

The effect of parental retirement on adult children well being

PhD colloquium

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- Retirement affects individuals well being, but the sign of the effect is still unclear:
 - health purchases/expenditures ↓ (Bíró, Elek ,2018)
 - mental health ↓ (Dave, Rashad, Spasojevic ,2008)
 - happiness ↑; mental health ↑ (Charles ,2004)
 - cognitive abilities/functioning ↓ (Mazzonna, Peracchi, 2017; Bonsangm, Adam, Perelman, 2012)
 - life satisfaction ↓ (Della Giusta, Longhi, 2021)
 - life satisfaction ↑; self reported health ↑; mental health ↑ (Gorry, Slavov, 2018)

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 - Inter-generational financial transfers from adult children to elderly parents: Income satisfaction ↓
 - Overall life satisfaction ? Mental well-being ?

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 - Significant effect of maternal retirement on life satisfaction, only for children with children. Inverse and not significant effect for paternal retirement.
- Which are the channels through which parental retirement affects the well-being of adult children?
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 - Overall life satisfaction ? Mental well-being ?

1. Background
2. Data and Methods
3. Results
4. Further development

Background

1. Parental retirement and adult children fertility: Fertility \uparrow , differential effects by geographical proximity, adult children income, adult children family size (P. Eibich, T. Siedler, 2020)
2. Parental retirement and adult children labour supply: working hours \downarrow (Wu. Qi, G. Xin, 2020), mechanisms are time and financial transfers

Data and Methods

- The Harmonized British Household Panel Survey (BHPS) and Understanding Society (UKHLS).
- Panel structure: waves every year plus additional samples, from 1991 to 2021
- All members of participating households aged 16 or older answer the main questionnaire
- If members of participating households move out, they are followed over time
- Allow linking comprehensive information of adult children to the employment status and other socioeconomic characteristics of their parents in time

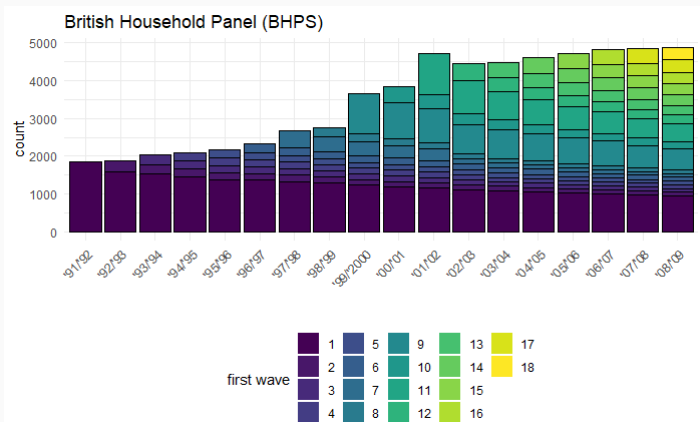


Figure 1: Composition of the BHPS sample. Each color represents the wave of first interview for each respondent. In 1997 new respondents from ECHP sample were added. In 1999, new respondents from Scotland and Wales entered the survey. In 2001, the sample counted new respondents from Northern Ireland

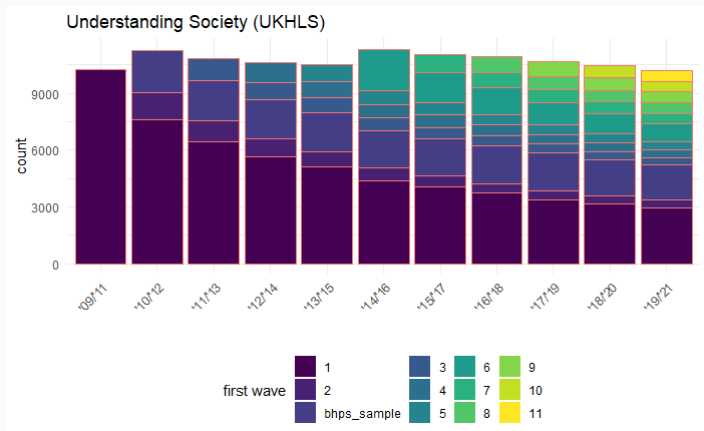


Figure 2: Composition of the UKHLS sample. Each color represents the wave of first interview for each respondent. In 2010 respondents from BHPS sample were added

Institutional background: UK pension system

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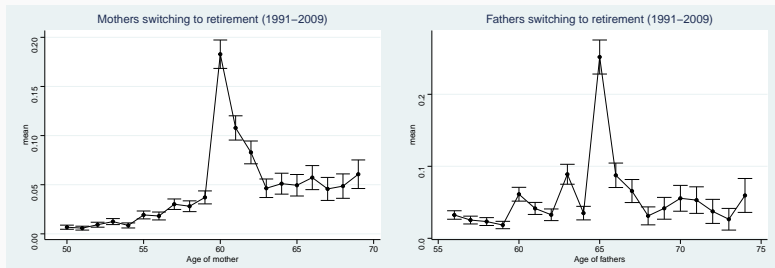


Figure 3: BHPS sample (1991-2009). Percentage of mothers (left) and fathers (right) that switch into retirement, by parents age

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- The earliest you can get the Basic State Pension is when you reach the SPA
- In the UK, until 2010, the SPA for female was 60 years old and for male was 65
- Since April 2010, and only for women born after 1950, the State Pension Age has been gradually increased

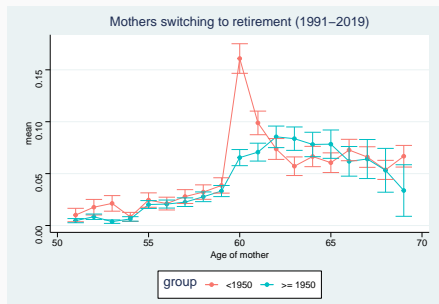


Figure 4: UKHLS and BHPS pooled sample (1991-2019). Percentage of mothers that switch to retirement, by mother age and mother year of birth

- Adult children in the ages of 25 to 45 with information either on the father or the mother Children Age
- Mothers in the ages of 50 to 70 years old and fathers in the ages of 55 to 75 years old, i.e. ± 10 from SPA Continuity test
- Complete observations in outcomes and predictors

Descriptive statistics

Variable	N observations	Individuals	Mean or Freq	Sd or Perc
<i>A. Adult children</i>				
GHQ	15953	2795	25.0	5.4
Life satisfaction	13313	2599	5.1	1.2
Income satisfaction	13334	2598	4.5	1.5
Leisure satisfaction	13337	2600	4.5	1.5
Age	19179	3359	31.3	4.9
Married	19179	3359	0.3	0.5
School leaving age	15506	2441	16.3	1.0
Female	19179	3359	0.4	0.5
Working	17315	2992	0.8	0.4
Child	19179	3359	0.3	0.5
Live with father	19179	3359	0.3	0.4
Live with mother	19179	3359	0.4	0.5
Live in London	18775	3297	0.1	0.3
White	18821	3210	0.8	0.4
Same region father	12060	2405	0.9	0.3
Same region mother	14796	2939	0.9	0.3
<i>B. Elderly fathers</i>				
GHQ	10051	2105	20.6	13.2
Age	10051	2105	62.1	5.3
Retired	10051	2105	0.3	0.5
School leaving age	8728	1679	15.5	1.3
Own house	10051	2105	0.8	0.4
<i>C. Elderly mothers</i>				
GHQ	11292	2256	16.9	11.9
Age	11292	2256	57.5	5.0
Retired	11292	2256	0.2	0.4
School leaving age	10181	1890	15.6	1.2
Own house	11292	2256	0.8	0.4

Table 1: Descriptive statistics of the sample of analysis

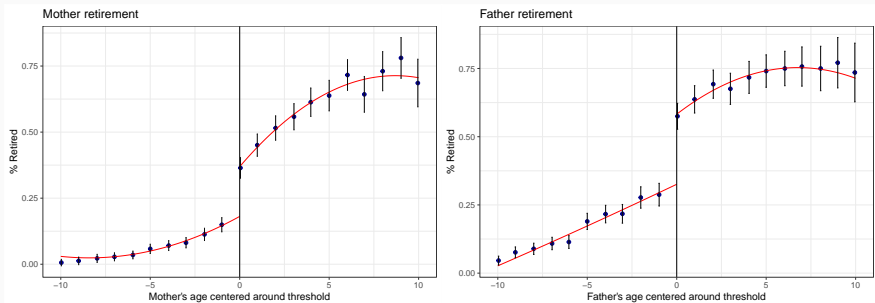
- Retirement is endogenous to parental well-being and adult children well being
- Not all parents comply with the State Pension Age

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- Fuzzy Regression Discontinuity Design (Angrist, Pischke, 2008, Cattaneo et al. 2018) → exploits discontinuities in probability of retirement (R) conditional on being above or below the SPA (x_0).

$$P[R = 1 | x] = \begin{cases} g_0(x_i) & x_i \geq x_0 \\ g_1(x_i) & x_i < x_0 \end{cases}$$

Empirical strategy

- Retirement is endogenous to parental well-being and adult children well being
- Not all parents comply with the State Pension Age
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- Retirement is endogenous to parental well-being and adult children well being
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- Similar predetermined characteristics at the cutoff covariate balance
- Ages are in years. Discrete running variable

1. First stage:

$$r_{it} = \alpha + f_1(\text{age}_{it}) + g_1(\text{page}_{it}) + \pi D_{it} + \omega_i + \kappa_t + v_{it}$$

2. Second stage:

$$y_{it} = \gamma + f_2(\text{age}_{it}) + g_2(\text{page}_{it}) + \lambda r_{it} + \xi_i + \tau_t + \epsilon_{it}$$

- y_{it} : adult children i 's well being at time t
- r_{it} : i 's parent self-reported retirement status at time t . We assume retirement as defining state
- λ is the treatment effect of parental retirement on adult child's well-being
- D_{it} : i 's parents above the SPA at time t , i.e. $I(\text{page}_{it} \geq \text{SPA})$
- $\text{age}_{it}/\text{page}_{it}$: adult children i age and parent of i age at time t
- ω_i and ξ_j : individual fixed effects
- κ_t and τ_t : years fixed effects
- ϵ_{it} and v_{it} : idiosyncratic errors

Results

Main Results

<i>panel A</i>								
Dependent Variables:	Life satisfaction		Income satisfaction		Leisure satisfaction		GHQ	
	All	With children	All	With children	All	with children	All	With children
Second-stage IV results								
mother retired	0.17 (0.12)	0.48** (0.21)	-0.01 (0.12)	0.05 (0.21)	0.02 (0.13)	0.02 (0.22)	0.19 (0.12)	0.28 (0.20)
R ²	0.61	0.60	0.60	0.61	0.55	0.56	0.51	0.52
First-stage IV results								
mother above discontinuity	0.27*** (0.01)	0.28*** (0.03)	0.28*** (0.01)	0.28*** (0.03)	0.27*** (0.01)	0.28*** (0.03)	0.28*** (0.01)	0.29*** (0.02)
F-test	559.3	189.3	567.6	194.4	561.6	191.2	658.7	242.1
Reduced form								
mother above discontinuity	0.05 (0.03)	0.13** (0.06)	-0.003 (0.03)	0.01 (0.06)	0.006 (0.04)	0.005 (0.06)	0.05 (0.03)	0.08 (0.06)
R ²	0.61	0.62	0.61	0.61	0.55	0.56	0.51	0.53
OLS								
mother retired	-0.01 (0.03)	-0.04 (0.05)	-0.01 (0.03)	-0.04 (0.05)	0.007 (0.03)	0.07 (0.06)	0.05* (0.03)	0.02 (0.05)
R ²	0.61	0.61	0.60	0.61	0.55	0.56	0.50	0.53
<i>Fixed-effects</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	10,038	3,518	10,052	3,535	10,058	3,525	11,882	3,955
Windows	10	10	10	10	10	10	10	10

Heteroskedasticity-robust standard-errors in parentheses

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table 2: The models include a quadratic trend for the child and parents' age. The coefficients are standardized.

Main Results

<i>panel B</i>				
Dependent Variables:	life satisfaction	income satisfaction	leisure satisfaction	GHQ
Second-stage IV results				
father retired	-0.14 (0.16)	-0.05 (0.16)	-0.03 (0.17)	-0.12 (0.16)
R ²	0.60	0.62	0.57	0.52
First-stage IV results				
father above discontinuity	0.27*** (0.02)	0.27*** (0.02)	0.27*** (0.02)	0.28*** (0.02)
F-test	323.3	322.8	323.6	397.4
Reduced form				
father above discontinuity	-0.04 (0.04)	-0.01 (0.04)	-0.007 (0.04)	-0.03 (0.04)
R ²	0.60	0.62	0.57	0.52
OLS				
father retired	-0.005 (0.04)	0.03 (0.04)	0.08* (0.04)	0.04 (0.04)
R ²	0.61	0.60	0.55	0.51
<i>Fixed-effects</i>	Yes	Yes	Yes	Yes
Observations	7,068	7,074	7,091	8,190
Windows	10	10	10	10

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Main Results

<i>panel A.1</i>				
Dependent Variables:	life satisfaction	income satisfaction	leisure satisfaction	GHQ
Second-stage IV results				
mother retired	0.25* (0.13)	0.003 (0.13)	0.10 (0.14)	0.15 (0.13)
R ²	0.61	0.62	0.56	0.52
First-stage IV results				
mother above discontinuity	0.27*** (0.01)	0.28*** (0.01)	0.27*** (0.01)	0.28*** (0.01)
F-test	559.3	567.6	561.6	658.7
Reduced form				
mother above discontinuity	0.06* (0.03)	0.0007 (0.04)	0.03 (0.04)	0.04 (0.04)
R ²	0.61	0.61	0.55	0.51
OLS				
mother retired	-0.010 (0.03)	-0.01 (0.03)	0.004 (0.04)	0.04 (0.03)
R ²	0.62	0.63	0.58	0.52
<i>Fixed-effects</i>	Yes	Yes	Yes	Yes
Observations	8,718	8,734	8,739	10,212
Windows	8	8	8	8

Heteroskedasticity-robust standard-errors in parentheses

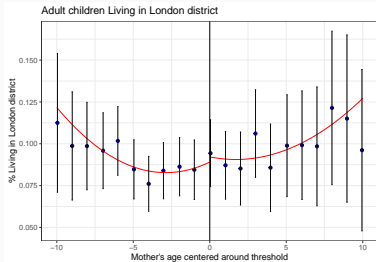
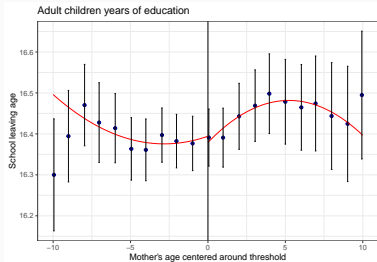
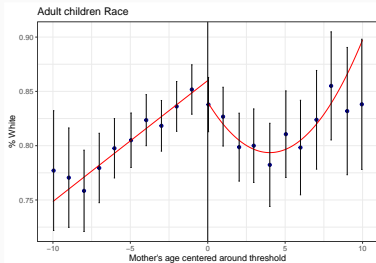
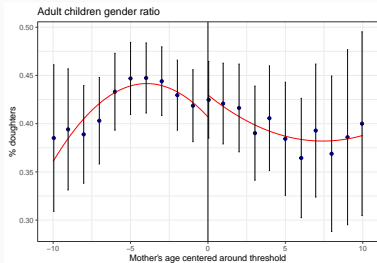
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Table 4: Age windows 8 years. The models include a quadratic trend for the child and parents' age

Further development

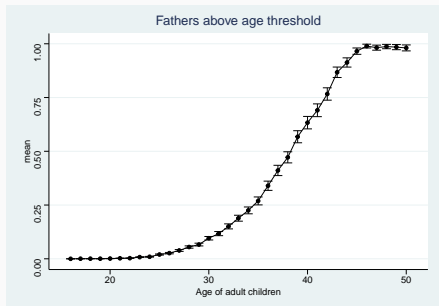
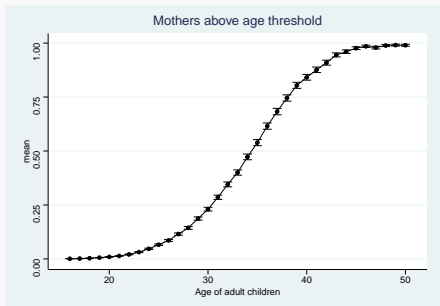
- Get precise information on months of birth and geographical adult-parents proximity.
- Get precise information on income levels
- Heterogeneity analysis
- Local Randomization Approach, looking at a smaller windows around the cutoff
- Understanding Society sample and Difference-in-differences design

Covariate balance



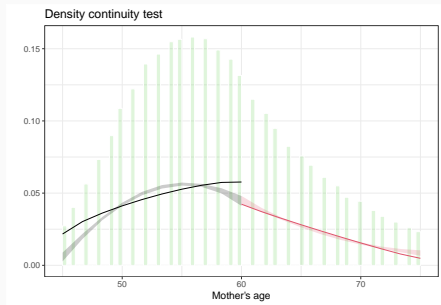
empirical strategy

Adult Children Age Range



sample selection

Continuity Test



sample selection

