Unequal Burden of Retirement Reform: Evidence from Australia

Todd Morris

The University of Melbourne

April 17, 2018
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 a 1994 reform that increased women’s eligibility age for Australia’s Age Pension from 60 to 65

- From July 1995, the reform increased women’s pension age by six months every two years until it reached 65 in July 2013
The Effects of the 1994 reform

Age Pension Age by Date of Birth, Gender

- Men
- Women

Date of Birth:
- Jul 1, 1935
- Jan 1, 1937
- Jan 1, 1938
- Jan 1, 1940
- Jan 1, 1941
- Jul 1, 1943
- Jul 1, 1944
- Jul 1, 1946
- Jul 1, 1947
- Jul 1, 1952
- Jan 1, 1954
- Jul 1, 1955
- Jan 1, 1957

Age Pension Age (APA):
- 60
- 61
- 62
- 63
- 64
- 65
- 66
- 67
The Effects of the 1994 reform
The Effects of the 1994 reform

Age Pension Age by Date of Birth, Gender

- Men
- Women
The Effects of the 1994 reform

Age Pension Age by Date of Birth, Gender

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- Jul 1, 1949
- Jan 1, 1952
- Jul 1, 1954
- Jan 1, 1955
- Jan 1, 1957

Age Pension Age (APA):
- 60
- 61
- 62
- 63
- 64
- 65
- 66
- 67
**Research Questions:**

- How did the effects of the 1994 reform vary for different types of households in terms of their wealth, composition and education?
- What were the distributional effects on poverty and inequality?

**Importance:**

1. Scope of reform ⇒ distributional effects may be significant
2. Relative vulnerability of elderly women: less superannuation, greater likelihood of being single, barriers to employment, lower pay
3. Distributional impacts are important for policymakers; all else equal, policies that increase poverty and inequality are much less attractive
Existing Studies

- 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
I draw on two strengths of the Australian environment:

   - Allows me to link information on incomes, labour supply, financial hardship, wealth and education at the individual and household level

2. Reform created plausibly exogenous variation in women’s eligibility for the Age Pension based on their date of birth

Combining 1. and 2., I estimate the causal effects of women remaining below the pension age because of the reform on their households’ income, labour supply and financial security
   - And examine how these effects varied for different types of households

I also study the distributional impacts of the reform on relative poverty and inequality
Preview of Results

Overall effects:
- Women offset 63% of their lost Age Pension income through other payments
- Modest but economically meaningful labour supply response

Heterogeneity:
- Single women and women in the bottom quartile of the wealth distribution explain most of the claiming and labour supply responses
  - Labour supply response driven by those who had at least a modest level of education, low-educated women seem to have been unable to respond and many encountered financial hardship
  - No impact on the labour supply or financial security of married and more affluent groups of women

Distributional Effects:
- Increase in relative poverty among affected women by 38–78% (all among singles) and increase in within-cohort inequality by 21%
Outline of Remainder of Talk

1. Background
2. Data and Identification Strategy
3. Results
4. Distributional Effects
5. Conclusion
Outline

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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): Equivalised value 82% of the amount of the payments
Outline

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Outline

1. Background

2. Data and Identification Strategy
   - Data
     - Graphical Evidence
     - Identification Strategy

3. Results

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5. Conclusion
Sample

- Waves 1–14 of HILDA (2001–2015), women aged 55–69
  - Full Sample: 18,922 observations from 3,338 women
  - Information on incomes, labour supply, financial hardship, wealth and education at the individual and household level
  - Exact date of birth and survey date information

- **Income Support:** i) Age Pension; ii) Other Income Support Payment; iii) Any Income Support Payment
  - And current income (per annum) from these payments (2016 AUD)

- **Labour supply:** i) labour force participation; ii) 20+ hours per week

- **Financial Hardship:** i) financial situation ‘poor’ or ‘very poor’; ii) couldn’t pay mortgage/rent on time
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Age Pension Receipt by Age and APA

![Age Pension Receipt](chart.png)
Receipt of Other Income Support Payments

- APA ∈ [61, 62]
- APA ∈ [62.5, 63.5]
- APA ∈ [64, 65]
Receipt of any Income Support Payment

![Graphical Evidence](image_url)

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**Data and Identification Strategy**

**Graphical Evidence**

**Receipt of any Income Support Payment**

- **Percent**
  - 0 to 80

- **Age (years)**
  - 58 to 67

Legend:
- **APA ∈ [61, 62]**
- **APA ∈ [62.5, 63.5]**
- **APA ∈ [64, 65]**
Labour Force Participation

![Labour Force Participation Rate Graph](image)

- **APA ∈ [61, 62]**
- **APA ∈ [62.5, 63.5]**
- **APA ∈ [64, 65]**
Outcomes around Age Pension Age (APA)

- Labour Force Participation
- Total Income Support
- Age Pension Income

Years After Age Pension Age (APA)

Annual Income ($000s)

Percent
Income from Income Support Payments around APA

**Graphical Evidence**

- **Age Pension Income**
  - Wealth bottom quartile
  - Wealth not bottom quartile
  - Single
  - Partnered
  - Low education
  - Not low education

- **Total Income from Income Support**
  - Annual Income ($000s)

**Schooling Distribution**
Outline

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   - Identification Strategy

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Identification Strategy: Differences-in-Differences

- Women born before 1940 only observed after the Age Pension Age (APA) and form the control cohorts.
- Women born after 1939 form the treated groups and receive the treatment (remaining below APA because of the reform).
- The key regression equation is:

\[ y_{it} = \beta X_{it} + \delta \mathbf{1}(\text{Age}_{it} < \text{APA}_i) + FE_{-\text{age}_{it}} + FE_{-\text{APA-Cohort}_i} + \epsilon_{it} \]  

with:

- Fixed effects for women's age in half-years and APA cohort.
- 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.

- \( \delta \) identifies the effect of women remaining below the APA for women aged 61.5–64.5.
Identifying Assumptions

- **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.

- Estimates are also conditional on anticipatory behaviour before age 61.5
  - Such behaviour would likely *attenuate* estimates of effect of the reform.
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Outline

1. Background
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3. Results
   - Overall Effects
     - Robustness
     - Heterogeneity by Women’s Characteristics
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5. Conclusion
## Baseline Estimates: Income Support Payments

<table>
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<tr>
<td></td>
<td>Age Pension (1)</td>
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<tr>
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<td>Any Income Support (2)</td>
<td>All Income Support (4)</td>
</tr>
<tr>
<td>Age &lt; APA</td>
<td>-49.1*** (1.8)</td>
<td>-7,053*** (297)</td>
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<tr>
<td>Mean at APA</td>
<td>47.3</td>
<td>6,806</td>
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<tr>
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<td>-18.4*** (1.9)</td>
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<td>55.3</td>
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- *** indicates statistical significance.
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<td>Support</td>
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- **Baseline Estimates:**
  - Income Support Payments
  - Todd Morris (University of Melbourne)

**Unequal Burden of Retirement Reform**

April 17, 2018
Baseline Estimates: Income Support Payments

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- Many women largely insured against income losses by other payments
- For each dollar saved on the Age Pension, extra 63 cents spent on other payments
## Baseline Estimates: Labour Supply

<table>
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<tr>
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<th>Labour Supply</th>
<th>Financial Hardship</th>
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<tbody>
<tr>
<td></td>
<td>In Labour Force (1)</td>
<td>Poor Financial Situation (3)</td>
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<tr>
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<td>2.99 (1.83)</td>
<td>1.30* (0.79)</td>
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<td>Couldn’t pay mortgage/rent on time (4)</td>
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<td>Mean at APA</td>
<td>31.59 20.68</td>
<td>2.99 1.60</td>
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- Modest but economically meaningful labour supply response overall
## Baseline Estimates: Financial Hardship

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# Outline

1. Background

2. Data and Identification Strategy

3. Results
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   - Robustness
   - Heterogeneity by Women’s Characteristics

4. Distributional Effects

5. Conclusion
Robustness: examining when women’s outcomes change

- I examine the robustness of the estimates by estimating precisely when—and by how much—$y_{it}$ changes in relation to women’s APA:

$$y_{it} = \beta X_{it} + \delta_{-5} \mathbf{1}(Age_{it} < APA_{i} - 4) + \sum_{j=-4}^{0} \delta_j \mathbf{1}(Age_{it} \in [APA_{i} + j, APA_{i} + j + 1))$$

$$+ \delta_1 \mathbf{1}(Age_{it} \geq APA_{i} + 1) + FE_{-age_{it}} + FE_{-APA_{-Cohort}_{i}} + \varepsilon_{it} \quad (2)$$

- $\delta_j$ estimates the effect of being $j$ to $j + 1$ years above the APA, i.e. $Age_{it} \in [APA_{i} + j, APA_{i} + j + 1)$, relative to being less than or equal to one year below the APA, i.e. $Age_{it} \in [APA_{i} - 1, APA_{i})$

- If women being below the APA is causing changes in $y_{it}$, we would expect:
  - $\delta_j$ to be statistically significant for $j \geq 0$ but not for $j < -1$
Sharp changes in women’s outcomes at APA but not before
Other Robustness Checks

1. Estimates extremely similar with health controls, wave dummies
2. Placebos: No effect of men remaining below women’s APA
3. No evidence of anticipatory behaviour
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Heterogeneity by Women’s Wealth: Income Support

**Age Pension Income**

- **Wealth Quartile**
  - 1st (Bottom)
  - 2nd
  - 3rd
  - 4th (Top)

**Total Income from Income Support**

- **Wealth Quartile**
  - 1st (Bottom)
  - 2nd
  - 3rd
  - 4th (Top)
Heterogeneity by Women’s Wealth: Labour Supply

- In Labour Force
- Works 20+ hours per week

Percentage Points

Wealth Quartile:
1st (Bottom), 2nd, 3rd, 4th (Top)
Heterogeneity by Women’s Wealth: Financial Hardship

**Poor Financial Situation**

- **1st (Bottom)**
- **2nd**
- **3rd**
- **4th (Top)**

**Couldn't pay mortgage/rent on time**

- **1st (Bottom)**
- **2nd**
- **3rd**
- **4th (Top)**

Percentage Points
Heterogeneity by Marital Status: Income Support

Age Pension Income

Total Income Support Income

Annual Income ($000s)

Single    Partnered

Single    Partnered
Heterogeneity by Marital Status: Labour Supply

In Labour Force

<table>
<thead>
<tr>
<th></th>
<th>Single</th>
<th>Partnered</th>
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<tr>
<td>Percentage Points</td>
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Works 20+ hours per week

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Heterogeneity by Marital Status: Financial Hardship

- Poor Financial Situation
- Couldn’t pay mortgage/rent on time

Percentage Points

Single vs. Partnered
Heterogeneity by Education: Income Support

Age Pension Income

Total Income Support Income

Annual Income ($000s)

Low Educated  Not Low Educated

Low Educated  Not Low Educated
Heterogeneity by Education: Labour Supply

In Labour Force

- Low Educated
- Not Low Educated

Works 20+ hours per week

- Low Educated
- Not Low Educated
Heterogeneity by Education: Financial Hardship

**Poor Financial Situation**

- Low Educated: [Data Point]
- Not Low Educated: [Data Point]

**Couldn't pay mortgage/rent on time**

- Low Educated: [Data Point]
- Not Low Educated: [Data Point]
Heterogeneity by Education: Low-Wealth, Single Women

- **In Labour Force**
  - Low Education
  - Not Low Education

- **Poor Financial Situation**
  - Low Education
  - Not Low Education
Heterogeneity by Marital Status: Low Wealth, Education

**In Labour Force**
- Wealth Bottom Quartile: Single vs. Partnered
- Low Education: Single vs. Partnered

**Poor Financial Situation**
- Wealth Bottom Quartile: Single vs. Partnered
- Low Education: Single vs. Partnered
## Broader Labour Supply Response From Couples

<table>
<thead>
<tr>
<th></th>
<th>Household</th>
<th></th>
<th>Women</th>
<th></th>
<th>Male Spouses</th>
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<td>Works 20+ hours</td>
<td>Both in</td>
<td>Works 20+ hours</td>
<td>In Labour</td>
<td>Works 20+ hours</td>
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<td>per week (3)</td>
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<td>Force</td>
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### Panel A: All Couples

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### Panel B: Heterogeneity by APA Timing

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### Panel C: Male’s APA First and Woman has . . .

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## Broader Labour Supply Response From Couples

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<td>2.70 (2.26)</td>
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### Panel B: Heterogeneity by APA Timing

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<tr>
<th>Age of Wife &lt; APA</th>
<th>Household</th>
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<th>Male Spouses</th>
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<tr>
<td></td>
<td>In</td>
<td>Works</td>
<td>Both</td>
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<tr>
<td>2.70</td>
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<td>(2.26)</td>
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## Panel B: Heterogeneity by APA Timing

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<tr>
<td></td>
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<td>(2.53)</td>
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## Panel C: Male’s APA First and Woman has...

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<td>(5.03)</td>
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<td>Not Low Education</td>
<td>4.46</td>
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### Broader Labour Supply Response From Couples

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<td>Both in</td>
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<td>Works 20+</td>
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<td>Force (4)</td>
<td>hours per week (5)</td>
<td>Labour Force (6)</td>
<td>hours per week (7)</td>
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<tr>
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<td>-1.66</td>
<td>1.40</td>
<td>8.07</td>
<td>9.12*</td>
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# Broader Labour Supply Response From Couples

## Panel A: All Couples

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<tr>
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<th>Women</th>
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<th>Male Spouses</th>
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<tbody>
<tr>
<td></td>
<td>In Labour</td>
<td>Works 20+ hours</td>
<td>Both in</td>
<td>In Labour</td>
<td>Works 20+ hours</td>
<td>In Labour</td>
</tr>
<tr>
<td></td>
<td>Force</td>
<td>per week</td>
<td>Labour</td>
<td>Force</td>
<td>per week</td>
<td>Force</td>
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<tr>
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<td>(1)</td>
<td>(2)</td>
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<td>Wife’s Age &lt; APA</td>
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## Panel B: Heterogeneity by APA Timing

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## Panel C: Male’s APA First and Woman has ...

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<td>(5.03)</td>
</tr>
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<td>-0.19</td>
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<td>(3.27)</td>
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</table>
Outline

1. Background

2. Data and Identification Strategy

3. Results

4. Distributional Effects

5. Conclusion
Overview: Approach to Examining Distributional Effects

- I extend the analysis by examining the impacts of the reform on inequality and relative poverty
  - Why relative poverty? Standard way to measure poverty in Australia & other developed countries by organisations such as the OECD & the EU

- Standard approach (Fuchs, 1969): poverty line equal to a certain percentage of median household income for the entire population
  - My preferred estimates also consider in-kind benefits:
    1. Many Australians become eligible for generous concessions on healthcare and other expenses at the APA through either the Pensioner Concession Card or Commonwealth Seniors Health Card
    2. For the average household receiving most of their income from the Age Pension, in-kind benefits are 82% as valuable as the amount of the income they receive from the Age Pension (Harmer, 2008)
Data: Three Sources

1. Income-only poverty line: median equivalised household disposable income for whole population (Australian Bureau of Statistics)
2. Value of in-kind benefits: ABS 2009-10 Fiscal Incidence Study
   - In-kind-adjusted poverty line: 33.8% higher than poverty lines based on income alone
3. HILDA Sample: Disposable income for previous financial year
   - Use information on women and their spouses
   - Estimate the value of in-kind benefits for different household types using the Fiscal Incidence Study based on women’s marital status and their households’ eligibility for concession cards
   - Key variables:
     i) household disposable income
     ii) household disposable income plus the value of in-kind benefits
Distributions for Women in Sample

- Gini = 0.390 (solid black line)
- Gini = 0.284 (gray line)

Cumulative Percent

Household Income/Income and In-Kind Benefits (000s)

- Household Disposable Income
- Income and In-Kind Benefits
Distributions for Women in Sample

2014 Poverty Lines: 50% of median

- Household Disposable Income
- Income and In-Kind Benefits

Cumulative Percent

Household Income/Income and In-Kind Benefits (000s)
Identification

I estimate similar regressions to before but with two modifications:

1. Replace $1(Age_{it} < APA_i)$ with fraction of time woman $i$ was below the APA in previous financial year
2. Replace $FE_{age\_0.5yrs_{it}}$ with fixed effects for women’s age in half years at the start of the previous financial year

Dependent Variables: Indicators for household income (or income plus in-kind benefits) $\leq x$

- Set $x$ at poverty thresholds to examine effects on relative poverty
- Vary $x$ to examine effects of women remaining below APA across entire distribution
Overall Distributional Effects

![Graph: Income and In-Kind Benefits](image)

- X-axis: Disposable Income Plus In-Kind Benefits (000s)
- Y-axis: Percentage Points

The graph shows the distributional effects of retirement reform on income and in-kind benefits, with different lines representing different categories or scenarios.
Overall Distributional Effects

Income and In-Kind Benefits

Percentage Points

Disposable Income Plus In-Kind Benefits (000s)

50% of median (2014)

60% of median (2014)
Distributions: Treatment vs Counterfactual

Income and In-Kind Benefits

Cumulative Percent

Gini = 0.261

Gini = 0.215

Disposable Income Plus In-Kind Benefits (000s)

Treated Women

Counterfactual
Impact on Relative Poverty: 2014 Poverty Lines

Income and In-Kind Benefits

Cumulative Percent

Disposable Income Plus In-Kind Benefits (000s)

- 50% of median
- 60% of median

Treated Women vs. Counterfactual
Impact on Relative Poverty: 2001 Poverty Lines

- The graph illustrates the cumulative percent distribution of disposable income plus in-kind benefits for treated women and counterfactual scenarios.
- The black line represents treated women, while the gray line represents the counterfactual.
- The graph shows that 50% of the median income and 60% of the median income are represented along the x-axis, indicating the threshold for poverty.

Todd Morris (University of Melbourne) Unequal Burden of Retirement Reform April 17, 2018 47 / 51
## Impact on Relative Poverty

**Table A6: Estimates on Poverty Rates**

<table>
<thead>
<tr>
<th>Poverty Line: 50% of Median</th>
<th>Income Only</th>
<th>With In-Kind Benefits</th>
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<tbody>
<tr>
<td>Fraction of time Age &lt; APA</td>
<td>4.4* (2.3)</td>
<td>2.4 (1.9)</td>
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<tr>
<td>Mean: First year after APA</td>
<td>28.2</td>
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<tr>
<td>Implied increase in poverty</td>
<td>16%</td>
<td>20%</td>
</tr>
</tbody>
</table>

**Poverty Line: 60% of Median**

| Fraction of time Age < APA | 0.3 (2.5) | 5.7*** (2.1) | -0.3 (2.5) | 6.4*** (1.8) | 2.7** (1.1) | 9.9*** (2.1) |
| Mean: First year after APA | 39.5 | 22.3 | 43.8 | 10.2 | 3.6 | 20.1 |
| Implied increase in poverty | 1% | 26% | -1% | 63% | 76% | 49% |
| Observations | 17,936 | 17,936 | 17,936 | 17,936 | 17,936 | 17,936 |
### Impact on Relative Poverty by Marital Status

<table>
<thead>
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<th>Heterogeneity by Marital Status (OECD Poverty Threshold)</th>
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<tr>
<td><strong>Singles (34%)</strong></td>
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<td>Implied increase in poverty</td>
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<tr>
<td><strong>Married/Defacto (66%)</strong></td>
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<tr>
<td>(2.5)</td>
</tr>
<tr>
<td>Mean: First year after APA</td>
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<tr>
<td>Implied increase in poverty</td>
</tr>
</tbody>
</table>
Outline

1 Background
2 Data and Identification Strategy
3 Results
4 Distributional Effects
5 Conclusion
Recap of Main Results

- Increasing women’s pension age from 61.5 to 65.0 disproportionately affected low-wealth and single women
  - Some low-wealth and single women forced to delay retirement out of financial necessity, but little evidence of any labour supply response from married or more affluent groups of women
  - Increase in financial hardship among other low-wealth and single women, particularly those with a low level of education
  - Married women partly protected by spousal labour supply responses

- The reform had large distributional effects; my preferred estimates indicate that the reform
  - increased relative poverty among affected women by 38–78% (all among singles)
  - increased within-cohort inequality by 21%
Policy Implications

1. Future increases in APA likely to mainly affect low-wealth single households and reduce financial security of these households
   - Other ways to cut costs on benefits for elderly Australians
   - Complementary policies to address undesirable distributional effects
   - Long-term solutions should focus on boosting women’s retirement savings and employment opportunities/capacity near APA

2. More broadly: concerns about the equity of reforms that forcibly delay retirement benefits and their negative impact on the financial security of vulnerable households
Financial hardship strongly associated with very low wealth

**Definition: Poor or Very Poor Financial Situation**

- Women in Financial Hardship
- All other women

**Definition: Couldn’t pay mortgage/rent on time**

- Women in Financial Hardship
- All other women
## Number of Observations by APA Cohort and Age

<table>
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<th>APA Birth Cohort</th>
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<th>62.0</th>
<th>62.5</th>
<th>63.0</th>
<th>63.5</th>
<th>64.0</th>
<th>64.5</th>
<th>65.0-69.5</th>
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<td>January 1940 - June 1941</td>
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<td>July 1952 - December 1953</td>
<td>65.5</td>
<td>1162</td>
<td>55</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>January 1954 - June 1955</td>
<td>66.0</td>
<td>1036</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 1955 - December 1956</td>
<td>66.5</td>
<td>845</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After December 1956</td>
<td>67.0</td>
<td>740</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Schooling Distribution

Distribution of Years of Schooling

Percent

Highest Year of Schooling Completed

≤ 7  8  9  10  11  12
Estimates with Additional Controls

<table>
<thead>
<tr>
<th>Income Support</th>
<th>Labour Supply</th>
<th>Financial Hardship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Income Support</td>
<td>Total Income</td>
<td>In Labour Force</td>
</tr>
<tr>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td><strong>Baseline Estimates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age &lt; APA -18.42*** -2,636***</td>
<td>2.99</td>
<td>4.01**</td>
</tr>
<tr>
<td>(1.89)</td>
<td>(1.83)</td>
<td>(1.67)</td>
</tr>
<tr>
<td><strong>Including Survey-Wave Dummies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age &lt; APA -18.21*** -2,590***</td>
<td>3.04*</td>
<td>3.82**</td>
</tr>
<tr>
<td>(1.87)</td>
<td>(1.80)</td>
<td>(1.64)</td>
</tr>
<tr>
<td><strong>Including Controls for Physical and Mental Health</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age &lt; APA -19.17*** -2,602***</td>
<td>3.79*</td>
<td>4.54**</td>
</tr>
<tr>
<td>(1.99)</td>
<td>(1.95)</td>
<td>(1.78)</td>
</tr>
<tr>
<td><strong>Including Indicator for Age ≥ 60 &amp; After June 30, 2007</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age &lt; APA -18.12*** -2,598***</td>
<td>2.91</td>
<td>3.67**</td>
</tr>
<tr>
<td>(1.88)</td>
<td>(1.82)</td>
<td>(1.67)</td>
</tr>
</tbody>
</table>
## Placebo Estimates on Males

<table>
<thead>
<tr>
<th>Income Support</th>
<th>Labour Supply</th>
<th>Financial Hardship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Income Support</td>
<td>Total Income (1)</td>
<td>In Labour Force (3)</td>
</tr>
<tr>
<td>Age &lt; APA$_{\text{women}}$</td>
<td>0.31</td>
<td>0.31</td>
</tr>
<tr>
<td>(1.82)</td>
<td>(355)</td>
<td>(1.89)</td>
</tr>
</tbody>
</table>
## Estimates Testing for Anticipatory Behaviour

<table>
<thead>
<tr>
<th>Income Support</th>
<th>Labour Supply</th>
<th>Financial Hardship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Income Support</td>
<td>In Labour Force</td>
<td>Works 20+ hours per week</td>
</tr>
<tr>
<td>(1)</td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Total Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>APA (years)</td>
<td>2.84</td>
<td>-1.12</td>
</tr>
<tr>
<td>(4.83)</td>
<td>(5.58)</td>
<td>(2.11)</td>
</tr>
</tbody>
</table>

Testing for Anticipatory Behaviour at Age 55-61