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USC Dornsife Center for Economic and Social Research

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

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Outline

- Introduction
- Policy Variations and Prior Literature
- Measures of Financial and Subjective Well-being
- Analytic Approaches
- Results
- Conclusions and Implications

Motivation

- Increasing interest in assessing subjective well-being to monitor societal progress and evaluate policy
- Subjective well-being measures are found to vary by country and age
- Retirement is a key transition in old age that could explain these country and age differences
  - Significant policy variations exist, including official retirement ages
- Evidence is mixed about how retirement might affect subjective wellbeing

Why Important?

- Individuals are increasingly encouraged to extend their working life
  - Yet the effect of such policies on individual subjective well-being is unknown

- If retirement adversely affects subjective well-being, which in turn adversely affects health, then
  - the fiscal savings created by delaying retirement might be offset by increased health expenditures caused by worse subjective well-being

This paper

- We examine the effect of retirement on subjective well-being within 12 countries, using panel data from the U.S. Health and Retirement Study (HRS) and the Survey of Health, Ageing, and Retirement in Europe (SHARE).

- We exploit variations in eligibility ages for retirement pensions (due to country and cohort specific retirement ages) to account for potential reverse causation of poor subjective well-being on retirement

- Our models control for age, birth-cohorts, and other risk factors

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Policy Varies on Retirement Ages and Pensions

- Most developed countries devote substantial resources to protecting the well-being of the elderly.

- **But policy variations exist, including differences in official retirement ages.**
  - Full pension eligibility ages are typically 65, but exceptions include age 60 for Austria (women only), France, Austria, Germany, and Italy.
  - Further variations in early retirement ages.
  - **Pension reforms** have occurred or are in progress, delaying pension eligibility ages (e.g., age 67 for USA).

Prior Literature :
Retirement & Subjective Well-being

- Some found **adverse** effect of retirement (Butterworth et al., 2006; Dave et al., 2008; Szinovacz & Davey, 2004)

- But others found **no** (Lee & Smith, 2009; Coe & Zamarro, 2011) or **even positive** effect (Drentea, 2002; Johnston & Lee, 2009; Mein et al., 2003)

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Measuring Subjective Well-being: Depression

- **CES-D** (Radloff, 1977)
  - 8 “yes or no” questions about last month’s emotion
  - Total score ranges from 0 to 8

- **EURO-D** (Prince et al., 1999)
  - 12 “yes or no” questions about last month’s emotion
  - Total score ranges from 0 to 12

Measuring Subjective Well-being: Life Satisfaction

- Single item, Satisfaction with life as a whole.
  - HRS 5-point scale
  - SHARE 11-point scale
  - Available only 2 waves (2008 and 2010 for HRS and 2006 and 2010 for SHARE)

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Analytic Approach

$$\boldsymbol{SW_{ict} = \alpha_i + \alpha_1 SW_{ict-1} + \alpha_2 X_{ict} + \alpha_3 R_{ict} + \varepsilon_{ict}}$$

where $\alpha_i =$ individual unobserved heterogeneity random effect

SW_{ict} = a measure of well-being for individual i, in country c at time t

$X_{ict} =$ a set of explanatory variables (age, age^2, married, female, married x female, education, ADL, disease (cancer, stroke, heart or lung disease), year, country, and cohort dummies

$R_{ict} =$ individual's retirement status, which is instrumented by

$$\boldsymbol{Instrument_{ict} = 1\ (age_{it} \geq statutory\ retirement\ age_{ct})}$$

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Effects of Retirement on Subjective Well-being in US

	CESD	CESD	Depressed	Depressed	Life Sat.	Life Sat.	Life Sat.	Life Sat.
	RE	IV-RE	RE	IV-RE	OLS	IV	RE	IV-RE
Lag CESD	0.377***	0.464***						
	(0.004)	(0.008)						
Lag Depressed			0.273***	0.343***				
			(0.004)	(0.007)				
Lag Life Sat.					0.470***	0.470***		
					(0.012)	(0.012)		
Retired	0.218***	-0.449	0.033***	-0.128*	0.005	-0.022	-0.014	-0.712
	(0.015)	(0.325)	(0.003)	(0.065)	(0.021)	(0.417)	(0.016)	(0.370)
Unemployed	0.568***	0.337**	0.092***	0.037	-0.309***	-0.318*	-0.296***	-0.370***
	(0.057)	(0.125)	(0.011)	(0.025)	(0.058)	(0.152)	(0.043)	(0.101)
Cohort Dummies	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Regional Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	63255	63255	63255	63255	5866	5866	14265	14265

Controls for age, age sq, female, married, married x female, college, high school, disability, health condition

Effects of Retirement on Subjective Well-being in Europe

	Euro-D	Euro-D	Depressed	Depressed	Life Sat.	Life Sat.	Life Sat.	Life Sat.
	RE	IV-RE	RE	IV-RE	OLS	IV	RE	IV-RE
Lag Euro-D	0.294***	0.315***						
	(0.007)	(0.007)						
Lag Depressed			0.199***	0.214***				
			(0.007)	(0.007)				
Lag Life Sat.					0.380***	0.382***		
					(0.010)	(0.010)		
Retired	0.189***	-0.328	0.035***	-0.033	-0.051	0.228	-0.201***	-0.088
	(0.035)	(0.259)	(0.007)	(0.054)	(0.039)	(0.261)	(0.024)	(0.187)
Unemployed	0.440***	0.191	0.059***	0.027	-0.593***	-0.463**	-0.690***	-0.643***
	(0.072)	(0.142)	(0.015)	(0.030)	(0.079)	(0.144)	(0.048)	(0.094)
Cohort Dummies	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Year Dummies	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Country Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	20440	20440	20440	20440	8222	8222	26508	26508

Controls for age, age sq, female, married, married x female, college, high school, disability, health condition

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Conclusions

- This paper uses longitudinal data from the HRS in the U.S and SHARE in Europe to study the effect of retirement on subjective well-being

- We estimated dynamic random effects models instrumenting retirement with variables indicating whether the respondent is eligible for retirement pensions in his country at a given wave. By doing so, we take into account the potential endogeneity of retirement, to obtain causal effects

Conclusions

- Retirement induced through eligibility to Social Security pensions does not have a negative effect on individual's well-being.

- Even though we find a significant negative correlation between retirement and subjective well-being, this relationship turns out not to be significant once we use our instrumental variables approach.

Future Work

- As financial circumstances may also influence subjective well-being, the effects of retirement can be confounded by the reduction of income after retirement

- Income is possibly endogenous if used as a control in subjective wellbeing regressions

- To get a better understanding of the effect of retirement induced through Social Security pension eligibility on subjective and financial well-being of the elderly, we propose to estimate a simultaneous model, explicitly modeling the dynamics of retirement, income, and subjective well-being while still using our instrumental variables approach

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