



**NEW ZEALAND POLICY  
RESEARCH INSTITUTE**  
TE KĀHUI RANGAHAU MANA TAURITE

**AUT**

# Pay gaps and the NZ labour market

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# Outline

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- Gender pay gap research
- Parenthood
- Ethnic pay gaps
- Industry portrait
- Next steps

# Stats NZ Disclaimer

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Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Statistics Act 1975.

The results presented are the work of the author(s), not of Statistics NZ

# Gender pay gap research

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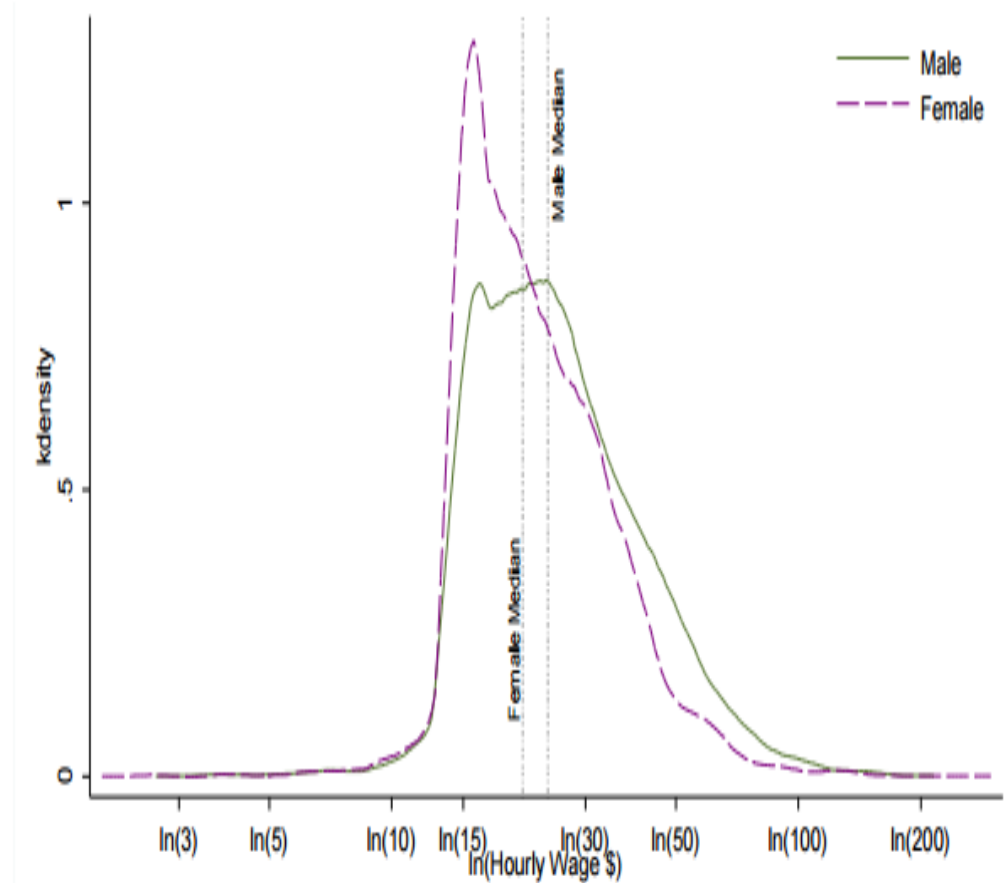
## Objectives:

- Estimate size of the gender pay gap, controlling for all observables
- Apportion the gap into 'explained' and 'unexplained'
- Correct for sample selection bias
- What about propensity score matching
- Check how the gap fares across the wage distribution

# Data

## Income survey

- Representative sample
- Working age (16-64)
- Dropped tails
- Exclude self-employed



# Empirics

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Oaxaca decomposition:

Separates wage differences into two components:

1. Explained component – male / female differences in average characteristics
2. Unexplained component – male / female differences in returns to characteristics

17% Explained; 83% Unexplained

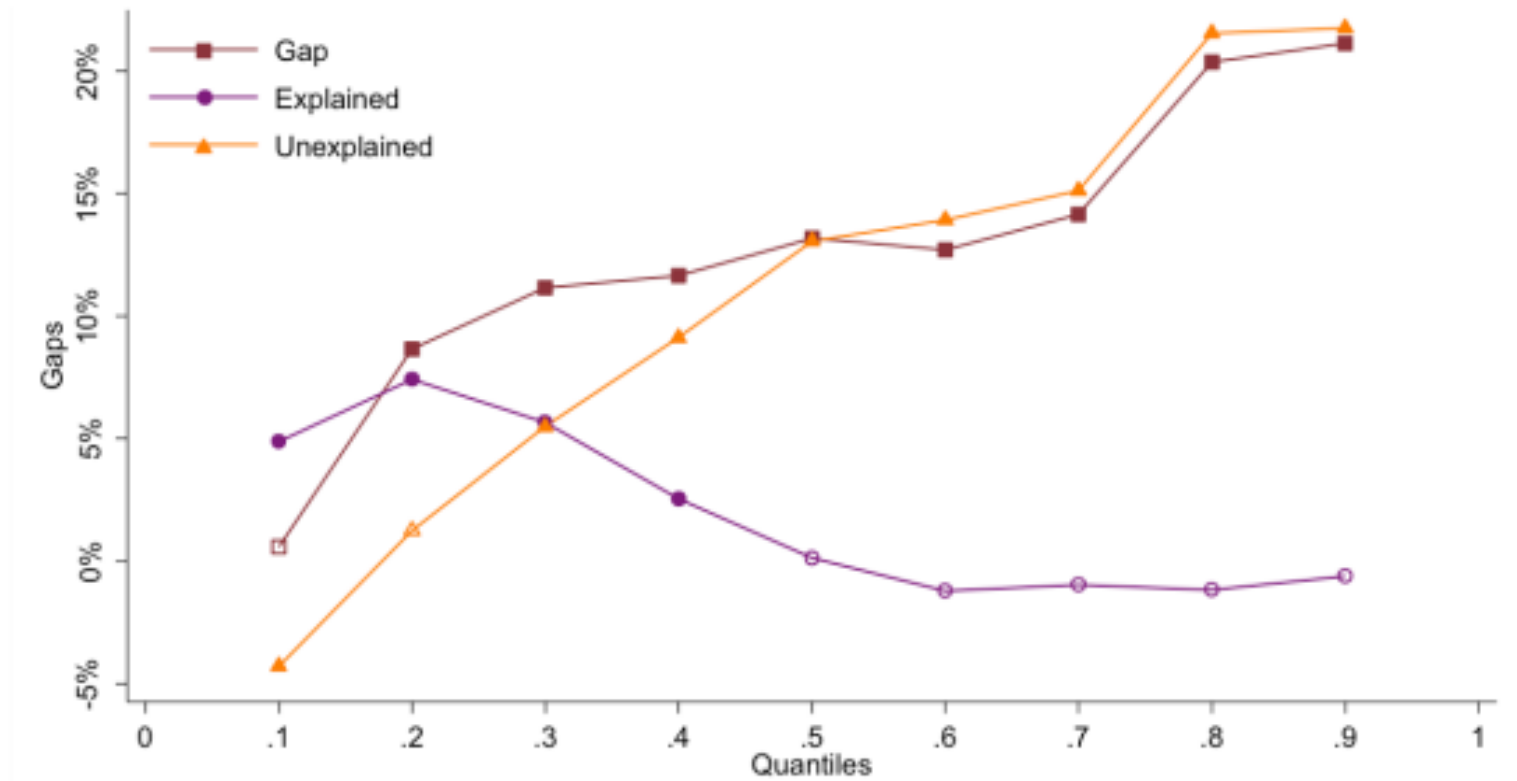
# Unexplained

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- Unobserved differences in characteristics, e.g. subject of degree
- Different preferences regarding non-pecuniary aspects of the job
- Discrimination
- Unconscious bias
- ??

# Quantile regression

Figure 3: Gender pay gaps across wage distribution



Note: Hollow markers indicate insignificant gaps at 10% significance level. Source: 2015 IS. Author's compilation.

- Strong evidence pointing to a glass ceiling effect in NZ



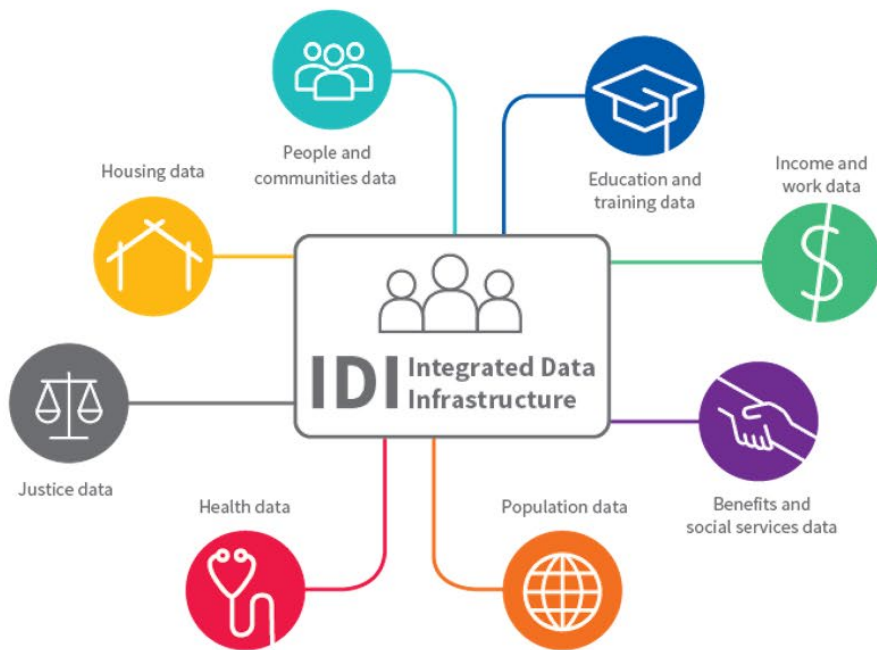
# Parenthood and labour market outcomes

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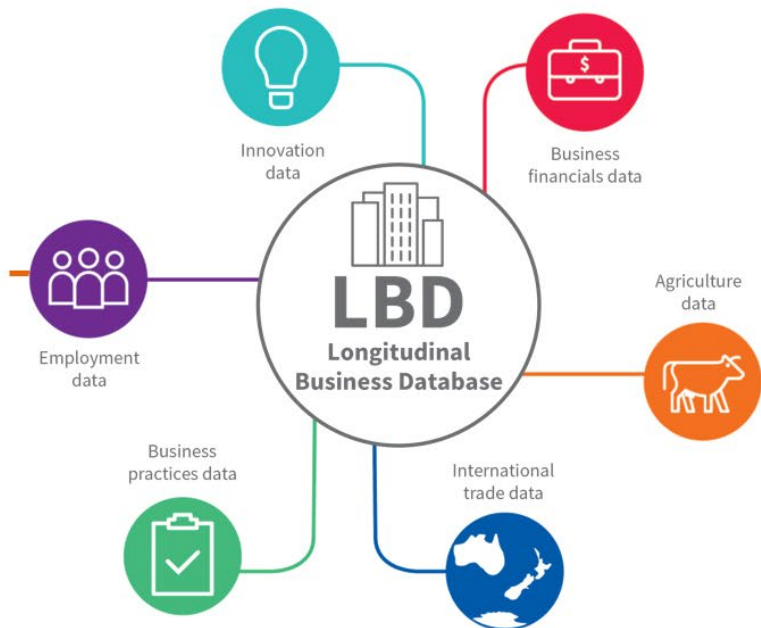
- How do first-time mothers and fathers' employment patterns change after they have children?
- How have their hours worked, monthly earnings, and hourly earnings changed when they return to work post-parenthood?
- How do these changes differ by pre-parenthood income?
- How do these changes differ by time out of employment?

# Parenthood and labour market outcomes

## Integrated Data Infrastructure (IDI)

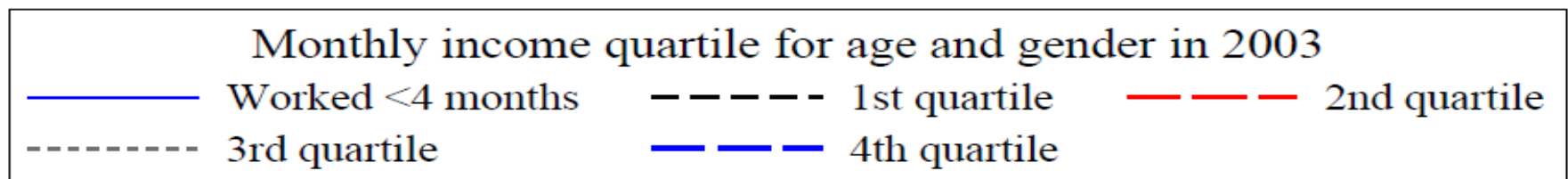
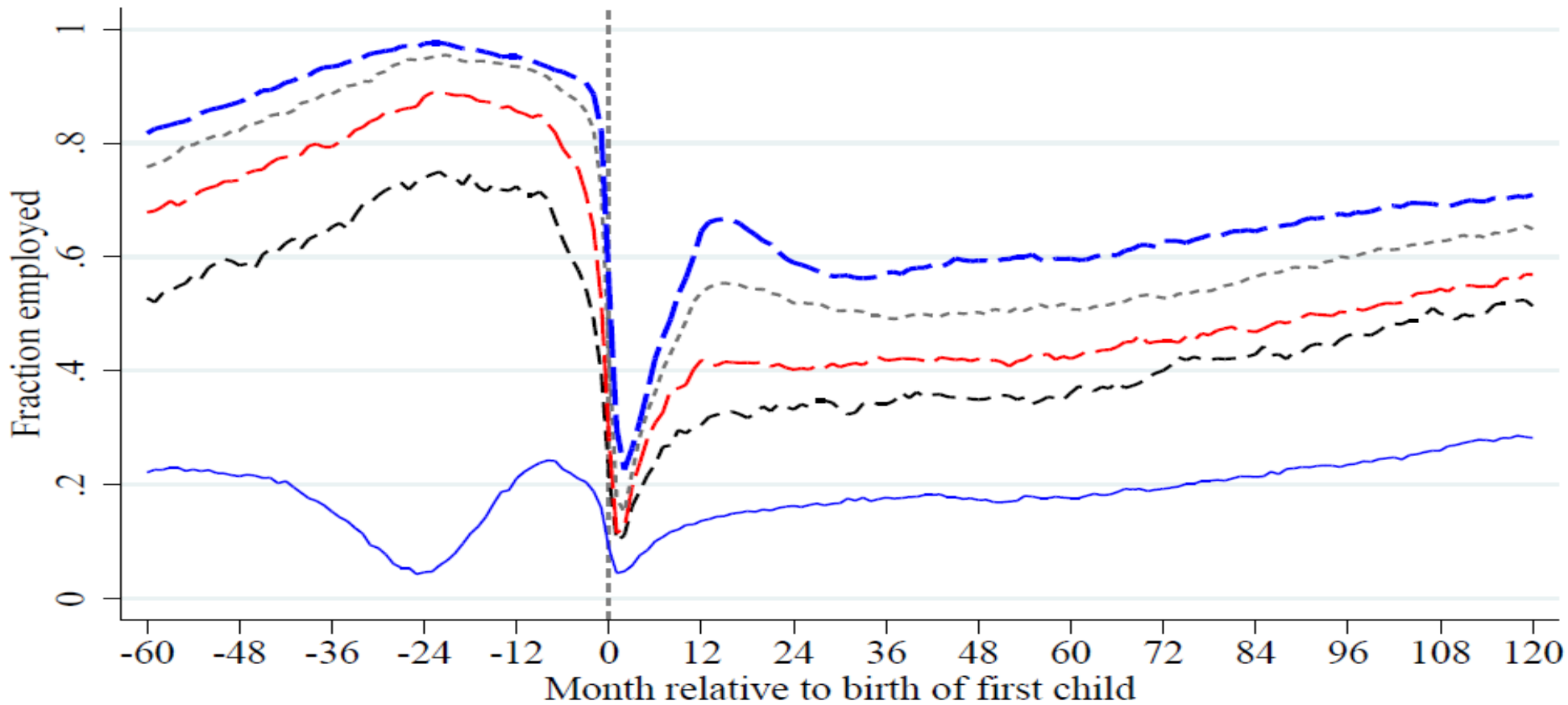


## Longitudinal Business Database (LBD)

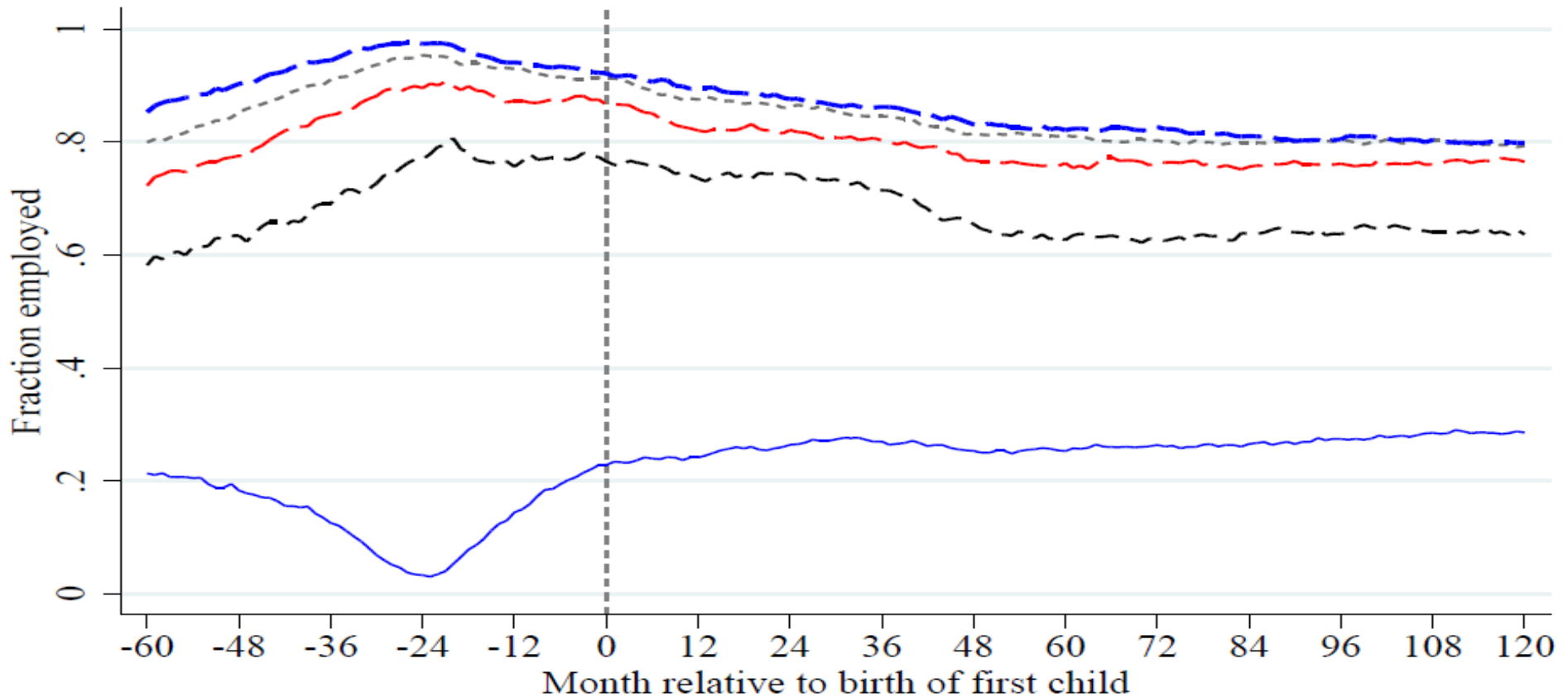


The IDI and LBD are linked through tax data

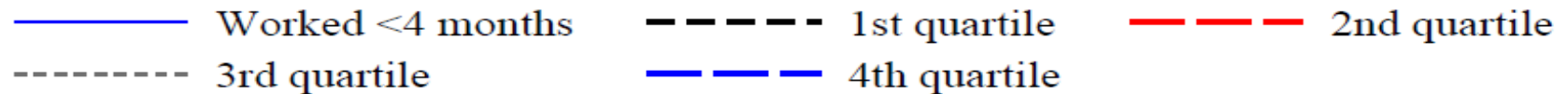
# Mother's employment rates



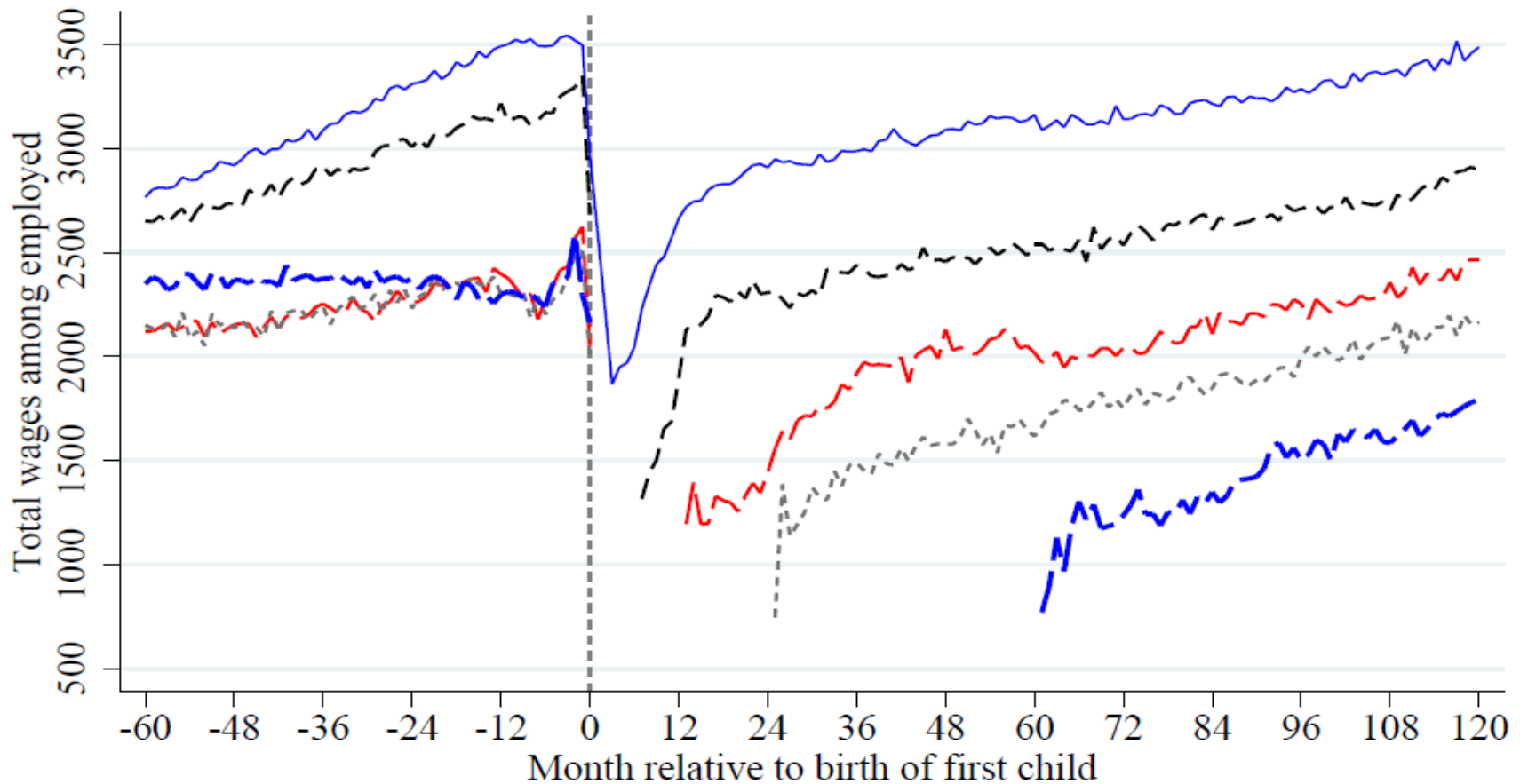
# Father's employment rates



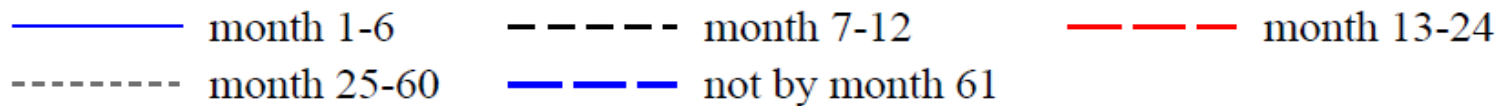
Monthly income quartile for age and gender in 2003



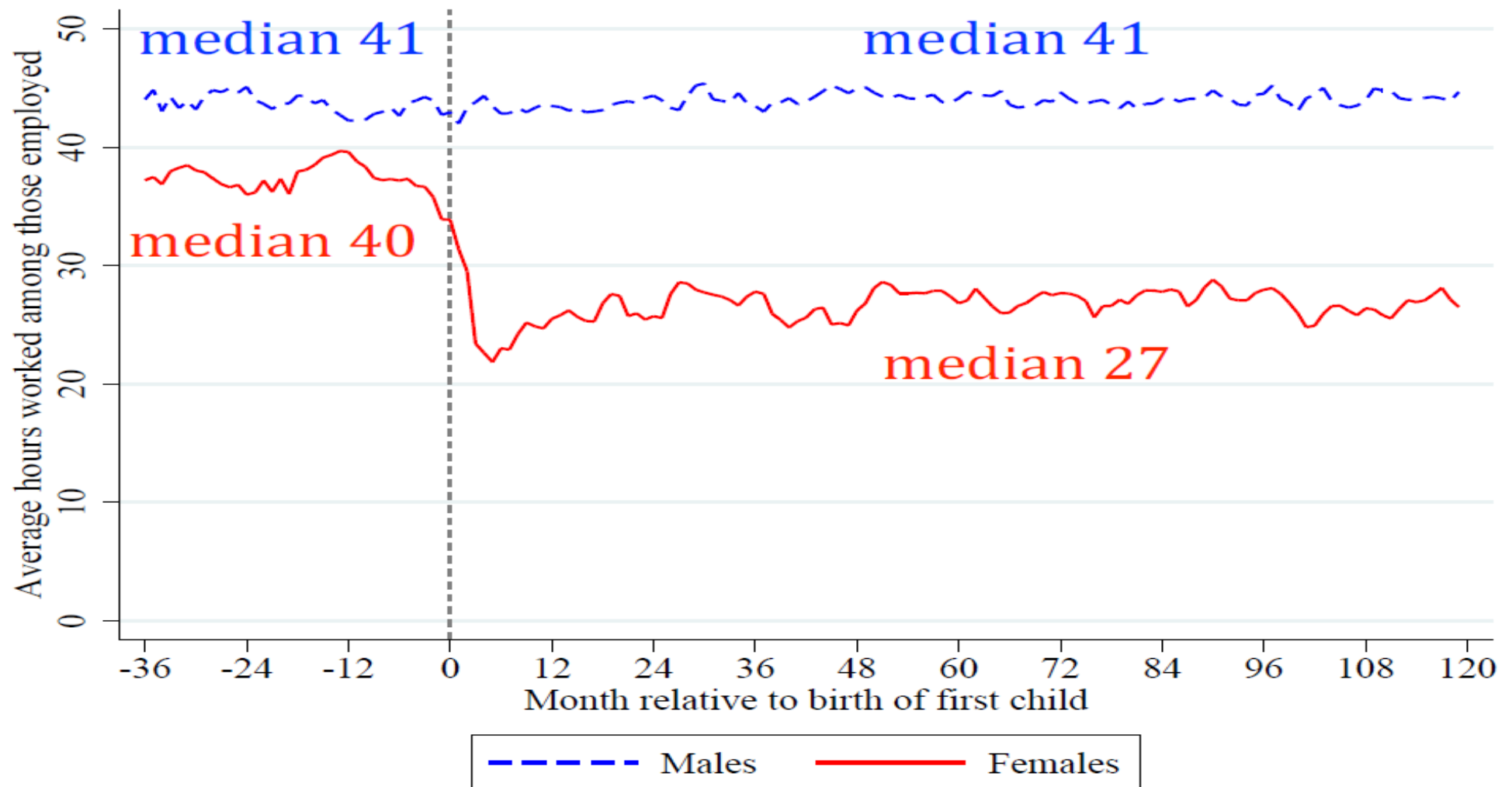
# Mother's earnings by time out of work



First month back earning wages after child's birth



# Hours worked if employed



# Ethnic pay gaps

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- The Human Rights Commission conducted a Pacific pay gap inquiry recently
- The Pacific pay gap (with Europeans) was 24% and 15% in 2020 for males and females respectively
- Our analysis and associated media available at <https://nzpri.aut.ac.nz/research/the-pacific-pay-gap-inquiry>

# Why do Pacific people earn less?

## Explained differences

These are mainly due to:



Occupation



Industry



Education\*



Pacific-Pākehā pay gap for men<sup>^</sup>

27%  
Explained

73%  
Not explained



Pacific-Pākehā pay gap for women<sup>^^</sup>

39%  
Explained

61%  
Not explained

## Not explained differences

These can arise from:

Discrimination



Unconscious bias



Non-monetary preferences / non-observable factors





# Industry level portrait

- Estimated gender, ethnic and intersectional pay gaps by industry over 2016-2022
- Explored structural and contextual drivers
- Decomposition of pay gaps into explained & unexplained
- See [report](#) and [dashboard](#)

# Next

- Endeavour grant (\$6m 2024-2029) “Boosting productivity growth by creating equal workplace opportunities for all”
  - Allocation of labour is highly segregated
  - Gender and ethnic pay gaps represent \$18bn per year
  - Need strong evidence base on workplace and public policies
  - Including impact of pay equity settlements
- Asian pay gaps – role of migrant status?