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# Two-Sided Transfers from Adult Children of Elderly Persons*

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## Abstract

We build an intergenerational transfer model in which an adult child provides elder care to his parents and monetary transfers to his children based on his own income. Under an assumption that the adult child is concerned about his own future care, we make the following theoretical prediction: an adult child provides elder care for his parents and monetary transfer to his children based on monetary transfer from his elderly parents only if the adult child expects that his child will provide him future elder care. Empirical findings based on the sample drawn from the Health and Retirement Study are consistent with the theoretical prediction. Our findings indicate that the expectation of adult children regarding whether their children will provide future elder care critically determines their decisions regarding the provision of elder care to their elderly parents and monetary transfers to their children.

**Keywords：** Elder care, Intergenerational transfers, Altruism

## 1．Introduction

Family members play an important role in elder care. For a single elderly person with care needs, adult children are the primary care providers; the Bureau of Labor Statistics (2012) reports that 40 million

*We are grateful to the Kikawada Foundation for financially supporting this research. All errors are our own.

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people provide care to an aging parent in the US.

Existing studies have shown that adult children with their own children are less likely to provide care for their elderly parents than adult children without their own children. However, most adult children have their own children; as the term “sandwiched generation” implies, adult children are struggling to strike the balance between providing elder care and bringing up their children. In the Health and Retirement Study (HRS), among adult children who have one surviving parent with care needs and have at least one child, we find that adult children who transfer money to their children are more likely to provide care for their elderly parents compared with those who do not transfer money to their children. Existing studies are unable to explain this observation. Why do such adult children with their own children provide elder care?

The purpose of this study is to provide a mechanism by which adult children who transfer money to their children are more likely to provide elder care. This study takes account of adult children's concern for their own future care and builds an intergenerational transfer model in which an adult child provides elder care to his parents and monetary transfers to his children based on his own income. Under an assumption that the adult child is concerned about his own future care, we make the following theoretical prediction: an adult child provides elder care for his parents and monetary transfer to his children based on monetary transfer from his elderly parents only if the adult child expects that his child will provide him future elder care. The prediction shows that the adult child's expectation of future elder care from his child determines the effect of the increase in monetary transfer from the elderly parents to the adult child on the adult child's elder care provision to his parents and monetary transfer to his children.

Adult children who expect to receive future elder care from their own children do not need to save for their own future elder care. Therefore, they will provide more elder care to their parents and more monetary transfer to their children for the altruistic concern about their elderly parents and their children when adult children receive more monetary transfer from their elderly parents. On the other hand, adult children who do not expect to receive future elder care from their own children need to save for their own future elder care. Therefore, although adult children are altruistic to their elderly parents and their children, adult children increase neither elder care to their elderly parents nor monetary transfer to their children when adult children receive more monetary transfer from their elderly parents; adult children end up using the monetary transfer from their elderly parents for saving for their own future elder care.

For our empirical analysis, a sample of adult children who have one surviving parent with care needs and who have at least one child is drawn from the HRS. We test the theoretical prediction on the adult children's provision of elder care to their parents and monetary transfers to their children simultaneously because the adult children simultaneously determine the levels of elder care to their parents and the amounts of monetary transfers to their children. The dependence of elder care and monetary transfers on observable family characteristics is estimated using the recursive bivariate probit model. Among adult children who expect future elder care from their children, we find that adult children increase the provision of elder care to their parents and the transfer of money to their children when they receive greater monetary transfers from their elderly parents. In contrast, among adult children who do not expect future elder care from their children, we find that adult children increase neither

the provision of elder care to their parents nor monetary transfers to their children when they receive greater monetary transfers from their elderly parents. Therefore, our findings suggest that the expectation of adult children regarding whether their children will provide future elder care for them critically determines their decisions regarding the provision of elder care to their parents and monetary transfers to their children.

Our study is situated in the literature that has examined the determinants of adult children's care provision for their elderly parents. Adult children's characteristics are critical determinants of their care provision. Among the existing studies, for example, Bernheim, Shleifer, and Summers (1985) show that the number of siblings of adult children influences the care provision; however, they do not take account of the presence of children of the adult children. Brown (2006) shows that an adult child with his own children is less likely to provide care to his elderly parent. As discussed above, we find in the HRS that adult children who transfer money to their children are more likely to provide elder care compared with those who do not transfer money to their children. Existing studies are unable to explain this phenomenon. This is because the existing studies do not take account of adult children's concern for their own future elder care; therefore, the children of adult children are not considered to be caregivers for the adult children.

This paper is organized as follows. Section 2 presents our theoretical model, and our sample from the HRS is discussed in Section 3. In Section 4, the hypotheses of interest are tested, and our findings are discussed. Our conclusions are presented in Section 5.

## 2．Model

In this section, we consider an economy in which there exist three

successive generations in the same period: an elderly parent, an adult child, and a grandchild. An adult child is altruistic to his child (grandchild), but whether he is altruistic to his elderly parent or not depends on the amount of transfer from the elderly parent when he was a child. We consider a case in which an adult child is altruistic to the elderly parent. In other words, the adult child is concerned for the well-being of the grandchild, the elderly parent, and himself in his old age.

In period t, the three generations behave as follows. First, the adult child determines consumption for himself, monetary transfer to the grandchild, care for his elderly parent, and savings for his own future care based on his income. Second, the grandchild decides whether he is going to be altruistic to the adult child or not, based on an amount of transfer from the adult child. An altruistic grandchild provides a positive amount of elder care to the adult child in period t+1; a nonaltruistic grandchild provides no elder care to the adult child in period t+1. Third, the elderly parent transfers money to the adult child if he expects that this monetary transfer induces the adult child to provide an additional amount of elder care. Then, if the adult child receives the monetary transfer from the elderly parent, the adult child divides this transfer into consumption for him, monetary transfer to the grandchild, the amount of care for the elderly parent, and savings for his own future care. At the same time, the adult child observes whether the grandchild is altruistic to the adult child or not, that is, whether the adult child will receive care from the grandchild in period t+1.

### (1) The adult child's first choice

We consider the first choice of the adult child who is altruistic to his elderly parent as well as the grandchild in period t. The adult child

gains a utility from his own consumption, $x_t$, his monetary transfer to the grandchild, $x_{t+1}$, and his elderly parent's utility, $v_t$. The utility of the elderly parent $v_t$ is determined by an amount of care that the elderly parent receives, $c_t$. A utility function for the adult child is represented by $W(x_t, x_{t+1}, a_t v(c_t))$, where $a_t$ is an indicator for an altruism from the adult child to the elderly parent. In period t-1, the adult child decided whether he was going to be altruistic to the elderly parent or not, based on the amount of a transfer that the elderly parent provided to the adult child. We consider the case where the adult child is altruistic to the elderly parent; that is, $a_t=1$. The adult child provides a positive amount of care to the elderly parent.

The adult child also gains utility from his own care in the future. We denote his own future care by $c_{t+1}$ and his utility from it by $v(c_{t+1})$. Denote the amount of care that the adult child expects the grandchild to provide by $\bar{c}$. When an adult child is altruistic to his elderly parent, the adult child would expect his child to be altruistic to the adult child as well. Therefore, we assume that the adult child who is altruistic to the elderly parent expects that the grandchild provides a positive amount of elder care to the adult child; that is, $\bar{c} > 0$. When the adult child purchases market-provided care for himself by $m_{t+1}$ in period t+1, the total amount of elder care for him in period t+1 will be represented by $c_{t+1} = \bar{c} + m_{t+1}$.

The adult child provides care to the elderly parent, $c_t$, and the provision of $c_t$ costs $w_t$ per hour. We assume that he has T hours. An optimization problem for the adult child is represented as

$$\max_{(x_t, x_{t+1}, c_t, m_{t+1})} \left\{ W\left(x_t, x_{t+1}, v(c_t)\right) + \delta v(c_{t+1}) \right\},$$

$$s.t. \quad x_t + x_{t+1} + w_t c_t + p_{t+1} m_{t+1} \leq w_t T$$
$$c_{t+1} = \bar{c} + m_{t+1},$$

where $p_{t+1}$ is a price of market-provided care in period t+1, and $\delta$ is the rate of time preference and satisfies $0<\delta<1$. By the first-order condition for this optimization problem, we obtain that

$$W_2(\cdot, x_{t+1}, \cdot) = \frac{W_3 v'(c_t)}{w_t}, \tag{1}$$

and

$$\frac{W_3 v'(c_t)}{w_t} = \frac{\delta v'(\bar{c} + m_{t+1})}{p_{t+1}}, \tag{2}$$

where $W_2$ is the derivative of $W(\cdot,x,\cdot)$ in $x$ and $W_3$ is the derivative of $W(\cdot,\cdot,v)$ in $v$. Note that, in the first-order condition (2), the adult child expects to receive a positive amount of elder care from the altruistic grandchild; that is, $\bar{c} > 0$.

(2) The grandchild's choice

We consider the behavior of the grandchild in period t. In period t, the grandchild is too young to earn income. He gains a utility from his own consumption in period t. The grandchild cannot cover this cost; thus, monetary transfer from the adult child covers it.

The grandchild decides whether he is going to be altruistic to the adult child or not, based on the amount of monetary transfer from the adult child. Denote by $a_{t+1}$ an indicator for altruism from the grandchild to the adult child. An altruistic grandchild provides a positive amount of elder care to the adult child in period t+1; a nonaltruistic grandchild provides no elder care to the adult child in period t+1. We assume that there is a threshold of transfer from the adult child to the grandchild, $\bar{x}$, that the grandchild becomes altruistic to the adult child as long as the transfer from the adult child is equal to or above this threshold, $x_{t+1} \geq \bar{x}$. The grandchild's decision

on altruism is represented by

$$a_{t+1} = \begin{cases} 1 & if\ x_{t+1} \geq \bar{x} \\ 0 & otherwise, \end{cases}$$

where the level of $\bar{x}$ differs across grandchildren.

We denote by $u(x_{t+1}, a_{t+1})$ the utility for a grandchild in period t. This utility function satisfies that $u_1>0$ and $u_{11}<0$ and that if $x \geq \bar{x}$, $u(x,1) \geq u(x,0)$; otherwise, $u(x,1)<u(x,0)$. [1]

(3) The elderly parent's choice and the adult child's second choice

An elderly parent needs care in period t. The amount of care that the elderly parent receives consists of market-provided care and elder care from the adult child, $c_t$. The elder care from the adult child satisfies the condition

$$\frac{W_3 a_t v'(c_t)}{w_t} = \frac{\delta v'(\bar{c} + m_{t+1})}{p_{t+1}}, \tag{3}$$

where $a_t = 1$ if the adult child is altruistic to the elderly parent; $a_t = 0$, otherwise. The elderly parent treats $a_t$ as a parameter. It would be unrealistic to assume that the elderly parent is able to manipulate $a_t$. The adult child's choice of $c_t$ is determined by the income of the adult child, $w_t T$, and expected care that the grandchild will provide to the adult child in period t+1, $\bar{c}$. The adult child who is altruistic to the elderly parent expects that the grandchild provides a positive amount of elder care to him, $\bar{c} > 0$.

When the grandchild is altruistic to the adult child, the grandchild will actually provide a positive amount of elder care to the adult child; that is, $\bar{c} > 0$. The adult child who expects to receive future elder care from the

[1] While the $a_{t+1}$ takes binominal values in this study, it takes continuous values in Bernheim, Shleifer, and Summers (1985).

grandchild does not need to save for his own future elder care. Equation (3) shows that the marginal utility of $c_t$ equals the marginal utility of $m_{t+1}$, and it implies that the marginal utility of $x_{t+1}$ equals the marginal utility of $m_{t+1}$ by (1). Suppose that the adult child receives more monetary transfer from the elderly parent, $g_t$, and the adult child's budget constraint is increased to $w_tT+g_t$. Then, the adult child will increase elder care to the elderly parent, $c_t$, from the altruistic concern for the elderly parent. Moreover, as equation (1) implies, the adult child will also increase monetary transfer to the grandchild, $x_{t+1}$, from the altruistic concern for the grandchild.

When the grandchild is not altruistic, the grandchild will not provide care to the adult child; that is, $\bar{c} = 0$. The adult child who does not expect to receive future elder care from the grandchild needs to save for his own future elder care. Suppose that the adult child receives greater monetary transfer from the elderly parent. Even if the adult child is altruistically concerned for the grandchild and the elderly parent, the adult child will increase neither the monetary transfer to the grandchild nor elder care to the elderly parent. The adult child ends up using the monetary transfer from the elderly parent to purchase an additional amount of market-provided care for the adult child himself. By $\bar{c} = 0$, the condition (3) is rewritten by

$$\frac{W_3 a_t v'(c_t)}{w_t} < \frac{\delta v'(m_{t+1})}{p_{t+1}}.$$

As shown above, the marginal utility of market-provided care that the adult child purchases for his own future $\frac{\delta v'(m_{t+1})}{p_{t+1}}$ is greater than the marginal utility of elder care that the adult child provides to the elderly parent $\frac{W_3 a_t v'(c_t)}{w_t}$. Thus, when the adult child receives monetary transfer from the elderly parent $g_t$, the adult child increases no elder care to the elderly

parent and ends up using the monetary transfer to purchase market-provided care for the adult child himself $m_{t+1}$. Moreover, as equation (1) implies, the adult child increases no monetary transfer to the grandchild.

We have the following two propositions.

**Proposition 1** *Suppose that an adult child expects to receive elder care from a grandchild in period t+1. Then, the adult child will provide more money to the grandchild and a greater amount of elder care when the adult child receives greater monetary transfer from the elderly parent.*

$$\frac{dx_{t+1}}{dg_t} > 0 \quad and \quad \frac{dc_t}{dg_t} > 0 \quad if\ a_{t+1} = 1 \tag{4}$$

**Proposition 2** *Suppose that an adult child does not expect to receive elder care from a grandchild in period t+1. Then, the adult child will increase neither money to the grandchild nor elder care even when the adult child receives greater monetary transfer from the elderly parent.*

$$\frac{dx_{t+1}}{dg_t} = 0 \quad and \quad \frac{dc_t}{dg_t} = 0 \quad if\ a_{t+1} = 0 \tag{5}$$

The two propositions show that the adult child's expectation of future elder care from the grandchild determines the effect of the increase in monetary transfer from the elderly parent to the adult child on the adult child's elder care provision to the elderly parent and monetary transfer to the grandchild.

In the following sections, we empirically test the two propositions.

## 3 . The HRS Sample

In this section, the sample from the 1998 wave of the HRS that we used

is discussed. The HRS was launched in 1992; its respondents were born between 1931 and 1941 and were not institutionalized in 1992. In 1998, three cohorts were added to the original HRS: people born before 1923 (Asset and Health Dynamics of the Oldest Old), people born between 1924 and 1930 (Children of the Depression Era), and people born between 1942 and 1947 (War Babies). To test the theoretical predictions proposed above, we needed information regarding the transfer of time between an adult child and his elderly parent and the transfer of money between the adult child and his child. The HRS provides the required information and is thus well suited to our study.

We restrict the sample to households in which an adult child, an HRS respondent, has at least one child and for whom only one parent of the adult child is alive and needs help with basic personal activities, such as dressing, eating, or bathing. Moreover, we restrict the sample to households where at least one child lives away from the adult child because the information regarding whether the adult child or his spouse has any contact with his children is only available for households where at least one child lives away from the adult child. The sample drawn from the 1998 wave consists of 456 households. Table 1 summarizes the descriptive statistics for the variables used in the empirical analysis below.

## 4. Estimation and Discussion

In this section, the propositions above are tested as hypotheses using the sample drawn from the HRS, and our empirical findings are reported. We separately test propositions 1 and 2. As discussed in Section 2, proposition 1 predicts that among adult children who expect future elder care from their children, adult children increase the provision of elder care to their parents

and the transfer of money to their children when they receive greater monetary transfers from their elderly parents; proposition 2 predicts that among adult children who do not expect future elder care from their children, adult children increase neither the provision of elder care to their parents nor monetary transfers to their children when they receive greater monetary transfer from their elderly parents. We simultaneously estimate the decisions on the provision of elder care to his parent and the transfer of money to his children because the adult child simultaneously determines the provision of elder care to his parent and the transfer of money to his children. To this end, we separately estimate equation (4) for households where an adult child expects elder care from his children in the future and equation (5) for households where an adult child does not expect elder care in the future. To divide the households into these two samples, we use an indicator for whether an adult child or his spouse has any contact either in person, by phone, or by mail with at least one of his children in the preceding 12 months. The theoretical model shows that the adult child's child who is altruistic to the adult child will provide elder care to the adult child; we treat the contact between the adult child and his child as a proxy of altruism from his child to the adult child. Adult children who remain in contact with their children are more likely to expect future elder care from their children. In particular, we estimate equations (a) and (b) below using the recursive bivariate probit model:

$$x^*_{it+1} = \alpha_1 g_{it} + \alpha_2 c_{it} + Z_{it}\alpha_3 + Y_{it}\alpha_4 + \varepsilon_i, \qquad (a)$$

$$c^*_{it} = \beta_1 g_{it} + \beta_2 C^S_{it} + Z_{it}\beta_3 + Y_{it}\beta_4 + \nu_i. \qquad (b)$$

Let $x_{it+1}$ denote the indicator for the positive amount of monetary transfer from an adult child (and his spouse) of household i to his children; the adult

child transfers a positive amount of monetary transfer to at least one of his children (including biological and stepchildren) during the two years preceding the interview date for the 1998 wave if $x^*_{it+1}>0$ and makes no monetary transfer otherwise. As for our construction of the variables on contact and monetary transfer from an adult child to his children, some readers may wonder whether there is a possibility that the adult child transfers money to the child with whom the adult child has no contact; that is, the adult child transfers money to the child from whom the adult child does not expect future elder care. Because parents would not transfer money to their children without any contact, the addressed concern is not likely to happen.

Let $g_{it}$ denote indicators for the number of years of schooling that the adult child has undergone. Specifically, we use two indicators: an indicator for whether the number of years of schooling is less than 12 years and an indicator for whether the number of years of schooling is equal to or greater than 16 years. In the model, $g_{it}$ is considered the monetary transfer from the elderly parent to the adult child. It is difficult to find a proxy for the accumulated monetary transfers from the elderly parent to the adult child because the adult child has grown up. As a proxy for the monetary transfer, we use the number of years of schooling of the adult child. Becker (1991) discusses that children who inherit a sufficiently high level of human capital may inherit a large amount of nonhuman capital from their parents. This implies that adult children who have attended school for a greater number of years are more likely to have received a larger amount of money from their parents. The vector of the adult child's characteristics, $Z_{it}$, consists of the adult child's age, gender, race, marital status, household wealth, household income, and number of children. The vector of the elderly

parent's characteristics, $Y_{it}$, consists of the elderly parent's age, number of children, and years of schooling; in addition, $Y_{it}$ contains an indicator for whether the elderly parent owns a home, an indicator for whether the elderly parent cannot be left alone for an hour or more, an indicator for whether the financial situation of the elderly parent is better than that of the adult child, and an indicator for whether the financial situation of the elderly parent is worse than that of the adult child. Information regarding the indicator for whether the elderly parent owns a home and the indicator for the financial situation of the elderly parent tends to be missing; we add an indicator for whether the information is available. Let $\varepsilon_i$ denote an unobserved component of the monetary transfer decision.

Let $c_{it}$ denote the indicator for the transfer of a positive amount of time from the adult child to his elderly parent; the adult child transfers a positive amount of time to his elderly parent if $c^*_{it} > 0$ and makes no time transfer otherwise. To measure the time transfer, we use the hours spent helping the elderly parent with activities other than care, such as household chores, errands, and transportation during the preceding two years. Let $C_{it}^S$ denote the number of sisters of the adult child; this variable is used as an instrumental variable for the transfer of time. The number of sisters is assumed to influence the transfer of time from the adult child to the elderly parent but not to influence the transfer of money from the adult child to his children. As discussed by McGarry (1998) and Brown (2006), provided the number of siblings is controlled for, the number of sisters is a strong determinant of whether an adult child will provide elder care to his parent. Let $\nu_i$ denote an unobserved component of the decision to transfer time.

In equations (a) and (b), a pair of unobserved components, $(\varepsilon, \nu)$,

is assumed to have a zero mean, unit variance, and bivariate normal distribution and to be independent of ( g, Z, Y, and $C^S$). A correlation between ε and $\nu$ is denoted by ρ. If $\rho \neq 0$, then estimates $\left(\widehat{\alpha_1}, \widehat{\alpha_2}, \widehat{\alpha_3}, \widehat{\alpha_4}\right)$ in the probit regression of the transfer of money from the adult child to his children will be inconsistent.

Table 2 reports the bivariate probit model estimates for equations (a) and (b) in which adult children expect future elder care from their children. In the estimates for equation (a), we find that the coefficient on the indicator for whether the adult child is without a high school diploma is significantly negative at the one percent level. Therefore, adult children with a high school diploma or some college are more likely to provide monetary transfer to their children than those without a high school diploma. The coefficient on the household income of the adult child is significantly positive at the five percent level, and the coefficient on the household wealth of the adult child is also significantly positive at the 10 percent level. Adult children with greater household income and household wealth are more likely to provide monetary transfer to their children. We also find that the coefficient on the adult child's age is significantly negative at the five percent level. Thus, younger adult children are more likely to provide monetary transfers to their children; this result suggests that children of younger adult children tend to be younger than those of older adult children and need more financial support from their parents. In the estimates for equation (b), the coefficient on the indicator for whether the adult child is without a high school diploma is significantly negative at the 10 percent level. Therefore, adult children with a high school diploma or some college are more likely to provide elder care to their parents than those without a high school diploma. As mentioned above, the adult child's number of years of schooling

is a proxy for monetary transfer from the elderly parent to the adult child. Therefore, adult children who expect future elder care from their children provide more elder care to their parents and increase monetary transfers to their children when they receive greater monetary transfers from their elderly parents.

Table 3 reports the bivariate probit model estimates for equations (a) and (b) in which adult children do not expect future elder care from their children. In the estimates for equation (a), neither the coefficient on the indicator for whether the adult child is without a high school diploma nor the coefficient on the indicator for whether the adult child is with four or more years of college is significant. We also find that the coefficients on the household income and household wealth of the adult child are insignificant. With regard to the estimates for equation (b), the coefficients on the adult child's years of schooling are statistically insignificant. Our estimates show that adult children who do not expect future elder care from their children increase neither the provision of elder care to their parents nor monetary transfers to their children when they receive greater monetary transfers from their parents. Due to collinearity, we are unable to derive the estimates for the coefficients on (1) the marital status of the adult children, (2) the indicator for the financial situation of elderly parents, and (3) the indicator for whether elderly parents own their home. [2]

In summary, among adult children who expect future elder care from their children, we find that adult children with a high school diploma

[2] Specifically, in the households where adult children do not expect future elder care, all of the adult children are married; information regarding whether elderly parents own their home is missing for almost all of the households, and all of the adult children report that the financial situation of their elderly parent is the same as their own financial situation.

or some college are more likely to provide elder care to their parents and monetary transfers to their children than adult children without a high school diploma. In contrast, among adult children who do not expect future elder care from their children, we find no statistically significant relationship between the education level of adult children and their monetary transfers to their children and also find no statistically significant relationship between the education level of adult children and their provision of elder care to their parents. These findings show that only adult children who expect future elder care from their children increase the provision of elder care to their parents and monetary transfers to their children when they receive greater monetary transfers from their elderly parents. Therefore, our findings are consistent with propositions 1 and 2 and indicate that the expectations of adult children regarding whether their children will provide future elder care critically determine their decisions regarding the provision of elder care to their parents and monetary transfers to their children.

## 5 . Concluding Remarks

As the term “sandwiched generation” implies, adult children are struggling to strike the balance between providing elder care and bringing up their children. To provide a mechanism by which this generation strikes the balance between providing elder care and bringing up their children, we consider an economy in which adult children are concerned for their own well-being in their old age as well as the well-being of their elderly parents and the well-being of their children. By taking account of adult children's concern for their own elder care, this study treats the children of adult children as potential caregivers for the adult children. Then,

such adult children provide more elder care when they receive greater monetary transfers from their elderly parents. The adult children expect that their children will also provide a greater amount of elder care in their old age when the adult children are altruistic to their elderly parents. Our theoretical model examines whether such an expectation influences an adult child's decisions regarding the provision of elder care to his parent and monetary transfers to his child. Only if the adult child expects to receive elder care from his child in the future does our theoretical model predict that an adult child will provide a greater amount of elder care to his parent and greater monetary transfers to his child when he receives greater monetary transfers from his elderly parent. In other words, even if the adult child is altruistic to the elderly parent and the child of the adult child, the adult child increases neither elder care to the elderly parent nor the monetary transfer to the grandchild when the elderly parent transfers money to the adult child.

Among adult children who expect future elder care from their children, we find that adult children increase monetary transfers to their children and provide more elder care to their parents when they receive greater monetary transfers from their elderly parents. In contrast, among adult children who do not expect future elder care from their children, we find that adult children neither increase monetary transfers to their children nor provide more elder care to their parents when they receive greater monetary transfers from their elderly parents. Therefore, our findings indicate that the expectation of adult children regarding whether their children will provide future elder care critically determines their decisions regarding the provision of elder care to their elderly parents and monetary transfers to their children.

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Table 1: Descriptive statistics for variables used in estimation (N=456)

| Variable | Mean | Median | Minimum | Maximum | S.D. |
|---|---|---|---|---|---|
| **Adult child level** | | | | | |
| 1 (any contact with at least one child) | 0.739 | 1.000 | 0.000 | 1.000 | 0.439 |
| 1 (monetary transfer to children>0) | 0.436 | 0.000 | 0.000 | 1.000 | 0.496 |
| 1 (helping hours>0) | 0.429 | 0.000 | 0.000 | 1.000 | 0.495 |
| 1 (years of schooling<12) | 0.258 | 0.000 | 0.000 | 1.000 | 0.438 |
| 1 (years of schooling≥16) | 0.171 | 0.000 | 0.000 | 1.000 | 0.376 |
| Age | 60.747 | 60.000 | 44.000 | 79.000 | 6.286 |
| Female | 0.660 | 1.000 | 0.000 | 1.000 | 0.474 |
| Race (other than white or black) | 0.046 | 0.000 | 0.000 | 1.000 | 0.209 |
| Race (black) | 0.164 | 0.000 | 0.000 | 1.000 | 0.371 |
| Household wealth | 277,750 | 110,500 | -162,524 | 4,961,000 | 557,058 |
| Household annual income | 51,528 | 29,700 | 0.000 | 1,367,591 | 89,367 |
| Number of children | 3.682 | 3.000 | 1.000 | 14.000 | 2.236 |
| Number of sisters | 1.563 | 1.000 | 0.000 | 8.000 | 1.513 |
| **Parent level** | | | | | |
| Years of schooling | 9.365 | 9.000 | 0.000 | 17.000 | 3.722 |
| 1 (own a home \| info. is available) | 0.397 | 0.000 | 0.000 | 1.000 | 0.491 |
| 1 (info. on a home is available) | 0.214 | 0.000 | 0.000 | 1.000 | 0.411 |
| 1 (financially better \| info. is available) | 0.231 | 0.000 | 0.000 | 1.000 | 0.424 |
| 1 (financially worse \| info. is available) | 0.505 | 1.000 | 0.000 | 1.000 | 0.502 |
| 1 (info. on financial situation is available ) | 0.208 | 0.000 | 0.000 | 1.000 | 0.406 |
| Age | 86.464 | 86.000 | 67.000 | 105.000 | 6.755 |
| Number of children | 4.024 | 3.000 | 1.000 | 12.000 | 2.325 |
| 1 (can't be left alone for ≥1 hour) | 0.438 | 0.000 | 0.000 | 1.000 | 0.496 |

Table 2 : Bivariate probit model estimates where adult children expect future elder care (N=337)

| Independent variable | Monetary transfer to children | Time transfer to an elderly parent |
|---|---|---|
| 1 (Time transfer>0) | 0.241 | |
| | (0.773) | |
| Child's number of sisters | | -0.113 |
| | | (0.082) |
| Constant | 0.836 | 1.825 |
| | (1.496) | (1.158) |
| 1(Child's years of schooling<12) | -0.697*** | -0.369* |
| | (0.225) | (0.199) |
| 1(Child's years of schooling≥16) | -0.119 | 0.137 |
| | (0.226) | (0.208) |
| Child's age | -0.038** | 0.007 |
| | (0.016) | (0.016) |
| Child's gender (female=1) | 0.012 | 0.444** |
| | (0.218) | (0.173) |
| Child's race (other than white or black) | -0.823** | -0.114 |
| | (0.369) | (0.313) |
| Child's race (black) | -0.324 | 0.165 |
| | (0.193) | (0.190) |
| Child's marital status (married=1) | -0.295 | -0.025 |
| | (0.185) | (0.175) |
| Child's household wealth | 0.043* | 0.007 |
| (measured in $100,000) | (0.025) | (0.023) |
| Child's annual household income | 0.058** | -0.005 |
| (measured in $10,000) | (0.023) | (0.019) |
| Child's number of children | 0.024 | -0.059* |
| | (0.038) | (0.035) |
| Parent's years of schooling | -0.017 | -0.032 |
| | (0.026) | (0.023) |
| 1 (Parent owns a home) | 0.153 | 0.634** |
| | (0.356) | (0.312) |
| 1 (Info. on a home is available) | 6.330*** | -6.144*** |
| | (0.453) | (0.407) |
| 1(Parent is financially better) | 0.232 | -0.604 |
| | (0.467) | (0.414) |
| 1(Parent is financially worse) | 0.239 | -0.226 |
| | (0.374) | (0.348) |
| 1 (Info. on a financial situation is available) | -6.800*** | 6.036*** |
| | (0.554) | (0.420) |
| Parent's age | 0.019 | -0.018 |
| | (0.016) | (0.014) |
| Parent's number of children | -0.069 | -0.061 |
| | (0.050) | (0.057) |
| 1(Parent can't be left alone for ≥1 hour) | -0.152 | -0.286* |
| | (0.169) | (0.154) |
| Log likelihood = −394.476 | | |
| $\rho$ = 0.086 (0.451) | | |

Notes: * indicates significance at the 10 percent, ** at the 5 percent, and *** at the 1 percent level. Asymptotic standard errors are in parentheses.

Table 3: Bivariate probit model estimates where adult children don't expect future elder care (N=119)

| Independent variable | Monetary transfer to children | Time transfer to an elderly parent |
|---|---|---|
| 1 (Time transfer>0) | -1.118 | |
| | (1.181) | |
| Child's number of sisters | | -0.336* |
| | | (0.192) |
| Constant | 0.614 | 1.534 |
| | (2.185) | (1.910) |
| 1(Child's years of schooling<12) | -0.168 | -0.583 |
| | (0.479) | (0.389) |
| 1(Child's years of schooling≥16) | 0.423 | -0.143 |
| | (0.484) | (0.349) |
| Child's age | -0.027 | -0.011 |
| | (0.023) | (0.028) |
| Child's gender (female=1) | -0.005 | 0.173 |
| | (0.265) | (0.272) |
| Child's race (other than white or black) | -6.250*** | -4.714*** |
| | (0.514) | (0.587) |
| Child's race (black) | 0.341 | -0.285 |
| | (0.430) | (0.431) |
| Child's marital status (married=1) | - | - |
| Child's household wealth | -0.004 | -0.012 |
| (measured in $100,000) | (0.015) | (0.014) |
| Child's annual household income | 0.012 | -0.011 |
| (measured in $10,000) | (0.014) | (0.015) |
| Child's number of children | -0.057 | -0.092 |
| | (0.067) | (0.064) |
| Parent's years of schooling | 0.030 | 0.075 |
| | (0.050) | (0.043) |
| 1 (Parent owns a home) | - | - |
| 1 (Info. on a home is available) | - | - |
| 1(Parent is financially better) | - | - |
| 1(Parent is financially worse) | - | - |
| 1 (Info. on a financial situation is available) | -7.353*** | -6.186*** |
| | (0.545) | (0.399) |
| Parent's age | 0.020 | -0.012 |
| | (0.023) | (0.024) |
| Parent's number of children | -0.086 | 0.131 |
| | (0.053) | (0.109) |
| 1(Parent can't be left alone for ≥1 hour) | -0.393* | -0.291 |
| | (0.229) | (0.244) |
| Log likelihood = −143.268 | | |
| $\rho = 0.671$ (0.794) | | |

Notes: * indicates significance at the 10 percent, ** at the 5 percent, and *** at the 1 percent level. Asymptotic standard errors are in parentheses.