

## **The Nexus of Social Security Benefits, Health, and Wealth at Death**

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The three legged stool commonly used to describe people's financial support in retirement includes Social Security, employer-provided pensions, and private saving. However, a large fraction of retirees balance on only one leg, Social Security, and those balancing on this single leg are also in the poorest health. In past work, we find that 40 percent of people approach their last year of life with less than \$20,000 in annuity income (primarily Social Security) and less than \$10,000 in financial assets. Moreover, 68 percent of this group has no housing wealth. Those with low levels of financial resources are also in much poorer health than people with higher levels of income and assets. This raises the concern that adverse health events in old age may force households to prematurely exhaust assets.

In this study, we analyze how the drawdown of non-annuity wealth in the years preceding death is related to the receipt of Social Security, pension benefits, and the level and change in health in the last years of life. In particular, we want to know whether Social Security income is protective of non-annuity assets. Are people with more Social Security income able to cover health and other expenses with less need to drawdown savings?

The analysis of the drawdown (or accumulation) of non-annuity wealth also helps to fill the gap in what we know about income from the third stool – private saving. While income from Social Security and traditional pension plans is accurately measured in surveys such as the HRS, less is known about withdrawals from IRAs and 401(k) plans, which are increasingly important for more recent retirees. In this paper we focus on the “income” that people obtain from drawing down assets. In particular, we seek to identify how the rate of asset spend-down is affected by health and by the presence of other sources of income. By considering income from traditional sources (Social Security and DB pensions) jointly with changes in asset stocks, we hope to develop a more complete picture of the financial resources available to the elderly.

The analysis is based on wave-to-wave changes in the assets of households in the AHEAD database. For people with the same level of assets in a particular wave, we ask how the level of assets in the next wave depends on the initial level of health, the change in health between the waves and the receipt of annuity income.

To structure the analysis, we categorize AHEAD respondents who died between 1995 and 2010 as belonging to one of three family status “pathways” to the end of life: (1) single when first observed and single in the “last year observed” before death, (2) married when first observed and pre-deceased by a spouse, or (3) married when first observed and survived by a spouse. A descriptive analysis of asset drawdown at the end of life shows that the median change in assets between 1995 and the “last year observed” before death is rather modest for all three pathways. But the variation across households is enormous, with some having large drawdowns of non-annuity assets and others having large increases.

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Although the median dollar drawdown in non-annuity assets is modest, the median percent drawdown is much larger. Persons who remained single and married persons predeceased by a spouse experienced median asset reductions of 30 to 50 percent between 1995 and the last year observed before their death. The reductions for persons whose spouse was still alive at their death were much smaller. But, as with the dollar drawdown, there is wide variation across households.

To better understand the variation across households, we analyze how the change in assets from one wave to the next relates to the initial level of health, the change in health between the waves, the amount of one's Social Security income, and the amount of income from a traditional defined-benefit pension plan. We estimate that a 10 percentile point increment in health in the previous wave is associated with over \$6,000 more wealth for single persons, over \$12,000 more for persons originally in two-person household with a pre-deceased spouse, and over \$14,000 more wealth for persons originally in two-person households with a surviving spouse. The estimated effect of a 10 percentile point increment in health between waves ranges from over \$4,000 for single persons to over \$17,000 for two-person households. A \$5,000 increment in annual Social Security income is associated with increments in wealth ranging from about \$12,000 for single persons to over \$29,000 for persons originally married with a pre-deceased spouse. The relationship between non-annuity wealth and a \$10,000 increment in DB pension benefits ranges from about \$9,000 for single persons to over \$18,000 for persons originally married with a pre-deceased spouse. Thus our estimates suggest that both Social Security income and DB income are “protective” of non-annuity wealth, while poor health is an important determinant of the drawdown of non-annuity wealth.

The full working paper is available on our website, [www.nber.org/programs/ag/rrc/books&papers.html](http://www.nber.org/programs/ag/rrc/books&papers.html), as paper NB12-08.

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