The Impact of Demographic Change on Intergenerational Transfers in the Form of Bequests[*]

Emilio Zagheni[1,2] and Brittney Wagner[1]

[1]Queens College – CUNY

[2]Wittgenstein Centre (IIASA, VID/ÖAW, WU)

Abstract

We analyze the consequences of demographic change for the size of intergenerational transfers in the form of bequests and for the timing over the life course when individuals receive an inheritance. All else being equal, longer life implies that people get bequests when they are older. Increasing generational length has the opposite effect, as it reduces the average age at which people receive bequests. Lower fertility tends to increase the size of inheritances that individuals receive. Our analysis, based on formal demographic methods and empirical estimates from the Panel Study of Income Dynamics (PSID), shows that a long-term trend of increasing size of bequests and age at receiving inheritance might have come to a halt and may reverse in the near future. The results have important implications for the multigenerational transmission of inequality.

INTRODUCTION

The topic of bequests conjures up images of the wealthy socialite whose leisurely lifestyle and status, along with that of their descendants, is secured by the inheritance of a sum unfathomable to the average person. That is an extreme and rare event in our societies. Nonetheless, intergenerational transfers in the form of bequests play an important role in the multigenerational transmission of inequality.

There are a number of factors that influence the giving and receiving of bequests as well as their significance in wealth accumulation and income

disparity. Economic theory identifies and debates three motivating forces behind intergenerational monetary transfers: altruistic, strategic, and accidental (Hurd & Smith 2002). Demographic theory emphasizes the role of population age structure (Lee and Mason 2011, Sánchez-Romero, Ogawa and Matsukura 2013). Bequests are also affected, in opposite directions, by factors such as increases in household wealth, and shocks related to medical expenses (Hurd & Smith 2001).

Between 1989 and 2007, bequests accounted for approximately 40 percent of the wealth accumulated over the lifetime of the 30 percent of households who could expect an inheritance. Annually, the proportions of households in the United States who receive inheritances fluctuate around 21 percent. While this percentage increases among wealthier households, inheritances may account for a larger proportion of the wealth of those in lower income brackets, suggesting that bequests may actually play an equalizing role in wealth inequality (Wolff 2002; Wolff & Gittelman 2011).

In this paper, we examine the joint impact of changing life expectancy and fertility levels and timing on the trajectory of bequest size and the age of bequest recipients in the United States. Preliminary results indicate that a long-term trend of increasing size of bequests and age at receiving inheritance might have stalled and may reverse in the near future.

DEMOGRAPHIC FORCES SHAPING TRENDS IN TRANSFERS VIA BEQUESTS

Two main demographic forces affect the age at which individuals, on average, receive bequests. Improvements in mortality, which can be summarized in terms of increases in life expectancy, tend to raise the age at which people experience the death of their parents, all else being constant. Conversely, fertility postponement increases the length of generations. All else being constant, later fertility means that parents of children of a given age tend be older over time. Thus, increases in the mean age at childbearing tend to reduce the age at parental death. When we consider increases in life expectancy and fertility postponement together, the net effect is ambiguous and depends on the relative strength of each of the two demographic drivers.

In order to understand the evolution of the average age at which people receive bequests, we use the tools of the formal demography of kinship (Goodman, Keyfitz and Pullum 1974; Keyfitz and Caswell). In particular,

we consider the classic stable-population approximation for the probability that a girl of age a has a living mother:

$$M_1(a) = \frac{l(\mu + a)}{l(\mu)}$$

where μ is the mean age at childbearing and $l(x)$ is the survival probability to age x. Conditional on child survival, $M_1(a)$ can be thought of as a survival probability in a life table: it has to be equal to 1 when a is equal to zero (the mother is alive when she gives birth) and goes monotonically to zero. Therefore, the mean age at mother's death, conditional on child survival, is the area under the $M_1(a)$ curve. In other words, it is the life expectancy at the mean age at childbearing.

We used estimates and projections of life expectancy and mean age at childbearing from the United Nations World Population Prospects, the 2012 Revision, to evaluate trends in life expectancy at the mean age at childbearing in the United States.
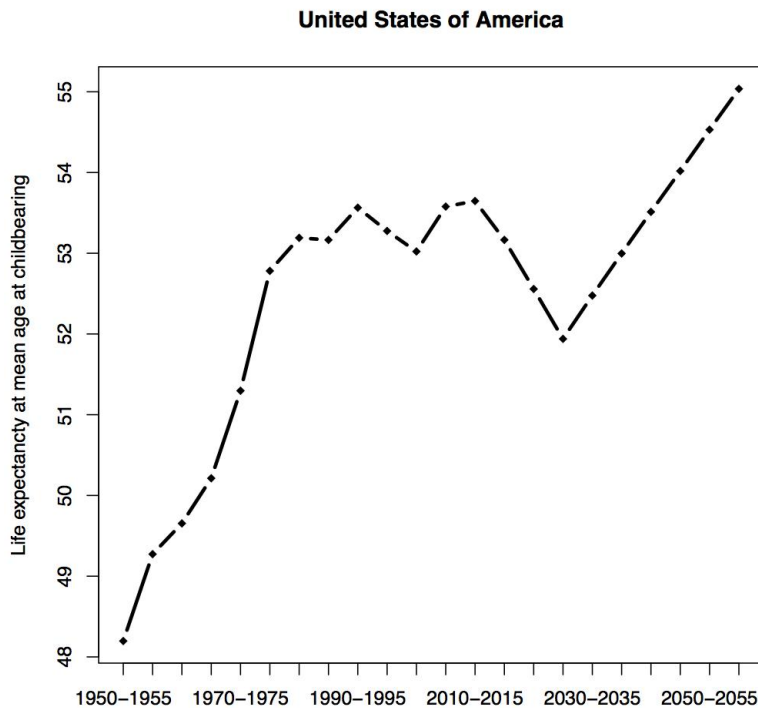
United States of America

Figure 1: Estimates and projections of life expectancy at mean age at childbearing for the U.S.A. Source: own elaborations on data from the United Nations World Population Prospects, the 2012 Revision.

Figure 1 shows that e_μ, the life expectancy at the mean age at childbearing, increased rapidly between the 1950s and the early 1990s. During that period, the mean age at childbearing in the U.S. fluctuated in the range between 26 and 26.5 years. At the same time, life expectancy for women between 25 and 30 years old increased by more than 5 years, driving the upward trend for life expectancy at the mean age at childbearing. After the early 1990s, life expectancy continued to increase linearly. The trend is expected to persist in the next few decades. The mean age at childbearing is currently between 28 and 29 years and is expected to rise even further, up to age 32, according to UN projections. The rapid increase in generational length more than counteracted improvements in life expectancy. Thus, the trend of increasing life expectancy at the mean age at childbearing has come to a halt and is expected to reverse in the near future. The UN projects that the mean age at childbearing will not exceed 32 years in the future. Therefore, after the mean age at childbearing will stabilize, continued linear gains in longevity will increase life expectancy at the mean age at childbearing again.

The total fertility rate, which can be thought of as a proxy for family size, affects the amount of economic resources that individuals inherit. Large families mean that several people share inheritances, making the size that each individual receives relatively smaller. As fertility decreased from about 3 children per woman in the 1950s to the current level of about 2 children per woman, we expect that this demographic change, when considered independently of other factors, tended to increase the relative size of inheritances.

EMPIRICAL EVIDENCE FROM THE PANEL STUDY OF INCOME DYNAMICS

In order to estimate changes in the size of bequests and the age at which they are received, we use data from the Panel Study of Income Dynamics (PSID). The PSID is a longitudinal study of individuals and families in the United States. Data collection began in 1968 with a nationally representative sample of 18,000 participants representing 5,000 families. They and their descendants have continued to be interviewed annually and biannually since this time. The data are weighted to account for differential sampling rates used in the selection of the original sample, resulting in a subsample of 253

heads of household who received bequests between 1987 and 2010. Our sample includes 192 men and 57 women.

The PSID provides data on inheritances for the period between 1988-2011[1] (biannually between 1997 and 2011). Heads of household were asked to report the amount of any bequests received by members of their household in the year prior. As such, our estimates are calculated using inheritance data reported by heads of household for the period between1987 and 2010. We assume that the head of household was the recipient of the bequest and estimate fluctuations in mean age at bequest receipt by subtracting one year from the household head's age to account for the one year lapse in the inheritance reporting period. Bequest values are adjusted for inflation based upon the 2010 Consumer Price Index.

In figure 2, we show the mean size of bequests received by gender and over time. The results are displayed for the years 1987 through 2010. The size of each data point is proportional to the relative number of observations available as there are far fewer observations available for female-headed households. 95% confidence intervals are included for female- and male-headed household estimates. The data show a general increase in the size of bequests between 1987 and 2006, aligning with a decrease in the total fertility rate in the United States. Between 2008 and 2010, however, we see a slight decrease in bequest size, suggesting a potential reversal in this trend.

In terms of gender, male-headed households closely follow the trajectory of the general population while female-headed households do not display a discernible pattern in the size of bequests received over time. The mean bequest amount begins similarly for both males ($16,969.47) and females ($19,793.30) in 1987-1991 with female-headed households receiving slightly larger bequests than their male counterparts. After 1991, the size of bequests received by male-headed households rapidly increases until it peaks at nearly $70,000 in 2004-2006. In contrast, bequest-size immediately decreases after 1991 among female-headed households and does not surpass 1987-1991 levels until they peak in 2004-2006 at just over $28,000. We see a downturn in the size of bequests received by both male- and female-headed households in 2008-2010, although the decline is much more substantial for female-headed households, who lose nearly all of their gains

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[1] Inheritance data are available in 1984 as well; however, they are not used in our estimates as question wording is not consistent with that used in 1988-2010.

from 1998-2002 to 2004-2006. Comparatively, we observe a large disparity in the size of bequests received by male and female heads of household in favor of males. On average, bequests received by female heads of household equal only 43.6 percent of the amount of those received by males. Although both groups peak in 2004-2006, the average bequest size reported by male-headed households is nearly 2.5 times greater than that of female-headed households.
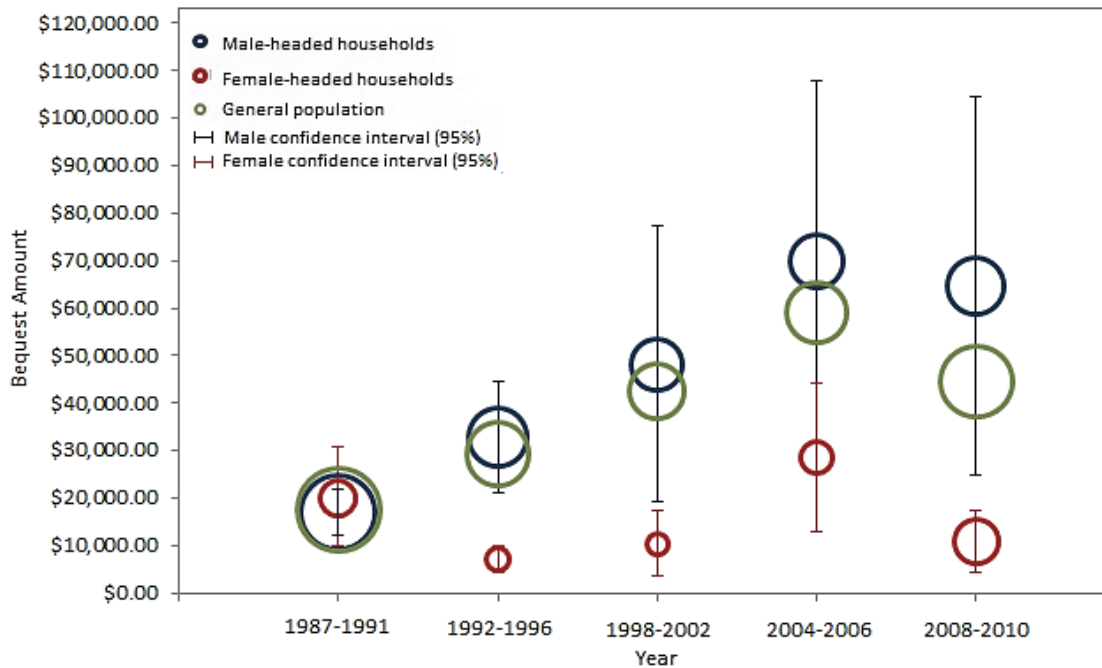

Figure 2: Mean size of bequests by year and gender (N=253). Note: Size of data points is proportional to number of observations.
Source: own elaborations of PSID data.

Figure 3 displays the mean age at which heads of household report receiving bequests by gender and over time. As with bequest size, we see a general increase in the mean age at which bequests are received between 1987 and 2006 and a slight decrease in average age in 2008-2010. This pattern remains for both male- and female-headed households and we see minimal gender difference in age at bequest receipt. The average age at which female heads of household report receiving bequests is slightly younger than for male heads of household at all years, except in 2004-2006 when mean age peaks for female-headed households at 46.5 years and for male-headed households at 44.7.
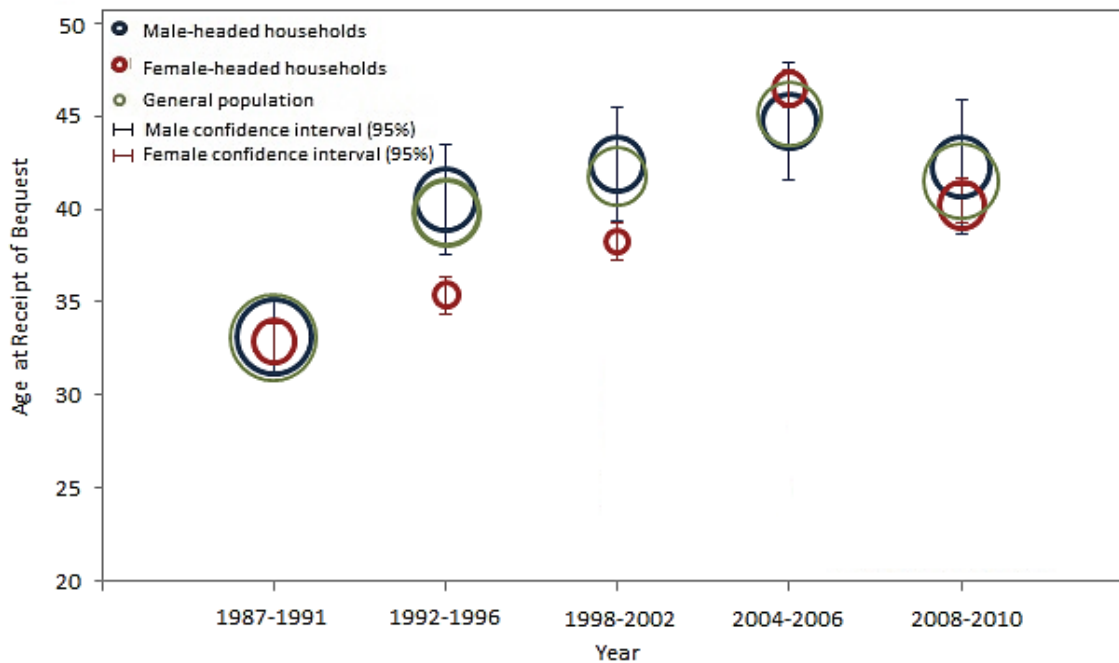
Figure 3: Mean age at receipt of bequests by year and gender (N=253). Note: Size of data points is proportional to number of observations.
Source: own elaborations on PSID data.

CONCLUSIONS

Using formal demographic methods and data from the Panel Study of Income Dynamics, this paper explores how fertility, life expectancy, and mean age at childbearing relate to the size of bequests in the United States and the profile of their recipients. Our preliminary findings suggest that, until recently, the size of bequests has been increasing, presumably reflecting less diffusion of funds among siblings and relatively higher proportions of people who reach ages characterized by higher risk of death. The age at which people receive bequests has also been increasing as a result of improvements in life expectancy during a period of relatively stable mean age at childbearing. Our analysis reveals that we may expect a reversal in the historical trends, with both the size of inheritances and the age at receiving bequests declining in the near future.

In the longer term, other factors, such as increased life expectancy at mean age at childbearing and, potentially, increased concentration of wealth in those age groups that are close to death, may potentially generate relative

increases in the size of bequests and in the age at receiving bequests. Long-term trends will depend on a number of economic factors, such as growth, saving rates and wealth accumulation. Here we showed how a simple demographic model offers relevant insights and predictive power about trends in intergenerational transfers in the form of bequests. More complex models that include interactions of demographic factors and economic variables may provide additional information and include several future scenarios (see, for instance, Sánchez-Romero, Ogawa and Matsukura 2013).

For this paper, we focused on the United States. However, as we refine our methods and analyses, we expect to be able to get some insights on the implications of global demographic trends for transfers in the form of bequests in a large number of countries.

We believe that this work contributes to improving our understanding of some of the mechanisms behind multigenerational transmission of inequality. In particular, we hypothesize that, as people receive bequests later and later in their life course, the wealth that they receive may become less and less relevant for themselves, but more and more important for their children, who are at a stage of their life cycle that may require a relatively large amount of economic resources. In other words, grandchildren at childbearing age may potentially be the ones who, indirectly, benefit the most from bequests.

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