

# The Gender Pay Gap: Evidence from the National Child Development Study

Heather Joshi Alex Bryson  
Kelly Ward Dave Wilkinson  
*Department of Social Sciences*  
*UCL-Institute of Education*

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# Why the gender pay gap matters

- Unequal rates of pay underpin gender inequality in lifetime income
- Unequal pay for men and women similarly qualified for same work is unfair, unlawful and inefficient.
- Domestic and market roles reinforce each other
- The difference between men's and women's pay likely to be the outcome of a complex interplay of human capital and family attributes over the life course.

## The context

- Secular reduction of gap across time, but tends to rise with age within each cohort in mid life
- The 1958 cohort reached the labour market in mid '70s- the early years of the Equal Pay Act. They have been followed to age 55, but the gender wage gap remains substantial for this cohort as well as the labour force at large.
- Our longitudinal data on human capital and family circumstances in the British cohort born in 1958 helps to unpack differential treatment in the labour market from gender differences in endowments

# Questions Addressed

1. What did the gender wage gap look like over the life-course of the 1958 cohort?
2. How much of the gender wage gap is accounted for by differences in life-course accumulation of human capital?
3. What was the role of partnership and childrearing?
4. Does the gender premium apply to full-time employment?
5. Does it apply to those who don't have children?

# Preview Findings

1. The gender wage gap displayed a **mid-life hump - Inverted U**
2. **Around half** the gap accounted for by differences in life-course accumulation of human capital
3. The role of partnership and childrearing in the account is mainly in **differential rates of remuneration for men and women**
4. The gender premium **applied to full-time employment** - setting part-timers aside
5. It also applied, **to a lesser extent** to those who don't have children

# Model

- **Dependent Variable**
  - Hourly wages at time of interview, if observed
    - RPI deflated
- **Blocks of controls**
  - **ED Education – highest qualification**
    - plus
    - Region at interview: London +Southeast v rest of GB
    - Number of previous obs in wage sample
  - **EXP Work history**
    - months in full and part-time jobs over all years since school leaving
    - Months in current job
  - **FAM Family composition**
    - Presence of a partner, dependent children by age, +ever been a co-resident parent

# Methods

An accounting exercise not an exploration of causality

- FILM Fully Interacted Linear Matching
  - Estimating gender difference in all treatment parameters
  - Taking each sweep separately
- Decomposition - Oaxaca Blinder
  - Explained gap, parameter gap, interaction of remuneration and attributes
  - $E(X_m) - E(X_f)]' \beta_f + E(X_f)'(\beta_m - \beta_f) + [E(X_m) - E(X_f)]' (\beta_m - \beta_f)$
  - Reporting parameter gap weighted by female attributes
- Analysis of sub-groups
  - Full-time employees only
  - Employees who have not yet had children

No attempt (yet) to allow for missingness, selection or endogeneity of education, experience or parenthood

# Data

National Child Development Survey (NCDS)

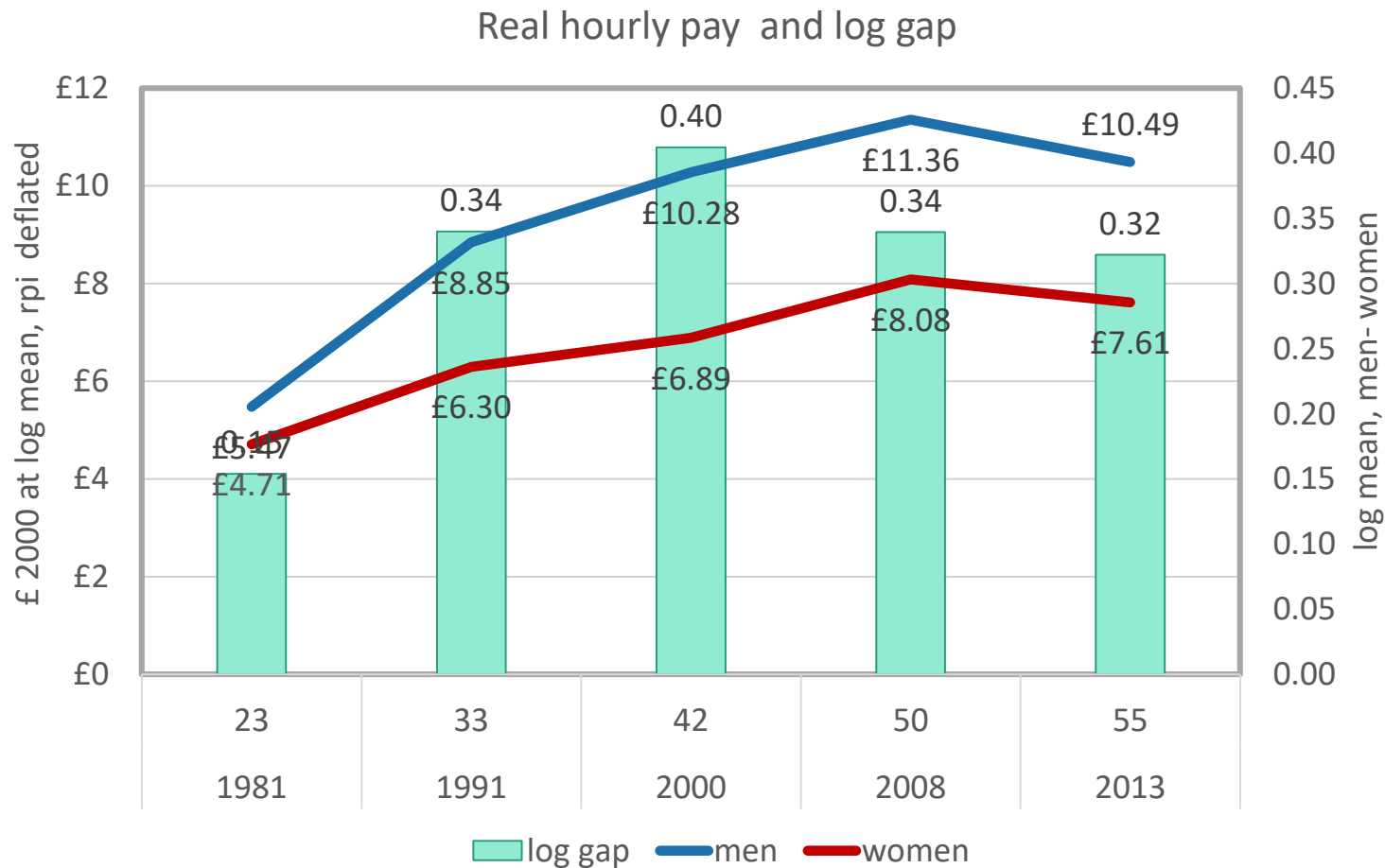
1958 Birth cohort, GB, 18,000 born in a week.

Sample sizes in 5 adult sweeps used here

AGE	23	33	42	50	55
Cohort members in contact	6267	5634	5626	4822	4433
Men					
Women	6270	5835	5793	4968	4704
Wage sample					
Men	4263	3691	3567	2801	2346
Women	3585	3050	3464	3108	2546

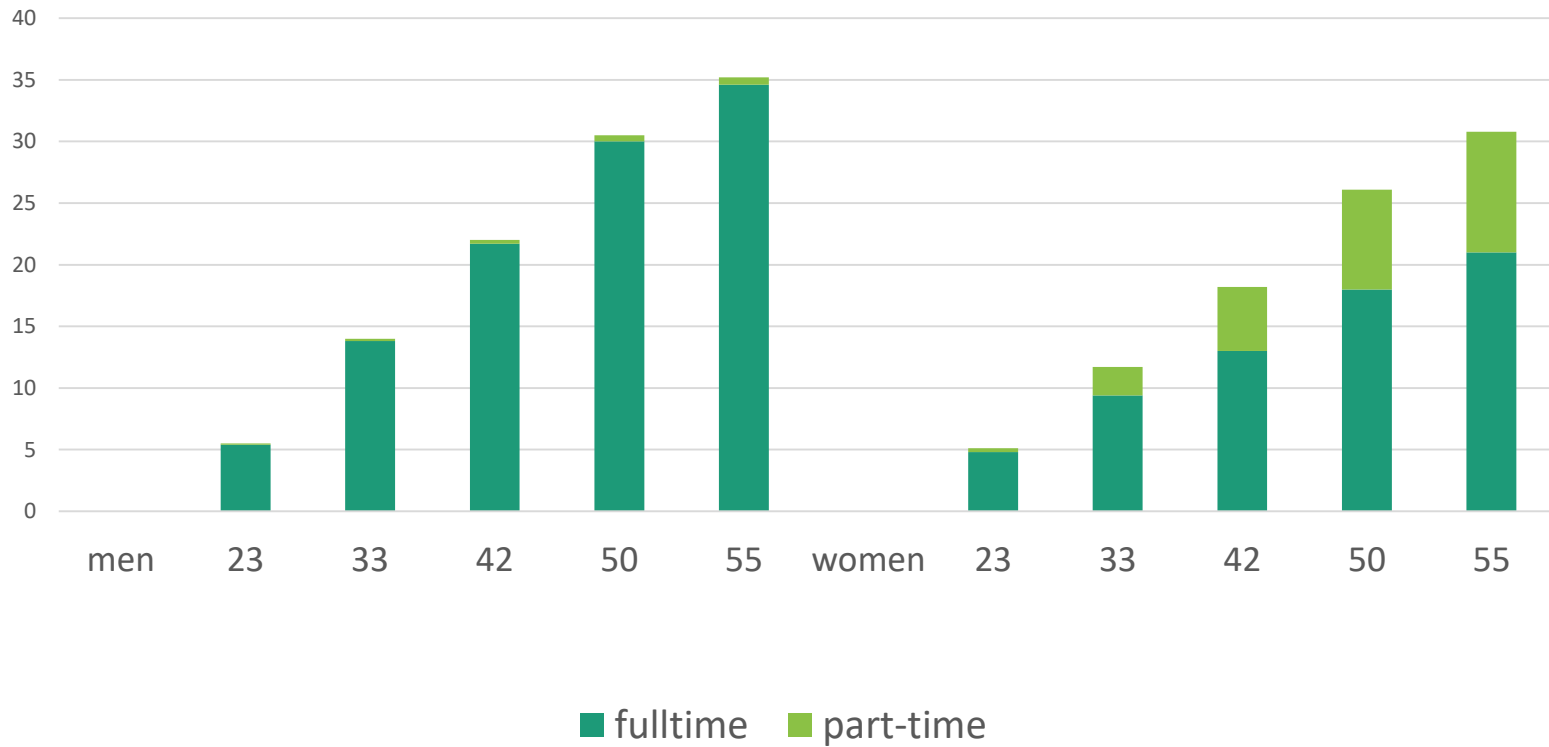


# Wages and the raw log gap, men and women employees, NCDS

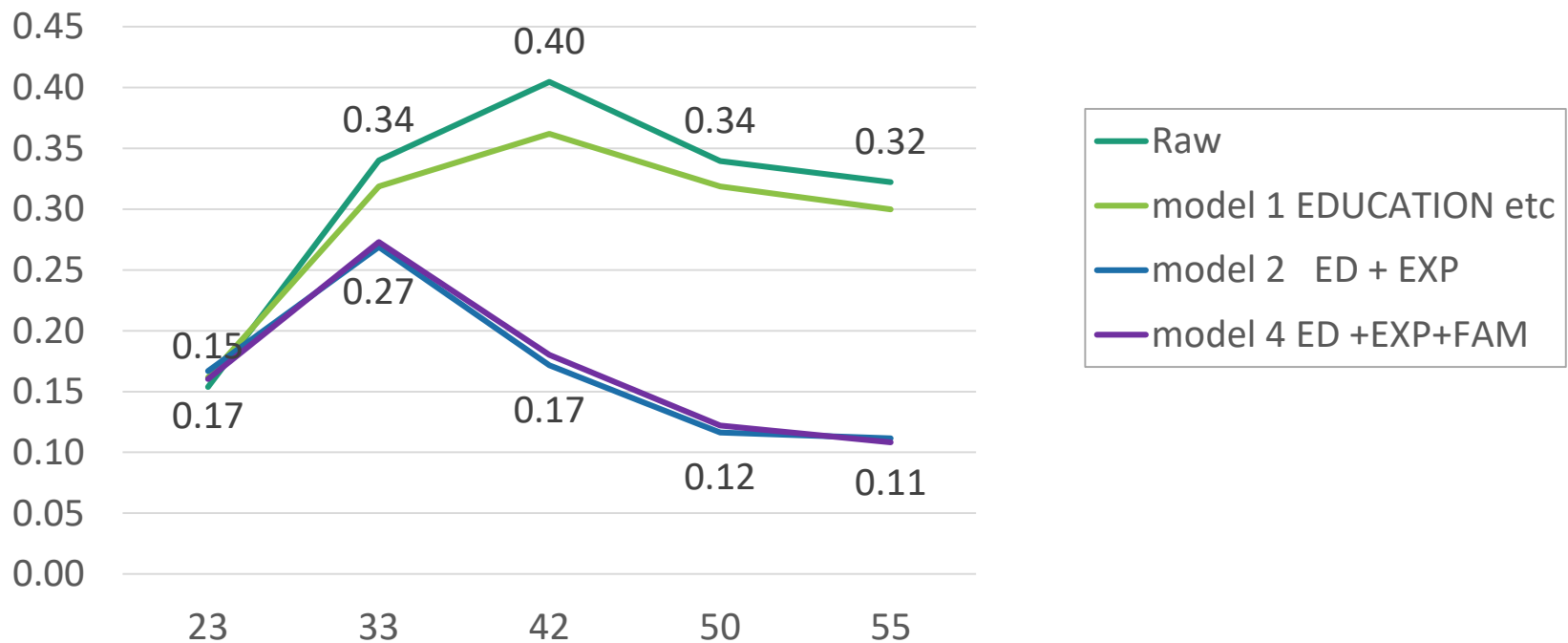


# The work experience of employees

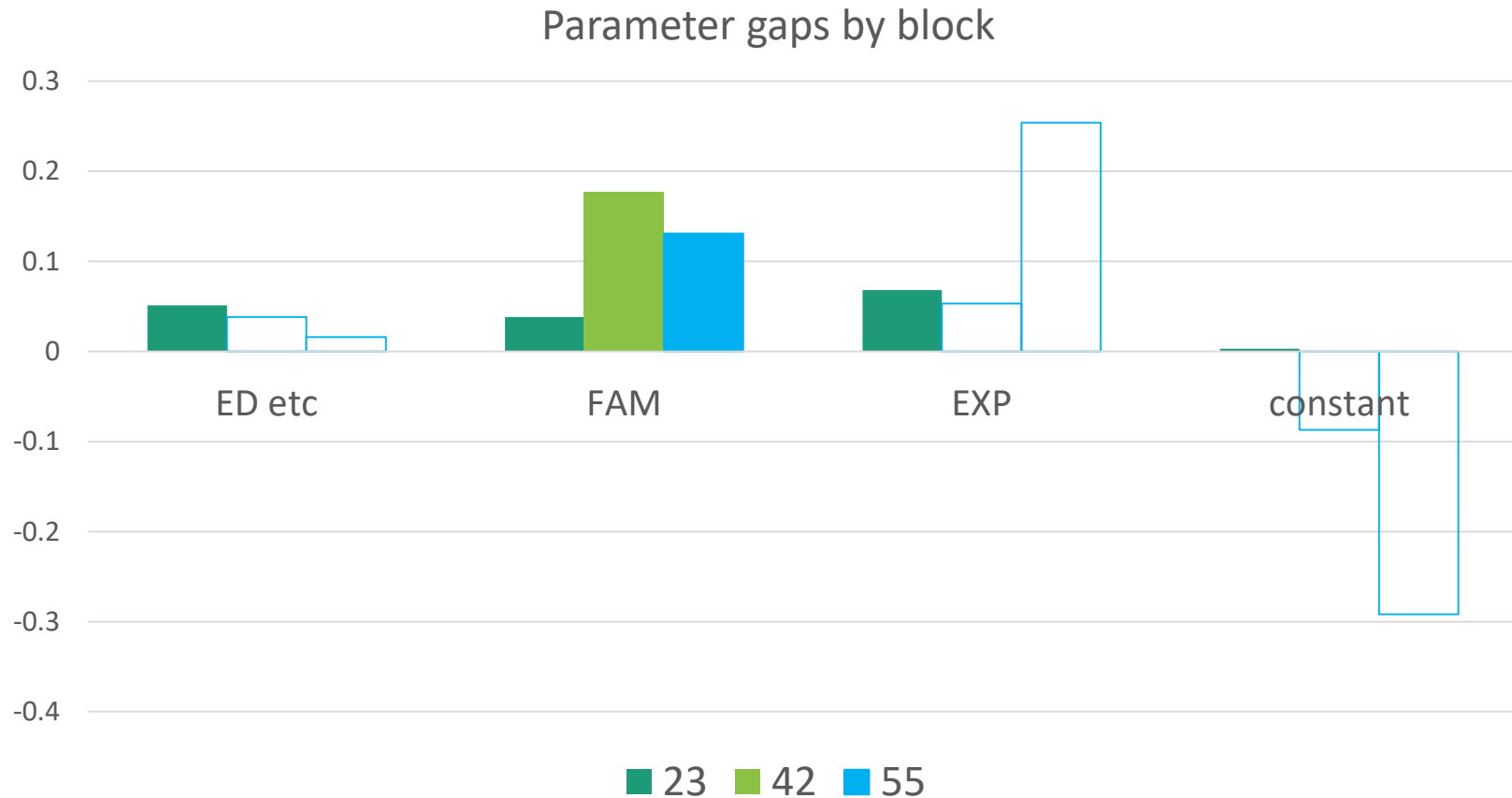
Years of work experience: wage samples



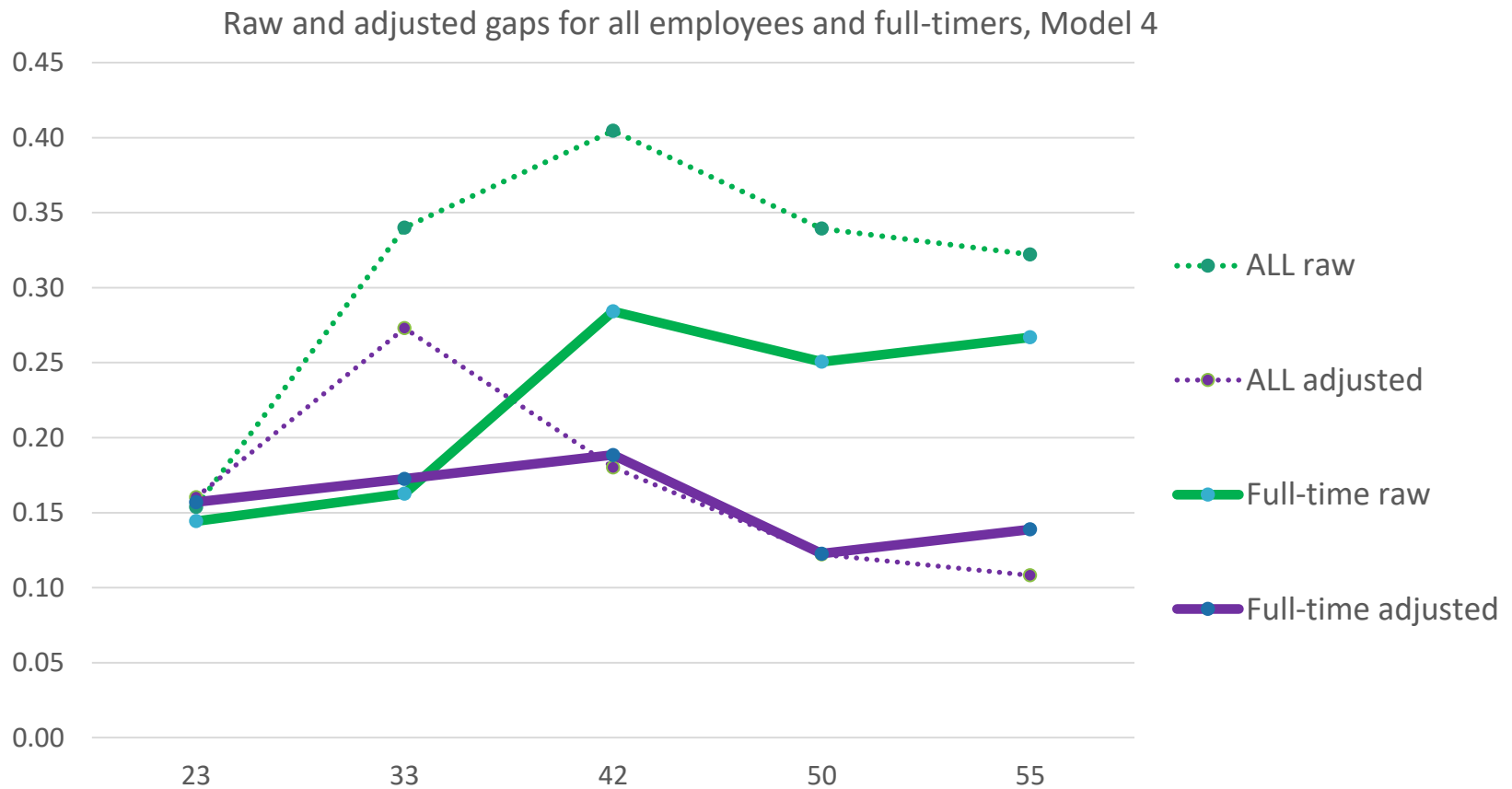
# Gender pay gap: raw and unexplained (parameter) gaps



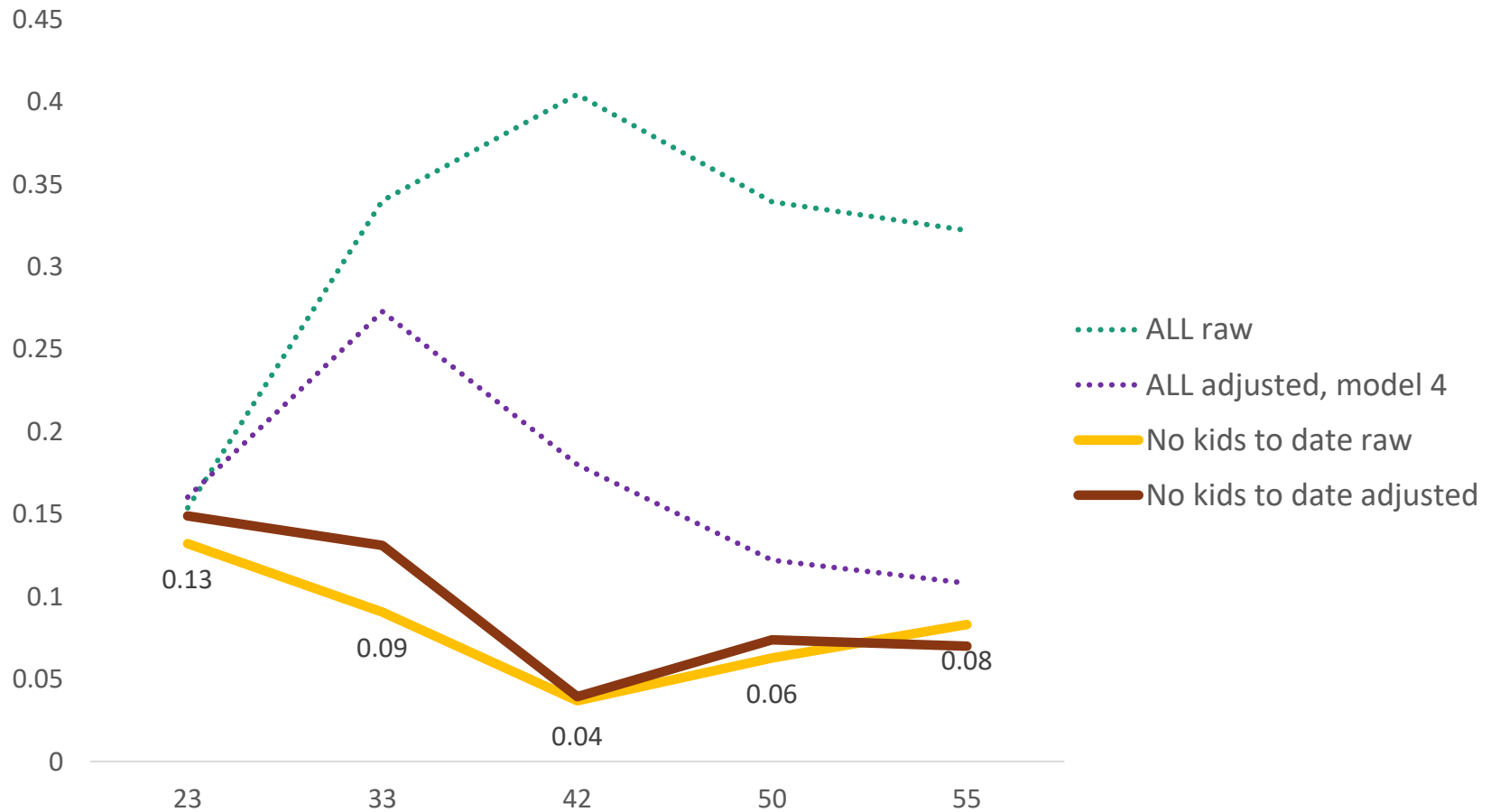
# Where do parameters differ? model 4 selected ages



# Do Full-timers escape the gender penalty?



# Do women who have not (yet) become parents escape the penalty?



# Summary

In this single cohort, the **raw gender wage gap**, non-zero at outset, peaked in mid life, then narrowed slightly. Life cycle dominates historical time in shaping the profile. Women's deficit on full-time experience pushes up the 'hump', but does not eliminate all of the gender premium.

## **Full-timers face residual 'unexplained' pay gap as well as part-timers**

Apart from age 33 when many women work part-time, the gender premium for full-timers is similar to all workers and did not decline much over time.

## **Role of family responsibilities?**

Family in the home not so very different for male and female employees, but remuneration is a-symmetric: apparent asset for men, liability for women.

## **Not all about children.**

Parenthood is not the sole source of pay gap, there was an unexplained 'penalty' for women who have not had children, towards career end as well as mothers.

# Conclusion

- A differential wage for men and women with equivalent attributes still remains 'unexplained'
- Affects women without children as well as mothers.
- The gender a-symmetry of pay to parents may reinforce gender divisions between paid work and reproduction.
- The 'Gender Wage Gap' warrants the renewed attention of policy it is now receiving
- ...and further less superficial investigation which we are now undertaking in this and other cohorts.



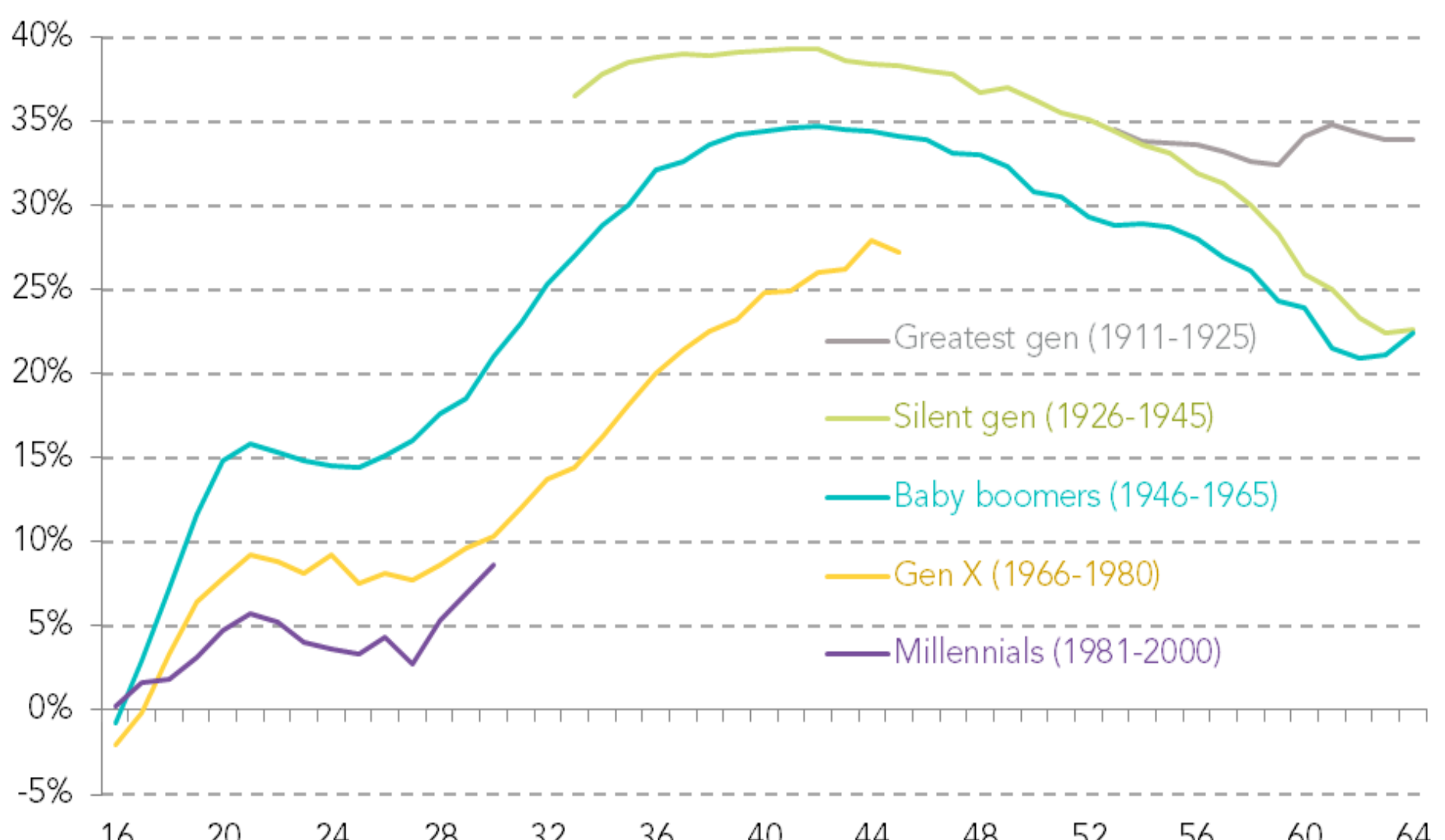
Spare slides

# The Gender Premium as residual

- After allowing for different ‘endowments’ of human capital and family responsibilities, ‘unexplained’ gaps in remuneration may arise from:
  - Discrimination
    - Sexism, harassment, statistical discrimination
  - Compensating Differentials
    - People trading flexibility for lower pay more likely to be women
    - Or avoiding dangerous/ uncomfortable/ physically demanding jobs
  - Different bargaining power in wage setting and promotion
    - Men have more freedom to find good job match
  - Different expectations of the impact of family roles
  - Different measurement errors

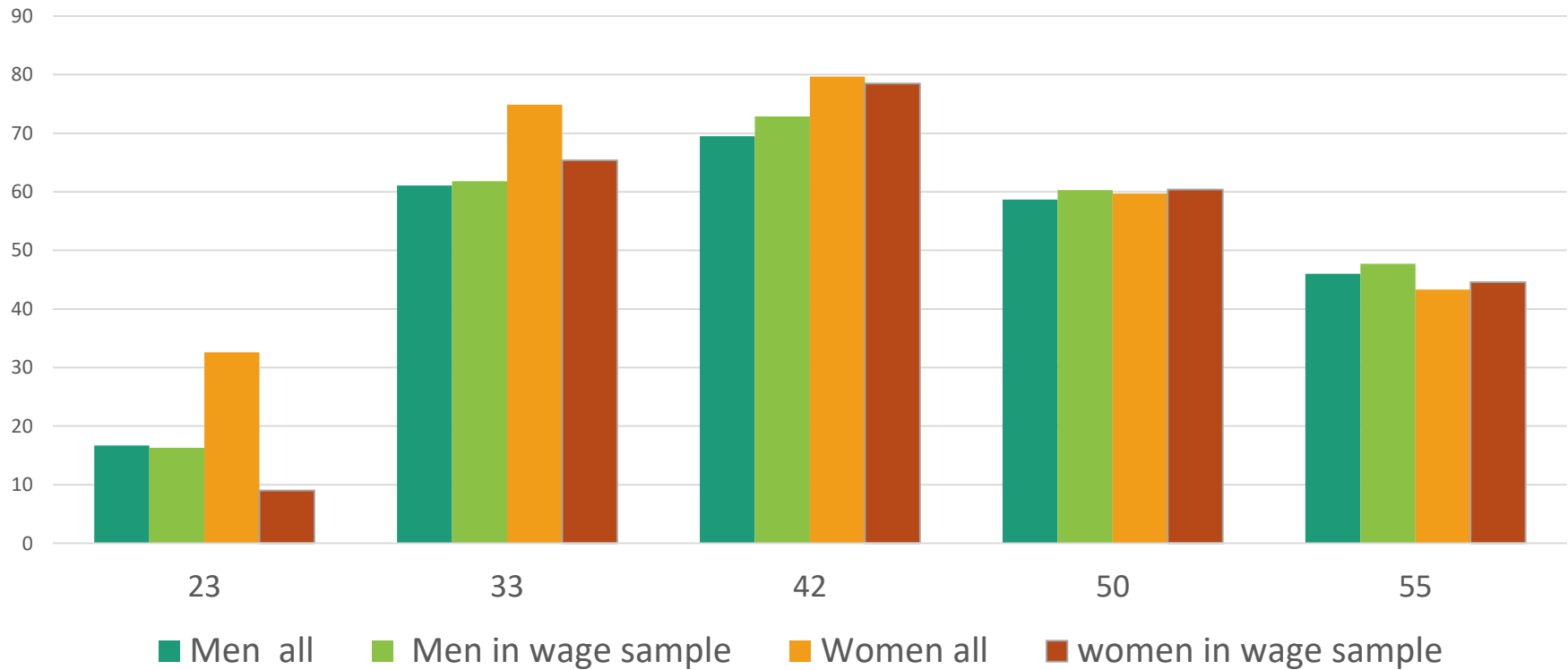
# National background Gardiner 2017 quasi cohorts

*Gender pay gap for median gross hourly earnings, by generation: UK, 1975-2016*



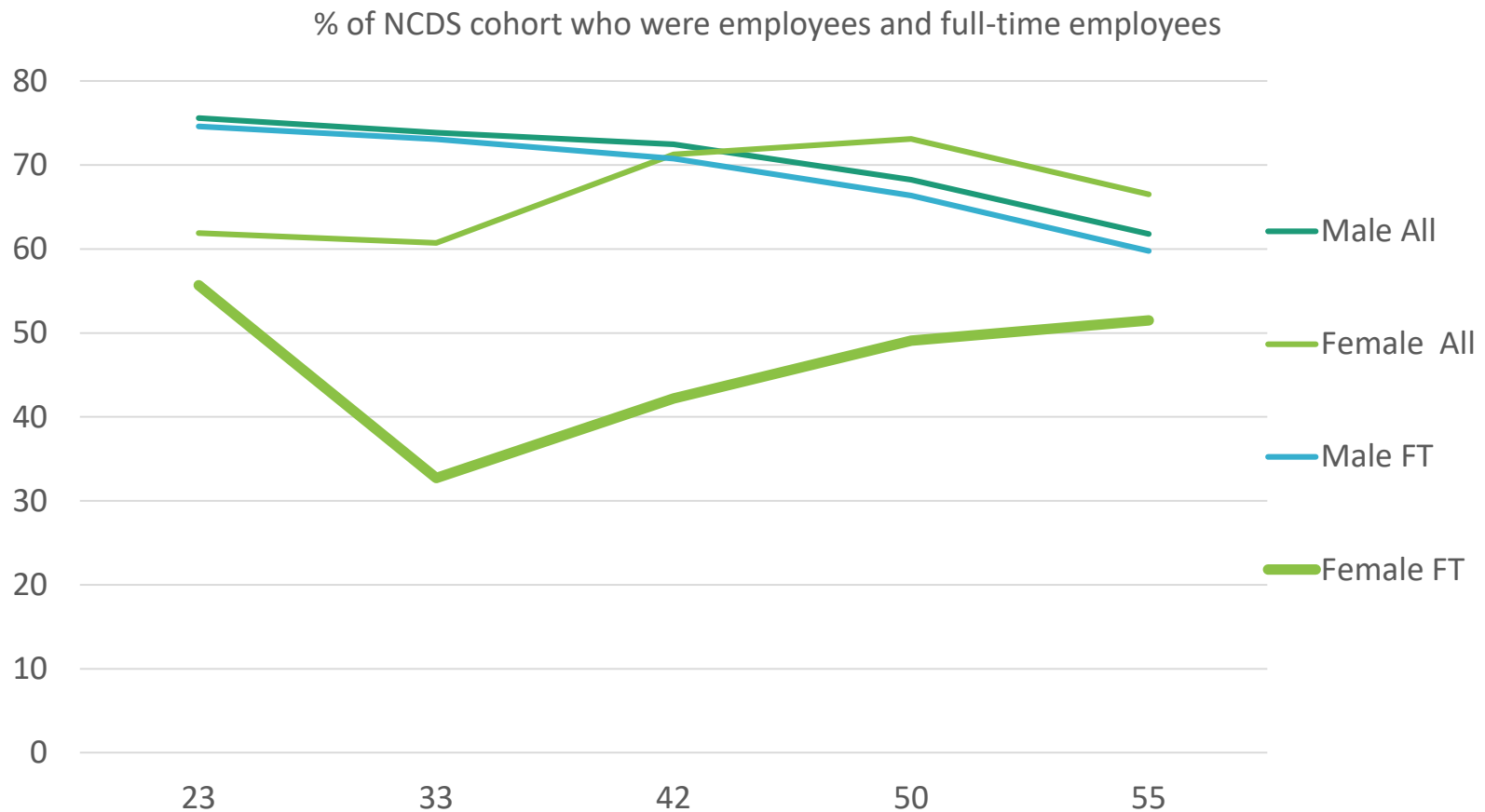
# Life cycle pattern of parenthood

% with dependent children at home

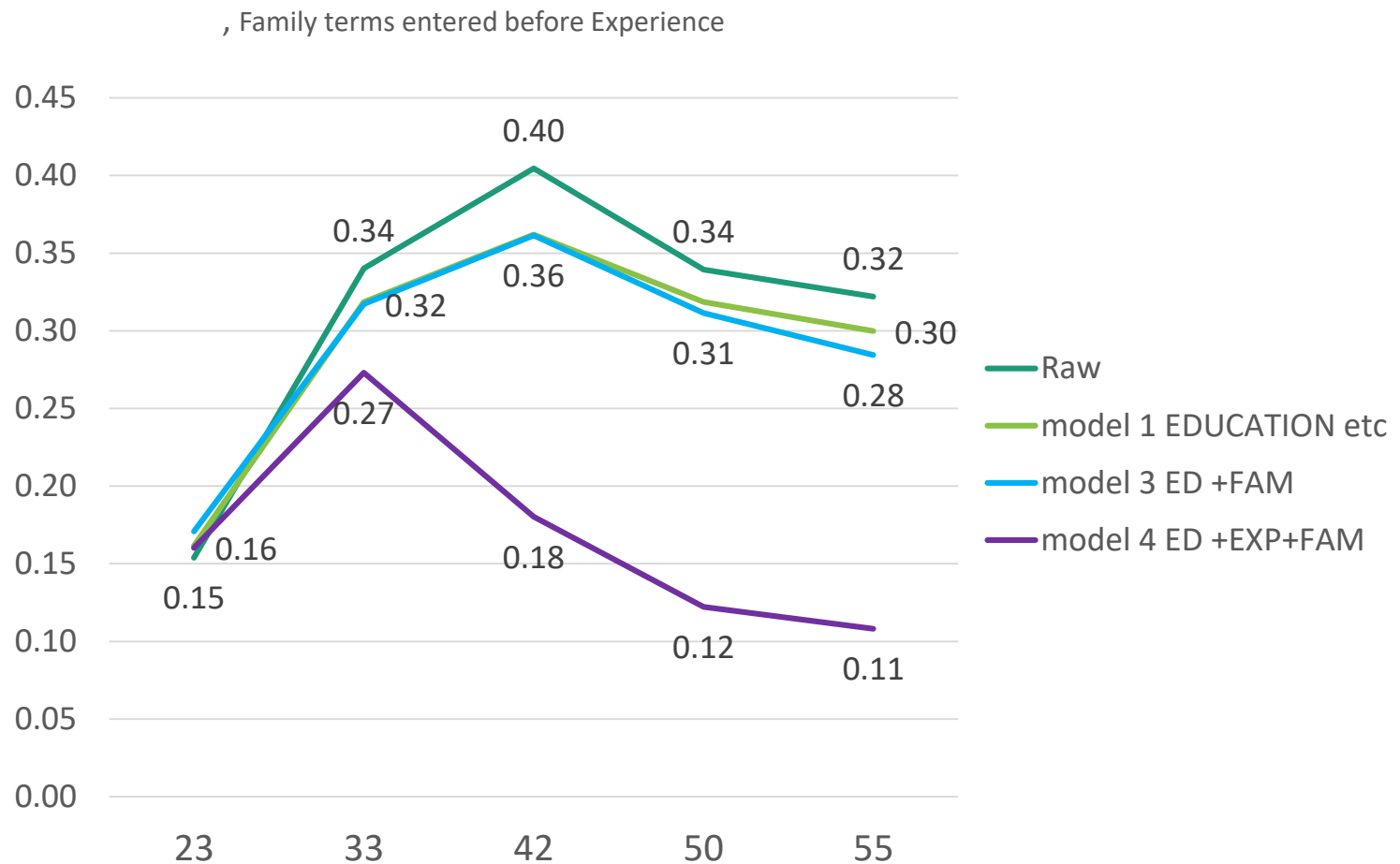


# NCDS employee participation rates

The main gender gap is in full-time employment



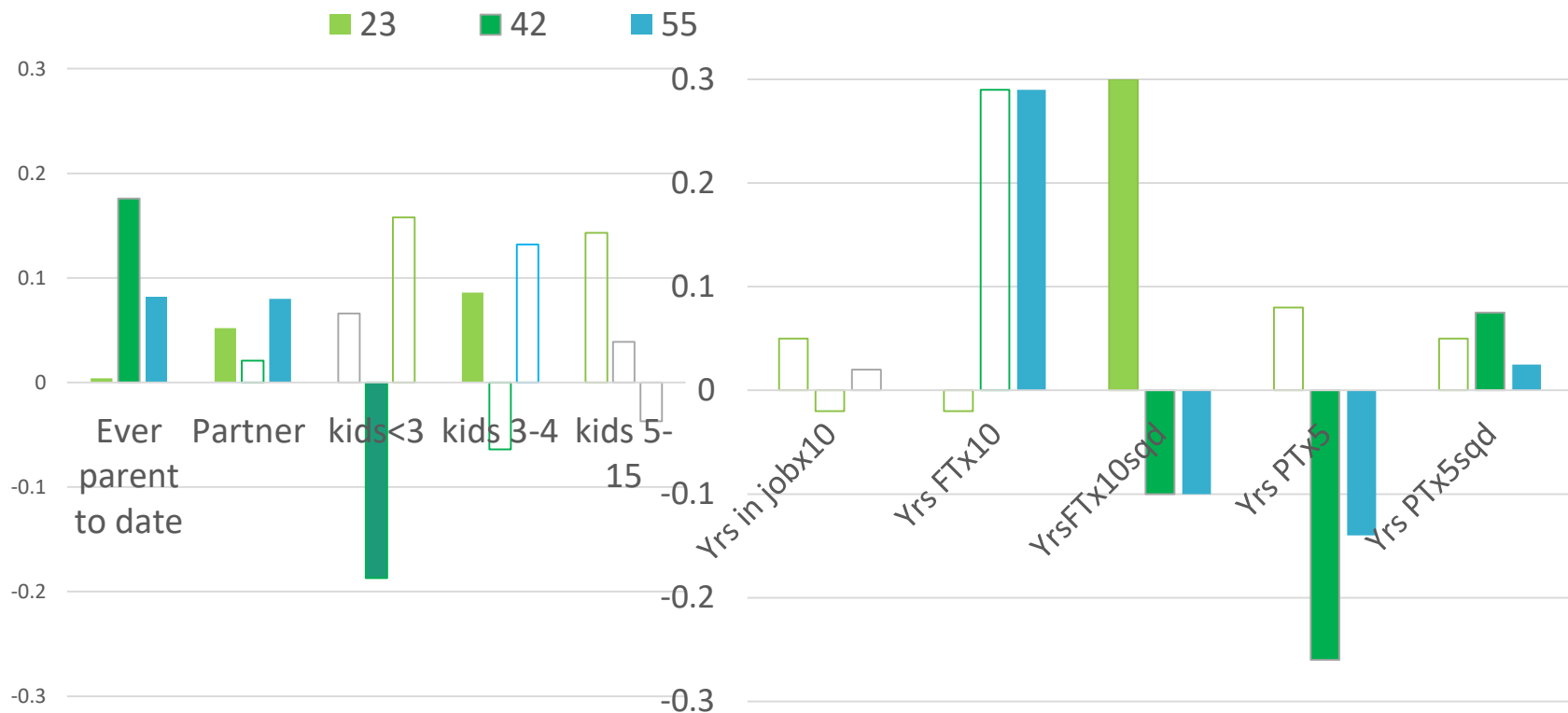
# Gender pay gap: raw and unexplained (parameter) gaps



# Gender gaps in individual parameters ( $\beta_m - \beta_f$ ): Family and Experience Selected ages

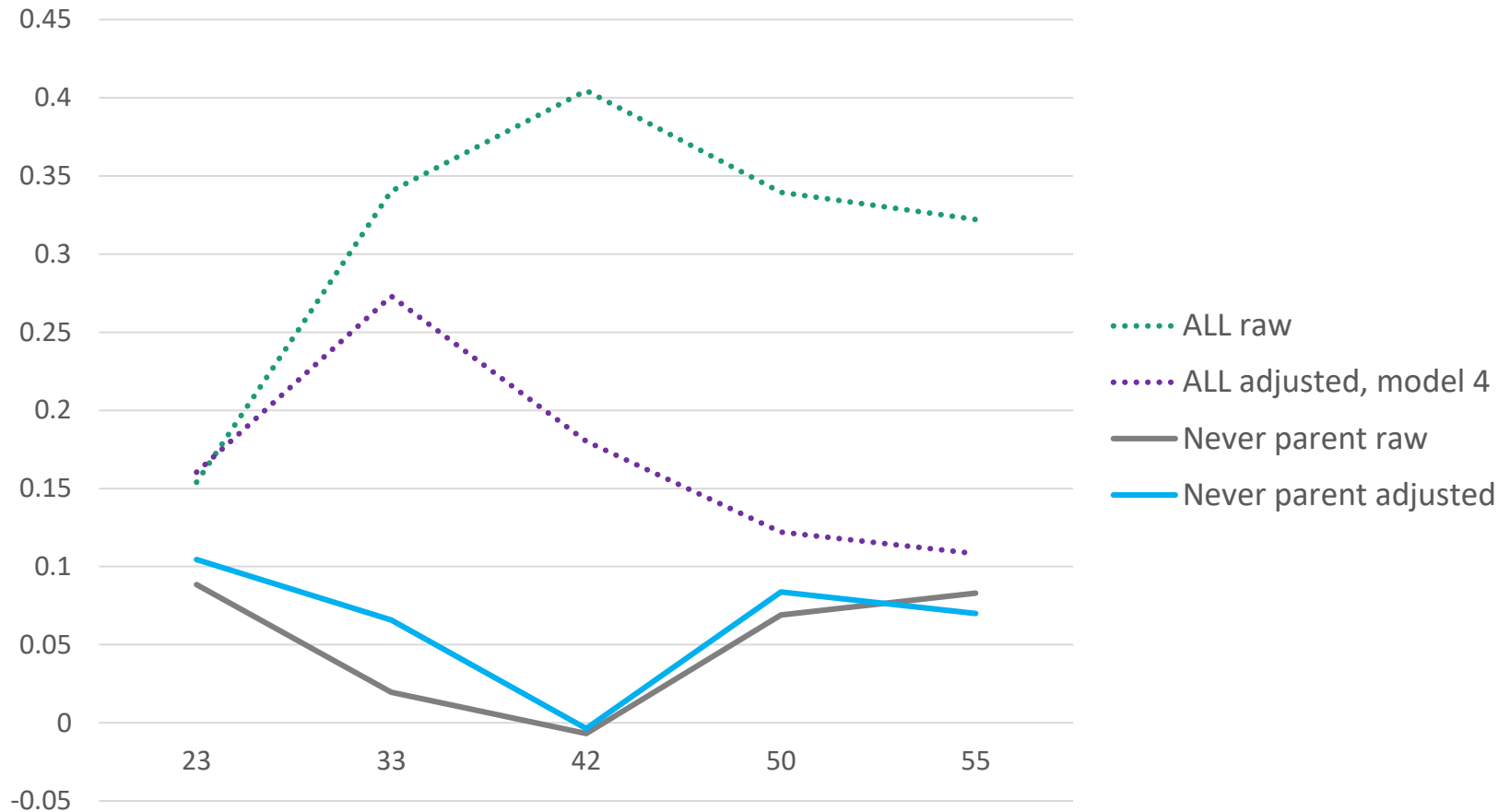
## FAMILY

## EXPERIENCE



Solid bars are significantly different from zero

# Do women who never become parents escape the penalty?





# Current vs future 'childlessness

Small gender premium for both before and after 42, somewhat hidden at early ages.

