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Abstract

This paper examines co-residence arrangements between older parents and their adult children. We sketch a model of the co-residence choice that accounts for the preferences of the parent and the child and incorporates parental altruism and demands for housing, goods, and privacy. The model predicts that poorer, unmarried or childless siblings are more likely than their siblings to co-reside. The empirical analysis exploits the information provided by respondents in the Asset and Health Dynamics Among the Oldest Old (AHEAD) survey about all of their children living in and outside their household. Indeed, we find that poorer siblings are more likely to co-reside with parents than richer siblings. Furthermore, the deed to a parent's residence is more likely to be passed to a co-resident child than to a non-co-resident child, conferring another benefit on the co-resident child. Our empirical work controls for observable and unobservable parental characteristics using fixed effects. We also use a "shadow sample" of Health and Retirement Study respondents who live with their parents to infer some missing information on the children of the AHEAD respondents.

1. Introduction

While a non-trivial proportion of elderly parents co-reside with their adult children, the incidence of such arrangements has declined in recent decades. The co-residence rate in 1962 for parents aged 65 and over was 28 percent. By 1984, the incidence had fallen to 18 percent (Crimmins and Ingegneri 1990) where it has remained. One possible explanation for this trend is demographics: changes in the age distribution and family size over time have left elderly parents with smaller pools of potential co-resident children. Another explanation is the rising income of the elderly. Improvements in the well-being of the elderly may reduce their need to live with children. Alternatively, if co-residence is a response to economic need of children, then another potential explanation is that rising incomes of adult children has allowed them to afford independent living.

Since family composition and income are both potential important predictors of co-residence, information on parents and all their children is necessary for a comprehensive analysis of intergenerational co-residence. This is particularly true when one is interested in the question of which child lives with the parent. However, the majority of prior research has been limited by data constraints, lacking some information on the parent or the co-resident child, or on the set of non-coresident children, or limited to small or very select samples. A new data set, the Asset and Health Dynamics among the Oldest Old (AHEAD) provides a rich set of health, family structure, housing, and income and asset measures for a large, nationally representative sample of Americans aged 70 and up. A unique and useful feature of this data set is the battery of questions about the family structure, demographic characteristics, and incomes of each of the respondent's children.

We use this new data set to study co-residence arrangements between older parents and their adult children. We examine patterns across families to determine which parent and child characteristics predict intergenerational co-residence. We are particularly interested in the importance of parent's income and children's incomes in predicting whether co-residence occurs and, if so, in predicting whether the parent moved into the child's residence or vice versa. The second part of our analysis focuses on the patterns of co-residence within families. We exploit differences in siblings' characteristics, including differences in income, to understand which child co-resides with the parent given that at least one of them does. In the final part of our analysis we examine the relationship between a child's living with a parent and being named on a deed to parent's property.

We find that variables that describe the family structure affect the likelihood of intergenerational co-residence. For example, parents whose children are all married or who all have children of their own are less likely to live with one of their children, as are step-parents. Economic variables also matter: wealthier parents are less likely to co-reside, and parents who have an unemployed child or a child with less than a high school education are also more likely to live with a child. In the within family analysis, we find that the relative incomes of siblings matter, even after controlling for their other family and personal characteristics. Poorer siblings are more likely to co-reside than richer siblings, as are unmarried and non-working siblings. These results suggest that co-residence tends to be offered to and accepted by poorer children in a family. Additionally, we find that co-residence conveys another benefit: co-resident children are also more likely to be named on a deed to the parent's residence or to some other parental property than are their siblings.

The paper proceeds as follows. The next section provides a brief literature review. We outline a simple economic model of the co-residence decision in section 3. Section 4 describes the AHEAD data set, the sample, the variables we use in the analyses, and our "shadow sample" of Health and Retirement Survey (HRS) members. We describe the empirical approach in section 5, and section 6 presents our results. Section 7 summarizes and concludes the paper.

2. Literature Review

There is a large body of literature on co-residence arrangements between parents and their adult children. Many studies argue that co-residence should, in fact, be counted as a resource transfer or benefit conferred from parents to children. Rosenzweig and Wolpin (1993) argue that co-residence is a source of intergenerational support for children, since parents are able to provide some housing services (e.g., kitchen facilities, telephone service) more cheaply than would be possible if the child purchased them on his own. Aquilino (1990) finds that most co-residence occurs in the parent's home as a result of the needs of the child, rather than the needs of the parent, as measured by low income or poor health. Weinick (1995), using data from the National Survey of Families and Households (NSFH), finds that in 94 percent of children's moves back into the parent's home, co-residence accommodates the needs or desires of the child (for example, when the child is unable to afford to live on his or her own). Speare and Avery's (1991) analysis of the Survey of Income and Program Participation suggest that adult children residing with older parents are the primary beneficiaries of such arrangements—they contribute less income to the household and provide the parent little help with daily activities. Ward, Logan, and Spitze (1992) reach a similar conclusion.

Few studies account for the incomes of the parent and child in the co-residence decision. Kotlikoff and Morris' (1990) study of the living arrangements of older parents finds that the probability of co-residence is negatively but not significantly related to the child's income. However, their study is limited to parents with only one living child and is based on a small, non-nationally representative sample. Another set of studies examine the flip-side of co-residence, the child's decision to leave the parental home. These papers model the decision as one made jointly between the parent and child in response to economic and other considerations. For example, Hill and Hill (1974), McElroy (1985), and Whittington and Peters (1996) account for the incomes of both the parent and child in their analyses. All find evidence that the better the economic opportunities of the child, the less likely he or she is to live with a parent, and that co-residence is more likely when the parents are well-off.

Only a handful of studies control for the set of siblings, all of whom are candidates for co-residence. In this regard, our approach is sympathetic with Wolf and Soldo's (1988) analysis of the composition of the households of frail elderly women in the National Long-Term Care Survey and Ward, Logan and Spitze's (1992) study of intergenerational co-residence in a large sample of households in New York. Both papers argue for the importance of accounting for the characteristics, not just the number, of children who are the potential suppliers or demanders of parental co-residence and for treating the co-residence decision as one jointly made by the parent and child. Our analysis controls for the personal and family characteristics of parents and children. Additionally, to better address the issue of economic well-being and need, we explicitly account for the incomes of the parent, the co-resident child and the other children who are potential co-residents, which the previous papers are unable to do for lack of income data.

3. Model of the Co-residence Choice

We propose a simple model of a parent's choice to extend an offer of co-residence to a child. The parent's utility depends on her consumption of housing, H^p, non-housing consumption, C^p, and her privacy or independence, I^p. Additionally, she exhibits altruistic tendencies in that she cares about the well-being of her child as in Becker (1981). Her utility function is given by

$$U^p = U^p(C^p, H^p, I^p, W(C^k)) \ . \qquad \textbf{(1)}$$

For simplicity, we assume the parent cares only about the child's level of consumption. The parent's (exogenously determined) income is spent on C and H, which has a relative unit price of q:

$$C^p + qH^p = Y^p \ . \qquad \textbf{(2)}$$

Congruently, the child's utility depends on his consumption, housing, and privacy, and he spends his income on consumption and housing. He does not care about his parent's level of utility, although such a two-sided altruism model is easily constructed.

When the child and parent live apart, their utility levels are given by

$$U_0^k = U^k(C_0^k, H_0^k, I_0^k) \ , \qquad \textbf{(3)}$$

and

$$U_0^p = U^p(C_0^p, H_0^p, I_0^p, W(C_0^k)) \ , \qquad \textbf{(4)}$$

which are maximized separately over the two commodities, C and H, subject to their respective budget constraints.

When the parent offers co-residence, she sacrifices some fraction, θ, of her housing and some amount of privacy, D^p, which is assumed not to depend on θ.[1] To the extent that the child pays rent or shares expenses, the parent may enjoy an increase in consumption, by that amount, R.[2] If the child accepts the offer, the child's amount of housing changes from H^k to θH^p, which

may be an increase or a decrease. His expenditures on housing fall from qH^k to R, allowing more consumption. Additionally, the child incurs a loss of privacy, D^k, and a corresponding loss of utility upon accepting the offer.[3] Therefore, the child only accepts the offer if the utility value of the increase in consumption and the change in the amount of housing exceeds the utility value of the loss of privacy.[4] In this case, the altruistic parent's utility is boosted by $(\partial U^p/\partial W)(\partial W/\partial C)$ for every one dollar reduction in the child's cost of housing.[5]

In summary, we observe co-residence only when the parent's utility in that state is greater than when she lives alone,

$$U_1^p = U^p(C_0^p + R, (1-\theta)H^p, I_0^p - D^p, W(C_0^k + qH^k - R)) > U_0^p, \quad \textbf{(5)}$$

and when the child is also better off than living alone,

$$U_1^k = U^k(C_0^k + qH^k - R, \theta H^p, I^k - D^k) > U_0^k . \quad \textbf{(6)}$$

Using this simple model, we can predict how characteristics of the parent and child affect the likelihood that they co-reside. Factors that make the child less likely to accept an offer—for, example, a high value of privacy, a low value of extra consumption, or a low value of a extra housing—reduce the probability of observing co-residence. One expects that the value of privacy would be higher for a married child or a child with children of his own, for instance, or lower if the child suffers health problems and requires assistance. The utility of extra consumption or extra housing is expected to be lower for a high income child, who is likely to be consuming relatively large quantities already. Similarly, a parent who places a low value on privacy or a negative value (perhaps due to poor health, or desire for companionship), or who occupies a large residence and, all else equal, places a low value on the loss of housing would be more likely to offer co-residence to a child.

The model is little changed when we allow for multiple children. Supposing that the parent extends co-residence to only one child, she makes the offer to the child who has the most to gain from co-residence and who imposes the lowest cost in terms of the loss of her privacy and housing space. This means that the parent calculates the value of co-residing with each child, U_i^p, i= 1, ..., n, (as on the left hand side of (5)) taking into account that each child may impose a different cost in terms of the amount of housing and privacy lost and in the amount of utility gained through and increase in $W(C_i^k)$. The parent then selects the child whose presence provides the greatest increase in utility over U_0^p. If the child refuses the offer, the parent extends the offer to the next most attractive child, and so on until a child accepts or until all children who would provide a utility gain compared to living alone are exhausted, in which case the parent continues to live alone. Therefore, variation across siblings in their individual and family characteristics will affect which one of the children is observed living with the parent.

4. Data

The data for this study are drawn from the Asset and Health Dynamics among the Oldest Old (AHEAD) survey.[6] The respondents to this survey are aged 70 or older and are asked a variety of questions about their health, income, assets and family structure, including a series of questions about each of their children. Of the 6,052 respondent households in the survey, we omit a few cases (130) in which the respondents were unable or unwilling to provide even the most basic information about a child (age and sex, for example) and another 11 families with invalid reports of key variables. Since we wish to examine differences in co-residence among siblings, we also omit 1,019 respondents with no children or only one child. We are left with

4,039 respondents (parents) and a total of 14,602 children.[7] Summary statistics for the samples of parents and children appear in Table 1.

Our analysis uses the following information provided by the respondents about themselves and about each of their children. The parents' own characteristics include age, race, health, marital status, income and net worth, and various aspects of their living arrangements, which are detailed below. For each of the children, we record the parent's report of the child's sex, age, education, marital status, income, whether a step-child, whether has own children, and whether working full-time.

Co-residence and Deed Information

In the case where a respondent lives with a child, the respondent identifies each child who lives in the household, whether the child always lived with the respondent, and, if not, who moved in with whom, and (from the parent's perspective) which party benefits more from the arrangement. The overall co-residence rate among the respondents with two or more children is about 19 percent (768 out of 4,039). In larger families, co-residence is more frequent—26 percent in families with four or more children versus 15 percent in families with two or three children— reflecting the greater supply and demand for such arrangements in families with more children.[8]

The benefits of co-residence, as reported by the parent, depend on the direction of the move that brought the parent and child together. In our sample the majority of co-residence arrangements (about 80 percent) take place in the home of the parent. Thirty six percent of co-resident children always lived with their parents, and of the children who co-reside after a spell of living away from parents, 69 percent moved back in with their parents.[9] Table 2 shows that in cases where the parent moved in with a child, only 6 percent of parents report that the child

benefits; the corresponding figure when the child moved in with the parent is 54 percent. The parent reports benefitting more from co-residence in 72 percent of cases when he or she moved into the child's home and only in 12 percent of cases when the child moved in.

Survey respondents also reported the type of residence they occupy, the number of rooms, whether or not they own it, and its resale value. A respondent who owns the residence he or she occupies reports whether he or she names any child on the deed to the residence and, if so, to identify those children. They also report which, if any, children were named on deeds to other property in the last ten years. In our sample of parents, about 70 percent own their current residence and about 12 percent of this group name at least one child on the deed to the residence. A smaller fraction of parents, about 6 percent, named a child on a deed to other property sometime in the past ten years.

Children's Incomes and Imputations for Co-residents

One of the important child-level variables in our within-family analysis is the parent's report of each child's income. Parents who are unable to give a precise dollar amount are prompted through a series of unfolding questions to provide a categorical dollar amount for each child's income. The six mutually exclusive categories are 0 to $20,000, $20,000 to $30,000, $30,000 to $50,000, greater than $50,000, and two broader categories—less than $30,000 and greater than $30,000. Assignments into the broader categories are presumably made by parents who are less sure about their children's incomes; therefore, these may be noisier measures of income than the assignments into the narrower categories. While we would prefer actual dollar reports of children's income (reported by the children themselves, perhaps), we argue that the parents' categorical reports give enough information to allow a relative ranking of siblings'

incomes that provides useful variation within the family that can be exploited in the analysis below.

With regard to the income measure, the AHEAD survey instrument treats co-resident children differently from children living outside the respondent's household. The respondent is asked to report the labor earnings of each co-resident child and his or her spouse and the family income of each child living outside the household. This feature of the survey introduces a potential problem in that a co-resident child is likely to appear poorer than his non-co-resident siblings simply because the report of his income excludes his non-labor income and his spouse's labor earnings.[10] We worried that this design feature would be a source of bias in our estimates of the effects of children's incomes on the co-residence decision. We attempt to correct this reporting problem using an imputation method that draws information from the Health and Retirement Survey (HRS), a household survey similar in design to the AHEAD.[11]

The imputation procedure is similar in spirit to the exercise in Freedman and Wolf (1995). In their study, information about mother's marital status is missing for some of the female respondents (daughters) in the NSFH. The authors select a sample of NSFH respondents who are themselves mothers in the appropriate age range and estimate an equation for their martial status, using their age, race, number of children as predictors. This same mothers' information is provided by the daughters in the primary sample. Using the estimated coefficients calculated from the regression using the "shadow" sample of mothers and the daughters' reports of the values of the variables, the authors predict for each daughter the probability that her mother is married, which can then be used as an explanatory variable in another context. Our application differs from theirs in that they use one sub-sample of respondents from the NSFH to impute

information for another sub-sample in the NSFH, while we use a sample of respondents from a separate, but similar, data set.

In our work, we identify HRS respondents who were near in age to the children of AHEAD respondents and who co-resided with a parent. We treat them as a "shadow" sample of the co-resident children of the AHEAD respondents. The HRS respondents report the dollar value of both their labor earnings and their total family income. We impose the AHEAD income bracket structure on these reports and use the difference in the earnings and income brackets first to gauge the seriousness of the potential under reporting of the incomes of the co-resident children in the AHEAD survey.[12] Then, using the HRS sample, we estimate equations relating the respondent's total income category to his labor earnings category and other personal characteristics. Finally, we run the AHEAD co-resident children's labor earnings and other characteristics through the estimated equations to come up with a "corrected" total income report.[13] The details of this procedure are found in the Appendix.

5. Empirical Methodology

Our empirical work has three parts. First, we estimate simple logit equations for whether an AHEAD parent lives with a child. We include characteristics of the parent—including demographic information, health, income and net worth, and characteristics of her residence—and characteristics of her children as a group.

In the second part, our main goal is to determine which of the child's characteristics are important in determining whether or not he or she co-resides with a parent. In this section we use a family fixed effect approach. For each AHEAD respondent with at least two children, we create a record for each child in the family by combining the parent's report of whether the child co-

resides with the parent's reports of the child's characteristics. We keep the records of all children from families where at least one, but not all, of the children co-reside. We discard all observations from families where all or none of the children co-reside with the parent, since there is no intra-family variation in co-residence to explain. After applying this screen and omitting cases with incomplete reports of child characteristics, we are left with a sample of 3,359 children from 781 families. We apply a fixed-effects logit estimator to this set of observations where the unit of observation is the child and the dependent variable is a 0 for non-coresident children and a 1 for co-residents and the observations are grouped into sibships.[14] We also perform separate analyses on the sub-samples in which the child lives in the parent's residence and where the parent lives in a child's residence.

The family fixed effect allows us to control statistically for observable and unobservable parental characteristics that are common across all children in the family, such as health, assets or financial obligations, attitudes toward children, or generosity, for example. Otherwise, ignoring or incompletely controlling for parental characteristics that are correlated to the child's characteristics might bias the estimated regression coefficients. Since all the parents' characteristics are captured by the family fixed effect, only the child's characteristics are used as explanatory variables. It is the variation in these variables across siblings, not across families, that identifies the logit coefficients.[15]

The third part of our analysis is a within family analysis of parental deed transfers. The AHEAD parents report whether any child is named on the deed to their current residence or was named on the deed to some other property in the past ten years. We limit our sample to those families in which at least one child, but not all, are named on the deed to the current residence (or

to other property in the past). We run family fixed effects logit equations analogous to the ones in the previous section to determine which child characteristics predict being so named.

6. Results

We report our empirical findings in three sections. First, we discuss the characteristics of parents and children that predict whether a parent co-resides with any of her children. Then, we move to the within-family (fixed effects) results for co-residence, and finally to the within-family results for deeds.

Across Family Logit Analysis of Co-residence

The economic model sketched in section 3 produced a number of predictions about the likely effects of various parent and child characteristics on the willingness of each party to co-reside. Factors that raise the child's value of extra consumption or extra housing or that lower his value of privacy are expected to increase the likelihood of co-residence. On the parent's side, a low value of privacy or a low marginal valuation of housing increase the probability that co-residence is offered. To test some of the predictions, we estimate logit models for co-residence for the sample of parents who have two or more children.[16] The empirical specifications include parental personal characteristics—marital status, sex, age, race, and education—as well as, five indicators for health (from "very good" to "poor," with "good" the omitted or reference category), income and net worth, and whether she owns her current residence, the number of rooms, and indicators for region of residence and residence in a metropolitan area. The age, marital status and health variables proxy for the parents' demand for privacy: older, unmarried, and unhealthy parents are expected to place a low value, perhaps even a negative value, on privacy. The income, net worth, and residence variables, capture the parent's value of

consumption and housing. Assuming that housing is a normal good and a diminishing marginal utility of income, we expect that richer parents would be more willing to give up some of their housing.

The specifications also include characteristics of the children as a group. This strategy allows us to include information about the potential pool of recipients (or providers) of co-residence. We measure the number, age range, sex composition, and educational attainment of the set of children, and whether any of the children is married, unemployed, has children of their own, or are step-children. (The fixed effects analysis in the next section accounts for the characteristics of each child individually.) Table 3 shows the across-family co-residence results. To make the interpretation easier, all of the estimated logit coefficients have been converted to odds ratios.[17] The dependent variable is 1 for a parent who co-resides with a child and 0, otherwise. In column 1 we count all co-residence arrangements, while in column 2 we discard cases where the parent moved into a child's home, since the effects of the parent's and children's characteristics may be different between the two types of arrangements.

It turns out that the two sets of estimates are very similar. We focus on the results in column 2, and only refer to the results in column 1 to point out differences. Many of the parental characteristics affect the probability of co-residence. Female, single, non-white, and unhealthy older persons are more likely to co-reside with a child, while college educated parents are less likely. Parents who own their residence are more likely to have children live with them, so are parents who live in larger residences, as measured by the number of rooms. These results are consistent with predictions from the economic model: if single parents or those in poor health have a lower value of privacy or, indeed, place a positive value on companionship, then we expect

to see them offer co-residence to a child. Parents who own their own homes, or who live in larger homes, are more able or more willing to sacrifice space to accommodate a child.

In contrast, column 1 shows the parent's age is positively associated with co-residence, while owning the residence is not. These effects are not surprising since parents who move in with a child tend to be older and, obviously, do not own their residence. Similarly, Aquilino (1990) concludes that parental "vulnerability" matters more for moves into the child's home than for moves into the parent's home. The result here that parents in poor health are more likely to co-reside is also found in Wolf and Soldo (1988), but stands in contrast to Aquilino (1990) and Ward, Logan and Spitze (1992) who both find no impact of parental health.

All of the income and net worth variables enter significantly, but, oddly, with opposite effects. Parents with the lowest incomes have the lowest odds of living with a child compared to parents in the highest income category, something like 11 times lower. Even in the second highest income category the odds are less than half as large as in the highest category. This suggests that only the richest parents offer co-residence to their children. In contrast, parents in the lowest net worth category are most likely to co-reside with a child, and the odds ratio monotonically decreases with net worth.[18] As expected, the positive effects of low assets are even more pronounced in the estimates in column 1 that include cases where the parent moved in with the child, that is, in cases where the child may be the one exhibiting altruistic tendencies toward the parent.

Comparing this set of findings to other studies is difficult because earlier studies have not controlled for parental income, education and net worth jointly. Aquilino (1990), Crimmins and Ingegneri (1990), and Ward, Logan and Spitze (1992) do not control for parental income, but use education as a proxy, and find that less educated parents are more likely to co-reside. Kotlikoff

and Morris (1990) find a weak relationship between parental income and the probability of co-residence, with large effects being observed only at very low income levels. Our finding that, controlling for education, richer parents are more likely to co-reside with children suggests that "supply-side" factors or the needs of the children are more important than the parent's need for co-residence.

The children's characteristics also enter significantly and in the expected directions in both columns 1 and 2. The number of children in the family has only a small impact on the probability of co-residence; however, keep in mind that the sample is already restricted to families with two or more children. Our findings reflect, as Wolf and Soldo (1988) and others have pointed out, that the attributes of the children matter more than the number of children.

To begin, in families where there is at least one son, parents' odds of co-residency are 1.67 times as large as when there are no sons. When all children are married the odds of co-residence fall by about half, compared to when none are married. This result is well-documented—nearly all studies of intergenerational co-residence find a strong positive effect of the presence of an unmarried child, especially a son (see Wolf and Soldo 1988). Aquilino (1990), too, reports a co-residency rate of 45 percent in the NSFH among parents with an unmarried child versus a mere 2 percent among parents whose children were all married. Similarly, the odds of intergenerational co-residence are about half as large when any children have children of their own. In the context of the model sketched in section 3, a child who is married or who has children of his own presumably place a higher value on his own privacy and, at the same time, would impose larger costs on the parent were he and his dependents to move into the parent's home. Both of the factors tend to reduce the likelihood that this type of child co-resides with the

parent. Unmarried and childless children are more likely to be offered co-residence and more willing to accept it.

Along the same lines, we find that a parent who has at least one child with less than a high school education or who is unemployed also have higher odds of co-residence. Low education and unemployment predict lower incomes and from the supply or demand side, the presence of a poor child is expected to result in an offer and an acceptance of co-residence.

Finally, co-residence is less prevalent when there are step-children among the pool of children. Aquilino (1990) also finds co-residence is less likely among parents who experienced a marital disruption or who remarried and acquired step-children.

In summary we find that intergenerational co-residence depends on the characteristics of both parents and children. Our results are that higher income, healthier parents are more likely to co-reside with a child, suggesting that children, rather than parents benefit more from such a relationship. Furthermore, the characteristics of the children as a group have large effects on the propensity to co-reside: the presence of unmarried children, childless children, or low income children raises the likelihood of co-residence. Indeed, these are the types of children who stand to benefit from the reduction in living expenses associated with co-residence and who would be most likely to accept a parent's offer of co-residence.

Family Fixed Effects Analysis of Co-residence

The next set of results focus on the parent's choice of which child to live with, given that she does live with a child. The sample is limited to families with two or more children in which the parent co-resides with a child. Each observation represents one child in a family and the dependent variable is 1 if the child co-resides with the parent and 0 if not. The family fixed effect controls for all the observable and unobservable characteristics of the parent and other factors that

are common to all siblings. The child characteristics included as predictors are the child's age, education, sex and marital status, indicators for income category, whether he or she is a step-child, has kids of his of her own, and works full-time.[19] Our primary sample consists of 3,359 children from 781 families in which intergenerational co-residence is observed.

Table 4 shows three sets of results: for all co-residence arrangements, for only those in which the child lives in the parent's home, and only those in which the parent moved in with the child. Focusing on the first column, one sees that several child characteristics affect the probability of co-residence. First, sex and marital status matter. The odds that a single son (daughter) co-resides with parents are approximately nine times (eight times) larger than a married son's odds, and a married daughters' odds are twice as large as the married son's. The odds that a child with children of his or her co-resides are about half as large as childless child's odds, and being a step-child lowers the odds of co-residence by a factor of three. The child's education and full-time work status do not significantly affect the likelihood of co-residence.[20] Since the child's income is also included in the specification, these last two results are not too surprising.

We find that the child's income does play a very strong role in the determining whether he or she co-resides with parents. (The reported effects for the income categories are interpreted with respect to the omitted income category, "greater than $50,000.") All else equal, the odds that a sibling in the lowest income category co-resides is 3.7 times larger than the odds for a sibling in the highest income category, while in the next higher income category the odds are 2.7 times greater and fall to 1.8 times in the $30,000 to $50,000 income bracket.[21] The strong inverse relationship between child's income and co-residence obtains even in the case where the parent is less certain about the children's income. In the broader income categories, a child whose income

is less than $30,000 has odds of co-residence eight times higher than a child in the highest category, while a child with more that $30,000 has odds about 50 times smaller.[22]

All these effects are consistent with the predictions from the economic model sketched in section 3. Children with potentially high regard for privacy—those who are married or have children of their own—are less likely to co-reside. The fact that daughters are more likely, and step-children are less likely, to co-reside may be interpreted as evidence that the parent's willingness to give up privacy and space depend on the closeness of the relationship of the child. Also, the strong and monotonically declining pattern of income effects points to either that the parent perceives little extra benefit of extending co-residence to a relatively richer child, or that richer children place a higher value on privacy or have enough housing and consumption of their own and so refuse the parent's offer.

To determine whether the effects of the child's characteristics depend the direction of the move that brought the parent and child together, we split the sample of co-residence arrangements into those that occur in the parent's home and those that occur in the child's home and re-estimated the fixed effects logit regressions.[23] In the sub-sample of co-residence in the parent's home (about 75 percent of the co-residence arrangements, column 2), the same pattern of income effects is observed, but the magnitudes are larger. The effects of being unmarried and without children are also larger than in column 1. The results for the sample of families where the parent lives in the child's home, on the other hand, show few significant effects of the child's income and the pattern of estimated coefficients suggests that co-residence is most likely to occur in the home of the relatively richer siblings. Single daughters and sons are still more likely to live with parents than married sons, as are single sons, but single daughters displace single sons as the most likely candidates. This result is also documented by Soldo, Wolf and Agree (1990).

In summary, differences in siblings' characteristics affect the probability of co-residing with a parent. We observe the by-now-well-known finding that daughters and single children are more likely to co-reside. We also find that differences in siblings' incomes are important, too, in determining which child co-resides. These findings are consistent with a model of co-residency where the parties' evaluation of the benefits of the arrangement depend on the value of extra consumption and housing, which vary inversely with the child's income, and on the value of the child's privacy, which varies directly with income and with the character of the child's relationship to the parent.

Deeds

We perform a similar analysis to determine the child characteristics that predict being named on a deed to property, which may be considered another form of parental resource transfer. Table 5 shows estimates of fixed effects logit specifications similar to the ones in Table 4. The dependent variable now indicates whether the child is named on the deed to the parent's current residence (columns 1 and 2) or whether the child was named on a deed to other property sometime in the past ten years (columns 3 and 4). The sample of observations in the first two columns includes the children of all AHEAD respondents who have at least two children and who named at least one child, but not every child, on the deed to their current residence; there are 234 such respondents with a total of 947 children. Similarly, the sample in columns 3 and 4 omits families in which none or all of the children were named on deeds to other property in the past ten years, leaving 579 children from 145 families.

The results show that stepchildren have lower odds of being named on a deed, either currently (about seven times smaller) or in the past ten years (about five times smaller). Having children of one's own cuts the odds of being named on the parent's current deed by half. On the

other hand, being a single daughter or a married daughter increases the odds. In contrast to the co-residence results, we find few sizable or significant effects of the child's income. Parents do not seem to base deed transfer decisions on the incomes of their children.

Column 2 adds to the specification an indicator for whether the child currently lives with the parent. Most all of the other coefficients are unchanged in magnitude and significance, except the effects of being a daughter are no longer significant, since from Table 4, daughters are also more likely to be co-residents. The co-residence indicator is strong and highly significant in column 2, raising the odds of being named on the deed to the parent's current residence by a factor of 13. Additionally, controlling for co-residence causes several of the income effects to become significant. All indicate lower probabilities of being named on the deed for poorer siblings.

Columns 3 and 4 show the results for deeds to other property awarded in the past ten years. Fewer variables enter significantly here. In column 3, poorer children are more likely than richer children to have been named on a deed. Column 4 shows that the effects mostly disappear once child's current co-residence is controlled. This variable also has its own sizable positive effect (nearly quadrupling the odds) on being named on a deed in the past. This may point to an intertemporal exchange of property for care taking, consistent with the exchange motive for bequests presented in Bernheim, Schleifer and Summers (1985).

In summary, we find that co-resident children receive another benefit from their living arrangements. They are more likely than non-co-resident children to be named on the deed to the parent's residence.

7. Summary and Conclusions

We examine intergenerational co-residence arrangements paying attention to the characteristics of parents and all their children. We look across and within families to investigate which parent and child characteristics predict co-residence with parents. Our across family results are largely consistent with previous findings: the composition and characteristics of the set of children have strong influences on whether a parent co-resides with a child. In particular, co-residence with a parent is less likely when children are married or have children of their own.

Our contribution to the literature comes from our within family analysis, where we attempt to determine which child co-resides with a parent. Using a fixed effect analysis that controls for observable and unobservable parental characteristics, we find that even after controlling for other characteristics, the differences in siblings' incomes influence parents' co-residence decisions. Specifically, poorer children are more likely to co-reside with parents than richer ones. Single children and daughters are also more likely to co-reside, while step-children and children with children of their own are less likely to live with parents. We also find that co-resident children enjoy another benefit as they are more likely to be named on the deed to the parent's residence and more likely to have been named on a deed to other property.

If one views shared living arrangements as a benefit to the co-resident child—as many researchers argue and as the AHEAD respondents themselves report—then our findings are consistent with recent work on *inter vivos* cash transfers. Altonji, Hayashi, and Kotlikoff (1996) using the Panel Study of Income Dynamics, Dunn (1995) using the National Longitudinal Surveys, and McGarry and Schoeni (1995) using the AHEAD and HRS all find that poorer siblings are more likely to receive cash gifts and receive larger gifts from their parents than their richer siblings. These results plus ours and others' on co-residence suggest that while parents are

alive they allocate their resources unequally among their children in a systematic way favoring their poorer children. This contrasts to results found in the bequest literature and in studies of other at-death transfers, such as life insurance benefits (Dunn and Phillips 1998; McGarry 1997; Menchik 1980, 1988; Wilhelm 1996). These papers show that at-death transfers tend to be made to all children, without respect to income differences among them.

Appendix

Income Imputations for Co-resident AHEAD Children Using a "Shadow Sample" from the HRS

Children's incomes are reported differently in AHEAD depending on whether or not the child coresides with a parent (respondent). The parent reports a child's household income if the child lives away from the parent. If the child coresides, the parent reports the child's labor earnings and the spouse's, if present. The difference between these two types of reports is non-labor income, and omitting this source of income artificially makes the co-resident children appear poorer than their non-co-resident siblings. Considering the importance of children's income reports in our analysis, we are charged with correcting for the differences in children's incomes due to reporting scheme. We use estimates from a "shadow" sample of Health and Retirement Study (HRS) respondents who coreside with their elderly parents to impute income measures for AHEAD co-resident children based on their earnings reports.

AHEAD respondents report their children's incomes (or earnings depending on coresidence status) in categories (or brackets) through a series of unfolding questions. First, the parent is asked whether or not the child's income is over $30,000. Based on the parent's response, the interviewer asks a second question to place the child's income into a narrower category. The narrow or complete categories are $0 to$20,000, $20,000 to $30,000, $30,000 to $50,000, and over $50,000. If the parent does not answer the second question, the child is placed into one of two broad or incomplete categories ($0 to $30,000 or more than $30,000). Therefore, a child's income can fall into one of six mutually exclusive categories, four complete and two incomplete. In order to determine the degree of underreporting of co-resident children's incomes, we exploit the availability of intergenerational coresidence arrangements in the HRS.

The HRS is a sample of 12,652 respondents from 7,607 households with at least one member aged 51 to 61. The survey contains information on the health, wealth, employment, and family structure of sample households. From this sample, we draw a subsample of all HRS respondents who live with a parent. Table A-1 compares the means for AHEAD co-resident children and HRS respondents who coreside with a parent. By virtue of the sample design, the HRS sample is slightly older and has more married couples than the AHEAD sample. Also, a larger share of coresidence arrangements for HRS respondents occur in the home of the child (51 percent versus 19 for AHEAD). The years of education, racial composition, and labor force participation of AHEAD and HRS coresidents are quite similar.

HRS respondents report both their labor earnings (and spouse's) and their total family income. We impose the AHEAD income categories on these reports to gauge the seriousness of the underreporting of non-labor income for coresidents in the AHEAD. In the case of single HRS respondents, in over 90 percent of the cases the complete income category matched the earnings category, implying that non-labor income is inconsequential for unmarried co-resident children. In those cases where income and earnings categories did not match, about half had earnings lower than income by one category and the rest had earnings two categories lower than their income. Note that since there are four complete categories, the largest gap possible is three categories (earnings category 1 or the lowest to household income category 4 or the highest). As the earnings category increases, the number of possible mismatch categories decreases; for example, respondents in earnings category 4 (the highest, more than $50,000) always fall in the same income category, by virtue of the construction of the bracket. Since there are only two incomplete categories (less than $30,000, greater than $30,000), all mismatches occur when earnings understate income by one category.

To compare the earnings and income categories of married HRS couples we place each member's earnings into a category and take the maximum of the two reports, since there was no reliable way to combine the two categorical reports into another category. This provides a lower bound of the co-resident couple's earnings. We then compare the maximum of the couple's earnings categories to their income category. In the complete categories, couple's earnings match income category in about 46 percent of the cases. When earnings and income categories do not match, 74 percent of the misses are by one category, 21 percent are by two categories, and 5 percent are by three categories. For the incomplete categories, matches occur in 74 percent of the cases. Mismatches, which can only be off by one category in this instance, occur in the remaining 26 percent of the cases. Clearly, earnings are not as good a proxy for the income of married coresidents, especially for dual-earning couples, as it is for unmarried coresidents. The good news it that in the AHEAD, about 80 percent of co-resident children are not married.

Throughout this exercise, we assume that non-labor income is non-negative so that reported earnings can only understate family income. In situations where earnings categories are complete, the maximum "distance" between the earnings and income categories are three, two, and one for earnings falling in the lowest, second and third highest categories, respectively. Income falls in the same category as earnings when earnings are in the highest (more than $50,000) category. For any given earnings category, there is a probability that the income category matches and there is a probability that the income category is actually higher than the earnings category. The probability that the earnings category understates income is the sum of the probabilities associated with actual income being in any income category higher than the earnings category. Using the shadow sample, we estimate for the set of observations in each earnings category the probabilities of earnings categories matching or understating income

categories. That is , for all observations in earnings category 1 (the lowest) we use ordered probit to estimate the probabilities that the income category is category 1 (a match), category 2 (higher by one), category 3 (higher by two), and category 4 (higher by three). These predicted probabilities sum to one for each observation. We follow a similar procedure for the set of observations with earnings falling in category 2, category 3, and for the first incomplete category. In the case of earnings category 2, there are three possibilities: earnings and income categories match, earnings are lower by one category, and by two. The third earnings category and the first broad category have only two possibilities, match and earnings lower by one category, so we use probits to estimate these probabilities. After generating estimates for each of the equations using the shadow subsamples, we run the AHEAD children's characteristics through the appropriate equation (based on the earnings category) and predict probabilities for landing in each of the possible income categories. The imputed categorical income probabilities replace the AHEAD parents' earnings reports for their co-resident children in the fixed-effects logits reported in the text.

Table A-2 shows the estimated ordered probit and probit equations based on the HRS shadow subsamples. Each column presents the probit coefficient estimates for a given earnings category. Education, marital status, and full-time employment positively influence the likelihood that earnings are lower than income, or that non-labor income is important. The probability of understating the income of a married couple using earnings is rather high across all earnings brackets. Race, age, and part-time employment do not affect the likelihood that earnings understate income in any of the estimates.

Using the estimates from Table A-2, we impute the probabilities that the income category of each AHEAD child either matches or surpasses his earnings category. Table A-3 displays the

predicted probability for each possible income outcome, given an earnings category. As can be seen in column 1, only about 15 percent of the children in the lowest earnings category had income predicted into a higher category. The fraction of matches falls for children in the second earnings category (column 2), where the average probability of earnings and income being in the same category is 0.69. Nonlabor income is predicted to boost income into the next higher category 25 percent of the time, and into the highest category 6 percent of the time. For AHEAD children in second highest earnings category (column 3), the average probability of moving into the top income category is 0.20. For incomplete category 1 ($30,000 or less, column 5), the income category matches the earnings category with a probability of 0.80, and exceeds earnings with a probability of 0.20. As was previously mentioned, children in the highest earnings category have earnings there, by construction. By spreading the probability of children's incomes across relevant income categories, the imputation technique allows for the higher likelihood of being in a higher income category for those children whose characteristics are correlated with having substantial nonlabor income. Therefore, the new measure should be an improvement over the categorical earnings reports for co-resident children in AHEAD.

Table A-1. Comparison of AHEAD and HRS Co-Residence Subsamples

Variable Name	AHEAD (n=1,078)	HRS (n=333)
Male	0.51	0.43
	(0.50)	(0.50)
Age	45.20	55.30
	(11.60)	(4.19)
Education	12.40	12.10
	(3.02)	(3.26)
Marital status	0.21	0.49
	(0.41)	(0.50)
Has children	0.54	0.77
	(0.50)	(0.42)
Black	0.26	0.24
	(0.44)	(0.43)
White	0.69	0.65
	(0.46)	(0.48)
Other race	0.05	0.11
	(0.21)	(0.31)
Works full-time	0.50	0.57
	(0.50)	(0.50)
Works part-time	0.10	0.07
	(0.30)	(0.25)
Parent moved in with child	0.19	0.51
	(0.39)	(0.50)
Child moved in with parent	0.78	0.46
	(0.42)	(0.50)

Source: Authors' calculation using the first waves of the AHEAD and HRS.

Table A-2. Ordered Probit and Probit Estimates of Difference between Earnings and Household Income Categories for HRS Co-Residents

	Ordered Probit		Probit	
Variable Name	**Earnings Category 1 (n=179)**	**Earnings Category 2 (n=56)**	**Earnings Category 3 (n=65)**	**Incomplete Earnings Category (n=235)**
Male	-0.63*	-0.59	-0.22	-0.54
	(0.28)	(0.48)	(0.44)	(0.28)
Age	0.01	0.07	0.02	0.00
	(0.03)	(0.04)	(0.04)	(0.03)
Education	0.14**	0.05	0.09	0.11*
	(0.05)	(0.10)	(0.07)	(0.05)
Marital status	0.95**	2.30**	1.85**	1.33**
	(0.30)	(0.58)	(0.71)	(0.31)
Has children	0.05	-0.14	0.28	-0.08
	(0.34)	(0.69)	(0.82)	(0.35)
Black	-0.30	-0.61	-0.12	0.11
	(0.31)	(0.56)	(0.54)	(0.31)
White (omitted)	---	---	---	---
Other race	0.13	0.31	-0.32	0.17
	(0.42)	(0.53)	(0.94)	(0.38)
Works full-time	0.52*	0.35	-0.23	1.04**
	(0.25)	(0.47)	(0.47)	(0.26)
Works part-time	0.74	---	-1.29	0.77
	(0.40)		(0.82)	(0.50)
Parent moved in with child	0.59*	0.26	0.15	0.29
	(0.29)	(0.45)	(0.41)	(0.27)

Source: Authors' calculations using the first wave of the HRS.

Table A-3. Predicted Income Category Based on Reported Earnings Category

Predicted Income Category	Reported Earnings Category					
					Incomplete	
	Category 1 (n=739)	Category 2 (n=157)	Category 3 (n=98)	Category 4 (n=35)	Category 1 (n=38)	Category 2 (n=11)
Category 1	0.86	---	---	---	---	---
Category 2	0.09	0.69	---	---	---	---
Category 3	0.05	0.25	0.80	---	---	---
Category 4	0.01	0.06	0.20	1.00	---	---
Incomplete						
Category 1	---	---	---	---	0.80	---
Category 2	---	---	---	---	0.20	1.00

Source: Authors' calculation using the first wave of the HRS.

Endnotes

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1. D^p may be positive if the parent values the company of her child, in which case the only cost to the parent is the value of the loss of housing space.

2. If there are economies of scale or specialization in the production of household services or excess capacity in the parent's house, the amount of the housing services the child pays for may be less than proportional to θ. Alternatively, R may be determined endogenously. A parent with a low marginal utility of consumption or strong altruistic tendencies (that is, a high valuation of the child's consumption) would accept a low R. Kotlikoff and Morris (1990) consider the case where the parent and child pool their incomes and housing services are a non-congestible public good. In the co-residence state, the combined household budget constraint is $C^p + C^k + qH^p = Y^p + Y^k$. Allowing for congestion simply raises the unit price of housing, but the budgetary incentive for co-residence remains as long as this new price is less than $q(1 + H^k/H^p)$.

3. In this simple model, however, the parent is unmoved by the child's loss of privacy. The model is easily extended to allow for the parent to react to the net change in the child's utility (accounting for the change in consumption, housing, and privacy) in accepting a co-residence offer.

4. We do not explicitly model any other exchange between the parent and child that may occur when the child moves in. Cox (1987) presents a model where parents pay their children with cash in exchange for companionship, compliance or help around the house. This alters the interpretation of intergenerational cash transfers from one motivated by altruism to one that is simply a market exchange. Our model could be refined to allow for this interaction by changing the definitions of the child's payment for co-residence, R, or his loss of privacy.

5. The parent has a less intrusive way of increasing the child's utility through cash gifts. A cash payment raises the child's consumption and indirectly the parent's utility, and comes at the expense of a loss in the parent's own consumption, but at no loss in her privacy or housing. We leave the analysis of the choice between cash and co-residence for future work. See Rosenzweig and Wolpin (1993) for a model incorporating these two types of transfers and Rosenzweig and Wolpin (1994) for a model incorporating co-residence and welfare programs. Neither paper considers the effects of siblings as we do here. Phillips (1997) estimates a model of multiple transfer receipt using the AHEAD data. He finds evidence that co-residence and cash gifts from parents are substitutes.

6. See Hurd, Rodgers, Soldo and Wallace (1994) for a description of the AHEAD survey. We use only the first wave of data, collected between October 1993 and July 1994.

7. Our sample is comprised of 1,465 two-child families, 1,030 three-child families, 612 four-child families and 932 families with five or more children.

8. In one-child families, the co-residence rate is 15 percent.

9. In the NSFH a similar fraction, 75 percent, of co-residence arrangements involving parents over the age of 65 occur in the home of the parent (Aquilino 1990).

10. The bracketing of earnings reports in the AHEAD survey makes it difficult to combine the labor earnings of the child and the spouse in a reliable way. For dual earner couples, we use the higher of the two reports as the income measure.

11. The HRS is a nationally representative sample of American households with one member between the ages of 51 and 61 in 1992. For a description of the HRS data, see Juster and Suzman (1995).

12. Using the HRS shadow sample, we were able to detect a few patterns of potential under-reporting in the AHEAD. For unmarried co-residents, non-labor income is small enough so that total income falls in the same bracket as labor earnings in over 90 percent of cases. For married couples with one worker, the earnings bracket assignment is the same as the total income bracket assignment in 51 percent of cases. About 54 percent of dual-earning couples are bumped into a higher bracket when non-labor income and the spouse's labor earnings are counted. The evidence, then, is that the under reporting problem in the AHEAD is likely to be minor for unmarried co-resident children and serious for married children. On the other hand, the good news is that the large majority, 80 percent, of co-resident children in the AHEAD survey are unmarried.

13. Specifically, we estimate ordered probit regressions, where the dependent variable is how many steps the child's total income bracket is from his labor earnings bracket and the independent variables are his labor earnings bracket, age, education, marital status and other variables. (These variables are also reported by the AHEAD parents about their children.) The number of categories for the outcome variable in the ordered probit depends on the child's labor earnings bracket, since we assume that the child's total income must be larger than his labor earnings. For example, there are four possible outcomes for total income for individuals whose earnings fall into the lowest bracket, while individuals in the highest earnings bracket ($50,000 or more) must stay in the same bracket. We then plug the AHEAD child's characteristics into the appropriate estimated ordered probit equation and predict the probability of observing each possible total income bracket. These probabilities across categories replace the parent's report for that child.

14. We use Stata's conditional logit technique, which is based on Chamberlain (1980).

15. The fact that the variation within families identifies the coefficients reinforces the point made earlier about the efficacy of using categorical, rather than continuous, reports of the children's income. For our purposes, the parent's guesses about the children's actual

incomes may be imprecise, as long as the ordinal ranking of the children's incomes is accurate.

16. We focus on families with two or more children here because these are the families that enter into our fixed-effects analyses later. Including one-child families has no qualitative impact on the results reported in this section.

17. The odds ratio is calculated by exponentiating the logit coefficient. Negative logit coefficients translate into lower odds ratios and positive coefficients into higher odds ratios. For indicator variables, the odds ratio is interpreted with respect to the reference category. For continuous variables, the estimate describes the effect of a one unit change in the variable on the odds ratio.

18. The pattern of asset coefficients does not change when the "own residence" indicator is excluded from the regression, but the effects are a bit weaker, suggesting that the ownership variable is, in part, reflecting the parent's wealth.

19. In all specifications in Tables 4 and 5, the incomes of co-resident children are "corrected" using the imputation procedure described in section 4.2 and the Appendix.

20. Kotlikoff and Morris (1990) also find no correlation between child's education and co-residence, nor do they find that the child's age or health matters. They do find that male and married children are significantly less likely to co-reside.

21. These results are consistent with others in the literature. Kotlikoff and Morris (1990) find a negative but insignificant coefficient on child's income on the probability of co-residence in their sample of one-child families. Rosenzweig and Wolpin (1993, 1994) employ an individual (rather than family) fixed effects logit technique to study the co-residence patterns over time of young men and young women in the National Longitudinal Surveys. They find that a child is more likely to live with parents in periods when his or her income is below its "permanent" level.

22. We ran a specification identical to column 1 using the parent's report of the co-resident child's income, rather than the imputed value, as a check on our imputation procedure. Consistent with the fact that the parent's report is artificially low due to the survey question design, we find income effects that are much larger than those reported in column 1. The odds ratio in the lowest income category is 15.55, 8.48 in the second category, 3.13 in the third, 8.07 in the "less than $30,000" category and 0.02 in the "greater than $30,000" category. Coefficients on all the other variables in the equation are similar to those in column 1 in magnitude and significance.

23. This sample separation also to a large degree separates unmarried and married co-resident children: 88 percent of children co-residing in the parent's home are unmarried, while only 44 percent of children who co-reside with a parent in their own home are unmarried.

Table 1. Means for Families with Two or More Children

Parents (N=4,168)[a]			Child (N=14,602)[b]		
Variables	**Mean**	**Standard Deviation**	**Variables**	**Mean**	**Standard Deviation**
Number of Children	3.66	2.02	Child has Children	0.81	0.39
Number of Stepchildren	0.58	1.56	Married	0.68	0.47
Married	0.44	0.50	Female	0.51	0.50
Female	0.46	0.50	Full-time work status	0.66	0.47
Race			**Age**		
Black	0.13	0.34	Less than 40	0.21	0.41
White	0.85	0.36	40 to 55	0.64	0.48
Other	0.02	0.15	Greater than 55	0.16	0.36
Education			**Education**		
Less than high school	0.49	0.50	Less than high school graduate	0.13	0.33
High school graduate	0.26	0.44	High school graduate	0.43	0.49
Some college	0.13	0.34	Some college	0.17	0.37
College graduate	0.06	0.24	College graduate	0.17	0.38
Graduate school	0.06	0.23	Graduate school	0.11	0.31
Age			**Income Bracket**[c]		
Less than 70	0.02	0.15	$0 to $20,000	0.16	0.37
70 to 80	0.70	0.46	$20,000 to $30,000	0.12	0.32
Over 80	0.28	0.45	Greater than $50,000	0.20	0.40
Income			Less than $30,000	0.02	0.15
Household Income ($)	25,030	31,485	Greater than $30,000	0.29	0.45
Household Net Worth ($)	167,792	410,041			

[a]Sample of 4,168 is limited to respondents who have at least two children.

[b]Sample of 14,602 is limited to children from families with at least two children.

[c]Income bracket categories are mutually exclusive.

Source: Authors' calculations using AHEAD, wave 1.

Table 2: Who Benefits from Co-residence?
(in percent)

	Child Moved in with Parent	Parent Moved in with Child
Child benefits	54	6
Parent benefits	12	72
Both benefit	34	22
Number of Observations	379	163

Notes:

1. Sample is limited to families with at least two children.
2. Moves in the first (second) column account for 43 (18) percent of co-residence arrangements.
3. Families in which the parent and child always lived together are excluded; these account for 36 percent of the co-residence arrangements.
4. Reports of who moved and who benefits are given by the parent.

Source: Authors' calculations using AHEAD, wave 1.

Table 3. Logit Results for Intergenerational Co-Residence[a]
(dependent variable: parent co-resides with any child? 0/1)

	(1)	(2)
Parent's Characteristics		
Married	0.61**	0.69*
Female	1.52**	1.51**
Age > 80	1.37*	1.21
Black	1.89**	2.07**
Other race	2.19**	2.07*
Less than HS education	1.25	1.29*
More than HS education	0.62**	0.65**
Health excellent	0.87	0.84
Health very good	1.08	1.01
Health fair	1.09	1.13
Health poor	1.72**	1.59**
Own the residence	1.02	1.72**
Number of rooms	1.38**	1.29**
HH income, 1st quartile	0.06**	0.09**
HH income, 2nd quartile	0.18**	0.22**
HH income, 3rd quartile	0.40**	0.45**
Net worth, 1st quartile	5.31**	3.78**
Net worth, 2nd quartile	3.56**	3.04**
Net worth, 3rd quartile	2.42**	2.13**
Kids' Characteristics		
Number of children	1.08*	1.07*
Age of youngest	0.95**	0.94**
Age of oldest	1.04**	1.03**
Any boys?	1.40**	1.67**
Any married?	0.46**	0.44**
Any with grandkids?	0.48**	0.43**
Any kid less than HS?	1.57**	1.74**
Any kid more than HS?	0.78*	0.78*
Any kid unemployed?	1.63**	1.76**
Any stepkids?	0.32**	0.31**
Probability in sample	0.19	0.16
Number of observations	4,039	3,874

[a]Odds ratios are reported; *= odds ratio is significant at the 5 percent level, **= 1 percent level. The sample is limited to families with two or more children. Specification (1) includes all co-residence arrangements, whereas (2) excludes cases where the parent moved in with a child. Specifications also include an indicator for residence in an MSA and indicators for region of residence. Omitted (reference) categories are white, high school education, good health, and the highest quartiles of hh income and net worth.

Source: Authors' calculations using AHEAD, wave 1.

Table 4. Fixed Effects Logit Results for Living with a Parent[a] (dependent variable: child co-resides with parent? 0/1)

Child's Characteristic	All Co-residence Arrangements (1)	Child Lives in Parent's Home (2)	Parent Moved in with Child (3)
Stepchild	0.31*	0.32	2.66
Married Daughter	2.03**	1.41	2.92**
Single Son	9.05**	12.47**	3.49*
Single Daughter	7.83**	9.04**	8.96**
Has Kids	0.47**	0.38**	1.26
Age	0.95**	0.95**	0.97
Less than High School	0.70	0.68	0.46
More than High School	1.31	1.52	0.70
Working Full-time	0.79	0.67*	1.11
Income			
$0 to $20,000	3.71**	7.42**	0.40
$20,000 to $30,000	2.72**	4.41**	0.84
$30,000 to $50,000	1.83*	2.52*	1.24
Less than $30,000	2.37	6.85**	0.36*
Greater than$30,000	0.01**	0.02**	0.01**
Number of Observations	3,359	2,627	609
Number of Families	781	602	154

[a]Odds ratios are reported; *= odds ratio is significant at the 5 percent level; **= 1 percent level. The samples are limited to families with two or more children in which at least one child, but not every child, is co-resident. Omitted (reference) categories are married sons, high school graduate, income greater than $50,000. In all columns co-resident children's incomes are imputed as described in section 4.2 of the text.
Source: Authors' calculations using AHEAD, wave 1.

Table 5. Fixed Effects Logit Results for Being Named on a Deed[a] (dependent variable: parent named child on a deed? 0/1)

Child's Characteristic	Deed to Current Residence (1)	Deed to Current Residence (2)	Deed in the Past Ten Years (3)	Deed in the Past Ten Years (4)
Stepchild	0.14**	0.15**	0.19*	0.17*
Married Daughter	1.53*	1.36	1.04	0.98
Single Son	1.74	1.05	0.82	0.69
Single Daughter	2.45**	1.78	1.35	1.15
Has Kids	0.45**	0.50*	0.95	0.99
Age	1.04**	1.05**	0.94**	0.94**
Less than High School	0.50*	0.46*	1.11	1.15
More than High School	1.69*	1.66*	1.15	1.02
Working Full-time	1.27	1.16	1.00	0.97
Income				
$0 to $20,000	0.65	0.23**	2.70*	2.12
$20,000 to $30,000	0.65	0.44*	1.23	1.17
$30,000 to $50,000	1.19	1.01	2.43*	2.36*
Less than $30,000	0.13**	0.10**	1.06	1.20
Greater than $30,000	0.43	0.61	0.21*	0.31
Living with parent?	---	13.39**	---	3.61**
Number of Observations	947	947	579	579
Number of Families	234	234	145	145

[a]Odds ratios are reported; *= odds ratio is significant at the 5 percent level; **= 1 percent level. The samples are limited to families with two or more children in which at least one child, but not every child, is named on a deed. Omitted (reference) categories are married sons, high school graduate, income greater than $50,000. In all columns co-resident children's incomes are imputed as described in section 4.2 of the text. Source: Authors' calculations using AHEAD, wave 1.

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