



**INSIYA HUSSAIN, PhD** is an Assistant Professor of Management at the University of Texas at Austin McCombs School of Business. Her research has been published in leading academic journals and practitioner outlets, and she serves on the editorial boards of several academic journals. Prior to academia, Dr. Hussain worked at J.P. Morgan's investment bank and as a project manager at technology companies. She received her Bachelor's degree in Economics from Columbia University and her PhD in Organizational Behavior from the University of Maryland.

**Authors, Titles and Publication Dates  
of the Articles Addressed in the Insight**

D.G. Goldstein, H.E. Hershfield, & S. Benartzi. 2016. "The illusion of wealth and its reversal." *Journal of Marketing Research*, 53 (5). 804-813.

D.W. Johnston, S.C. Kassenboehmer, & M.A. Shields. 2016. "Financial decision-making in the household: Exploring the importance of survey respondent, health, cognitive ability and personality." *Journal of Economic Behavior & Organization*, 132. 42-61.

M. DeNardi, E. French, & J.B. Jones. 2010. "Why do the elderly save? The role of medical expenses." *Journal of Political Economy*, 118 (1). 39-75.

## Insight: INDIVIDUAL AND HOUSEHOLD INFLUENCES ON FINANCIAL DECISION-MAKING

### IDEAS IN THE INSIGHT YOU CAN PUT INTO ACTION

This Insight helps retirees and financial advisors better understand key individual and household determinants of retirement savings and financial decision-making. The three articles covered in this Insight examine: (a) how individuals react to lump-sum wealth versus equivalent monthly incomes, (b) the dynamics of financial decision-making in couples, and (c) the role of medical expenses in savings decisions among the elderly. Together, these articles can help financial decision-makers and their advisors develop greater awareness of key factors driving retirement investment decisions and better plan for the future. For instance, policymakers and financial institutions can use this insight to present retirement information to people in a way that encourages greater savings, to project how couples are likely to save and invest, and to plan retirement savings based on expected medical expenses in old age.

### PRINCIPAL INSIGHTS

The U.S. is said to be in a retirement savings crisis, with one-third of non-retired U.S. households having no retirement savings, and about half of households not saving at a rate that would allow them to maintain their pre-retirement lifestyles. This series of articles explores several human and economic factors—including psychological biases, health, cognitive, and personality traits, and medical expenses—that influence how people and households make their retirement savings and wealth allocation decisions.

#### 1. LUMP SUMS VERSUS MONTHLY INCOME

The first article, "The Illusion of Wealth and Its Reversal," examines the psychological influence of information architecture—that is, the format in which information is presented to people—in retirement savings decisions.

To date, considerable attention by scholars and policy makers has been devoted to "choice architecture," which concerns how choices are framed and how they influence decision-making. In this article, the authors examine how information architecture—specifically, how presenting retirement income as a lump sum versus as a monthly annuity of equivalent value—can affect economic consumption in retirement and savings intentions.

The authors conducted three experiments. The first was administered online with a sample of 310 adults, whose decisions were evaluated at different levels of wealth. Specifically, respondents were presented with either a lump sum in retirement of either \$25,000, \$50,000, \$100,000, \$200,000, \$400,000, \$800,000, or \$1,600,000, or an equivalent monthly annuity of either \$160, \$319, \$639, \$1,277, \$2,554, \$5,108, or \$10,217.

At lower wealth levels, results provided evidence for an “illusion of wealth,” as respondents at the three lowest wealth levels perceived the lump sum as more adequate for retirement than the monthly amounts. By contrast, at higher wealth levels, this illusion was reversed. Respondents at the three highest wealth levels perceived the monthly amounts as more adequate than the lump sums.

The second experiment, which included some improvements to study design, replicated these findings in a sample of 960 middle-aged adults. Again, the study showed that at higher (versus lower) wealth levels, individuals were more sensitive to monthly annuities than lump sums.

The third and final study showed the impact of these findings on savings intentions in another sample of 960 middle-aged adults. Respondents were told to suppose that at their current savings rate, they would have saved a lump-sum amount for retirement of either \$100,000, \$200,000, \$1,000,000, or \$2,000,000, or an equivalent amount expressed as a monthly annuity of either \$500, \$1,000, \$5,000, or \$10,000. Respondents were then asked on a five-point scale whether they wanted to increase their savings rate, keep it the same, or decrease it. **Results showed that although in all conditions people intended to increase their savings somewhat, savings intentions were greater at lower wealth levels when the information was presented as a monthly annuity.**

**Altogether, this suggests that the illusion of wealth present at lower wealth levels for lump-sum savings can be reversed, and can even positively affect savings intentions, by presenting retirement information as a monthly annuity.**

This research has several policy implications. Most of the 80+ million 401(k) retirement accounts in the U.S. tend to, by default, display an account’s worth as a lump sum rather than as a monthly annuity. This research shows that the two are not financially equivalent, and that a monthly annuity presentation format can especially encourage increased savings among those with fewer retirement assets.

## 2. FINANCIAL DECISION-MAKING IN COUPLES

The next article in this series is “Financial Decision-Making in the Household: Exploring the Importance of Survey Respondent, Health, Cognitive Ability and Personality.” The study uses longitudinal data from the Household, Income and Labour Dynamics (HILDA) survey in Australia to track between 5,179 and 6,063 couples over eight years (from 2005 to 2013), asking each partner questions about who is responsible for making financial decisions in the household. The study sheds light on the various economic and non-economic characteristics of partners that determine financial decision-making responsibility. Key findings are outlined below.

First, most couples (70%) report that they share decisions on finances, a finding that is consistent across male and female reports. Additionally, both female and male partners report that marriage leads to their giving up some decision-making responsibility, with decisions after marriage being made jointly.

Findings also generally support a “bargaining power” framework for financial decision-making, where factors such as relative age, education, employment status, and wages of both male and female partners are important to determining who makes the decisions.

Education, employment, and high wages are important for both partners, and are particularly important in determining female decision-making power. Couples with female decision-makers tend to be younger than those with male decision-makers by about two years, and these couples also tend to have a smaller gender wage gap. Meanwhile, the age of the male partner and the couple's status as married rather than cohabiting, are factors positively associated with male decision-making. Interestingly, only among male reports is the number of children a predictor, with having more children associated with slightly lower financial decision-making responsibility.

Several health and personality characteristics of partners play a role. To start, in general, mental health plays a more important role than physical health in determining who is responsible for financial decision-making. However, the effects of physical and mental health vary by gender. Physical health plays a greater role in male (but not female) decision-making power. Meanwhile, female (but not male) mental health is positively associated with decision-making.

When it comes to cognitive ability, the relationship with decision-making responsibility is positive for male partners, but not for female partners.

Personality, as measured using the “Big Five” model as well as locus of control, is a highly significant predictor of decision-making responsibility in couples. In particular, there are large positive effects for the personality dimensions of agreeableness and conscientiousness across both partners. For men, extraversion and locus of control are especially important predictors of financial decision-making. For women, emotional stability and openness are particularly strong predictors.

Notably, the pattern of results described above for savings, investments, and borrowing also generally hold for decision-making regarding large household purchases, such as housing, cars, vacations, and large appliances. Additionally, households with male financial decision-makers are more likely to invest in financial assets and less likely to hold wealth in real estate. However, results in some cases are sensitive to whether the authors examine the male or female report. Results based on female reports suggest that financial decision-making responsibility does not affect the nature of wealth allocations.

Overall, this article looks inside household decision-making, examining whose opinion matters, for what decisions, and why, based on the reports of both partners. Findings can help couples reflect on the drivers of their financial decision-making, and also help economists and policymakers understand micro-level factors at the household level that could potentially influence larger scale shifts in savings and investments.

### 3. ELDERLY SAVINGS FOR MEDICAL CARE

In the final article in this series, “Why do the Elderly Save? The Role of Medical Expenses,” the authors construct a model of savings for single retired people. The model is based on the Assets and Health Dynamics of the Oldest Old (AHEAD) data that are part of the University of Michigan Health and Retirement Survey. The goal of the research is to understand why many elderly people—especially those who are wealthy—hold on to large sums of assets until very late in life.

The authors find that medical expenditures play a crucial role in explaining savings and asset drawn-down behavior among the elderly, especially the wealthy. This is because average out-of-pocket medical expenses not only rise rapidly with age, but also with income.

For example, annual out-of-pocket medical expenditures are estimated to increase from \$1,100 for those age 75 to \$9,200 for those age 95. Moreover, those age 95 in the bottom quintile of the permanent income distribution can expect to spend only \$1,700 per year on medical

expenses, while those of the same age in the top quintile can expect to spend more than nine times as much—approximately \$15,800.

These patterns of behavior make sense when considering differences in life expectancy between the poor and the wealthy, and between those in poor health and those in good health. A 70-year-old man in poor health who is in the bottom quintile of the permanent income distribution can expect to live only six more years, whereas a 70-year old man in the top quintile and in good health can expect to live 11 more years. Sex also makes a difference, as women generally outlive men. A 70-year-old woman in good health and in the top quintile of the income distribution can expect to live 17 more years. Thus, wealthy individuals in good health—particularly women—must plan for many more years of annual medical expenses than their less wealthy and more sickly counterparts.

Results also show that medical expenses can be viewed as a luxury good for the elderly. This is because medical expenses are generally much higher among the wealthier, regardless of health status.

The pivotal role of medical expenses in elderly savings decisions is well illustrated by the following prediction from the model: Eliminating all out-of-pocket medical expenses for those between ages 74 and 84 who are in the highest quintile of permanent income leads to a drop in median assets from \$170,000 at age 74 to \$60,000 at age 84. This shows asset draw downs are much higher for the wealthy who expect they will not need to personally save for medical expenses and nursing homes.

## CONCLUSION

This Insight sheds light on how individuals, couples, and older people think about and manage their retirement assets. The article on lump sums versus annuities shows that presenting available assets for retirement as a monthly income figure versus as a lump-sum amount can encourage savings among the less wealthy because it prevents them from overestimating their wealth. The article on financial decision-making in the household highlights the many factors—ranging from age, education, wages, health, and the personality of partners—that influence decision-making authority in couples. Finally, the research on elderly savings shows the outsized role that medical expenses play in savings among the elderly. In sum, each of these three articles can be used to inform policy proposals and reforms involving retirement savings.