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# Intergenerational Transfers: From Parents to Adult Children and From Adult Children to Parents 

Ming Chen and Jean Kinsey*

Fall 1997

DEPARTMENT OF APPLIED ECONOMICS COLLEGE OF AGRICULTURAL, FOOD, AND ENVIRONMENTAL SCIENCES UNIVERSITY OF MINNESOTA

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## Intergenerational Transfers: From Parents to Adult Children and From Adult Children to Parents

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#### Abstract

The likelihood and amount of money transferred back and forth between parents and their adult children in the United States in 1988 are examined in this study. Using the 1989 Survey of Consumer Finances, conducted for the Federal Reserve Bank, this study finds that 13 percent of families made one or the other of these transfers and that the average amount transferred by parents $(\$ 4,754)$ is about twice the amount transferred by adult children $(\$ 2,468)$. The elasticity of transferes with respect to income is .89 for donor parents and .60 for donor children.

A higher percent of middle age parents made transfers to adult children than parents who were younger or older, but the amount of money transfered rose as parents aged. Parental debt was positively associated with higher transfers to children.

Intergenerational transfers is often explained by altruism or a generous spirit. This study found that the amount transferred between parents and their adult children is positively correlated with the fact that they also transferred money to other families. It is a modest but notable indication that those who are generous, are generous to all.


## 1. Introduction

Resources transferred between generations, that is, time, goods and money, given by parents to children and vice-versa, are part of the economic base households use for consumption and savings. It enables both parents and children to shift consumption and assets over time and between households. It also enables parents to invest in the human capital of their children when they are young and reap the returns on that investment when they are older, directly, or vicariously.

In some cultures, adult children are expected to provide financial and physical resources to their aging parents. Just as youngsters, they depended upon their parents for love and care, food and shelter, they are expected to reciprocate. In the U.S. and many other westernized cultures, each generation has tended to grow more independent. Adults were expected to fend for themselves. However, with longer life expectancies, it is increasingly common for adult children to contribute considerable time and money towards the care and well-being of aging parents. Likewise, with children staying in school well past age 18 and starting families later in life, parents transfers' stretch out over more years.

Little is known about how many resources pass back and forth between generations during the lifetime of parents and their adult children. To the extent that generations support each with private transfers, less public transfer (welfare) is needed.

Other private intergenerational relationships have gained a tremendous amount of attention in the past few years. "Intergenerational solidarity and cooperation are prevalent charcac- teristics in American families" (AARP, p77). These intergenerational bonds have stirred interest among sociologists, economists, gerontologists, and family scholars. Affection, interaction, similarity of opinions and mutual assistance among family members are all evidence of these bonds.

Understanding the magnitude, pattern, and motivation of the intergenerational transfer of resources is important for assessing the role and impact of government transfer programs, especially welfare programs. It is also related to more fundamental economic issues such as
wealth accumulation. It is at the heart of public policy debates about how income from the working young is, or can be, transferred to support the retired elderly -- directly and privately or indirectly and publicly.

Mutual support between parents and adult children takes many forms, but contributions of time (labor), goods and services, and money are observable measures of intergenerational transfers. This paper examines the pattern of intergenerational transfers of money and the characteristics of the givers. Comparisons are made between two directions of the transfers: from adult children to parents and from parents to adult children. The data on intergenerational/interfamily monetary assistance in the United States are from the Survey of Consumer Finances 1989 (Kennickell and Shack-Marquez, 1992). Thirteen percent of families were found to transfer money to other families. The amount transferred is analyzed as a function of the characteristics of the givers; income elasticity of the amount transferred is estimated.

## 2. Objectives

This paper is divided into two parts. The first half looks at factors previous research found to be related to transfer patterns. Transfer patterns refer to how the giver's demographic characteristics affect the likelihood of transfer, the amount of transfer and the percentage of income transferred.

With respect to the Survey of Consumer Finances, 1989, four research questions are explored:
(1) What is the difference in magnitude of transfer to parents and to children?
(2) Do transfer patterns vary by age of givers?
(3) Do whites and nonwhites have the same transfer patterns?
(4) Does employment status of the givers affect their transfer patterns?

Within each question, comparisons are made between the two directions of transfer: from parents to children and from children to parents.

The second part of this paper uses multiple regression to determine what factors are correlated with the amount of transfers. Two research questions are explored:
(1) What is the significance of income along with other explanatory variables in determining the amount of money transferred?
(2) What is the income elasticity of transfer?

Because the boundary of transfer in this study is only within the extended family, formal volunteering and charitable contributions are not included. Also, it is important to note that all the transfers in this paper refer to the reported monetary transfers. Other forms of transfers such as goods or time or labor are excluded.

## 3. Literature Review

"Households acquire wealth from two sources: they save out of income they have earned, and they receive transfers from other people" (Gale and Scholz, p145). The first method of wealth accumulation can be explained with life cycle savings model: people save during their working lives and dissave after retirement. The second method of wealth accumulation is through inheritance, gifts from other people or government transfers. In other words, wealth includes earned and unearned wealth. Previous studies have mainly focused on estimating the parents' bequests to children but paid little attention to inter vivo (between live persons) transfers from parents to children and even less attention to transfers from children to parents.

The magnitude of these inter vivo transfers is of particular interest to economists who study the motive and pattern of savings because these economists want to find out how much of the accumulated wealth is intended for inheritance and how much is for consumption in the years after retirement.

In the early Keynesian period, the study of national savings first attracted a wide range of interest. Then, efforts were made to understand what led people to save besides leaving bequests. Much of the previous research focused on direct estimates of life-cycle wealth, defined as the accumulated net surplus of earnings over consumption. The
importance of transferred wealth was inferred by subtracting estimated life-cycle wealth from net worth. The results of these direct estimates of life-cycle wealth are very sensitive to a variety of assumptions concerning the ages of family formation, retirement, and death; the shape and stability over time of age-earnings and age-consumption profiles and relative wages; and the definition of durable goods as consumption or investment (Blinder, 1988). Kotlikoff and Summers $(1981,1989)$ estimate that life-cycle wealth accounts for at most 20 percent, and under some assumptions less than zero percent of US net worth. Modigliani (1988) adjusts the Kotlikoff and Summers' calculations for a number of factors and calculates that 80 percent or more of net worth can be explained by life-cycle saving.

The availability of more complete data on intergenerational transfers allows analysis of other patterns of these transfers as well as the magnitude. Research by Kronebusch and Schlesinger for the American Association of Retired Persons focused on the pattern of intergenerational transfers across the age spectrum. They concluded that the pattern of the transfers differs by age: each age group and each family-defined generation has a characteristic pattern of contribution and receipt. "The bulk of private transfers flows down the age spectrum-from parents to their children. The value of transfers flowing down to younger generations is substantially larger than the value of transfers flowing up to older generations"(AARP, 1994, p148-149).

In research conducted for the American Association of Retired Persons, Haroontyan and Vorek studied intergenerational transfers within communities as well as within families, which include formal volunteering, informal assistance, and gift giving. They identified differences "in age, gender, marital status, and opinions"(AARP, 1994, p77). They also explored the relationship between the types of family relations and their involvement in transfers. Their studies show that socioeconomic characteristics and family relationships are the key determinants of who gives financial support to adult children. "Parents who have the resources to provide large gifts are most likely to give them: namely, those with a college degree or better, a white-collar occupation, and middle-income status"(AARP, 1994, p106). Opinions also affect transfer patterns. For example, persons who agree with the statement that children should be
expected to support their elderly parents are significantly more likely to provide help to non relatives.

Kathleen McGarry and Robert F. Schoeni (1995) studied transfer behavior of children and parents separately. Their study of transfers from parents to children suggest that "the children receiving transfers are on average younger, less likely to own a home, to be married, or to have children of their own. They are also more likely to be in school and to have more years of schooling...respondents making transfers are significantly more likely to be white" (McGarry and Schoeni, 1995, p202). Yet, nonwhites are more likely to give transfers below \$500. Also, "respondents giving transfers to their children are more educated on average and have fewer potential recipients" ((McGarry and Schoeni, 1995, p202). Studies of transfers from children to parents suggest that "as was in the case with children, respondents who make the transfers are better off than those who do not. They have higher levels of both income and wealth" (McGarry and Schoeni, 1995, p211). They also studied the transfer patterns among different races. Few studies have compared intergenerational transfer patterns among races or ethnic groups. The question is of great interest because it relates to a lot of important topics, such as different savings behavior, attitudes toward altruism and investment in the younger generation. "In contrast to our earlier result with children, a higher proportion of families in which transfers take place are black than white." (McGarry and Schoeni, 1995, p211). They also found that mean total dollar value transferred to parents is about half the amount transferred to children.

Magnitude and pattern of transfers reported on surveys are very sensitive to survey design and statistical methods. The respondent's answers to questions on financial aid from and to other families are influenced by the wording of the questions. Results typically show that the proportion of the population receiving is lower than the proportion of the population giving. Estimates of the proportion of the population giving transfers range from 2.5 percent of over 20 percent (McGarry and Schoeni, 1995). Previous studies have found different income effects depending on the estimation method. Cox and Raines (1985) found negative effects of higher income using a tobit model, while others have estimated a positive effect when using a generalized tobit model (Cox and Rank 1992). Yet, almost all previous studies suggest that resources of the families such as income, education, and employment are decisive factors that
increase intergenerational transfer. Demographics are also related to transfer patterns. Economists often use demographic characteristics as a proxy for preferences which determine the relative importance of various choices available to consumers. Income and preferences are two factors that shift the allocation of income between savings, goods and services, or transfers to children or others.

## 4. Theoretical Background

Life cycle savings models suggest that self-motivated, utility maximizing individuals make rational decisions about the allocation of resources over his or her life cycle and the division is solely based on one's own welfare. It ignores the utility people may derive from helping other people - the welfare of loved ones. However, the welfare (well being, income, consumption) of others, particularly one's children may well increase the parents' utility and visa versa, as suggested by Becker (1974) and Barro (1974).

Assuming that parents care about the welfare of their children, children's utility will be included in the parent's utility function. "The parent's utility function represents his or her interest (for example, happiness from being a parent, guilt relief in providing for the children, and so on) rather than his or her moral (social) preferences (for example, believing that it would be wrong to have children and let them starve)" (Nerlove, 1987, p41 ).

In a simple form, the parents' utility can be written as

$$
\mathrm{U}_{\mathrm{p}}=\mathrm{u}_{\mathrm{p}}\left(\mathrm{C}_{\mathrm{p}}, \mathrm{U}_{\mathrm{c}}\left(\mathrm{C}_{\mathrm{c}}\right)\right)
$$

$U_{p}$ is the utility of the parents and $U_{c}$ is the utility of the children. $C_{p}$ and $C_{c}$ are consumption of the parents and children respectively.

Maximizing utility is constrained by the parents' budget (lifetime income) which can be allocated to either their own consumption (including savings) or to transfers to children.

$$
Y_{p}=C_{p}+T_{c}
$$

$Y_{p}$ is the income of the parents and $T_{c}$ is the transfers to children.
Children's consumption comes from their own income and the transfers from their parents.

$$
\mathrm{C}_{\mathrm{c}}=\mathrm{Y}_{\mathrm{c}}+\mathrm{T}_{\mathrm{c}}
$$

$\mathrm{Y}_{\mathrm{c}}$ and $\mathrm{C}_{\mathrm{c}}$ are children's income and consumption, respectively.


Figure 1 Resource Allocation between Self Consumption and Transfer to Others

In order to determine the decision rule that parents (children) will follow in allocating income between own consumption and transfers to children (parents), a Langerange equation is set up to maximize the parent's utility.

$$
\begin{gathered}
\mathrm{L}=\mathrm{U}_{\mathrm{p}}\left(\mathrm{C}_{\mathrm{p}}, \mathrm{U}_{\mathrm{c}}\left(\mathrm{~T}_{\mathrm{c}}+\mathrm{Y}_{\mathrm{c}}\right)\right)+\lambda\left(\mathrm{Y}_{\mathrm{p}}-\mathrm{C}_{\mathrm{p}}-\mathrm{T}_{\mathrm{c}}\right) \\
\text { s.t. } \mathrm{Y}_{\mathrm{p}}=\mathrm{C}_{\mathrm{p}}+\mathrm{T}_{\mathrm{c}}
\end{gathered}
$$

F.O.C.

$$
\begin{aligned}
& \frac{\partial \mathrm{L}}{\partial \mathrm{Cp}}=\frac{\partial \mathrm{Up}}{\partial \mathrm{Cp}}-1=0 \\
& \frac{\partial \mathrm{~L}}{\partial \mathrm{Tc}}=\frac{\partial \mathrm{Up}}{\partial \mathrm{Uc}} \frac{\partial \mathrm{Uc}}{\partial \mathrm{Tc}}-1=0 \\
& \Rightarrow \frac{\partial \mathrm{Up}}{\partial \mathrm{Cp}}=\frac{\partial \mathrm{Up}}{\partial \mathrm{Uc}} \frac{\partial \mathrm{Uc}}{\partial \mathrm{Tc}}=1
\end{aligned}
$$

Maximizing the parents' utility subject to their budget constraint and examining the first order conditions indicates that the optimal point of resource allocation for parents is when the marginal utility of their own consumption is equal to the marginal utility of transfers to children. This is represented by point a in Figure 1. It is also called the marginal rate of substitution between own consumption and transfer to children. Parents with a low marginal rate of substitution would have a flatter indifference curve and may maximize their utility at a point like b in Figure 1.

Similar results would be reached using the same method for children who make a decision about resource allocation. They will transfer their own income to the point that marginal utility of their own consumption is equal to the marginal utility of transfer to parents.

## 5. Methodology

### 5.1 Data source

The Survey of Consumer Finances, 1989 (SCF) is sponsored by Federal Reserve Board. Other data sets which have been used to study transfers include the Health and Retirement Survey (HRS) (McGarry and Schoeni, 1995), Panel Study of Income Dynamics (PSID) (Hill, Morgan, and Herzog, 1993; Altonji et al., 1992a), the National Survey of Families and Families (NSFH) (MacDonald, 1990; Silverstein and Waite, 1992; Cox and Rank, 1992), and the National Longitudinal Survey of Youth (NLSY) (Rosenzweig and Wolpin, 1990, 1992).

The Survey of Consumer Finances is widely regarded as a reliable source of data on family finances. The 1989 SCF data were collected by the Survey Research Center at the

University of Michigan between August 1989 and March 1990. The achieved sample is 3,143 families with 2,277 selected by standard multistage area-probability sampling methods from the forty-eight contiguous states. The remaining 866 families in the survey were selected using tax data under the strict rules governing confidentiality and the rights of potential respondents to refuse participation. This second group of families was selected specifically to over sample wealthier families because research has indicated that the distributions of income and net worth are skewed, with a relatively small proportion of families having a disproportionately large share of both income and net worth.

The Survey of Consumer Finances (SCF) is designed to gather family-level information. It collects detailed data on the composition of family balance sheets, the terms of outstanding loans, relationships with financial institutions and transfers. It also gathers information on the employment history and pension rights of the survey respondent and on other demographic, economic, and attitudinal variables. Respondents were asked about the provision of financial assistance to other family members. Specifically, respondents were asked:

## Question \# 1

'During 1988, did you (or anyone in your family living here) provide any financial support for relatives or friends who do not live here?"

1. Yes
2. No

## Question \# 2

"How much support did you (and your family) pay?"
Code actual amount
0. Inap. (provide no financial support)

## Question \# 3

'To whom was this support given?"
(Check all that apply)

### 5.2 Definitions

Transfer Pattern: In this paper, transfer patterns are divided into four subpatterns. 1) the the number of transfer categories, 2) the likelihood of a transfer, 3) the amount of transfer and 4) the percentage of income transferred. The paper addresses part or all of the subpatterns in answering the four research questions.

Intergenerational Transfer: Intergenerational transfer is defined within an extended family. The family generation is based on a person's relationship with his or her grandchildren, children, siblings(own generation), parents, or grandparents. Specifically, the focus of the paper is on transfers from parents to adult children and from adult children to parents. Transfers to other family members are designated as "other transfers".

Family: The definition of "family" used in the SCF differs from that commonly used by the Bureau of the Census. Census families exclude single individuals. They are classified as "unrelated individuals". In the SCF, a given family is divided into a primary economic unit and other economic units. The primary economic unit, which may be a single individual, is generally chosen as the unit that contains the person who either holds the title to the home or is the first person listed on the lease. The primary unit is used as the reference family. (Kennickell and Shack-Marquez, 1992)

### 5.3 Measurement

The following explains the measurement of each research question.
(1) What is the difference in the magnitude of transfers to parents and children?

Magnitude of Transfer: Magnitude of transfer refers to the actual dollar amount of transfer and the number of categories of transfer. It is the answer to Question \# 2 taken directly from the respondent. Data are sorted to identify the amount transferred to adult children and the amount transferred to parents so comparison can be made between the two directions. The category of transfers is the relationship between the recipients and the givers. For example, a family with transfers to children and parents will be classified as having two different categories of transfer,
while a family with transfers to only parents or children will be classified as having one category of transfer although the family might have transferred to more than one child.
(2) Do transfer patterns vary by age of givers?

Age of givers: Age of givers is the reported age of the family head who reports transfer to other families.

Transfer Pattern: Different descriptive statistics are presented to show the transfer pattern across age groups, which includes the average age of givers and nongivers, percentage of givers and nongivers across age spectrum, age profile of the dollar amount transferred.
(3) Do whites and nonwhites have the same transfer pattern to children and parents?

Transfer Pattern: Again, descriptive statistics are presented to show the difference in transfer between whites and nonwhites. These statistics include: ratio of givers to nongivers, the average amount of transfers, and the percentage of transfers in regard to income.

The survey data doesn't provide a large enough sample of minority respondents to allow examination of transfer pattern among different races. For example, there are no Asian respondents identified. Therefore, the paper only focuses on two groups: white and non-white.

In order to test whether the difference in the percentage of givers between whites and nonwhite is statistically significant, an independent samples $t$ test can be used. A new variable: trans, is created:. If trans=1, the family has reported transfer to other families. If trans $=0$, the family has reported no transfer to other families. The mean of trans can be interpreted as the percentage of givers in the group. The significance level was set to be $95 \%$. If the difference is significant, it means that we can reject the null hypothesis that there is no difference. In other words, there is a difference in the percentage of givers between whites and nonwhites.
(4) Does employment history of the givers affect their transfer pattern?

Employment History: This includes two parts. One is the current job status, one is the number of years the respondent has worked full time. Years worked full time refer to the reported number of years the family head has worked full time by the year 1988.

The survey data has a specific question devoted to information on the current job status. Anyone currently working for pay is defined as a worker. For example, if a retired person is working part time and gets paid, he or she is defined as worker and retired. There are all together 19 categories of job status, and each has a code.
Transfer Pattern: A chi-square test is done to test whether the current job status is likely to be related to whether the person is a giver or nongiver. Also, a t-test is done to see whether the mean number of years worked full time is different between givers and nongivers.

Table 1 is a summary of the variables used in this study. The table gives the mean, standard deviation, and coding algorithm of the variables, over all 3143 family units. Family units are weighted so that the means and other statistical data represent the U.S. population.

### 5.4. Limitations of the study

One major limitation of the study is that the survey data doesn't provide economic and demographic information about the recipients, which makes it hard to assess transfer motivations. The results refer to the characteristics of the givers only.

Table 1 Variables Mean, Standard Deviation and Coding Algorithm Derived from the SCF Data, 1989. (All information refers to 1988)

| Variable Symbol | Meaning | Mean | SD | Coding Algorithm |
| :---: | :---: | :---: | :---: | :---: |
| Transfer |  |  |  |  |
| Trans | whether there is transfer | 4.50 | 1.33 | 1=yes, 5=no |
| Trans \$ | dollar amount of transfer | \$467.55 | \$3466.35 | Actual amount reported |
| Trans \# | \# of different family relationships between recipients and respondent | 0.14 | 0.40 | actual \# of relationships between recipients and respondent |
| TransC | whether there is transfer to adult children | 0.42 | 1.31 | $\begin{aligned} & 0=\mathrm{N} / \mathrm{A}, 1=\mathrm{yes}, \\ & 5=\mathrm{no} \end{aligned}$ |
| TransP | whether there is transfer to parents | 0.46 | 1.38 | $\begin{aligned} & 0=\mathrm{N} / \mathrm{A}, 1=\mathrm{yes}, \\ & 5=\text { no } \end{aligned}$ |
| othrtran1 | whether there is other transfer besides to children | 0.16 | 0.37 | $1=$ yes, $0=$ no |
| othrtran2 | whether there is other transfer besides to parents | 0.22 | 0.41 | $1=y e s, 0=n o$ |
| Financial |  |  |  |  |
| Income | reported income of the family in 1988 | \$35,425.65 | \$193,623.12 | actual \$ amount |
| Debt | reported debt including mortgage and other debt | \$39,421.40 | \$822,457.60 | actual \$ amount |
| Asset | reported value of real estate | \$94,005.64 | \$3,469,277.98 | actual \$ amount |
| Equity | reported value of checking, money market account and etc. | \$108,201.03 | \$385,277.96 | actual \$ amount |
| Demographic |  |  |  |  |
| Age | Age of the respondent | 48.03 | 17.34 | Actual \# of years |
| Ryrsfltm | \# of years the respondent has worked full time | 21.66 | 14.74 | Actual \# of years |
| Job | current job status of the respondent | N/A | N/A | 11=worker only, 12=worker and disabled, etc |
| Rhealth | health status of the respondent | 1.97 | 0.92 | $\begin{aligned} & 1=\text { excellent, } \\ & 2=\text { good, } 3=\text { fair, } \\ & 4=\text { poor } \end{aligned}$ |
| race | race of the respondent | 0.25 | 0.43 | $0=$ white, 1=nonwhite |
| Attitudinal |  |  |  |  |
| inherimp | importance of inheritance | 2.49 | 1.03 | 1=very important, 5=not important |

## 6. Descriptive Statistics

### 6.1 The magnitude of the transfers

About 12.6 percent of the families in the U.S. had transfers to other families in 1988. There are nine categories of relationships between the recipients of transfers and the family head. They are: 1) children under 18; 2) children 18 and over; 3) parents(in-laws);
4) grandchildren; 5) grandparents; 6) siblings; 7) niece/nephews; 8) friend; 9) other. The survey data shows that among the families who have transferred money to other families, most of them have transferred funds to only one category.


## Figure 2 The Percentage of Families with Different Number of Transfers

In 1988, eighty-seven percent of the families with transfers transferred funds to only one category of recipient (Figure 2). For families with only one category of transfers, forty percent transferred money to children over 18 years old, and thirty one percent transferred money to parents. This indicates that intergenerational transfers between adult children and parents are the two most common types of transfers. The families analyzed in this study are those who reported transfers - either from parents to children over 18 or from children to parents.

Survey of Consumer Finances data shows that families transfer more money to children than to parents. The sample mean amount transferred to children age 18 and over by families
with only one category of transfer was $\$ 4,754$ per family in 1988 , while the mean amount transferred to parents is about half that amount, \$2,468.

A higher percentage of families transferred low amounts to parents. Table 2 below shows that almost 38 percent of children transferred $\$ 1,000$ or less to parents. Parents are more likely to transfer larger amounts to children.

## Table 2 Percentage of Families with Transfers to Parents and Children, by Transfer Amount (Givers Only)

| Transfers | Only to parents | Only to adult children |
| :---: | :---: | :---: |
| less than 1 k | 37.7 | 20.9 |
| 1 K to 5 K | 48.6 | 55.0 |
| 5 K to 10 K | 9.5 | 11.8 |
| 10 K to 20 K | 3.5 | 9.3 |
| 20 K to 30 K | 0.3 | 1.4 |
| 30 K to 40 K | 0.1 | 0.7 |
| over 40 K | 0.2 | 0.9 |
| Total | 100 | 100 |

## Transfer Patterns by the Age of Givers

Because of the limitation of the survey data, the age of the recipients of the financial transfer is not known. Transfer patterns across the givers' age spectrum shows that the average age for family heads was 48 . For families with transfers, the average age was 49 and 48 for families without transfers. For families with transfers to children over 18 the average age was 57 and for families with transfers to parents it was 40.

As reported earlier, 12.6 percent of the families provided financial support to other families. However, the percentages of givers and non-givers were quite different across age groups. The percentage of givers increases as age goes up, peaking at age 55 to 64 and then declining. Only 8.9 percent of families with family head age under 25 gave financial support to
other families in 1988 compared to 14.0 percent of families with family head age between 55 and 64 reported transfers (Table 3). The percentage of givers age profile is similar to the income age profile -- an inverted U shape. Typically, lifetime income goes up as age goes up and goes down after the peak at middle age, following a similar pattern as the percentage of givers.

Table 3 The Percentage of Givers and Non givers within Each Age Group

| Age of Family Head | Percentage of Givers | Percentage of Non givers |
| :---: | :---: | :---: |
| $18-24$ | 8.9 | 91.1 |
| $25-34$ | 10.6 | 89.4 |
| $35-44$ | 13.6 | 86.4 |
| $45-54$ | 19.4 | 80.6 |
| $55-64$ | 14.0 | 86.0 |
| $65-74$ | 11.2 | 88.8 |
| 75 and over | 9.9 | 90.1 |

## Transfer Amount

Although the percentage of families giving financial support to others has an inverted $U$ shape across age spectrum, for families with transfers, the average amount goes up as age goes up and peaks at the oldest age. The range of the mean transfer amount is very wide, from $\$ 2,843.75$ for a family whose head was under 25 to $\$ 20,734$ for a family whose head was 65 and over. Mean transfer amount was higher to adult children than to parents, which coincides with AARP's (1994) findings that net resources flow down from parents to children.

Table 4 Mean, Standard Deviation, Minimum and Maximum Amount Transferred within Different Age Groups

|  | All Families With Transfers |  |  |  | Only To Parents |  |  |  | Only To Adult Children |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Of House <br> HoldHead | $\begin{array}{r} \text { mean } \\ \$ \end{array}$ | std. dev \$ | $\begin{array}{r} \min \\ \$ \end{array}$ | max $\$$ | mean \$ | $\begin{gathered} \text { std. } \\ \text { dev } \\ \$ \end{gathered}$ | min $\$$ | max $\$$ | mean \$ | std. dev \$ | $\min$ \$ | max \$ |
| 18-24 | 2,463 | 2,562 | 200 | 10,000 | 2,761 | 1,926 | 400 | 5,000 | N/A | N/A | N/A | N/A |
| 25-34 | 1,466 | 1,899 | 200 | 25,000 | 1,006 | 826 | 200 | 25,000 | N/A | N/A | N/A | N/A |
| 35-44 | 2,426 | 3,613 | 1 | 96,000 | 2,889 | 4,684 | 1 | 54,000 | 1,927 | 1,773 | 80 | 15,000 |
| 45-54 | 4,514 | 6,991 | 1 | 200,000 | 3,397 | 4,190 | 1 | 27,000 | 5,368 | 8,358 | 140 | 200,000 |
| 55-64 | 4,772 | 11,603 | 1 | 340,000 | 2,084 | 4,215 | 200 | 35,000 | 4,700 | 7,928 | 1 | 340,000 |
| $64+$ | 5,931 | 15,821 | 1 | 200,000 | N/A | N/A | N/A | N/A | 5,447 | 17,868 | 30 | 181,000 |

Table 5 Percentage Difference of Givers between White and Nonwhite in Two Age Groups*

| Age | $\%$ of Givers to Children |  |  | $\%$ of Givers to Parents |  |  | $\%$ of Givers to any recipients |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Group | White | Nonwhite | Difference <br> Significant?* | White | Non <br> white | Difference <br> Significant?* | White | Nonwhite | Difference Sig- <br> nificant?* |
| $35-44$ | 3.2 | 3.3 | no | 5.8 | 9.0 | yes | 12.6 | 17.0 | yes |
| $45-54$ | 16.1 | 5.0 | yes | 4.2 | 3.3 | yes | 22.2 | 10.5 | yes |

* Detailed description of the test methods on page 11.


## Transfer Patterns between Whites and Nonwhites.

The graph below is a summary of racial information of the survey population.


## Figure 3 Racial Component of Survey Population

A slightly higher percentage of white families (13.4\%) gave financial support to other families than nonwhite ( $12.3 \%$ ).

As discussed in the previous section, whether there was a transfer varies across the age spectrum, so age may be an intervening variable explaining the difference in transfers. Restricting the comparison of transfer by race to people in a particular age group can minimize this problem.

Families with family heads aged 45-54 and 35-44 are the focus of the next comparison. The results are mixed (table 5). In age group 45-54, whites had a higher percentage of givers to both children and parents as well as to others. In age group 35-44, there was no difference in transfers to children, but nonwhites had a higher percentage of givers to parents as well as to others.

In general, white families transferred larger amounts than non-white families. This difference might be explained by the income difference between whites and non-whites.

Table 6 Difference in Average Amount of Transfer: White and Nonwhite

| Race | Average Amount to Children | Average Amount to Parents |
| :---: | :---: | :---: |
| Whites | $\$ 5,663$ | $\$ 3,426$ |
| Nonwhite | $\$ 3,041$ | $\$ 1,910$ |

Examining how transfers vary as a percentage of the family income also shows mixed results. In age group 45 to 54, whites transferred a higher percentage of income than nonwhites to both children and parents. In age group 35 to 44 , there is less difference in the percentage of income transferred to either adult children or parents comparing whites and nonwhites.

Nonwhites seem to have transferred a higher percentage of their income than whites during age 35 to 44 although the amount is less.

## Table 7 Difference in Transfer as a Percentage of Income between White and Nonwhite

| Age | \% of Income Transferred to <br> Children |  |  | \% of Income Transferred to <br> Parents |  |  | $\%$ of Income Transferred |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group | White | Nonwhite | Difference <br> Significant?* | White | Nonwhite | Difference <br> Significant?* | White | Nonwhite | Difference <br> Significant?* |
| $35-44$ | 6.5 | 8.0 | yes | 4.7 | 6.3 | yes | 5.4 | 5.7 | yes |
| $45-54$ | 8.7 | 6.8 | yes | 6.4 | 3.5 | yes | 8.7 | 6.8 | yes |

* Detailed description of the test is in Methodology (Page 11).


## Employment status and transfer patterns

According to Gary Becker's (1965) theory on the allocation of time, time has value so time and income can be traded off. Naturally, we would assume that people with regular paid jobs might give more monetary assistance and less personal assistance than people with no regular employment because their time is more scarce, thus, more valuable. Personal assistance and monetary transfers can also be traded off. This section addresses two questions: 1 ) is job status related to the likelihood of transfers and 2) is the number of years the respondent has worked full time related transfers?

A chi-square test was done to answer the first question. The results of the test show that job status is significantly related to whether there was a transfer to either parents or children.

Families whose head was a worker or retired were most likely to give financial support to other families, followed by worker only, and third by worker and disabled persons. Families with a student only and a homemaker only were the least likely to give financial support to other families. In general, the family was more likely to give financial support if the family head had a regular paid job.

The majority of the family heads with transfers to either adult children or parents were workers only. The percentage of workers among families with transfers (72.1\%) is much higher than that of the whole population ( $62.2 \%$ ). Among families with transfers to parents, 79 percent of the family heads were workers, 8.6 percent were retired and 3.1 percent were workers and retired. Among families with transfers to children over 18, 68.8 percent of the family heads were workers, 15.1 percent were retired and 6 percent were workers and retired. In both cases the biggest giver groups were workers instead of nonworkers.

A t-test was done to answer the second question. The number of years a respondent worked full time was used as a proxy of experience, age, and employment commitment. In order to minimize the interference of age, the survey population was divided according to the age of the family heads since older people tend to have longer employment history. Most of the results agree with intuition. People with monetary transfers worked full time more years than the ones who don't have monetary transfers. In age group 45-54, the families with transfers had worked 1.9 more years than those without transfers. In age group 55-64, the difference is 2.6 years. There are some exceptions in some age groups. For example, in age group 35 to 44, there is no statistically significant difference between the ones with and without transfers with respect to the number of years respondents had worked.

## Table 8 Difference in the Number of Years Respondent Has Worked Full Time between Families w/ and w/o Transfers

| Age | Number of years Respondent has worked full time |  |  |
| :---: | :---: | :---: | :---: |
| Group | Families with Transfers | Families w/o Transfers | Difference Significant?* |
| $35-44$ | 12.5 | 11.9 | no |
| $45-54$ | 21.0 | 19.1 | yes |
| $55-64$ | 28.2 | 25.6 | yes |

* Detailed description of the test is in Methodology (Page 11).


## 7. Regression Analysis of Transfer Amount

Patterns of the intergenerational monetary transfers have been compared with regard to age, race, and employment. In the rest of the paper, the focus is on the families which have actually transferred money to either parents or to children over 18. The objective of this section is to analyze the determinants of the variation in the dependent variable- the amount of transfers. Income elasticity of transfers is also calculated.

As mentioned in the theoretical section, it is assumed that donors of intergenerational transfers determine the optimal amount of transfers as they allocate income to maximize utility. The optimal amount depends on a set of observed and unobserved characteristics of respondents and his/her family members. Financial, demographic and attitudinal variables measured in the survey are used in this analysis.

A log linear equation is specified to estimate the amount of transfer.

$$
\mathrm{LN} \mathrm{Y}=\alpha+\beta_{1} \mathrm{LN} \mathrm{X} \mathrm{X}_{1}+\beta_{2} \mathrm{X}_{2}+\varepsilon
$$

where:
$\mathrm{Y}=$ the transfer amount in dollars;
$\alpha=$ constant;
$\mathrm{X}_{1}$ is vector of observations on family financial variables in dollars;
$\beta_{1}=$ parameter to be estimated. With a double log equation, this gives the percentage change in Y given a $1 \%$ change in $\mathrm{X}_{1}$;
$\mathrm{X}_{2}=$ vector of observations on family demographic, attitudinal and other variables $\beta_{2}=$ parameter to be estimated;
$\varepsilon=$ error term which captures the effect of unobservable variables.
Potential right hand side variables are:
Financial variables: Income, Assets, Debt, Equity
Demographic variables: $\quad \mathrm{X}_{14}$ (age of givers), Ryrsfltm (number of years R has worked full time), Race, Health
Attitudinal variables: inherimp (importance of inheritance)
Other variables: othrtra1 (whether there is other transfer besides to children), othrtha2 (whether there is other transfer besides to parents).
All variables can be found in Table 1.
Ordinary least square (OLS) was used to estimate the relationship between the amount of money transferred and the characteristics of the givers. Transformation was done using natural logs to achieve a linear relationship between the dependent variable and independent variables.

Statistical Package for Social Science (SPSS), was used to do a stepwise method of multiple regression. This deals with high collinearity by picking up the variable which explains the next greatest amount of the variance from the remaining variables step by step.

## Check collinearity

A lot of potential right hand side variables are highly correlated with each other.
For example, correlation between income and education is known to be high. A variancecovariance table helps identify the correlation, and at the same time gives some idea of the direction in which the variables are correlated, especially between the dependent variable and potential explanatory variables (Appendix I). For example, in Appendix Table 1.1, one can see that the simple correlation between Trans (gives or not) and income is positive but
low (.2487). One of the highest correlations is between debt and estate (.7039). Transfers to Children:

Variables positively correlated to the amount of transfers are income, asset, debt, equity, years respondent has worked full time, whether there are transfers to others.

Variables negatively correlated to the amount of transfers are race, and health of the respondent.

Variables showing no correlation to the amount of transfers are age of respondent and opinion of importance of inheritance.

## Transfers to parents:

Variables positively correlated to the amount of transfers are income, asset, debt, equity, age of respondent, years worked full time, whether there are transfers to others besides to parents.

Variables negatively correlated to the amount of transfers are race, and health of the respondent.

Variables showing no correlation to the amount of transfers are opinion of importance of inheritance.

## Regression Results

The sample (givers only) is weighted to represent the U.S. population. The table below is a summary of the variables entered at the last stage using SPSS for a stepwise multiple regression. The significant t - value is set to be .10 , which means that all the coefficients of the variables entered in the equation have at least a 90 percent confidence level.

Table 9 Coefficient of Variables Entered at 90 percent Confidence Level: Transfers from Parents to Children

| Variable Name* $^{*}$ | Coefficient | t-value |
| :--- | :---: | :---: |
| LN Income | 0.89 | 834.32 |
| LN Debt | 0.03 | 92.19 |
| LN Equity | 0.04 | 95.79 |
| R Health | 0.34 | 392.24 |
| Othrtra1 | 0.58 | 335.05 |
| LN Estate | -0.01 | -39.17 |
| Race | -0.08 | -47.96 |
| R Yrsfltm | .008 | 108.64 |
| Age | -0.01 | -108.43 |
| Inherimp | -0.01 | -27.51 |
| (Constant) | -2.84 | -267.43 |

* Variables defined on page 13.

Therefore, the estimated function is $\mathrm{Y}=-2.84+0.89 \mathrm{Ln}$ Income +0.03 Ln Debt + 0.04 LN Equity + 0.34 R Health + 0.58 Othrtra1-0.01 Ln Estate - 0.08 Race +0.01 R Yrsfltm - 0.01 Inherimp.

Income and debt are both positively correlated to the transfer amount. Since the function is a double $\log$ form, the coefficient of income can be interpreted as the income elasticity of transfer. That is to say, one percent increase of income will, holding all other variables constant, increase the amount transferred by 0.89 percent. Also, it appears that families with transfers to others are more generous to their own children. The coefficient on "othrtral" is larger than those of any other variables except for income. Whites transferred higher amounts to children. Parents with poorer health tend to transfer more. Assets and equity have opposite effects on the amount transferred. One percent increase of assets (Ln Estate) will, decrease the amount transferred by 0.01 percent, while one percent increase of equity will increase the amount transferred by 0.04 percent, holding all other
variables constant. Assets measures the value of real estate while equity is relatively liquid. Not surprisingly, those with easier access to cash are likely to transfer more. A one percent increase in parents' debt is associated with a 0.03 percent increase in transfers. Whether this is an indication that parents are risk averse, or that parents simply have more ready cash is not determined. Age of respondent and the number of years the respondent has worked full time both have very small, but significant coefficients. Age of respondent is negatively correlated to the transfer amount, but number of years the respondent has worked full time (Ryrsfltm) is positively correlated to the transfer amount. People who think inheritance is important (Inherimp closer to 1 than 5) are likely to transfer larger amounts to their children than people who think inheritance is less important.

## Table 10 Coefficient of Variables Entered at 90 percent Confidence Level: Transfers from Children to Parents

| Variable Name* | Coefficient | t-value |
| :--- | :---: | :---: |
| LN Income | 0.60 | 531.50 |
| LN Equity | -0.12 | -395.55 |
| Ryrsfltm | 0.02 | 145.33 |
| Inherimp | 0.23 | 450.84 |
| R Health | -0.13 | -148.90 |
| Ln Estate | -0.02 | -113.15 |
| Ln debt | 0.06 | 124.91 |
| Race | -0.05 | -35.25 |
| Age | -0.00 | -23.72 |
| Othrtra2 | 0.02 | 15.35 |
| (Constant) | 1.34 | 118.39 |

[^0]Therefore the estimated function is $\mathrm{Y}=1.34+0.60 \mathrm{Ln}$ Income -0.12 LN equity +0.02 Ryrsfltm +0.23 Inherimp - 0.13 Rhealth - 0.02 Ln estate +0.06 Ln debt - 0.05 Race 0.003 X $14+0.02$ Othrtra2

## Transfers to Parents:

A one percent increase in income will increase adult children's transfers to parents by 0.6 percent, and a one percent increase in debt will increase transfers by 0.06 percent, holding all other variables constant. Families with transfers to others besides to parents are also more generous to their own parents. Transfers amount by whites is higher than nonwhites. Number of years respondents have worked full time (Ryrsfltm) is positively correlated with the transfer amount, which means that people with more full time work experience transfer more to their parents. Age of the respondents is negatively correlated to the transfer amount: the older the respondents are, the less they transfer to parents on average. But the effect of age is much smaller than the effect of the number of years the respondent has worked full time. People who think that leaving an inheritance is not important (Inherimp closer to 5 than to 1) are more likely to transfer more to their parents. Assets (Estate) and equity are both negatively correlated to the amount transferred. The more wealth children have, the less they tend to transfer to their parents. The effects (elasticity) of wealth are not as large as the income elasticity ( -0.02 and -0.12 compared to $+0.6)$.

## 8. Discussions and Conclusion

The magnitude of intergenerational transfers measured is sensitive to survey design and statistical methods used. Estimates of the proportion of the families giving transfers range from 2.5 percent of over 20 percent (McGarry and Schoeni, 1995). This study finds that about 13 percent of the families give financial transfer to other families.

The two major components of intergenerational monetary transfers are from parents to adult children and from adult children to parents. As a lot of previous research has
found, the net resource flow is from parents to children. This study found that the average amount transferred to parents $(\$ 2,468)$ is about half of the amount transferred to children (\$4,754). This result is comparable to McGarry and Schoeni’s (1995)findings (\$2,126 and $\$ 3,616$ respectively). This study also found that a higher percentage of families transferred small amounts to parents than to children. Most of the large dollar transfers are from parents to children.

The difference in transfer amounts might be explained by the different reasons for the transfers. Although the data didn't provide information on the reasons for the transfer, researchers have pointed out one of the obvious reasons for a parental gift is to aid in the children's purchase of a house or education. As home prices have soared over the past two decades, a greater percentage of buyers receive parental help. Over the past five years alone, the number of buyers receiving aid from parents or relatives rose from one in five to nearly one in four (Zachary, G., 1995). Education is another major investment that parents transfer to children. Parents also act as a safety net when adult children fall on hard times. This results in bigger houses and better education than would otherwise be possible.

The elderly are the major beneficiaries of federal financial assistance. Private assistance provided to elderly parents takes many forms, such as shared housing and personal help rather than pure financial support. Elderly have less need than in the past due to indexed social security insurance and other federal programs. Medicare provides health care, Medicaid, nursing home care and social security provides an income flow to retired individuals.

Previous research has pointed out the general direction of private resource flow: from older to younger. One of the new findings of this paper is that the age profile of the percentage of givers within each age group have a similar profile as the income age profile: an inverted U shape. Yet, the average amount transferred to children increases with age peaking at the oldest age. One of the explanations might be that in order to be eligible for free nursing home and Medicaid, or to avoid high inheritance tax, elderly are transferring wealth to their offspring while they are still alive. Parents could shrink their estates by taking advantage of the annual $\$ 10,000$ gift-tax exclusion. Also, the help with medical bills or college tuition are counted toward the $\$$ 10,000 annual exclusion, as long as the money is paid directly to a medical provider or college.

There is little literature on race and intergenerational transfers. One finding worth noticing is that although nonwhites have lower average transfer amounts than whites, in some age groups (35-44), nonwhites transfer a higher percentage of their income. The transfer as a percentage of income might be a better indicator of generosity. The difference in average transfer amount might come from the income difference between white and nonwhite.

Previous research found that current employment status affects transfer patterns. Those in white collar jobs are more likely to give financial support. This paper also finds that current employment status has a significant relationship to whether there is transfer or not. People with paid jobs are more likely to give transfers than those without paid jobs, like students and homemakers. This paper also studied the relationship between employment history and transfer. The conclusion is that among people within the same age group, the ones giving transfers are more likely to have a longer full time working history than those who gave no transfers.

## Income and financial assets

The regression results of this study show a positive correlation between the giver's income and the amount transferred. It was the first explanatory variable to enter the regression. The elasticity of the amount transferred with respect to income is .89 for parents and .60 for adult children.

The results on debt in the regression analysis seems counterintuitive. Family Sector Borrowing and the Burden of Debt points out that "...debt is concentrated among higherincome households and those with greater net worth" (Kennickell ,1995, p1). This may explain why both income and debt are positively correlated to the transfer amount, though they are not highly correlated on Table Appendix 1.1 at (.0494). Furthermore, it could be related to the willingness and ability of parents to borrow in order to transfer funds to their children.

People with transfers to other family members also transfer more to their own adult children and parents. It appears that those who are more generous, are more generous to all. The more generous families have flatter indifference curves than less generous families. With the same budget constraint, they transfer more to others than those with a steeper
indifference curve. As shown in Figure 1, their indifference curve would be tangent to the budget constraint at a point such as point $b$.

In conclusion, about 13 percent of the families in the U.S. gave financial support to members of other extended families in 1988. Intergenerational transfers make up majority of these financial transfers. Transfers between parents and adult children are the two most common directions of intergenerational transfers. Transfer magnitude and patterns vary across age, race, and employment status of givers. The extent and magnitude of private monetary transfers between generations has an impact on tax policy and on the need for public programs that transfer resources from young to old and visa versa.

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## Appendix 1.1

## Correlation Table - Families with Transfers to Children

|  | TRANS AGE E |  | ESTATSUM | INCOMSUM | INHERIMP | LIQUITY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANS | 1.0000 .1480 |  | . 1048 | . 2487 | -. 1193 | . 2121 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=$ | $\mathrm{P}=.011$ | $\mathrm{P}=.071$ | $\mathrm{P}=.000$ | $\mathrm{P}=.043$ | $\mathrm{P}=.000$ |
| AGE | . 1480 | 1.0000 | . 0469 | . 0393 | -. 0742 | . 0290 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.011$ | $\mathrm{P}=$. | $\mathrm{P}=.420$ | $\mathrm{P}=.499$ | $\mathrm{P}=.208$ | $\mathrm{P}=.618$ |
| ESTATSUM | . 1048 | . 0469 | 1.0000 | . 1332 | -. 1111 | . 2218 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.071$ | $\mathrm{P}=.420$ | $\mathrm{P}=$. | $\mathrm{P}=.021$ | $\mathrm{P}=.059$ | $\mathrm{P}=.000$ |
| INCOMSUM | . 2487 | . 0393 | . 1332 | 1.0000 | - -. 1107 | . 4455 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.000 \quad \mathrm{P}=.499$ |  | $9 \mathrm{P}=.021$ | $\mathrm{P}=$ | $\mathrm{P}=.060$ | $\mathrm{P}=.000$ |
| INHERIMP | -. 1193 | -. 0742 | -. 1111 | -. 1107 | 1.0000 | -. 1490 |
|  | ( 289) | ( 289) | ( 289) | ( 289) | ( 289) | ( 289) |
|  | $\mathrm{P}=.043$ | $\mathrm{P}=.208$ | $\mathrm{P}=.059$ | $\mathrm{P}=.060$ | $\mathrm{P}=$. | $\mathrm{P}=.011$ |
| LIQUITY | . 2121 | . 0290 | . 2218 | . 4455 | -. 1490 | 1.0000 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.000$ | $\mathrm{P}=.618$ | $\mathrm{P}=.000$ | $\mathrm{P}=.000$ | $\mathrm{P}=.011$ | $\mathrm{P}=$. |
| RACE | -. 1102 | -. 1263 | -. 0721 | -. 1093 | . 0560 | -. 0935 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.057$ | $\mathrm{P}=.029$ | $\mathrm{P}=.214$ | $\mathrm{P}=.060$ | $\mathrm{P}=.343$ | $\mathrm{P}=.107$ |
| RHEALTH | -. 1437 | . 2112 | -. 1658 | -. 1428 | -. 0075 | -. 1467 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=$. | $013 \mathrm{P}=.000$ | $0 \mathrm{P}=.004$ | $\mathrm{P}=.014$ | $\mathrm{P}=.899$ | $\mathrm{P}=.011$ |
| RYRSFLTM | . 1761 | . 6253 | . 0557 | . 0995 | . 0495 | . 0838 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.002$ | $\mathrm{P}=.000$ | $\mathrm{P}=.338$ | $\mathrm{P}=.087$ | $\mathrm{P}=.402$ | $\mathrm{P}=.149$ |
| DEBT | . 0652 | -. 0261 | . 7039 | . 0494 | . 0063 | . 1233 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.262$ | $\mathrm{P}=.654$ | $\mathrm{P}=.000$ | $\mathrm{P}=.396$ | $\mathrm{P}=.915$ | $\mathrm{P}=.033$ |
| OTHRTRA1 | . 1678 | . 0095 | 0596 | . 1572 | -. 0500 | . 2106 |
|  | ( 298) | ( 298) | ( 298) | ( 298) | ( 289) | ( 298) |
|  | $\mathrm{P}=.004$ | $\mathrm{P}=.870$ | $\mathrm{P}=.305$ | $\mathrm{P}=.007$ | $\mathrm{P}=.397$ | $\mathrm{P}=.000$ |

## Appendix 1.1, Contiued.

|  | RACE | RHEALTH | RYRSFLTM | DEBT | OTHRTR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANS \$ | $\begin{aligned} & -.1102 \\ & (298) \\ & \mathrm{P}=.057 \end{aligned}$ | $\begin{aligned} & -.1437 \\ & \quad(298) \\ & \mathrm{P}=.013 \end{aligned}$ | $\begin{gathered} .1761 \\ (298) \\ \mathrm{P}=.002 \end{gathered}$ | $\begin{aligned} & .0652 \\ & \mathrm{P}=.262 \end{aligned}$ | $\begin{aligned} & .1678 \\ & 98) \\ & \mathrm{P}=.004 \end{aligned}$ | ( 298) |
| AGE | $\begin{aligned} & -.1263 \\ & (298) \\ & \mathrm{P}=.029 \end{aligned}$ | $\begin{aligned} & .2112 \\ & (298) \\ & \mathrm{P}=.000 \end{aligned}$ | $\begin{aligned} & .6253 \\ & (298) \\ & \mathrm{P}=.000 \end{aligned}$ | $\begin{gathered} -. \\ (298) \\ \mathrm{P}=.654 \end{gathered}$ | $\begin{aligned} & 261 \\ & (298) \\ & \mathrm{P}=.870 \end{aligned}$ | . 0095 |
| ESTATSUM | $\begin{aligned} & -.0721 \\ & (298) \\ & \mathrm{P}=.214 \end{aligned}$ | $\begin{aligned} & -.1658 \\ & (298) \\ & \mathrm{P}=.004 \end{aligned}$ | $\begin{aligned} & .0557 \\ & (298) \\ & \mathrm{P}=.338 \end{aligned}$ | $\begin{aligned} & .7039 \\ & (298) \\ & \mathrm{P}=.000 \end{aligned}$ | $\begin{aligned} & .0596 \\ & (298) \\ & \mathrm{P}=.305 \end{aligned}$ |  |
| INCOMSUM | $\begin{aligned} & -.1093 \\ & (298) \\ & \mathrm{P}=.060 \end{aligned}$ | $\begin{aligned} & -.1428 \\ & (298) \\ & \mathrm{P}=.014 \end{aligned}$ | $\begin{aligned} & .0995 \\ & (298) \\ & \mathrm{P}=.087 \end{aligned}$ | $\begin{aligned} & .0494 \\ & (298) \\ & \mathrm{P}=.396 \end{aligned}$ | $\begin{aligned} & .1572 \\ & (298) \\ & \mathrm{P}=.007 \end{aligned}$ |  |
| INHERIMP | $\begin{aligned} & .0560 \\ & (289) \\ & \mathrm{P}=.343 \end{aligned}$ | $\begin{aligned} & -.0075 \\ & (289) \\ & \mathrm{P}=.899 \end{aligned}$ | $\begin{gathered} .0495 \\ (289) \\ \mathrm{P}=402 \end{gathered}$ | $\begin{aligned} & .0063 \\ & (289) \\ & \mathrm{P}=.915 \end{aligned}$ | $\begin{aligned} & -.0500 \\ & (289) \\ & \mathrm{P}=.397 \end{aligned}$ |  |
| LIQUITY | $\begin{aligned} & -.0935 \\ & (298) \\ & \mathrm{P}=.107 \end{aligned}$ | $\begin{aligned} & -.1467 \\ & (298) \\ & \mathrm{P}=.011 \end{aligned}$ | $\begin{aligned} & .0838 \\ & (298) \\ & \mathrm{P}=.149 \end{aligned}$ | $\begin{aligned} & .1233 \\ & (298) \\ & \mathrm{P}=.033 \end{aligned}$ | $\begin{aligned} & .2106 \\ & (298) \\ & \mathrm{P}=.000 \end{aligned}$ |  |
| RACE | $\begin{aligned} & 1.0000 \\ & (298) \\ & \mathrm{P}=. \end{aligned}$ | $\begin{aligned} & .1234 \\ & (298) \\ & \mathrm{P}=.033 \end{aligned}$ | $\begin{aligned} & -.1824 \\ & (298) \\ & \mathrm{P}=.002 \end{aligned}$ | $\begin{gathered} -.\left(\begin{array}{l} \text { ( } 298) \\ \mathrm{P}=.632 \end{array}\right. \end{gathered}$ | $\begin{aligned} & 278 \\ & (298) \\ & \mathrm{P}=.353 \end{aligned}$ | . 0540 |
| RHEALTH | $\begin{aligned} & .1234 \\ & (298) \\ & \mathrm{P}=.033 \end{aligned}$ | $\begin{aligned} & 1.0000 \\ & (298) \\ & \mathrm{P}=. \end{aligned}$ | $\begin{aligned} & .1476 \\ & (298) \\ & \mathrm{P}=.011 \end{aligned}$ | $\begin{aligned} & (298) \\ & \mathrm{P}=.043 \end{aligned}$ | $\begin{aligned} & -.1173 \\ & (298) \\ & \mathrm{P}=.063 \end{aligned}$ | -. 1080 |
| RYRSFLTM | $\begin{aligned} & -.1824 \\ & (298) \\ & \mathrm{P}=.002 \end{aligned}$ | $\begin{aligned} & .1476 \\ & (298) \\ & \mathrm{P}=.011 \end{aligned}$ | $\begin{aligned} & 1.0000 \\ & (298) \\ & \mathrm{P}=. \end{aligned}$ | $\begin{aligned} & .0 \\ & (298) \\ & \mathrm{P}=.821 \end{aligned}$ | $\begin{aligned} & 31 \\ & (298) \\ & \mathrm{P}=.242 \end{aligned}$ | . 0679 |
| DEBT | $\begin{aligned} & -.0278 \\ & (298) \\ & \mathrm{P}=.632 \end{aligned}$ | $\begin{aligned} & -.1173 \\ & (298) \\ & \mathrm{P}=.043 \end{aligned}$ | $\begin{aligned} & .0131 \\ & (298) \\ & \mathrm{P}=.821 \end{aligned}$ | $\begin{aligned} & 1.0000 \\ & (298) \\ & \mathrm{P}=. \end{aligned}$ | $\begin{gathered} .0045 \\ (298) \\ \mathrm{P}=.938 \end{gathered}$ |  |
| OTHRTRA1 | $\begin{aligned} & .0540 \\ & (298) \\ & \mathrm{P}=.353 \end{aligned}$ | $\begin{aligned} & -.1080 \\ & (298) \\ & \mathrm{P}=.063 \end{aligned}$ | $\begin{aligned} & .0679 \\ & (298) \\ & \mathrm{P}=.242 \end{aligned}$ | $\begin{aligned} & .0 \\ & (298) \\ & \mathrm{P}=.938 \end{aligned}$ | $\begin{aligned} & 45 \\ & \text { ( } 298 \text { ) } \\ & \mathrm{P}=. \end{aligned}$ | 1.0000 |

(Coefficient / (Cases) / 2-tailed Significance)

[^1]
## Appendix 1.2 Correlation Table Families with Transfers to Parents



## Appendix 1.2, continued

|  | RACE | RHEALTH | RYRSFLTM | DEBT | OTHRTRA2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TRANS | $\begin{aligned} & -.1841 \\ & (162) \\ & \mathrm{P}=.019 \end{aligned}$ | $\begin{aligned} & -.1615 \\ & (162) \\ & \mathrm{P}=.040 \end{aligned}$ | $\begin{aligned} & .2614 \\ & (162) \\ & \mathrm{P}=.001 \end{aligned}$ | $\begin{aligned} & .0383 \\ & (162) \\ & \mathrm{P}=.629 \end{aligned}$ | $\begin{aligned} & .3317 \\ & (162) \\ & \mathrm{P}=.000 \end{aligned}$ |
| AGE | $\begin{aligned} & -.2992 \\ & (162) \\ & \mathrm{P}=.000 \end{aligned}$ | $\begin{aligned} & .0811 \\ & (162) \\ & \mathrm{P}=.305 \end{aligned}$ | $\begin{aligned} & .9226 \\ & (162) \\ & \mathrm{P}=.000 \end{aligned}$ | $\begin{aligned} & .1160 \\ & (162) \\ & \mathrm{P}=.142 \end{aligned}$ | $\begin{aligned} & .0575 \\ & (162) \\ & \mathrm{P}=.467 \end{aligned}$ |
| ESTATSUM | $\begin{aligned} & -.1523 \\ & (162) \\ & \mathrm{P}=.053 \end{aligned}$ | $\begin{aligned} & -.1137 \\ & (162) \\ & \mathrm{P}=.150 \end{aligned}$ | $\begin{aligned} & .1602 \\ & (\quad 162) \\ & \mathrm{P}=.042 \end{aligned}$ | $\begin{gathered} .3787 \\ (162) \\ \mathrm{P}=.000 \end{gathered}$ | $\begin{aligned} & .1093 \\ & (162) \\ & \mathrm{P}=.166 \end{aligned}$ |
| INCOMSUM |  | $\begin{aligned} & -.0851 \\ & (162) \\ & \mathrm{P}=.281 \end{aligned}$ | $\begin{aligned} & .0468 \\ & (162) \\ & \mathrm{P}=.554 \end{aligned}$ | $\begin{aligned} & .0838 \\ & (\quad 162) \\ & \mathrm{P}=.289 \end{aligned}$ |  |
| INHERIMP |  |  | $\begin{aligned} & .0207 \\ & (\quad 159) \\ & \mathrm{P}=.796 \end{aligned}$ | $\begin{gathered} -.0084 \\ (159) \\ \mathrm{P}=.917 \end{gathered}$ | $\begin{aligned} & .0082 \\ & (159) \\ & \mathrm{P}=.918 \end{aligned}$ |
| LIQUITY |  | $\begin{aligned} & -.1784 \\ & (162) \\ & \mathrm{P}=.023 \end{aligned}$ | $\begin{aligned} & .2706 \\ & (162) \\ & \mathrm{P}=.000 \end{aligned}$ | $\begin{aligned} & .0916 \\ & (162) \\ & \mathrm{P}=.246 \end{aligned}$ | $\begin{aligned} & .2203 \\ & (162) \\ & \mathrm{P}=.005 \end{aligned}$ |
| RACE | $\begin{aligned} & 1.0000 \\ & (162) \\ & \mathrm{P}= \end{aligned}$ | $\begin{aligned} & .1692 \\ & (162) \\ & \mathrm{P}=.031 \end{aligned}$ | $\begin{aligned} & -.3006 \\ & (162) \\ & \mathrm{P}=.000 \end{aligned}$ | $\begin{aligned} & -.1058 \\ & (162) \\ & \mathrm{P}=.180 \end{aligned}$ | $\begin{gathered} .0108 \\ (162) \\ \mathrm{P}=.891 \end{gathered}$ |
| RHEALTH | 1692 <br> ( 162) <br> $\mathrm{P}=.031$ | $\begin{aligned} & 1.0000 \\ & (162) \\ & \mathrm{P}=. \end{aligned}$ | $\begin{aligned} & .0702 \\ & (162) \\ & \mathrm{P}=.375 \end{aligned}$ | $\begin{aligned} & \quad-.1300 \\ & (162) \\ & \mathrm{P}=.099 \end{aligned}$ | $\begin{aligned} & -.0933 \\ & (162) \\ & \mathrm{P}=.238 \end{aligned}$ |
| RYRSFLTM | -.3006 $(162)$ $\mathrm{P}=.000$ | $\begin{aligned} & .0702 \\ & (162) \\ & \mathrm{P}=.375 \end{aligned}$ | $\begin{aligned} & 1.0000 \\ & (162) \\ & \mathrm{P}= \end{aligned}$ | $\begin{aligned} & .1464 \\ & (162) \\ & \mathrm{P}=.063 \end{aligned}$ | $\begin{aligned} & .0609 \\ & (162) \\ & \mathrm{P}=.441 \end{aligned}$ |
| DEBT |  | $\begin{gathered} -.1300 \\ (162) \\ \mathrm{P}=.099 \end{gathered}$ | $\begin{aligned} & .1464 \\ & (162) \\ & \mathrm{P}=.063 \end{aligned}$ | $\begin{aligned} & 1.0000 \\ & (162) \\ & \mathrm{P}= \end{aligned}$ | $\begin{aligned} & -.0183 \\ & (162) \\ & \mathrm{P}=.817 \end{aligned}$ |
| OTHRTRA2 | $\begin{aligned} & .0108 \\ & (162) \\ & \mathrm{P}=.891 \end{aligned}$ | $\begin{aligned} & -.0933 \\ & (162) \\ & \mathrm{P}=.238 \end{aligned}$ | $\begin{aligned} & .0609 \\ & (162) \\ & \mathrm{P}=.441 \end{aligned}$ | $\begin{aligned} & \quad-.0183 \\ & (162) \\ & \mathrm{P}=.817 \end{aligned}$ | $\begin{aligned} & 1.0000 \\ & (162) \\ & \mathrm{P}=. \end{aligned}$ |

(Coefficient / (Cases) / 2-tailed Significance)
" . " is printed if a coefficient cannot be computed


[^0]:    *Variables defined on page 13.

[^1]:    " . " is printed if a coefficient cannot be computed

