RESEARCH Brief

University of Michigan Retirement Research Center

Are All Americans Saving Optimally for Retirement?

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Many people fear that Americans are preparing poorly for retirement. But developing rigorous evidence on this issue is difficult. In this paper we briefly discuss evidence on the adequacy of retirement wealth accumulation. We then extend the straightforward, but computationally complex dynamic programming approach used in Scholz, Seshadri, and Khitatrakun (2006) to assess the adequacy of retirement wealth preparation of Americans born before 1954.

The National Income and Product Account (NIPA) measure of personal saving as a percentage of disposable income was 13.2 percent in 1986, but it was negative in 2002, 2005 and 2006, the only negative years since 1932. This is not a good summary statistics for household saving behavior, however. One important limitation is that accrued (and realized) capital gains are excluded from the saving measure. Gale and Sabelhaus (1999) provide a detailed discussion of the problems that arise in trying to make inferences about household behavior from the NIPA saving measure.

Other studies make use of the replacement rate – the amount of income in retirement needed to maintain pre-retirement living standards. Typical financial planning advice suggests that replacement rates should be 70 to 85 percent of pre-retirement income. But the replacement rate concept is also flawed by failing to take into account the role that children play in optimal life-cycle wealth decisions. Studies making use of the replacement rate standard also face challenging data issues.

There are three pieces of descriptive evidence that are consistent with the view that Americans are preparing well for retirement. The first shows the net worth held by the typical member of broadly specified birth cohorts is larger for more recently born cohorts at a given age (for example, the net worth of households that were born between 1938 to 1952 is larger at age 54 than the net worth was of households that were born between 1929 to 1943 at age 54). If some birth cohorts are preparing well, while others are doing less well, one might expect to see evidence of this when comparing cohort patterns of wealth accumulation over time. The cohort data reveal no obvious problems in retirement preparation.

The second piece of descriptive evidence simply compares the wealth, lifetime income, and wealth-to-income ratios of HRS cohorts. As the HRS has matured, new cohorts have been added. The 2004 version of the data, which we rely on for this paper, includes households from the AHEAD cohort, born before 1924; Children of Depression Age (CODA) cohort, born between 1924 and 1930; the original HRS cohort, born between 1931 and 1941; the War Baby cohort, born between 1942 and 1947; and the Early Boomer cohort, born between 1948 and 1953. The patterns of net worth and net worth to income are consistent with what we would expect to see based on the lifecycle model.

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The third piece of descriptive evidence makes use of two subjective questions posed in the HRS to retired households: (a) how satisfied are you with retirement, and (b) how are the retirement years compared to before? Over the entire population, only 9 percent of households find retirement not at all satisfying. Nineteen percent of households find their living standards worse in retirement than they were prior to retirement. Responses to these subjective questions, while far from definitive, are consistent with the idea that households in the HRS are on track to achieving financially secure retirements.

It is impossible to assess the adequacy of retirement wealth accumulation without an objective benchmark that can be used to assess behavior. We develop such a benchmark using the augmented lifecycle model of Scholz, Seshadri, and Khitatrakun (2006). Our model incorporates uncertain lifetimes, uninsurable earnings, uninsurable medical expenses, and borrowing constraints. Households derive utility from period-by-period consumption in equivalent units. For each household in our sample we compute optimal decision rules for consumption (and hence asset accumulation) from the oldest possible age to the beginning of working life for any feasible realizations of the random variables: earnings, health shocks, and mortality.

With the optimal decision rules in hand, we can then calculate what each HRS households in the model optimally would have done in response to their realized earnings. Given their optimal consumption, we can calculate their period-by-period saving, which, given our rate of return assumption, allows us to calculate their optimal wealth target. The targets represent the amount of non-DB pension, non-social security net worth that the household should have accumulated, at the time we observe them in the 2004 HRS, to be on track to equate the discounted marginal utility of consumption over their remaining life.

Our preliminary evidence is striking. Only 3.6 percent of HRS households have net worth that is below their optimal targets. Conditional on having accumulated too little, the magnitude of the deficits is small. There is some evidence that younger households (those in the War Babies and Early Boomer cohorts) are less likely to have met their targets. But even in the early boomer cohort, only 10.2 percent of households are below their targets. The median deficit, conditional on not meeting the target, is $16,306. Thus, we think there is very little evidence that Americans, at least for those born before 1954, are preparing poorly for retirement.

These results increase our confidence that Americans are, by in large, preparing sensibly for retirement, given the existing generosity of social security, Medicare, and pension arrangements. We have additional work to do to explore the robustness of our results, particularly the ability of households to comfortably weather unusually large out of pocket medical expenses (households in the model are hit with out of pocket medical expenses after retirement – the magnitude of these shocks are estimated using eight HRS waves of data). But we see little in the descriptive data or our model-based analyses that leads us to think that households are making large, systematic errors in their financial preparation for preparation.

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