

Asset decumulation in retirement: Patterns, predictors, and the role of financial literacy

Executive summary

Many studies have shown that individuals deviate from theoretical expectation by holding significant wealth into the very late stages of life. This paper focuses on how decumulation patterns develop differently when assessing people who start retirement with different levels of wealth. The results suggest that the wealthiest retirees spend down their wealth slower than others. The paper then focuses on how these patterns vary by type of wealth and whether the patterns are related to retirees' financial literacy. Brokerage holdings are spent down more quickly than IRAs and checking/savings accounts. Those with higher levels of financial literacy tend to use their knowledge to accumulate more assets, take on less debt, and spend down their wealth slower. The paper's findings suggest that asset type, institutional rules, and individual capabilities jointly shape financial outcomes in retirement.

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Background

The shift from wealth accumulation to wealth decumulation in retirement represents a critical but understudied phase of the financial life cycle. Standard economics models suggest that individuals ought to draw down assets gradually with time, smoothing consumption over a time horizon unknown to the individual (Yaari, 1965). However, in practice, many American retirees hold substantial wealth into very late stages of life. This deviation from standard predictions can't be explained by precautionary savings or bequest motives alone (De Nardi et al., 2025), and it has been deemed the “retirement-consumption puzzle” (Banks et al., 1998).

While prior work has documented broad patterns in how individuals retain their wealth over time (Poterba et al., 2011), little is known about how these patterns vary across individuals along several dimensions relevant in practice and for policy. First, this paper asks: How do decumulation patterns vary based on the level of wealth individuals have accumulated by age 65? Then, the paper asks: Which types of assets drive these patterns? Finally, the paper turns to financial literacy to ask: Are those with higher financial literacy better positioned to accumulate wealth in retirement and spend down more slowly? With recent work suggesting that late-life wealth is predictive of work patterns and healthy life expectancy (Bavafa et al., 2023), these results are relevant to how institutional incentives and individual capabilities may drive the wealth (and thus, the health-wealth) picture into the late stages of life.

Methodology

We use data, spanning 1995 to 2020, from the Health and Retirement Study (HRS), a nationally representative longitudinal survey of U.S. adults over age 50. The HRS collects detailed information on wealth, income, demographics, and retirement behavior, making it well-suited for studying asset decumulation during later life.

Our analytical sample includes individuals who reached age 65 between 1995 and 2008. To accommodate the two-year survey intervals in the HRS, we also include respondents who reached age 66 or 67 within that window. We require that individuals survive at least 12 years following this age cutoff to ensure a full post-retirement observation window. This allows us to track decumulation behavior over a consistent and meaningful horizon across cohorts.

We focus on total nonhousing financial wealth, defined as the net value of the following assets: IRAs and Keogh accounts, stocks and mutual funds (including investment

trusts), nonprimary real estate, business holdings, checking and savings accounts (including money market funds), vehicles, certificates of deposit, bonds, and other financial assets. We subtract any nonmortgage debt to obtain net wealth. All values are adjusted to 2020 U.S. dollars using the Consumer Price Index. Our wealth measure excludes housing wealth, which is less easily decumulated and typically serves both consumption and bequest functions. Throughout the analysis, we group individuals into wealth quartiles based on this nonhousing financial wealth measure at age 65.

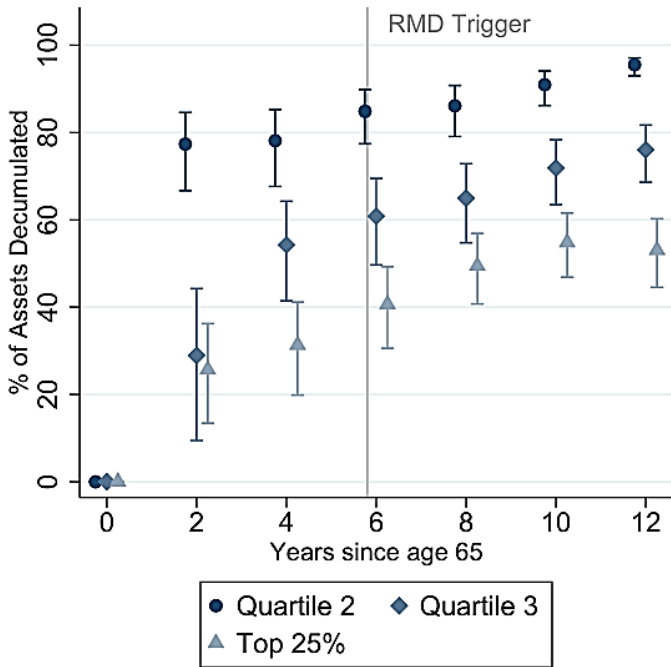
Using these data, we analyze the decumulation patterns of individuals after age 65. We assess total nonhousing financial wealth and then separately analyze wealth held in three prominent types of accounts that are more easily tracked to decumulation motives than real estate and businesses. These accounts include: 1) stock, mutual fund, and investment trust accounts; 2) checking, savings, and money market accounts; and 3) individual retirement accounts (IRAs) and Keogh accounts. Next, we focus on the role of financial literacy in wealth development following age 65, after adjusting for initial wealth levels in a regression framework. We measure financial literacy based on the standard “Big Three” questions covering compound interest, inflation, and risk diversification (Lusardi & Mitchell, 2011).

Findings

First, we show that wealth decumulation patterns differ widely by wealth quartile measured at age 65. We omit the least wealthy individuals (i.e., those in the first quartile or the bottom 25%) given they start at age 65 with very small, and often negative, wealth levels. Thus, they appear to accumulate initially after age 65 (by eliminating some negative wealth) but don't decumulate much over time, with little in the way of assets to decumulate. Figure 1 shows average wealth decumulation patterns over time (i.e., years since age 65) among the second, third, and fourth wealth quartiles.

Individuals in the second wealth quartile spend down their wealth more over time and do so relatively quickly, compared to their wealthier counterparts. Within a few years, this group has already spent down nearly 80% of their assets—on average—from the year they turned 65. The third and fourth wealth quartiles spend down less slowly. In fact, in the 12-year period after age 65, they never reach the level of decumulation the second quartile experienced almost immediately. By year 12, the mean wealth decline is 54% in the top quartile, 76% in the third, and 95% in the second.

FIGURE 1. MEAN ASSET DECUMULATION OVER TIME BY WEALTH QUARTILE



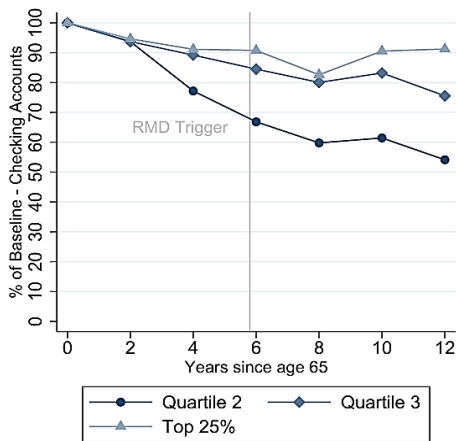
Notes: This figure depicts the percentage of assets (wealth) decumulated over time relative to the baseline in the year one turns 65. The bottom quartile is excluded due to limited and volatile asset values. Source: HRS, 1995–2020.

Figure 2 addresses how these decumulation patterns in each wealth group vary by type of asset, showing the median percentage of assets remaining in each category relative to the baseline level at age 65. Panel (a) shows that balances held in checking, savings, and money market accounts are relatively stable over time. These accounts represent a larger share of wealth in lower quartiles but aren’t significantly drawn down even among higher-wealth retirees. IRA decumulation appears smoother and more consistent across the third and fourth quartiles. The timing and pace of this drawdown align with institutional features of the tax system, particularly required minimum distributions (RMDs), which begin in the mid-70s. The second wealth quartile experiences rapid decumulation of IRA wealth, which is likely due to their relatively low balances at the outset. The same is true for the second and third quartiles in brokerage holdings (via stocks, mutual funds, and investment trusts). The wealthiest group spends these down much more slowly, retaining nearly 50% of the baseline balance from age 65 even after 12 years.

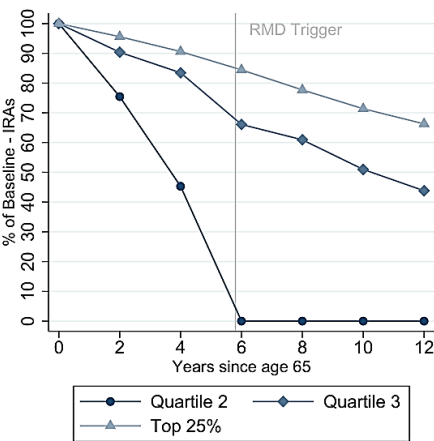
Figure 3 highlights the role of financial literacy in decumulation paths over the life course and—potentially related to greater individual capabilities—the proportion of individuals who’re able to grow their wealth after age 65. Panel (a) suggests that the median individual with high financial literacy (i.e., answering all three questions correctly) decumulates more slowly over time, resulting in much less decumulation in the end.

FIGURE 2. MEDIAN RETENTION OF EACH ASSET TYPE OVER TIME BY WEALTH QUARTILE

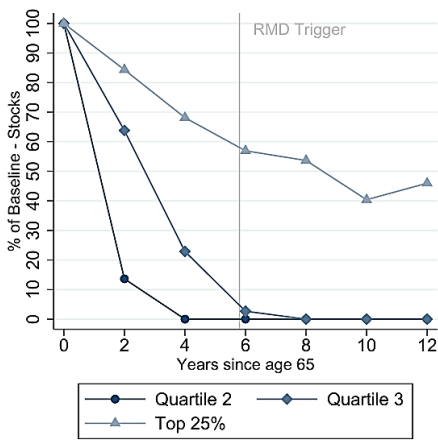
(a) Checking accounts



(b) IRAs

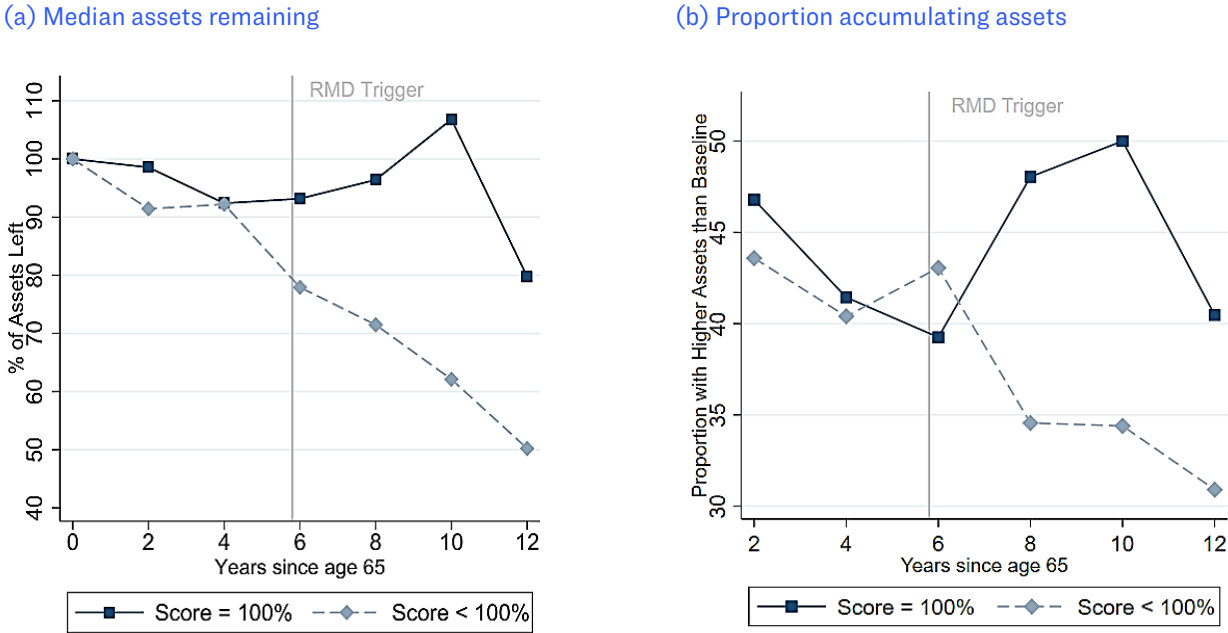


(c) Brokerage



Notes: This figure shows the median retention of each asset type over time, stratified by wealth quartile at age 65. The bottom quartile is excluded due to limited and volatile asset values. Source: HRS, 1995–2020.

FIGURE 3. FINANCIAL LITERACY – DECUMULATION AND ACCUMULATION AFTER AGE 65



Notes: Panel (a) shows the median level of nonhousing financial wealth remaining over time, relative to the baseline at age 65. Panel (b) shows the proportion of individuals who accumulated assets over time, relative to the baseline at age 65. In both panels, individuals are compared based on having high versus low financial literacy. High literacy is defined as answering all three standard financial literacy questions correctly. Source: HRS, 1995–2020.

By the end of year 12, the high financial literacy group has roughly 80% of their assets from age 65 remaining, while the low financial literacy group retains only 50%.

One key finding from panel (a) is that those with high financial literacy appear to accumulate assets over a four-year period late in their 70s. Panel (b) focuses on that pattern, graphing the proportion of each literacy group that has accumulated assets relative to their baseline at age 65. High financial literacy is related to a greater proportion of accumulators and, even at year 12 (when individuals are aged 77–79), 40% of the high financial literacy group is accumulating assets relative to their levels at age 65. For the low financial literacy group, this value is only over 30%.

Implications

The results presented here suggest that the well-accepted retirement-consumption puzzle, whereby individuals don’t decumulate on a steady, linear basis so that their assets are exhausted at death, isn’t experienced equally across wealth groups. Instead, the wealthiest individuals decumulate much less over time and much less rapidly in the years immediately

following age 65. Those less wealthy decumulate much more into old age and much more steeply. The wealthiest also manage each major asset category with less rapid decumulation, including money held in checking and savings accounts, IRAs, and brokerage holdings (such as stocks and mutual funds). We also show that higher levels of financial literacy are related to slower decumulation. Roughly four in ten *increase* their wealth accumulation after age 65.

These results, combined with recent work showing that the wealthiest live longer, healthier lives and are doing so more over time (Bavafa et al., 2023), suggest that those living longer, healthier lives may not just be wealthy at age 65. In fact, they continue to extend their wealth advantage much later into life. If policy is concerned with financial security and inequality in old age, our results point to decumulation patterns playing a potentially large role in individuals’ financial trajectory after age 65. With expanding financial literacy as one potential policy lever, which is jointly relevant to the industry and to policymakers, our results suggest raising financial literacy levels may expand wealth for older individuals and manage (at least some of) the financial inequality gap at older ages.

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