not members of the ECHP and Scottish and Wales booster samples. Weighted using cross-section weights.

Table 4A: Regular or Frequent Help to/from Children
(Parents' responses, BHPS 2001)

Percent Reporting:	Help from child to parent	Help to child from parent
Getting lifts in their car	25.0	18.6
Shopping for you	18.2	14.9
Providing or cooking meals	11.8	19.6
Help with personal needs Like dressing, eating , bathing	1.1	*n/a*
Washing, ironing or cleaning	4.5	11.5
Dealing with personal affairs Like paying bills, etc.	6.5	8.7
Decorating, gardening, repairs	13.7	12.5
Financial help	2.4	26.2
Looking after grandchildren	*n/a*	28.4
None of these	56.6	42.6
Unweighted N	**3293**	**3293**
Weighted N*	3266	3266

Table 4B: Regular or Frequent Help to/from Parents
(Children's responses, BHPS 2001)

Percent Reporting:	Help from child to parent	Help to child from parent
Getting lifts in their car	25.6	15.1
Shopping for you	18.9	11.2
Providing or cooking meals	9.6	16.1
Help with personal needs Like dressing, eating , bathing	2.1	*n/a*
Washing, ironing or cleaning	7.1	8.8
Dealing with personal affairs Like paying bills, etc.	12.1	4.7
Decorating, gardening, repairs	18.9	9.5
Financial help	5.1	15.7
Looking after grandchildren	*n/a*	18.7
None of these	53.6	56.9
Unweighted N	**4854**	**4854**
Weighted N*	4801	4801

* The sample includes only original panel members interviewed in 2001 and temporary sample members living with them, not members of the ECHP and Scottish and Wales booster samples. Weighted using cross-section weights.

Table 5: Impacts of Adult Child's Economic Resources and Education on the Odds of Frequent Contact with Parents, BHPS 2001*

Dependent Variable	Economic Resources	Educational Qualifications		Home-owner
		A-level or Nursing	Above A-level	
1. Frequency of Seeing Mother	-0.229	-0.163	-0.541	0.502
	(5.87)	(1.70)	(7.66)	(5.64)
2. Frequency of Seeing Mother, distance controls	-0.002	-0.064	-0.121	0.038
	(0.05)	(0.64)	(1.65)	(0.43)
3. Frequency of Phoning Mother	-0.058	0.001	-0.184	0.381
	(1.64)	(0.01)	(2.51)	(4.26)
4. Frequency of Phoning Mother, distance controls	0.011	0.030	-0.048	0.254
	(0.29)	(0.28)	(0.65)	(2.82)
5. Distance from Mother	0.373	0.214	0.599	-0.685
	(7.84)	(2.24)	(8.65)	(7.50)
6. Frequency of Seeing Father	-0.167	-0.139	-0.447	0.588
	(3.88)	(1.26)	(5.55)	(5.86)
7. Frequency of Seeing Father, distance controls	0.060	0.033	-0.010	0.067
	(1.44)	(0.29)	(0.12)	(0.67)
8. Frequency of Phoning Father	0.007	-0.031	-0.004	0.242
	(0.16)	(0.27)	(0.04)	(2.43)
9. Frequency of Phoning Father, distance controls	0.061	-0.017	0.088	0.101
	(1.41)	(0.14)	(1.03)	(1.00)
10. Distance from Father	0.373	0.210	0.593	-0.743
	(6.95)	(1.92)	(7.56)	(7.07)

*Ratio of coefficient (in bold type) to its asymptotic standard error in parentheses, standard errors adjusted for clustering in households.

Models include the following other variables: sex, age age-squared, whether or not the parent lives alone, the parent's age, the child's marital status (married, cohabiting other), whether or not the adult child has a dependent child, the number of dependent children; whether or not the child is an only living child; and the logarithm of the number of living siblings.

Table 6: Impacts of Economic Resources and Education on the Odds of Regular or Frequent Financial Transfers from Parent to Adult Children, BHPS 2001*

Whose explanatory variables?	Economic Resources	Educational Qualifications		Home-owner
		A-level or Nursing	Above A-level	
1. Parents' variables[a]	**0.272** (5.12)	**0.174** (1.09)	**0.361** (3.65)	**0.181** (1.32)
2. Child's variables[b]	**-0.297** (3.40)	**0.096** (0.66)	**0.083** (0.75)	**-0.215** (1.68)
3. Child's variables,[b] distance controls	**-0.259** (2.97)	**0.125** (0.87)	**0.145** (1.31)	**-0.305** (2.34)

*Ratio of coefficient (in bold type) to its asymptotic standard error in parentheses, standard errors adjusted for clustering in households.

[a] Model includes the following other variables: Parent's sex, age age-squared, the parent's marital status (married, cohabiting other), whether or not the parent has a dependent child in the household, the number of dependent children; whether or not the parent lives alone; whether or not there is only one child living child outside the household; whether or not the child is an only child; whether or not the there are living grandchildren; the logarithm of the number of living grandchildren; whether or not the parent's health limits his/her daily activities; and whether or not the parent is retired.

[b] Models include the following other variables: Child's sex, age age-squared, the child's marital status (married, cohabiting other), whether or not the adult child has a dependent child, the number of dependent children; whether or not the child is an only living child; and the logarithm of the number of living siblings.

Table 7: Impacts of Economic Resources and Education on the Odds of Regular or Frequent In-kind Help from Adult Children to Parent and Contact, BHPS 2001**

Dependent Variable	Economic Resources	Educational Qualifications		Home-owner
		A-level or Nursing	Above A-level	
Parents' variables[a]				
1. Parent's Receipt of In-kind Help	**-0.183** (3.08)	**-0.211** (1.26)	**-0.108** (1.10)	**-0.195** (1.62)
2. Parent's Receipt of In-kind Help, distance contr.	**-0.117** (1.85)	**-0.088** (0.52)	**0.102** (0.98)	**-0.276** (2.19)
3. Distance from Child	**0.222** (3.98)	**0.274** (1.96)	**0.580** (6.79)	**-0.276** (2.64)
4. Parent's Frequency of Seeing Child*	**-0.170** (4.12)	**-0.245** (1.96)	**-0.402** (4.71)	**0**
5. Frequency of Seeing Child, distance controls*	**-0.070** (1.73)	**-0.093** (0.71)	**-0.007** (0.08)	**0**
Child's variables[b]				
6. Parent's Receipt of In-kind Help	**-0.131** (3.08)	**-0.139** (1.32)	**-0.253** (3.48)	**0.243** (2.63)
7. Parent's Receipt of In-kind Help, distance contr.	**-0.007** (0.16)	**-0.066** (0.59)	**-0.015** (0.20)	**-0.014** (0.14)
8. Distance from Parent	**0.370** (8.05)	**0.214** (2.31)	**0.610** (9.26)	**-0.679** (7.60)

*Contact with child with whom the parent has most contact.
**Ratio of coefficient (in bold type) to its asymptotic standard error in parentheses, standard errors adjusted for clustering in households.
[a]See Table 6.
[b]See Table 6.

Table 8: Impacts of Economic Resources and Education on the Odds of Regular or Frequent In-kind Help from Parent to Adult Children, BHPS 2001*

Dependent Variable	Economic Resources	Educational Qualifications		Home-owner
		A-level or Nursing	Above A-level	
Parents' variables[a]				
1. Provides Childcare to Grandchildren	**0.021** (0.30)	**-0.038** (0.19	**-0.136** (1.09)	**0.269** (1.79)
2. Provides Childcare distance controls	**0.099** (1.39)	**0.118** (0.57)	**0.029** (0.22)	**0.199** (1.30)
3. Provides Other In-kind help to Child	**0.047** (0.92)	**-0.097** (0.67)	**-0.181** (1.97)	**0.237** (2.10)
4. Provides Other In-kind help, distance contr.	**0.121** (2.22)	**-0.009** (0.06)	**-0.005** (0.05)	**0.165** (1.41)
Child's variables[b]				
5. Provides Childcare to Grandchildren	**-0.019** (0.24)	**0.192** (1.24)	**-0.077** (0.73)	**0.510** (3.61)
6. Provides Childcare distance controls	**0.147** (1.94)	**0.263** (1.61)	**0.140** (1.25)	**0.342** (2.30)
7. Provides Other In-kind help to Child	**-0.185** (3.16)	**-0.041** (0.35)	**-0.101** (1.21)	**0.258** (2.45)
8. Provides Other In-kind help, distance contr.	**-0.054** (0.93)	**0.035** (0.29)	**0.131** (1.51)	**-0.012** (0.12)

*Ratio of coefficient (in bold type) to its asymptotic standard error in parentheses, standard errors adjusted for clustering in households.
[a]See Table 6.
[b]See Table 6.