

Preliminary

Children and Household Wealth

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Executive Summary

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The distribution of retirement wealth is much more dispersed than earnings. Using data from the Health and Retirement Study (HRS) and social security earnings records, the ratio of real lifetime earnings for the household at the 90th percentile of the lifetime earnings distribution relative to the earnings of the household at the 10th percentile (referred to as the 90-10 ratio) is 22.5. The coefficient of variation (the standard deviation divided by the mean) of lifetime income is 0.76. The 90-10 ratio for 1992 household net worth (including housing wealth) is 525. The coefficient of variation of net worth is 2.01. Explaining the dispersion in wealth has been a longstanding challenge. A simple-minded framework that assumes earnings differences solely explain wealth differences across the rich and the poor is too simplistic.

There is a large literature on life-cycle wealth accumulation. But surprisingly few studies examine the effects of children on consumption and wealth. Children might be expected to affect wealth accumulation for at least three reasons. First, family size is correlated with lifetime earnings, so optimal asset accumulation will be correlated with children if wealth accumulation varies with a household's place in the income distribution. Second, the number of children (and adults) in the household affects the utility of a given amount of (private) consumption, which in turn affects optimal consumption decisions. Third, with uncertain earnings (and uncertainty in health and lifespan), the timing of fertility can affect optimal consumption decisions.

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This paper focuses on the effects that children have on life-cycle wealth accumulation. We start examining the effects of children using a simple permanent income model with no uncertainty and complete markets. But this framework does not come close to matching the distribution of existing wealth. So we then look at the effects of children in the augmented lifecycle model discussed in Scholz, Seshadri, and Khitatrakun (2006). But both approaches take the arrival and timing of children as being exogenous: because fertility may be affected by wealth and earnings expectations, we also describe results from a model that incorporates endogenous fertility in the spirit of Becker and Barro (1988). Our conclusions about the importance of children in understanding wealth accumulation are consistent across modeling approaches.

We find that children have a large effect on household's net worth and consequently are an important factor in understanding the wealth distribution. We show that the effects of children are much larger than the effects of asset tests associated with means-tested transfers, given earnings realizations and the social security system experienced by households in the HRS. This result is striking, given the conclusion of Hubbard, Skinner and Zeldes (1995) who write:

“...the presence of asset-based means testing of welfare program can imply that a significant fraction of the group with lower lifetime income will not accumulate wealth. The reason is that saving and wealth are subject to an implicit tax rate of 100 percent in the event of an earnings downturn or medical expense large enough to cause the household to seek welfare support. This effect is much weaker for those with higher lifetime income...”.

We also show that credit constraints are quantitatively important, and fertility and credit constraints interact in ways that significantly affect wealth accumulation. In particular, poorer households with more children are typically credit constrained for a longer time than their richer counterparts. Absent the systematic variation in family size with respect to income, the model implies that *richer* households would be credit constrained for longer time since they have steeper age-earnings profiles than poorer households. The

wide dispersion in wealth holdings arises, in part, from the interaction between the earnings and fertility distributions in a world with uninsurable risks and borrowing constraints.

Finally, our model with endogenous fertility does a remarkable job of explaining the joint distribution of fertility and household wealth across households in the Health and Retirement Study.

References

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