Wealth Distribution: The Role of Bequests

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Econ890, Spring 2021

January 16, 2021

Introduction

The baseline life-cycle model does not generate enough rich households.

Possible solutions:

1. bequests
2. entrepreneurs
3. different income processes

Questions

How important are bequests for wealth inequality?

Do bequests increase or reduce inequality?

- Why do people leave bequests?

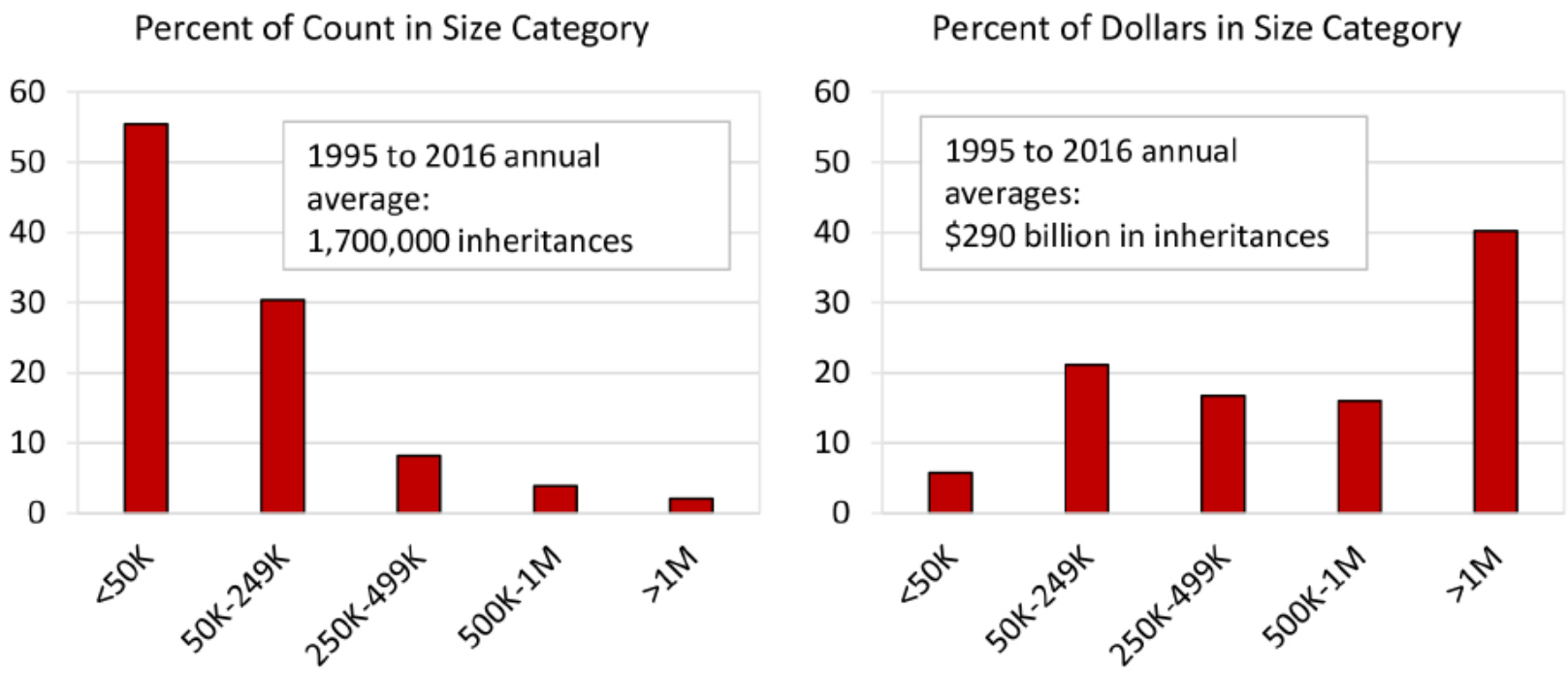
Facts: Bequests

Feiveson and Sabelhaus (2018):

- Aggregate size: about $290b per year (2016)
- Inter vivos transfers are much smaller (about $50b)
- Jointly about 3% of disposable personal income.
- Typically received around age 50.

Skewness

Figure 1: Size Distribution of Inheritances

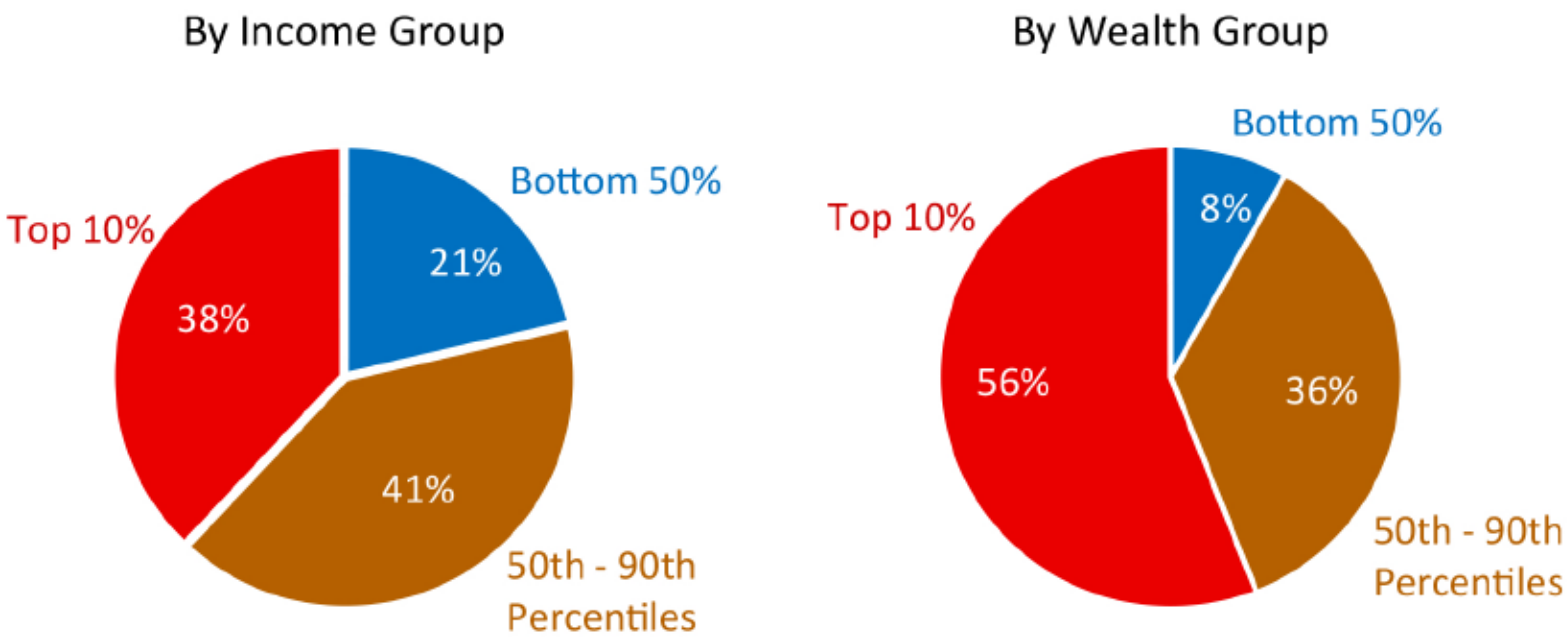


Feiveson and Sabelhaus (2018)

Top 2% receive 40% of inheritances.

Who receives?

Figure 5: Concentration of Intergenerational Transfers Received by Income and Wealth



Feiveson and Sabelhaus (2018)

Transfer wealth

An old and controversial literature asks: what fraction of aggregate wealth is inherited?

Transfer wealth = present value of all intergenerational transfers received

Size depends strongly on the interest rate.

How to interpret this?

- probably overstates the contribution of inheritances to wealth holdings
- because inheritances will be partially consumed

Transfer wealth

Table 2: Share of Wealth Directly Accounted for by Intergenerational Transfers, 2016

	Bottom 50%	Next 40%	Top 10%	All
Share of Wealth	3%	25%	72%	100%
Fraction of Wealth from Transfers				
Real interest rate = 3%	43%	24%	25%	26%
Real interest rate = 5%	74%	40%	53%	51%

Source: Survey of Consumer Finances, Federal Reserve Board.

Feiveson and Sabelhaus (2018)

Top 1% by wealth inherit 18% of their wealth (3% interest; Wolff and Gittleman, 2014)

Bequest motives

The literature proposes and tests several theories.

No consensus as to which motives are important.

All theories perform miserably against data.

> *Each motive that has been tested has also been rejected. This suggests that households may be influenced by several motives, or that the importance of each may vary across households. (Gale and Perozek, 2001)*

Bequest motives

Accidental bequests:

- Bequests arise because households do not hold annuities.

Joy of giving:

- The amount given provides utility.
- Easy to implement, but "feels wrong."

Bequest motives

Altruism:

- Parents derive utility from utility of their children.
- Theoretically appealing, but harder to compute.
- Problems if parents and children overlap: strategic interaction.
- Implies complete intergenerational risk sharing if bequest motive is operative.

Two-sided altruism:

- Children also value utility of their parents.
- If all have the same discount factors: family behaves as if a single decision maker (Laitner).

Bequest motives

Strategic / exchange motive:

- Parents derive utility from children's behavior (e.g. visiting the parents).
- Parents "buy" that behavior from the children by promising bequests or by giving inter-vivos transfers.
- Problem (in my view): the promise of bequests is not time-consistent.

Empirical challenges

Why are most estates divided equally? Wilhelm (1996)

- Altruism implies that poorer children should receive more.
- Empirically, the gaps are small (Laitner and Ohlsson, 2001)

Households without children do not dissave faster than households with children (Hurd).

Rich parents do not take advantage of tax-exempt inter-vivos transfers (Poterba, 2001)

Parental income shocks have little effect on child consumption

- not consistent with full risk sharing implied by operative altruism
- Hayashi et al. (1996)

Do bequests increase wealth inequality?

Two distinct questions:

1. Do bequests help models account for wealth inequality?
2. Would redistributing bequests reduce wealth inequality?

The general sense from the literature is: "yes to both"

- Castaneda et al. (2003), Laitner (2002), De Nardi (2004), Ocampo and Yuki (2006)

A benchmark model

De Nardi (2004) finds:

bequests greatly improve the model's ability to account for top 1% of wealth holdings.

Model: roughly Huggett (1996) plus:

1. Stochastic mortality
2. Joy of giving bequest motive:

$$\phi(b) = \phi_1 \ (1 + b/\phi_2)^{1-\sigma}$$

3. Parents and children overlap
   but children only see parents' earnings at age 40
4. Chilren's earnings are correlated with parental earnings at age 40.

Calibration

1. Model period is 5 years.
2. Earnings approximate an AR(1) with 3 states.
3. Var of initial earnings matches earnings Gini.
4. ϕ_1: matches transfer wealth ratio of 60%
5. ϕ_2: matches (small) size of bottom 30% of estates (about 7% of average earnings)

Transfer wealth = the amount of wealth that a person holds that is "due to" inheritances and inter-vivos gifts.

- not clear how it is defined here
- simply not a useful calibration target

Only 2 bequests data points are used in calibration.

Results

Capital–output ratio	Transfer wealth ratio	Wealth Gini	Percentage wealth in the top					Percentage with negative or zero wealth
			1%	5%	20%	40%	60%	
U.S. data								
3·0	0·60	0·78	29	53	80	93	98	5·8–15·0
No intergenerational links, equal bequests to all								
3·0	0·67	0·67	7	27	69	90	98	17
No intergenerational links, unequal bequests to children								
3·0	0·38	0·68	7	27	69	91	99	17
One link: productivity inheritance								
3·0	0·38	0·69	8	29	70	92	99	17
One link: parent's bequest motive								
3·0	0·55	0·74	14	37	76	95	100	19
Both links: parent's bequest motive and productivity inheritance								
3·0	0·60	0·76	18	42	79	95	100	19

Bequests increase fraction of wealth held by top 1% from 8% to 18%.

Still quite a bit short of the data (29%)

Size distribution of estates

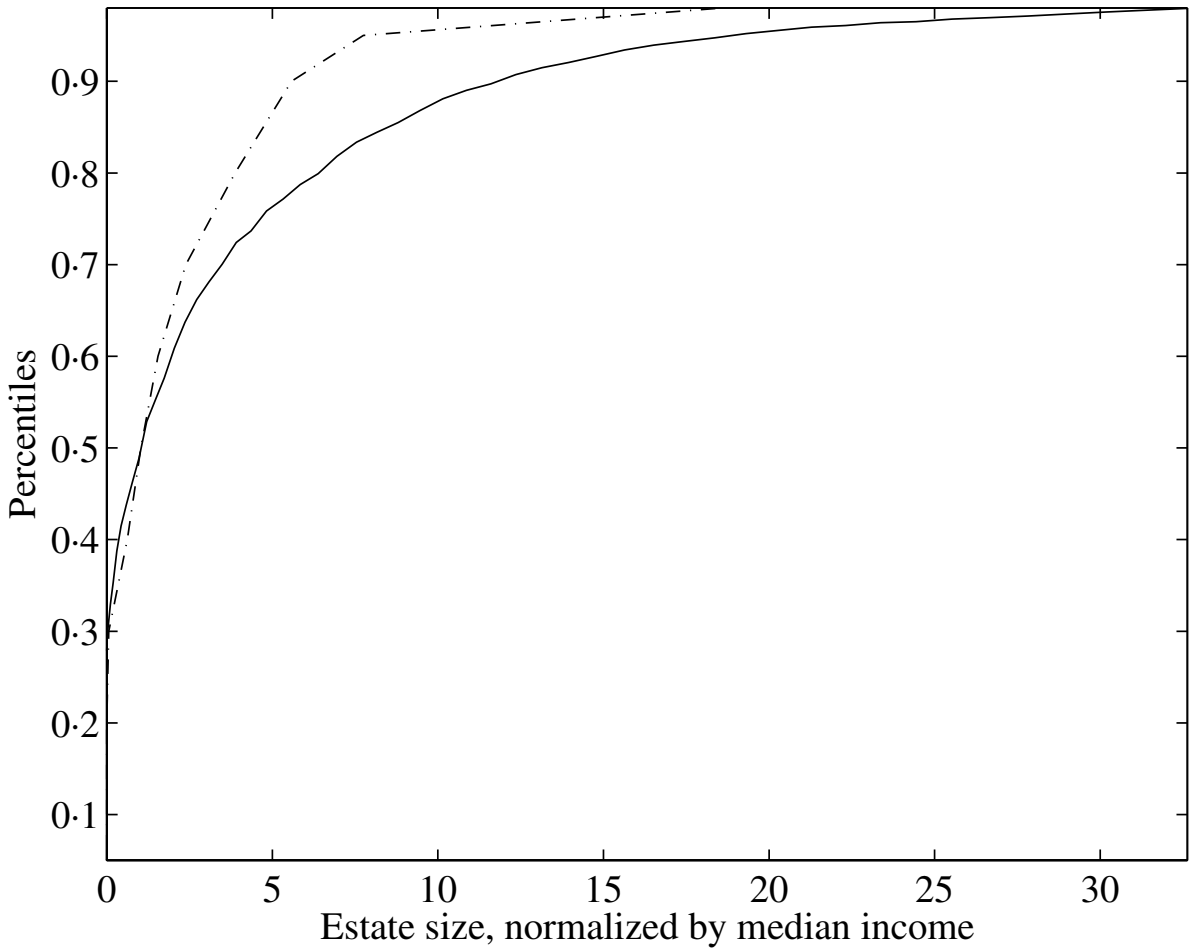


FIGURE 3

Cumulative distribution of estates, solid = model, dash–dot = AHEAD data

The model matches the 30th percentile by construction.

The top 10% of estates are far too large

Importance of Inheritances

There are no rich households without inheritances.

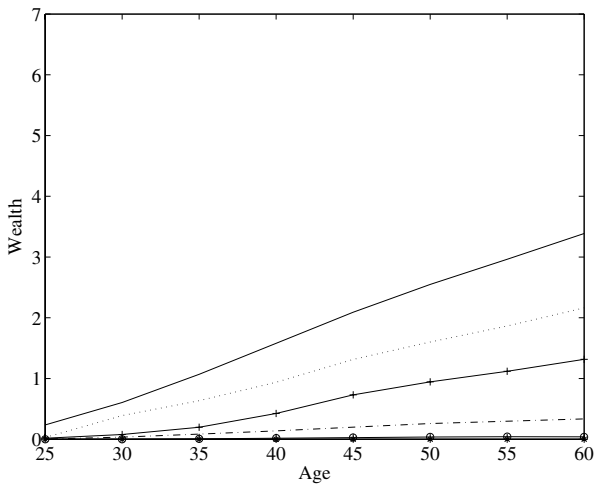


FIGURE 7

U.S. calibration. Wealth quantiles: 0·1, 0·25, 0·5, 0·75, 0·85, 0·95, conditional on not having inherited

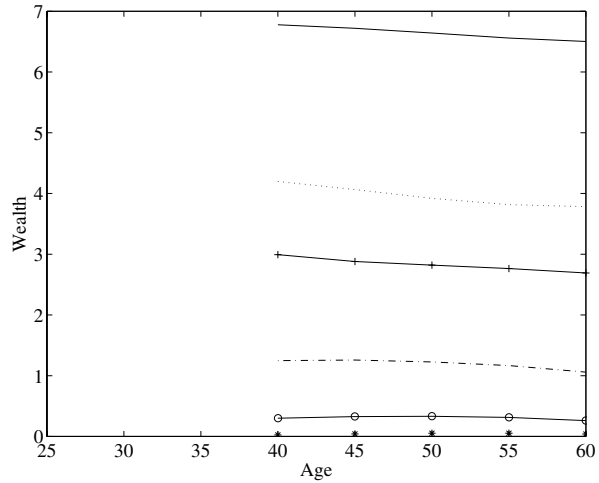


FIGURE 8

U.S. calibration. Wealth quantiles: 0·1, 0·25, 0·5, 0·75, 0·85, 0·95, conditional on having inherited

What could go wrong?

The paper, like much of the literature, uses almost no data.

Why bequests may be too important:

1. they are received too early (at "birth")
2. they are not divided among siblings and charity (Joulfaian, 1994)
3. there are few rich households who don't inherit

Some additional data moments

Table 6. Lifetime inheritances by family income (SCF)

Percentile	20	40	60	80	100
Fraction of total inheritance	3.6	3.9	9.4	14.1	69.0
Mean inheritance	0.2	0.3	0.7	0.9	5.0
Mean family income	0.1	0.3	0.5	0.7	2.5
Ratio inheritance / family income	164%	93%	160%	131%	200%

Notes: Based on 1989 Survey of Consumer Finances. Inheritances and family incomes are expressed as multiples of mean earnings per civilian employee.

Table 7. Lifetime inheritance by family lifetime earnings (PSID)

Percentile	20	40	60	80	100
Fraction of total inheritance	13.9	19.9	42.1	58.7	100.0
Mean inheritance	0.6%	0.2%	0.9%	0.7%	1.7%
Mean family lifetime earnings	0.3	0.6	0.9	1.2	2.0
Ratio inheritance / family lifetime earnings	2.0%	0.3%	1.0%	0.6%	0.9%

Notes: $N = 888$. Based on sample of PSID households with at most one surviving parent. Inheritances and family lifetime earnings are discounted to age 50 and expressed as multiples of mean lifetime earnings.

Source: my calculations

The point: inheritances are, on average, a small fraction of lifetime earnings

References I

Castaneda, A., Diaz-Gimenez, J., Rios-Rull, J.V., 2003. Accounting for the US earnings and wealth inequality. Journal of political economy 111, 818–857. URL: https://www.jstor.org/stable/10.1086/375382.

De Nardi, M., 2004. Wealth inequality and intergenerational links. The Review of Economic Studies 71, 743–768. URL: http://restud.oxfordjournals.org/content/71/3/743.short.

Feiveson, L., Sabelhaus, J., 2018. How Does Intergenerational Wealth Transmission Affect Wealth Concentration? Technical Report. URL: https://www.federalreserve.gov/econres/notes/feds-notes/how-does-intergenerational-wealth-transmission-affect-wea htm.

Gale, W.G., Perozek, M.G., 2001. Do estate taxes reduce saving? Rethinking Estate and Gift Taxation 216, 217–218.

References II

Hayashi, F., Altonji, J., Kotlikoff, L., 1996. Risk-sharing between and within families. Econometrica: Journal of the Econometric Society , 261–294.

Huggett, M., 1996. Wealth distribution in life-cycle economies. Journal of Monetary Economics 38, 469–494. doi:10.1016/S0304-3932(96)01291-3.

Joulfaian, D., 1994. The distribution and division of bequests in the us: Evidence from the collation study. OTA paper 71.

Laitner, J., 2002. Wealth inequality and altruistic bequests. The American Economic Review 92, pp. 270–273. URL: http://www.jstor.org/stable/3083415.

Laitner, J., Ohlsson, H., 2001. Bequest motives: a comparison of sweden and the united states. Journal of Public Economics 79, 205–236.

References III

Ocampo, I.P., Yuki, K., 2006. Savings, intergenerational transfers, and the distribution of wealth. Macroeconomic Dynamics 10, 371–414. URL: http://journals.cambridge.org/article_S1365100506050206.

Poterba, J., 2001. Estate and gift taxes and incentives for inter vivos giving in the us. Journal of Public Economics 79, 237–264.

Wilhelm, M.O., 1996. Bequest behavior and the effect of heirs' earnings: Testing the altruistic model of bequests. The American Economic Review , 874–892.

Wolff, E.N., Gittleman, M., 2014. Inheritances and the distribution of wealth or whatever happened to the great inheritance boom? The Journal of Economic Inequality 12, 439–468. URL: https://link.springer.com/article/10.1007/s10888-013-9261-8, doi:10.1007/s10888-013-9261-8. company: Springer Distributor: Springer Institution: Springer Label: Springer Number: 4 Publisher: Springer US.