

Unequal Burden of Retirement Reform: Evidence from Australia

Todd Morris

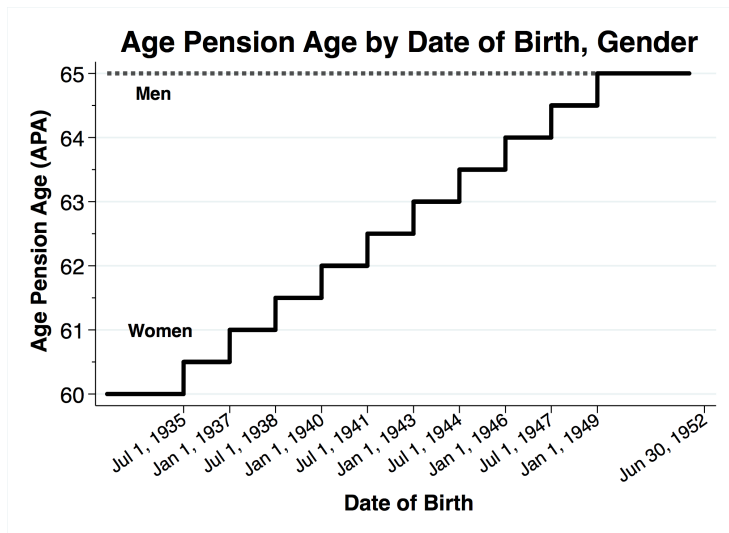
The University of Melbourne

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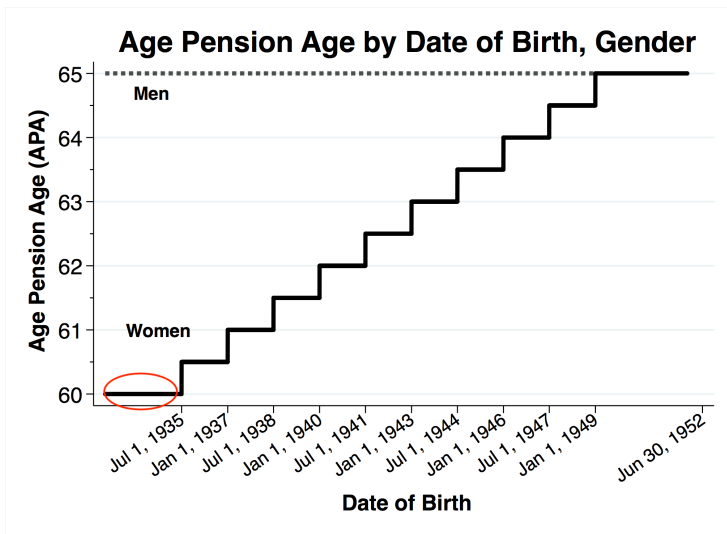
Introduction

- Many governments are responding to ageing populations by raising pension-claiming ages
 - e.g. the US, the UK, France, Italy, Switzerland and Australia
- Understanding the effects of these reforms is vital considering their:
 - ① prevalence
 - ② fiscal importance
 - ③ current and future relevance for a large number of people
- In this paper, I examine the effects of an Australian reform in 1994 that raised women's eligibility age for Australia's public retirement pension, the Age Pension, from 60 to 65
 - From July 1995, the reform raised women's pension age by six months every two years until it reached 65 in July 2013

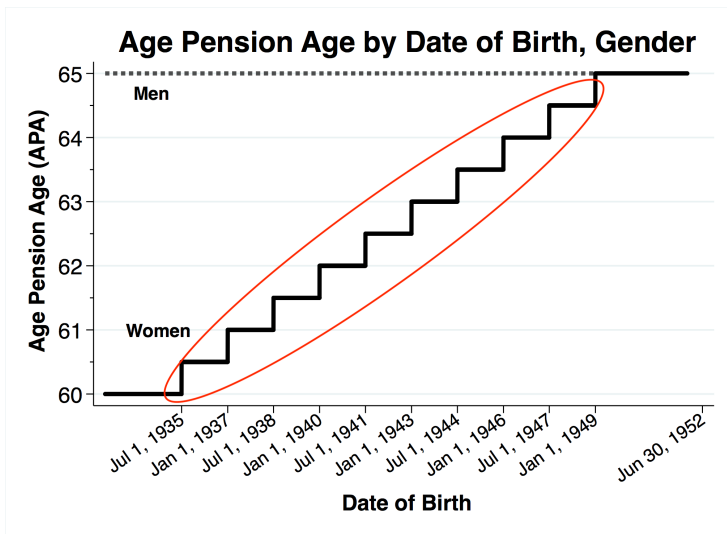
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Existing Studies/Research Question

- Large literature examining changes in pension-claiming ages
(e.g. Fields and Mitchell, 1984; Gustman and Steinmeier, 1985; Rust and Phelan, 1997; Börsch-Supan and Schnabel, 1998; Mastrobuoni, 2009; Hanel and Riphahn, 2012; Staubli and Zweimüller, 2013; Vestad, 2013; Lalive and Staubli, 2015; Atalay and Barrett, 2015; Cribb, Emmerson and Tetlow, 2016; Oguzoglu, Polidano and Vu, 2016)
- Main focus: estimating the overall effects on retirement decisions and, to a lesser extent, spillovers to other transfer programs
- Very little focus on heterogeneity or distributional impacts

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- Preview: Particularly large effects on relatively vulnerable groups of women and a meaningful increase in poverty and inequality

Background on Australia's Age Pension

- Australians fund their retirement through public and private sources, but still a heavy reliance on the public pension
 - ~70% of pension-age Australians receive Age Pension ([Oguzoglu, Polidano and Vu, 2016](#))
- Subject to age and residency conditions, and a means test
- Non-contributory scheme and no credit for delayed claiming
- Max. payment (2016): \$877.10/fortnight for singles (\$22,883 p.a.)
 - Couples receive ~50% more combined
- Accompanying subsidies/concessions are similarly valuable
 - [Harmer \(2008\)](#): value 82% of the amount of the payments

Data

- Waves 1–14 of HILDA (2001–2015), women aged 60–66
 - Full Sample: 8,452 observations from 2,049 women
 - Comprehensive information on incomes at the individual and household level and information on household characteristics
 - Exact date of birth and survey date information
- **Income Support:** i) Age Pension; ii) Other Payment; iii) Any Payment
 - And current income (per annum) from these payments (2016 AUD)
- **Labour supply:** i) labour force participation; ii) employment; iii) earnings; iv) log of earnings
- **Overall Financial Position:** based on household disposable income, in-kind benefits and housing costs

Identification Strategy: Differences-in-Differences

- I estimate the causal effects of women remaining below the APA due to the phased increases in their APA from 61.5 to 65.0
- Strategy: compare women who are below APA due to these increases to earlier cohorts who were above APA when they were the same age

▶ Cohort Table

- The key regression equation is:

$$y_{it} = \beta x_{it} + \delta \mathbf{1}(age_{it} < APA_i) + FE_age_0.5yrs_{it} + FE_APA_Cohort_i + \varepsilon_{it} \quad (1)$$

with:

- Controls for household size, years of schooling, number of children, marital status, the monthly state-level unemployment rate and state dummies
- Standard errors clustered by (female) individual
- δ identifies effect of women remaining below APA at ages 61.5–64.5

Key Identifying Assumption

- **Parallel-Trends Assumption:** If not for the increase in the APA, the age-related trends in y_{it} would have been the same across cohorts
 - Credible given the stability of economy and policy environment

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 - Credible given the stability of economy and policy environment
- Estimates are also conditional on anticipatory behaviour before age 61.5
 - If such behaviour occurred, my estimates may be *attenuated*

Baseline Estimates: Income Support Payments

Panel A: Income from Income Support Payments

	Receives Payment			Annual Income		
	Age Pension (1)	Other Income Support (2)	Any Income Support (3)	Age Pension (4)	Other Income Support (5)	Total Income (6)
Age < APA	-47.2*** (1.8)	29.8*** (1.9)	-17.5*** (1.8)	-6,802*** (294)	4,319*** (301)	-2,483*** (287)
Treated Mean	0	33.8	33.8	0	5,024	5,024
Counterfactual	47.2	4.0	51.3	6,802	705	7,507
R ²	0.472	0.175	0.226	0.434	0.178	0.253
Observations	8,452	8,452	8,452	8,452	8,452	8,452

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- For each dollar of income women lost from the Age Pension:
 - women received an extra 63 cents from other transfer programs

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Baseline Estimates: Labour Supply

	Panel B: Labour Supply			
	Labour Force Status		Annual Earnings	
	In Labour Force (1)	Employed (2)	Excluding Top Earners (3)	In Logs (4)
Age < APA	3.02* (1.73)	2.71 (1.70)	1,749** (810)	0.30* (0.17)
Treated Mean	43.90	42.70	15,794	
Counterfactual	40.91	40.02	14,045	
R ²	0.120	0.114	0.106	0.110
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Baseline Estimates: Labour Supply

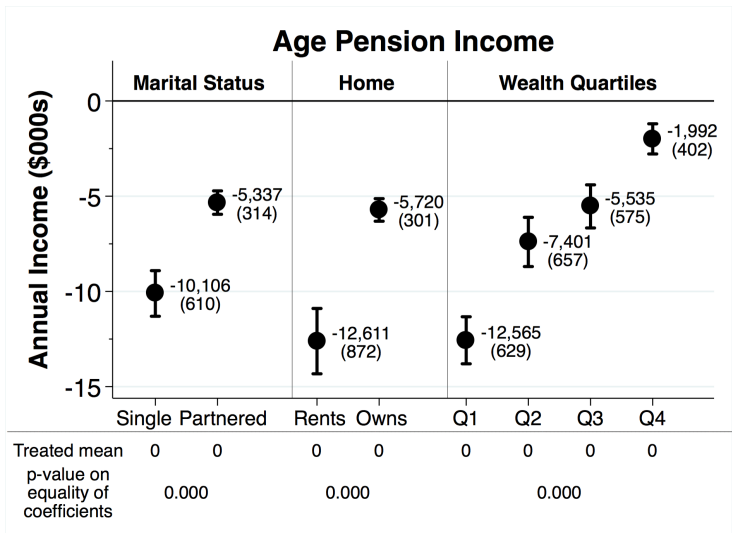
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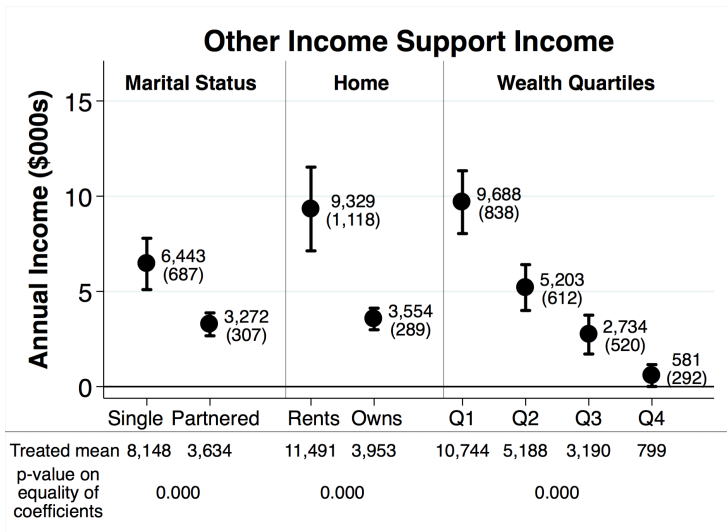
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- For each dollar of income women lost from the Age Pension:
 - women earned an extra 26 cents from labour supply

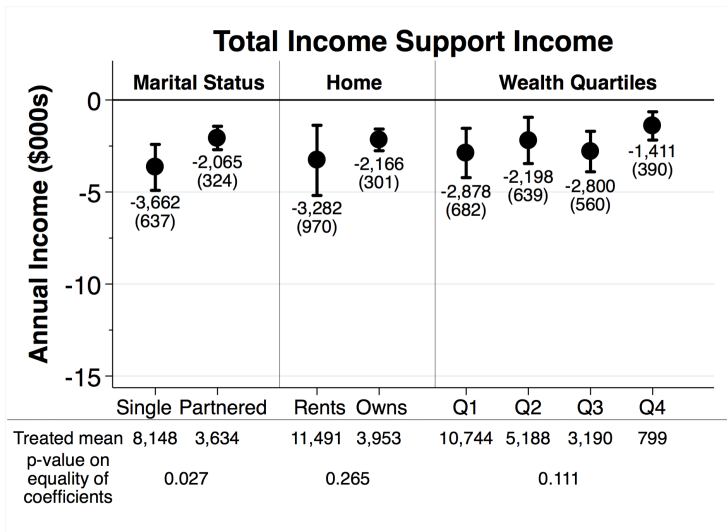
Heterogeneity: Age Pension Income



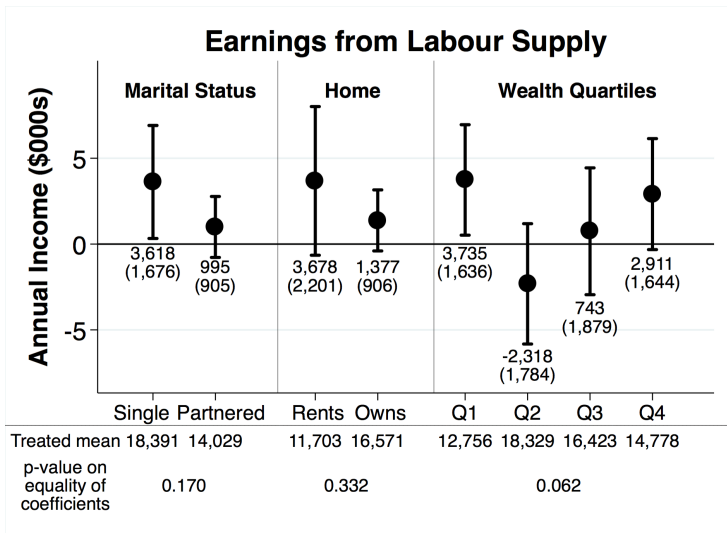
Heterogeneity: Other Income Support Income



Heterogeneity: Total Income Support Income



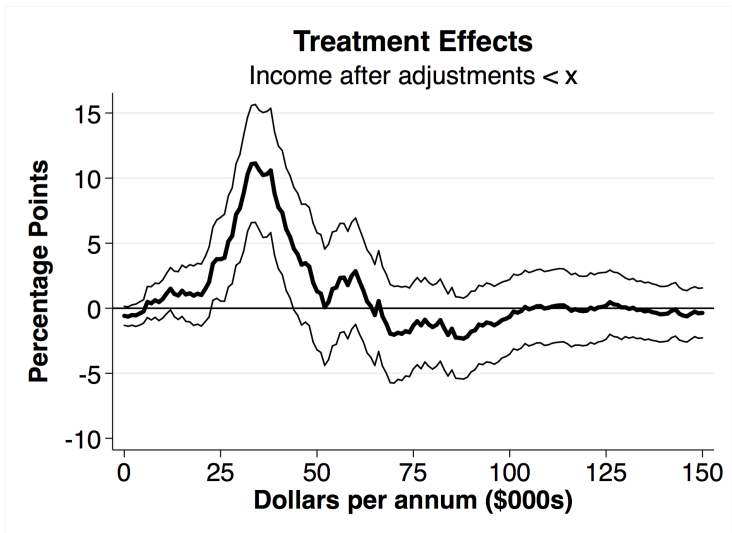
Heterogeneity: Earnings from Labour Supply



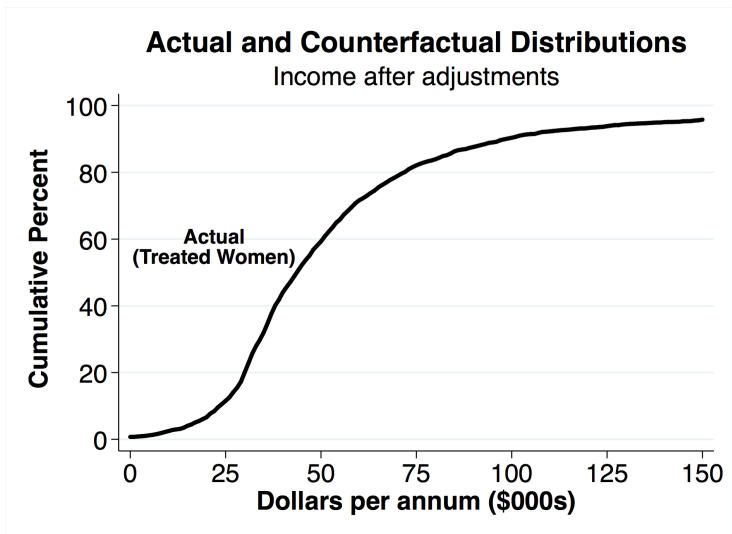
Distributional Implications on Poverty and Inequality

- I extend the analysis by examining the impacts of the reform on inequality and relative poverty
 - Bitler, Gelbach & Hoynes (2006): Important to look beyond mean impacts
- My preferred estimates consider in-kind benefits as well as income (Citro & Michael, 1995; Bitler & Hoynes, 2016):
 - 1 Many Australians become eligible for generous concessions on healthcare and other expenses at the APA
 - 2 Harmer (2008): in-kind benefits are almost as valuable as the income provided by the Age Pension
- I also adjust for housing costs and taxes, so the key variable is:
 - Household disposable income + in-kind benefits – housing costs, with adjustments for household size

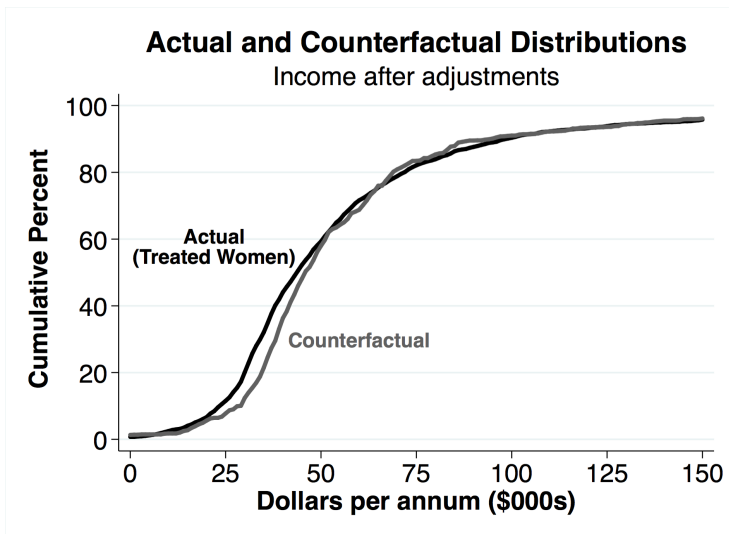
Overall Distributional Effects



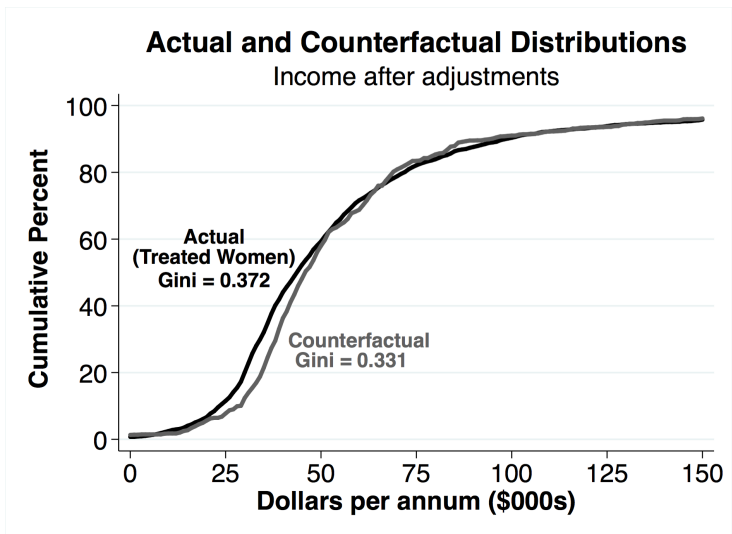
Distributions: Treatment vs Counterfactual



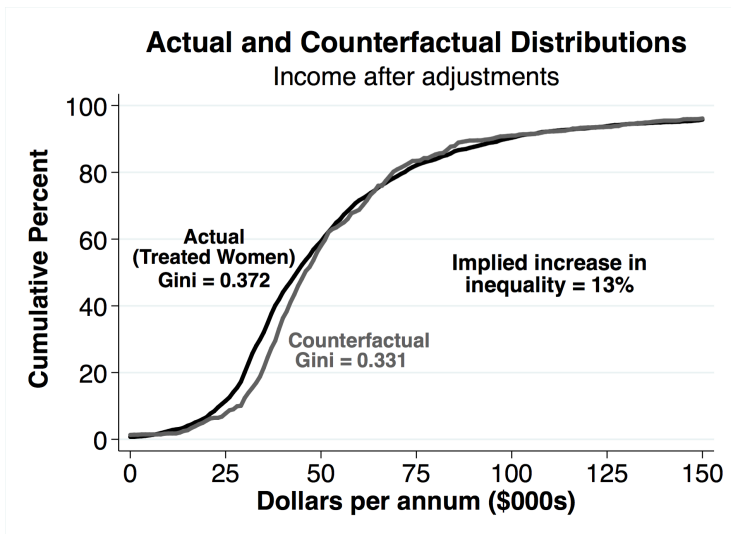
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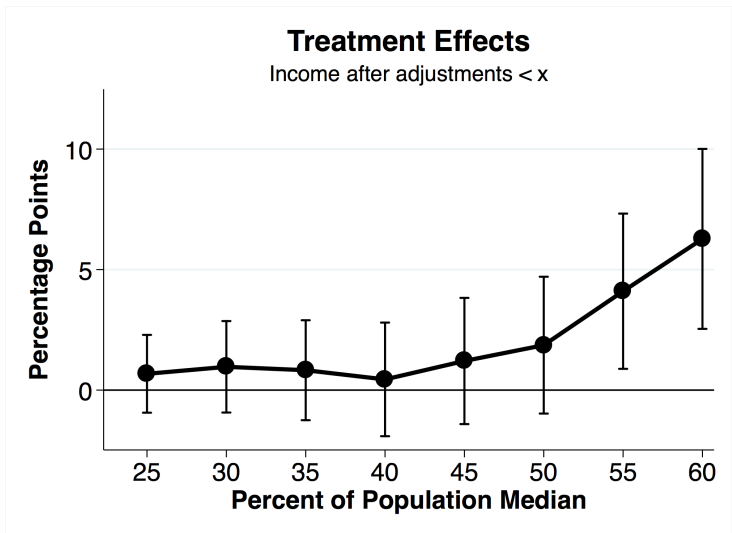
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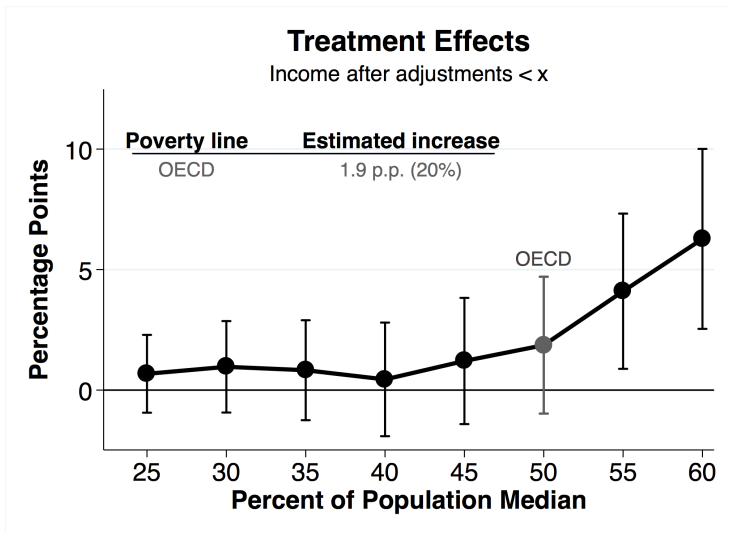
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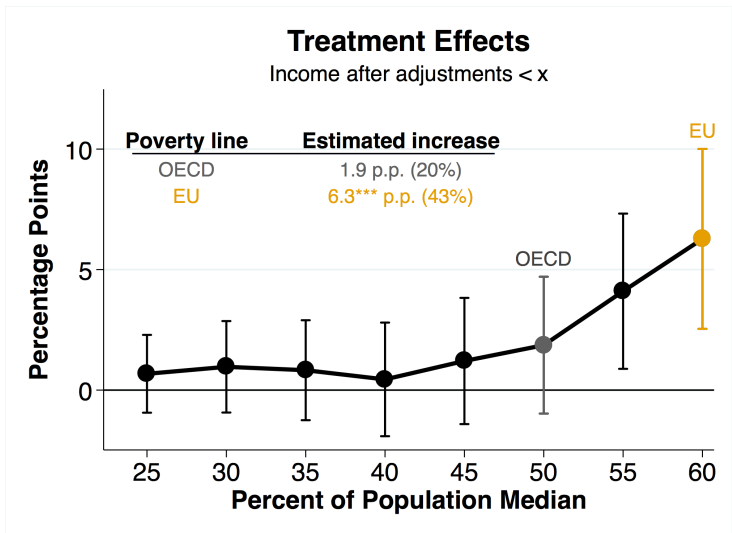
Relative Poverty



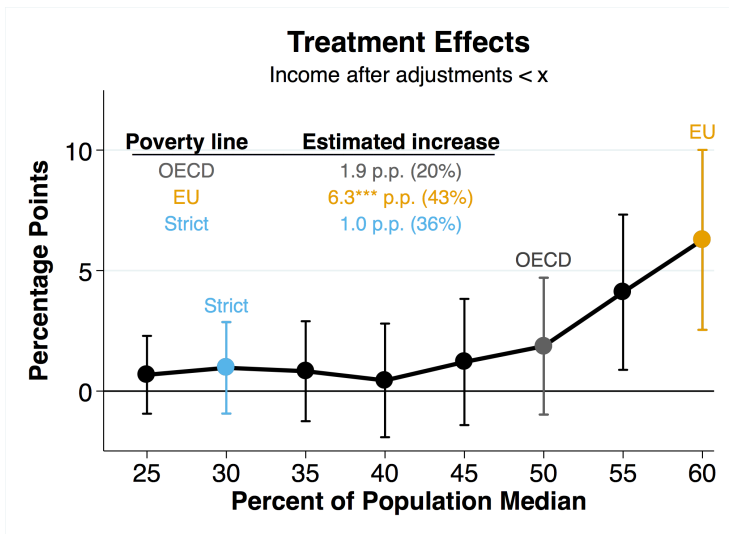
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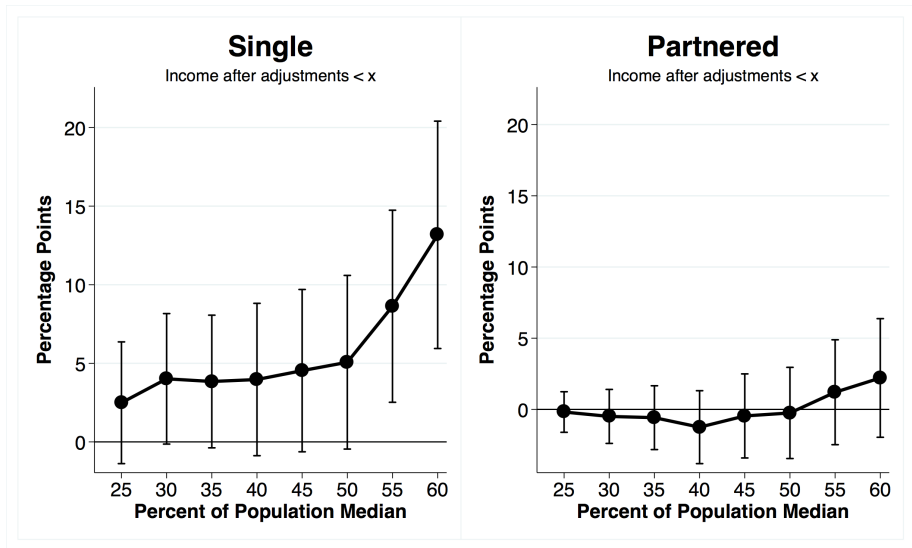
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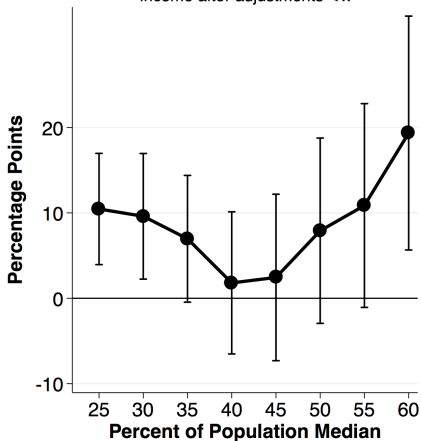
Relative Poverty: Heterogeneity by Marital Status



Relative Poverty: Heterogeneity by Home-ownership

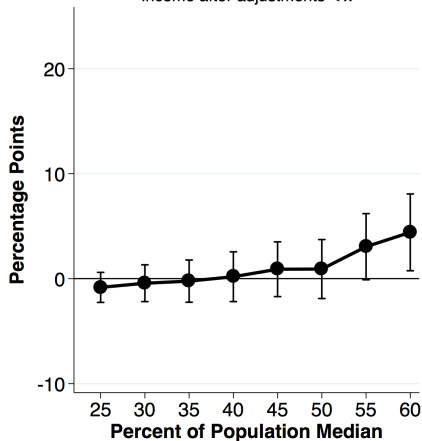
Renter

Income after adjustments $< x$



Homeowner

Income after adjustments $< x$



Robustness/Additional Results

Robustness Checks:

- ① Outcomes change in year after women's APA but not in years prior [▶ see](#)
- ② Estimates extremely similar with health controls, wave dummies [▶ see](#)
- ③ Placebos: No effect of men remaining below women's APA [▶ see](#)
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Additional Results:

- I estimate the total fiscal savings from the reform. Affected women:
 - received \$6,802 less in Age Pension payments (per annum)
 - received \$4,319 more in other income support payments
 - received \$2,732 less in in-kind transfers
 - paid \$663 more in tax
- Total fiscal saving: \$5,878 per annum on each woman affected
 - Each one-year increase in the APA has saved ~\$600M per annum

Contributions and Implications for Policy

- First paper to comprehensively examine heterogeneity/distributional implications of changing pension-claiming ages
 - Low-wealth and single households explain most of the labour supply and claiming responses
 - Meaningful increase in poverty and inequality, especially among single households and renters
 - \Rightarrow reform undermined an explicit purpose of the Age Pension in providing a safety net for vulnerable households
- Findings most relevant for future increases in the APA ...

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- Broad-based retirement reforms may appear to treat everyone the same way ...

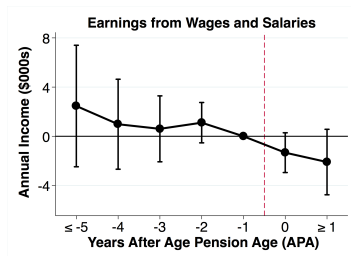
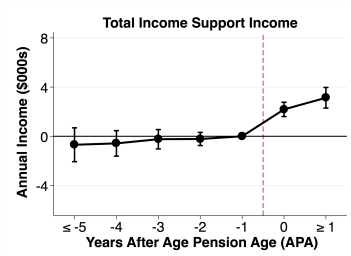
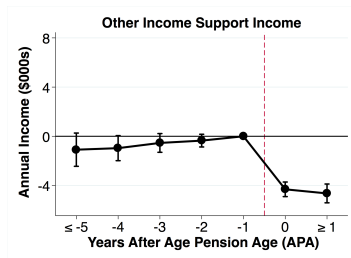
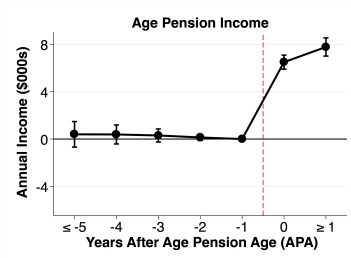
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- Findings most relevant for future increases in the APA ... but also relevance for increases in early retirement ages in other countries
 - Results raise concerns about these reforms (that delay eligibility for retirement benefits) and their impact on low-income, single + renting women
- Broad-based retirement reforms may appear to treat everyone the same way ... but their impacts can vary considerably, with disproportionate effects on vulnerable households

Number of Observations by APA Cohort and Age

APA Birth Cohort	APA	Age (in half-years)									
		60.0-61.0	61.5	62.0	62.5	63.0	63.5	64.0	64.5	65.0-66.5	
<i>Control Cohorts</i>											
Before July 1935	60.0										52
July 1935 – December 1936	60.5								19		185
January 1937 – June 1938	61.0					11	43	46	49		176
July 1938 – December 1939	61.5	15	36	49	54	47	59	46			185
<i>Treated Cohorts</i>											
January 1940 – June 1941	62.0	115	64	47	52	46	51	39	56		196
July 1941 – December 1942	62.5	169	53	54	49	54	49	52	53		200
January 1943 – June 1944	63.0	179	53	54	53	59	47	61	50		223
July 1944 – December 1945	63.5	183	57	59	58	55	54	59	51		272
January 1946 – June 1947	64.0	210	70	69	64	70	65	85	81		343
July 1947 – December 1948	64.5	203	64	74	74	83	91	84	79		323
January 1949 – June 1952	65.0	572	205	214	198	181	133	113	88		76
<i>Partially Treated Cohorts</i>											
July 1952 – December 1953	65.5	282	55	24							
January 1954 – June 1955	66.0	81									

Sharp changes in women's incomes at APA but not before



Estimates with Additional Controls

	Extensive Margin		Income	
	Any Income Support (1)	In Labour Force (2)	Total Income Support (3)	Labour Earnings (4)
<u>Baseline Estimates</u>				
Age < APA	-17.5*** (1.8)	3.02* (1.73)	-2,483*** (287)	1,749** (810)
<u>Including Survey-Wave Dummies</u>				
Age < APA	-17.2*** (1.8)	2.40 (1.72)	-2,406*** (285)	1,498* (793)
<u>Including Controls for Physical and Mental Health</u>				
Age < APA	-17.7*** (1.9)	3.55* (1.87)	-2,366*** (304)	1,665* (873)

Placebo Estimates on Males

	Extensive Margin		Income	
	Any Income Support (1)	In Labour Force (2)	Total Income Support (3)	Labour Earnings (4)
<u>Placebo Regressions: Effect of Males Remaining Below Women's APA</u>				
Age < APA _{women}	-0.0 (1.7)	-0.22 (1.77)	-304 (338)	-1,514 (1,445)

Estimates Testing for Anticipatory Behaviour

	Extensive Margin		Income	
	Any Income Support (1)	In Labour Force (2)	Total Income Support (3)	Labour Earnings (4)
<u>Testing for Anticipatory Behaviour at Age 55–61</u>				
APA (years)	7.8 (5.8)	5.73 (6.75)	858 (964)	2,446 (3,766)

[← Back](#)