# HOW IMPORTANT ARE INHERITANCES 

 FOR BABY BOOMERS?By Alicia H. Munnell, Anthony Webb, Zhenya Karamcheva, and Andrew Eschtruth*

## Introduction

Due to a changing retirement landscape, many baby boomers are likely to have insufficient resources for a secure retirement. ${ }^{1}$ One potential source that could improve their situation is inheritances. This study quantifies the aggregate amount of inheritances that baby boomers - those individuals born between 1946 and 1964 - can expect to receive over their lifetimes, and the distribution of past and prospective receipts by household type.

The discussion is organized as follows. The first section quantifies the aggregate amount that boomers will receive. The second section investigates who will receive how much. The third section considers the impact of the recession on inheritances, specifically the declining values of equities and housing. The final section concludes that, while inheritances will augment the resources of aging baby boomers, they will be insufficient to ensure secure retirements.

## How Much Will Boomers Receive in Aggregate?

To estimate how much boomers will inherit, this study uses data from the Survey of Consumer Finances (SCF) and the Health and Retirement Study (HRS). ${ }^{2}$

The SCF is a triennial survey that oversamples wealthy households; the latest available data are for 2007. When re-weighted, it is representative of the U.S. population. SCF participants are asked about past receipts of inheritances. They are also asked whether they expect a substantial inheritance or transfer of assets in the future, and the anticipated amount. But "expect" and "substantial" are left undefined, and only 16 percent of households answer in the affirmative. For data on prospective inheritance receipts, we therefore turn to the HRS, a nationally representative panel of individuals born before 1954 and their spouses of any age. In 2006, individuals were asked to estimate the probability of receiving an inheritance in the next 10 years and the likely amount. We convert these 10-year forecasts into lifetime probabilities, and impute probabilities and amounts to SCF households born between 1946 and 1964, to obtain a complete picture of past and prospective inheritance receipts for the baby boomers. ${ }^{3}$

Boomers may receive inheritances at various ages, and a dollar received at a younger age is worth more in present value terms than a dollar received later in life. Therefore, the key question is what interest rate to use for compounding or discounting the amounts. This analysis uses a real discount rate of 3 percent,

[^0]approximating to both the long-term rate of return on high-grade corporate bonds and commonly used estimates of the rate of time preference. ${ }^{4}$ All amounts are compounded and discounted to 2009.5

Table 1 reports estimates of aggregate and per household receipts; total, past, and prospective receipts amount to $\$ 8.4, \$ 2.4$, and $\$ 6.0$ trillion, respectively. ${ }^{6}$ The comparable data per household show similar patterns, with a median total inheritance of $\$ 64,000$ and a mean of $\$ 292,000$. Strikingly, the mean is more than four times the median, as those near the top of the distribution receive much larger inheritances in dollar terms. ${ }^{7}$

Table i. Aggregate, Mean, and Median Inheritance Receipts in 2009 Dollars

|  | Aggregate <br> amount <br> (trillions) | Amount per household <br> (per recipients) |  |
| :--- | :---: | :---: | :---: |
|  | $\$ 2.4$ | Mean | Median |
| Past | $\$ 84,494$ | $\$ 78,027$ |  |
| Prospective | $\$ 6.0$ | $\$ 207,861$ | $\$ 46,926$ |
| Total | $\$ 8.4$ | $\$ 292,355$ | $\$ 63,875$ |

Note: The medians report the middle inheritance for households with a non-zero inheritance receipt in the corresponding category.
Sources: Authors' calculations based on U.S. Board of Governors of the Federal Reserve System, Survey of Consumer Finances (SCF), 2007; and University of Michigan, Health and Retirement Study (HRS), 2006.

## Who Receives How Much, and When?

This section addresses how inheritances are distributed among households. Past inheritance receipts are very unequally distributed, with just 17 percent of households having received anything. But, in 2007, 58 percent of boomer households had at least one living parent, ${ }^{8}$ so analyses of amounts received to date substantially understate the proportion of households that will eventually receive an inheritance. ${ }^{9}$ Taking into account both past and future inheritances, we estimate that two-thirds of boomer households will receive some inheritance. ${ }^{10}$ The incidence of receipt increases with income (see Figure 1).

Figure 1. Percent of Boomer Households Who Will Receive an Inheritance over Their Lifetime, by Income Decile


Sources: Authors' calculations based on 2007 SCF and 2006 HRS.

For those fortunate enough to receive an inheritance, the size of the inheritance increases sharply by wealth category (as shown by the bars and the lefthand $Y$ axis in Figure 2). ${ }^{.1}$ Households in the bottom wealth decile receive an average of $\$ 27,000$ compared with $\$ 1.5$ million for those in the top wealth decile. ${ }^{\text {I2 }}$

Figure 2. Mean Lifetime Receipt in 2009 Dollars (Thousands) and as a Percent of Wealth for Boomers Receiving an Inheritance, by Wealth Decile


Sources: Authors' calculations based on 2007 SCF and 2006 HRS.

On the other hand (as shown by the line and the right-hand $Y$ axis in Figure 2), inheritance receipts represent a larger percentage of current wealth for low-wealth households - 64 percent for those households in the second-to-bottom wealth decile, compared with 22 percent for those households in the top wealth decile. ${ }^{13}$

## How Has the Recession Affected Prospective Inheritances?

This section considers how the financial crisis might affect boomers' prospective inheritance receipts. The crisis has resulted in steep declines in both housing and stock prices. These declines might affect prospective inheritances in a number of ways. At one extreme, boomers' parents might strive to maintain pre-crisis consumption, letting the entire burden of the reduction in asset values fall on bequests. At the other extreme, they might choose to reduce their current consumption while attempting to leave the same amount of wealth to their heirs as previously. Or they might decide to make proportionate cutbacks in both current consumption and bequests.

To determine the effects of the crisis, the ideal source would be survey data collected after the crisis began. However, neither the HRS ${ }^{14}$ nor the SCF ${ }^{15}$ adequately meets this need. Therefore, we adopt two complementary approaches to quantifying the impact of the current recession on prospective inheritances.

## Approach 1: How Bequests Changed in the Previous Downturn

HRS data allow us to draw inferences from households' responses to past financial crises, in particular the decline in stock prices from 2000 to 2003. HRS participants are asked a series of questions that provide data on the probability of a household leaving a bequest and the amount of the potential bequest.

With this information, an ordered probit model is used to identify the impact of stock market conditions on household responses over time. The analysis controls for a variety of socioeconomic characteristics and is restricted to those aged 65 or over at the date of the interview. We hypothesize that households will be less likely to report that they anticipate leaving a large inheritance in 2002, when they had experienced a substantial decline in the stock market.

Table 2 reports the results, holding personal characteristics constant at their means. So in 2000, the entries in the first row show that a predicted 2.1 percent of households who had more than $\$ 25,000$ invested in the stock market would report that they had a zero percent chance of leaving any inheritance. Just 22.5 percent definitely plan to leave an inheritance of $\$ 100,000$ or more.

Although the changes in probabilities are sometimes statistically significant, they are generally small. For example, the decline in stock prices between 2000 and 2004 was associated with only a 3.8 percentagepoint (22.5-18.7) decline in the number of households who were certain of leaving an inheritance of $\$ 100,000$ or more. Not only is this decline small but, by 2006 , it began to reverse.

Table 2. Estimated Distribution of Households by Anticipated Bequest, Respondents Who Have More than $\$ 25,000$ in Equity Assets

| Year | Certain of <br> leaving nothing | $\$ 1-\$ 9,999$ | $\$ 10,000-\$ 99,999$ | $\$ 100,000+$ | Certain of <br> leaving $\$ 100,000+$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 2000 | $2.1 \%$ | $2.3 \%$ | $19.0 \%$ | $54.1 \%$ | $22.5 \%$ |
| 2002 | $2.4 \%$ | $2.6 \%$ | $20.4 \%$ | $54.0 \%$ | $20.5 \%$ |
| 2004 | $2.8 \%$ | $3.0 \%$ | $21.8 \%$ | $53.6 \%$ | $18.7 \%$ |
| 2006 | $2.4 \%$ | $2.6 \%$ | $20.2 \%$ | $54.0 \%$ | $20.9 \%$ |

Sources: Authors' calculations based on the 2000, 2002, 2004, and 2006 HRS.

One possible explanation for the small magnitude of the above responses is that older households plan to reduce consumption in order to preserve the value of their intended bequest. But we cannot rule out the possibility that households take time to adjust their expectations in the light of realized investment returns.

## Approach 2: How Much Bequests Could Change Due to the Current Downturn

Our second approach assumes that anticipated inheritance receipts decrease proportionately with the declines in stock and house prices from the date of the 2006 HRS interview to May 2010. ${ }^{16}$ Since respondents are not asked about their parents' portfolio allocations, the analysis assumes that all persons who might leave bequests to the boomers have the average portfolio allocation for households aged 65 and over, calculated from SCF data. ${ }^{17}$ The average date of the HRS interviews was June 2006. Between June 2006 and June 2010, house prices, as measured by the S\&P/Case-Shiller Index, declined by 28.3 percent. ${ }^{18}$ The S\&P 500 Index declined by 18.9 percent over the same period. ${ }^{19}$ Multiplying by the percentages of household wealth invested in stocks and housing yields a decline in wealth of 13.1 percent. Applying this percentage reduction to our earlier estimate of prospective inheritances reduces the estimate from $\$ 6.0$ to $\$ 5.2$ trillion (see Figure 3). ${ }^{20}$ Thus, the declines in asset prices will reduce inheritance receipts, but substantial amounts will still pass to succeeding generations.

Figure 3. Estimates of Prospective Inheritance Receipts for Baby Boomers Before and After the Recession, Trillions of 2009 Dollars


Source: Authors' calculations.

## Conclusion

Boomers are likely to receive inheritances totaling upward of $\$ 8$ trillion over their lifetimes. Among the two-thirds of boomer households expected to receive an inheritance, the median amount is $\$ 64,000$. Inheritances are very unequally distributed, and many households will receive small amounts. But a substantial minority can expect to receive amounts that will improve their financial preparedness for retirement, and their ability to pass wealth to succeeding generations.

It is important to stress that most boomers have not yet received any inheritance. And the amount and timing of inheritance receipts is highly uncertain. Even parents who have a strong desire to leave a bequest may be forced to revise their plans based on fluctuations in the value of their assets. Or they may exhaust their wealth as a result of medical and, especially, long-term care costs. In short, an anticipated inheritance may not materialize. Even when inheritances do occur, recipients generally get the money when they are older and the amounts are typically not large enough to be life-changing. Therefore, boomer households need to make many of their key financial decisions before they ever receive any inheritance. And they should not count on an inheritance to eliminate the need for increased retirement saving. ${ }^{21}$

## Endnotes

1 These changes include declining Social Security replacement rates, the shift to $401(\mathrm{k})$ plans accompanied by low saving rates, longer lifespans, and rising health care costs. For more details, see Vanderhei and Copeland (2010); and Munnell, Webb, and Golub-Sass (2009).

2 For more details on the data and methodology used in this analysis, see Munnell et al. (2011).

3 A potential concern is that households may underreport receipts (Kessler and Masson, 1989; and Gale and Scholz, 1994). However, Brown and Weisbenner (2004) show that aggregate numbers obtained from self-reported inheritance data are consistent with those obtained from models of transfer flows. And Coe and Webb (2009) compare households' estimates of prospective inheritance receipts with subsequent outcomes and find no evidence of systematic biases.

4 This approach is also used in Brown and Weisbenner (2004).

5 An alternative would be to discount inheritances to a common age, which would decrease the value of the inheritances of older relative to those of younger households.

6 In addition to inheritances, households also receive transfers from donors while the donors are still alive. When these "inter-vivos" transfers are included, transfers received to date increase from $\$ 2.4$ trillion to $\$ 3.4$ trillion. If inter-vivos transfers represent the same proportion of prospective inheritances, then the lifetime total increases from $\$ 8.4$ to $\$ 11.6$ trillion.

7 The aggregate numbers above are consistent with the findings of previous research, after adjusting for the choice of discount rate and inflation. See Munnell et al. (2011) for details.

8 For a married household, we define "having a living parent" as both spouses having at least one living parent.

9 To date, the overwhelming majority of the boomers' inheritances have come from parents - 63 percent of the number of inheritances and 74 percent of the dollar amount of inheritances.

10 This figure may sound surprisingly high. To verify our results, we compared data from both the SCF and HRS on past inheritances for early boomers. The results from the two datasets are comparable, with about 20 percent of households having already received an inheritance by 2007 (SCF) or 2006 (HRS). To calculate future inheritances, we relied exclusively on the HRS given its more precise data in this area. In both 2004 and 2006, about 50 percent of early boomers report a positive probability of receiving an inheritance in the next 10 years. Combining the past and future figures suggests that our estimate that two-thirds of households will eventually receive an inheritance is reasonable.

11 Household wealth is defined as the sum of financial assets, housing wealth, business assets and other nonfinancial wealth exclusive of defined benefit pensions and Social Security assets, net of any debt or other liabilities. In addition, when calculating household wealth deciles, we include the present value of anticipated inheritance receipts.

12 Even within wealth deciles, inheritances are very unequally distributed; the medians for the top and bottom deciles are $\$ 335,000$ and $\$ 8,000$ respectively.

13 Our emphasis is on the second-to-bottom wealth decile rather than the bottom decile because households in the bottom decile have so little wealth, even after including inheritances, that inheritances as a percent of wealth is not a meaningful number.

14 The 2008 HRS does not meet our needs for two reasons. First, most of the households were interviewed before the collapse of Lehman Brothers in September 2008, which ushered in the most serious phase of the financial crisis. Second, the 2008 HRS has more limited data on inheritances than previous years of the survey. In 2009, a subsample of HRS participants completed an Internet questionnaire that included questions about bequest intentions. These respondents have higher than average socio-economic status. Therefore, we decided it would be misleading to use these data to draw inferences about the impact of the financial crisis on bequest intentions.

15 The SCF is not an option, as the latest full version of the survey was conducted in 2007, before the crisis, and a special version conducted in 2009 is not yet available.

16 We use the S\&P 500 and the S\&P/Case-Shiller Home Price Index.

17 Stock and house prices have declined by similar proportions. So it is unclear whether the financial crisis has had a greater effect on the wealthy, who hold a larger proportion of their wealth in stocks, or on the majority of the population, who hold most of their non-pension wealth in housing.

18 The June 2006 and June 2010 index values were 206.38 and 147.97, respectively (see http://www.standardandpoors.com/indices/main/en/us).

19 The S\&P 500 closed at 1270.2 on 30 June 2006 and 1030.71 on 30 June 2010.

20 Business assets comprise 18.3 percent of the wealth of households over 65, and it is likely that the recession also had a substantial impact on the market value and profit earning potential of these assets.

21 Brown and Weisbenner (2004) find that although past inheritance receipts "crowd out" saving by the recipient household dollar for dollar, the same is not true of anticipated receipts.

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The research reported herein was performed pursuant to a grant from the MetLife Mature Market Institute. The findings and conclusions expressed are solely those of the authors and do not represent the views of the MetLife Mature Market Institute or the Center for Retirement Research at Boston College.


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