Old-Age Poverty, Social Security and Intergenerational Transfers of Time and Money*

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March 20, 2025

Preliminary and Incomplete.

Abstract

This paper examines how public transfers to low-income retirees spill over to their descendants, focusing on the time and financial constraints faced by the "sandwich generation" - middle-aged adults who support both their aging parents and their own children. In some cases, intergenerational dynamics are further complicated by the presence of a fourth generation, as the parents of low-income retirees often require long-term care.

I use data from the Health and Retirement Study (HRS) to document upstream and downstream intergenerational transfer patterns - both in terms of money and time. I also examine heterogeneity in these patterns by gender and ethnicity, and zoom in on first-generation immigrants, who are disproportionately affected by old-age poverty and more likely to live in multigenerational households.

In addition, I explore how the generosity of public pension benefits and other government transfers to the elderly relates to intergenerational transfers, offering new insights into the broader economic effects of retirement policies beyond their direct beneficiaries.

To quantify these effects, I develop and estimate a structural lifecycle model with two-sided intergenerational altruism and rich cross-sectional heterogeneity. I use this model to conduct a series of counterfactual experiments on the design of Social Security transfers. As a first set of policy experiments, I vary the degree of benefit progressivity and assess the implications not only for retiree welfare, but also for the welfare of future generations as well as the aggregate Social Security finances.

JEL Classification: H55, H31, D64, E24, J26

Keywords: Social Security, retirement, intergenerational transfers, caregiving, old-age poverty, long-term care

*Computations in this paper were carried out using the HPC cluster Marvin at the University of Bonn.

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1 Introduction

While the impact of public transfers to retirees - such as Social Security benefits - has been extensively studied in terms of their direct effects on retirement income, less attention has been given to their spillover effects on descendant generations[1]. In many households, particularly those affected by old-age poverty, these transfers shape broader intergenerational economic dynamics by influencing both downstream transfers (from retirees to their children and grandchildren) and upstream transfers (from working-age children to their elderly parents). These dynamics are further complicated in multigenerational households, where financial and caregiving responsibilities intersect giving rise to 'sandwich' (and sometimes 'clubsandwich') generation phenomena.

This paper examines how public transfers to low-income retirees affect intergenerational transfers within families, both in terms of money and caregiving time. A central focus is on the "sandwich" generation - middle-aged adults who provide both financial and non-financial support to aging parents while simultaneously supporting their own children. In some cases, intergenerational relationships extend even further, as the parents of low-income retirees (i.e., great-grandparents) also require long-term care. Thus, I analyze Social Security reforms from a dynastic perspective, which considers how policies targeting one generation affect the outcomes of subsequent generations through endogenous intergenerational decisions.

Using longitudinal data from the Health and Retirement Study (HRS), combined with restricted-access administrative linkages from the Social Security Administration (SSA), this paper empirically documents intergenerational transfer patterns in terms of caregiving time and money, and how those are related to old-age poverty and the generosity of public pension benefits. Furthermore, I examine heterogeneity in transfer behavior by gender, ethnicity, and immigration status. In particular, first-generation immigrants represent one important subgroup of interest, as they are disproportionately affected by old-age poverty and more likely to reside in multigenerational households, as well as on average have higher fertility rates than the native-born population.

In the second part of the paper, I develop and estimate a structural lifecycle model with two-sided intergenerational altruism, allowing me to simulate the effects of alternative Social Security policies on both retirees and their descendant generations, as well as public finances. To ensure tractability, downstream and upstream intergenerational transfer decisions in the model occur strictly sequentially, eliminating strategic interactions between generations and allowing the model to be solved using standard recursive methods[2].

This research contributes to the small but growing literature on the broader economic effects of retirement policies, particularly by emphasizing the indirect effects of Social Security on younger

[1] Some notable exceptions are Fetter et al. (2024) and Costa (1997).

[2] The assumption that both downstream and upstream transfers are predominantly driven by intergenerational altruism and not exchange motives is based on the findings in Mukherjee (2022).

generations. While prior work has extensively studied how Social Security influences individual labor supply and savings decisions, this paper highlights its role in shaping family-level financial flows and caregiving time burdens, particularly within low-income and immigrant households.

Literature review. Recent research on intergenerational effects of Social Security has documented the extent to which Social Security benefits can influence private intergenerational transfers. Mukherjee (2022) using Social Security Notch as an instrument estimates that 15.4% of Social Security benefits received by low-income retirees are passed through as financial transfers to children, while upstream time transfers from children to parents decrease by 25.8% in response to more generous benefits. Mukherjee (2018) using purely descriptive analysis documents that higher Social Security are correlated with more generous inter-vivos transfers from parents to children and more hours of grandchildcare, on the one hand, and less extensive children's financial support and fewer caregiving hours for their parents, on the other hand.

Fetter et al. (2024) focuse on how old-age government support programs can influence geographic mobility (location choice), labor market outcomes, and socioeconomic status of the recipients' children. The find that Social Security relaxed the "location constraint" by substituting in-kind support (like shared housing) previously provided by children to their elderly parents. As a result, adult children were more likely to migrate further from their childhood homes and to move to better-matched labor markets. These movers earned more and lived in ZIP codes with higher socioeconomic status later in life. Fetter et al. (2024) estimate that a ten-year difference in fathers' predicted earliest age of Social Security eligibility conferred a financial gain on recipients' sons of $740 per year or $15,010 in expected present value (amounts in 2020 USD). The magnitude of the effects suggests that the total financial gain to recipients' children may have been comparable to or even exceeded the direct financial gain to recipients themselves.

Costa (1997) investigates the factors that led to the rise in separate living quarters for the elderly before the advent of Social Security. Specifically, she focuses on the impact of the first major pension program in the US, which covered Union Army veterans. She finds that increased income from pensions significantly raised the demand for independent living among the elderly, suggesting that rising incomes were a crucial factor in enabling the elderly to live alone prior to 1940. The elasticity of co-residence with family members with respect to pension income was -0.77, implying that income increases could explain up to 86% of the decline in co-residence rates between 1910 and 1940. Other factors contributing to the decline in co-residence included decreased fertility, increased life expectancy, and improvements in elderly health and household technology.

Several earlier quantitative studies employed overlapping generations models to study dynastic effects of Social Security. For example, Fuster (1999) provides a theoretical perspective on the macroeconomic implications of Social Security, showing that in a dynastic framework, in contrast

to life-cycle analyses, social security does not affect the savings rate. Fuster et al. (2003) using a similar framework also emphasize that the presence of intergenerational altruism significantly mitigates the crowding out effect of unfunded social security. Relative to this literature, my contribution is that I develop a model with two-sided intergenerational altruism and place major focus on intergenerational transfers of (caregiving) time and their implications for economic outcomes of descendant generations. Furthermore, intergenerational transfer patterns as well as retirement decisions and benefit receipt in my model are disciplined using longitudinal household survey data.

2 Data

I use data from the Health and Retirement Study (HRS), including the cross-wave consistent longitudinal RAND HRS dataset, the RAND HRS Family Files, individual wave files, and restricted-access administrative data with Social Security Administration (SSA) linkages. The sample period covers 1992 to 2018.

3 Empirical Analysis

I conduct an empirical analysis leveraging the longitudinal nature of HRS data to examine intergenerational transfer patterns over the lifecycle. Preliminary findings indicate that more generous Social Security benefits and greater retirement wealth are positively correlated with wealth transfers from parents to children and negatively correlated with upstream transfers (from children to parents). Notably, these correlations are stronger within immigrant families compared to native-born households. This finding aligns with the widely held view that the immigrant population tends to exhibit higher levels of intergenerational altruism.

Specifically, I estimate the following regression model:

$$Y_{it} = \alpha + \beta SS_{it} + \delta X_{it} + \lambda_t + \varepsilon_{it} \tag{1}$$

where Y_{it} denotes a measure of intergenerational transfers for respondent i at time t - either upstream or downstream, and in the form of money or time. The coefficient of interest, β, captures the association between the generosity of Social Security benefits and intergenerational transfers. The vector of control variables X_{it} includes a rich set of sociodemographic characteristics - such as the respondent's educational attainment, age, gender, race, ethnicity, marital status, and number of children - as well as household wealth, employment status, and an indicator for long-term care insurance coverage. The model also includes year fixed effects λ_t.

Table 1 and Table 2 show the resulting regression coefficients for monetary and time transfers, respectively. In both tables, the first row shows results for the native-born population, and the second row presents results for first-generation immigrants.

Specifically, Table 1 reports estimated coefficients based on the following dependent variables: the probability of providing a downstream transfer (column 1), the amount of the downstream transfer (column 2), the probability of leaving a bequest larger than \$10K (column 3), the probability of leaving a bequest larger than \$100K (column 4), the probability of providing any upstream transfer (column 5), and the amount of the upstream transfer (column 6).

Table 2 presents estimated coefficients for the following outcomes: the probability of providing any parent-to-child (grandchild) care transfer (column 1), the number of hours of such care

(column 2), the probability of providing any non-caregiving help to children (column 3), and child-to-parent caregiving time measured in days (column 4) and in hours (column 5).

Table 1: Relation between Social Security Benefits and Monetary Intergenerational Transfers

	Parent-to-child				Child-to-parent	
	Any transfer?	Amount	PB $> 10K$?	PB $> 100K$?	Any transfer?	Amount
Natives	0.021	0.286	0.039	0.046	-0.004	-0.052
Immigrants	0.034	0.433	0.068	0.095	-0.023	-0.293

Notes: The table reports the coefficient on Social Security benefits from separate regressions in each column. All dollar amounts are expressed in units of $10,000. The dependent variable in columns 1, 3, and 4 is a probability measure ranging between 0 and 1 ("PB" stands for "probability of leaving bequest"). Columns 1 and 5 report average marginal effects from probit models; columns 3 and 4 report OLS estimates; and columns 2 and 6 report average marginal effects from tobit models. Robust standard errors, clustered at the household level, are shown in parentheses.

Table 2: Relation between Social Security Benefits and Time Intergenerational Transfers

	Parent-to-child		Child-to-parent		
	Any childcare?	Hours	Any help?	Days	Hours
Natives	0.009	6.206	-0.007	-2.002	-12.857
Immigrants	0.035	29.864	-0.026	-8.837	-63.827

Notes: The table reports the coefficient on Social Security benefits from separate regressions in each column. All dollar amounts are expressed in units of $10,000. Columns 1 and 3 report average marginal effects from probit models, while columns 2, 4, and 5 report average marginal effects from tobit models. Robust standard errors, clustered at the household level, are shown in parentheses.

As shown in the tables, more generous Social Security benefits are associated with more frequent and larger inter vivos transfers from parents to children, and with less frequent and smaller upstream transfers from children to parents. These correlations are stronger in absolute terms for immigrant households than for native-born ones.

Altruism versus exchange motives? The following empirical patterns provide support for altruistic motives behind intergenerational transfers (reported in the HRS data), as opposed to strategic or exchange-based explanations:

- More generous Social Security benefits are associated with increased downstream inter vivos transfers (from parents to children), and simultaneously with reduced upstream transfers (from children to parents).
- Parents tend to give more generous inter vivos transfers to their most disadvantaged children, rather than to those from whom they might expect future help or caregiving.

4 Model

I build a lifecycle model with two-sided intergenerational altruism, i.e. where both parents and children are altruistic towards each other and can provide transfers in terms of time and money to each other. The model is set in partial equilibrium and features at least three overlapping cohorts in every period: 50+ year-old parents, their adult children, and grandchildren. Depending on mortality shocks, up to two additional generations - the parents and grandparents of the 50+ year-old cohort - may also be alive at the same time. The model is calibrated using the HRS data described in the previous section.

The model features the following timing of intergenerational transfers:

1. Childcare Phase: Adult parents face exogenous childcare time requirements while their children live in the household.

2. Children leave the household: When children reach age 18, they leave the parental household, triggering a one-time downstream inter vivos transfer from parents.

3. Upstream Caregiving Transfers Begin: Upon reaching age 50, these parents (now 50+) must decide on upstream time transfers to their own elderly parents.

4. (Club)Sandwich Generation Phase: Once their own children become parents, these 50+ households can provide downstream grandchildcare while still supporting their elderly parents with upstream caregiving transfers.
   Upstream transfer decisions are made during several model periods up until old ages such that the model can generate "club-sandwich" dynamics, i.e. retired parents might be receiving upstream transfers from their children while at the same time still providing some upstream transfers to their own parents, too.

As a result, the model successfully captures the phenomenon of "sandwich" generations while remaining tractable because the timing is always such that in no model period two generations choose transfers toward each other simultaneously[3].

5 Calibration

[TBC]

[3]Dynamic interactions between each two generations take place strictly sequentially, i.e. there are no periods when parents and children have to act simultaneously choosing mutual downstream and upstream. But upstream and downstream transfer done by one generation can take place within one period.

6 Results

The structural model enables an analysis that goes beyond the short-term effects of Social Security reforms on current retirees, providing a longer-term evaluation of their impact on lifetime welfare and distributional outcomes for descendant generations.

I use the model as a quantitative laboratory to examine several Social Security reform scenarios targeted at retirees affected by old-age poverty, assessing their implications for the lifetime outcomes of subsequent generations and the fiscal sustainability (aggregate finances) of the Social Security system.

[TBC]

7 Conclusion

The paper makes several contributions. From an empirical perspective, it documents a range of statistics on intergenerational transfer behavior and its heterogeneity across key sociodemographic characteristics, including the distinction between native-born and immigrant populations. From a methodological perspective, it develops a lifecycle model with two-sided intergenerational altruism and a rich multi-generational demographic structure that successfully captures "sandwich" and "clubsandwich" generation phenomena. The model is then used as a quantitative laboratory to analyze a number of Social Security reforms targeted at the retiree population affected by old-age poverty.

[TBC]

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Appendix

A Additional Stuff

[TBC]