

Key Findings

2013 Working Papers

I. Social Security and Retirement

Costs and Benefits of In-Kind Transfers: The Case of Medicaid Home Care Benefits *by Ethan Lieber and Lee Lockwood* WP 2013-294

- ▶ In-kind provision of home care benefits significantly distorts the use of formal and informal care.
- ▶ In-kind provision significantly improves program targeting.
- ▶ In-kind provision appears to have little effect on tax system efficiency and moral hazard in the context of the Samaritan's Dilemma.
- ▶ The measurable benefits of in-kind provision appear to be of a similar size to the consumption distortion cost.

Health Insurance and Retirement Decisions *by John Karl Scholz and Ananth Seshadri* WP 2013-292

- ▶ We develop a rich life-cycle model of optimal consumption and retirement decisions where the stock of health affects utility and longevity and is influenced by one's health insurance status.
- ▶ Some households respond to shortfalls in retirement wealth by working longer than originally anticipated or investing less in health.
- ▶ Households facing a delay in the availability of post-retirement health insurance find it attractive work longer and to invest more in their health.
- ▶ While very adverse health shocks can lead to retirement well before age 62, we find that around 85% of early retirees at age 62 are in good health.
- ▶ Also, the availability of post-retirement health insurance induces households to retire about 3 months earlier than their counterparts without such insurance.

II. Macroeconomic Analyses of Social Security

Uncovering the Relationship between Real Interest Rates and Economic Growth *by Bruce Hansen and Ananth Seshadri* WP 2013-303

- ▶ There is little theoretical or empirical guidance on the long-run relationship between real interest rates and economic growth.
- ▶ Real interest rates and economic growth have an estimated long-run correlation of -0.2.
- ▶ This mild negative correlation suggests that the variability in interest rates and growth slightly offset one another.

Expectations and Household Spending *by Michael Hurd and Susann Rohwedder* WP 2013-300

- ▶ Basic economic theory suggests that consumption and saving will be affected by expectations, including expectations about unemployment.
- ▶ Based on high frequency data from the RAND American Life Panel (ALP), we estimated that total spending changed very little in response to changes in the subjective probability of unemployment.
- ▶ However, a sub aggregate of 20 spending items that can be relatively easily adjusted to changes in circumstances did respond to changes in the subjective probability of unemployment: an increase of 10 percentage points in the probability was associated with a reduction in spending of 1.9%.
- ▶ Several categories of spending were particularly responsive: clothing, dining out, entertainment and personal care products.

Cognitive Ability, Expectations, and Beliefs about the Future: Psychological Influences on Retirement Decisions by Andrew Parker, Leandro Carvalho and Susann Rohwedder WP 2013-298

Examining American Life Panel (ALP) data on psychological influences on retirement, we found that:

- Those with high levels of cognitive ability are more likely to retire later.
- Those with greater cognitive ability have more coherent expectations of retirement—suggesting a need for planning assistance to those with less cognitive ability.
- Those with greater longevity expectations are likely to retire later.
- Expectation of reduction in Social Security benefits is associated with plans to retire later.

Labor Force Transitions at Older Ages: The Roles of Work Environment and Personality by Marco Angrisani, Michael Hurd, Erik Meijer, Andrew Parker and Susann Rohwedder WP 2013-295

- ▶ The work environment and non-monetary factors are strong predictors of the likelihood that full-time employees transit to part-time employment, retirement, or being unemployed or out of the labor force.
- ▶ Personality traits are not strongly related to such labor force transitions. However, personality interacts with job characteristics: the effect of the latter on labor supply outcomes varies significantly with the “intensity” of personality traits.
- ▶ Job characteristics are related to personality. This suggests that personality drives selection into certain jobs or occupations and may therefore have cumulative effects on the timing of retirement through this indirect pathway.

Did Age Discrimination Protections Help Older Workers Weather the Great Recession? by David Neumark and Patrick Button WP 2013-287

- ▶ An increase in age discrimination may underlie the dramatic increases in unemployment durations for older workers during and after the Great Recession.
- ▶ In states with stronger age discrimination protections, older workers generally experienced worse labor market outcomes, relative to young workers, during and after the Great Recession.
- ▶ Age discrimination laws may become less effective during times of economic turbulence when discrimination can be more difficult to discern, and such periods may even encourage employers more

constrained from age discrimination in normal times to take advantage of this economic turbulence.

- ▶ It may be important to strengthen the effectiveness of age discrimination protections in times of economic turbulence.

Macroeconomic Determinants of Retirement Timing by Yuriy Gorodnichenko, Jae Song and Dmitriy Stolyarov WP 2013-281

- ▶ We find a general decline in full employment of older workers during 1960–1990; older workers are increasingly exiting career jobs to work in lower-paying “bridge jobs.”
- ▶ The full-time employment rate has stayed relatively stable for the bottom 80 percent of earners since 1990. Workers with the lowest earnings have the lowest full employment rate: only 40 percent of 60 year olds and 20 percent of 65 year olds are employed full time. However, 65–67 year old workers with the highest lifetime earnings not only have a higher full employment rate, but it is also increasing.
- ▶ We find robust evidence that flows from full employment to both partial and full retirement rise significantly in recessions.
- ▶ When the unemployment rate is high, partially retired workers younger than 63 tend to stay partially retired while those older than 63 tend to choose full retirement.
- ▶ High inflation is associated with exit from the labor force through partial and full retirement. However, housing prices do not have a significant effect on retirement timing.
- ▶ The impact of the unemployment rate and inflation on retirement decisions is quite similar for workers of all lifetime earnings levels, with wealthier individuals being only somewhat less impacted.

III. Wealth and Retirement Income

What Do Data on Millions of U.S. Workers Say About Life Cycle Income Risk? by Fatih Guvenen, Fatih Karahan, Serdar Ozkan and Jae Song WP 2012-302

- ▶ We examine the earnings histories of over 5 million individuals using confidential Social Security Administration data and find that earnings risk varies significantly across the population.
- ▶ Income risk decreases between ages 25 to 50 and then increases again.

- ▶ As individuals get older, they are more likely to experience very small and very large earnings shocks rather than moderate shocks.
- ▶ With age, a large drop in earnings becomes more likely than a large increase.
- ▶ Earnings growth varies greatly by lifetime income. Between ages 25 to 55, individuals with earnings in the top 5% experience growth 10 times larger than those with average lifetime earnings.
- ▶ Earnings changes over the life cycle do not have a normal distribution.

Evaluating Web-based Savings Interventions: A Preliminary Assessment by *Wei-Yin Hu, Olivia S. Mitchell, Cynthia Pagliaro and Stephen P. Utkus*
WP 2013-299

- ▶ We explore the efficacy of a technological approach to promote voluntary saving in 401(k) accounts, namely a Boost Your Saving dial that appeared on the participants' webpages.
- ▶ Contribution rates rose for those seeing the Boost Your Saving dial compared to the control period.
- ▶ The fraction of participants increasing plan contributions rose by 17%, compared to the control period.
- ▶ Some 9% used the Boost Your Saving dial, increasing their contribution rates by an average of 2 percentage points.
- ▶ There was no change in the fraction of participants decreasing their contributions.

The Assets and Liabilities of Cohorts: The Antecedents of Retirement Security by *J. Michael Collins, John Karl Scholz and Ananth Seshadri*
WP 2013-296

- ▶ Households with a head born 1929–1943 (age 67–81 by 2010) and then those born in 1944–1958 (age 52–66 by 2010) had similar wealth levels at the same age/life stages. The younger group does not appear to be falling behind.
- ▶ Households born from 1929–1943 had higher mean and median total debt at every age/life stage relative to those born 1944–1958. Debt is mainly driven by mortgages.
- ▶ Growing debt levels for more recent cohorts of households have not resulted in lowered net worth, however.
- ▶ Education remains a strong predictor of net wealth status with and schooling after high school associated with 4–5 times the net worth of households with high school or less education.

- ▶ Minorities have few financial assets and their wealth is concentrated in non-financial assets such as housing.

How Family Status and Social Security Claiming Options Shape Optimal Life Cycle Portfolios by *Andreas Hubener, Raimond H. Maurer and Olivia S. Mitchell* WP 2013-293

- ▶ We model Social Security claiming behavior in a policy simulation that eliminates survivor benefits.
- ▶ We take into account household asset allocation, life insurance purchases, and work and retirement decisions.
- ▶ We realistically calibrate the model using empirical evidence on time use, demographics and wage rates.
- ▶ We predict and confirm in longitudinal data that Social Security rules induce married women to claim retirement benefits much earlier than single women and married men.
- ▶ We find that eliminating widows' Social Security benefits would dramatically narrow claiming differences between men and women, while substantially increasing men's life insurance purchases.

Older Adult Debt and Financial Frailty by *Annamaria Lusardi and Olivia S. Mitchell*
WP 2013-291

- ▶ Older Americans on the verge of retirement are more likely to arrive at retirement with debt now than in the past. More than 70% of Baby Boomers held debt compared to a dozen years ago, when 64% held debt.
- ▶ Not only are Baby Boomers more likely to hold debt, but the value of this debt has also grown sharply. Median debt for those age 56–61 has more than quadrupled, from about \$6,200 in 1992, to \$28,300 in 2008 (in 2012 dollars).
- ▶ A key reason that debt rose so rapidly for Boomers is that this group spent more on housing and took out larger mortgages, compared to earlier cohorts.
- ▶ Higher income, better educated, and more financially literate Baby Boomers are systematically less likely to hold high levels of debt and to be financially fragile. Nonwhite, unmarried, and less healthy Baby Boomers, along with those with children, are more vulnerable.
- ▶ Financially literate individuals are much less likely to report they are overindebted, and they are less vulnerable to shocks.
- ▶ Baby Boomers retiring in the next several years are more likely to carry this debt into retirement, compared to previous cohorts.

The Social Security Windfall Elimination and Government Pension Offset Provisions for Public Employees in the Health and Retirement Study

by Alan L. Gustman, Thomas L. Steinmeier and Nahid Tabatabai WP 2013-288

- ▶ About 3.5 percent of households in the Health and Retirement Study (HRS) are subject to either the Windfall Elimination Provision (WEP) or Government Pension Offset (GPO) provision features of the Social Security benefit determination process that limit the benefits of employees who worked in jobs not covered by Social Security, but who are also eligible for Social Security benefits.
- ▶ The present value of the Social Security benefits of affected households is reduced by roughly one fifth, amounting to 5 to 6 percent of the total wealth affected households accumulate before retirement.
- ▶ Households affected by both WEP and GPO lose about one third of their benefit.
- ▶ Limiting WEP adjustments to Social Security benefits to half the size of the pension from uncovered employment, as in current law, reduces the penalty from WEP for members of the original HRS cohort by about 60 percent and substantially affects any interpretation of the law's impact that is based solely on the provisions of the adjustment to the Primary Insurance Amount formula under WEP.

Optimal Life Cycle Portfolio Choice with Variable Annuities Offering Liquidity and Investment

Downside Protection *by Vanya Horneff, Raimond H. Maurer, Olivia S. Mitchell and Ralph Rogalla*

WP 2013-286

- ▶ We devise a life-cycle consumption and portfolio choice model for an individual who — in addition to stocks and bonds — can gradually purchase fairly-priced deferred variable annuities with Guaranteed Minimum Withdrawal Benefits (GMWBs).
- ▶ We show that investors optimally purchase measurable amounts of GMWBs well before retirement because of their flexibility and access to the stock market.
- ▶ Policyholders will exercise this flexibility by taking withdrawals to adjust their portfolios and consumption streams. Nevertheless, at retirement, they also convert much of their accumulated amounts into additional annuities.
- ▶ Heterogeneity analysis suggests that differences in individuals' cash out and annuitization patterns result from variations in realized cumulative equity market return and labor income trajectories.

IV. Program Interactions

Social Security Benefit Claiming and Medicare Utilization

by John Bound, Helen Levy and Lauren Nicholas WP 2013-297

- ▶ We use administrative Medicare claims linked to nationally representative Health and Retirement Study data to compare health care utilization at common ages among four groups of Social Security recipients.
- ▶ Social Security beneficiaries claiming prior to their Full Eligibility Age are modestly less healthy than those who delay, but significantly healthier than DI recipients or rejected applicants.
- ▶ Rejected applicants appear more similar to DI recipients than to beneficiaries who never apply for DI benefits, though this difference is attenuated with additional time in Medicare.
- ▶ Our results suggest there could be a modest increase in DI application and receipt in response to increases in the EEA and FRA, though most early claimers would be too healthy for DI.

V. International

Does Retirement Induced through Social Security Pension Eligibility Influence Subjective Well-being? A Cross-Country Comparison

by Arie Kapteyn, Jinkook Lee and Gema Zamarro

WP 2013-301

- ▶ Consistent with the literature, we find a significant negative correlation between retirement and subjective well-being.
- ▶ However, once we control for potential reverse causality by taking an instrument variables approach, we do not find empirical evidence that retirement induced through Social Security pensions eligibility has a negative impact on subjective well-being.
- ▶ Therefore, our results suggest that raising official retirement ages would not have an immediate, negative effect on subjective well-being.

Previous Migration Experience and Legal Immigration Status among Intending Mexican Migrants to the United States by *Peter B. Brownell and Michael S. Rendall* WP 2014-304

- ▶ We find a steep decline in the flow of immigrants into the US from Mexico during and after the Great Recession.
- ▶ The decline was driven by a decline in immigration of undocumented immigrants, while the number of migrants legally authorized to work in the US increased.
- ▶ Since 2007, migrants crossing the land border to the US from Mexico have become less likely to be first time migrants and more likely to have made 11 or more previous US trips.
- ▶ The absolute number of migrants with 11 or more previous trips actually increased since the onset of the Great Recession in 2007.

- ▶ The Agency could also do more to communicate the range of uncertainty and potential for problems associated with the PBGC's financial status. This could include additional information including the Conditional Value at Risk, and perhaps an 'intermediate,' 'optimistic,' and 'pessimistic' set of projected outcomes, as well as the expected 'date of exhaustion' for assets backing pension benefits insured by the PBGC.

VI. Pension Benefit Guaranty Corporation

Technical Review Panel for the Pension Insurance Modeling System (PIMS) by *Olivia S. Mitchell, Christopher C. Geczy, Robert Novy-Marx, Raimond H. Maurer, Donald E. Fuerst, Christopher M. Bone, Donald J. Segal, Martin G. Clarke, Frank J. Fabozzi, Deborah Lucas and David F. Babbel*
WP 2013-290

- ▶ The PIMS models are an important and valuable tool in modeling the Agency's liability risk. To the best of our knowledge, there is no other model that can do a comparable job.
- ▶ Nevertheless, some improvements could be integrated in the Agency's approach to modeling. Those deserving highest priority attention in the experts' view are the following:
 - (a) Incorporating systematic mortality risk (i.e., treat mortality and longevity as stochastic variables);
 - (b) Including new asset classes increasingly found in defined benefit plan portfolios (e.g., commercial real estate, private equity funds, infrastructure, hedge funds, and others);
 - (c) Developing a more complex model for the term structure of interest rates; and
 - (d) Incorporating an option value approach to pricing the insurance provided.

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