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Long-Run Determinants of Intergenerational Transfers

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Long-Run Determinants of Intergenerational Transfers

Abstract

Understanding whether the elderly are saving adequately is fundamental to understanding whether elderly households are able to maintain reasonable living standards. One factor that affects wealth accumulation is the extent to which parents need to support children and the extent to which children need to support parents. The presence of Social Security may affect intergenerational transfers, but the extent to which it 'crowds out' transfers from parents to children is controversial. The ideal dataset to analyze these issues would have detailed information on two or three generations and measures of long range outcomes of parents and their children. The Wisconsin Longitudinal Study (WLS) offers a possibility to analyze the impact of transfer patterns on wealth accumulation. We look at transfers over a long time period, informed by different theories of transfer behavior, as well as how cognitive skills and other attributes earlier in the life-cycle influence transfer and saving behavior later on in life. Long-term transfers are less equally distributed across siblings than short-term transfers, and the sum of transfers and inheritances is less equally distributed than transfers and inheritances alone. Transfers from parents-in-law are positive but statistically insignificantly correlated with the amount of transfers received from one's own parents. Inter-vivos transfers from parents are not affected by transfers from parents-in-law. We find a strong positive association between the incidence of giving to own children and having received a gift from own parents, conditional on income and net worth.

Citation

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Introduction

Determining the adequacy of savings is fundamental for understanding the well-being of elderly households. One factor that affects wealth accumulation is the extent to which parents need to support children and the extent to which children need to support parents. The presence of social security has long been known to affect intergenerational transfers but the extent to which it 'crowds out' transfers from parents to children is controversial. The ideal dataset to analyze issues pertaining to the long-run determinants of intergenerational transfers would have detailed information on two or three generations as well as measures of long range outcomes of parents and their children. The Wisconsin Longitudinal Study (WLS) offers a possibility to analyze the impact of transfer patterns on wealth accumulation and has been unexplored.

The recent financial crisis had a large impact on economic well-being. It affected those nearing or in retirement and young households who faced a more difficult time in the labor market. With our data, we plan to look at the impact of this financial crisis on transfers from parents to children. If retirees, who have already experienced large declines in their financial capabilities, have the additional burden of supporting their children, the economic impact would be even larger than previously thought. On the flip side, with rising health care costs, retirees may be unable to transfer resources to their adult children and may even rely more on them to maintain their standard of living in retirement. Understanding the effects of transfers and the determinants of transfers is of importance. The impact of transfers from one's parents on transfers to others (the degree of crowding out) is an important parameter that is prominently featured in public policy discussions. Furthermore, if there are long-range determinants of transfers (for instance, if kids receive more transfers, do they transfer more to their children all else equal; are there other factors that would lead parents to transfer resources regardless of economic circumstances), these determinants are useful to policy makers to gauge the effect of changes in the social security system on the well-being of the elderly.

Models of transfers

Straightforward extensions of cooperative models to altruistic families with more than one child predict that transfers are compensatory. That is, transfers from parents to children will be negatively correlated with children's income.[1] Empirical studies on this topic are generally motivated in two ways. First, exchange and altruism are competing models of transfers within the family. If transfers are motivated by the exchange of goods, services, affection or some other act valued by donors, they may be positively correlated with the child's income (Bernheim, Shleifer, and Summers, 1985; Cox, 1987; Cox and Rank, 1992; Brown, 2002; but also see Perozek, 1998). Higher income on the child's part may increase the "price" the donor must pay to induce the recipient to respond. Under the altruistic model, transfers are given to maximize the utility of the extended family (Becker, 1974, 1991). A simple implication of the altruistic model is that transfers will be inversely related to children's income.

Several papers document the fact that, for more than 80 percent of the population, bequests are equally distributed among children (Menchik, 1980, 1988; Wilhelm, 1996; McGarry, 1999). This pattern seems inconsistent with simple models of altruism. The result for bequests is particularly puzzling, given that abundant evidence on *inter vivos* transfers finds patterns consistent with compensatory transfers (see, for example, Dunn and Phillips, 1997; Hochguertel and Ohlsson, 2000; McGarry, 1999, 2000a; McGarry and Schoeni, 1995, 1997). Bernheim and Severinov (2003) develop a model that reconciles these facts—children care about the extent to which they are valued and cannot directly observe their parent's preferences. Bequests are readily observable signals of parents' affection. For appropriate parameter values in Bernheim and Severinov's model, any fraction of the population will divide bequests equally, even when some parents in the population love their children unequally. Because *inter vivos* transfers may be unobservable, they may be unequally divided among children, but it is not fully clear that they are.

[1] It is also straightforward to develop noncooperative models that predict transfers will be compensatory *across* families, holding other things equal. Predictions about transfers within two-child families in the noncooperative framework are more complicated.

Many previous studies that show a negative relationship between *inter vivos* transfers and children's income have a potentially serious flaw in that they measure transfers over a one- or two-year period.[2] It is possible that sibling differences in the receipt of *inter vivos* transfers over a short time even out over longer periods. The WLS provides transfer data over respondents' adult lives. This information, and a second feature of the WLS data—detailed interviews with a random sibling of the primary WLS respondent—give us the ability to examine the degree of equality among *inter vivos* transfers over long periods of time. The WLS has other unique data items, such as IQ test scores for respondents. These data can better measure the economic status of transfer recipients. The WLS also offers a rare opportunity to tally transfers between three generations. Comparison of transfer patterns from parents to children and from children to grandchildren should provide valuable new information about transfer dynamics within families.

Distinguishing between altruism and exchange models has more than academic importance. If transfers are consistent with predictions from the altruistic model, increases (decreases) in social security or in public transfers through TANF, food stamps, unemployment insurance, or other means-tested transfers will decrease (increase) *inter vivos* transfers. In this case, government payments may substitute for within-family transfers. If families are more efficient than government in caring for their members or if the government safety net weakens family relationships, public policies that reduce intergenerational transfers may reduce family well-being. If instead the exchange motive or other norms for transfers (such as equal division) dominate, government payments are less likely to crowd out *inter vivos* transfers and, in the case of exchange, they may actually increase them.

[2] Respondents in the Assets and Health Dynamics Study are asked whether they gave $5,000 or more over the last ten years. Recent important work using multiple waves of the Health and Retirement Study aggregates repeated transfer questions to partially address this limitation (McGarry, 2013).

The WLS Data

The WLS is a long-term study of a random sample of 10,317 men and women who graduated from Wisconsin high schools in 1957 and of their randomly selected brothers and sisters. Data were collected from the original respondents or their parents in 1957, 1964, 1975, 1992, 2004 and 2011. The WLS has enjoyed high rates of response and sample retention. The data provide a full record of social background, youthful aspirations, schooling, military service, family formation, labor market experiences, and social participation of the original respondents. In 1977, the study design was expanded with the collection of parallel interview data for a highly stratified subsample of 2,429 siblings of the primary respondents. In the 1993 wave, the sample was further expanded to include a randomly selected sibling of every respondent, for a total of 8,732 siblings. The survey content was also extended to obtain detailed occupational histories and job characteristics; marital histories; incomes, assets, and interhousehold transfers; social and economic characteristics of parents, siblings, and children, and descriptions of the respondents' relationships with them; and extensive information about physical and mental health, personality and religious practices. The WLS participants were also matched with their school and public records, yielding reliable measures mortality, IQ (the 11th grade Henmon-Nelson score), school performance, school activities and attractiveness. The latter has been analyzed thoroughly in Scholz and Sicinski (2012).

New waves of WLS data were collected from the surviving primary respondents (in 2003 and 2011) and their randomly selected siblings (in 2004 and 2011) that update all information collected in the 1992 and 1993 surveys, and augments information from primary respondents and their selected siblings with detail about their relations with immediate family members. With these longitudinal multigenerational data, we are able to examine family relations involving two distinct sets of intergenerational pairings: (a) relations between the respondents and their aging parents, (b) relations between the respondents and their own children, as well as (c) relations between respondents and their siblings. Unlike the HRS (and other studies that overlap with the WLS cohort), in which information on siblings has been collected indirectly (i.e., from the primary respondents), the WLS provides more extensive, self-reported data from a randomly selected sibling, thus facilitating the statistical control of potentially important, yet unobserved, family-specific characteristics.

In the 1992, 1993 and later WLS surveys, respondents and selected siblings were asked to report whether they had received financial transfers greater than $1,000 from their parents or parents-in-law. If so, information was collected regarding the source of the transfer (mother, parents, father-in-law, etc.), the amount, the year, and the reason for the transfer. Possible reasons included: down payment for home, to increase wealth or reduce debt, payments for housing or other living expenses, educational expenses, or to spend any way the recipient wanted.

Respondents and siblings are also asked to report monetary transfers made to their parents and children since 1975, resulting in a record of transfer payments from 1975 to 2011. Prior to 2002, information on the children of respondents is somewhat limited. Additional information on the children of the respondents is collected in the more recent data so we can now examine transfers across all three generations. The WLS information is unique for a large-scale, federally supported survey and is well suited for examination of the correlates of transfer receipt.

Sample selection

The analyses presented in this paper involve sibling comparisons. Consequently, our sample is limited to families with two or more children. Among those, we only retain full and half sibling pairs, as differential treatment of adopted or step children, if present, could confound our results. We further limit the sample to siblings that are less than 15 years apart in age. The motivation for this is twofold. First, having siblings at roughly the same life stage assures that their financial needs are comparable (for example, both face educational or child rearing expenses). Second, we have no way to adjust the gift amounts for inflation and in the case of large sibling age differences, the monetary value of conceptually identical gifts, like college tuition, could be significantly different. Finally, we exclude cases where one of the siblings has not responded to any of the three survey waves where data on family transfers was collected. After applying all of the above criteria we assemble a subset of the WLS data that includes 4,919 sibling pairs. Table A1 in the appendix reports the summary statistics of the sample we use.

Descriptive Patterns of Intergenerational Transfers

Table 1 Descriptive Statistics of Intergenerational Transfers

	Average value	% > 0	Average value excluding 0	Sample size
		Lifetime transfers from parents		
Graduates	9455.82	24.9	41751.07	4879
Siblings	5418.42	25.82	24797.73	4842
Total	7444.8	25.36	33458.59	9721
		Lifetime transfers to parents		
Graduates	444.26	3.43	14684.46	4892
Siblings	369.33	3.33	13962.45	4839
Total	407	3.38	14349.62	9731
		Transfers from children since 2004		
Graduates	301.31	1.31	23495.53	3509
Siblings	117.03	1.24	9697.3	3066
Total	215.38	1.28	17269.5	6575
		Transfers to children since 2004		
Graduates	17510.55	42.19	43080.15	3496
Siblings	15001.92	38.99	39475.34	3055
Total	16340.68	40.7	41459.25	6551
		Lifetime transfers to children		
Graduates	40697.75	75.2	57626.7	4895
Siblings	28231.98	65.9	47652.51	4851
Total	34493	70.57	53098.85	9746

Table 1 reports some descriptive statistics. As reported in table 1, transfers in our sample overwhelmingly flow in one direction: from parents to children. While over 25 percent of respondents reported receiving at least one transfer from parents, only 3.38 percent have ever made transfers to their parents by 2011. The pattern repeats itself when looking down one generation. In the 2011 round of interviews just 1.28 percent of respondents have received a monetary gift from a child since 2004. At the same time, over 40 percent of them have made such gifts to their adult children during this period of time. This figure rise to 70 percent when we look at lifetime transfers to children. A similar picture emerges when transfer amounts are considered. Conditional on receiving a parental transfer, graduates got about $42K and siblings got about $25K on average. The mean gift in the reverse direction, when it occurred, amounted to about $14K for both the graduates and their siblings. Looking down one generation this pattern of giving and receiving also holds. Graduates gave their children an average of $43K and

received $23K, conditional on a transfer being made between 2004 and 2011. For siblings the corresponding amounts were about $39K and $10K. As noted above, the likelihood of a parent receiving a gift from a child over that time period is very small. This becomes apparent when looking at the unconditional means. Since 2004, the average sample member received $215 from his/her children while passing along $16K to the kids.

Results

We use logit models to study the factors affecting individual decisions on whether to give and to receive a transfer and we use linear models to analyze the factors correlated with the amount of transfers. The main regression results are reported below in this section.

Table 2 reports the results of our baseline regressions. Female participants were 25 percent more likely to ever receive financial assistance from parents than their male siblings. The odds of receiving a transfer are also higher for younger respondents. Each additional year of age reduces the likelihood of obtaining a transfer by 4.7 percent. If most transfers occur in early adulthood, this could simply reflect recall problems – older participants might have forgotten the help they received decades ago. The alternative explanation is that younger children come of age when the parents are at their peak earnings years and have more resources. Education is another important factor affecting transfers. Each additional year of education is associated with 7.3 percent higher odds of receiving parental support. Finally, parents respond to shocks in family formation experienced by their offspring. Divorce, loss of a spouse and failure to start a family all sharply increase the odds of receiving a transfer. Interestingly, none of the above characteristics appears to significantly influence the amount transferred. What triggers a transfer and how much is given are not determined by the same factors.

Table 2 Baseline Regressions of Transfer Giving and Receiving

	(1)	(2)	(3)	(4)
Sample Year	1992/1993		2004/2005	
Dependent Variable	Transfer from parents ever (prob.)	Transfer from parents ever (value)	Transfer to children ever (prob.)	Transfer to children ever (value)
Female	1.251***	1032.480	0.952	-22983.316**
	(0.109)	(2005.344)	(0.106)	(11002.026)
Year of birth	1.047***	165.871	0.981	-898.203
	(0.010)	(216.638)	(0.011)	(1210.389)
Education (years)	1.073***	-217.975	1.163***	3276.339
	(0.024)	(527.551)	(0.037)	(2796.844)
Divorced	1.747***	2743.763	0.596***	-17790.883
	(0.253)	(3240.768)	(0.108)	(18176.030)
Widowed	1.590*	-544.682	0.851	-5163.640
	(0.412)	(5710.827)	(0.166)	(19854.194)
Never married	1.778***	1699.146	0.088**	-8245.393
	(0.375)	(4968.759)	(0.093)	(70399.890)
Constant		-3170.789		-11999.633
		(12208.321)		(72046.239)
R2 / Pseudo R2	0.096	0.001	0.152	0.007
Sample size	9417	2474	7330	1674

a) Standard errors are in the parentheses.

b) * p<0.1, ** p<0.05, *** p<0.01.

c) Coefficients in columns 1 and 3 are odds ratios from logit regressions.

d) All models also include indicator variables for completing each of the survey waves. Models in columns 3 and 4 also contain a dummy for having a child with serious mental or developmental disabilities.

Analogous models for lifetime *inter vivos* transfers to the participants' children complement this picture. We do not observe significant gender differences in giving patterns among siblings and we don't see any effects of age. More educated siblings transfer money to their kids more frequently. Those that experienced divorce are a full 40 percent less likely to give anything to their children. This might reflect financial strain that often follows the dissolution of marriage. However, it is also possible that divorce creates tension between children and parents, who in turn experience diminished utility from making transfers.

The exceptionally rich set of personal attributes available in the WLS allows us to look at many previously unexplored correlates of transfers. Table 3 reports the correlation between these factors and the incidence and amount of intergenerational transfers.

Table 3 Extended Regressions of Transfer Giving and Receiving

	(1)	(2)	(3)	(4)
Sample Year	1992/1993		2004/2005	
Dependent Variable	Transfer from parents ever (prob.)	Transfer from parents ever (value)	Transfer to children ever (prob.)	Transfer to children ever (value)
Birth order	0.826***	-539.810	1.079	-9476.858
	(0.061)	(1451.323)	(0.087)	(8002.242)
Number of children	1.021	-37.888	1.035	4712.760
	(0.030)	(640.526)	(0.034)	(3409.066)
Household income	1.000	-8.737*	0.999	70.424***
($1000)	(0.000)	(5.144)	(0.001)	(15.392)
Net worth ($1000)	1.000	-5.729***	1.001***	23.693***
	(0.000)	(1.012)	(0.000)	(2.289)
IQ	1.037	-99.420	1.193**	7035.619**
	(0.064)	(1500.857)	(0.094)	(3507.233)
IQ conditional on	1.028	92.591	1.166*	7912.146**
income/wealth	(0.065)	(1623.298)	(0.095)	(3494.878)
Extraversion	1.038	935.596	1.186**	-10731.578
	(0.067)	(1789.640)	(0.099)	(6844.252)
Agreeableness	0.946	1343.888	0.907	-3769.290
	(0.063)	(1891.303)	(0.071)	(7100.483)
Conscientiousness	0.873**	-2572.155	1.148*	1337.376
	(0.056)	(1819.353)	(0.090)	(6898.177)
Neuroticism	0.926	594.011	0.918	1016.634
	(0.059)	(1836.657)	(0.079)	(7152.039)
Openness	0.910	282.863	1.059	17121.629**
	(0.062)	(1910.985)	(0.094)	(7458.419)

a) Standard errors are in the parentheses.

b) * p<0.1, ** p<0.05, *** p<0.01.

c) Coefficients in columns 1 and 3 are odds ratios from logit regressions.

d) All independent variables in table 1 are also included in the regressions above.

In the 1975 interview graduate respondents were asked to provide basic demographic information on all living siblings, which allows for the construction of a birth order measure.

We find that birth order significantly affects the likelihood of receiving money from parents. Having an additional older sibling lowers the odds of receiving a transfer by 17 percent. The amount of transfer is also lower in such case, although the estimate is not statistically significant. Birth order is not significantly correlated with decisions on whether and how much to give to their children.

In 1992/3 the study participants listed all children that they consider part of their family. The participants' parents do not appear to give more support to kids that produced more offspring. Respondents with more children are no more likely to make transfers to their kids or transfer more money.

In every wave of the survey participants were asked about their sources of income and various types of assets that they own. Due to a large number of missing reports in these variables we opt to use imputed measures of household income and net worth provided by the WLS. Respondents' income and wealth do not factor into the parents' decision on whether or not to make a transfer. However, conditional on receiving parental transfers, the amount received is reduced by 0.87 cents for every dollar of his or her household income. This sensitivity of transfers to financial success also extends to respondents' net worth, where it's found that one more dollar of net worth reduces the amount of parental transfers by about 0.57 cents. Not surprisingly, we observe much stronger effects of income and wealth when looking at the transfers that respondents made to their children. Here, an additional dollar of income reported in the 2004/5 round of interviews translates into an extra 7 cents passed down to children. The corresponding figure for net worth is 2.4 cents. Net worth also plays a role in determining the likelihood of a transfer to own children, but the magnitude of this effect is relatively small – the odd rises by about 1 percent for every additional 10 thousand of net worth.

The WLS has an exceptionally complete measure of ability. A major lookup effort in 1996 led the study to locate some version of the Henmon-Nelson test for every graduate respondent. Depending on the source, the scores were later normalized to assure inter person comparability. In 1993 sibling respondents were asked detailed information about the high school that they last attended. Attempts to retrieve test scores based on these reports were successful for 84 percent

of siblings in our sample. We observe no association between the respondent's IQ and either the incidence or amount of parental transfers received. However, raising IQ by one point improves the odds of giving to own children by 1.9 percent and increases total transfers by 703.6 dollars. Given the well-documented relationship between IQ and economic success, we also looked at a specification that controlled for income and wealth. This additional conditioning had little effect on the results.

Personality in the WLS is assessed through a 29-question abbreviated version of the 44-question "big five personality" inventory.[3] Four dimensions – extroversion, agreeableness, conscientiousness, and openness – are each assessed with 6 questions. Neuroticism is assessed with 5 questions. Typical questions are exemplified by the items used to assess extroversion, such as "To what extent do you agree that you see yourself as someone who is full of energy?" Or "To what extent do you agree that you see yourself as someone who tends to be quiet?" Respondents are asked to rate themselves on a 1 (agree strongly) to 6 (disagree strongly) scale for each of the various underlying questions. The single-item responses are then coded into average scores. Among these five personality measures, conscientiousness is the only one that is statistically significant correlated with the likelihood of receiving a transfer from parents. An additional point on the conscientiousness scale reduces the odds of getting a transfer by 12.7 percent. When transfers to own children are considered, conscientiousness is also significant, but here the effect is positive – it raises the odds of making a transfer by 14.8 percent. Giving behavior is also influenced by extraversion, a point increase in which raises the odds of making a gift to children by 18.6 percent.

Now that the factors affecting the decisions of intergenerational transfers are discussed, we can move on to test several hypotheses. We turn to these in the next section.

[3] Mueller and Plug (2006) describe the WLS personality measures and examine the links between personality and WLS earnings in 1992 for men and women. They report measures for Cronbach's alpha reliabilities of 0.76 for extroversion, 0.71 for agreeableness, 0.66 for conscientiousness, 0.77 for neuroticism, and 0.60 for openness. Accounting for the smaller set of questions underlying the personality trait scores, the reliability ratings are very similar to those found in other datasets.

Specific questions

The WLS provides valuable new information related to patterns of transfers within the family. First, we will systematically assess the degree to which the implications of empirical transfer models differ when estimated over longer time intervals relative to shorter time intervals. One might expect transfers to be more equally distributed over longer time periods, where potential recipients have had a greater chance to marry, buy a house, or have children. We can also examine whether the sum of inheritances and *inter vivos* transfers are more or less equally distributed than *inter vivos* transfers alone, using the WLS data on respondents and a selected sibling.

Calculating inheritances from parents in the WLS poses some challenges. The two main problems are double reporting and absence of data on who gave the inheritance in the 1992/3 wave and sampling of that question in the 2003/4 wave. In order to increase sample size we matched the inheritance date (which was asked of everyone) with the date of death of the parents. We allowed for recall error by using a four year window (one year before the death of a parent and two years after). Following that assignment we counted all inheritances from parents reported across time. When we encountered multiple reports of an inheritance from the same person, we followed an elaborate set of rules aimed at retaining the most reliable report. The final analysis data contains at most one inheritance from each parent.

We take two approaches to gain insight into how inter vivos transfers, inheritances and the sum of the two (total transfers) are distributed. The first involves categorizing each of the three transfer variables into six brackets, lowest of which was no transfer and the highest being transfers in excess of $100,000. We cross-tabulate these categorical variable for graduates and siblings. If total transfers are more equally distributed than transfers alone, we would expect more elements on the diagonal of the tabulation table. Instead, in table 4, we see the opposite pattern. The sum of cell frequencies along the diagonal is highest for transfers received from parents until 1992/93 (73 percent), lower for transfers received over the respondent's lifetime (68 percent), yet lower for the value of inheritances received (57 percent) and finally lowest for total transfers (46 percent). In the second approach we construct the coefficient of variation for the transfer amounts reported by the graduate and the sibling and count how often these two reports

are “close” to each other. Specifically, we count any pair of reported transfers with a coefficient of variation less than 0.25 as close. The intuition behind this method is that measurement and recall error can be substantial, but also likely proportional to the amounts involved (70K and 90K might be close, but 5K and 25K are not). This approach eliminates the need to choose arbitrary ranges, as is the case for the tabulation discussed above. The results for this approach corroborate the earlier finding. 70 percent of 1992/3 transfers are close, followed by 64 percent of lifetime transfers, 54 percent of inheritances and 43 percent of total transfers.

In summary, it seems that long-term transfers are less equally distributed across siblings than short-term transfers and the sum of transfers and inheritances is less equally distributed than transfers and inheritances alone.

Table 4 Distribution of Parental Transfers Received By Graduates and Siblings

	Transfers by 1992							
Received by	Received by graduates							
siblings	0	0-5K	5-10K	10-25K	25-50K	50-100K	100K+	Total
0	70.47	4.87	1.71	1.66	0.79	0.3	0.12	79.93
0-5K	7.05	1.32	0.65	0.2	0.2	0.05	0.02	9.49
5-10K	2.33	0.67	0.4	0.35	0.1	0.12	0.02	4
10-25K	2.16	0.57	0.22	0.35	0.32	0.07	0.02	3.73
25-50K	0.87	0.25	0.2	0.22	0.2	0.12	0.02	1.89
50-100K	0.32	0.02	0.07	0.1	0.05	0.05	0.05	0.67
100K+	0.15	0	0	0.02	0	0.05	0.07	0.3
Total	83.36	7.7	3.25	2.91	1.66	0.77	0.35	100
	Transfers over the lifetime							
0	64.6	6.14	2.5	2.46	1.31	0.81	0.29	78.11
0-5K	6.23	1.44	0.79	0.31	0.23	0.04	0.04	9.08
5-10K	2.6	0.67	0.5	0.37	0.21	0.12	0	4.48
10-25K	2.02	0.48	0.35	0.6	0.54	0.1	0.06	4.16
25-50K	0.98	0.31	0.12	0.29	0.4	0.17	0.1	2.37
50-100K	0.44	0.04	0.08	0.19	0.08	0.12	0.06	1.02
100K+	0.42	0	0.02	0.06	0	0.04	0.23	0.77
Total	77.28	9.08	4.37	4.29	2.77	1.42	0.79	100

Table 4 Continued

Received by siblings	Inheritances received: Received by graduates: 0	0-5K	5-10K	10-25K	25-50K	50-100K	100K+	Total
0	47.29	1.89	2.41	4.86	3.91	2.47	2.14	64.97
0-5K	1.64	0.6	0.19	0.35	0.08	0.12	0.06	3.05
5-10K	1.95	0.21	0.69	0.69	0.31	0.08	0.08	4.01
10-25K	4.01	0.25	0.71	2.72	1.21	0.48	0.15	9.52
25-50K	3.18	0.1	0.25	1.06	2.2	1.12	0.27	8.19
50-100K	1.83	0.08	0.04	0.23	0.93	1.23	0.73	5.07
100K+	1.56	0.05	0.06	0.12	0.44	0.73	2.22	5.19
Total	61.46	3.2	4.34	10.04	9.08	6.23	5.65	100

Total transfers (lifetime transfers + inheritance) received

	0	0-5K	5-10K	10-25K	25-50K	50-100K	100K+	Total
0	34.11	4.59	2.75	4.72	3.41	2.19	1.92	53.7
0-5K	3.89	1.22	0.58	0.91	0.56	0.35	0.33	7.84
5-10K	2.54	0.58	0.93	0.81	0.52	0.27	0.14	5.79
10-25K	3.72	0.64	0.95	3.06	1.61	0.79	0.37	11.15
25-50K	2.65	0.6	0.35	1.49	2.19	1.26	0.5	9.04
50-100K	1.59	0.27	0.12	0.48	1.16	1.51	0.87	6
100K+	1.43	0.27	0.17	0.29	0.54	0.93	2.85	6.47
Total	49.94	8.17	5.85	11.75	9.99	7.3	6.99	100

Models of parental altruism imply that parents equate the marginal utility of consumption across generations. Such models typically unequal transfers across children to compensate their differential economic circumstances.

Second, as noted above, bequests appear to be equally distributed. The primary explanation for this phenomenon is that equal division reflects a sense of fairness or equality across children. This would arise, for example, in the separable earnings-transfers model of Behrman, Pollak, and Taubman (1982), in which the child's earnings enter the parental utility function separately from transfers. An implication is that parental transfers are independent of children's earnings. If these sentiments extend to *inter vivos* transfers, one might expect to see that transfers received from parents-in-laws do not crowd out transfers received from one's own parents. We will estimate

the degree to which transfers from parents-in-laws crowd out transfers from one's own parents, using data from the WLS.

We run a fixed-effect linear regression of transfers from parents on a basic set of personal characteristics and the value of transfers received from parents-in-law. We run separate regressions for the period up to 1992/93 and for lifetime transfers. From table 5, we can see that in both cases the amount of transfers from parents-in-law are positive but statistically insignificantly correlated with the amount of transfers received from one's own parents. It appears that inter-vivos transfers from parents are not affected by transfers from parents-in-law. We note that a null finding in this case is inconclusive, since the lack of effect on parental giving might simply indicate that transfers from parents-in-law are hard for parents to observe. This explanation is supported by the positive and statistically significant correlation between the occurrence of a transfer from parents-in-law and from own parents. It's likely that both sets of parents observe the need of the respondents and respond with a transfer, but their actions are not coordinated.

Table 5 Parental Transfer and Transfers from Parents-in-law

	(1) Received Transfer from parents by 1992 (prob.)	(2) Ever received transfer from parents (prob.)	(3) Transfer from parents by 1992 (value)	(4) Transfer from parents ever (value)
Received gift from parents-in-law by 1992	1.979***			
	(0.296)			
Ever received gifts from parents-in-law		2.166***		
		(0.313)		
Value of gifts from parents-in-law by 1992			0.032	
			(0.028)	
Value of gifts from parents-in-law ever				0.006
				(0.015)
Constant			294.522	-144.708
			(7113.272)	(19219.381)
R2 / Pseudo R2	0.075	0.134	0.002	0.001
Sample size	1934	1764	8822	7866

a) Standard errors are in the parentheses.

b) * p<0.1, ** p<0.05, *** p<0.01.

c) Coefficients in columns 1 and 3 are odds ratios from logit regressions.

d) All independent variables in table 1 are also included in the regressions above.

Third, the WLS gathers qualitative information on the reasons respondents allocate resources unequally across recipients. For inheritances received, WLS respondents are asked whether the estate was divided "about evenly," and if it was not, an open-ended question asks for the reason for unequal division. Similarly, for cash gifts given by WLS respondents to their children, respondents are asked whether gifts have been divided about evenly among all their children. The WLS follows this question by asking, not counting bequests, whether the WLS respondent plans on giving all their children about the same amount of financial help. For those who plan to give different amounts, the WLS asks why. Responses to these questions provide new evidence on parents' intentions about financial transfers. These intentions can then be assessed relative to self-reported behavior between 1975 and 2011. Our analysis of these intentions reveals that the majority of households divided their estates about evenly and that this has been fairly consistent over time.

The unique structure of the WLS allows us to greatly expand our analysis of factors correlated with transfers. In particular, we have multigenerational data which offers the largest advantage relative to other datasets. It seems possible that transfer behavior is "learned," in the sense that people are more likely to make transfers to children when they received transfers from their own parents. Table 6 investigates this possibility.

Table 6 Parental Transfer and the Transfer to Children

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent	Positive transfers to children				Amount of transfers to children			
variable	by 1992	by 2004	by 2011	ever	by 1992	by 2004	by 2011	ever
Parental transfer Received by 1992	1.36**	1.68***	0.92					
	(0.18)	(0.25)	(0.15)					
Received ever				1.42**				
				(0.25)				
Amount received by 1992					-0.065**	-0.185***	-0.043	
					(0.03)	(0.02)	(0.08)	
Amount received ever								0.02
								(0.06)
R2 / Pseudo R2	0.088	0.112	0.051	0.211	0.059	0.109	0.007	0.066
Sample size	2584	1846	1336	1616	7988	6311	5140	7220

a) Standard errors are in the parentheses.

b) * p<0.1, ** p<0.05, *** p<0.01.

c) Coefficients in columns 1-4 are odds ratios from logit regressions.

d) All independent variables in table 1 are also included in the regressions above.

We find a strong positive association between the incidence of giving to own children and having received a gift from own parents, conditional on income and net worth. The odds of making a gift to own children rise by 36% in 1992/3 and increase to 68% by 2003/4. The relationship disappears in 2011, indicating that transfers to fully grown and independent children may be governed by different motivations. Amount of transfers also depend on the generosity of one's own parents, though here the association is negative in 1992/3 and 2003/4. By 2011 it ceases to be statistically significant and is also not observed for aggregate amounts given.
It appears that respondents who received financial assistance from parents are more likely to help their own kids, but the amounts given are inversely related to the amounts those respondents received themselves. This is consistent with the theory of compensatory transfers. If parents give larger transfers to disadvantaged children and those children in turn feel obliged to extend the same kindness to their offspring, it is understandable that they would not be able to give as much as their better-to-do siblings.

Fifth, the WLS has outstanding data for examining the so-called "strategic" transfer motive. In particular, the survey in 2011 asks the following of the respondent for *every* child a) frequency of contact, b) distance (in miles), c) "how likely are you to ask [name] for help if you need some money to help pay your bills," d) whether the child is making demands, and e) the health of the child. The survey also allows us to identify children with developmental disabilities. There are also specific questions about the respondent's financial literacy and their attitudes. These are precisely the questions needed to investigate the degree to which transfers are affected by contact between children and their parents. It is also an empirically important matter – almost 60 percent of WLS respondents (recall, they are in the early 70s by 2011) are still financially helping their children. Learning more about the magnitude and determinants of these transfers should provide valuable insight into better understanding the financial well-being of the elderly and their families.

For this analysis we constructed a different sample. We take all graduates with children (regardless of whether they have a sibling or not) and construct variables with the information described above for every child that respondent has. We exclude respondents with children that have developmental disabilities or a long-term, serious mental illness. Subsequently we reshape the data so that each child became a separate observation. The resulting sample has 10,876 observations from 4,020 families. As before, we analyze this data using fixed effects models, only this time the graduate respondent serves as the grouping variable.

Table 7 Parent-Child Contact and Parental Transfers to Children

	Pooled sample		Men only		Women only	
	probability	value	probability	value	probability	value
		-		-		-
Child is female	0.819**	2542.451***	0.755**	4077.187***	0.876	1222.149***
	(0.068)	(686.528)	(0.091)	(1392.313)	(0.105)	(472.817)
Child is biological	1.373*	918.837	1.224	1188.411	1.763*	980.768
	(0.248)	(1483.889)	(0.298)	(2792.894)	(0.515)	(1090.924)
Child is married	0.640***	-1365.580*	0.696**	-1577.758	0.588***	-945.802*
	(0.063)	(812.075)	(0.102)	(1649.871)	(0.082)	(552.935)
Child DOB	1.004***	1.128	1.006***	-1.933	1.002	4.022
	(0.001)	(6.726)	(0.001)	(13.363)	(0.001)	(4.628)
Number kids child has	1.120***	89.274	1.130**	70.631	1.126***	100.677
	(0.036)	(206.879)	(0.056)	(350.294)	(0.048)	(175.974)
Frequency of telephone	1.230***	-98.389	1.246***	-191.727	1.213***	-176.456
contact	(0.066)	(435.031)	(0.102)	(896.031)	(0.089)	(290.961)
Frequency of email contact	1.001	449.753	0.993	863.851	0.989	141.410
	(0.036)	(301.062)	(0.056)	(653.434)	(0.047)	(192.707)
Frequency of in-person	1.024	317.089	1.041	562.257	0.993	261.424
contact	(0.044)	(345.682)	(0.067)	(714.674)	(0.059)	(230.481)
Similarity of outlook on life	0.971	430.366	1.129	194.954	0.867	524.530
	(0.070)	(593.865)	(0.122)	(1207.965)	(0.087)	(400.131)
How close to child	1.134	417.591	1.171	1297.050	1.129	-332.420
	(0.111)	(791.977)	(0.166)	(1594.382)	(0.158)	(537.274)
Likely to ask child for	1.006	348.422	0.969	302.968	1.030	348.635
help when sick	(0.054)	(455.625)	(0.077)	(935.135)	(0.078)	(304.260)
Likely to ask child for	0.692***	-1038.550**	0.612***	-1898.070**	0.732***	-505.014**
help with bills	(0.033)	(404.987)	(0.050)	(917.000)	(0.045)	(252.691)
Distance to child (miles)	1.000	-1.518***	1.000	-2.542***	1.000	0.008
	(0.000)	(0.490)	(0.000)	(0.884)	(0.000)	(0.377)
How loved child makes feel	1.143	-293.751	1.099	-335.114	1.152	-53.284
	(0.105)	(733.892)	(0.153)	(1508.099)	(0.146)	(491.035)
How demanding child is	1.677***	1075.493*	1.775***	467.497	1.556***	1686.381***
	(0.122)	(644.122)	(0.182)	(1265.469)	(0.166)	(447.089)
How well child listens	1.139*	-15.899	1.081	-790.456	1.227**	423.075
	(0.078)	(576.238)	(0.112)	(1176.380)	(0.116)	(386.746)
How critical child is	0.893*	43.010	0.725***	355.794	1.064	-311.967
	(0.061)	(554.540)	(0.073)	(1112.307)	(0.100)	(379.752)
Child obtained BA degree	0.861	251.571	0.947	995.627	0.804	-391.197
	(0.092)	(881.282)	(0.150)	(1805.569)	(0.118)	(587.914)
Child's health	0.911	-470.636	0.888	-644.988	0.922	-324.652
	(0.055)	(518.052)	(0.085)	(1105.839)	(0.073)	(335.146)

Different factors seem to govern the likelihood of giving to children and the amounts given. Younger children, biological children, number of grandkids, frequency of telephone contact, how well the child listens and how critical child is influence the incidence of giving, but not amount. Daughters are less likely to receive gifts and end up receiving less conditional on receiving. Same holds for children that are married. Children that make many demands receive gifts more often and also receive more. Children that live further away receive less. The most revealing item is "help with bills". Children that the respondent would turn to for financial help have much lower odds of receiving gifts and receive significantly less. Again, the observed patterns suggest that transfers are compensatory.

CONCLUSIONS

Understanding the determinants of intergenerational transfers is of first order interest not only for better understanding the motives behind transfers but also to build models that are well equipped to analyze the impact of economic policies. Using data from the WLS, we perform a multigenerational analysis of the determinants of transfers. We summarize some of the key findings.

We observe no association between the respondent's IQ and either the incidence or amount of parental transfers received. However, raising IQ by one point improves the odds of giving to own children by 1.9 percent and increases total transfers by 703.6 dollars. An additional point on the conscientiousness scale reduces the odds of getting a transfer by 12.7 percent. When transfers to own children are considered, conscientiousness is also significant, but here the effect is positive – it raises the odds of making a transfer by 14.8 percent.

Long-term transfers are less equally distributed across siblings than short-term transfers and the sum of transfers and inheritances is less equally distributed than transfers and inheritances alone. The amount of transfers from parents-in-law are positive but statistically insignificantly correlated with the amount of transfers received from one's own parents. It appears that inter-vivos transfers from parents are not affected by transfers from parents-in-law.

We find a strong positive association between the incidence of giving to own children and having received a gift from own parents, conditional on income and net worth. The odds of making a gift to own children rise by 36% in 1992/3 and increase to 68% by 2003/4.

Table A1 Descriptive Statistics of the Sample

Wave	Variable	Mean	SD	N
	Graduates			
1957	Female	0.53	0.50	4919
1957	Year of birth (two digit)	38.86	0.49	4919
1975	Birth order	2.33	1.66	4917
1992	Education (years)	13.68	2.31	4894
1992	Married	0.83	0.37	4892
1992	Number of children	2.98	1.69	4891
1992	Household income ($1000,imputed)	86.37	252.23	4894
1992	Net worth ($1000,imputed)	357.11	1107.08	4894
2004	Education (years)	13.77	2.35	4201
2004	Married	0.80	0.40	4346
2004	Number of children	3.07	1.73	4344
2004	Household income ($1000,imputed)	88.54	187.56	4165
2004	Net worth ($1000,imputed)	938.19	2099.41	4153
1992-2011	Received gift from parents	0.25	0.43	4879
1992-2011	Value of gifts from parents ($1000)	9.46	191.00	4879
1992-2011	Value of inheritance from parents ($1000)	31.44	241.00	4896
1992-2011	Gave gifts to children	0.75	0.43	4895
1992-2011	Value of gifts to children ($1000)	40.70	214.00	4895
	Siblings			
1975	Female	0.52	0.50	4919
1975	Year of birth (two digit)	40.00	6.38	4919
1992	Birth order	2.62	1.63	4917
1993	Education (years)	13.68	2.47	4668
1993	Married	0.80	0.40	4660
1993	Number of children	2.90	1.85	4654
1993	Household income ($1000,imputed)	73.55	144.75	4301
1993	Net worth ($1000,imputed)	357.49	1292.55	4209
2005	Education (years)	13.92	2.53	3729
2005	Married	0.77	0.42	4061
2005	Number of children	2.93	1.82	3842
2005	Household income ($1000,imputed)	96.71	426.70	3795
2005	Net worth ($1000,imputed)	887.02	2665.30	3768
1993-2011	Received gift from parents	0.26	0.44	4842
1993-2011	Value of gifts from parents ($1000)	5.42	53.07	4842
1993-2011	Value of inheritance from parents ($1000)	32.03	349.00	4835
1993-2011	Gave gifts to children	0.66	0.47	4851
1993-2011	Value of gifts to children ($1000)	28.23	237.00	4851

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