MICHIGAN RETIREMENT AND DISABILITY RESEARCH CENTER
UNIVERSITY OF MICHIGAN

Promoting research on retirement, disability, and Social Security policy

Heterogeneity in Household Spending and Well-being around Retirement

Patrick Moran, Martin O'Connell, Cormac O'Dea, and Francesca Parodi *

For most households, retirement is the life event associated with the largest changes in the state of their personal finances. As households retire, the nature of their consumption decision changes: Instead of dividing earnings between consumption and saving, retirees now choose how much of any wealth they have accumulated to consume. Any mistakes in financial planning earlier in life will be hard to mitigate at this stage. Understanding how households' living standards transition as they move into retirement is crucial for the wide array of public policies that affect the elderly's well-being. This includes policies relevant to wealth accumulation during working life (e.g., rules around private pensions and saving incentives), as well policies whose effects are most visible in retirement (e.g., Social Security).

A substantial body of work has studied how living standards change as households move into retirement. Most often, this has used data on household spending as a measure of consumption and indicator of living standards. Early papers documented that wealth at retirement is insufficient to maintain preretirement spending levels and that spending (interpreted as consumption) falls on retirement. This fact has been labeled the "retirement consumption puzzle" — retirement being an anticipated event, the fact that households do not save enough to keep consumption constant through retirement potentially indicates failures to plan or lack of information, and suggests a role for policy.

In this paper, we study the importance of variation across households in their spending patterns as they retire. We start by showing, using rich spending data from the Panel Study of Income Dynamics, that changes in household spending at retirement vary with observables, such as wealth, lifetime earnings, education, and marital status. However, the majority of variation cannot be explained by

* **Patrick Moran** is an assistant economics professor at the University of Copenhagen. **Martin O'Connell** is an assistant economics professor at the University of Wisconsin-Madison and an International Research Fellow at the Institute for Fiscal Studies. **Cormac O'Dea** is an assistant economics professor at Yale University. **Francesca Parodi** is an assistant economics professor at Collegio Carlo Alberto and a Research Fellow at the University of Turin. This research brief is based on working paper MRDRC WP 2021-427, UM21-13.

observables alone: Variation across groups of households with different observables is relatively small compared to within-group variation.

Motivated by these facts, and using frontier methods, we allocate households into groups based on their nondurable spending changes on retirement. The benefit of this approach is that the groups are defined by within-household spending variation, rather than presumptions about which observables correlate with spending behavior.

There are three groups based on systematically different spending patterns around retirement. The first has stable spending during the transition to retirement, the second experiences a substantial increase in spending upon retirement, and the third has a sharp fall in spending. More than half of households fall into the first group, while roughly 20% to 25% of households fall into each of the remaining groups. We find that households with stable spending are better off, both in terms of permanent income and accumulated wealth, than households in the other two groups. We show that households experiencing jumps (increases or decreases) in spending around retirement are similar in socioeconomic status and permanent income, but households showing the positive jump accumulated more wealth during working life.

Numerous papers argue the changes in spending at retirement, as documented by the early literature, may not translate into changes in living standards. This may happen if:

1. lower measured spending on retirement does not reflect lower consumption, because retirees spend more time engaged in home production (e.g., cooking rather than eating out);
2. upon retirement, when leisure becomes more plentiful, people choose to engage in activities where the balance between time and spending is different (e.g., switching from attending concerts to hiking); or
3. people cut-back on spending necessary for working (e.g., work clothes).

To understand what drives changes in nondurable spending for our three groups, we split the overall spending changes into the contribution made by different sub-components. We also quantify how the share of nondurable spending each group allocates to different spending subcomponents changes at retirement. This enables us to provide evidence of whether spending changes are likely to translate into changes in living standards, and importantly, for this first time, document variation in these patterns not driven by observables.

We find that the group that increases spending on retirement decides to increase spending on all subcomponents, but they lower the share of their total spending on food and increase it for transportation, recreation, and trips. In contrast, the group that cuts spending at retirement, decides to cut spending across all the subcomponents, but they reduce the share of their budget spent on transportation and food away from the home, while increasing the share allocated to food at home and housing expenditures. We also present evidence that the group of households exhibiting a stable path of total spending through retirement have personality traits that lead them to be more effective at financial planning.

To interpret this evidence, we use an economic model that clarifies the underlying behaviors through which consumption spending may jump at retirement. For households with a large increase in total spending, we find that a relationship between how much to spend and how much leisure is available plays an important role in driving the observed spending increase. In contrast, for households that exhibit falls in total spending, our results suggest that reduced work-related expenses and additional

home production after retirement drive spending falls. For both groups, it is also possible that systematic mistakes in financial planning play a role.

Overall, we make three advances. First, we document substantial variation in spending dynamics at retirement and apply frontier methods to group households based on unobservables. Second, we investigate how households in the different groups vary based on observable characteristics and how their spending patterns evolve across a range of different spending categories. Third, we evaluate the potential mechanisms that may explain a fall in spending for some households and a sharp increase in spending for other households. Overall, our results demonstrate that accounting for unobserved heterogeneity is key to understanding how and why household spending and living standards transition at retirement. ❖

Michigan Retirement and Disability Research Center
Institute for Social Research
426 Thompson Street, Room 3026
Ann Arbor, MI 48104-2321
Phone: (734) 615-0422 **Fax:** (734) 615-2180
mrdrcumich@umich.edu www.mrdrc.isr.umich.edu

Sponsor information: The research reported herein was performed pursuant to grant RDR18000002 from the U.S. Social Security Administration (SSA) through the Michigan Retirement and Disability Research Center (MRDRC). The findings and conclusions expressed are solely those of the author(s) and do not represent the views of SSA, any agency of the federal government, or the MRDRC.

Regents of the University of Michigan:
Jordan B. Acker, Huntington Woods; Michael J. Behm, Grand Blanc; Mark J. Bernstein, Ann Arbor; Paul W. Brown, Ann Arbor; Sarah Hubbard, Okemos; Denise Ilitch, Bingham Farms; Ron Weiser, Ann Arbor; Katherine E. White, Ann Arbor; Mark S. Schlissel, *ex officio*