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Intergenerational Transfers and Savings Behavior

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"If Riches are yours, why don't you take them with you t'other world?"
—Ben Franklin, *Poor Richard's Almanac*

4.1 Introduction

What is the source of household wealth? Economists generally agree that there are two possible sources: households can engage in life-cycle saving by not consuming all of their income, or they can receive bequests or inter vivos transfers from individuals outside of their household. Clearly, both forms of wealth accumulation occur. For at least two decades, however, there has been an ongoing debate about the relative magnitude of these two sources of wealth. This debate was largely started by the seminal paper of Kotlikoff and Summers (1981), which found that life-cycle wealth accounted for only 20 percent of U.S. total net worth. Other authors, notably including Franco Modigliani (1988), the "father" of the life-cycle hypothesis, responded with calculations showing that over 80 percent of net worth can be explained by life-cycle saving.

The source of household wealth is important for many reasons. For example, the behavioral effects of many government programs, such as Social Security, the taxation of savings, and targeted savings programs, will likely depend upon the source of wealth. Debates about the fairness of the wealth distribution in the United States and the extent to which there is intergenerational mobility across this distribution, depend on whether wealth is primarily earned or inherited. The relative importance of life-cycle and transfer wealth also informs the choice of whether to use life-cycle, dynasty, or

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other models to represent household decision making, and thus has implications for a broad range of policies, such as how we think about household responses to government fiscal policy.

This paper makes two contributions to this literature. First, using the 1998 Survey of Consumer Finances, we provide new evidence suggesting that transfer wealth accounts for approximately 20–25 percent of current household net worth, suggesting a much larger role for life-cycle savings than was found by Kotlikoff and Summers (1981). This figure is calculated in two ways, both of which yield quite similar results: (1) direct survey evidence, and (2) estimating of the flow of transfers in 1998 using an improved methodology that accounts for the correlation between wealth and mortality and converting this into a stock of transfer wealth. In addition to the methodological improvement, new estimates are useful because the composition of household wealth has changed substantially over the past several decades (Juster et al. 1999).

Second, we examine the heterogeneity of the size of transfers received and expected. We demonstrate that while in aggregate, transfer wealth does not appear to be as large as some prior estimates suggest, it is nonetheless quite important for a small subset of the population. Specifically, we show that approximately one-fifth of households report receiving a transfer, and one-eighth expect a substantial transfer in the future. For those households that have received transfers, transfer wealth accounts for, on average, half of current net worth. For lower-wealth households (those with less than $75,000), transfer wealth on average exceeds current wealth.

This paper proceeds as follows. In section 4.2, we review some of the literature relevant to the debate over the relative importance of transfer and life-cycle wealth. We discuss our primary data set, the 1998 wave of the Survey of Consumer Finances (SCF), in section 4.3. Section 4.4 directly estimates transfer wealth using survey questions about the receipt of transfers. Section 4.5 provides an alternative estimate of transfer wealth by calculating the flow of bequests in 1998 using wealth-adjusted mortality rates and converting this into a flow of bequests. In section 4.6, we provide evidence about the degree of heterogeneity in the importance of transfers received and expected. Section 4.7 concludes.

4.2 Literature Review

Modigliani and Brumberg (1954) and Ando and Modigliani (1963) presented the life-cycle hypothesis (LCH), which soon emerged as the principal model of saving behavior and wealth accumulation. According to the LCH, wealth arises from households saving out of current income to finance a future period of retirement. Kotlikoff and Summers (1981) asked whether life-cycle savings alone could explain observed levels of wealth accumulation. They estimated the excess of labor earnings over consumption

using aggregate data on a cohort-by-cohort basis and then accumulated the differences to see how the aggregated savings compared to actual observed wealth. They concluded that approximately 20 percent of total wealth was due to life-cycle saving. They also estimated a flow of bequests using the 1962 SCF and a general mortality table, converted it into transfer wealth, and found that the net worth in 1974 was around 150 times the flow of bequests in 1974. This second approach confirmed their primary finding that the majority of aggregate wealth could be attributed to transfers.

The findings of Kotlikoff and Summers (1981) spawned a debate that is still unresolved today. The primary issues in this debate were clearly delineated in a pair of articles by Modigliani (1988) and Kotlikoff (1988). These articles highlighted several important conceptual and methodological differences. For example, should the interest earned from an initial transfer be treated as part of the transfer or as self-accumulated wealth? Should college aid for a dependent child over age eighteen be treated as consumption or as a transfer?

Gale and Scholz (1994) extended the debate further by presenting evidence on the importance of inter vivos gifts, including payment of college tuition, using the 1986 SCF. Using the flow-to-stock conversion methodology (and general mortality tables), they concluded that inter vivos transfers account for at least 20 percent of U.S. wealth (32 percent if college aid is included) and bequests account for at least 31 percent of U.S. wealth.

As surveyed in Gale and Slemrod (2001), there are also a number of overlapping generations model simulations examining this issue (Masson 1986; Laitner 1990; Lord and Rangazas 1991). These models have also produced a wide range of estimates but have made useful conceptual contributions by demonstrating how factors such as credit constraints can affect the shares of life-cycle and transfer wealth.

Finally, some studies estimate transfer wealth directly from survey responses. Hurd and Mundaca (1989), using a 1964 survey of the affluent, estimate that transfers account for roughly one-quarter of total wealth, a substantially smaller share than suggested by Kotlikoff and Summers (1981).

There are several reasons to revisit this well-researched question. First, we are able to bring to bear much more recent data. Several decades have elapsed since the period examined in the Kotlikoff and Summers (1981) study, and over that time we have seen significant changes in the composition of household portfolios. Defined benefit pension plans have been increasingly replaced by bequeathable defined contribution plans, and there is much broader ownership in equities due to the rise in mutual funds. Second, to our knowledge, no prior work measuring aggregate wealth transfers has accounted for the wealth-mortality correlation that is now known to be significant. Third, we focus attention on the concentration of bequests and show that even if bequests are small in aggregate, they are quite significant for the households that receive them.

4.3 Data

This paper uses data from the 1998 SCF, which is a cross-sectional survey that has been conducted every three years since 1983 by the Federal Reserve Board. The data set, which is described in more detail by Kennickell, Starr-McCluer, and Surette (2000), sampled 4,305 households in 1998. The SCF oversamples higher-wealth households because asset ownership is highly skewed, and as a result, it is necessary to weight the data to convert sample averages to population aggregates.

In addition to collecting a rich set of data on household assets and liabilities, the SCF asks households if they have ever given financial support to relatives or friends, and the amount given. It also asks the household to provide details for up to three inheritances, gifts, or trusts that they have received including relation to donor, year received, value when received, and whether it was a bequest or an inter vivos transfer. Additionally, households are asked if they expect to receive a substantial transfer in the future, and if so, how much. Therefore, the SCF provides several different routes one can use to estimate transfer wealth. Two primary methods, self-reported receipts by SCF respondents and the calculation of bequest flows from the SCF respondents, are examined in the next two sections.

4.4 Direct Estimation of Transfer Wealth from Survey Data

The first approach we undertake is to directly estimate transfer wealth based on household reports of transfers received. While this approach is subject to limitations (Kotlikoff 1988), it provides a useful starting point. As we will show, an independent method in section 4.5 will produce similar results.

The SCF asks households to provide details of up to three inheritances/trusts/transfers they have received.[1] Table 4.1 reports inheritances and inter vivos transfers received in the period 1993–September 1998 for people surveyed for the 1998 SCF. Kennickell, Starr-McCluer, and Surette (2000) report that September 1998 is the midpoint of the period during which the 1998 SCF interviews were conducted. In the data set, the date the inheritance is received is rounded to the nearest 5. Thus, "1995" corresponds to inheritances received from 1993 to 1997 and "1998" corresponds to inheritances received during the first nine months of 1998.

After converting the SCF sample averages to population aggregates using the population weights, gross transfers received from 1993 through

1. For households that have received more than three substantial transfers, the SCF asks households to value all additional transfers beyond the top three. However, the SCF does not ask the respondent to give the date of receipt or who the donor was for these additional transfers. Households report the value of the additional transfers is $20.3 billion (weighted to reflect the population).

Table 4.1 **Inheritances and Transfers Reported by Recipients over 1993–1998 in 1998 SCF**

	Total	Inheritance and Inherited Trust	*Inter vivos* Transfer/Gift/Trust
1993–Sept. 1998	847	579	268
Amount per year	147	101	47
	1993–September 1998, by Donor		
From parents	590	404	186
From grandparents	88	51	36
From uncle/aunt	40	34	6
From sibling	57	21	37
From friend	42	41	1
From child	23	22	1
Other	8	6	2

Source: Authors' calculations.

Notes: The SCF asks households to give details about three inheritances/gifts/trusts. A bequest/transfer to a spouse is not counted as a bequest/transfer. The year of receipt is rounded to the nearest five, and the reported value is at time of receipt. Transfers received over 1993–1997 are grossed up by a factor of 1.068 to be converted to 1998 dollars. Kennickell, Starr-McCluer, and Surette (2000) report that September 1998 is the midpoint of the period during which the 1998 SCF interviews were conducted. Data weighted to reflect population. Amounts are in billions of 1998 dollars.

September 1998 totaled $847 billion (1998 dollars). Just over two-thirds of the financial support came in the form of a bequest, and the remaining one-third were inter vivos transfers. Not surprisingly, the vast majority (70 percent) of transfers, both bequests and inter vivos gifts, are from parents. Transfers from grandparents constitute 10 percent of total transfers.

Table 4.1 reported gross transfers received since 1993, but some survey respondents report receiving inheritances and inter vivos gifts as far back as 1940. Table 4.2 sums up all inheritances and transfers ever received. By summing up past transfers, we can directly estimate what fraction of current net worth is attributable to transfers received, assuming these transfers had been saved. The remaining part of net worth represents life-cycle wealth (the accumulation of differences between yearly income and consumption).

To be specific, the question we ask is, assuming everyone currently alive had saved all the transfers they received, along with the accumulated interest, how much wealth would that represent? In other words, what is the maximum portion of wealth people hold today that can be attributable to transfers they have received in the past. This is what we will define as transfer wealth throughout the paper. Importantly, our transfer wealth calculation does not represent what is actually left over from transfers received, as we have no way of knowing what fraction of transfers is consumed and what fraction is saved. Rather, it represents what the value would be of all

Table 4.2 **Compute Stock of "Transfer" Wealth using 1998 SCF**

	Scale Previous Gifts by Inflation	Scale Previous Gifts by Long-Term High-Grade Corporate Bond Return
Total transfer wealth	2,465	5,405
Inheritances/Inherited trust	1,885	4,226
Inter vivos transfer/trust	580	1,178
	Transfer Wealth, by Donor	
From parents	1,719	3,863
From grandparents	377	819
From uncle/aunt	134	317
From sibling	109	189
From friend	68	120
	Scale Previous Gifts by 50% Long-Term U.S. Gov't Bond and 50% Large Company Stock	Scale Previous Gifts by Large Company Stock Return
Total transfer wealth	17,326	29,203
Inheritances/Inherited trust	15,057	25,861
Inter vivos transfer/trust	2,269	3,342
	Transfer Wealth, by Donor	
From parents	8,488	13,057
From grandparents	7,552	14,310
From uncle/aunt	570	816
From sibling	313	435
From friend	252	382

Source: Authors' calculations.

Notes: Total transfer wealth does not include $20.3 billion of transfers that do not give information on year received, whether was inheritance or *inter vivos* transfer, and who the donor was. Data weighted to reflect population. Amounts in billions of 1998 dollars. Total net worth is equal to $28,794 billion dollars.

the transfers received in the past, plus accumulated interest, had they been saved. This calculation is instructive because it provides an upper bound to the value of what is actually left over from transfers received in the past.

One methodological issue that arises in aggregating past transfers is the decision about how to treat the investment returns on past transfers. Should investment returns be classified as part of transfer wealth or as part of life-cycle saving? It is our view that because life-cycle wealth can be viewed as the value of transfers given minus the value of transfers received, it is sensible to include investment returns on past transfers as part of transfer wealth.[2] Clearly, doing so will result in a higher level of transfer wealth

2. Obviously this need not be a "none or all" decision. For example, one could plausibly argue that returns at the risk-free rate should be included as transfer wealth and any excess returns be included as life-cycle wealth.

than would the alternative. Of course, this raises another methodological issue, the issue of what investment return to apply to past transfers. The choice of return can have a substantial impact on the current size of bequests received many years ago.

Ibbotson Associates reports that average annual inflation from 1926 to 98 was 3.2 percent in the United States, long-term U.S. government bonds had an average nominal return of 5.7 percent, high-grade long-term corporate bonds had an average nominal return of 6.1 percent, and large company stocks had an average nominal return of 13.2 percent. As table 4.2 demonstrates, the choice of scaling factor will have a large effect on the magnitude of gross transfer wealth.[3] The 1998 SCF estimates total net worth in 1998 at $28.8 trillion. When previous gifts are scaled by inflation only (so that investment returns are implicitly included in life-cycle wealth), transfer wealth represents only 9 percent of current net worth.

If instead we gross up past returns by the return offered on corporate bonds (which had a real return of approximately 3 percent over the past seventy years), our estimate of transfer wealth rises to $5.4 billion, or just under one-fifth (19 percent) of current net worth. This estimate is in line with the results of Modigliani (1988). Transfers from parents constitute 71 percent of the value of all transfers received and bequests constitute 78 percent of transfer wealth.

In table 4.2, we show how our estimates of transfer wealth would change if we assumed transfers were invested partially or fully in equities. If transfers are invested 50 percent in government bonds and 50 percent in stocks (an average real return of 6.3 percent), transfer wealth rises to $17.3 trillion (60 percent of current net worth). Finally, if all transfers are invested in large company stocks, then essentially all net worth is due to transfers received (in fact, transfer wealth actually slightly exceeds current net worth). This choice also affects the relative importance of the source of transfers. Because gifts from grandparents were, on average, received longer ago, scaling transfers by equity returns causes grandparent gifts to comprise roughly the same share of transfer wealth as do gifts from parents.

These estimates suggest that the importance of transfer wealth is quite sensitive to the treatment of investment returns. Estimates of the share of transfer wealth vary from 9 percent to 100 percent, as the return is varied from inflation only to a 100 percent equity investment. We believe that a real rate of return of 3 percent seems the most plausible assumption, and thus we will scale past gifts by the corporate bond rate, unless stated otherwise, throughout the remainder of the paper.

In table 4.3 we replicate the algorithm in table 4.2, only this time we use

3. When grossing up past transfers, we assume that transfers earn the actual rates of return observed from the date of receipt to the present (rather than assuming the transfer grows at some constant rate).

Table 4.3 Compute Stock of "Transfer" Wealth using 1989 SCF

	Scale Previous Gifts by Inflation	Scale Previous Gifts by Long-Term High-Grade Corporate Bond Return
Total transfer wealth	2,670	4,300
Inheritances/Inherited trust	2,121	3,455
Inter vivos transfer/trust	549	845

Source: Authors' calculations.

Notes: Total transfer wealth does not include $39.0 billion of transfers that do not give information on year received, whether was inheritance or inter vivos transfer, and who the donor was. Data weighted to reflect population. Amounts in billions of 1989 dollars. Total net worth is equal to $17,401 billion dollars.

the 1989 SCF. This allows us to test whether the importance of transfers has changed over the past decade. Our estimate of transfer wealth, as a proportion of total net worth, is slightly higher than that calculated using the 1998 survey but is still in the same ballpark. Grossing up past transfers by the corporate bond return, transfer wealth is estimated to be one-quarter of total wealth in 1989, compared to one-fifth a decade later in 1998.

There is a history of studies dating back to the 1960s (for example, Morgan et al. 1962; Projector and Weiss 1964; Barlow, Brazer, and Morgan 1966; and, more recently, Hurd and Mundaca 1989) using survey evidence to elicit the importance of transfer wealth. We believe, however, that this is one of the first studies to calculate transfer wealth directly using recent data such as the SCF. Consistent with most of these past studies, this approach tends to result in shares of transfer wealth that are much smaller than those found by Kotlikoff and Summers (1981; typically on the order of one-fifth to one-fourth).

The SCF is generally regarded as providing the best information on the high-net-worth segment of the population. Of the 4,305 households sampled in its 1998 survey, one-fourth have a net worth over a million dollars, and 245 households have a net worth in excess of $20 million. The maximum net worth in the sample is $501 million, which corresponds to the net worth that a household needed to be included in the *Forbes* 400 richest Americans in 1998. This is by design, as the SCF samples up to the minimum wealth threshold of the *Forbes* 400. This raises the concern that the SCF might be missing the largest large transfers. Perhaps transfers are a more important source of wealth for the superrich.

To address this concern, we examined the source of wealth for the *Forbes* 400 richest Americans in 1998. In their profile, *Forbes* describes the source of wealth (that is, inheritance, Microsoft stock, real estate, etc.). Inheritance was listed as the primary source of wealth for eighty-two members, or about one-fifth, of the *Forbes* 400. For example, the top five wealthiest

Americans in 1998 were all "self-made" (Gates, Buffett, Allen, Dell, Balmer), whereas the next five were Waltons who inherited their wealth from Sam Walton. The total net worth of the eighty-two members whose fortune was inherited constituted 21 percent of the $738 billion total net worth of the *Forbes* 400, surprisingly similar to our estimates in table 4.2.

In the next section, we will estimate the yearly flow of bequests and then under some steady-state assumptions calculate the stock of transfer wealth. We will show how the estimate of the share of transfer wealth is comparable to our best estimate of 20 percent derived directly from reported inheritances (grossing up past transfers by the corporate bond return). It is worth pointing out that our central estimate of transfer wealth does not include college financial aid received from parents (unless SCF respondents report such inter vivos aid as a transfer). Whether college aid represents an inter vivos transfer to another household or whether it should be counted as support for dependent children, and thus consumption of the household, is clearly debatable. We will later, however, discuss how the treatment of college aid as a transfer affects our estimates.

4.5 Estimation of Transfer Wealth from Flow of Transfers

The second approach to estimating transfer wealth involves calculating the flow of transfers for a single year and then converting this flow into a stock of wealth. To adequately capture all sources of transfers, we need to separately estimate the flow of bequests and the flow of inter vivos transfers.

Previous literature (Kessler and Masson 1989; Cox and Raines 1985) has suggested that the magnitude of measured transfers is dependent on whether one asks donors or recipients. Because inheritances are more clearly defined, we should expect close agreement between the amount of inheritances reported by donors and recipients.

With inter vivos transfers, on the other hand, there is more room for differences. A loan, for example, may count as inter vivos "financial support" from the point of view of the donor but not be viewed as a "gift/transfer" by the recipient. There are many other reasons to suspect underreporting bias (Gale and Scholz 1994) that would suggest a discrepancy between the inter vivos transfers reported by donors and recipients.

So how well do the estimates using recipient reports compare to estimates using donor reports? Table 4.4 calculates expected bequests in 1998 using data on net worth and life insurance and various mortality tables. When calculating the bequest, we augment net worth by the face value of life insurance held. As background, using the 1962 SCF and a general mortality table, Kotlikoff and Summers (1981) calculated the ratio of current net worth to expected bequests to be about 150. Specifically, they calculated a total 1962 net worth of $1.75 trillion and a flow of "distant in age" bequests of $12 billion.

Table 4.4 **Expected Bequests in 1998 using 1998 SCF and Various Mortality Tables**

	1998 Social Security Mortality Table	1998 Annuitant Mortality Table	Attanasio & Hoynes (2000) Mortality
Total	178.1	118.5	126.0
From households with no children	40.3	26.6	30.1
Important to leave inheritance to surviving heirs?			
Very important (21% of households; 22% of estates)	72.6	50.8	47.5
Important (26% of households; 28% of estates)	39.9	25.9	29.4
Somewhat important (30% of households; 25% of estates)	42.5	26.9	31.0
Not important (21% of households; 25% of estates)	22.9	14.8	18.1
Do you expect to leave a sizable estate to others?			
Yes (27% of households; 21% of estates)	104.7	70.1	66.8
Possibly (23% of households; 18% of estates)	28.9	19.3	21.0
No (50% of households; 61% of estates)	44.4	29.1	38.2
Expected Bequests in 1995 using 1995 SCF and Various Mortality Tables			
Total	146.4	99.3	100.9

Source: Authors' calculations.

Notes: Amounts are in billions of 1998 dollars. The value of the bequest is household net worth plus the face value of life insurance. If the head of the household has a spouse, both must die for a bequest to occur. Bequests to surviving spouses are not counted. Attanasio and Hoynes (1995) use the SIPP to calculate mortality rates as a function of wealth. They adjust Social Security mortality numbers by a factor d (where $d = .626$ if in top wealth quartile, $d = .789$ if in 2nd wealth quartile, $d = .816$ if in 3rd wealth quartile, and $d = 1.769$ if in bottom wealth quartile). These adjustment factors are taken from Attanasio and Hoynes (1995), table 5.

Previous research on this topic has not adjusted mortality to reflect the correlation with wealth. Recent work by Attanasio and Hoynes (2000) has illustrated the significant mortality differentials across the wealth distribution and the implications of this correlation for studies of consumption and wealth accumulation. In this context, the effect of differential mortality can be illustrated by comparing estimates of the stock of transfer wealth under alternative assumptions about mortality. Using a general population life table provided from the Social Security Administration, we find that net worth is 160 times the estimated flow of bequests (which is $180 billion). This is extremely close to the ratio found in the 1962 SCF.

We explore two alternatives for adjusting the mortality tables. The first is to use annuitant mortality tables that reflect the mortality experience of participants in the individual annuity market who tend to have above average incomes and wealth as discussed by Brown et al. (2001). Because

most wealth in the population (and thus in the SCF) is held by such higher income households, we feel this is an appropriate mortality table to use. A similar approach has been used by Poterba (2000) and Poterba and Weisbenner (2001) in studies of the estate tax. Using an annuitant table for 1998, we estimate a flow of bequests of about $120 billion, or about 1/240 of current wealth.

A second alternative is to use the wealth quartile mortality adjustments calculated by Attanasio and Hoynes (2000). Using this adjustment to the general population life table yields an estimate of expected bequests of $126 billion, similar to the estimate using the annuitant mortality table.[4] Therefore, using either approach to correcting the mortality estimates for the wealth-mortality correlation reduces the annual flow of bequests by approximately one-third, thus ultimately reducing our estimate of wealth accumulation from inheritances by roughly one-third as well.

Using the 1995 SCF, we estimate a flow of $100 billion ($107 in 1998 dollars) of bequests during 1995 using the annuitant mortality table. Going back to table 4.1, the average yearly bequest received from 1993 to September 1998, which would roughly correspond to 1995 bequests, was $101 billion in 1998 dollars. Thus, the estimated flow of bequests from both methodologies (direct report of recipient versus estimate based on mortality table) are very similar, once we correct for the correlation between mortality and wealth.

Turning now to inter vivos transfers, table 4.5 reports "financial support" given to non-household members during the year. It is not clear if this includes only gifts, or if it includes loans as well (such as college support). Donors report giving financial support of $64 billion in 1997, a little more than the $47 billion of gifts/trusts that the respondents report receiving annually from 1993 to mid 1998 in table 4.1. This could reflect underreporting of gifts received. It could also reflect an inclusion of loans and college aid when reporting support given but not when reporting gifts received. However, all in all, the inter vivos transfer estimates are not too dissimilar.

We will now follow methodology used by Kotlikoff and Summers (1981) and Gale and Scholz (1994) to convert the flow of bequests/transfers into a stock of net transfer wealth. Net transfer wealth is the difference between the present-day value of transfers received less the present-day value of transfers given for all households currently living. The equations behind this calculation are discussed in the appendix.

The conversion of a flow of transfers to a stock of wealth will depend upon the flow of transfers in the current year (t), the interest rate applied to past transfers (r), the growth rate of transfers (n), the one-year mortal-

4. This assumes that all of the estate is bequeathed to a person and not to a charity. Charitable deductions comprised 6.2 percent of gross estate value on estate tax returns filed in 1998. This fraction was 10.4 percent for single decedents (source: Barry Johnson and Jacob Mikow of the Internal Revenue Service).

Table 4.5 **Financial Support to Relatives/Friends Who Do Not Live in Household (1997)**

	Range (billion $)	Billion $	Percentage
Total	63.7	63.7	100.0
Child	32.3–41.7	36.6	57.4
Niece/Nephew	.9–1.9	1.4	2.2
Grandchild	2.4–9.9	5.8	9.1
Siblings	3.2–9.3	6.1	9.6
Friends	2.3–4.4	3.2	5.0
Parents	6.6–11.6	8.9	13.9
Grandparents	0.1–0.2	.1	.2
Other	1.0–2.5	1.7	2.7

Source: Authors' calculations.

Notes: 1998 SCF asks how much financial support respondents gave in 1997, and then asks respondents to check all the relative-types they gave support without specifying size of gifts across recipients. The first column represents the range of transfers to specific recipients (some donors report that their transfer was given to multiple recipients so we cannot identify how much went to each recipient). $48.8 billion of $62.3 billion of support given by households was given to only one person, so can identify amount of support to a specific recipient for these transfers. It is assumed that if the respondent checks that the transfer went to more than one person, then each recipient received an equal amount. The second and third columns are calculated under this assumption. Data weighted to reflect population.

ity rate δ, the age of recipients of the transfer (I), the age of the donors (G), and the maximum age of an individual (D). A key parameter in the conversion is $r - n - \delta$ (this represents the rate at which past transfers are grossed up to calculate present-day values). Assuming that transfers grow at the rate of income, Kotlikoff and Summers (1981) and Gale and Scholz (1994) suggest that $r - n$ is roughly .01 based on historical averages.[5] If the average one-year mortality rate is between .01 and .02, this would suggest that $r - n - \delta$ is likely close to zero and perhaps even negative.

Table 4.6 presents estimates of the stock of transfer wealth under various assumptions for $r - n - \delta$. Details of the algorithm used to obtain the estimates are in the appendix. The first row of table 4.6 converts the average yearly flow of inheritances reported by recipients over 1993–1998 to a stock of transfer wealth. The second row converts the yearly flow of inter vivos transfers reported by recipients over 1993–1998 to a stock of wealth. Finally, the third row converts the yearly flow of inter vivos transfers reported by donors during 1997 to a stock of wealth.[6]

The average yearly flow of inheritances survey respondents report re-

5. Kotlikoff & Summers (1981) estimate historical averages of the real rate of return of .045 and the real rate of gross domestic product (GDP) growth of .035 ($r - n = .01$). Gale and Scholz (1994) use $r - n = .01$ as their central estimate.

6. It is assumed that parents are thirty years older than their children and sixty years older than their grandchildren. In the second row, if the recipient reports receiving an inter vivos transfers from his parent, it is assumed that the age of the donor is the recipient's age plus thirty years. In the third row, if the donor reports giving inter vivos support to his grandchild, it is assumed that the age of the recipient is the donor's age minus sixty years.

Table 4.6 Converting a Flow of Transfers into a Stock of Transfer Wealth

		Stock of Wealth		
	Yearly Flow	$r - n - \delta = 0$	$r - n - \delta = -.01$	$r - n - \delta = .01$
Inheritances (received 1995)	$94 billion	$4.69 trillion	$3.64 trillion	$6.22 trillion
Inter vivos transfers				
(received 1995)	44	1.29	.86	1.98
(given 1997)	64	1.21	.64	2.32

Source: Authors' calculations.

Notes: SCF respondents report inheritances and inter vivos transfers received over 1993–1998. The average amount received over this period (in 1995 dollars) is reported as the flow of inheritances and inter vivos transfers received in 1995. This flow is converted to a stock of transfer wealth in 1995 using the methodology described in the text and the appendix. For comparison, total net worth in 1995 is estimated at $20.68 trillion using the 1995 SCF. SCF respondents also report inter vivos support given in 1997. The bottom row converts this yearly flow to a stock of wealth in 1997. r is the interest rate, n is the growth rate of transfers (usually assumed to be the growth rate of national income), and δ is the one-year mortality rate.

ceiving between 1993 and 1998 is $94 billion (in 1995 dollars). If $r - n - \delta = 0$, converting this flow to a stock of wealth yields transfer wealth of $4.69 trillion (if $r - n - \delta = -.01$, then the estimate falls to $3.64 trillion; if $r - n - \delta = .01$, then the estimate rises to $6.22 trillion). Using the 1995 SCF, net worth held by households in 1995 totaled $20.68 trillion. Taking the average inheritance over 1995–1998 as the yearly flow during 1995, inheritances would account for between 18 and 23 percent of total wealth (3.64 or 4.69/20.68). A similar estimate is obtained when the mortality-adjusted expected flow of bequests during 1998 is converted to a stock of transfer wealth.[7]

The average yearly flow of *inter vivos* transfers SCF respondents report receiving between 1993 and 1998 is $44 billion (in 1995 dollars). If $r - n - \delta = 0$, converting this flow to a stock of wealth yields transfer wealth of $1.29 trillion (if $r - n - \delta = -.01$, then the estimate falls to $.86 trillion; if $r - n - \delta = .01$, then the estimate rises to $1.98 trillion), suggesting that inter vivos transfers account for 4–6 percent of wealth in 1995. Similar estimates are obtained if we instead use inter vivos gifts reported by donors, rather than gifts reported by recipients, to calculate transfer wealth.[8]

7. The estimated flow of bequests during 1998 was $120 billion. If $r - n - \delta = 0$, the amount of wealth in 1998 that is attributable to inheritances is $120 · (maximum age – inheritance-weighted age of recipient). See the appendix for this result. The weighted-average age of inheritance recipients over 1993–1998 was fifty-three years based on calculations using the 1998 SCF. If the maximum age is 100, then transfer wealth from inheritances is $5.64 trillion in 1998, or 20 percent of total 1998 net worth.

8. Given the yearly flow of inter vivos support respondents report giving is greater than what they report receiving, one would expect transfer wealth calculated from the flow donor reports to be higher. However, donors report a smaller share of transfers to children and a higher share of transfers to parents than do recipients, which works to offset the higher level of transfers donors report.

The flow-to-stock conversion methodology yields an estimate of transfer wealth in 1995 of $4.50–5.98 billion (assuming $r - n - \delta$ is between –.01 and 0). This is 22–29 percent of 1995 net worth. Recall that when we estimated the transfer wealth in table 4.2 by grossing up past transfers by corporate bond returns, we estimated a transfer wealth of 19 percent. Thus, similar estimates are obtained from the two approaches.

So far, in both sets of calculations, we have ignored college support provided by parents. Kotlikoff and Summers (1981) estimate that financial support during college was $10.3 billion in 1974 (total net worth was $3.884 trillion in 1974). Assuming $r - n - \delta = 0$, and using an age gap of thirty years between donors and recipients, this flow of support translates into a stock of transfer wealth that constitutes 8 percent of current net worth.

Gale and Scholz (1994) report, using the 1983 SCF that 13 percent of households report giving college support over 1983–85, with total support over the period totaling $97.4 billion. Using the 1986 SCF, Gale and Scholz (1994) estimate the annual flow of college payments/support from parents at $35.3 billion (1986 net worth was $11.976 billion). Assuming $r - n - \delta = 0$ and using an age gap of thirty years, this flow of support translates into a stock of transfer wealth that constitutes 9 percent of current net worth.

Rather than produce a new estimate of college payments, we argue that the 9 percent figure found by Gale and Scholz (1994) is still approximately correct. In 1986, the flow of college support was converted to a stock of transfer wealth that represented 9 percent of net worth. Net worth has grown from $12.0 trillion to $28.8 trillion from 1986 to 1998 (7.6 percent per year). The College Board reports that tuition and fees have increased at an annual rate of 6.7 percent at four-year private schools, 7.2 percent at four-year public schools, and 7.8 percent at two-year public schools from 1986 to 1998. Because college expenses have grown at nearly the same rate as net worth, it seems reasonable to assume that the present-day value of college aid represents 9 percent of net worth in 1998, just as it did back in 1986.

Thus, assuming that the present-day value of past college aid is on the order of 9 percent of total net worth (just like in 1974 and 1986), then our final estimate of transfer wealth's share would increase from 22–29 percent (which we estimated in table 4.6) to 31–38 percent. Our estimate in table 4.2 would increase from 19 percent to 28 percent, if college payments are included as transfer wealth.

We have so far estimated the stock of transfer wealth two ways. First, we estimated it directly from reported transfer receipts, grossed up to 1998 using the corporate bond rate. Second, we calculated the expected yearly flow of bequests, given wealth adjusted mortality rates for the population, and converted this flow to a stock. Both estimates are fairly close and suggest that transfer wealth accounts for approximately one-fifth to one-fourth of U.S. wealth, and perhaps just over one-third if college support is included.

4.6 Heterogeneity in Transfers Received and Expected

While our estimates suggest that life-cycle saving can explain approximately 80 percent of current net worth, past transfers account for a large fraction of wealth for a nontrivial segment of the population. Table 4.7 shows the unconditional ratio of transfer wealth to total wealth by age and net worth groups, as well as the probability of having received a transfer. In aggregate, transfer wealth accounts for only about one-fifth of total net worth. However, only 22 percent of households report having received a substantial transfer, indicating a high degree of concentration. Both the share of wealth from transfers and the probability of having received a transfer increase with age.

Table 4.8 reports the ratio of transfer wealth to total wealth conditional on having received a transfer. Among households that report having received a transfer, their net worth would be reduced by 50 percent if the present-day value of past transfers were eliminated (among households aged sixty-five and above this fraction rises to 70 percent). For the low to middle net worth households that have received a transfer, that transfer accounts for a large fraction of their current net worth. Among households aged forty to sixty-four, conditional on having received a transfer, 85 percent of wealth accumulated by households in the $75–250K net worth group is due to transfers received. For the low net worth group ($0–75K) aged forty to sixty-four, transfer wealth balloons to over three times larger

Table 4.7 **Ratio of Transfer Wealth to Total Wealth, by Wealth and Age Groups (1998)**

	Age			
Net Worth	<40	40–64	65+	Total
$0–75	.26	.50	.58	.42
	(.12)	(.14)	(.21)	(.14)
$75–250	.10	.17	.33	.21
	(.16)	(.19)	(.33)	(.23)
$250–500	.09	.18	.19	.17
	(.21)	(.32)	(.36)	(.32)
$500–1000	.14	.13	.40	.22
	(.21)	(.31)	(.45)	(.35)
$1000+	.13	.10	.30	.16
	(.31)	(.41)	(.55)	(.44)
Total	.13	.13	.31	.19
	(.14)	(.22)	(.33)	(.22)

Notes: Transfer wealth was calculated by grossing up past transfers by the corporate bond return. Total net worth is estimated at $28.794 trillion and transfer wealth is estimated at $5.405 trillion. Numbers in parentheses are the fraction of households in group that reported having received a transfer.

Table 4.8 **Ratio of Transfer Wealth to Total Wealth for Households Having Received a Transfer, by Wealth and Age Groups (1998)**

	Age			
Net Worth	<40	40–64	65+	Total
$0–75	1.44	3.15	2.12	2.26
$75–250	.64	.85	.98	.88
$250–500	.38	.55	.53	.52
$500–1000	.63	.40	.89	.63
$1000+	.47	.25	.60	.37
Total	.60	.37	.70	.50

Source: Authors' calculations.

Notes: Transfer wealth was calculated by grossing up past transfers by the corporate bond return. Total net worth of households that report receiving a past transfer is $10.736 trillion and transfer wealth is estimated at $5.405 trillion (transfer wealth is $.020 billion for households that have negative net worth).

than current net worth, indicating substantial spending out of transfers received. Even for the high net worth group (net worth in excess of $1 million) aged forty to sixty-four, transfers account for one-quarter of their wealth.

The SCF also asks respondents whether they expect to receive a substantial inheritance or transfer in the future and the amount they expect to receive.[9] Tables 4.9 and 4.10 replicate the analysis in tables 4.7 and 4.8, only now we examine the ratio of expected transfers to current net worth. In aggregate, expected future transfers account for only one-tenth of current net worth. However, only 13 percent of households report that they expect a substantial transfer.[10] As expected, both the size of the expected transfer and the probability of expecting a transfer decrease dramatically with age across all net worth groups. Households below the age of forty with a net worth less than $75,000 expect in aggregate to receive future transfers in excess of their current wealth.

Table 4.10 reports the ratio of expected future transfers to total current wealth conditional on expecting a transfer. Among households that report expecting to receive a substantial transfer, their net worth would increase by just over 50 percent if their expectations come to fruition. For the low to middle net worth households that have received a transfer, that transfer accounts for a large fraction of their current net worth. Among households with net worth less than $250K, and conditional on expecting to receive a future transfer, the future transfer is expected to be more than the house-

9. It is not clear whether respondents report the transfer they expect to receive in nominal dollars or 1998 dollars (it is likely, though, that the amount is given in nominal dollars).

10. Using the 1983 SCF, Hurd and Mundaca (1989) also estimate that 13 percent of households expect to receive a large gift/inheritance.

Table 4.9 **Ratio of Expected Transfer to Total Wealth, by Wealth and Age Groups (1998)**

	Age			
Net Worth	<40	40–64	65+	Total
<$75	1.10	.33	.07	.57
	(.16)	(.09)	(.02)	(.11)
$75–250	.38	.17	.03	.17
	(.21)	(.15)	(.03)	(.13)
$250–500	.42	.15	.01	.14
	(.25)	(.22)	(.05)	(.17)
$500–1000	.24	.10	.00	.08
	(.54)	(.24)	(.02)	(.19)
$1000+	.15	.04	.01	.04
	(.30)	(.25)	(.06)	(.20)
Total	.39	.09	.01	.10
	(.18)	(.15)	(.03)	(.13)

Source: Authors' calculations.

Notes: In the 1998 SCF, households report they expect to receive $2.939 trillion in future transfers. Total net worth is estimated at $28.794 trillion. Numbers in parentheses are the fraction of households in group that expect to receive a transfer.

Table 4.10 **Ratio of Expected Transfer to Total Wealth for Households Expecting to Receive a Transfer, by Wealth and Age Groups (1998)**

	Age			
Net Worth	<40	40–64	65+	Total
<$75	6.37	2.70	2.29	4.61
$75–250	1.90	1.09	1.11	1.35
$250–500	1.56	.66	.15	.78
$500–1000	.44	.41	.24	.41
$1000+	.37	.18	.15	.20
Total	1.25	.40	.26	.54

Source: Authors' calculations.

Notes: In the 1998 SCF, households reported they expect to receive $2.939 trillion in future transfers ($.172 trillion expected by households with negative net worth). Total net worth of households that report receiving a past transfer is $5.074 trillion.

hold's current wealth (the ratio of expected transfer to current net worth is greater than one). Among relatively affluent (net worth $.25 million to $.5 million) and young households (aged less than forty years), one-quarter of these households expect to receive a substantial future transfer, and the future transfer is expected to be over 1.5 times their current wealth.

Tables 4.7, 4.8, 4.9, and 4.10 raise several interesting questions. Do households that have received a substantial transfer reduce their savings

and hence their life-cycle wealth in response to the transfer, that is, is there substitution between transfer wealth and life-cycle wealth? Similarly, do households who expect to receive a transfer in the future save less today? These questions are left for future research.

4.7 Conclusions

There has been a long debate about the importance of life-cycle saving in wealth accumulation. This paper provides new evidence on how important transfers are in wealth accumulation. Using direct survey evidence on transfers received, we calculate that transfer wealth accounts for only about one-fifth of current household net worth. We reach a similar conclusion by estimating the flow of transfers in 1998, accounting for the correlation between wealth and mortality rates, and converting that to a stock of transfer wealth.

While transfers may not account for most of wealth accumulation, they are important for a nontrivial segment of the population. For the one-fifth of households that report having received transfers, the present-day value of those transfers represents half of their current wealth.

Future work will focus on whether past and/or expected future receipts of transfers effect life-cycle savings behavior. For example, do recipients of large transfers reduce the amount of life-cycle savings going forward? Do individuals who expect future transfers engage in less active saving? Another puzzle we leave for future work is reconciling the small role of transfers in explaining wealth accumulation with the fact that consumption tracks income fairly closely. Perhaps growth in unrealized capital gains, which would typically be excluded from measures of income but would increase wealth, can help explain part of this puzzle.

Appendix

Let T be the stock of transfer wealth. Thus T is the present-day value of all transfers received by people currently alive less the present-day value of all transfers given by people still alive. T can be broken down into transfer wealth from bequests and transfer wealth from inter vivos transfers.

Let's focus on bequests/inheritances first. Suppose a forty-year-old receives a $10,000 inheritance in 1995. If we assume that the amount of the inheritance received by the average forty-year-old grows at rate (n), that past inheritances earn interest at rate (r), that the one-year mortality rate is (δ), and that the maximum age a person could live to is (D), then the amount of wealth in the economy attributable to inheritances received when one is forty years old is the integral of (1):

(1) 10,000 · (current population of forty-year-olds) · exponential $[(x - 40) \cdot (r - n - \delta)]$, where the integral is evaluated over x ranging from forty years to D years.

One can then replicate this calculation for thirty-nine-year-olds, forty-one-year-olds, etc. Thus, more generally, the amount of wealth attributable to inheritances received when one is Y-years-old is the integral of (2):

(2) (average transfer received by a Y-year-old person) · (current population of Y-year-olds) · exponential$[(x - Y) \cdot (r - n - \delta)]$, where the integral is evaluated over x ranging from Y years to D years.

To estimate total transfer wealth, we evaluate this integral for each household in the 1998 SCF, using the population weights provided. The sum of all the integrals represents wealth accumulation due to inheritances received. We set the maximum age (D) equal to 100. We first estimate transfer wealth assuming $r - n - \delta = 0$. We also redo the analysis assuming it is –.01 and then assuming it is .01.

To calculate wealth accumulated from inter vivos transfers, we want to calculate the present-day value of all inter vivos transfers received by people currently alive less the present-day value of all inter vivos transfers given by people still alive. We calculate the present-day value of all inter vivos transfers received by taking the integral of (2) for each household in the sample. We calculate the present-day value of all inter vivos transfers given by people still alive by taking the integral of (3) for each household in the sample:

(3) (average transfer given by a Y-year-old person) · (current population of Y-year-olds) · exponential $[(x - Y) \cdot (r - n - \delta)]$, where the integral is evaluated over x ranging from Y years to D years.

By aggregating the value of [(2) – (3)] across the sample, we get an estimate of wealth accumulation due to inter vivos transfers. Note that for inheritances/bequests, the donor is no longer alive by definition, so integral (3) would be zero.

Inter vivos gifts can be estimated by either using reports from recipients or reports from donors. The SCF asks respondents to report *inter vivos* transfers received and who the donor was. Assuming parents are thirty years older than children, we can estimate the age of the donor. As a robustness check, we also estimate transfer wealth using reports from donors.

Finally, if $(r - n - \delta) = 0$, then integral (1) simplifies to:

transfer $\cdot$ (D − age of recipient).

If $(r - n - \delta) = 0$, then integral (2) − integral (3) simplifies to:

transfer $\cdot$ (age of donor − age of recipient).

Thus, transfer wealth is just the product of aggregate transfers times the some transfer-weighted age gap.

References

Ando, A., and F. Modigliani. 1963. The "life cycle" hypothesis of saving: Aggregate implications and tests. *American Economic Review* 53:55–84.

Attanasio, O., and H. Hoynes. 1995. Differential mortality and wealth accumulation. NBER Working Paper no. 5126. Cambridge, Mass.: National Bureau of Economic Research, May.

———. 2000. Differential mortality and wealth accumulation. *Journal of Human Resources* 35:1–29.

Barlow, R., H. Brazer, and J. Morgan. 1966. *Economic behavior of the affluent.* Washington, D.C.: Brookings Institution.

Brown, J. R., O. S. Mitchell, J. M. Poterba, and M. J. Warshawsky. 2001. *The role of annuity markets in financing retirement.* Cambridge: MIT Press.

Cox, D., and F. Raines. 1985. Inter-family transfers and income redistribution. In *Horizontal equity, uncertainty, and measures of well-being,* eds. M. David and T. Smeeding, 393–421. Chicago: University of Chicago Press.

Gale, W., and J. Scholz. 1994. Intergenerational transfers and the accumulation of wealth. *Journal of Economic Perspectives* 8:145–60.

Gale, W., and J., Slemrod. 2001. Rethinking the estate and gift tax: Overview. In *Rethinking estate and gift taxation,* ed. W. Gale and J. Slemrod, 1–65. Washington, D.C.: Brookings Institution.

Hurd, M., and B. Mundaca. 1989. The importance of gifts and inheritances among the affluent. In *The measurement of saving, investment, and wealth,* ed. R. Lipsey and H. Tice, 737–58. Chicago: University of Chicago Press.

Juster, F. T., J. Lupton, J. P. Smith, and F. Stafford. 1999. The decline in household saving and the wealth effect. University of Michigan. Working Paper.

Kennickell, A., M. Starr-McCluer, and B. Surette. 2000. Recent changes in U.S. family finances: Results from the 1998 Survey of Consumer Finances. *Federal Reserve Bulletin* 86 (January): 1–29.

Kessler, D., and A. Masson. 1989. Bequest and wealth accumulation: Are some pieces of the puzzle missing? *Journal of Economic Perspectives* 3:141–52.

Kotlikoff, L. 1988. Intergenerational transfers and savings. *Journal of Economic Perspectives* 2:41–58.

Kotlikoff, L., and L. Summers. 1981. The role of intergenerational transfers in aggregate capital accumulation. *Journal of Political Economy* 89:706–32.

Laitner, J. 1990. Random earnings differences, lifetime liquidity constraints, and altruistic intergenerational transfers. University of Michigan. Mimeograph.

Lord, W., and P. Rangazas. 1991. Savings and wealth in models with altruistic bequests. *American Economic Review* 81:289–96.

Masson, A. 1986. A cohort analysis of age-wealth profiles generated by a simulation model in France (1949–1975). *Economic Journal* 96:173–90.
Modigliani, F. 1988. The role of intergenerational transfers and life cycle saving in the accumulation of wealth. *Journal of Economic Perspectives* 2:15–40.
Modigliani, F., and R. Brumberg. 1954. Utility analysis and the consumption function: An interpretation of cross-section data. In *Post-Keynesian economics,* ed. K. Kurihara, 388–436. New Brunswick, N.J.: Rutgers University Press.
Morgan. J., M. David, W. Cohen, and H. Brazer. 1962. *Income and welfare in the United States.* New York: McGraw-Hill.
Poterba, J. 2000. The estate tax and after-tax investment returns. In *Does Atlas shrug? The economic consequences of taxing the rich,* ed. J. Slemrod, 333–53. Cambridge: Harvard University Press.
Poterba, J., and S. Weisbenner. 2001. The distributional burden of taxing estates and unrealized capital gains at the time of death. In *Rethinking estate and gift taxation,* ed. W. Gale and J. Slemrod, 422–49. Washington, D.C.: Brookings Institution.
Projector, D., and G. Weiss. 1964. *Survey of financial characteristics of consumers.* Washington, D.C.: GPO.

Comment

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This paper takes up, once again, the important and controversial question of the role of bequests in capital formation. There can be few more timely topics, given the current U.S. flirtation with estate tax repeal.

Since the influential paper by Kotlikoff and Summers (1981) argued that the majority of U.S. assets were attributable to bequests, researchers have used alternative approaches and different data sets to reassess these findings. Brown and Weisbenner are the latest to venture into this debate. Their paper repeats some earlier calculations that allow one to assess the impact of data differences and then moves on to provide estimates based on a new approach to assessing the way in which bequests, both past and anticipated, affect private saving. The paper is carefully written and easy to follow, even for a tyro in this murky area. In my comments, I will first offer an overview of the paper and then move on to some selective comments on methodology and results.

The paper consists of two main parts. In the first, the authors adopt two alternative approaches from the literature to estimate the magnitude of what they label *transfer wealth,* which we should think of as the wealth that exists because individuals received bequests at some point in the past. The second part of the paper disaggregates the population by age and wealth

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This is a substantially shortened version of my discussion of the original version of the paper, much of which was devoted to material that has been omitted from the published version.

and considers the importance of transfer wealth for each cell. As indicated, the first part of the paper provides updated estimates of the share of transfer wealth in total wealth. The key finding here is that transfer wealth accounts for perhaps 20–25 percent of total wealth. This is consistent with some earlier findings, although it is well below the estimates originally provided by Kotlikoff and Summers (1981).

But, as the past literature has made clear, it is necessary to be careful in specifying what one means by *transfer wealth.* Put another way, the paper provides two alternative calculations of transfer wealth, but it is useful to go back one step and identify the question to which each of these calculations is the answer. The first approach looks at the population currently alive and, using information on past transfers received, asks how much wealth would have accumulated to the current date as a result if these transfers, and all of the accumulated interest on them, had been saved. The second approach makes the same assumption about all inheritances being saved but reduces the need for data on past transfers. It does so by invoking a smooth-growth assumption that allows one to translate information on transfers received by a cohort today into transfers received by cohorts of the same age in prior years. The two methods, then, aim at answering the same question but use different mixes of data and assumptions to do so. It is heartening that the results are similar, so one can have some confidence in the answer. But why are we asking this question?

I see two problems with equating these estimates and transfer wealth. First, it is not clear that reported transfers, the basic input to both calculations, include all transfers. There are many transfers that parents provide to children that the latter might not think of as outright transfers, even if they have the same economic effect. Thus, transfer wealth might be understated by the calculations based on reported transfers. On the other hand, why should one assume that all transfers received are fully saved? This wouldn't be optimal behavior except under restrictive assumptions and, more to the point, it is also quite inconsistent with the empirical results reported later in the paper that life-cycle wealth is fully crowded out by past transfers. If we really believe these estimates, then why shouldn't our estimates of transfer wealth be zero, if *transfer wealth* is defined as the increment to wealth because of past transfers.

Let me turn next to the disaggregate estimates of transfer wealth provided in tables 4.7 through 4.10. These results are certainly interesting, as they show that transfer wealth is a larger share of wealth for lower-wealth households. But, as with the previous calculations, it is hard to draw further conclusions without a better understanding of the behavior associated with these cross-section relationships. The implication here is that transfer wealth acts to mitigate differences in the wealth distribution. But consider the following hypothetical situation. Suppose that all individuals were identical with respect to their own earnings and transfers received but that

they differed in their propensity to consume inherited wealth. Then, all would have the same transfer wealth based on the methodology used here, but those with a high propensity to consume transfers would be observed to have lower overall wealth. The result would be the pattern observed in table 4.7, with lower-wealth individuals having a larger share of their wealth accounted for by transfer wealth. But transfer wealth would be playing no role in reducing the dispersion of total wealth.

Where that leaves us, I am afraid, is the subject for future research, but we should be grateful to Brown and Weisbenner for doing this careful groundwork.

Reference

Kotlikoff, L., and L. Summers. 1981. The role of intergenerational transfers in aggregate capital accumulation. *Journal of Political Economy* 89:706–32.