

Inattentive Households and Consumption Declines During Retirement

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Introduction

With millions of U.S. baby boomers approaching and entering retirement, a key policy question is whether households will have enough financial resources to sustain their standard of living as they age. There are two very different views on this question. On the one hand, the current National Retirement Risk Index, published by the Center for Retirement Research at Boston College, finds more than half of all American households are at risk of inadequate preparation for retirement (Munnell et al., 2018). This and other reports have helped to create the consensus by financial writers that the U.S. is facing a major meltdown in financial security for retirees (e.g., Gillers et al., 2018).

On the other hand, some economists have concluded that consumption at retirement declines optimally for a variety of reasons, including time preference rates, smaller households (Scholz, Seshadri, and Khitatrakun, 2006), a drop in work-related expenses, household production in which “consumption” is produced at home by (e.g.) cooking meals or shopping for bargains rather than spending money for prepared food (Aguiar and Hurst, 2005, 2007), or health shocks causing people both to retire, and to scale back on consumption (Hurd and Rohwedder, 2013). Thus households need not save much for retirement.

In this paper, we revisit the question of the adequacy of retirement saving and the behavior of consumption broadly defined near retirement. We begin with a general life-cycle model with household production to capture the idea that there are a variety of factors that can account for both sudden and gradual declines in consumption around retirement, and in the years following retirement.

As well, we include a nested parameter that captures the idea that decision making can be imperfect, and that reactions to retirement can be slowed or delayed when consumers are inattentive. The idea of rational inattention has received attention in the macroeconomic literature (Sims, 2003), and most recently by Gabaix (2015); individuals ignore relevant economic information when the cost of processing such information is sufficiently large. We test for the presence of inattention; it is related to, but distinct from, financial (il)literacy (Lusardi and Mitchell, 2011).

Methods

Our manuscript (in preparation) includes details on the theoretical model; in the interests of space, we will use this summary to present consumption and household production inputs. The data used for analysis in this paper come from three sources: the Health and Retirement Study (HRS) Consumption and Activities Mail Survey (CAMS), the Rand version of CAMS, and the Rand HRS. HRS CAMS is a mail-out survey sent to a subset of HRS core samples every other year beginning with 2001.¹

We define retirement to be the affirmative answer given by the respondents in CAMS to the simple, subjective question “Are you retired?”; we also restrict the retired sample to work fewer than 10 hours per week to be consistent with their self-reported status. We define R as the years relative to the last observed survey in which the individuals reported that they are *not yet* retired: $R=0$ is the wave prior to retirement.

¹ We primarily employ four household spending measures in our analysis: food spending, total nondurables spending, work-related spending and total spending. HRS CAMS also provides weekly/monthly time spent in various activities such as working, shopping, or cooking. Waves of the Rand HRS are aligned with those of CAMS (and hence Rand CAMS) so that income and spending refer to the same year. For example, 2001 CAMS consumption is lined up with 2002 HRS income, which corresponds to the 2001 calendar year.

Savings adequacy is defined in the following way. First, we define average pre-retirement income as the average of the logarithm of total household income net of capital income across all the pre-retirement years that are observed for a retiree. Second, we define “post-retirement annuitized income” as the log of {non-capital income plus the annuitized value (assumed 1/15th) of non-housing wealth} averaged across retirement years; this composite captures both retirement wealth and pension adequacy. The difference between the two is our measure of retirement adequacy.²

For analysis, we regress the level of household consumption on right-hand side variables that include size of household (1,2,3,4+), year-relative-to-retirement (across the span of R = -6, -4, ..., 10), and household fixed effects. Thus estimated consumption paths adjust for all individual-specific effects related to permanent income and bequest motives, as well as the evolution within families in family size.

Preliminary Results

We included 205 households in the first tercile of saving adequacy (total household/years = 1,199), 201 households in the second tercile (N = 1,198), and 205 in the third (N = 1,181). There are wide differences in the average change in (amortized) income; for Tercile 1 amortized income declines by roughly 69 percent, while for Tercile 3 retirement income rises 41 percent, largely owing to households with substantial wealth accumulation.

Figure 1 shows the graphed estimates of consumption for each of the three

² All of the income and wealth measures are adjusted by the CPI-U index into 2014 dollars.

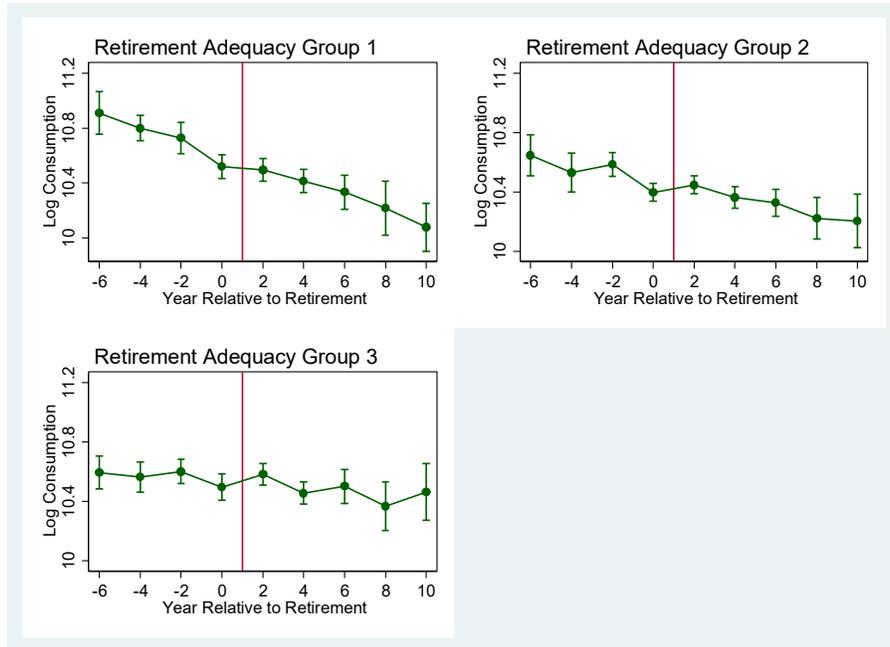


Figure 1: Log consumption by tercile of savings adequacy, by year relative to retirement

terciles, with 95% confidence intervals. First, the levels of consumption across terciles are remarkably similar; inadequate retirement saving is as likely in high- as in low-income households. Second, there is surprisingly little evidence of a sharp decline at retirement (Bernheim et al., 2001); that consumption begins to decline just before retirement is more consistent with a short (or inattentive) planning horizon. Finally, there are dramatic differences in the post-retirement evolution of consumption, with virtually no change in consumption for Tercile 3, in contrast to a dramatic decline for Tercile 1; relative to year -2, by year 10 consumption is more than one-third lower for Tercile 1 compared to Tercile 3.

Of course, there are a variety of explanations for this differential decline. It could be explained by differences in time preference rates, but individuals' pre-retirement *expectations* about consumption declines (which should reflect time preference) were

unassociated with retirement adequacy terciles. Alternatively, those least well-prepared financially could create consumption through home production (Aguiar and Hurst, 2005). This explanation, however, receives no support; Figure 2 shows a lack of association between hours spent cooking at home and shopping, and retirement adequacy; a similar null finding was found for food spending at home, and for work-related expenses.

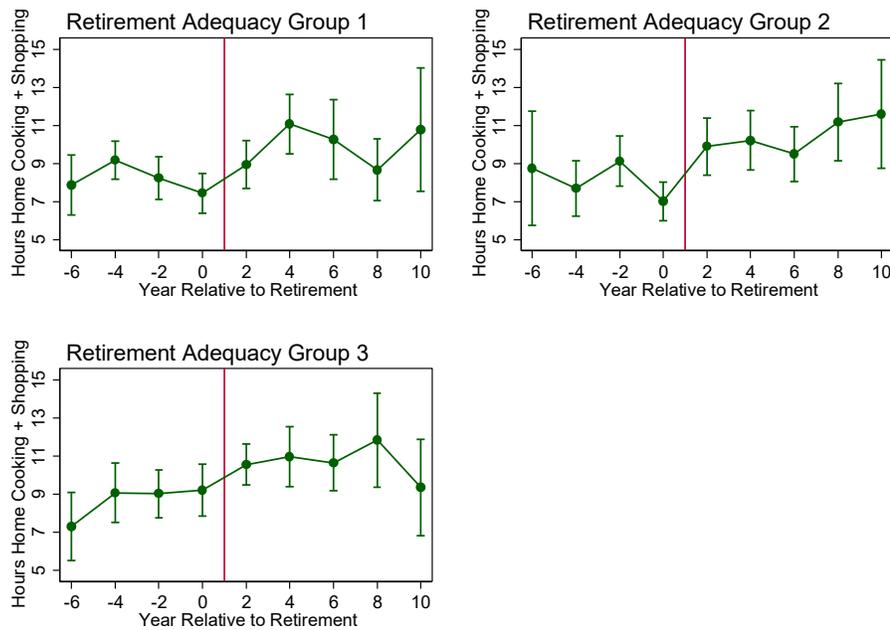


Figure 2: Hours spent cooking at home plus shopping by saving adequacy, by year relative to retirement

Conclusion

In these preliminary results, we have revisited the puzzle of retirement consumption patterns, and found striking differences in longer-term consumption patterns retirement saving adequacy. This is an interim report; we are currently working on a more formal estimation of the model parameters. Still, the initial results are broadly consistent with the idea of retirement planning “inattention.”

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