## WORKING PAPER Executive Summary

JANUARY 2014, WP 2014-1

CENTERforRETIREMENT RESEARCH at boston college

## HOW DO SUBJECTIVE LONGEVITY EXPECTATIONS INFLUENCE RETIREMENT PLANS?

By MASHFIQUR R. KHAN, MATTHEW S. RUTLEDGE, AND APRIL YANYUAN WU

The rapid increase in life expectancy over the past several decades – remaining life expectancy for the 65-year-old male cohort has increased from 14.7 years in 1980 to 18.7 years in 2012 (U.S. Social Security Administration, 2012) – has changed the calculus behind Americans' retirement decisions. A longer retirement increases the funds needed to support one's lifestyle, but assuming healthy life expectancy has also increased, workers should be better able to continue working (Munnell and Sass 2008; Munnell, Soto, and Golub-Sass 2008).

An extensive literature has documented the ways in which financial and health incentives have affected retirement expectations and the ability of older workers to continue working. But less attention has been paid to how information about the dramatic increase in longevity has been transmitted to individuals approaching retirement, altering their perceptions about their ability, willingness, and need to work at older ages. Using the *Health and Retirement Study* (HRS) and an instrumental variables (IV) approach, this study examines how subjective life expectancy (SLE) influences planned retirement age and expectations of working at older ages, and how individuals update those expectations with new information.

Individuals who expect to live longer are expected to retire later, for at least two reasons. First, a longer life requires greater wealth to finance consumption (Chang 1991, Kalemli-Ozcan and Weil 2010). Second, greater longevity is likely associated with better health during one's working years, making continued work more feasible. But the literature examining the relationship between subjective longevity and retirement is not yet settled. Our study builds on this literature in two ways. First, we compare the relationship between SLE and both *actual* and *expected* retirement behavior of individuals age 50 to 61. Actual retirement behavior can deviate from plans for retirement when shocks arise: a new diagnosis or an acute medical episode, a job loss, the unexpected death of a spouse, or the need to care for a loved one. Retirement expectations – as expressed in survey questions about the age at which one expects to retire, or the probability one works to a milestone age – better reflect desired labor supply because they are set before these shocks occur. The only prior study to examine expected retirement age is van Solinge and Henkens (2009), for a smaller sample of Dutch workers. Second, we examine how the *change* in subjective life expectancy alters retirement plans, which the literature has not previously explored. The study emphasizes how receiving new information about one's own mortality induces an individual to reconsider his retirement plan.

When investigating retirement expectations, the study focuses on four outcome variables: (1) his expected retirement age, (2) an indicator for whether this expected retirement age is equal to or greater than their Full Retirement Age (FRA), (3) his probability of working full-time at or after 62 (the Early Entitlement Age), and (4) his probability of working full-time at or after 65.

The key independent variable is a measure of longevity expectation. HRS asks each respondent their probability of living to ages 75 and 85. The RAND version of the HRS standardizes these probabilities using the actuarial projections of longevity reported in the Vital Statistics life tables, by birth cohort and sex. The resulting measure is a ratio of subjective to objective life expectancy (OLE): a value greater than one indicates the individual has a higher probability than his average peer of living to the given age; a value less than one indicates a more pessimistic expectation. This standardization accounts for both the differing expectations by age -a 62-year-old is likely to have a more accurate view of his probability of reaching age 75 than a 51-year-old -and the secular trend toward longer lives.

The concern with SLE/OLE is classical measurement error: respondents sometimes report a higher probability of living to 80 than 75, and focal points like 0, 0.5, and 1 dominate the probability values. The relationship between SLE and retirement expectations may also be subject to endogeneity, if some unobserved factors are correlated with both the SLE measure and with retirement expectations, such as general optimism. To address both concerns, we adopt the IV model suggested by Bloom et al. (2006), in which parents' current ages or ages at death as instruments for SLE. The validity of using parents' current ages or ages at death as instruments for SLE. The validity should impact middle-aged childrens' retirement expectations only through the channel of the offsprings' SLE.

The results of this paper suggest a statistically significant relationship between an individual's subjective life expectancy and his expectations of when he'll retire. As individuals become more optimistic about living to ages 75 or 85 (relative to their actuarial probability of living to those ages), they push out their planned retirement dates and increase their expectations about working to the milestone ages of 62, 65, and Social Security's Full Retirement Age. These correlations are fairly substantial: a one-standarddeviation increase in this optimism is associated with an 8 percent to 24 percent increase over the mean probability of working at these ages. Our IV estimates are largely consistent with our OLS estimates, which further confirm that SLE impacts retirement planning. We also examine the relationship between SLE and actual retirement behaviors and find that SLE also impacts the actual retirement behavior, though to a lesser degree than it impacts retirement expectations. Furthermore, the dynamic model suggests that when circumstances – for example, a health shock or a parent's death – alter an individual's longevity expectations, his retirement expectations move in the same direction, though the magnitude is less substantial than in the static model.

These results emphasize the importance of longevity expectations in retirement planning and, ultimately, making the decision to actually retire. In addition, these findings have important implications for modeling future labor force participation. With further health improvements, objective life expectancy continues to increase, but to extend one's working life, subjective life expectancy needs to increase as well. Our results suggest that policy reforms aimed at encouraging longer work lives must effectively target communication on the gains in life expectancy, in particular toward those whose SLE continues to lag OLE, perhaps because this group places heavy weight on the smaller gains in longevity experienced by their parents' generation.

© 2014, Mashfiqur R. Khan, Matthew S. Rutledge, and April Yanyuan Wu. All rights reserved. The research reported herein was performed pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement Research Consortium (RRC). The opinions and conclusions expressed are solely those of the authors and do not represent the views of SSA, any agency of the federal government, the RRC, or Boston College.

CENTER FOR RETIREMENT RESEARCH AT BOSTON COLLEGE Hovey House, 140 Commonwealth Avenue, Chestnut Hill, MA 02467-3808 phone 617.552.1762 fax 617.552.0191 crr@bc.edu crr.bc.edu