MICHIGAN RETIREMENT AND DISABILITY RESEARCH CENTER
UNIVERSITY OF MICHIGAN

Promoting research on retirement, disability, and Social Security policy

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Director's corner

John Laitner

The Social Security Bulletin, Vol. 80, No. 1 (February 2020), was devoted to review articles on activities over the fiscal years 2008 to 2017 of the three retirement and two disability research centers sponsored by the Social Security Administration: The Michigan Retirement Research Center, the Center for Retirement Research at Boston College, the Retirement Research Center at the NBER, the Mathematica Center for Studying Disability Policy, and the Disability Research Center at NBER. The Deputy Commissioner, Mark Warshawsky, and Lynn Fisher and John Jankowski of Social Security, provided introductions for the special *Bulletin* issue.

The Michigan Retirement Research Center (now the Michigan Retirement and Disability Research Center) has been active in theoretical research, as with examining variants of the life-cycle model of household behavior, and empirical studies, in particular research using the Health and

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Panel offers a tune up for SSA trustees' report

Every year the Social Security Administration's Board of Trustees and the Office of the Chief Actuary (OCACT) produce a report on the health of the Old Age and Survivors Insurance and Disability Insurance (OASDI) trust funds. OCACT's projections rest on assumptions on how the U.S. population and its work and retirement habits will change. But are those assumptions sound? Could OCACT's estimation methods be improved?

In 2018 experts from actuarial science, demography, and economics came together at the request of the Social Security Advisory Board to review the creation of trustees'

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report. The resulting 2019 Technical Panel on Assumptions and Methods Report, released in September, highlights improvements that would accommodate the "likely increased demands on OCACT as the date of the trust fund depletion nears and potential changes to Social Security receive heightened attention."

In addition to offering recommendations on modernizing methods, upgrading to an object-oriented programming language, and increasing transparency, the report details the uncertainty surrounding some of OCACT's assumptions, how the office might represent that, and areas where additional analysis would be helpful.

'Trend, aberration, or the new normal'

Uncertainties surrounding declining fertility, labor share, mortality, and disability make projecting trust fund health challenging. "We believe that the magnitude of uncertainty is larger than encompassed by the current range of ultimate values," the panel wrote regarding the real interest rate. Some of the other incertitudes mentioned by the panel:

- whether declining fertility at younger ages is a postponement or foregoing of childbearing;
- why fertility has gone down among native and immigrant Hispanic women;
- whether economic uncertainty among the young is affecting fertility;
- how changes in worker power, technology, globalization, automation, and depreciation affect labor share;
- to what degree medical treatment advancements will affect mortality;
- whether improvements in mental health care will bring a decline in deaths of despair;
- what role untreatable pathogens might play in mortality rates.

Articulating important assumptions

The panel noted that while the trustees' report discusses some of its assumptions, such as mortality and inflation, other unstated givens — for example, on benefit claiming behaviors and lifetime earnings inequalities — are not explained. Because some of these could have important effects on projections, the panel recommended that "OCACT publish studies on its website of the importance of these and other implicit assumptions. We further recommend that the [report] present explicit sensitivity analysis when the assumptions significantly affect the estimates of costs, income, or the trust fund reserve depletion date."

The panel also offered suggestions for additional investigations that might improve projections, including better understanding the differences between SSA's starting mortality rates and those of the Human Mortality Database. Other areas for further exploration:

- whether the pattern of mortality improvements warrants new age groupings by breaking down "age 85+";
- the impact of changing the sex/age mix of the workforce on hours;
- separate modeling of fertility rates of immigrants by home country;
- the changing characteristics of illegal immigrants versus legal permanent residents;

- how benefit claiming patterns affect the trust funds' key financial outcomes (cost/income rates and trust fund depletion date);
- how much weight to put on recent declines in health insurance expenses versus historical trends.

Panel members were chair Robert M. Beuerlein, retired senior vice president and chief actuary of AIG Life and Retirement Companies; Penn State University actuarial science professor emeritus Ron Gebhardtsbauer; University of California-San Diego associate economics professor Alexander Gelber; University of California-Berkeley demography professor Joshua Goldstein; Patricia L. Guinn, director of the Reinsurance Group of America, Inc. and Assetmark Financial Holdings, Inc.; RAND senior economist and Center for Disability Research director Kathleen Mullen; Brookings Institution economics fellow and Hutchins Center policy director Louise Sheiner; George Mason University public policy professor Sita Nataraj Slavov; University of Pennsylvania Wharton School professor Kent Smetters; and Tom Terry, CEO of the Terry Group and Society of Actuaries fellow.

For further details, the 118-page public report is available on the Social Security Advisory Board's website: https://www.ssab.gov/Home/TPAM-2019-Public.

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Retirement Study's (HRS) panel data, which is collected at the University of Michigan. Our review article highlights three research themes: preparation for and well-being during retirement; decisions of when to retire; and, more generally, labor force participation rates at older ages.

Our research on retirement preparation features different aspects of the HRS data. The HRS is very well suited for studying the transition from defined-benefit to defined-contribution pensions currently underway in the private sector. Similarly, work using HRS consumption data enables us to gauge retirees' living standards. The American Life Panel, an internet survey patterned on the HRS, is helpful for studying topics such as the impact of Social Security statement mailings.

In terms of labor force participation, our research has examined the role of health as a retirement determinant, using the extensive health covariates in the HRS, as well as novel researcher-initiated surveys. We have also studied the effect of state antidiscrimination laws on demand for older workers and, combining data from various sources, including the U.S. Department of Labor's O*NET, the effect of different occupations' physical requirements on retirement ages and the ability to continue working at older ages. We also have studied the role of health insurance, including the advent of the Affordable Care Act, using both structural and reduced-form approaches.

These are exciting times for research, with households facing new challenges — yet new opportunities as well. The growth in data resources has been remarkable. The Retirement Research Consortium has attracted to the retirement research field a number of scholars who would not otherwise have entered, and the MRDRC has been delighted to have had the chance to play a role.

MRDRC releases key findings from 2019 papers

MRDRC published eight working papers in 2019 on topics such as totalization agreements, global interest rate trends, and retirement inequality.

Informing projections

Interest Rate Trends in a Global Context

Dmitriy Stolyarov and Linda Tesar WP 2019-402; UM19-05

- Two methodologies are potentially useful for constructing long-range interest rate projections: semistructural methods of interest rate trend decomposition and standard statistical forecasting models with an extended set of explanatory variables, including forward-looking economic indicators. These methodologies use different data and samples, and they provide complementary pieces of information.
- We perform a decomposition of the long-run nominal interest rate over the period 1981 to 2019 under the restriction of long-run inflation neutrality. Three variables, the earnings-price ratio of the stock market, the weighted average of past and forecasted consumption growth, and year-on-year productivity growth, explain 87% of variation in the 10-year real rate. The relative importance of the various macroeconomic determinants changes over time, with the earnings-price ratio mattering most in the 1981 to 1988 period and consumption growth most significant following recessions.
- We add international, forward-looking economic indicators as explanatory variables in a standard macrofinance forecasting model. We find that the model with international variables can outperform the other models by better tracking the falling trajectory of United States interest rates in the post-2008 period, a trend missed by domestic variables. Further, we find that global economic indicators, especially the composite leading indicator for the European Union, are capable of accounting for a large portion of yield variance not only in the U.S. but in other advanced economies as well.

Trends in Health and Mortality Inequalities in the United States

Péter Hudomiet, Michael Hurd, and Susann Rohwedder WP 2019-401; UM19-04

- Our analysis of Health and Retirement Study data found increasing levels of inequality in health and life expectancy. We assessed the health status of successive cohorts born between 1934 and 1959 when respondents were 54 to 60 years old.
- We measured socioeconomic status (SES) by both projected Social Security wealth and educational attainment. We found, particularly for those of lower SES, increases in obesity, diabetes, and reported levels of pain; a decline in self-reported health; and a decrease in subjective survival probabilities.
- As a result, while we predict overall life expectancy to increase, the increase will be concentrated among those of higher SES, leading to greater mortality inequality.

Effects of totalization agreements

Estimating the Effects of the Totalization Agreements Ananth Seshadri **WP 2019-403**; UM19-Q2

- On average, the totalization agreements reduce United States exports and increase U.S. imports and foreign direct investment (FDI). The effect on U.S. exports are more significant both economically and statistically, while the effects on U.S. imports and FDI are statistically insignificant until the fifth year after an agreement entered into force.

- U.S. exports to countries with totalization agreements increase by about 50% on average in the six years between the year leading to the agreement and the fifth year after the agreement. In the absence of the totalization agreement, the estimates suggest that the U.S. exports to those countries would double. This implies that totalization agreements reduce the growth of U.S. exports during the six years by about 50% on average.

- The effects are heterogeneous across countries/agreements. Although most of the totalization agreements are estimated to reduce U.S. exports, the estimates suggest an increase in U.S. exports due to the totalization agreements with Finland, Ireland, and the Czech Republic. Similarly, the estimates suggest a decrease in U.S. imports due to the totalization agreements with Italy, Germany, Norway, Sweden, Portugal, South Korea, and Australia, while the totalization agreements with most other countries are estimated to increase U.S. imports from those countries.

Labor force participation

Latent Work Capacity and Retirement Expectations Italo López García, Nicole Maestas, and Kathleen J. Mullen **WP 2019-400**; UM19-02

- Our unique data on self-reported abilities show that average abilities overall (across 52 abilities) and across four domains — cognitive, psychomotor, physical, and sensory ability — are high relative to average occupational demands obtained from O*NET database.

- Age-related declines in ability, overall and across domains, are modest. Over the life cycle, physical abilities decline the most, then psychomotor and sensory abilities, with cognitive abilities declining the least. As a result, observed age-declines in ability are largely inframarginal to job demands and ,therefore, work capacity is relatively stable with age.

- Alternative measures of work capacity are predictive of current labor supply outcomes. An increase in work capacity from being unable to do any job to being able to do all jobs given the individual's educational level is significantly associated with a 15 to 21 percentage point increase in labor force participation and a 10 to 17 percentage point decrease in the percentage of recipients of Social Security disability benefits.

- Work capacity is also predictive of subjective expectations about future labor force participation decisions. An increase in an individual's work capacity from being unable to do any job to being able

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to do all jobs given the educational level is associated with a 7- to 10-percentage-point increase in the chance that current workers will work past age 65 or 70 (depending on the individual's age), a 9- to 12-percentage-point increase in the chance that retired individuals will return to the labor force, and a 17- to 25-percentage-point increase in the chance that individuals with disabilities will return to the labor force.

Understanding Job Transitions and Retirement Expectations Using Stated Preferences for Job Characteristics Nicole Maestas, Kathleen J. Mullen, David Powell, Till M. von Wachter, and Jeffrey Wenger [WP 2019-396]; UM17-08

- In general, workers transition to jobs with characteristics more closely aligned with their preferences. Workers who switch away from having certain attributes tend to value those attributes less than those who remain in jobs with the same attributes. Similarly, workers who switch to jobs with certain attributes tend to value those attributes more than those who remain in jobs without the same attributes.
- We are not able to draw strong conclusions about differences between those who exit employment with certain attributes versus those who remain in jobs without certain attributes.
- Narrowing in on older workers, among those ages 50 to 61, we find weak evidence that workers who have lower expectations of working at age 62 tend to value nonwage job characteristics more than those who have higher expectations of working at age 62. However, we do not find any differences between individuals 62 and older who are working versus not working.
- Our findings are consistent with previous work showing that older workers tend to value nonwage working conditions more than younger workers.

Wealth and retirement income

How Would 401(k) 'Rothification' Alter Saving, Retirement Security, and Inequality? Vanya Horneff, Raimond H. Maurer, and Olivia S. Mitchell [WP 2019-398]; UM19-12

- Levying taxes on workers' pension contributions instead of their payouts would lead to later claiming ages, particularly for the better-educated.
- It would also reduce lifetime tax payments, and increase consumption as well as wealth inequality.

State and local pensions

How Reliant Are Older Americans on State and Local Government Pensions? Philip Armour, Michael Hurd, and Susann Rohwedder [WP 2019-399]; UM19-07

- State and local government pensions cover about 19.5 million participants, and many participants are heavily reliant on these pensions for income in retirement. Most of these plans, however, are underfunded.
- We quantify how many Americans

have had employment in state and local government and the importance of pension income to them. To do so, we assess preparation for retirement among respondents 67 to 72 years of age in the 2004, 2008, and 2014 waves of the Health and Retirement Study.

- We find that state and local government workers are better prepared for retirement than others, in part because they are better educated, worked longer, and have had higher income than others.

- We estimate that cutting their pensions by 50 percent could reduce the proportion who are adequately prepared for retirement by 3 or 4 percentage points, with effects greatest among those with at least 20 years of experience in this sector.

The Growth and Geographical Variation of Nursing Home Self-Pay Prices

Sean Shenghsiu Huang, Richard Hirth, Jane Banaszak-Holl, and Stephanie Yuan WP 2019-397; UM17-14

- We provide empirical evidence of the association between nursing home private-pay prices and organization types and market structures. However, we find these determinants explain relatively little about price growth.

- While we include resident characteristics to control for the differences in resident profiles, there can be unobservable and differential resident selection into different organization types which may bias our results. To account for this issue in future research, we suggest using resident-level data and the instrumental variables approach. Theoretically, this can randomize the likelihood of a resident being admitted to a particular type of nursing homes.

- We do not control for quality differences between nursing homes, and the observed price variations to some extent can be related to underlying quality. Future work should consider adopting structural modeling techniques that can simultaneously account for price and quality differences between nursing homes. A more comprehensive price dataset including more markets and years would be useful to provide more market-level variations overtime.

- We show that nursing home prices have consistently outpaced both the consumer and medical care inflations. While it may partly reflect better quality and more comprehensive services provided at nursing homes over the study period, private-pay residents still face greater financial burdens. Given the significant portion of the elderly's wealth at stake, it is important to understand whether the escalating prices mostly reflect better quality, or to some extent, are the results of market inefficiencies.

- We find statistically significant price differences between the for-profit and nonprofit, as well as chain and nonchain, nursing homes. The results suggest that when evaluating the value of nursing home care (quality over price), the private-pay price is an important factor to consider in future analyses.

News from MRDRC researchers

This quarter, MRDRC learned of the following researcher accomplishments, media mentions, and journal publications of our funded research.

Journal publications

The December 2019 issue of Demography included David Neumark and Maysen Yen's article, "Relative Sizes of Age Cohorts and Labor Force Participation of Older Workers," based on the authors' MRDRC project UM18-08 and working paper, WP 2018-390.

Olivia S. Mitchell and Raimond Maurer's article, "Older Peoples' Willingness to Delay Social Security Claiming," was published in the Journal of Pension Economics and Finance in January. The work is based on MRRC UM16-05, WP 2016-346.

An article outlining MRDRC research from the years 2013 to 2018, "Social Security Research at the University of Michigan Retirement and Disability Research Center," was published in the February Social Security Bulletin, Vol. 80, No. 1. The co-authors were John Laitner, Eric French, Alan L. Gustman, Michael D. Hurd, Olivia S. Mitchell, Kathleen J. Mullen, and Susan C. Barnes.

Media mentions

In December, Forbes contributor Sara Zeff Geber used Sean Shenghsiu Huang, Richard Hirth. Jane Banaszak-Holl, Stephanie Yuan's working paper, The Growth and Geographical Variation of Nursing Home Self-Pay Prices," (WP 2019-397, MRRC UM17-14) as jumping off point for her opinion piece, "It's Time to Retire Nursing Homes."

Wall Street Journal reporter John D. Stoll interviewed MRDRC Director John Laitner and researcher Olivia S. Mitchell for his January article, "The End of Retirement" (article is behind a paywall). Stoll spoke with Laitner about "bridge or 'unretirement jobs.'"

The Michigan news site, MLive, published "Living on $738 a month: As Boomers hit retirement, Social Security more important than ever" in January. MLive reporter Julie Mack interviewed Laiter for the piece. "In addition, Social Security provides a guaranteed income for life with cost-of-living increases. 'A lot of private annuities don't have inflation protection,' Laitner said."

"'There has been a steady rise in the ratio of debt-to-income, indicating that older households are becoming more vulnerable to income shocks later in life,' said Olivia Mitchell" in a January Reuter's article, "Seniors deal with the harsh reality of debt," by Chris Taylor. Mitchell and co-author Annamaria Lusardi examined the role debt plays in elders' financial frailty for MRRC UM13-09, "Older Adult Debt and Financial Frailty," WP 2013-291.

Other news

In February, Joanne Hsu and Lauren Nicholas shared their cognitive impairment and finances

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work with the Elder Justice Interagency Working Group, an assemblage of federal employees in Cabinet-level departments and federal agencies with expertise in the field of elder abuse, neglect, and financial exploitation. The discussion was based in part on their UM18-02 project, "Adverse Financial Events Before & After Dementia Diagnosis: Understanding the Timing and Need for Assistance Managing Money Among Households Impacted by Dementia."

The National Academy of Social Insurance elected MRDRC Director John Laitner and researcher Matthew Shapiro to its ranks in January. According to NASI, "Those elected to Membership in the Academy have distinguished themselves by improving the quality of research, administration, or policymaking in an area of social insurance. Members make significant contributions to the academy's research, education, and leadership development initiatives by volunteering their time on study panels, committees, at conferences and in other programs." Other inductees included Raj Chetty, Harvard University; William Gale, Brookings Institution; Till von Wachter, University of California–Los Angeles; Anthony Webb, The New School, Retirement Equity Lab; and Laura Quinby, Center for Retirement Research at Boston College.

Researchers are encouraged to share academic publications, media interviews, and conference presentations of their MRRC/MRDRC-funded work. Please send announcements to mrdrcumich@umich.edu.

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