How has gender income inequality in Ireland and the UK changed and why?

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Introduction

- Gender wage gap well studied
  - Goldin, 2014; Blau & Kahn, 2017
  - Falling slowly in most countries
- Also, lots of investigation of the gender work gap
  - Olivetti & Petrongolo (2008); Keller (2019)
  - Some convergence in participation rates but differences in work hours still considerable
Introduction

- Combining the gender wage gap and the gender work gap (and other factors) gives the gender gap in income
- Adding the tax-benefit system gives the gender gap in disposable income
  - Income concept which is the target of policymakers
- Growing literature examines the composition of this gap in a cross-country setting
Introduction

• Missing from this literature is:
  • Time series dimension. How is the evolution of the wage/work gap and the tax-benefit system affecting gender income inequality?
  • Consideration of some of the ‘other’ factors
    • Self-employment status
  • A distributional perspective
Introduction

• In this paper, we estimate the gender income gap in the UK and Ireland
  • across the income distribution
  • in a historical perspective
  • isolating the effect of gender gaps in self-employment from the usual factors
Employment & self-employment rates

Employment Rates - Male

Employment Rates - Female
Decomposing the gender income gap
Method

We follow Doorley & Keane (2023), similar to Avram & Popova (2022):

\[ C = \text{Gap}_M - \text{Gap}_D \]

\( \text{Gap}_M \) is the gender gap in market income and \( \text{Gap}_D \) is the gender gap in disposable income.

At specified quantiles, \( \tau \), of the disposable income distribution:

\[ C(\tau) = \text{Gap}_M(\tau) - \text{Gap}_D(\tau) \]
Method

We create counterfactual market and disposable income distributions for women:

• if they had a similar wage structure to men
• if they worked similar hours to men
• if they had similar self-employment status to men

This allows us to estimate the relative contribution of each of these to the gender gap in income
Method

We isolate the contributions of tax and benefit policy by introducing a benefit function, \( b(\cdot) \) and a tax function \( t(\cdot) \)

\[
D_i^b = b(w_i \ast h_i, s_i, y_i, X_i) \\
D_i^t = t(w_i \ast h_i, s_i, y_i, X_i)
\]

We then decompose the effect of the tax-benefit system on the gender gap in income across the income distribution:

\[
C(\tau) = \left( \text{Gap}_M(\tau) - \text{Gap}_{D^b}(\tau) \right) + \left( \text{Gap}_M(\tau) - \text{Gap}_{D^t}(\tau) \right)\\
\text{benefits} + \text{tax}
\]
Method

• We use EUROMOD for Ireland and UKMOD for the UK
• We only use systems where we have a match between the data and policy year
• We assume minimal income sharing between members of a couple
  • Upper bound estimate of the gender income gap but proxy for bargaining power
Gender gap in market income

Ireland

UK

Demographics

Gender gap in market income
Distribution of gender income gap over time

UK

IE
The distribution of the gender income gap

UK

IE

Decile 1 | Decile 2 | Decile 3 | Decile 4 | Decile 5 | Decile 6 | Decile 7 | Decile 8 | Decile 9 | Decile 10 | Total
---|---|---|---|---|---|---|---|---|---|---
Wage | Employment | Self-employment | Wage-work interaction | Other | Gender gap in market income

(4.00) | (3.00) | (2.00) | (1.00) | - | 1.00 | 2.00 | 3.00 | 4.00
8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19 | 8 13 16 19

Decile 1 | Decile 2 | Decile 3 | Decile 4 | Decile 5 | Decile 6 | Decile 7 | Decile 8 | Decile 9 | Decile 10 | Total
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Redistribution between men and women

Market
Tax
Benefit
Gender income gap

YEAR: UK08, IE08, UK09, IE10, UK12, IE12, UK15, IE15, UK18, IE18, UK19, IE19
Distributional impact of tax & welfare

IE

UK

Gender income gap

Market

Tax

Benefit
Conclusion

Cross-country similarities

• Gender income gaps increase with equivalised household income
  • Employment/self-employment gaps drive the gender income gap at the bottom of the income distribution.
  • Wages and unobserved/other factors push it up at the top of the income distribution
• The tax-benefit system reduces the gender income gap by 1/3. Tax does most of the work although benefits play a role at the bottom of the income distribution.
Discussion

Cross-country differences

• The gender gap in employment/self-employment is higher in IE than the UK

• The gender gap in pay is a larger component of the gender income gap in the UK than Ireland

• Benefits cushion the gender income gap more in the UK than Ireland