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THE EFFECTS OF INCOME AND WEALTH ON TIME AND MONEY TRANSFERS BETWEEN PARENTS AND CHILDREN

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ABSTRACT

We use the 1988 PSID to study the effects of income and wealth on transfers of money and time between individuals and their parents as well as the effects of incomes of other relatives on these flows. We relate the relative incomes of parents and parents in-law to transfer amounts given and received by married couples. We also study how the relative incomes of divorced parents influence transfers. We find that money transfers tend to reduce inequality in household incomes and that time transfers are only weakly related to income differences. Richer siblings give more to parents and receive less. Among parents and parents in-law the richer set of parents is more likely to give money and less likely to receive money. The same is true of divorced parents. In contrast to the implications of simple exchange models of transfers, there is little evidence in the cross section or in the analysis using siblings that parental income or wealth raises time transfers from children or that time transfers are exchanged for money transfers. In the cross section and among siblings, the strong negative relationship between time transfers and distance from parents is not associated with a strong negative relationship between distance and money transfers. We discuss the implications of our results for alternative models of transfers.

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1. Introduction

In this paper we study the effects of income and wealth on transfers of money and time between individuals and their parents and in-laws. In so doing, we contribute to a growing body of evidence on the effects of differences in income, assets and current income relative to permanent income on the direction and quantity of transfers.[1] We estimate the effects of incomes of siblings on the amounts received from parents and the amounts given to parents. We provide the first estimates of the effects of incomes of parents relative to the incomes of parents in-law on the amounts given and received by married couples. We study how the relative incomes of divorced parents influence transfers to and from such parents and their children. Finally, we examine the interrelationship between time transfers and money transfers and examine the effects of distance on the two types of transfers. We draw out a number of implications of our results for alternative theories of transfers.

Our analysis is based on the recently released transfer supplement to the 1988 Panel Study of Income Dynamics (PSID) along with matched panel data on the incomes, wealth, health status, and household composition of a set of parents and their adult children. We are also able to match data on siblings. The 1988 PSID transfer supplement provides information on time and money transfers to and from both sets of parents of all PSID respondents. Furthermore, the respondents provide information on the income, wealth, and health status of both sets of parents.

These data items make the 1988 PSIDan unusually attractive data set with which to examine family transfers. First, most theoretical models of family economic exchange suggest that incomes of all immediate relatives should affect transfer patterns, but most other data sets lack information on the income of most family members. Second, the fact that several years of income data are available for many sample members and their parents enables us to obtain more precise permanent income measures than are available in most other data sets.[2] The panel data on income permits a sharper distinction to be made between current income and permanent income than is usually possible, and to examine the response

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[1] Recent surveys of the literature on transfers include Hill and Soldo (1993) and Shoeni (1993). Hill et al (1993) also provide a descriptive analysis of the PSID transfer data.

[2] The original NLS cohorts share a number of advantages of the PSID for the study of transfers. They have been analyzed by Rosenzweig and Wolpin (1993,1994) and Dunn (1993). The former studies emphasize tradeoffs between public and private transfers as well as the effects of movements in current income relative to permanent income on transfers. Dunn's emphasizes some of the same issues that we do.

of transfers to shocks such as unemployment. Third, the fact that the Panel Study contains information about transfers of time as well as money permits a more direct examination of the issue of whether money transfers from parents to children are driven by altruism or exchange motives.[3]

In section 2 we provide a context for our empirical analysis by briefly reviewing theoretical arguments on the relationship between time and money transfers and current income, permanent income, wages, and assets. We also discuss the fact that transfers between a parent and a child household should be influenced by the resources and needs of the child's siblings, in-laws (if married) and other relatives. We explore these interdependencies in our empirical work using relatively straightforward econometric methods. We also point out that exchange models imply that a decline with distance from parents in time transfers will be associated with a decline in money transfers, while in an altruism model money transfers may be unrelated to distance.

In section 3 and Appendix 1 we discuss the sample and some potential problems with the transfer data. In section 4 and Appendix 2 we present descriptive statistics on differences between households who do and do not receive money transfers and differences between households who do and do not receive time transfers. The simple cross tabs show that richer parents are more likely to give and less likely to receive transfers. Richer kids are more likely to give and less likely to receive transfers. The connections between income and time transfers from parents to kids and kids to parents are weak.

In section 5 we estimate the effects of the income and wealth of parents and children on the probability and amount of transfers using linear probability, probit, and Tobit models. We find that parental income has a positive effect on the probability and the amount of transfers of money from parents to kids and a negative effect on transfers of money from kids to parents.[4] Parental income also has a weak negative effect on the number of hours kids

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[3] In addition, the availability of data on food expenditures in years prior to 1988 in the PSID permits one to construct proxies for the relative marginal utility of income of different households. We make use of this information to study altruistic links among households and family risk sharing in Altonji et al (1992) and Hayashi et al (forthcoming). The data set also contains some limited information on "help from relatives" in years prior to 1988 as well as information on bequests received and expectations about future bequests. We make limited use of these data below.

[4] The finding that transfers are relatively small in magnitude but tend to equalize income is qualitatively consistent with Altonji et al (1992). In that paper we relate the distribution of household consumption to the distribution of household income among related households and conclude (1) that altruistic links are far from perfect and (2) the income of relatives has a small positive affect on one's own consumption.

spend helping parents. Controlling for permanent income, parental assets are positively related to money transfers from parents to kids and negatively related to money transfers from kids to parents. The finding that the parent's permanent income is negatively related to time help from kids seems inconsistent with the view that time and money transfers are best viewed as exchange.[5] We also find that the kid's income reduces the probability and amount of money transfers from parents to kids and raises the probability and amount of transfers from kids to parents.

Liquidity constraints and insurance against income uncertainty are likely to affect the timing of transfers, suggesting an independent role for current income in models containing permanent income. We find that the difference between current and permanent income (with permanent income controlled for) has the same sign pattern as permanent income in equations for money transfers. Kids whose current income is low relative to their permanent income are less likely to give and more likely to receive.[6] On the other hand, we do not find a link between home purchases and transfers from parents, in contrast to casual evidence that parents are an important credit source for homes.

In section 6, section 7, and section 8 we consider how other family members influence who gives and who gets transfers. In section 6, we study how the relative incomes of siblings affect transfer patterns. We do this using fixed effects linear probability models and conditional logit models to control for parental characteristics and the characteristics common to siblings. The fixed effects evidence suggests that the relative incomes of siblings influences who receives transfers from and who provides transfers to parents.[7] This view is supported by evidence that the average income of one's siblings increases the probability and amount of money transfers received from parents. The number of living children lowers the odds that a particular child (as opposed to at least one child) one receives money or time

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[5] Cox (1987) and Bernheim et al (1985) provide models of exchange motivated transfers and interpret their empirical results as providing support for the exchange model.

[6] See Cox (1990) and Cox and Jappelli (1990) for theory and evidence that transfers are motivated by liquidity constraints. Rosenzweig and Wolpin (1993, 1994) find a strong relationship negative relationship between current income of the kid and the odds of a monetary transfer in fixed effect logit models that control implicitly for permanent income. They interpret this as evidence that parents smooth the incomes of there children. They find little evidence that current parental income matters once a fixed effect in controlled for. Dunn (1993) obtains similar results with current and permanent income of the child included but no fixed effect.

[7] The linear probability model has well know limitations, both with and without fixed effects. Dunn (1993) presents fixed effects Tobit models of transfers using Honore's (1992) procedure. The fact that money transfers respond to the relative incomes of siblings is in contrast to the evidence in Menchik (1980) and Wilhelm (1994) that bequests are usually divided evenly among children.

from the parent, as one would expect given limits on the the money and time of the parent. However, the number of living child has little effect on the odds of a transfer from a particular child in the other direction.

In Section 7 we examine the effects of differences in the incomes of parents and in-laws on the relative probability of transfers to and from them. We have three main findings. First, the difference in the incomes of the husband's and wife's parents is positively related to the difference in the probability that they receive money transfers from the kids. Second, the difference in the incomes of the two sets of parents is negatively related to the difference in the probability that they provide money transfers to the kids. Third, the income difference has a negative but insignificant relationship to the difference in the probability of giving time transfers.

In Section 8 we find that the difference in the current incomes of divorced parents is positively related to the difference in the probability that they provide money to the kid and negatively related to the difference in the probability that they receive money from the kid. Only the latter effect is statistically significant. The difference in current incomes has a small and statistically insignificant effect on the difference in probabilities of help in the form of time from parents to kid or from kid to parent. In section 9, we explore the interrelationship between time and money transfers by adding money transfers to the time transfer equations, and vice versus.

In the concluding section we provide a brief summary of the findings and their implications for theories of transfers.

2. Theoretical Background

In Section 2.1 we list the motives for transfers of money and services that have been emphasized in the literature.[8] In Section 2.2 we briefly discuss some of the empirical implications of the various transfer motives that we investigate below.

2.1 Models of Transfers Based on Altruism and Exchange.

We estimate equations of the following form:

(1) $P(R_j>0) = P^{Rj}(Y_p, Y_k, Y_s, Y_{pt}, Y_{kt}; X)$

(2) $R_j = R^j(Y_p, Y_k, Y_s, Y_{pt}, Y_{kt}; X, u)$

(3) $P(S_j>0) = P^{Sj}(Y_p, Y_k, Y_s, Y_{pt}, Y_{kt}; X)$

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[8] We make no attempt to provide a comprehensive survey of the theoretical literature here. See Cigno (1991).

(4) $S_j = S^j(Y_p, Y_k, Y_s, Y_{pt}, Y_{kt}; X, u)$

The variables R and S denote time and money transfers respectively in a particular year (1987 in our case). The subscript j has the value p when the transfer is from the parent to the child and k when the transfer is in the opposite direction. $P(R_j>0)$ is the probability that a money transfer occurs and R_j is the amount if R_j is positive. $P(S_j>0)$ and S_j have similar definitions. Y_p and Y_k are measures of the permanent endowment of the parent and the child, such as permanent income or earnings. (We discuss the construction of these variables below.) In some specifications we also include the difference between current and permanent income (Y_{jt}). In some specifications we also include measures of the permanent income of other relatives (such as siblings), which we denote here by Y_s. The vector X contains a set of control variables and u is an error component.

The literature on transfers has emphasized six motives for time and money transfers. The first is altruism, by which we mean that the parent's utility depends on the utility of their children. In the two-sided case, the child's utility depends on the utility of the parents. The second is exchange. In this case, the parents "buy" time help, attention, respect, visits, etc from indifferent children with money or perhaps time help. The third, fourth and fifth motivations fall under both altruism and exchange and have implications for the effects of transitory variation in income on money transfers. (Altruism also implies that family members will take advantage of "gains from trade".) The third motivation is insurance---relatives may provide insurance against income variation. The fourth motivation is access to credit. The family may substitute for credit markets and provide money transfers when current income of a family member is below expected future income and the family does not have assets. The fifth motive for time transfers is comparative advantage among the family members. In an exchange model the time transfers will be paid for with money, but in an altruism model time transfers will be influenced by comparative advantage even though time donors will not necessarily be compensated with time or with money.

The sixth motivation is "warm glow" (Andreoni (1989)). Parents may get utility from helping their children with time or money that may be partially independent of the needs of the children. In the next section, we discuss the implications of the various transfer motives for the main empirical issues we investigate.

2.2 Some Empirical Implications of Alternative Transfer Models

2.2.1 Endowments and Transfers

Initially, we assume that our measures of endowment (Y_k, Y_p, Y_s) are independent of the market value of time, or that the market value of time is held constant. We then discuss the effects of differences in wage rates on transfer patterns.

a. The effects of Y_k and Y_p on $P(R_p > 0)$ and on R_p. Altruism models imply that money transfers flow from rich to poor. Consequently, they imply that $\delta P(R_p>0)/\delta Y_p > 0$, $\delta P(R_p>0)/\delta Y_k < 0$, and the opposite sign pattern for $P(R_k>0)$. Simple exchange models such as Cox (1987) also imply this pattern. The "warm glow" model implies $\delta P(R_p>0)/\delta Y_p > 0$ assuming that utility from the act of giving transfers is a normal good. It does not have clear implications for the sign of $\delta P(R_p>0)/\delta Y_k$.

b. The effects of Y_k and Y_p on R_p. Holding everything else constant, in the altruism regime the child's income Y_k has a negative effect on the level of R_p given $R_p > 0$ as well as a negative effect on $P(R_p>0)$. However, in the exchange regime Y_k may have a positive, 0, or a negative effect on the level of R_p when R_p is greater than 0.[9] The intuition is that the larger Y_k, the larger the "bribe" that is necessary for the parent to induce the child to provide services. Cox uses the potential difference in the implications of the two models as the basis for a test of altruism versus exchange models. In his empirical work Cox focuses on R_p and finds that Y_k reduces $P(R_p>0)$ and increases $E(R_p|R_p>0)$. He interprets the latter result as support for the exchange model of transfers. (See also Cox and Rank (1990)). However, Altonji et al (1995) show that if one does not control for heterogeneity in preferences (represented by u in the above equations), then Y_k may have a positive sign even if tranfers are motivated by altruism.[10]

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[9] Cox's analysis implies that the sign depends on the responsiveness of the parents' demand for services to the implicit price of services.

[10] The fact that R_p has a distribution even after conditioning on Y_k, Y_p, and observed preference shifters and the fact that the conditional probability of $R_p > 0$ is neither 1 nor 0 indicates that unobserved preference shifters are important empirically. Intuitively, two factors give may give rise to a positive association under the null hypothesis of altruism. The first is that the amount of income that will be shifted in response to a given difference in the preferences (needs) of parents and kids will depend on the level of income of the parents and kids, holding the ratio constant. In this case, the mean and variance of positive transfers could be positively related to the kid's income as well as parents' income. The mean of a random variable that is truncated from below is positively related to dispersion of the untruncated distribution in many cases. As a crude check on the empirical significance of this issue, we modified the Tobit models of R_k reported below to allow the coefficients and error variance of a Tobit model of money transfers from parents to kids to depend on whether the average of the permanent incomes of the parents and the kids was in the top third of the distribution of these averages. The coefficients and the error variance are in fact substantially larger for parent-kid pairs with high incomes than for other families. The second factor that may lead to a positive relation between Y_k and R_p is a more conventional problem of selectivity. Holding parental income constant, parents who provide transfers to rich kids will tend to have weaker preferences for their own consumption, have kids who have strong

The warm glow motive seems consistent with $dR_p/dY_p > 0$ assuming giving transfers is a normal good.

c.. Effects of Income of Other Relatives:

Altruism leads to gifts from the least needy to the most needy. The income of a child's siblings should increase the probability and size of parental transfers of money to that child and should reduce money transfers from that child to the parent. Consequently, altruism models imply that Y_s will reduce R_k where s refers to a sibling. We also investigate whether the relative incomes of parents and parents-in-law affects which set of parents gives to or receives money transfers from a married couple. We provide a similar analysis using divorced parents. The analysis of parents and parents-in-laws raises the interesting question of whether, for example, the parents of the wife are indirectly supporting the parents of the husband. This can happen if money given to the wife is passed on in part to the husband's parents. Similar issues arise for divorced parents. The theory is less clear on how the availability of resources from other relatives influences the link between money and transfers.

d.Effects of Income and Wealth on Time Transfers:

In a model with one-sided altruism (from the parents to the child) and exogenous endowments that are unrelated to the market price of time, Cox (1987) shows that the effects of parents' income and kid's income on S_k are equal in sign and magnitude but may be positive or negative. (Cox (1987) makes clear that S_k in his model is time use that does not have close market substitutes.) In his model parents cannot obtain a positive value of S_k when R_p is 0 because the child's utility depends negatively on S_k. If children are altruistic toward their parents, the child's utility may depend positively on S_k over some range. In this case children may choose to provide a positive level of S_k even though R_p is 0. This is very common in the data. We suspect (but have not shown) that there are no clear predictions from the altruism model in the more realistic case of two way altruism once corner solutions in money transfers are taken into account. We conjecture that Cox's result that Y_k and Y_p

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needs for consumption goods, and/or be more altruistic than parents who provide transfers to poorer kids. We conclude that the sign of the estimated relationship between Y_k and R_p does not provide a clean test of the altruism model. In fairness, we should point out that Cox (1987) tries to address the problem of selectivity. However, the fact that transfer functions are not addively separable in income and observed and unoberved preference components (the first factor mentioned above) invalidates the conventional methods he uses to deal with the problem, and he relies primarily on OLS regression.

have identical effects continues to hold if there are operative money transfers in either direction, but that there are no restrictions on the effects of Y_k and Y_p when money transfers are 0.

Exchange models of the type discussed in Bernheim, Shleifer and Summers (1995) and Cox (1987) imply that services from child to parent will be positively related to parental wealth and income and negatively related to the income and wealth of the kid. The intuition is that the increase in Y_k raises the price of services to the parent, while Y_p has a positive income effect and S_k is a normal good from the parent's perspective. This would suggest that the probability and the amount of a time transfer from parents to the child will be positively related to Y_p and negatively related to Y_k. However, both of these studies view "services" that parents desire from children as services for which there are not good market substitutes, such as affection, phone calls, or family visits.

To the extent there are good market substitutes for the time help reported in the PSID and the demand for services with good market substitutes is more income elastic than the demand for services without market substitutes, wealthier parents may place less value on time help from children. This would weaken the negative relationship between Y_k and S_k even if the market wages of both the parents and child are held constant.[11] A simultaneous increase in the wages of the kid and the parents should induce substitution away from the provision of time for services that have good market substitutes in both the exchange and the altruism regimes.[12]

e. Market Wages:

Differences in market wages might lead to exchanges of money for time help based on comparative advantage, even if one controls for permanent income. One might expect the difference in wages between the parent and child to be positively related to money transfers and negatively related to time transfers. We investigate this below using models that control for wealth. Unfortunately, it is difficult to distinguish the substitution effects of wages from the income effects.

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[11] As an example, consider house painting. Rich people may have a large demand for high quality work that can only be done by skilled professionals. Poorer people may demand less expensive, lower quality work that can be done by either less skilled professional painters or relatives. Rich parents and poor parents might place equal value on attention and respect from their adult children, for which there are no market substitutes.

[12] Assuming that market wage rates are not related to components of S that do not have good market substitutes.

2.2.2. The Interrelationship Among Transfers

Below we also examine the interrelationship among transfers. To the extent that there are differences among extended families in the strength of altruism, one might expect a positive correlation between time transfers from parent to kid and from kid to parent and a positive correlation between time transfers and a flow of money, regardless of the direction of the money flow. In "close knit" families, time will flow in both directions and money will flow from the least to the most financially needy. To the extent that marginal utility of income of a household is positively correlated with the marginal utility of services received from relatives, time and money flows might go in the same direction.

Exchange models are also consistent with a positive correlation in time flows from parent to kid and from kid to parent, since parents might use both money and time to "buy" services. However, in the exchange model, one would expect money from parents to be positively correlated with time transfers from kids, with parents buying time transfers from the kids. By the same token, money transfers from the kids might be used to buy time transfers from the parents (for example, baby sitting), leading to a positive correlation between money transfers from kids and time transfers from parents.

Below we attempt to distinguish between the two models by using siblings to analyze how relative dependence of money flows from parents to children and time flows from children to parents depends on distance from the parents. Time transfers should decline with distance in either the altruism or the exchange model, because distance raises their costs. Our idea is that if money flows are implicitly payment for services then money flows should also decline with distance from the parent.[13]

2.2.3 Presence of Other family Members:

a. Number of siblings:

Parental resources per child are negatively related to the number of children. This suggests that the odds of receiving parental time and money transfers and the size of the transfers will be negatively related to number of siblings, regardless of the motive for transfers. The effects of number of siblings on total transfers provided by the parent is less clear. It would seem to depend upon the way in which number of children enters the utility function of the parents. Also, heterogeneity in preferences that influence fertility choices

[13] While one might object that distance from parents is endogenous and is related to the strength of the altruistic link between a particular parent and kid, it is not clear why a correlation between distance and preferences would influence time transfers more than money transfers.

may be related to heterogeneity in preferences that influence aid to independent children.

The number of potential donors to the parents increases with the number of children. This suggests that the probability and the size of a time and money transfer from a particular child to the parents will be negatively related to the number of children if one controls for parental income and needs. In an exchange framework with one sided altruism we would also expect a negative relationship between number of children and the odds that a particular child makes a time transfer, although this may be sensitive to the form of the parent's utility function and to how the number of children affects bargaining between parents and kids.
b Other Dependents on the Parents The needs of the child's grandparents for market and nonmarket help and their ability to supply such help to the parents or the child will influence flows of time and money from the parents to the child, just as competition from siblings should influence these flows. We investigate this below.

3. Data

3.1 The Sample

The data are from the 1988 Panel Study of Income Dynamics (PSID). There are two samples in the study. The first, which we call the "matched" sample, uses parents and children from 1968 PSID families who are heads of household or wives in the 1988 study. We have annual information on the income, labor market activity, and family composition of the households containing these individuals. We also have information on assets, health status, income, or other variables that was collected in years before 1988. Households containing children in the 1968 study are then matched to the households of their parents. An observation consists of one such matched pair. Given that a child's mother and father may be in separate households, each child may appear in one or two records. Parents with multiple children appear in as many records as they have respondent children.[14]

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[14] The distribution of parent household records by number of children is summarized in the table below.

Parent household observations by number of independent kids in PSID

# of Kids	1	2	3	4	5	6	7	8	9	10	11
obs.	607	480	263	154	80	32	20	11	1	1	1

That is, there are 607 parent households that have been matched to only 1 kid, 491 that have been matched to 2 kids, etc.. The sample contains 3326 children who are matched to one parent household and 235 children who are matched to two parent households, which accounts for 3796 of the 3811

Only 1.6 percent of the children who were heads of household and .7 percent of the children who wives were students in 1988. The percentages were 2.9 percent and .6 percent among those who received parental transfers. Only 4 percent of the heads and 2 percent of the wives were students in one or more years between 1986 and 1988. Thus, parental transfers for schooling have little effect on our analysis.

The second sample, referred to as the "full" sample, consists of the records of all respondents who report living parents or in-laws. Information on these records comes from the reports of the children in the 1988 Transfer supplement. Each child can have up to four records (if both his parents and his spouse's parents live in separate households). Because the parents in these records are not necessarily sample members, the information on their assets, income, labor market activity, and family composition is much more limited. This sample is useful for testing hypotheses concerning the relationship of people who are related solely through the marriage of their children. It provides a larger sample of divorced or separated parents (approximately 1500 cases versus 238 cases in the matched sample).

3.2 The Transfer Data

Data on transfers between parents and children were gathered as a supplement to the 1988 PSID. Respondents were asked about time or money which they gave to other individuals. Below we list the six questions used to construct R_k, $R_k>0$, S_k, $S_k>0$, R_p, $R_p>0$, and S_p, $S_p>0$. They were asked in the order we give but were not asked one after another.

(1) In 1987, did (you/your family living there) give any money toward the support of anyone who was not living with you at the time? What is that person's name? What is their relationship to you? How much money was it? (R_k, $R_k>0$)

(2) Let's start by talking about help in the form of time, either in an emergency or with everyday activities such as errands, housework, small repairs to a car or baby-sitting. In 1987, did (you/ your family living there) spend a lot of time helping your parents? About how many hours in 1987 did you or your family living there spend helping them?
(S_k, $S_k>0$)

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households in the matched sample. Due to a programming error 9 of the children who are matched to one parent appear in the sample twice, and 3 of the children who are matched to one parent appear in the sample three times, accounting for 15 additional observations. The summary statistics in Tables 1a and b, 2a and 2b, and Table 3a-d are correct.

(3) How about time they spent helping you? In 1987, did your parents spend a lot of time helping you or your family living there? About how many hours did they spend helping (you/your family living there)? (S_p, S_p>0)

(4) During 1987, did (you/your family living there) receive any loans, gifts, or support worth $100 or more from your parents? About how much were those loans, gifts, or support worth altogether in 1987? (R_p, R_p>0)

(5) During 1987, did (you/your family living there) receive any loans, or support worth $100 or more from a friend or relative, besides parents, who was not living with you at the time?

The respondent is then asked, "From how many people did you receive help?" They are asked the name and the relationship of each person and "About how much were (his/her) loans, gifts, or support worth altogether in 1987?"

(6) About help in the form of time, either in an emergency or with everyday activities such as errands, housework, small repairs to a car or baby-sitting. In 1987, did (you/ your family living there) spend a lot of time helping a friend or relative, besides parents, who was not living with you then? About how many hours in 1987 did you or your family living there spend helping them?

There are several points to make about these questions. First, question (1) and questions (5) and (6) are open ended about the relationship between the respondent and the donor or recipient, while (2), (3) and (4) single out the parents. Second, the "support received" questions (4) and (5) asks for loans, gifts, or support worth more than $100. Question (1) only asks about money. We argue in Appendix 1 that these differences may be partially responsible for the fact that the percentage of individuals who reported giving monetary support to their parents was much lower than the percentage who reported giving time or receiving either time or money (2.3% versus 29.3%, 28.6%, or 19.4% respectively). This conclusion is based on a comparison of information on R_p and S_p based on the responses by the children to (4) and (3) to the responses of the parents to (5) and (6) and a comparison of the information based on the above questions to information on income received from relatives that is based on another set of questions in the PSID.

Below we rely on the kid's reports of transfers. However, we believe that money transfers from kids to parents may be understated relative to money transfers from parents to kids and time transfers in both directions. Consequently, one must be careful in comparing the magnitudes of coefficients in the equations for money transfers to and from parents. A thorough study of the pattern of responses to the various questions about transfers would require a separate paper but deserves a high research priority.

3.3 Other Key Variables

A key variable used in our analysis is the permanent household income of individuals. This requires a history of family incomes and as such is available only for members of PSID sample households. Thus, we use this measure only in the matched sample. To construct this variable, we estimated gender specific regressions of log family income against a fourth order polynomial in age, a set of marital status dummies, year dummies, and counts of number of children. We computed the mean of the residuals from the regression for each person and added that to the prediction from the regression for a person who is aged 40, married, with no children. We included all years of data in which persons were a head of household or the wife of the head. Consequently, if a divorce occurs the data for women includes data from the years in which she is married as well as the later years, but the regressions control for marital status. We experiment with a variety of alternatives in constructing these measures, but a measure that is independent of marital status and other family demographics is a good place to start.[15] We call the permanent income Y_p in the case of parents and Y_k for kids. In Altonji et al (1995) we experiment with a third order autoregressive model to form a permanent income index and obtain similar results.

Since family income may reflect the asset income from past transfers, we also experiment with measures of permanent labor earnings of the husband and wife and permanent wage rates. We defer a discussion of these variables to the results section.

4. Descriptive Statistics on Transfers

Since the 1988 PSID transfer supplement is a new data set, we begin with detailed descriptive statistics on transfers and their determinants.

4.1 The Univariate Distribution of Transfers

In Table 1a we report the mean probability of a transfer and the mean, standard deviation, and the 5th, 25th, median, 75th, and 95th percentiles of the distribution of positive transfers. We also present corresponding statistics for R_p and R_k divided by parental income in 1988 by income of the kid in 1988. The results are based on the matched sample, and the parents are either the parents of the husband or the parents of the wife, depending upon whether the husband or the wife was a child in the original 1968 PSID sample. In Table 1b we present results from the sample of PSID household heads and wives who indicate that

[15] Since marital status is held constant in the permanent income definition, the coefficients on the marital status variables in the transfer regressions may be picking up the effects of variation in marital status related differences in permanent income on transfers, as well as the effects of variation in need, and/or variation in strength of ties between relatives. We do not stress the marriage coefficients in the current paper.

they have living parents, regardless of whether those parents are members of the PSID sample. In both tables we aggregate transfers received from and given to parents living separately, so each person with living parents appears only once in the sample used to compute that table. (In practice, this makes little difference).[16] We approximate a representative sample of independent children with one or more living parents by using the 1988 person weights in Tables 1a and b, Tables 2a and 2b, and Table 3a-3d. Statistics reported in the paper are based on unweighted samples unless we explicitly indicate otherwise. The multivariate analyzes are unweighted.[17]

In Table 1a for the matched sample only 1.7 percent of kids give money to the parent household ($R_k>0$). The unweighted fraction of parents who receive a transfer from at least one child is .043. The mean of R_k is 22.6 while the mean and median of the R_k when $R_k > 0$ are \$1,325 and \$500. When $R_k > 0$, the median and 95th percentile of the ratio of R_k to current income of the parents are .039 and .392. The 10th, median and 95th percentile of the ratio of R_k to income of kid are .016 and .148. Since R_k is positive for only 1.7 percent of the kid-parent pairs, the data on R_k suggest that few kids have much of an effect on the current income of their parents.

Money transfers from parents to kids (R_p) is positive in 24 percent of the cases. The overall mean transfer is 444. The mean and median of the positive transfers are \$1850.8 and \$500. When R_p is positive the median and 95th percentile of the ratio of R_p to the kid's 1988 income are .018 and .372 for the sample with positive income. Thus relatively few adult children are dependent upon their parents for a substantial part of their income.

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[16] In the full sample, married couples who are original sample members contribute two observations to the weighted estimates. One contains information on transfers from the husband's parents. The other contains information on transfers from the wife's parents. If the husband or the wife married into a PSID family, they have a person weight of 0 and do not contribute to the weighted sample statistics.

[17] It should be kept in mind that the parents and independent children in the matched sample are relatively young. The parents have a mean age of 58 and the children have a mean of 30. In the full sample, the mean ages of the kid and the parent are 35 and 62. Our multivariate analysis below (see Appendix 2) indicates that transfers from parents to kids decline with age of the kid and are not very sensitive to age of the parent in the range between 52 and 75. The probability and the average amount of a money transfer from kids to parents (including the 0 values) is positively related to age of the kid. Time transfers from parent to children declines with age of the kid, holding parent's age constant. Time transfers from kids to parents tend to fall with the age of the kid holding parent's age constant and to increase with age of the parent holding kid's age constant. It is worth noting that co-residence with parents is a major source of economic support for young adults and declines with age of the child. See Rosenzweig and Wolpin (1993, 1994). We should also note that very few of the sample members were students.

In the full sample 2.8 percent of the parent-kid pairs report transfers from the kid to the parent, and 20.3 percent of the parent-kid pairs involve money transfers from parents to kids. (Table 1b) The difference in the ages of the kids and parents in the two samples may partially explain the latter difference.

Help in the form of time is common in both directions. In the matched sample, 27.3 percent of the children report that they help their parents ($S_k>0$). The mean of S_k is 66.1 hours. Its mean and median among the positive cases are 242 and 100. The respondents report receiving help from their parents in 30.2 percent of the cases ($S_p>0$). The mean of S_p is 84.7 hours and the mean and median of the positive cases are 281 and 100 hours respectively. Thus, time help is quite substantial.

4.2 Transfers and Permanent Income of the Parent and Kid

Table 2b presents weighted estimates for the matched sample of the probability of transfers and the mean amount given a positive transfer by permanent income decile of the parent. In column 2 the probability of a transfer from the parent to the kid rises from .107 for the lowest decile to .225 in the 5th decile to .342 in the top decile. The mean of the transfers also rises with parental income, from 452 in the lowest decile to 3206 in the highest.

In column 4 the probability of transfers from the kid to the parent is much lower for parents above the 6th decile than for parents below. The probabilities are .030 and .043 for kids with parents in the lowest decile and .011 and .005 for parents in the 9th and 10th deciles. However, the size of the amount given a positive transfer tends to be higher for parents in the highest decile. It should be kept in mind that some of the parents who are estimated to have very high permanent incomes may have experienced negative income changes in the later years of the sample. (It should also be kept in mind that the means are based on very few observations in many cases given low probability of a money transfer from the kid to the parent.)

Column 6 of Table 2b shows only a weak negative relationship between parental income and the odds that kids receive time help from their parents. Table 2b shows that time transfers from kids to parents drop from a probability of .380 with a mean of 303 in the lowest decile to .221 with a mean of 154 in the top decile (columns 8 and 9). Taken at face value these simple tabulations do not support an "exchange" interpretation in which the money transfers from parents to kids implicitly are buying time transfers from kids to parents. We return to this issue below.

Table 2a breaks out transfers by the income decile of the kid household using the weighted matched sample. Columns 2 and 3 show that the probability of a transfer from the

parent to the kid changes little with the kid's income, although it is interesting to note that kids in the highest income decile have the highest probability of receiving a transfer (.290). There is a tendency for the amount of the transfers to increase with the kid's income. This simple tabulation is consistent with Cox's (1987) finding in a multivariate analysis that the relationship between the size of parental transfers and the kid's income is positive. However, we pointed out in Section 2 that pure altruism models are consistent with a positive association between the mean and the variance of parental transfers (conditional on a positive value) and kid's income if the marginal utility of income is decreasing and there is heterogeneity in preferences.

Columns 4 and 5 show that the probability and amount of transfers from kids to parents rise with kid's income. Columns 8 and 9 indicate that the odds of a time transfer from kids to parents declines from .368 for kids in the lowest decile to .185 for kids in the highest decile and that the mean value of the transfers also drops substantially from 455 to 233. The pattern is similar to the relationship between parental income and time transfers from kid to parents. Columns 6 and 7 show that time transfers from parents to kid drop with kid's income, although less sharply than the odds of a time transfer from kids to parents. The average amount of the transfers show a similar pattern for the time transfers from kids to parents.

4.3 Transfers by Income of the Kid and Income of the Parents

Tables 3a, 3b, 3c, and 3d present the transfer probabilities and average transfer amounts by income quintile of the parent (rows) and income quintile of the kid (columns). To save space we only the report the 1st, 3rd and 5th quintiles. Table 3a shows that $P(R_p>0)$ is negatively related to Y_k holding the parental income quintile constant, although Table 2a shows that there is a weak positive correlation if one does not hold the parent income quintile constant. The amounts show little relationship to the kid's income holding the parent's income constant, rising at first and then declining, in contrast to Table 2, where there is a fairly strong positive link between Y_k and R_p. Table 3a also show that parental income has a strong positive relationship with the transfer probability and with the transfer amount in the event of a positive transfer. Failure to control for kid's income makes less of a difference, which reflects the fact the direct effect of kid's income on the transfer probability and amount is less than the effect of parental income.

Table 3b shows that the probability and the mean positive transfer from kids to parents (R_k) rises with Y_k holding Yp constant. The relationship between $P(R_k>0)$ and Y_k is very strong for parents in the lowest income quintile and relatively weak for parents in the

3rd and 5th quintiles. Y_p has a strong negative relationship to the transfer probability and a weak negative relationship to the amount is unclear. The relationship between Y_p with Y_k held constant is unclear. The evidence suggests that parents get help from kids when the disparity of resources is large.

Table 3c shows that the probability and amount of time help from parents to kids (S_p) falls with Y_k. The probability does not have a clear relationship to parental income, and the amounts fall with parental income when Y_k is in the 3rd or 5th quintile. Table 3d shows that the probability and amount of time transfers from kids to parents (S_k) tends to decline with parent's income. The probabilities and amounts also to fall with Y_k holding Y_p constant.

We now turn the multivariate analysis.

5. The Effects of Income and Wealth on Transfers Between Parents and Kids.

5.1 The Probability of Money Transfers from Parents to Kids

Column 1 of Table 4 reports probit estimates for the matched sample of the effects of the permanent income of the kid and the parent on the probability that the kid receives money from the parent. All equations in the tables 4-7 control for marital status by gender and race of the kid, number of children in the household of the kid, an interaction between marital status and number of young children in the kid household, cubics in the age of the kid and the parent, and whether the parent in the parent household is the father or the mother interacted with marital status (divorced and single, divorced and remarried, widowed and single, widowed and remarried). The equations also control for whether the parent and kid live in the same residence, the kid's report of distance in miles from the parent household[18] and for the inverse of 1 plus the number of siblings that the kid reports. They also control for whether the parent is in a nursing home, whether the parent lives with another relative, and the health status of the kid and the parent at the survey date.[19] In Appendix Tables A2-2 and A2-3 we summarize the effects of these variables on the probability and amount of the transfers relative to a base case, since they may be of independent interest to some readers.

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[18] Distance is constructed from information on whether the parent lives in the same household, less than 1 mile, 1 to 10, 10 to 100, more than 100 miles. We obtain similar results for the income terms when we include dummies for the distance categories in place of the linear distance term.

[19] In earlier versions of this paper and in some of the models reported below we used information from the more detailed health status questionaire in 1986 to construct health categories. This had little effect on our main results. Since the health status information from 1986 is only available if the head of household did not change, when we use the 1986 information we include dummies for whether the head of household in the kid's household or in the parent's household changed since 1986 and set the health dummies to 0 in these cases.

In Appendix Table A2-1 we present the means of a large set of variables broken out by whether R_p, R_k, S_p, and S_k are greater than 0.

Rows 1 and 2 report the probit coefficient and standard error on the log permanent income of the kid (Y_k) for a model in which only the linear terms for the log permanent incomes of the kid and the parent are entered. The coefficient and standard errors are -.181 and .057. The corresponding coefficient and standard error on parent's income (Y_p) is .665 and .065. (Rows 7 and 8). Thus $P(R_p>0)$ rises with Y_p and falls with Y_k. However, the probability is much more sensitive to Y_p than Y_k.

To provide a sense of how the probabilities vary with income, we estimated a model with cubics in Y_k and Y_p. We used this model to evaluate the probability of a transfer at the 20th percentile, median, and 80th percentile of Y_k, the median of Y_p, and the mean of all other variables. The probability is .161 at the median, .188 at the 20th percentile and .137 and the 80th percentile. The probability is .096 at the 20th percentile of Y_p (and the mean of everything else) and .254 at the 80th percentile. These effects are large given that the probability at the median is only .161.[20]

In column 5 of the table we report estimates after substituting permanent log earnings for family income and adding cubic specifications for net assets of the parent and the kid (measured in 1984). Variation across individuals in age of retirement may weaken the link between earnings and permanent income for the parents. The probit coefficients on the earnings variables are a bit below the corresponding coefficients the family income. The 20th to 80th percentile differentials in the probability of a transfer are not sensitive to the measure of Y_k but are lower when earnings is used as the measure of Y_p.

Column 1 of Table 5 reports the effects of assets. Kid's assets have little effect, although the sign is negative. The negative sign for assets is qualitatively consistent with the effect of Y_k and earnings. Since assets of the kid, particularly early in the life cycle, may be heavily influenced by previous transfers, this coefficient is probably biased upward in the likely event that there are unobserved, serially correlated factors influencing transfers. Parent's assets have a substantial positive effect.[21]

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[20] We experimented with the use of the level of permanent income rather than the log. Once cubic terms are included the specifications are very comparable, although the log specification is much better when only linear income terms are included.

[21] The coefficient on parent's assets may be upward biased to the extent that parents accumulate assets in anticipation of providing transfers to children.

5.2 The Probability of Money Transfers from Kids to Parents

Column 2 of table 4 reports probit results for $P(R_k>0)$. The probit coefficient on Y_k is positive and approximately equal to and opposite in sign from the coefficient on Y_p. Using the equation with cubics in the income terms we find that the 20th to 80th percentile differentials in $P(R_k>0)$ are .005 for Y_k and -.01 for Y_p. These differentials are small in an absolute sense but are very large relative to the transfer probability at the median of the income variables and the mean of everything else, which is only .005. When earnings are used with controls for assets the effects are reduced, though not relative to the probability of a transfer at the median earnings levels. We obtained qualitatively similar but numerically larger results using linear probability models. This suggests that effects of income evaluated at the means are smaller than the mean effect of income.

In table 5, column 2 we find that the odds of a transfer from the kid to the parent declines with parental assets and increases with kid's assets. These results combined with the results from the previous table are consistent with a two sided altruism story. Our main finding is that resources of the kid raise the odds of a money transfer to the parent and that resources of the parent lower the odds of money transfers. The effects of changes in relative income and assets of the parents and kids are small in absolute terms but large relative to the probability of a transfer from kids to parents evaluated at the means. It is likely that the absolute magnitudes are understated relative to the coefficients on transfers from parents to kids because of the difference in survey questions discussed earlier.

5.3 The Probability of Time Transfers

Table 4, column 3 shows that Y_k and Y_p have a statistically and economically insignificant relationship with time transfers from parent to kids (S_p). We draw a similar conclusion when earnings are used (column 7). Using the model in column 4 we find that 20th to 80th percentile difference in parental assets is associated with an increase in time transfers of .08. Kid's assets have essentially a 0 effect (Table 5, column 3).

The corresponding results for time transfers from the kid to the parent in Table 4, column 4 indicate that both kid's income and parental income have a weak negative relationships to the transfer probability. Using the cubic income specification we find that the 20 to 80th percentile difference in the probabilities is -.026 for parental income and -.017 for kid's income. The results for parental income seem inconsistent with a strategic exchange motive in which money transfers from parent to kid buy time transfers from the kid to the parent. Using the model with both earnings and assets we find that parental assets raise time transfers, but so do the assets of kids. (Table 5, column 4)

5.4 Tobit Results:

Tables 6 and 7 use Tobit models to analyze the effect of income and wealth of parents and kids on the magnitude of transfers.[22] For both kid's and parent's income, the tables report the Tobit index coefficients and standard errors for Y_k and Y_p based on a linear specification. The sign patterns and relative magnitudes of the effects of Y_k and Y_p are similar to the probit models (as they almost have to be). The signs of the derivatives of the Tobit index for R_p and R_k with respect to Y_k and Y_p are consistent with altruism in the sense that transfers flow from rich to poor. However, Altonji et al (1995) points out that the difference between these derivatives is only about 1/10th as large as the value of 1 implied by the basic altruism model in which households care about their own consumption and the utility of others.

Using the equation with cubics in the income terms we find that the 20th to 80th percentile differential in R_k (including 0 transfers) is -103 for Y_k. This large relative to the conditional mean of R_k evaluated at the median of Y_k, which is $343. The corresponding 20th to 80th percentile differential in R_k is $560 for Y_p. It is interesting to note that the income and wealth variables have trivial effects on estimated transfers from kids to parents but substantial effects on the size of the transfer if one occurs. The other main result is that the effects of Y_p and Y_k on time transfers are small relative to the mean values for these variables.

Ionnides and Kan (1993) and to a lessor extent Shoeni (1993) use the 1988 transfer supplement to examine effects of income and wealth of the parents and children on money and time tranfers from parents to children and children to parents. Shelton and Sueyoshi (1994) present a somewhat similar analysis using the panel data on help from relatives and a matched sample of parents and children. The results of these studies indicate that parental income has a positive effect on the probability and the amount of transfers from parents to kids and a negative effect on transfers of money from kids to parents. The studies also show that kid's income reduces the probability and the amount of money transfers from parents to kids and raises the probability and amount of transfers from kids to parents.

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[22] In Altonji et al (1995) we point out that the Tobit model is an inappropriate model for transfers, particularly money transfers, because transfers are unlikely to be additively separable in income and unobserved heterogeneity in preferences and needs. We use a new estimator that can handle arbitrary nonlinearity in the observables and the errors and does not require normality. We stick with the Tobit here because it is a standard method, is easy to use, and is adequate for the descriptive analysis in the current paper.

5.5 Other Experiments

1. The Effects of Current Income Current income of the kid or the parent might matter (controlling for permanent income) if family money transfers are used to smooth household income over time. They might play this role if access to credit markets is limited. In Table 8 we add current nonasset income to probit models that include permanent income and assets. Row 1 and Row 6 report the coefficients on the current income of the child and the parent respectively from an equation that only included the linear terms in current income, permanent income, and assets. In the equation for $P(R_p>0)$ we obtain a positive, statistically significant effect of Y_{kt}. The probit coefficient is -.0044 (.0021). This coefficient is about double the effect of permanent income holding current income fixed, although one would combine the coefficients to get at the total effect of a shift in permanent income. The results in rows 2-5 and 7-10 are based on a nonlinear specification that includes cubics in Y_{kt} and Y_{pt} as well as the product of Y_{kt} and Y_{pt}. These imply that an increase in Y_{kt} from the 20th percentile to the 80th would shift the probability of a transfer from .176 to .116. In the linear specification Y_{pt} has a coefficient of .0036 (.0011), which is less than half of the coefficient on Y_p. The Tobit coefficients for the linear specification in Table 9 also show that the ratio of the coefficients on Y_{kt} and Y_k is 2.3, while the ratio of the coefficients on Y_{pt} and Y_p is .2. The fact that current income of the child plays a more important role than the permanent income, while the opposite is true for Y_p and Y_{kt} is consistent with the view that liquidity constraints are more important for young than old persons.

We now turn to the effects of Y_{kt} and Y_{pt} on money transfers from kid to parent. The coefficient on the Y_{kt} is .0084 (.0036). The coefficient on Y_{pt} is -.0044 (.0047), which is not significantly different from 0. The results in rows 2-5 and 7-10 are based on a nonlinear specification that includes cubics in Y_{kt} and Y_{pt} as well as the product of Y_{kt} and Y_{pt}. They suggest that a shift in Y_{kt} from the 20th to the 80th percentile has a small positive effect on the transfer probability, holding Y_k and A_k. A corresponding increase in Y_{pt} has a small negative effect on the probability of a transfer. The Tobit estimates in Table 9 also point to a small statististically significant, positive effect of the Y_{kt} on R_k and a smaller, statistically insignificant negative effect of Y_{kt}.

The fact that Y_{kt} has an important role in the equation for R_p provides some evidence that transfers play a role in smoothing income, as one might expect if liquidity constraints or intertemporal risk sharing are important.[23] One would need a model of how our current

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[23]. We are not distinguishing very carefully here between myopic Keynesian behavior and the behavior of rational, forward looking consumers who face liquidity constraints. See Zeldes (1989). The

income and permanent income measures are related to future income expectations to provide a full interpretation of these coefficients. [24] It is possible, for example that kids with high current income relative to Y_k, which is based on incomes in 1988 and prior years, have unusually high lifetime incomes and receive lower transfers as a result. Rosenzweig and Wolpin (1993 and 1994) and Dunn (1993) provide evidence that current income of the kid is negatively related to money transfers using a fixed effects methodology to control for permanent income of the kid and parent.[25] They do not find a role for current income of the parents, in contrast to our results here.

In some models we excluded the current income term and added add hours of unemployment and a dummy for whether hours of unemployment exceeded 1,000 hours. The variables do not have a significant effects in the probit and Tobit models for R_k and R_p. (See Appendix Tables A2-2 and A2-3).[26]

2. Transfers and Home Purchases:

Finally, we investigated the issue of liquidity constraints by adding dummy variables for whether the kid moved from rental housing to home ownership between the 1986 and 1987 surveys or between the 1987 and 1988 surveys to our a linear probability model of $P(R_p>0)$ containing the other variables in our basic specification, along with a control for home ownership at the survey date in 1988. The probability of receiving a transfer is actually .062 lower (with a t value of 1.75) for persons who moved from rental housing to home ownership between 1986 and 1987. The coefficient on the dummy for whether the person became a homeowner between 1987 and 1988 is essentially 0 with a standard error of

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specifications and samples underlying these linear probability models differ slightly from those in Tables 6 and 7 due to missing data on current income in some cases. .

[24]. Rosenzweig and Wolpin (1994) present evidence that declines in earnings of young men increase the odds that they receive a transfer from or co-reside with parents. Thus far we have largely ignored the issue of co-residence, but the fact that children are not fully surveyed in the PSID until they become heads or wives in a separate household limits the use of the PSID for the study of co-residence with parents for young men and women. One can examine the probability of returning to live with parents or elderly parents going to live with independent children.

[25] We cannot include fixed effects for individuals because we lack panel data on transfers from parent to kid. One could used fixed effects in an analysis of the "help from relatives" data.

[26] More generally, one could examine whether the family responds differentially to particular components of permanent income and shocks to income over time, and whether these responses are influenced by social insurance programs. Shoeni (1993a, 1993b) addresses issue of whether public transfers crowd our private transfers.

.032. The result that transfers from parents to kids do not tend to coincide with moves from rental housing to home ownership is surprising. It would seem to contradict casual empiricism suggesting that parents play an important role in the financing of first home.

5.6 Wage Rates

A variety of models suggest that the value of time, as measured by the wage rate, will be negatively related to time transfers provided one holds the marginal utility of income of the household constant. The models suggest that time transfers should be positively related to the price of time of the recipient household. In Table 10 we add the current log wage of the head and of the wife in the of child's household, a dummy variables for whether the head worked positive hours and a dummy for whether the wife worked positive hours to probit models for $P(S_k > 0)$, Prob $(R_k>0)$, and Prob $(R_p>0)$, along with detailed controls for other characteristics of the child and parent household. The head's wage term and work dummy variables are set to zero if the head did not work. The wife's wage and work dummy variables are set to 0 if the kid is not married. We also added similar wage and work hour dummies for the parent (either the father or mother when only one parent is present and the father when both are present) and for the mother (zeros if the mother does not work and/or if the mother and father are not living together.) The equations contain detailed controls for marital status of the child and the parents, so the coefficient on whether the wife works is the effect of working controlling for whether the wife is present. It should also be kept in mind, however, that the wage coefficients combine income and substitution effects, which complicate their interpretation. We are not holding the marginal utility of income constant.

Table 10 reports the derivatives of $P(S_k>0)$ evaluated at the unconditional probability of $(S_k >0)$. Since the coefficient on whether the wife worked is -.0194 and the coefficient on the log of the wife's wage is .0051, the results imply the women with a log wage rate of less than -.0194/.0051 = 3.804, or a wage rate of 44.9 per hour provide less help if they work. However, the point estimate of the effect working is trivial for a women earning $10.00 per hour. (-.0194 + .0051*log(10)= .0073), and the coefficient on the wife's wage has the wrong sign from the point of view of time transfers based on comparative advantage in an altruism framework or selfish exchange. On the other hand, the coefficient on whether the head works is .1048 (.0422) and the coefficient on the log wage of the head is -.0544 (.0149). While these effects are substantial and the wage coefficient has the right sign, they imply that the transfer probability is .020 higher for a head earning $10.00 per hour who works than for a head who does not work. A 50% increase in the wage, which is large relative to most

estimates of the return to 4 years of college for the PSID sample, lowers the time transfer probability by only .022.[27]

The parents' wage rates do not have statistically significant effects on $P(S_k > 0)$.

6. Competition and Coordination Among Siblings

In Table 11 we report linear probability models with a fixed effect included for each parent household in 1988. These model control for all additive factors that are common to the parent, including the average income and average needs of parent's children. The coefficient on Y_k rises in absolute magnitude relative to what one obtains if one estimates the linear probability model with fixed effects excluded. This would be expected if parents use transfers to equalize income and if the more well to do kids assume a larger share of support for a parent. Dunn (1993) estimates fixed effects Tobit models and obtains findings that are qualitatively consistent with ours.

Our findings for inter vivos transfers contrast with the findings of Menchik (1980) and Wilhelm (1991) indicating that bequests are typically divided equally. There are a number of interesting explanations for why parents may treat inter vivos transfers and bequests differently. In particular, bequests are public while inter vivos transfers are not. Nevertheless, the relatively small size of the coefficient on Y_k and Y_{kt} in the Tobit models that also include the mean of Y_k across siblings suggests that parents perform only a modest redistribution of income among siblings. (not reported)

Since there are well know problems with the fixed effects linear probability model, we estimated a conditional logit model of $P(R_p>0)$ (Chamberlain (1984)) that controls for family effects that are common to siblings.[28] The results are reported below.

Conditional Logit Estimates of the Effects of Y_k and Y_{kt}-Y_k on log $(P(R_p>0)/(1-P(R_p>0)$ (standard errors in parentheses)		
Y_k	-.686 (.172)	-.606 (.183)
Y_{kt}-Y_k		-.687 (.174)

[27] We also estimated models using wages and a work dummy for the heads of the parent and child and for the spouse of the parent and child households (set to 0 if spouse not present), with qualitatively similar results.

[28] We thank Lew Segal for providing us with a program to compute the conditional logit model in the presence of different numbers of siblings per family.

The coefficients are in the log odds metric, which is hard to interpret. However, they indicate that both the relative permanent incomes of siblings and the relative difference between current income relative to permanent income are negatively associated with the relative probability that the siblings will receive a transfer.

We have also added the average of the permanent incomes of siblings to linear probability models and probit models of the transfer probabilities on the subset of kids who have at least one sibling in the matched sample. Using a linear probability model containing controls that are similar to those used in Table 4 and 5 we obtain coefficients of -.057 (.015) on Y_k, .166 (.017) on Y_p, and .042 (.018) on the average of Y_k across siblings. For the same specification and sample, the coefficients on Y_k and Y_p are -.044 and .171 when we exclude the average. The change in the coefficients illustrates the potential for bias in analyses of family transfers when the resources of some members of the extended family are not controlled for. We obtain the same pattern using a probit specification with only linear terms in Y_p, Y_k, and the average of Y_k across siblings included. In a Tobit model the coefficients on Y_k, Y_p, and the sibling average are -885, 3517, and 598, but the latter variable has a p-value of only .156.These results are consistent with the fixed effects results suggesting that transfer flows between parent and kid depend on the relative needs and resources of other family members.[29] However, the average sibling income is not statistically significant in probit and Tobit equations for R_k, although it does enter with the correct sign.

In Table A2-2 and Table A2-3 we report estimates of the effect of number of siblings on the probability a transfer and the amounts. The tables report the effect of having no siblings and having 4 siblings relative to having 2 siblings. The probability of receiving a transfer is much higher for only children. The probability of receiving a time transfer is also higher for only children. The same is true of the amounts, including (including the zeros.) However, the number of siblings has no effect on the probability of a money transfer to the parent, and only a weak positive effect on the average time transfer to the parent. Using the mean transfer amount for the base case reported at the top of Table A2-3 one can compute the effect of number of children on total money transfers received and transfers provided by

[29] Many of the parents in our sample have living parents who they may have to support. We found little evidence that time or money transfers between parents and adult children were affected by whether the grandparents are alive.

the parent. The estimates imply that money transfers rise from 585+646 for a parent with one child to 5*(585-129)=2,280 for a parent with 5 children. Time transfers from the parent rise from 78 + 53 hours to 5*(78-11)=335 hours. The Tobit estimates for S_k and R_k imply that parents with more children receive more substantially more time and money.

7. The Effects of the Relative Incomes of Parents and In-Laws on Transfers

Little is known about whether the relative incomes of parents and parents-in-law affect the level of support provided to and from them. This underlies the issue of whether the altruistic links from each set of parents to their children lead to indirect links between parents and in laws. In table 12 we report linear probability models of $R_p>0$, $R_k>0$, $S_p>0$ and $S_k>0$ that account for child specific fixed effects by differencing across the observations involving husband's parents and wife's parent. We work with married couples in the full sample. The couples are included if both the husband and wife have at least one living parent and if neither the husband or wife have parents who live separately. We simply difference the transfer indicators and explanatory variables and estimate by least squares. The incomes of the parents are reported by the kids, so downward bias from measurement error may be serious problem. Since the correlation between the child's report of parent income and parent's income is about .5, the usual measurement error correction under the assumption of independence in the reporting errors and independence in the true incomes would approximately double the income coefficients. The appropriate correction would be reduced if the measurement errors are positively correlated but would be increased by the fact that the incomes of inlaws have a fairly strong positive correlation (See Altonji and Dunn (1991). [30]

The results in column (1) of Table 12 show that the difference in the incomes of the husband's and wife's parents is positively related to the difference in the probability that they receive money transfers. The results in column (2) indicate that differences in the incomes of the two sets of parents are negatively related to the difference in the probability that they provide money transfers. An interesting question for future research is whether part of the income transfer from one st of parents is in effect "transferred" to the in-laws by the children.

Finally, we find that the income difference has a negative but statistically insignificant relationship to the difference in probability of time transfers (see columns 3 and 4). This is

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[30]. For the matched sample, the coefficient in a regression of the parents' report of income in 1988 on the child's report is .48. The correlation the child's report of income in 1988 with the parent's permanent income is .31) One might be able to devise a correction or IV procedure by exploiting the fact that we have multiple reports on the income of some parents from siblings and the parent's own reports for the matched sample, but we have not done so.

consistent with the results in Table 4 and Table 5 and seems at odds with the selfish exchange model.

These models also contain the difference in a dummy variable that is 1 for the parents of the husband and 0 for the parents of the wife (ΔPAR_O_S). A negative coefficient on this variable in the equations for $\Delta P(R_p>0)$ and $\Delta P(S_p>0)$ would indicate that the parents of the husband are less likely to give transfers than the parents of wife. A negative coefficient on this variable in the equations for $\Delta P(R_k>0)$ and $\Delta P(S_k>0)$ indicates couples are more likely to give transfers to the husband's parents than the wife's parents, everything else equal. The coefficient on the variable is -.0715 (.0133) in the equation for $\Delta P(S_p)$, which indicates that the parents of the husband are substantially more likely to provide time help. (Recall that the unconditional probability of receiving time help is about .30). The variable is small and statistically insignificant in the equations for the other transfer measures, including S_k. We would have expected the children to provide more time help to the wife's parents, everything else equal.[31]

The coefficient on ΔKRPDIST indicates that parents who live farther from the child have a slightly lower probability of giving money. The difference in $P(R_k>0)$ between when one set of parents lives 300 miles away and the other lives 1 mile away is -.024 (.015). The corresponding difference in $P(S_p>0)$ and in $P(S_k>0)$ are much larger: -.147 (.016) and -.153 (.017). If time transfers are made in exchange for money, then one would expect a sharper drop in $P(R_p>0)$ as distance makes time transfers more difficul. While it is logically possible to argue that the monetary value of the time transfers does not vary with distance despite the steep drop off in transfer incidence and transfer hours, this seems far fetched, especially given other results below which indicate that time transfers to the parents have little connection to money transfers from the parents.

We have also used the conditional logit model as an alternative approach to controlling for unobserved error components and the resources of the household and as a check on the sign pattern and statistical significance of the linear probability model results. We obtain the same sign pattern, and the t-statistics are also very similar to what we obtain with the linear probability models. The results are omitted to save space.

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[31] Note, however, that these equations do not control for difference between the parents of the husband and wife in the number and gender composition of children. Assuming that the gender of siblings is approximately independent, the parents of the wife are no more likely to have another daughter who could care for them than the parents of the husband. The PSID data does not identify whether the time help is provide by the husband or the wife.

8. Do Relative Incomes of Divorced Parents on Transfers Affect Who Gives and Receives Transfers from Kids?

The linear probability models in Table 14 relate differences between divorced fathers and mothers in the probability of giving or receiving a transfer to the characteristics of the parents. There are three main results. First, all four transfers are much more likely to involve mothers than fathers. The difference is particularly large for $P(S_k>0)$ if the mother has not remarried. Second, the pattern of the coefficients on distance from parents is similar to the pattern for parents and parents-in-law for married couples in Table 13. In particular, there is no evidence that money transfer from the parents buy time transfers from the child. Third, the relative resources of the parents matter. The difference in the current incomes of divorced parents is positively related to the difference in the probability that they provide money to the kid (column 1) and negatively related to the difference in the probability that they receive money from the kid. (column 2) Only the latter effect is statistically significant. The difference in current incomes has a small and statistically insignificant effect on the difference in probabilities of help in the form of time from parents to kid or from kid to parent (column 3 and 4). These results confirm a main theme of the paper, which is that money transfers tend to compensate in part for income differences among relatives. We obtain qualitatively similar results using conditional logit models. (not reported.)

9. The Interrelationship between Time and Money Transfers

As a crude attempt to look at the links between time and money transfers, we added the dummy variables for $(S_p > 0)$ and $(S_k > 0)$ to probit and tobit models of $R_k > 0$, $R_p > 0$, and added $R_k > 0$, $R_p > 0$ and $S_p > 0$ $(S_k>0)$ to the model for $S_k > 0$ $(S_p>0))$. The models are otherwise the same as those underlying columns 1 to 4 of table 4 when only the linear terms in Y_p and Y_k are entered. The results are reported in Table 14.

There are two strong results. The first is the strong positive association between time transfers received and time transfers given. For example, in the Tobit model for S_p the coefficient on $(S_k > 0)$ is 613, and in the Tobit model for S_k the coefficient on S_p is 508 (31). This has an altruism interpretation if parents and kids get utility from helping each other or an altruism/exchange interpretation if (1) parents have a comparative advantage in certain tasks relative to kids and (2) market alternatives are a poor substitutes for help from family members. Second, persons who provide (receive) money also tend to provide (receive) time, although the effects are not always statistically significant. Finally, the effect of R_p on S_p is much stronger than the effect on S_k, and $S_k > 0$ actually has a negative effect on $P(R_p>0)$ and

R_p. One interpretation of these results is that there is variation across families in the extent to which parents and kids are altruistically linked. Those with strong links provide time help in both directions and money help from the most needy to the least. An explanation that involves money transfers paying for time transfers is less obvious given that the time transfers go in both directions, and the negative coefficient on S_k in the equations for R_p.

One may control for the needs, preferences, and resources of the child by adding $\Delta(S_p>0)$ and $\Delta(S_k>0)$ to differenced linear probability model for money transfers from parents and parents-in-law discussed above. The coefficient on $\Delta S_p>0$ is .11 (.041), indicating that money transfers are much more likely in the presence of time transfers from the same parent. However, the coefficient on $\Delta(S_k>0)$ is only .012 (.78). These results are fully consistent with those in the Table 13.

10. Conclusion

In this paper we use the 1988 PSID to study the effects of income and wealth on transfers of money and time between individuals and their parents as well as the effects of incomes of other relatives on these flows. We relate the relative incomes of parents and parents in-law to transfer amounts given and received by married couples. We also study how the relative incomes of divorced parents affect transfers. We find that money transfers tend to reduce inequality in household incomes and that time transfers are only weakly related to income differences. Richer siblings give more to parents and receive less. Among parents and parents in-law the richer set of parents is more likely to give money and less likely to receive money. The same is true of divorced parents. In contrast to simple exchange models of transfers, there is little evidence in the cross section section or in our analyses of siblings that parental income or wealth raises time transfers from children or that time transfers are exchanged for money transfers. And in the both the cross section and among siblings, the strong negative relationship between time transfers and distance from parents is not associated with a strong negative relationship with distance and money transfers.

Our results and those of other recent studies suggest several stylized facts about family transfers in the U.S.. The first is that money transfers tend to flow from rich to poor within the extended family. The second fact is that magnitude of the response of transfers to differences incomes is small. The third is that time transfers are common and flow in both directions. The fourth stylized fact is that time flows decline sharply with distance but money flows do not. The fifth is that time flows from the children do not tend to be accompanied by money froms from the parent, and vice versus. There is some evidence that

parents who give money are also likely to give time. Sixth, transfers are more responsive to the current income of the child than to the permanent incomes. Seventh, the data are not generated by unidirectional altruism.

While purpose of the paper is to help develop a solid empirical foundation for modelling economic relationships between parents and children rather than to formally test alternative structural models of the family we close the paper with a few comments on what the results seem to imply. At first glance, these facts would seem to square pretty well with an altruism model in which households are maximizing utitility functions defined over their own consumption and the utility of others. There is little evidence, at least for the U.S., that money transfers are an implicit payment for services. However, in Altonji et al (1994) we point out that fact 2 is a serious problem for such an altruism model, because the responsiveness of transfers to income is an order of magnitude smaller than the prediction of a model in which preferences depend on the consumption of one's own household and the utility of others. There are a number of possible modifications to the basic altruism model that would help square the results with the facts. These include the possibility that parents have little information about the needs of their adult children, jealousy or envy on the part of siblings who learn that they have received less money than their siblings, the negative incentive effects of providing too much income security, or the possibility that bargaining costs when there are multiple siblings lead to inefficient outcomes. We explore some of these modifications in Altonji et al (1995) and conclude that none of them are enough to save the basic model. However, we are still in the early stage in the development of empirically tractable models of strategic altruism as well as alternative models of family behavior which shair some of the predictions of the altruism model regarding redistribution of resources and the provision of resources.[32] The challenge is to find a parsimonious models that can fit the facts at each stage of the lifecyle.

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[32] See for example, the work on insurance arrangements by Foster and Rosenzweig (1995)and Urdry (1994) and Thomas and Worral. Cigno (1995) discusses a model in which families manage to organize an efficient allocation of resources through an implicit contract, which he calls a "family constitution". This model shares many of the implications of the altruism model, but the constraint that the contract be incentive compatible might weaken the strong predictions of the altruism model regarding the magnitude of the response of transfer amounts to relative incomes implied by an altruism model. Note that altruism models imply that households will redistribute permanent endownments (such the rewards to innate ability) , as well as pool risks, with the incidence and extent of re-distribution of endowments depending on preferences and the distribution across households of income and needs. It is less clear how future redistribution among siblings or between parents and children of the exogenous components of initial endowments of children who have not been born can be contracted on in society such as the U.S., either implicitly or otherwise, without altruism. The results in Altonji et al (1992) suggest that such redistribution is quite limited.

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Appendix 1:
Comparisons of Alternative Measures of Family Transfers

We use the matched sample to check on whether the form of the question about money given affects the responses. Parents and kids in our matched sample responded to question (5), which asks whether they received money from other individuals (other than parents) and asks them to identify donor. They also responded to questions (1) and (6) which ask about help provided in the form of money and time and identifies who the recipient is. We find that responses to the more general questions are less likely to identify a transfer received or given than responses to the questions which single out parents as potential recipients or donors. The parents report giving money to the kid (question 1) in 4.1 percent of the parent-kid matches while the kids report receiving money (question 4) in 19.4 percent of the matches. The parents report giving time help to the kid (question 6) in 5.5 percent of the matches, while the kid reports receiving time help from the parent household in 29.3 percent of the matches. Only 3.2 of the parent households reported receiving time help from the kid household (question 5), while kids report giving time help the parent household in 28.6 percent of the matches. There is a clear positive correlation between the parent reports and the kid reports.

We have also examined the relationship between the 1988 transfer supplement data and responses to questions about income received by the head of household and spouse (if present) in 1987 that was "help from relatives". This that was asked in the 1988 survey and many earlier surveys. The specific relationship between the donor and recipient is not identified. The unweighted fraction of the kids who reported help from relatives in 1988 is only 6.4%, which is less than a third of the fraction who report help from parents. However, 63.7 percent of those who reported help from relatives also reported receiving money from parents. Only 2.6 percent of the parent households reported receiving help from relatives, but the percentage is 18.2 percent among parents whose kids reported giving money to the parent household.[33]

Overall, the cross tabulations of the information bases on the "help from relatives" questions and the responses to the 1988 transfer supplement suggest that questions that do not identify the donor or recipient lead to lower response rates, and that the measures of the monetary transfers are rough.

Appendix 2: Other Determinants of Transfers

Table A2-1 and A2-2 respectively we report estimates of the effects of a various control variables used in our analysis on the probability of transfers and the amount of transfers. The estimates in Table A2-1 are based on a probit model. The estimates in Table A2-2 are based the effects on the expected value of the transfer amount (including 0 transfers) and are derived from Tobit estimates. In both tables the estimates are relative to the transfer probability for a 30 year old white married male with two siblings, no kids, good health, a permanent household income of $45,000, and no unemployment who has married

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[33]. The help received by the parent could come from a different kid. 36.8 percent of the parent households who reported receiving monetary help from the kid also reported receiving financial help from relatives.

60 year old parents in average health with a permanent income of $48,000, was not unemployment in the prevous year, lives 140 miles away and is not in a nursing home or living with a relative. In Table A2-1 we report weighted means of a wider class of variables for matched sample broken down by transfer status. Most of the variables are used in the multivariate analyses below. Column 1 presents the means for all observations in the matched sample. In column 2 and 3 we contrast the means for parent-kid pairs in which the parents give money to kids and those who do not. Columns 4 and 5 contrast the means for kids who received money parents and those who do not. Columns 6 and 7 contrast the means for pairs in which the kid did and those who did not spend time helping their parents. Columns 8 and 9 report the means for pairs in which the parent did and did not receive time help from the kid. Table A2 provide weighted means for the subset of variables that are available for the full sample. Space precludes a detailed discussion of these tables. However, marital status of the parents, gender and age of the child, health of the parent, and distance from the parent play important roles. See Shoeni (1993) for a discussion of evidence from the PSID and other studies. [34]

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[34]. See Cox and Raines and Cox (1987) for descriptive statistics on determinants of money transfers from the President's Commission on Pension Policy data set, Gale and Sholz (1994) for descriptive statistics on money transfers from the Survey of Consumer Finances, and Rosenzweig and Wolpin (1993, 1994) and Dunn (1993) from the NLS.

Table 1a

Distribution of Positive Transfers, Matched Sample[a]

	Fraction > 0	Mean	Mean > 0	Std Dev > 0	Percentiles 5th	25th	50th	75th	95th	100th
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Money transfers										
parent to kid	0.240	444.06	1851	5153	100	200	500	1200	6000	50000
Ratio to current income										
kids		0.020	0.081	0.218	0.000	0.006	0.018	0.051	0.372	2.314
parent		0.012	0.051	0.185	0.000	0.004	0.013	0.035	0.189	3.084
Ratio to permanent income										
kids		0.009	0.038	0.099	0.000	0.004	0.009	0.023	0.157	0.957
parent		0.006	0.024	0.062	0.000	0.003	0.007	0.017	0.089	0.659
Money transfers										
kid to parent	0.017	22.64	1325	1920	150	200	500	1500	7000	10000
Ratio to current income										
kids		0.001	0.039	0.060	0.000	0.007	0.016	0.034	0.148	0.331
parent		0.003	0.171	0.309	0.000	0.018	0.039	0.125	1.019	1.269
Ratio to permanent income										
kids		0.000	0.023	0.036	0.000	0.004	0.010	0.023	0.106	0.191
parent		0.001	0.033	0.053	0.000	0.007	0.013	0.030	0.178	0.407
Time transfers										
parent to kid	0.302	84.74	281	510	10	40	100	260	1105	4000
Time transfers										
kid to parent	0.273	66.14	242	383	15	48	100	250	1040	4000

a) Estimates are weighted using the person weights of the children.

Table 1b

Distribution of Positive Transfers, Full Sample[a]

	Fraction > 0	Mean	Mean > 0	Std Dev > 0	Percentiles 5th	25th	50th	75th	95th	100th
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Money transfers										
parent to kid	0.203	375.78	1848	5007	100	240	500	1200	6000	50000
Ratio to current income										
kids		0.014	0.070	0.203	0.000	0.004	0.014	0.041	0.333	2.765
parent		0.013	0.050	0.186	0.000	0.004	0.013	0.035	0.182	3.084
Ratio to permanent income										
kids		0.007	0.034	0.093	0.000	0.003	0.008	0.021	0.142	0.957
parent		0.006	0.023	0.061	0.000	0.003	0.007	0.017	0.085	0.659
Money transfers										
kid to parent	0.028	48.93	1779	3509	100	280	600	1800	7000	24000
Ratio to current income										
kids		0.001	0.028	0.046	0.000	0.005	0.012	0.027	0.142	0.267
parent		0.003	0.160	0.301	0.000	0.012	0.036	0.125	1.019	1.269
Ratio to permanent income										
kids		0.001	0.022	0.047	0.000	0.003	0.009	0.021	0.091	0.369
parent		0.001	0.031	0.052	0.000	0.005	0.010	0.030	0.178	0.407
Time transfers										
parent to kid	0.235	66.38	282	503	10	40	100	260	1161	4000
Time transfers										
kid to parent	0.273	80.18	293	493	15	50	104	300	1095	4000

a) Estimates are weighted using the person weights of the children.

Table 2a

Probability of Transfer and Mean Transfer Amount by Permanent Income
Weighted Estimates from Matched Sample

	average income	prob. of money transfer parent to kid	average money transfer parent to kid if > 0	prob. of money transfer kid to parent	avg. money transfer kid to parent if > 0	prob. of time transfer parent to kid	avg. time transfer parent to kid if > 0	prob. of time transfer kid to parent	avg. time transfer kid to parent if > 0
perm. income decile of child	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
lowest	18456	0.258	1295	0.009	345	0.354	426	0.368	455
second	29186	0.270	1055	0.014	351	0.309	305	0.285	228
third	35936	0.200	1159	0.014	1920	0.298	286	0.313	206
fourth	42193	0.269	1600	0.019	414	0.265	404	0.303	164
fifth	47266	0.246	3499	0.006	1858	0.312	318	0.258	219
sixth	52218	0.190	2507	0.010	689	0.339	226	0.263	182
seventh	58373	0.212	1569	0.022	1434	0.310	223	0.286	207
eighth	65851	0.230	1392	0.021	3618	0.257	239	0.217	302
ninth	76302	0.236	2066	0.018	1136	0.307	189	0.258	172
highest	103508	0.290	2350	0.037	979	0.270	174	0.185	233
total	52926	0.240	1851	0.017	1324	0.302	281	0.273	242

Note: Permanent income deciles of the child as well as all averages and probabilities are constructed using the person weights of the child.

Table 2b

Probability of Transfer and Mean Transfer Amount by Permanent Income
Weighted Estimates from Matched Sample

	average income	prob. of money transfer parent to kid	average money transfer parent to kid if > 0	prob. of money transfer kid to parent	avg. money transfer kid to parent if > 0	prob. of time transfer parent to kid	avg. time transfer parent to kid if > 0	prob. of time transfer kid to parent	avg. time transfer kid to parent if > 0
perm. income decile of parent	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
lowest	22764	0.107	452	0.030	871	0.314	255	0.380	303
second	32686	0.137	645	0.043	1060	0.273	435	0.311	361
third	39556	0.189	1986	0.024	3006	0.301	313	0.238	313
fourth	45907	0.191	1007	0.024	525	0.348	333	0.285	241
fifth	51922	0.225	1541	0.018	2288	0.351	417	0.266	238
sixth	58112	0.239	1285	0.010	979	0.293	337	0.268	227
seventh	65081	0.289	718	0.003	500	0.281	174	0.262	139
eighth	74284	0.303	2242	0.007	491	0.273	188	0.228	206
ninth	86699	0.337	2767	0.011	1371	0.339	195	0.253	200
highest	127674	0.342	3206	0.005	1500	0.265	160	0.221	154
total	62584	0.240	1851	0.017	1324	0.302	281	0.273	242

Note: Permanent income deciles of the parent are constructed using person weights of the parent household, but average income and probabilities are calculated using the person weights of the child.

Table 3a,3b,3c,and-3d: Probability of Transfer, Mean Transfer Amount, and Sample Size by Parent's and Child's Permanent Income Quntiles. First, Third, and Fifth Quntiles Only

Table 3a: MONEY TRANSFERS FROM PARENTS TO KIDS

		permanent income quintile of child		
		lowest	third	highest
permanent income quintile of parent				
lowest	probability	0.140	0.113	0.177
	average amount	474	1144	780
	sample size	545	169	60
third	probability	0.277	0.231	0.187
	average amount	693	2123	1685
	sample size	176	143	111
highest	probability	0.499	0.322	0.350
	average amount	2612	4003	3372
	sample size	66	104	185

Table 3b MONEY TRANSFERS FROM KIDS TO PARENTS

		permanent income quintile of child		
		lowest	third	highest
permanent income quintile of parent				
lowest	probability	0.016	0.050	0.156
	average amount	399	1172	963
	sample size	545	169	60
third	probability	0.009	0.000	0.035
	average amount	500	.	1094
	sample size	176	143	111
highest	probability	0.000	0.001	0.019
	average amount	.	300	1425
	sample size	66	104	185

Table 3c TIME TRANSFERS FROM PARENTS TO KIDS

		permanent income quintile of child		
		lowest	third	highest
permanent income quintile of parent				
lowest	probability	0.309	0.310	0.279
	average amount	336	415	272
	sample size	545	169	60
third	probability	0.339	0.329	0.255
	average amount	617	201	182
	sample size	176	143	111
highest	probability	0.399	0.260	0.296
	average amount	324	239	125
	sample size	66	104	185

Table 3d: TIME TRANSFERS FROM KIDS TO PARENTS

		permanent income quintile of child		
		lowest	third	highest
permanent income quintile of parent				
lowest	probability	0.349	0.344	0.290
	average amount	387	245	215
	sample size	545	169	60
third	probability	0.269	0.256	0.164
	average amount	356	195	280
	sample size	176	143	111
highest	probability	0.388	0.217	0.196
	average amount	337	116	141
	sample size	66	104	185

Table 4

RESULTS OF PROBIT ANALYSIS

Income Measure:		log of permanent family income				log of permanent family earnings			
Dependent Variable:		money transfer parent to kid	money transfer kid to parent	time transfer parent to kid	time transfer kid to parent	money transfer parent to kid	money transfer kid to parent	time transfer parent to kid	time transfer kid to parent
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Kid's Income:									
Linear Effect	(1)	-0.181	0.608	-0.068	-0.089	-0.164	0.424	-0.060	-0.029
Standard Error	(2)	0.057	0.122	0.052	0.053	0.049	0.106	0.046	0.046
Derivative at Meridian	(3)	0.063	0.005	0.013	-0.021	-0.058	0.003	-0.022	-0.027
Probability of Transfer									
at Median	(4)	0.161	0.005	0.248	0.253	0.151	0.002	0.222	0.239
at 20th percentile	(5)	0.188	0.002	0.256	0.255	0.179	0.001	0.234	0.246
at 80th percentile	(6)	0.137	0.007	0.243	0.238	0.127	0.004	0.214	0.224
Parent's Income:									
Linear Effect	(7)	0.665	-0.627	0.016	-0.136	0.439	-0.237	0.006	-0.049
Standard Error	(8)	0.065	0.128	0.059	0.058	0.051	0.075	0.040	0.039
Derivative at Median	(9)	0.182	-0.010	-0.006	0.022	0.086	-0.003	-0.012	-0.027
Probability of Transfer									
at Median	(10)	0.161	0.005	0.248	0.253	0.151	0.002	0.222	0.239
at 20th percentile	(11)	0.096	0.012	0.248	0.275	0.104	0.005	0.225	0.251
at 80th percentile	(12)	0.254	0.002	0.245	0.249	0.196	0.001	0.214	0.223

Notes:

1. Other variables in the models include: ksinfem, ksinmal, kmarfem, knkid88, ksinkids, fathdsin, fathdrem, fathwsin, fathwrem, mothdsin, mothdrem, mothwsin, mothwrem, krplvapt, nonwhite, pinhous pinnh, pinorh, khlth88, phlth88, kuemph88, kuem1000, puemph88, puem1000, krpdist, invnkid, and a cubic in kage and page.
2. Linear effect comes from model in which only linear income terms are included. All other models include a cubic in the income measures. A cubic in both kid's and parent's wealth is included in those models which include permanent earnings as the measure parental income.
3. Probabilities are evaluated at the mean of the included variables and the median of the income and wealth variables.

Table 5

RESULTS OF PROBIT ANALYSIS

Dependent Variable:		money transfer parent to kid	money transfer kid to parent	time transfer parent to kid	time transfer kid to parent
		(1)	(2)	(3)	(4)
Kid's Wealth (000's)					
Derivative at Median	(1)	-.18	-.01	.05	0.74
Probability of Transfer					
at Median	(2)	.152	.002	.222	.239
at 20th percentile	(3)	.152	.002	.222	.234
at 80th percentile	(4)	.147	.002	.224	.259
Parent's Wealth (000's):					
Derivative at Median	(5)	.92	-.07	.55	.22
Probability of Transfer					
at Median	(6)	.152	.002	.222	.239
at 20th percentile	(7)	.115	.008	.199	.239
at 80th percentile	(8)	.222	.000	.262	.252

Notes:
1.Other variables in the models include: ksinfem, ksinmal, kmarfem, knkid88, ksinkids, fathdsin, fathdrem, fathwsin, fathwrem, mothdsin, mothdrem, mothwsin, mothwrem, krplvapt, nonwhite, pinhous pinnh, pinorh, khlth88, phlth88, kuemph88, kuem1000, puemph88, puem1000, krpdist, invnkid, a cubic in kage and page, and a cubic in the log of permanent earnings.
2. The models include a cubic in the parent's wealth and the child's wealth.
3. Probabilities are evaluated at the mean of the included variables and the median of the income and wealth variables.

Table 6

Effects of Permanent Income and Earnings on Transfer Amounts: TOBIT Estimates

Income Measure:		log of permanent family income				log of permanent family earnings			
Dependent Variable:		money transfer parent to kid	money transfer kid to parent	time transfer parent to kid	time transfer kid to parent	money transfer parent to kid	money transfer kid to parent	time transfer parent to kid	time transfer kid to parent
Kid's Income:		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Linear Tobit Coefficient	(1)	-799	1539	-41	-62	-857	1096	-31	-31
Standard Error	(2)	302	331	35	28	267	284	31	24
Derivative of Transfer									
at Median	(3)	-128	6	-4	-9	-163	2	-8	-13
Estimated Transfer									
at Median	(4)	343	4	92	69	309	2	81	64
at 20th percentile	(5)	393	2	93	79	388	1	84	69
at 80th percentile	(6)	290	7	89	65	244	3	78	58
Derivative of Transfer if > 0									
at Median	(7)	-183	99	-4	10	-246	79	-8	-15
Estimated Transfer if > 0									
at Median	(8)	2655	783	412	329	2597	717	398	319
at 20th percentile	(9)	2724	724	413	333	2709	684	402	324
at 80th percentile	(10)	2575	820	409	325	2493	756	394	312
Parent's Income:									
Linear Tobit Coefficient	(11)	3658	-1473	-44	-82	2326	-550	-26	-18
Standard Error	(12)	354	341	40	32	280	197	27	21
Derivative of Transfer at Median	(13)	375	-8	-21	-15	177	-3	-17	-11
Estimated Transfer									
at Median	(14)	343	4	92	69	309	2	81	64
at 20th percentile	(15)	212	11	97	78	232	4	88	69
at 80th percentile	(16)	572	2	82	64	428	1	71	58
Derivative of Transfer if > 0									
at Median	(17)	535	-138	-22	-16	267	-88	-19	-12
Estimated Transfer if > 0									
at Median	(18)	2655	783	412	329	2597	717	398	319
at 20th percentile	(19)	2443	859	418	339	2473	771	406	324
at 80th percentile	(20)	2939	735	401	324	2763	680	387	312

Notes:

1.Other variables in the models include: ksinfem, ksinmal, kmarfem, knkid88, ksinkids, fathdsin, fathdrem, fathwsin, fathwrem, mothdsin, mothdrem, mothwsin, mothwrem, krplvapt, nonwhite, pinhous pinnh, pinorh, khlth88, phlth88, kuemph88, kuem1000, puemon88, puem1000, krpdist, invnkid, a cubic in kage and page, and a cubic in the log of permanent family earnings.

2.Linear effect comes from model in which only linear wealth terms are included. All other models

include a cubic in the wealth measures.
3.Estimated transfers are evaluated at the mean of the included variables and the median of the income and wealth variables.

Table 7

Effects of Wealth on Transfer Amounts: TOBIT Estimates

Dependent Variable:		money transfer parent to kid	money transfer kid to parent	time transfer parent to kid	time transfer kid to parent
		(1)	(2)	(3)	(4)
Kid's Wealth (000's):					
Derivative of Transfer at Median	(1)	1795	17	118	209
Estimated Transfer					
at Median	(2)	309	2	81	64
at 20th percentile	(3)	297	2	82	63
at 80th percentile	(4)	337	2	78	70
Derivative of Transfer if > 0					
at Median	(5)	2705	579	-128	227
Estimated Transfer if > 0					
at Median	(6)	2597	717	398	318
at 20th percentile	(7)	2579	713	399	317
at 80th percentile	(8)	2668	738	395	324
Parent's Wealth (000's):					
Derivative of Transfer					
at Median	(9)	2975	-55	201	46
Estimated Transfer					
at Median	(10)	309	2	81	64
at 20th percentile	(11)	198	7	73	62
at 80th percentile	(12)	558	0	96	67
Derivative of Transfer if > 0					
at Median	(13)	4483	-182	218	50
Estimated Transfer if > 0					
at Median	(14)	2597	717	398	318
at 20th percentile	(15)	2410	809	389	316
at 80th percentile	(16)	2917	623	413	322

Notes:

1. Other variables in the models include: ksinfem, ksinmal, kmarfem, knkid88, ksinkids, fathdsin, fathdrem, fathwsin, fathwrem, mothdsin, mothdrem, mothwsin, mothwrem, krplvapt, nonwhite, pinhous pinnh, pinorh, khlth88, phlth88, kuemph88, kuem1000, puemph, puem1000, krpdist, invnkid, a cubic in kage and page, and a cubic in log of permanent family earnings.
2. Linear effect comes from a model in which only linear wealth terms are included. All other models include a cubic in the wealth measures.
3. Estimated transfers are evaluated at the mean of the included variables and the median of the income and wealth variables.

TABLE 8

Effects of Current and Permanent Income on Transfers:[3]
Probit Models (Standard errors in parentheses)[1]

Effects of Kid's Current Income: Kid to Parent		Money Transfer Parent to Kid	Money Transfer Probit
Coefficient,			
Linear Specification	(1)	.0084	-.0044
Standard Error		(.0036)	(.0021)
Mean of Derivatives	(2)	.0003	-.0021
Probability of Transfer			
at Median	(3)	.0019	.145
at 20th percentile	(4)	.0013	.176
at 80th percentile	(5)	.0029	.116
Effects of Parents' Current Income:			
Probit Coefficient,			
Linear Specification	(6)	-.0044	.0036
Standard Error		(.0047)	(.0011)
Mean of Derivatives	(7)	-.0013	.0014
Probability of Transfer			
at Median	(8)	.0019	.145
at 20th percentile	(9)	.0051	.127
at 80th percentile	(10)	.0013	.183
Effects of Kid's Permanent Income:			
Probit Coefficient,			
Linear Specification	(11)	.0056	-.0021
Standard Error		(.0030)	(.0016)
Mean of Derivatives	(12)	.0004	-.0003
Probability of Transfer			
at Median	(13)	.0019	.145
at 20th percentile	(14)	.0008	.152
at 80th percentile	(15)	.0031	.139
Effects of Parents' Permanent Income:			
Probit Coefficient,			
Linear Specification	(16)	-.0079	.0075
Standard Error		(.0035)	(.0013)
Mean of Derivatives	(17)	-.0002	.0024
Probability of Transfer			
at Median	(18)	.0019	.145
at 20th percentile	(19)	.0032	.096
at 80th percentile	(20)	.0006	.197

TABLE 9

Effects of Income and Wealth on Transfer Amounts: Tobit Estimates
(standard errors in parentheses)[1]

		Money Transfer Kid to Parent	Money Transfer Parent to Kid
Effects of kid's current income:			
Linear Tobit Coefficient[4]	(1)	.0220	-.023
Standard Error		(.0096)	(.011)
Average Derivative of Tobit Index	(2)	.0213	-.0716
Average Derivative of Transfer	(3)	.0006	-.0113
Average Derivative of Transfer if > 0	(4)	.0022	-.0140
Effects of parents' current income:			
Linear Tobit Coefficient[4]	(5)	-.0115	.009
Standard Error		(.0122)	(.003)
Average Derivative of Tobit Index	(6)	-.0718	.0243
Average Derivative of Transfer	(7)	-.0019	.0037
Average Derivative of Transfer if > 0	(8)	-.0051	.0047
Effects of kid's permanent income:			
Linear Tobit Coefficient[4]	(9)	.0157	-.010
Standard Error		(.0080)	(.008)
Average Derivative of Tobit Index	(10)	.0218	.0091
Average Derivative of Transfer	(11)	.0004	.0017
Average Derivative of Transfer if > 0	(12)	.0020	.0019
Effects of parent's permanent income:			
Linear Tobit Coefficient[4]	(13)	-.0189	.046
Standard Error		(.0095)	(.006)
Average Derivative of Tobit Index	(14)	-.0103	.0538
Average Derivative of Transfer	(15)	-.0002	.0071
Average Derivative of Transfer if > 0	(16)	-.0012	.0098

1. Conventional probit and tobit asymptotic standard errors in parentheses. They do not correct for correlations among observations involving separate parent households and the same child or among siblings.
2. Other variables in the models include: ksinfem, ksinmal, kmarfem, knkid88, ksinkids, fathdsin, fathdrem, fathwsin, fathwrem, mothdsin, mothdrem, mothwsin, mothwrem, krplvapt, nonwhite, pinhous, pinorh, khlth88, phlth88, krpdist, invnkid, cubic in kage and page and a cubic in wealth of the parent and child. Wealth controls are also included. see note 4. Cubics in the wealth of the parent and the child are also included
3. Column (1) contains 3,381 observations and 666 positive transfer cases. Columns (2) and (3) contain 3044 observations and 600 positive

transfer cases. We exclude cases in which the head of household Column (4) contains 2,832 observations and 583 positive transfers.
4. Probit and Tobit coefficients and standard errors for the "linear specification" come from models which contain only linear income (and wealth and current income) terms (Rows 1, 6, 11, and 16 in Table 6 and Rows 1, 5, 9, and 13 in Table 7). All other results are based on models which include a cubic in the income (and wealth) measures and an interaction between the level income terms.
5. Probabilities and transfer amounts are evaluated at the mean of the included variables and the median of the income and wealth variables.
6. Derivatives for income or earnings are the change in transfer for a $1 change in income.

Table 10
Probit Estimates of the Effects of Wage Rates on the Probability of Time and Money Transfers

Derivatives of the Transfer Probability Evaluated at the Mean Probability (s.e. in parenthesis)

	$P(R_p>0)$ (1)	$P(R_k>0)$ (2)	$P(S_k>0)$ (3)
Head Worked, Kid's Family	0.0248 (0.0366)	-0.0004 (0.0111)	0.1048 (0.0422)
log wage of Head, Kid's Family	-0.0208 (0.0121)	0.0126 (0.0031)	-.0544 (0.0149)
Wife Worked if Present, Kid's Family	0.0078 (0.0383)	-0.0097 (0.0095)	-0.0194 (0.0462)
log wage of Wife, Kid's Family	-0.0045 (0.0159)	0.0027 (0.0040)	0.0051 (0.0198)
Head Worked, Parents' Family	-0.0331 (0.0284)	0.0008 (0.0067)	0.0227 (0.0337)
log wage of head, Parents' Family	0.0490 (0.0111)	-.0007 (0.0031)	-.0049 (0.014)
Wife Worked if Present, Parents' Family	-0.1128 (0.0425)	0.0209 (0.0113)	0.0571 (0.0493)
log wage, Wife in Parents' Family	0.0711 (0.0195)	0.0203 (0.0081)	-.0174 (0.0234)

The probit models also include the control variables listed in the footnotes to Table 4, with the exception of permanent income and indicators for unemployment. Note that detailed controls for marital status of both the kid and parent household are included, so the dummy variable on whether the wife worked is the extra effect of working conditional on the wife being present.

Table 11
The Effects of Income and Distance from Parents on the Tansfer Probability, Linear Probability Models with Fixed Effects for Each Parent Household

	Prob($R_p > 0$)	Prob($R_k > 0$)	Prob($S_p > 0$)	Prob($S_k > 0$)
Y_k	-.057 (.018)	.0270 (.0061)	-.0177 (.0214)	-.0473 (.0215)
Distance (hundreds of miles)	-.004 (.004)	-.0001 (.0015)	-.046 (.005)	-.0048 (.0051)

This table uses the full sample. Standard errors do not correct for heteroskedasticity or for correlation across observations involving children of parents who are living in separate. households (e.g., divorced parents.) The sample size and number of fixed effects included are 5257 and 3003 in the case of R_p, 5056 and 2932 in the case of R_k, 5059 and 2934 in the case of S_k, and 5056 and 2932 in the case of S_p. Controls for other characteristic of the child household are not shown.

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Table 12: The Difference in the Probability of Transfers to and from Parents of Husband and Wife[a]

OLS Regression Coefficients (OLS Standard Errors in Parentheses)

VARIABLE NAME	LABEL	DEPENDENT VARIABLE: (1) ΔPARENT GAVE KID MONEY	(2) ΔKID GAVE PARENT MONEY	(3) ΔPARENT GAVE KID TIME	(4) ΔKID GAVE PARENT TIME
ΔPAR_O_S	KID IS MALE	-0.0125	0.0058	-0.0715	-0.0101
		(.0121)	(.0057)	(.0133)	(.0140)
ΔFATHWSIN	PARENT HH WIDOWED UNMAR FATHER	-0.0003	-0.0248	-0.0128	0.1136
		(.0434)	(.0204)	(.0477)	(.0501)
ΔFATHWREM	PARENT HH WIDOWED REMAR FATHER	-0.0764	-0.0223	-0.1402	-0.1077
		(.0469)	(.0222)	(.0516)	(.0543)
ΔMOTHWSIN	PARENT HH WIDOWED UNMAR MOTHER	0.0230	0.0284	0.0074	0.1008
		(.0226)	(.0106)	(.0248)	(.0260)
ΔMOTHWREM	PARENT HH WIDOWED REMAR MOTHER	0.0180	0.0267	-0.0298	0.0509
		(.0430)	(.0200)	(.0470)	(.0495)
ΔKRPAGE	KIDS REPORT OF PARENTS AGE	-0.0588	-0.0271	0.0027	-0.0375
		(.0530)	(.0250)	(.0583)	(.0613)
ΔKRPAGE2	SQUARE OF KIDS REPORT OF PARENTS AGE	8.0E-4	4.0E-4	-4.7E-5	4.8E-4
		(8.0E-4)	(3.8E-4)	(8.9E-4)	(9.3E-4)
ΔKRPAGE3	CUBE OF KIDS REPORT OF PARENTS AGE	-3.4E-6	-1.8E-6	4.4E-7	-1.8E-6
		(4.1E-6)	(1.9E-6)	(4.5E-6)	(4.7E-6)
ΔKRPHLTH	KIDS REPORT OF HEALTH 1-EXC 5-POOR	-0.0127	.0078	-0.0173	0.0466
		(.0080)	(.0038)	(.0088)	(.0092)
ΔKRPDIST	DISTANCE TO PARENT HOUSE - ESTIMATED	-8.0E-5	-4.8E-5	-4.9E-4	-5.1E-4
		(4.9E-5)	(2.3E-5)	(5.4E-5)	(5.7E-5)
ΔPINHOUS	PARENT RESIDES WITH KID	-.0768	-0.0808	0.3731	0.2603
		(.1143)	(.0538)	(.1258)	(.1323)
ΔPINNH	PARENT IS IN NURSING HOME	-.0548	-0.0909	-0.0232	0.0201
		(.0845)	(.0398)	(.0930)	(.0978)
ΔPINORH	PARENT LIVES WITH ANOTHER RELATIVE	.0486	0.0225	-0.1684	-0.1845
		(.0625)	(.0289)	(.0674)	(.0709)
ΔLKRPINC	**LOG OF KIDS REPORT OF PARENTS INCOME**	**.0458**	**-0.0123**	**-0.0057**	**-0.0171**
		(.0116)	**(.0055)**	**(.0128)**	**(.0134)**

a) The dependent variable and independent variables are the differences between values for the respondent's parents and the spouse's parents. The sample consists of married couples in the full sample. The couples are included if both husband and wife have 1 or more living parents and if neither the husband and wife have parents who live seperately. Sample sizes range from 1351 to 1368 observations.

TABLE 13
The Difference in the Probability of Transfers to and from Divorced Parents[a]

OLS Regression Coefficients (OLS Standard Errors in Parentheses)

		DEPENDENT VARIABLE: (1)	(2)	(3)	(4)
VARIABLE NAME	LABEL	ΔPARENT GAVE KID MONEY	ΔKID GAVE PARENT MONEY	ΔPARENT GAVE KID TIME	ΔKID GAVE PARENT TIME
ΔFATHDREM	PARENT HH DIVORCED REMAR FATHER	0.0258	-0.0030	0.0024	0.0096
		(.0370)	(.0148)	(.0405)	(.0396)
ΔMOTHDSIN	PARENT HH DIVORCED UNMAR MOTHER	0.0705	0.0267	0.1509	0.2647
		(.0342)	(.0137)	(.0373)	(.0366)
ΔMOTHDREM	PARENT HH DIVORCED REMAR MOTHER	0.0727	0.0177	0.1543	0.1235
		(.0367)	(.0146)	(.0400)	(.0392)
ΔKRPAGE	KIDS REPORT OF PARENTS AGE	0.1874	-0.1096	-0.3059	-0.1536
		(.1260)	(.0507)	(.1379)	(.1351)
ΔKRPAGE2	SQUARE OF KIDS REPORT OF PARENTS AGE	-0.0038	0.0019	0.0049	0.0027
		(.0022)	(.0009)	(.0024)	(.0024)
ΔKRPAGE3	CUBE OF KIDS REPORT OF PARENTS AGE	2.5E-5	-1.1E-5	-2.5E-5	-1.5E-5
		(1.2E-5)	(5.1E-6)	(1.4E-5)	(1.4E-5)
ΔKRPHLTH	KIDS REPORT OF HEALTH 1-EXC 5-POOR	-0.0327	0.0100	-0.0138	0.0164
		(.0131)	(.0053)	(.0144)	(.0141)
ΔKRPDIST	DISTANCE TO PARENT HOUSE - ESTIMATED	-7.9E-5	7.6E-6	-4.7E-4	-4.7E-4
		(7.2E-5)	(2.9E-5)	(8.0E-5)	(7.8E-5)
ΔPINHOUS	PARENT RESIDES WITH KID	0.1029	-0.0266	0.1051	0.1728
		(.0915)	(.0370)	(.1003)	(.0982)
ΔPINNH	PARENT IS IN NURSING HOME	-0.0930	-0.0114	-0.0412	0.2161
		(.1283)	(.0519)	(.1406)	(.1377)
ΔPINORH	PARENT LIVES WITH ANOTHER RELATIVE	-0.0382	0.0024	0.0501	-0.0264
		(.0587)	(.0235)	(.0644)	(.0630)
ΔLKRPINC	**LOG OF KIDS REPORT OF PARENTS INCOME**	**0.0164**	**-0.0183**	**0.0050**	**0.0009**
		(.0169)	**(.0068)**	**(.0184)**	**(.0181)**

a) The dependent variable and independent variables are the differences between values for the respondent's mother and father. The sample consists of respondents in the full sample whose parents are divorced and living.

Table 14
The Interrelationship Between Time and Money Transfers

	Probit Models: Derivatives of the Transfer Probability (Standard Errors)				Tobit Models: Tobit Coefficients (standard errors)			
	Dependent Variable				Dependent Variable			
	P(Rp>0)	$P(R_k>0)$	$P(S_p>0)$	$P(S_k>0)$	R_p	R_k	S_p	S_k
$R_p > 0$			.165 (.024)	.0022 (.0245)			208 (42)	22.4 (35.3)
$R_k>0$			.063 (.067)	.1546 (.0624)			127 (119)	71.4 (88.3)
Sp>0	.133 (.019)	.0053 (.0049)		.415 (.021)	2091 (357)	320 (257)		508 (31)
$S_k>0$	-.0094 (.0193)	0.0096 (.0047)	.423 (.021)		-47.2 (369)	575 (250)	613 (39)	

See Table 4 and 5 for a list of the other varibles included in the models. The equations include linear terms in Yp and Y_k and exclude assets.

TABLE A2-1

WEIGHTED MEANS BY TRANSFER STATUS
MATCHED SAMPLE

VARIABLE NAME	LABEL	ALL TRANS. CATEG.	NO MONEY TO KID	MONEY TO KID	NO MONEY TO PARENT	MONEY TO PARENT	NO TIME TO KID	TIME TO KID	NO TIME TO PARENT	TIME TO PARENT
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TRANSFERS:										
KRMGPKI	PARENT GAVE KID MONEY 0/1	0.240	0.000	1.000	0.242	0.108	0.195	0.335	0.227	0.277
KRMGKPI	KID GAVE PARENT MONEY 0/1	0.017	0.018	0.007	0.000	1.000	0.013	0.018	0.009	0.030
KRTGPKI	PARENT GAVE KID TIME 0/1	0.302	0.262	0.425	0.300	0.380	0.000	1.000	0.174	0.645
KRTGKPI	KID GAVE PARENT TIME 0/1	0.273	0.260	0.314	0.269	0.560	0.139	0.582	0.000	1.000
KRMGPKA	AMOUNT OF MONEY PARENT GAVE KID	444.058	0.000	1850.785	446.545	297.537	369.656	610.748	425.454	507.016
KRMGKPA	AMOUNT OF MONEY KID GAVE PARENT	22.648	15.225	27.366	0.000	1323.705	7.465	41.273	5.131	52.268
KRTGPKA	AMOUNT OF TIME PARENT GAVE KID	84.747	72.071	124.965	83.274	109.484	0.000	280.629	43.866	194.971
KRTGKPA	AMOUNT OF TIME KID GAVE PARENT	66.145	60.187	83.639	64.537	171.571	29.343	148.283	0.000	241.958
SEX AND MARITAL STATUS OF KID:										
KSINFEM	KID IS UNMARRIED FEMALE	0.179	0.166	0.222	0.179	0.217	0.150	0.239	0.164	0.212
KSINMAL	KID IS UNMARRIED MALE	0.152	0.126	0.237	0.152	0.158	0.153	0.148	0.144	0.176
KMARFEM	KID IS MARRIED FEMALE	0.328	0.347	0.256	0.328	0.340	0.320	0.341	0.342	0.284
KMARMAL	KID IS MARRIED MALE	0.341	0.361	0.286	0.341	0.285	0.377	0.272	0.349	0.328
COMPOSITION OF PARENT HOUSEHOLD:										
FATHMOTH	PARENT IS BOTH MOTHER & FATHER	0.594	0.578	0.659	0.601	0.244	0.576	0.651	0.619	0.552
FATHDSIN	PARENT IS DIVORCED UNMAR FATHER	0.026	0.027	0.021	0.026	0.001	0.028	0.018	0.024	0.027
FATHDREM	PARENT IS DIVORCED REMAR FATHER	0.032	0.031	0.037	0.032	0.026	0.038	0.020	0.036	0.021
FATHWSIN	PARENT IS WIDOWED UNMAR FATHER	0.017	0.019	0.010	0.017	0.020	0.021	0.010	0.017	0.018
FATHWREM	PARENT IS WIDOWED REMAR FATHER	0.017	0.020	0.008	0.018	0.000	0.020	0.014	0.020	0.012
MOTHDSIN	PARENT IS DIVORCED UNMAR MOTHER	0.074	0.075	0.061	0.073	0.110	0.073	0.067	0.063	0.092
MOTHDREM	PARENT IS DIVORCED REMAR MOTHER	0.048	0.046	0.046	0.047	0.082	0.049	0.038	0.050	0.033
MOTHWSIN	PARENT IS WIDOWED UNMAR MOTHER	0.151	0.160	0.124	0.146	0.431	0.156	0.138	0.125	0.213
MOTHWREM	PARENT IS WIDOWED REMAR MOTHER	0.041	0.044	0.034	0.040	0.086	0.040	0.043	0.045	0.032
KRPLVAPT	PARENTS MARRIED BUT LIVE APART	0.006	0.006	0.007	0.006	0.007	0.005	0.007	0.005	0.008
DEMOGRAPHICS:										
KNKUND2	NUMBER OF CHILDREN IN KID HH <= 2	0.252	0.251	0.251	0.254	0.158	0.207	0.352	0.246	0.264
KNK3TO5	NUMBER OF CHILDREN IN KID HH 3 to 5	0.265	0.286	0.195	0.265	0.264	0.252	0.284	0.263	0.262
KNKOV6	NUMBER OF CHILDREN IN KID HH => 6	0.692	0.778	0.441	0.691	0.669	0.736	0.592	0.721	0.608
KSINKIDS	NUMBER OF CHILDREN IN SINGLE KID HH	0.174	0.173	0.173	0.174	0.156	0.135	0.246	0.153	0.213
KAGE	AGE OF KID	31.110	31.656	29.533	31.068	32.850	31.726	29.691	31.457	30.194
PAGE	AGE OF PARENT	59.699	60.080	58.679	59.623	63.512	60.124	58.786	59.852	59.340
NKID	# OF PARENT KIDS FROM KID REPORT OF SIBS	4.392	4.579	3.794	4.392	4.312	4.507	4.089	4.376	4.387
NONWHITE	KID REPORTS RACE AS NOT WHITE	0.116	0.124	0.082	0.113	0.282	0.113	0.113	0.103	0.144
LOCATION AND DISTANCE:										
PINHOUS	PARENT RESIDES WITH KID	0.049	0.041	0.072	0.049	0.023	0.032	0.082	0.030	0.096
PINNH	PARENT IS IN NURSING HOME	0.002	0.003	0.000	0.002	0.023	0.001	0.003	0.001	0.005
PINORH	PARENT LIVES WITH ANOTHER RELATIVE	0.012	0.011	0.015	0.012	0.004	0.012	0.012	0.011	0.014
PDLT1	PARENT LIVES LESS THAN 1 MILE AWAY	0.120	0.125	0.107	0.119	0.205	0.092	0.186	0.089	0.201
PD1_10	PARENT LIVES 1 TO 10 MILES AWAY	0.280	0.287	0.247	0.282	0.198	0.249	0.341	0.248	0.355
PD10_100	PARENT LIVES 10 TO 100 MILES AWAY	0.252	0.253	0.252	0.252	0.226	0.257	0.248	0.260	0.239
PD100UP	PARENT LIVES OVER 100 MILES AWAY	0.298	0.293	0.321	0.297	0.348	0.370	0.142	0.373	0.107
HEALTH:										
KCHS86	KID HH CHANGED HEAD SINCE 86	0.168	0.137	0.256	0.168	0.212	0.151	0.204	0.159	0.193

KHEX	KID HEAD HEALTH EXCELLENT IN 86	0.300	0.300	0.300	0.302	0.234	0.306	0.284	0.317	0.259
KHVG	KID HEAD HEALTH VERY GOOD IN 86	0.306	0.320	0.275	0.305	0.371	0.309	0.305	0.305	0.314
KHGD	KID HEAD HEALTH GOOD IN 86	0.174	0.190	0.130	0.175	0.112	0.180	0.164	0.172	0.180
KHFR	KID HEAD HEALTH FAIR IN 86	0.044	0.045	0.035	0.044	0.052	0.046	0.038	0.040	0.046
KHPR	KID HEAD HEALTH POOR IN 86	0.007	0.009	0.004	0.007	0.019	0.008	0.007	0.007	0.009
PCHS86	PARENT HH CHANGED HEAD SINCE 86	0.039	0.038	0.036	0.038	0.131	0.037	0.035	0.033	0.046
PHEX	PARENT HEAD HEALTH EXCELLENT IN 86	0.167	0.152	0.220	0.170	0.001	0.167	0.175	0.180	0.141
PHVG	PARENT HEAD HEALTH VERY GOOD IN 86	0.256	0.250	0.271	0.257	0.199	0.254	0.259	0.275	0.206
PHGD	PARENT HEAD HEALTH GOOD IN 86	0.286	0.285	0.297	0.286	0.322	0.287	0.290	0.283	0.304
PHFR	PARENT HEAD HEALTH FAIR IN 86	0.176	0.190	0.135	0.175	0.216	0.181	0.168	0.166	0.202
PHPR	PARENT HEAD HEALTH POOR IN 86	0.075	0.084	0.043	0.074	0.131	0.074	0.074	0.063	0.101
ASSETS AND INCOME:										
KLOGPINC	LOG OF KIDS PERMANENT INCOME	10.766	10.767	10.768	10.763	10.923	10.782	10.743	10.801	10.687
PLOGPINC	LOG OF PARENTS PERMANENT INCOME	10.923	10.871	11.086	10.928	10.608	10.931	10.910	10.956	10.851
KLOGINC	LOG OF KIDS INCOME	10.184	10.229	10.044	10.180	10.402	10.278	9.995	10.289	9.920
PLOGINC	LOG OF PARENTS INCOME	10.061	9.973	10.320	10.072	9.397	10.042	10.129	10.117	9.962
KLPFERN	LOG OF KIDS PERMANENT EARNINGS	10.665	10.674	10.645	10.662	10.835	10.683	10.642	10.700	10.589
PLPFERN	LOG OF PARENTS PERMANENT EARNINGS	10.732	10.663	10.943	10.737	10.404	10.738	10.729	10.773	10.648
KCHS84	KID HH CHANGED HEAD SINCE 84	0.310	0.267	0.431	0.311	0.294	0.280	0.374	0.294	0.352
KASSET84	KIDS ASSETS IN 84 IF SAME HEAD (000s)	26.773	29.119	20.483	26.145	57.389	28.416	23.430	27.870	24.196
PCHS84	PARENT HH CHANGED HEAD SINCE 84	0.075	0.070	0.081	0.073	0.157	0.073	0.068	0.063	0.091
PASSET84	PARENTS ASSETS IN 84 IF SAME HEAD (000s)	124.798	110.126	169.364	126.311	36.872	124.254	129.610	131.795	112.598
KUEMPH88	HOURS OF KID HEAD UNEMPLOYMENT	73.619	66.090	99.199	72.555	119.576	65.217	91.952	61.982	104.038
KUEM1000	KID HEAD UNEMPLOYED OVER 1000 HRS	0.023	0.021	0.031	0.022	0.064	0.019	0.032	0.017	0.039
PUEMPH88	HOURS OF PARENT HEAD UNEMPLOYMENT	37.579	42.796	23.429	36.872	82.821	43.351	24.844	40.976	30.663
PUEM1000	PARENT HEAD UNEMPLOYED OVER 1000 HRS	0.011	0.013	0.006	0.011	0.028	0.014	0.005	0.014	0.006
N	NUMBER OF OBSERVATIONS	3561	2774	688	3476	78	2432	1001	2408	1046

Note: Observation counts may not be consistent across transfer types due to missing data.

Table A2-2
The Effects of Characteristics of the Child and Parent on the Probability of a Transfer.
(Results based on Probit Models.)

	Money Transfer Parent to Kid (1)		Money Transfer Kid to Parent (2)		Time Transfer Parent to Kid (3)		Time Transfer Kid to Parent (4)	
Base Case Probabilty:	0.2426		0.0038		0.2205		0.2439	
Difference from base case:								
Kid is 22 years old	0.0843	***	0.0033	*	0.1005	***	0.0718	***
	(0.0268)		(0.0020)		(0.0236)		(0.0252)	
Kid is 38 years old	-0.0832	***	0.0011		-0.1018	***	-0.1031	***
	(.0232)		(0.0015)		(0.0197)		(0.0206)	
Parent is 52 years old	0.0093		0.0005		-0.0055		-0.0108	
	(.0155)		(0.0011)		(0.0133)		(0.0141)	
Parent is 75 years old	0.0183		0.0046	**	0.0629	**	0.0948	***
	(0.0339)		(0.0021)		(0.0290)		(0.0301)	
Single male	0.0683	**	-0.0004		0.0856	***	0.0375	
	(0.0297)		(0.0024)		(0.0278)		(0.0291)	
Married female	-0.0127		0.0000		0.0676	***	-0.0393	*
	(0.0230)		(0.0018)		(0.0201)		(0.0214)	
Single female	0.0166		0.0022		0.1319	***	0.0519	*
	(0.0322)		(0.0023)		(.0293)		(0.0307)	
1 kid in base household	-0.0243	**	-0.0010		0.0290	***	0.0051	
	(0.0101)		(0.0008)		(0.0086)		(0.0091)	
1 kid in single male household	0.0698	**	-0.0023		0.1069	***	0.0259	
	(0.0321)		(0.0025)		(0.0296)		(0.0310)	
1 kid in single female household	0.0181		0.0003		0.1532	***	0.0403	
	(0.0288)		(0.0021)		(0.0260)		(0.0271	
Father divorced, unmarried	-0.1417	**	-0.0484		-0.1957	***	-0.0921	*
	(0.0604)		(0.6598)		(0.0558)		(0.0563)	
Father divorced, remarried	-0.0926	**	-0.0036		-0.2599	***	-0.2086	***
	(0.0437)		(0.0053)		(.0504)		(0.0556)	
Father widowed, unmarried	-0.1648	***	-0.0048		-0.1851	***	-0.0454	
	(0.0625)		(0.0077)		(.0535)		(0.0506)	
Father widowed, remarried	-0.1647	**	-0.0303		-0.0617		-0.0363	
	(0.0766)		(0.8650)		(0.0631)		(0.0708)	
Mother divorced, unmarried	-0.0473		0.0060	***	-0.0448	*	0.0910	***
	(0.0319)		(0.0022)		(0.0274)		(0.0283)	
Mother divorced, remarried	-0.0804	**	0.0063	**	-0.0663	*	-0.0364	
	(0.0411)		(0.0028)		(0.0371)		(0.0407)	
Mother widowed, unmarried	-0.0592	**	0.0095	***	-0.0215		0.1366	***
	(0.0254)		(0.0017)		(0.0214)		(0.0219)	
Mother widowed, remarried	-0.1112	*	0.0032		-0.0100		-0.0494	
	(0.0578)		(0.0045)		(0.0459)		(0.0519)	
Parents married, live apart	-0.1189	*	0.0038		-0.0223		0.0291	
	(0.0717)		(0.0040)		(0.0513)		(0.0527)	
Nonwhite	-0.0401	*	0.0038	**	-0.0582	***	-0.0325	*
	(0:0225)		(0.0016)		(0.0190)		(0.0198)	
Parent resides with kid	0.0204		-0.0096	**	0.1844	***	0.1777	***
	(0.0331)		(0.0043)		(0.0289)		(0.0305)	

Table A2-2, continued

Parent lives 20 miles away	0.0014		-0.0006		0.0581	***	0.0754	***
	(0.0051)		(0.0004)		(0.0051)		(0.0057)	
Parent lives 1000 miles away	-0.0097		0.0043		-0.4161	***	-0.5402	***
	(0.0366)		(0.0026)		(0.0365)		(0.0410)	
Parent in nursing home	-1.1691		0.0177	**	0.0229		0.1789	
	(15.68)		(0.0078)		(0.1826)		(0.1647)	
Parent lives with other relative	-0.0230		0.0006		-0.0823		-0.0201	
	(0.0738)		(0.0041)		(0.0616)		(0.0584)	
Health of kid excellent	-0.0119		-0.0002		0.0020		-0.0001	
	(0.0097)		(0.0007)		(0.0084)		(0.0089)	
Health of kid poor	0.0357		0.0005		-0.0059		0.0004	
	(0.0291)		(0.0022)		(0.0251)		(0.0267)	
Health of parent excellent	-0.0096		-0.0006		0.0239		-0.0396	***
	(0.0167)		(0.0013)		(0.0146)		(0.0153)	
Health of parent poor	0.0096		0.0006		-0.0239		0.0396	***
	(0.0167)		(0.0013)		(0.0146)		(0.0153)	
Kid head unemployed 100 hours	0.0057		-0.0004		0.0017		0.0008	
	(0.0050)		(0.0004)		(0.0043)		(0.0045)	
Kid head unemployed 1000 hours	-0.0023		0.0053		0.0222		0.0594	
	(0.0480)		(0.0033)		(0.0402)		(0.0415)	
Parent head unemployed 100 hours	-0.0049		0.0007		-0.0024		-0.0042	
	(0.0079)		(0.0004)		(0.0064)		(0.0069)	
Parent head unemployed 1000 hours	-0.1722		0.0019		-0.1436	*	-0.0674	
	(0.1106)		(0.0049)		(0.0822)		(0.0833)	
Kid has no siblings	0.1996	***	0.0018		0.0887	***	0.0141	
	(0.0323)		(0.0023)		(0.0295)		(0.0316)	
Kid has four siblings	-0.0399	***	-0.0004		-0.0177	***	-0.0028	
	(0.0065)		(0.0005)		(0.0059)		(0.0063)	
Kid income is 10th percentile	0.0435	**	-0.0065	***	0.0146		-0.0008	
	(0.0215)		(0.0019)		(0.0183)		(0.0195)	
Kid income is 25th percentile	0.0275	***	-0.0023	***	0.0056		0.0021	
	(0.0106)		(0.0009)		(0.0090)		(0.0096)	
Kid income is 75th percentile	-0.0385		-0.0032		0.0015		0.0190	
	(0.0258)		(0.0033)		(0.0213)		(0.0228)	
Kid income is 90th percentile	-0.0505	***	0.0023	**	-0.0045		0.0279	**
	(0.0150)		(0.0012)		(0.0134)		(0.0148)	
Parent income is 10th percentile	-0.1301	***	0.0057	***	-0.0017		0.0419	**
	(0.0198)		(0.0013)		(0.0160)		-0.017	
Parent income is 25th percentile	-0.0803	***	0.0030	***	0.0015		0.0157	*
	(0.0107)		(0.0008)		(0.0091)		(0.0096)	
Parent income is 75th percentile	0.0794	***	-0.0022	***	-0.0034		-0.0046	
	(0.0096)		(0.0007)		(0.0083)		(0.0086)	
Parent income is 90th percentile	0.1636	***	-0.0037	**	-0.0061		-0.0054	
	(0.0184)		(0.0015)		(0.0163)		(0.0172)	

* = significant at the 10% level ** = significant at the 5% level *** = significant at the 1% level

Notes:
1. Standard errors in parentheses.
2. Variables in the model include: ksinfem, kmarfem, knkid88, ksinkids, fathdsin, fathdrem, fathwsin, fathwrem, mothdsin, mothdrem, mothwsin, mothwrem, krplvapt, nonwhite, pinhous, pinnh, pinorh, khlth88, phlth88, kuemph88, kuem1000, puemph88, puem1000, krpdist, invnkid, and a cubic in kage, page, klogpinc, and plogpinc. Definitions are in table A2-1.
3. The estimates in Table A2-2 are the effects on the expected value of the transfer amount (including 0 transfers) and are derived from Tobit coefficients. In both tables the estimates are relative to the transfer probability for a 30 year old white married male with two

siblings, no kids, good health, a permanent household income of $45,000, and no unemployment, who has married 60 year old parents who are in average health, have a permanent income of $48,000, have a head of household with no unemployment, live 140 miles away and are not in a nursing home or living with a relative.
4. Kid's permanent income distribution: 10th percentile = $19,843; 25th percentile = $30,019; 75th percentile = $60,681; 90th percentile = $77,997. Parent's permanent income distribution: 10th percentile = $23,806; 25th percentile = $32,792; 75th percentile = $66,601; 90th percentile = $93,429.

Table A2-3

The Effects of Characteristics of the Child and Parent on Transfer Amounts.
(Estimates are Derived from Tobit Models.)

	Money Transfer Parent to Kid (1)		Money Transfer Kid to Parent (2)		Time Transfer Parent to Kid (3)		Time Transfer Kid to Parent (4)	
Base Case Amount	585		6		78		58	
Difference from base case:								
Kid is 22 years old	215	**	-2.4	*	41	***	31	***
	(88)		(1.5)		(10)		(8)	
Kid is 38 years old	-155	**	5.3	***	-46	***	-25	***
	(77)		(1.3)		(9)		(7)	
Parent is 52 years old	49		9.2	***	-9		-6	
	(51)		(1.0)		(6)		(4)	
Parent is 75 years old	53		-23.7	***	23	*	21	**
	(111)		(2.7)		(13)		(10)	
Single male	140		0.7		37	***	14	
	(97)		(1.7)		(13)		(9)	
Married female	-38		-0.3		34	***	-9	
	(76)		(1.3)		(9)		(7)	
Single female	-38		1.0		58	***	27	***
	(106)		(1.8)		(13)		(10)	
1 kid in base household	-71	**	0.2		10	***	1	
	(33)		(0.5)		(4)		(3)	
1 kid in single male household	156		0.3		47	***	12	
	(105)		(1.8)		(13)		(10)	
1 kid in single female household	-22		0.6		69	***	25	***
	(95)		(1.6)		(12)		(9)	
Father divorced, unmarried	-442	**	-0.4		-71	***	-21	
	(203)		(3.2)		(26)		(18)	
Father divorced, remarried	-303	**	0.4		-117	***	-68	***
	(144)		(2.3)		(24)		(19)	
Father widowed, unmarried	-490	**	-0.4		-74	***	-16	
	(212)		(3.9)		(24)		(16)	
Father widowed, remarried	-542	**	-0.8		-12		-6	
	(263)		(4.8)		(28)		(23)	
Mother divorced, unmarried	-192	*	1.6		-9		22	**
	(106)		(1.5)		(12)		(9)	
Mother divorced, remarried	-212		1.0		-25		-8	
	(135)		(1.9)		(17)		(13)	
Mother widowed, unmarried	-185	**	1.0		-6		48	***
	(84)		(1.4)		(10)		(7)	
Mother widowed, remarried	-352	*	0.3		-36	*	-18	
	(193)		(2.7)		(22)		(17)	

Table A2-3, continued

Parents married, live apart	-341		0.1		-17		12	
	(242)		(3.1)		(23)		(17)	
Nonwhite	-112		1.2		-17	**	-3	
	(75)		(1.2)		(9)		(6)	
Parent resides with kid	67		1.4		82	***	68	***
	(109)		(2.0)		(12)		(9)	
Parent lives 20 miles away	7		-0.4		24	***	23	***
	(17)		(0.3)		(2)		(2)	
Parent lives 1000 miles away	-48		2.8		-170	***	-162	***
	(120)		(2.0)		(17)		(14)	
Parent in nursing home	-3761		3.7		-16		28	
	(50280)		(8.4)		(87)		(50)	
Parent lives with other relative	-53		-1.0		-44		3	
	(248)		(3.6)		(28)		(18)	
Health of kid excellent	-5		0.1		2		1	
	(32)		(0.5)		(4)		(3)	
Health of kid poor	15		-0.3		-5		-2	
	(97)		(1.6)		(11)		(9)	
Health of parent excellent	-32		-0.2		8		-14	***
	(55)		(0.9)		(7)		(5)	
Health of parent poor	32		0.2		-8		14	***
	(55)		(0.9)		(7)		(5)	
Kid head unemployed 100 hours	19		-0.1		1		2	
	(17)		(0.3)		(2)		(1)	
Kid head unemployed 1000 hours	-4		0.4		15		14	
	(159)		(2.6)		(18)		(13)	
Parent head unemployed 100 hours	-2		0.1		-2		-2	
	(26)		(0.4)		(3)		(2)	
Parent head unemployed 1000 hours	-162		0.1		-59		0.3	
	(335)		(4.1)		(37)		(26)	
Kid has no siblings	646	***	0.6		53	***	23	**
	(105)		(1.8)		(13)		(10)	
Kid has four siblings	-129	***	-0.1		-11	***	-5	**
	(21)		(0.4)		(3)		(2)	
Kid income is 10th percentile	91		-1.8		2		5	
	(71)		(1.2)		(8)		(6)	
Kid income is 25th percentile	61	*	-0.9		1		3	
	(35)		(0.6)		(4)		(3)	
Kid income is 75th percentile	-64		1.2		5		3	
	(85)		(1.4)		(9)		(7)	
Kid income is 90th percentile	-139	***	1.2		-4		-6	
	(49)		(0.8)		(6)		(5)	
Parent income is 10th percentile	-344	***	1.7	*	4		14	**
	(67)		(1.0)		(7)		(5)	
Parent income is 25th percentile	-195	***	0.9		5		6	**
	(35)		(0.6)		(4)		(3)	
Parent income is 75th percentile	211	***	-0.6		-8	**	-4	
	(32)		(0.5)		(4)		(3)	
Parent income is 90th percentile	503	***	-1.0		-16	**	-7	
	(62)		(1.0)		(7)		(6)	

Notes: See Table A2-2