# RESEARCH Brief 301

# DOES RETIREMENT INDUCED THROUGH SOCIAL SECURITY PENSION ELIGIBILITY INFLUENCE SUBJECTIVE WELL-BEING? A CROSS-COUNTRY COMPARISON

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### Introduction

It is increasingly understood that traditional economic measures are necessary, but not sufficient, to measure societal progress (Stiglitz, Sen, & Fitoussi, 2009). Accordingly, there has been rising interest in the U.S. and around the world in assessing subjective well-being to monitor societal progress and evaluate policy. Subjective well-being measures are found to vary by country and age. For example, Deaton (2008) noted that for most of the world, life satisfaction declines with age, except for some developed countries, namely the U.S., the U.K., Canada, Australia, New Zealand, Europe and South Africa where life satisfaction is U-shaped with age.

Retirement is one of the key transitions in old age that could explain these country and age differences in well-being. Most developed countries devote a substantial portion of their national resources to the protection of well-being after retirement by providing old-age pensions, but policy variations exist, including differences in official retirement ages, generosity of pension benefits and other retirement incentives. For example, full pension eligibility ages are typically 65 among our analysis countries, but exceptions include age 60 in Austria (women only) and France. Additional variation exists when looking at early retirement ages. In many cases, moreover, there is within-country institutional variation during our sample period due to recent pension reforms. For example, the normal retirement age in the U.S. is currently rising from 65 to 67 for successive birth cohorts. Austria, Germany and Italy are also phasing in increases in their retirement ages.

Evidence is mixed about how retirement might affect subjective well-being. In the U.S., both positive (Charles, 2004) and negative (Dave, Rashad, & Spasojevic, 2008; Szinovacz & Davey, 2004) retirement effects have been found. In contrast, consistently positive effects are found in England (Johnston & Lee, 2009; Mein et al., 2004) and Finland (Okasanen et al., 2011; Salokangas & Joukamaa, 1991), while no effect is found in the Republic of Korea or continental Europe for depression measures (Lee & Smith, 2009; Coe & Zamarro, 2011), suggesting potential cross-country variations in retirement effects on subjective well-being.

# Methodology

We examine the effect of retirement on subjective well-being within 12 countries, using longitudinal data from the U.S. Health and Retirement Study (HRS) and the Survey of Health, Ageing, and Retirement in Europe (SHARE). By comparing countries with different pension entitlement ages, we evaluate the retirement effects on subjective

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well-being, while controlling for age, birth-cohorts, and other risk factors. Subjective well-being observed at retirement may reflect age or birth-cohort differences (Butterworth et al., 2006), and therefore, it is important to separate out retirement effects from age and cohort effects. In estimating retirement effects, we account for potential reverse causation of poor subjective well-being on retirement, using an instrumental variables approach. This exploits variations in public pension eligibility due to country and cohort specific retirement ages (early and full entitlement ages) to isolate the causal effect of pension eligibility induced retirement.

## **Findings**

For both the U.S. and Europe we find that retirement is associated with higher levels of depression. However, when we use our preferred instrumental variables approach, we find the opposite result. Retirement induced through Social Security Pension eligibility is found to have a positive effect, reducing depression symptoms, although only marginally significant for the U.S. when considering a depression binary indicator. Retirement is not found to have a significant effect on life satisfaction measures for either the U.S. or Europe.

The remainder of the variables have the expected effects in both surveys. Women report more depression symptoms than men. Marriage has a protective effect against depression while it increases life satisfaction measures. Higher levels of education have a protective effect against depression, but they do not seem to affect life satisfaction for the case of the U.S. Unemployment increases the number of depression symptoms and decreases life satisfaction. Similarly, disability and health conditions increase the number of depression symptoms and decrease life satisfaction. The effect of disability seems to be bigger and more consistent across model specifications for the case of Europe than for the case of the U.S.

Continued improvements in life expectancy and fiscal insolvency of public pensions have led to an increase in pension entitlement ages in several countries, but its consequences for subjective well-being are largely unknown. As subjective well-being is known to influence health, if retirement has positive effects on subjective well-being, it is plausible that the fiscal savings created by delaying retirement may be at least partly offset by increased health expenditures driven by worsened subjective well-being. Our results so far show that retirement induced through eligibility to Social Security pensions does not have a negative effect on individual's well-being. It should be stressed, however, that we are only able to estimate the causal effect of planned retirement as pension eligibility ages are usually known and people plan their retirement accordingly. Unexpected retirement spells, however, are likely to have a bigger impact on subjective well-being.

One of the main limitations of our analysis is that we do not take into account that financial consequences of retirement further complicate the estimation of effects of retirement on subjective well-being. As the generosity of pensions varies greatly across countries, as also does the level of pre-retirement earnings, financial consequences of retirement vary across individuals both within and across countries. Financial circumstances, both in absolute and relative terms, may also influence subjective well-being, and therefore, the effects of retirement can be confounded by the reduction of income. At the same time, unobservable determinants of income are probably related with unobservable determinants of subjective well-being, making income possibly endogenous if used as a control in subjective well-being regressions. To address these issues, we plan to estimate a simultaneous model, explicitly modeling the dynamics of retirement, income, and subjective well-being while still using our instrumental variables approach for retirement decisions based on public pension eligibility. By doing so, we will be able to get a better understanding of the effect of retirement induced through Social Security pension eligibility on subjective as well as financial well-being of the elderly.

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