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# Peer gender norms and gender gaps in the Australian labour market

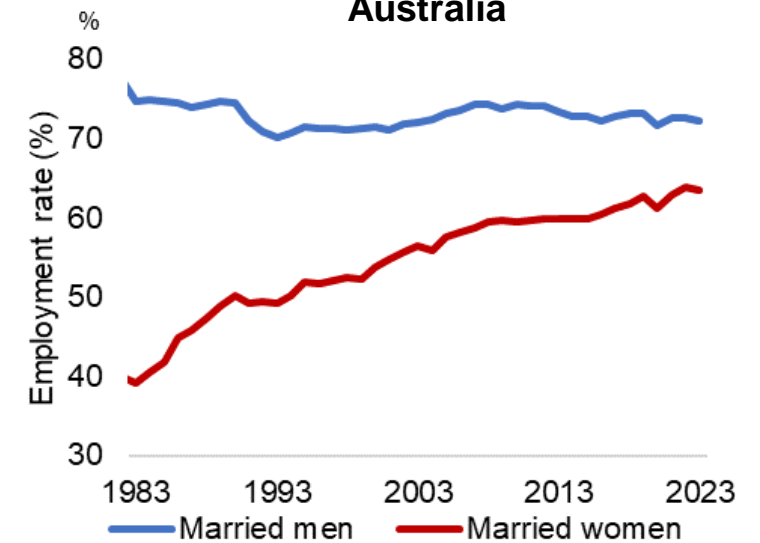
Australian Conference of Economists, 10 July 2023

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## Main idea

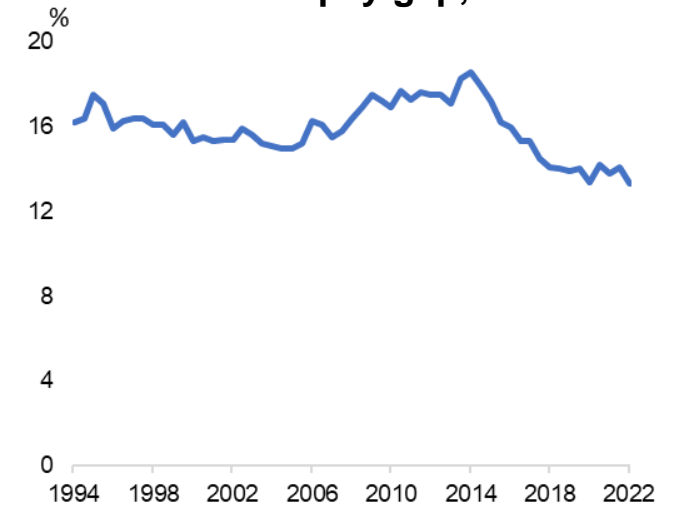
- The past 40 years has seen dramatic convergence in the labour outcomes of women and men in Australia.
  - Narrowing of gender gap in employment and pay, rise of dual earner families – largely driven by “catching-up” of women’s relative human capital
- Australian women face persistent gaps in the labour force:
  - Higher labour force participation gap than in the UK or Canada;
  - One of the highest loads of unpaid domestic work in the OECD, around twice that of men;
  - Flatlined gender pay gap (13.3%)
- International literature has increasingly focused on “gender norms” in contributing to remaining gender gaps (Guiso, Sapienza & Zingales, 2006; Manski, 2000; Bisin & Verdier, 2011; Alesina & Giuliano, 2014)
  - **Women with more “conservative” attitudes may experience lower employment and earnings than women with more “egalitarian” attitudes**
- We test the effect of peer gender norms on the labour market outcomes of Australian women, using survey data from 2 decades of nationally representative HILDA Survey

**Chart 1: Employment to population ratio, Australia**



Source: ABS Labour Force Detailed.

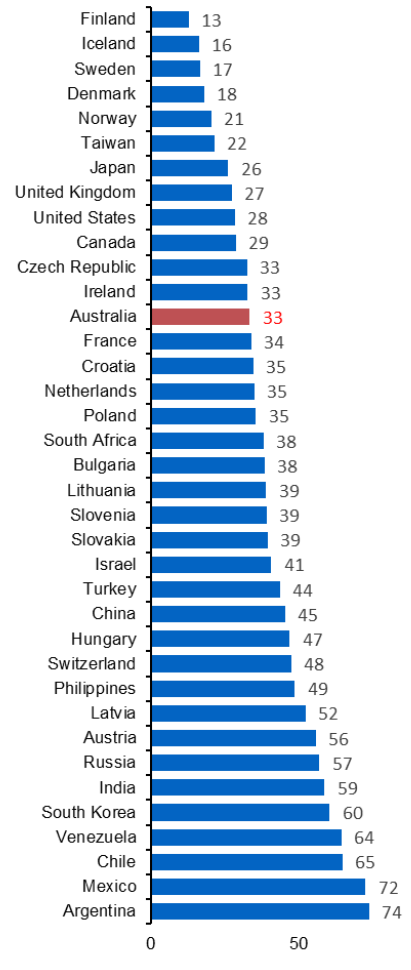
**Chart 2: Gender pay gap, Australia**



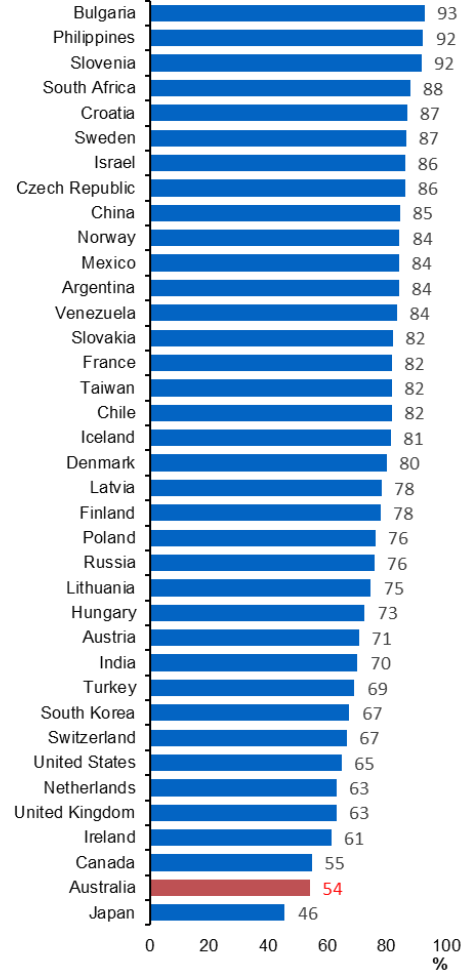
Source: ABS Average Weekly Earnings, Australia.

# Australians have relatively conservative gender norms

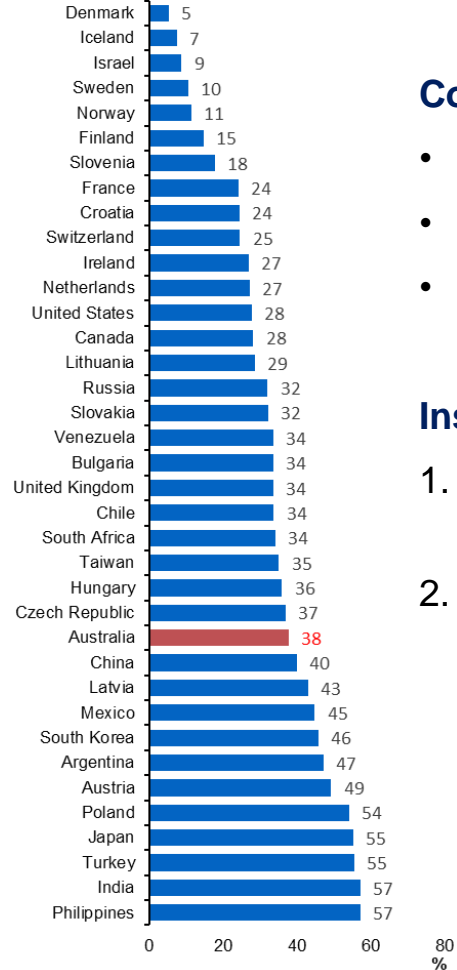
**A Agree that 'family suffer if woman works full-time'**



**B Agree that 'both spouses should contribute to income'**



**C Agree that 'woman should stay home if their child is under school age or in school'**



## Conservative gender norms also reflected in:

- A higher gender participation gap than UK or Canada
- A higher gender pay gap than the OECD average
- A more inequitable distribution of unpaid work

## Institutional policy settings

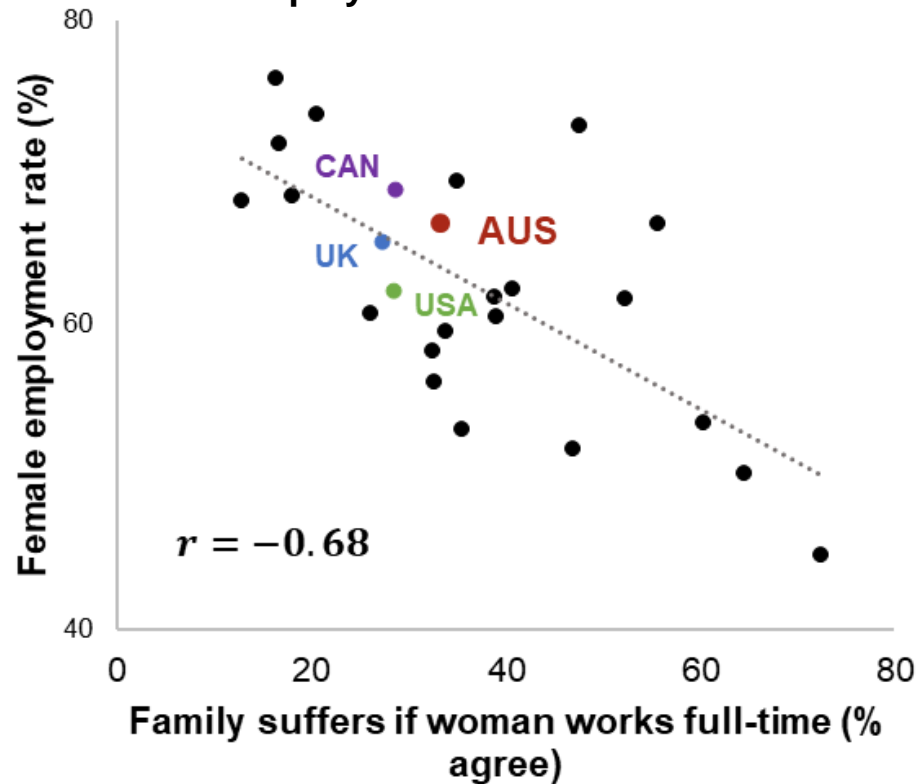
1. High effective tax rates for women accessing childcare to move into full-time work;
2. Paid Parental Leave settings – second-last country in OECD to introduce national PPL, remains around half the entitlement (26 weeks) of the OECD average (51 weeks)

- Only 12% of PPL claims made by men

Source: authors analysis based on International Social Survey Programme (2012).

# Conservative gender norms are associated with lower female employment across countries

Chart 4: Relationship between gender norms and the female employment rate OECD 2012

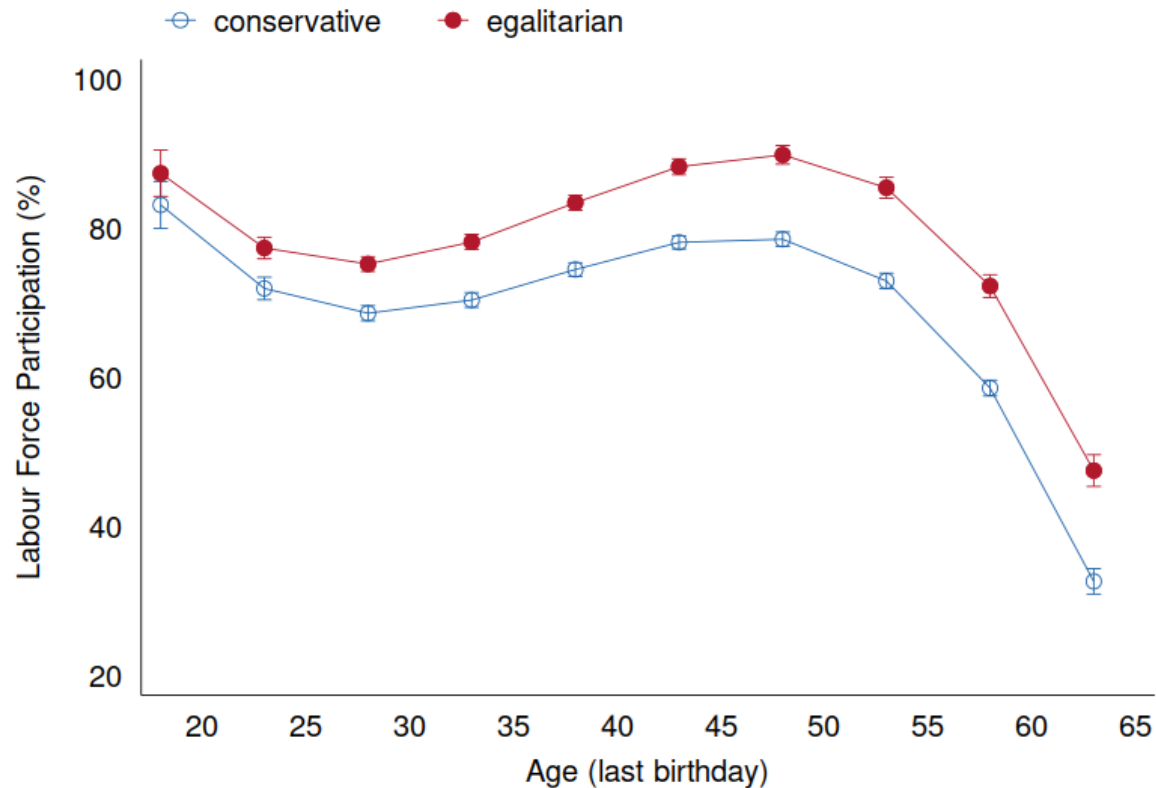


- Across countries, **more egalitarian gender norms** are associated with:
  1. **Higher female employment**
  2. **A higher share of dual earners, and**
  3. **A lower gender employment gap**
- Relationships also hold across SA4 regions in Australia using gender norms from HILDA and labour data from ABS Labour Force Survey

Source: authors analysis based on OECD LFS indicators (2012). International Social Survey Programme (2012).

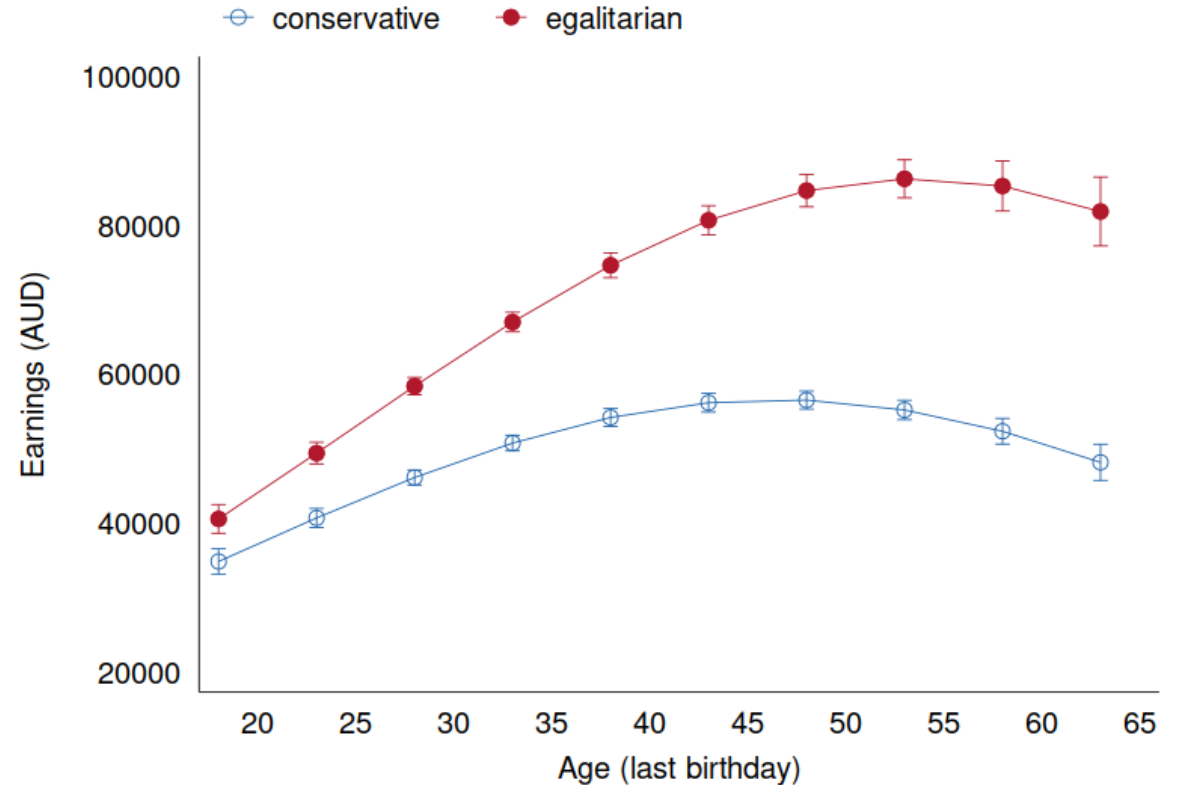
# Gender norms have significant effects on women's labour force outcomes in Australia

**Chat 5: Relationship between gender norms and female lifetime labour force participation**



Note: comparison of women with gender norms 1 std dev above mean to those below this level.  
Source: authors analysis based on HILDA Wave 19 (sample from Waves 1, 5, 8, 11, 15, 19).

**Chat 6: Relationship between gender norms and female lifetime earning trajectories**



Note: comparison of women with gender norms 1 std dev above mean to those below this level.  
Source: authors analysis based on HILDA Wave 19 (sample from Waves 1, 5, 8, 11, 15, 19).

## Our present study

- **We estimate the effect of peer gender norms on the labour market outcomes of Australian women**
- Empirical strategy – follows the peer-effects methodology used in the UK by Cavapozzi et al (2021)
  - Uses cross-sectional variation across peer groups, with variation coming from an individual's country of birth
  - Borrows from the 'epidemiological perspective' of culture, wherein culture is identified with gender norms based on an individual's country-of-birth (Fernandez, 2007; Fortin, 2005, 2015; Guiso et al., 2006; Deutscher, 2020)
- Contributions
  1. (To our knowledge) **one of the first attempts to directly quantify the effects of gender norms on female labour market outcomes within Australia**
    - Existing Australian studies on male breadwinner norm and: domestic violence (Bruenig & Zhang, 2022); marital satisfaction (Foster & Stratton, 2021); male-biased sex ratios and occupational segregation (Grosjean & Khattar, 2019)
  2. Second study internationally to examine the effects of peer gender norms (building on Cavapozzi et al (2021) UK study)
  3. Using directly assessed gender norm attitudes based on 6 waves of nationally representative data (HILDA) spanning nearly two decades

# Data

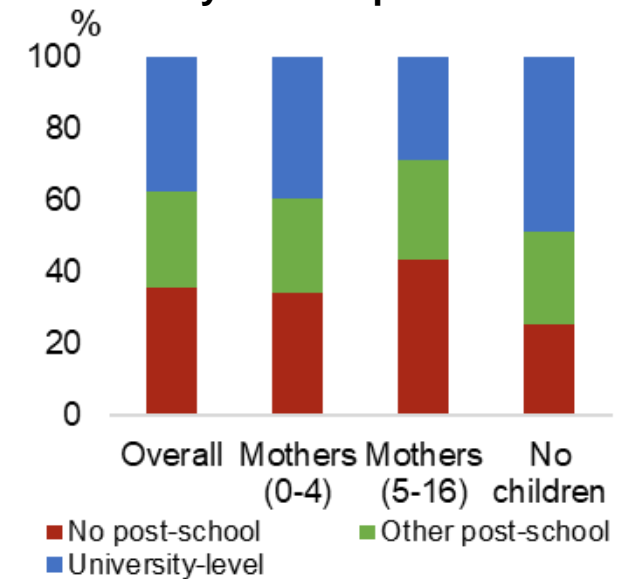
## Household, Income and Labour Dynamics in Australia (HILDA) Survey

- Annual panel dataset of Australian households conducted from 2000-01 to 2020-21 financial years.
- Define our sample as women who were identified as living in a mixed-sex partnership or marriage and aged between 25 and 45 (women who are likely to have completed their formal education and during peak fertility years).
- Need to be observed in at least one wave where Attitudes and Values module was administered (waves 1, 5, 8, 11, 15, 19).
- Immigrants represent 20-25% of our sample in each year.

Our analysed sample is based on 12,425 observations of partnered women aged between 25-45 years old:

- 4,696 observations of mothers with children aged 0–4 years
- 4,286 observations of mothers with children aged 5-16 years
- 3,156 observations of partnered women with no dependent children.

**Chat 7: Educational attainment by subsample**



Source: Author analysis based on HILDA Survey Wave 19 (sample from Waves 1, 5, 8, 11, 15, 19).

## Methods – defining peer groups

- Follow literature to **define homogenous peers, based on women sharing the birth cohort, country of birth group, and broad educational attainment (time-invariant group membership)**
  1. Birth cohorts – based on 5-year age windows and separately grouping individuals born pre-1965 or post-1986
  2. Country of birth group – using minor group classifications published in the Standard Australian Classification of Countries (2016)
  3. Educational attainment – Bachelor or above (including postgraduate degree), other post-school (Diploma or Certificate level), or no post-school qualification
  
- Baseline analysis uses 208 peer groups, with a median size of 38.5 peers.
  
- Control for age and educational attainment so variation comes through country of birth (plausibly exogenous)
  - Cross-sectional variation alleviates potential concerns over non-random attrition



## Methods – defining gender norms

Attitudes and Values module (waves 1, 5, 8, 11, 15, 19) asks respondent's on a 7-point Likert scale the extent to which they agree (disagree) with the following various normative claims about the role of women in society:

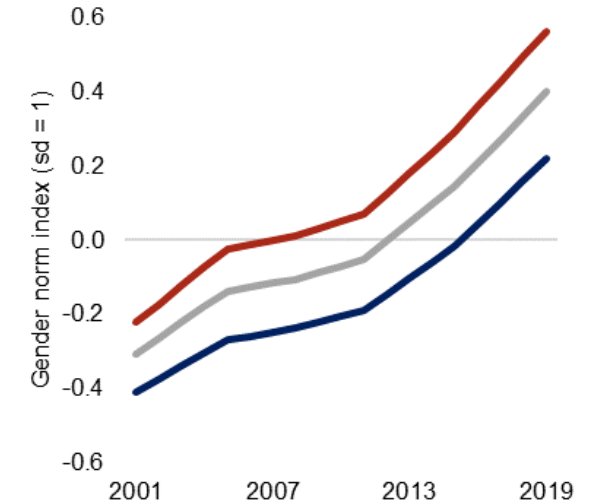
1. If both partners in a couple work, they should share equally in the housework and care of children;
2. Whatever career a woman may have, her most important role in life is still that of being a mother;
3. Mothers who don't really need the money should not work;
4. Children do just as well if the mother earns the money and the father cares for the home and children;
5. It is better for everyone involved if the man earns the money and the woman takes care of the home and children;
6. A working mother can establish just as good a relationship with her children as a mother who does not work for pay.

- **Two-step approach to constructing our index of gender norms:**

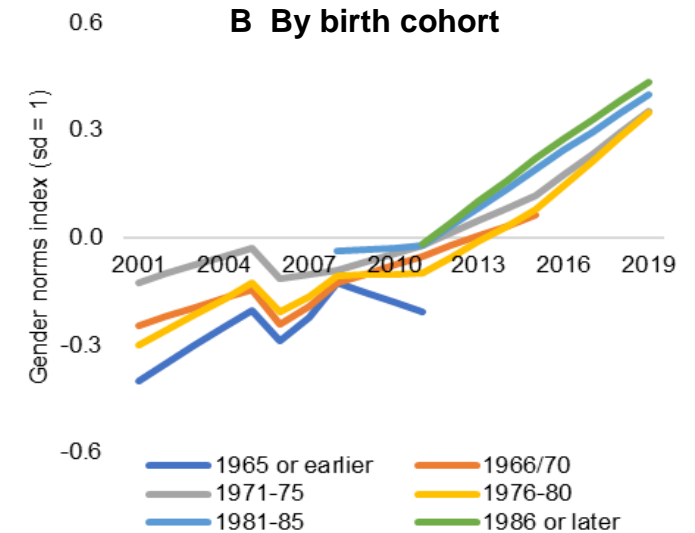
1. Perform factor analysis to produce a composite index of gender norms for each individual
2. Take a “leave-one-out” average  $\bar{g}_{-i}$  across peer groups (excluding the focal individual)
  - Normalise index over peer groups to have mean zero and standard deviation of 1

**Chart 8: Gender norms**

**A By gender**



**B By birth cohort**



Source: Author analysis based on HILDA Survey Wave 19 (sample from Waves 1, 5, 8, 11, 15, 19).

## Methods – econometric specification

### Baseline OLS:

$$Y_{ic} = \alpha + \delta \bar{g}_{-i} + \gamma^k X_{ic} + \tau_c + \theta_d + \varepsilon_{ic}$$

where: we investigate the relationship between outcomes  $Y$  of individual  $i$  at survey wave  $c$  of peer gender norms  $\bar{g}_{-i}$  after controlling for individual and household characteristics ( $X_{ic}$ ), year fixed effects ( $\tau_c$ ), SA4 fixed effects ( $\theta_d$ ) and

error  $\varepsilon_{ic}$

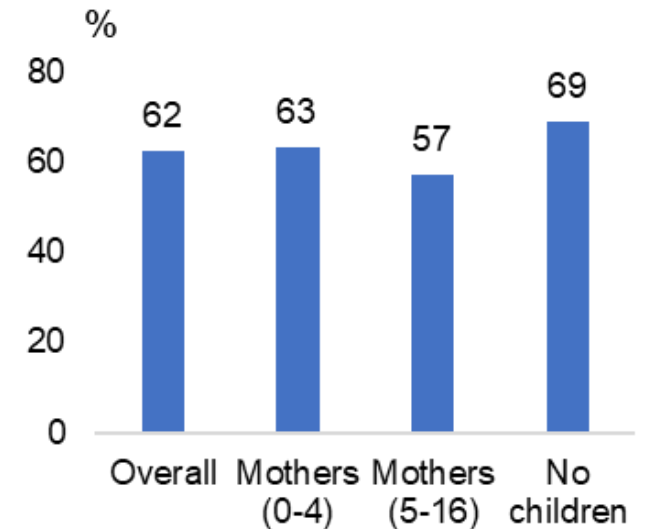
- **Treatment effect ( $\delta$ ) – average marginal effect of a one-standard deviation shift in peer gender norms (becoming more egalitarian)**

### IV estimation:

We instrument peer gender norms with “leave-one-out” average likelihood that peer’s mother was employed when peer was aged 14

- Interactions between peer’s mother and focal woman are uncommon: controls for reverse causality and endogeneity
- Also control for whether focal woman’s mother was employed when she was aged 14

**Chat 9: Share of women whose mother was employed when aged 14**



Source: Author analysis based on HILDA Survey Wave 19 (sample from Waves 1, 5, 8, 11, 15, 19).

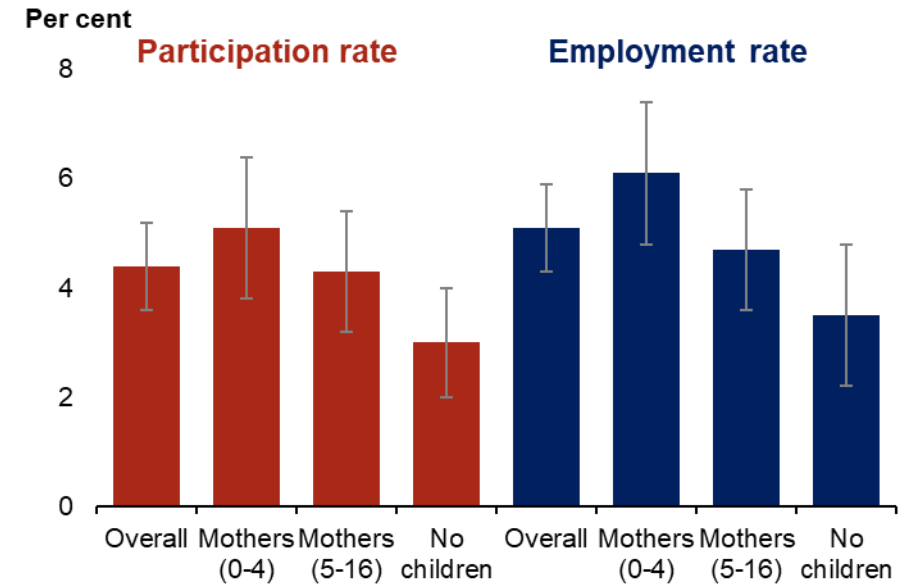
## Three domains of outcomes

- 1. Individual labour market outcomes** – do women from more egalitarian peer groups experience better labour market outcomes?
- 2. Household labour market outcomes** – are women from more egalitarian peer groups more likely to belong to dual earner couples and have higher couple incomes?
- 3. Non-market outcomes** – do women with more egalitarian peers take on a higher or lower share of unpaid household work and experience higher life satisfaction?

## Women with more egalitarian peers work more

- **Women with more egalitarian peers experience an increased likelihood of:**
  - 1. Labour force participation** (+4.4 ppts using OLS, or +6.2 ppts with our IV)
  - 2. Employment** (+5.1 ppts using OLS, or +7.4 ppts with our IV).
- In 2023 terms, such a shift in gender norms would **boost female employment by almost 200,000 jobs per year** which is equivalent to **reducing the gender gap in employment these age groups by up to 75%**

**Chart 10: Estimated OLS effect of gender norms on female labour supply**

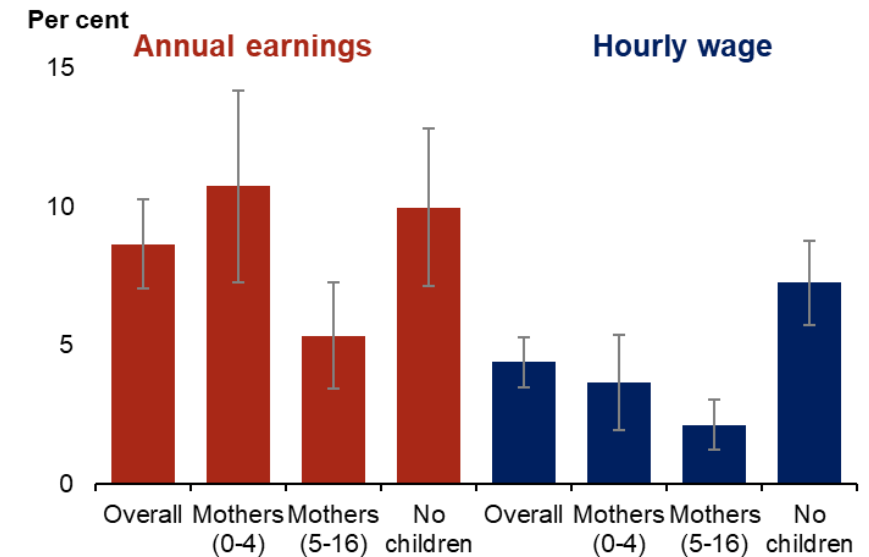


Source: Authors analysis of HILDA Wave 19.0 (sample from Waves 1, 5, 8, 11, 15, 19).

## Women with more egalitarian peers earn more

- A **one-standard deviation shift toward gender norms becoming more egalitarian would lift annual incomes for full-time female employees by 8.7%** (9.4% with IV)
  - Compares to a gender pay gap in February 2023 of 13.3%, suggesting **such a shift could eliminate two thirds of the gender pay gap**
  - Equivalent to increasing average real income for women by \$4,500 per annum
- Would also increase hourly wages for women by 4.4% (6.6% with IV)
  - Equivalent to an **additional \$1.08 to \$1.63 per hour** or a **quarter of the gender wage gap**

Chart 11: Estimated OLS effect of gender norms on female earnings

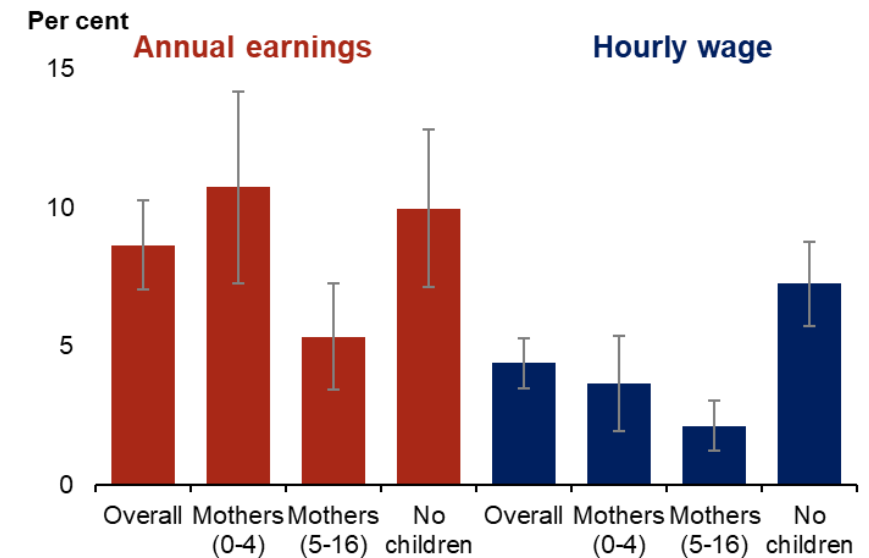


Source: Authors analysis of HILDA Wave 19.0 (sample from Waves 1, 5, 8, 11, 15, 19)

## Women with more egalitarian peers have higher household earnings

- **Women with more egalitarian peers are more likely to belong to dual earner households** (+6.0 ppt with OLS, or +8.8 ppt with IV)
  - Strongest for mothers of young children (+6.9 ppt with OLS, +11.1 ppt with IV)
  - Making gender norms more egalitarian could boost female employment without a corresponding reduction in husband's labour supply
- These women also experience **higher household earnings, equivalent to an additional \$8,500 to \$16,000 per year**
  - Estimated at +10.0% (with OLS) or +18.5% (with IV)
  - Women with more egalitarian peers account for a higher share of couple incomes (+7.8% or 2.3 ppt)

**Chart 12: Estimated OLS effect of gender norms on female earnings**

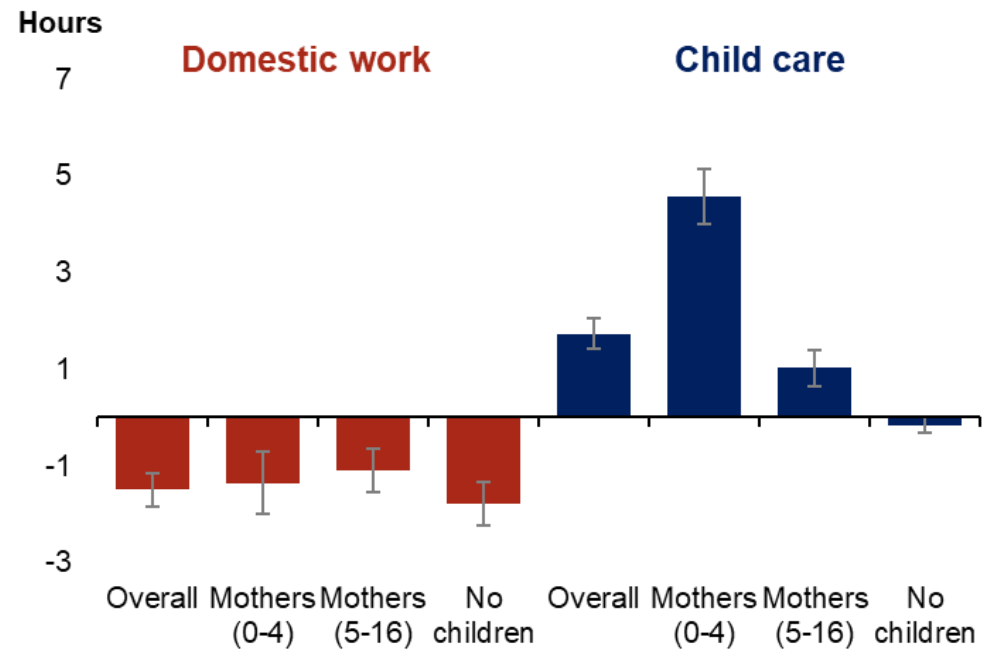


Source: Authors analysis of HILDA Wave 19.0 (sample from Waves 1, 5, 8, 11, 15, 19)

# Women with more egalitarian peers take on less domestic work but more childcare

- **Women with more egalitarian peers take on a lower level of domestic work** (-1.5 hours per week with OLS, -1.4 hours per week with IV)
  - Result is robust to controlling for hours worked
  - Small impact on female's overall share of domestic work within couples (-1.3%)
- **Reduction in domestic work is more than offset by increased childcare** (+1.7 hours per week with OLS, +2.7 hours per week with IV)
  - This equates to an increase in a woman's share of childcare by 3.6%
- Women with more egalitarian peers report lower levels of satisfaction with the spousal division of childcare and domestic work
  - May seek to compensate for working more (deviation from prescribed social norm for women) through taking on more childcare?

**Chart 13: Estimated OLS effect of gender norms on female unpaid work**



Source: Authors analysis of HILDA Wave 19.0 (sample from Waves 1, 5, 8, 11, 15, 19)

## Women with more egalitarian peers experience higher overall life satisfaction

- **The costs of conservative gender norms are not simply economic: they are an important determinant of a woman's individual wellbeing and life satisfaction**
  - Results are not driven by greater affluence (we control for household income)

**Chart 14: Estimated OLS effect of gender norms on female life satisfaction**



Source: Authors analysis of HILDA Wave 19.0 (sample from Waves 1, 5, 8, 11, 15, 19)



## Discussion and some policy considerations

- **Australia has conservative gender norms which impose costs on women:** lower workforce participation and earnings, lower overall life satisfaction.
  - Estimated effects of a one standard deviation shift toward gender norms becoming more egalitarian on the employment of young mothers (+6.1 ppt) are almost those estimated in the United Kingdom by Cavapozzi et al (2021) at 3.8 percentage points
- **Government policy has an important role to play in generating cultural change and this can unlock significant economic benefit.**
  - Tax and welfare policies penalise secondary income earners looking to move into full-time work
  - Normalising men's role as active fathers through further reforms to PPL and flexible work
  - Ensuring accessible and affordable childcare (highest barrier faced by women looking to participate more)

# Peer gender norms and gender gaps in the Australian labour market

Australian Conference of Economists, July 10

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