

# WHAT WORKS FOR WORKING COUPLES?

WORK ARRANGEMENTS, MATERNAL LABOR SUPPLY & THE DIVISION OF HOME PRODUCTION

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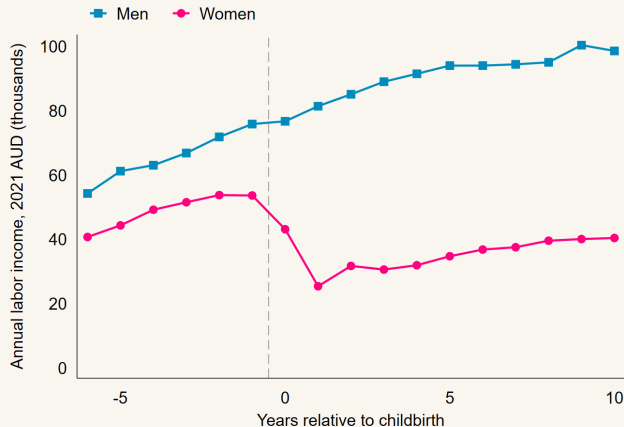
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22 JULY 2025

# CHILD PENALTIES EXPLAIN MOST OF GENDER GAPS

## Today

- We still observe large earnings gap between men and women
- These gaps are mostly explained by parenthood (Goldin, 2014; Kleven, Landais, and Leite-Mariante, 2024)
  - ▶ Similar earnings growth before children
  - ▶ Women face a child penalty, men don't

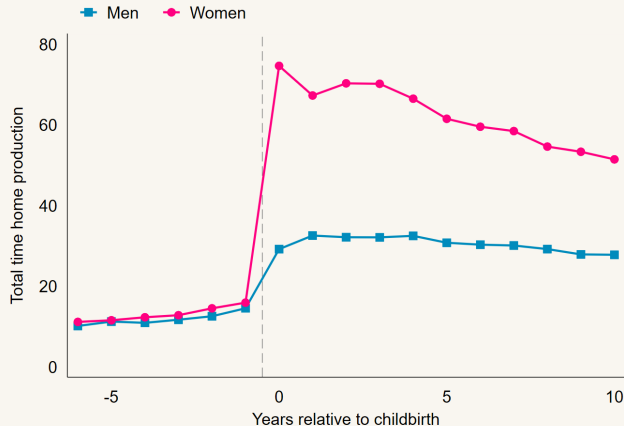


**Figure:** Annual labor earnings (2021 AUD, '000). *Source:* HILDA

# CHILDREN REQUIRE TIME AND IT FALLS ON MOTHERS

Why?

- Children require time
- This time demand falls on women



**Figure:** Weekly hours spent on home production (housework and caring for children). *Source:* HILDA

# CHILD PENALTY IN EARNINGS IS A MATTER OF TIME

What determines the child penalty?

1. ***Within-parent time allocation***: how well can a mother balance work and family
  - ▶ **Work Arrangements** determine how individuals can manage work time
  - ⇒ Do work arrangements matter for the child penalty?
2. ***Across-parents time allocation***: how the time burden of a child is split
  - ⇒ How do couples make choices over task splits?

# THE AUSTRALIAN FAIR WORK ACT BROUGHT SCHEDULE REGULARITY

**Setting** Australia, 2001-2019

**Data** Household, Income and Labour Dynamics in Australia (HILDA)

## **Main variation** Fair Work Act (2009)

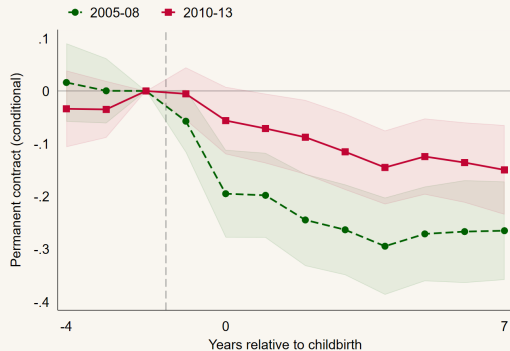
Parents of *children under school age* are entitled to request a "*change in working arrangements*" and employer can refuse only "on reasonable business grounds"

**In practice:** Mothers can keep a **regular schedule** when reducing hours

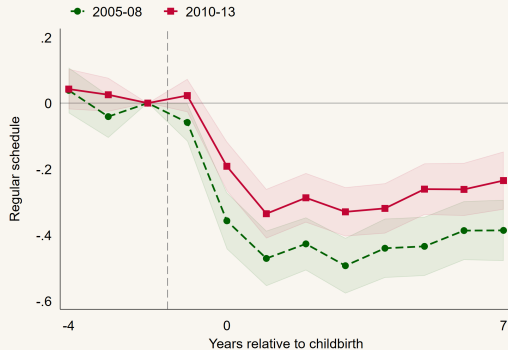
**Pre-law** To reduce hours, need to move to *casual contract* (  $\Rightarrow$  Irregular schedule)

**Post-law** Can reduce hours and keep *permanent contract* (  $\Rightarrow$  Regular schedule)

# MOTHERS SWITCH OUT OF REGULAR SCHEDULES ... LESS SO AFTER THE FAIR WORK ACT

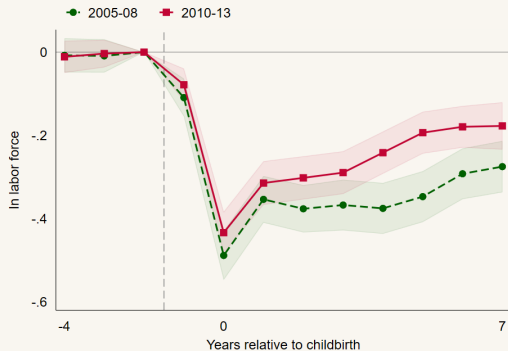


**(a)** Permanent employment if employed (vs casual and fixed-term), Women,  
Diff-in-diff coeff: 0.177\*\*\*

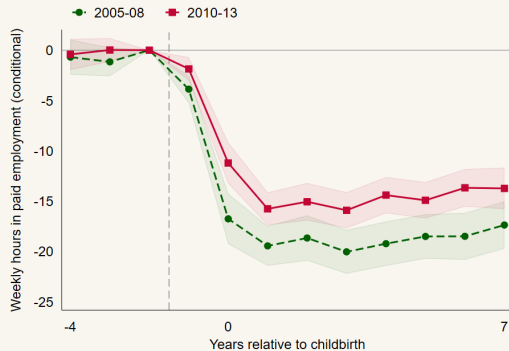


**(b)** Regular schedule (vs e.g. on call), Women,  
Diff-in-diff coeff: 0.121\*\*

# MOTHERS WORK MORE, AFTER FAIR WORK ACT



**(a)** Labor force participation, Women,  
Diff-in-diff coeff: 0.0795\*\*



**(b)** Weekly hours of work conditional on working,  
Women, Diff-in-diff coeff: 3.992\*\*\*

# EXPOSURE DESIGN



# EXPOSURE TO THE FAIR WORK ACT - INTUITION

- The Fair Work Act changed work arrangements
  - ▶ ↓ casual contract & ↑ regular schedule for mothers
- Not all jobs equally affected
  - ▶ If everyone on permanent contract (e.g. **government**) → no room for improvement
  - ▶ If everyone on casual contract (e.g. **bartender**) → technological limitations
  - ▶ If half on permanent contract (e.g. **nurses** or **teachers**) → no technological limitations, and room for improvement
- Exposure non-monotonic in prevalence of casual contract
  - jobs with **intermediate levels** of “casual prevalence” most exposed

# EXPOSURE TO THE FAIR WORK ACT - IN PRACTICE

**Job** = Occupation-by-industry (2 digits each,  $\sim 1,000$  jobs)

**Casual prevalence** = Fraction of individuals with a **casual contract** pre-2009

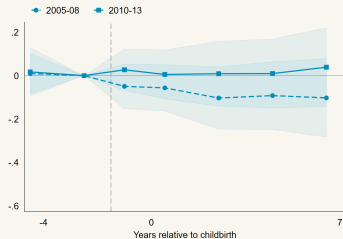
Graph

Distribution

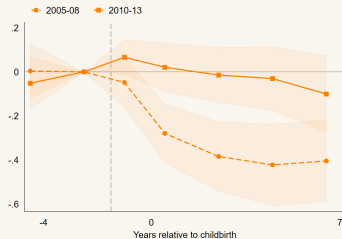
Strategy:

- ▶ Assign mothers casual prevalence of modal job in the 5 years before childbirth
- ▶ Compare child penalty pre-post reform by terciles of casual prevalence

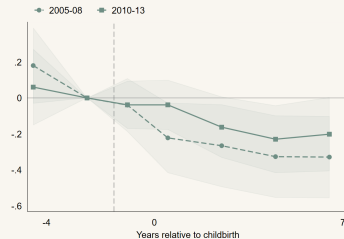
# PERMANENT CONTRACTS ↑ MOST FOR MOTHERS IN MIDDLE TERCILE



Pre-birth job in bottom tercile of casual contracts



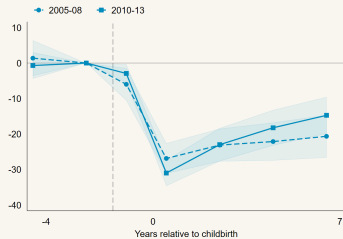
Middle tercile [most exposed]



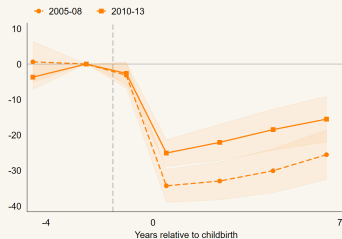
Top tercile

**Figure:** Permanent Employment if Employed (vs Casual and Fixed-term), Women,  
By terciles of prevalence of casual contracts in pre-birth occupation-by-industry  
Triple diff coeff, middle vs bottom: 0.152\*

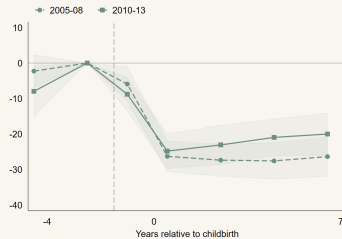
# HOURS WORKED ↑ MOST FOR MOTHERS IN MIDDLE TERCILE



Pre-birth job in bottom tercile of casual contracts



Middle tercile [most exposed]



Top tercile

**Figure:** Weekly Hours of Paid Work (incl. Commute), Women,  
By terciles of prevalence of casual contracts in pre-birth occupation-by-industry

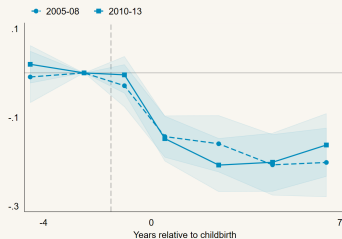
Triple diff coeff, middle vs bottom: 8.389\*\*\*

Partners

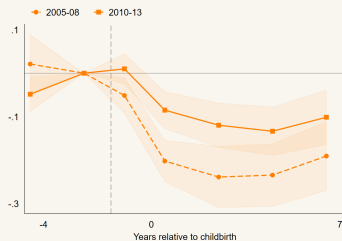
Housework

Parenting

# FEMALE SHARE OF HOUSEHOLD INCOME ↑ IN MIDDLE TERCILE



Pre-birth job in bottom tercile of casual contracts



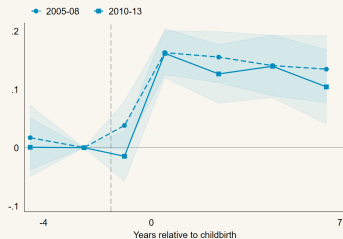
Middle tercile [most exposed]



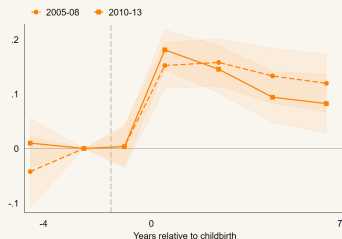
Top tercile

**Figure:** Female Share of Household Income,  
By terciles of prevalence of casual contracts in pre-birth occupation-by-industry  
Triple diff coeff, middle vs bottom: 0.0830\*\*

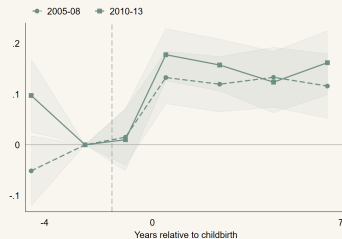
# BUT FEMALE SHARE OF HOME PRODUCTION =



Pre-birth job in bottom tercile of casual contracts



Middle tercile [most exposed]



Top tercile

**Figure:** Female Share of Home Production (Housework + Parenting),  
By terciles of prevalence of casual contracts in pre-birth occupation-by-industry  
Triple diff coeff, middle vs bottom: -0.0261

# CONCLUSION

# KEY TAKEAWAYS

- Regular schedule  $\implies$   $\downarrow$  Child penalty
  - ▶ Policies changing the *structure of work* might reduce the child penalty
- $\uparrow$  Female share of household income  $\nRightarrow$   $\downarrow$  Female share of home production
  - ▶ Relative income does not determine household division of labor at the margin

Thank you!

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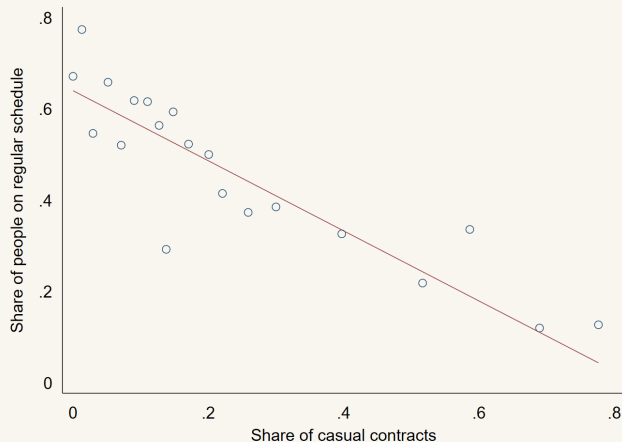


THANK YOU!

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In Australia, employment contracts can be:

- Permanent (68% in 2019)
- Fixed-term (11%)
- Casual (21%)
  - ▶ “zero-hours” contracts, no commitment on either side
  - ▶ characterized by uncertainty and schedule **irregularity**



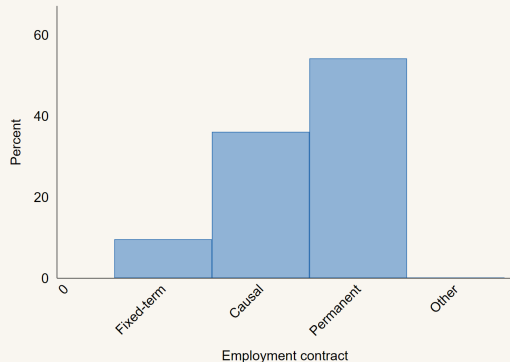
**Figure:** Jobs with higher shares of casual contracts also have a lower share of people on regular schedules

- It used to be very hard to reduce hours while maintaining a permanent contract
- This was seen as a hindrance to female employment
  - ▶ Call for “Permanent Part-Time”
  - ▶ This is what the Fair Work Act was meant to address

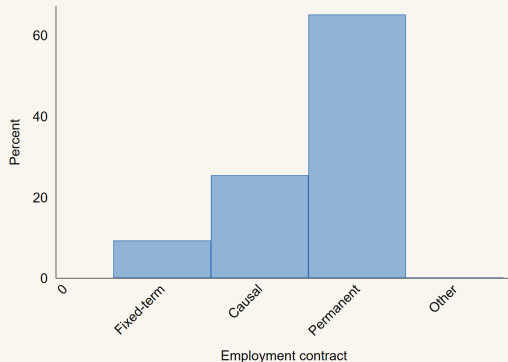
*[...] until recently many awards did not provide for **part-time workers** to be engaged on **anything but a casual basis**. But with changing attitudes in the union movement, and legislative reforms, the concept of **permanent part-time employment has become well accepted**. [...] Although permanent part-time employment is now an option, however, there is **no general obligation on an employer** [...]. The NES provide a right to **request** a move to part-time employment, in order to accommodate a responsibility **for the care of children**.*

From Creighton and Stewart's "Labour Law", 2010 Edition

# SUGGESTIVE EVIDENCE I: POST-FAIR WORK ACT, LESS-THAN-FULL-TIME JOBS ARE MORE PERMANENT

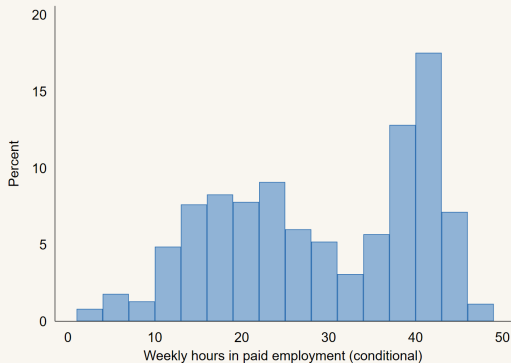
[BACK](#)

**(a)** Type of contract if < 35 hours/week,  
pre-2009, mothers only



**(b)** Type of contract if < 35 hours/week,  
post-2009, mothers only

## SUGGESTIVE EVIDENCE II: POST-FAIR WORK ACT, THERE ARE PERMANENT JOBS WITH LESS-THAN-FULL-TIME HOURS ●



**(a)** Hours if permanent contract, **pre-2009**, mothers only

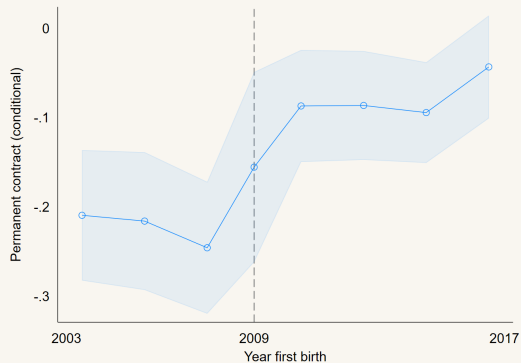


**(b)** Hours if permanent contract, **post-2009**, mothers only

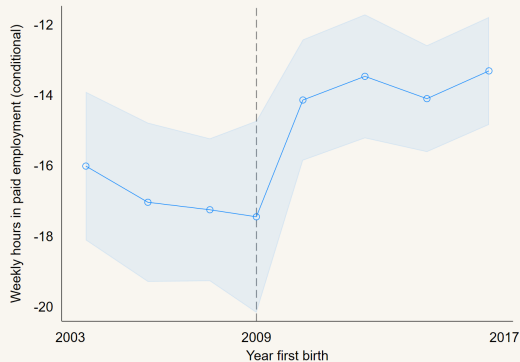
$$Y_{it} = \alpha_i + \delta_t + \beta_{h(i)} + \sum_c \left\{ \gamma_c \times \mathbb{1}\{(t - E_i) \in [0, 7]\} \right\} + \epsilon_{it}$$

- $\gamma_c$ : child penalty for mothers belonging to cohort  $c$  (birth year)
- The sequence of these coefficients shows us evolution of the child penalty: evidence of a **sharp change** round 2009

# NOT A TIME TREND: RESULTS

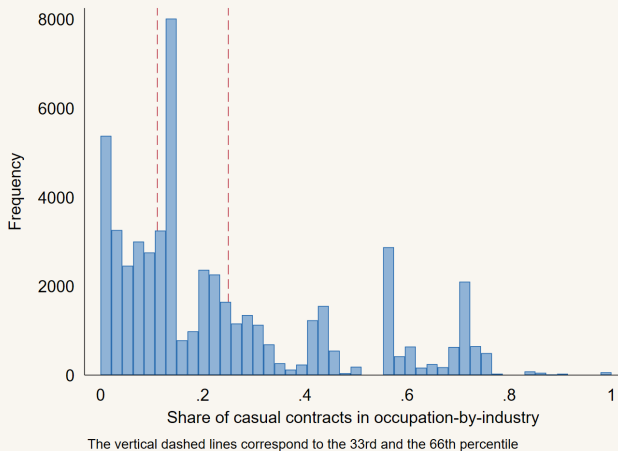
[BACK](#)

**(a)** Permanent employment if employed, Women



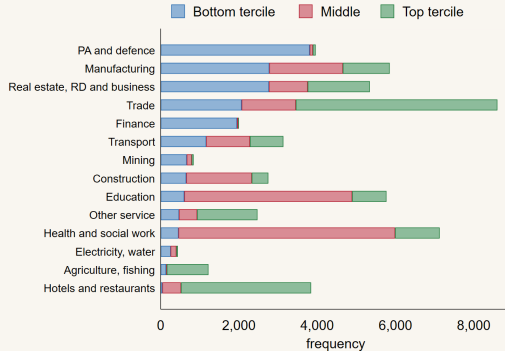
**(b)** Weekly hours of work conditional on working, Women



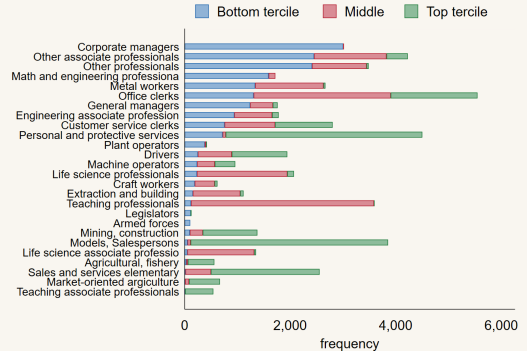


**Figure:** Distribution of “casual prevalence”: fraction of casual contracts in an occupation-by-industry

# INDUSTRIES AND OCCUPATIONS BY FRACTION ON CASUAL CONTRACTS



(a) Industries



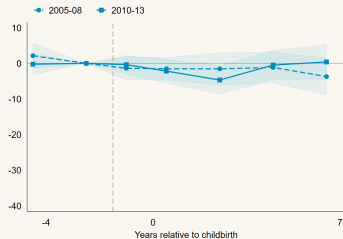
(b) Occupations

# CHARACTERISTICS OF TERCILES OF CASUAL PREVALENCE

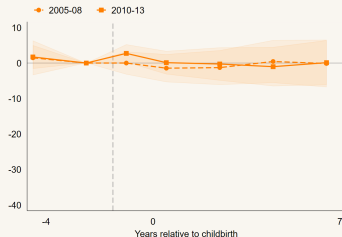
[BACK](#)

	Bottom tercile		Middle tercile		Diff Middle-Bottom		Top tercile		Diff Top-Bottom	
	Mean	SD	Mean	SD	Diff.	SE	Mean	SD	Diff.	SE
<i>All Employees</i>										
Avg hourly wage (2021 dollars)	37.22	(33.50)	31.69	(29.49)	-5.53***	(0.30)	22.57	(24.47)	-14.65***	(0.29)
Avg occupational status	60.34	(19.60)	54.02	(24.04)	-6.32***	(0.21)	30.55	(12.74)	-29.78***	(0.16)
Has bachelor degree or above	0.35	(0.48)	0.32	(0.47)	-0.03***	(0.00)	0.08	(0.27)	-0.27***	(0.00)
Avg weekly working hours	42.75	(12.71)	37.72	(14.46)	-5.04***	(0.13)	30.95	(17.91)	-11.80***	(0.15)
Avg tenure with current employer	7.36	(8.09)	7.22	(8.15)	-0.15	(0.08)	4.92	(7.48)	-2.45***	(0.08)
Share of casual contracts	0.05	(0.21)	0.17	(0.37)	0.12***	(0.00)	0.51	(0.50)	0.46***	(0.00)
Share of regular schedule	0.62	(0.48)	0.48	(0.50)	-0.14***	(0.00)	0.25	(0.43)	-0.38***	(0.00)
Share of on call	0.10	(0.30)	0.10	(0.30)	0.00	(0.00)	0.16	(0.36)	0.06***	(0.00)
Share on flexible start/finish times	0.69	(0.46)	0.48	(0.50)	-0.20***	(0.01)	0.55	(0.50)	-0.14***	(0.01)
Share of women	0.36	(0.48)	0.54	(0.50)	0.18***	(0.00)	0.54	(0.50)	0.18***	(0.00)
Avg Freedom Decision	0.22	(0.33)	0.04	(0.31)	-0.19***	(0.00)	-0.27	(0.39)	-0.50***	(0.00)
Avg Unstructured work	0.22	(0.39)	-0.00	(0.30)	-0.22***	(0.00)	-0.20	(0.41)	-0.41***	(0.00)
Avg Importance of Relationships	0.22	(0.42)	-0.00	(0.33)	-0.23***	(0.00)	-0.23	(0.27)	-0.46***	(0.00)
Avg Time Pressure	-0.01	(0.19)	0.05	(0.21)	0.07***	(0.00)	-0.06	(0.18)	-0.05***	(0.00)
Avg Flex Score	0.17	(0.27)	0.01	(0.21)	-0.16***	(0.00)	-0.21	(0.20)	-0.38***	(0.00)
<i>Women in occupational tercile two years before childbirth</i>										
Avg age at first birth (women)	31.98	(4.85)	31.03	(4.77)	-0.95***	(0.15)	28.59	(5.05)	-3.39***	(0.15)
Avg num of children 3 years after first (women)	1.60	(0.54)	1.68	(0.58)	0.07	(0.08)	1.59	(0.55)	-0.02	(0.08)
Avg num of children 5 years after first (women)	1.88	(0.58)	2.01	(0.63)	0.12	(0.08)	1.85	(0.56)	-0.04	(0.08)
Avg num of children 7 years after first (women)	2.00	(0.60)	2.11	(0.74)	0.11	(0.09)	1.95	(0.65)	-0.05	(0.09)

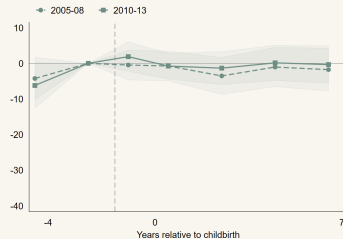
# HOURS WORKED DON'T CHANGE FOR FATHERS

[BACK](#)

Pre-birth job in bottom tercile of casual contracts



Middle tercile [most exposed]

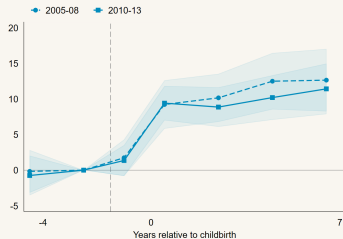


Top tercile

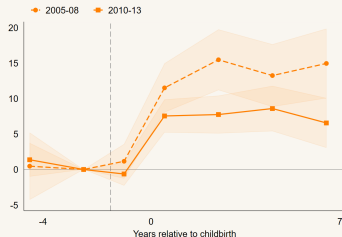
**Figure:** Weekly hours of paid work (incl. commute), Men  
by terciles of prevalence of casual contracts in occupation-by-industry

Note: for men, treatment status depends on female partner

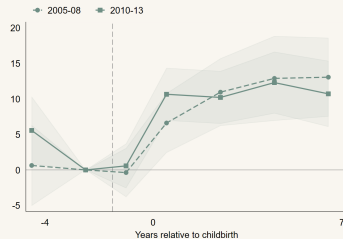
# TREATED MOTHERS DO A BIT LESS HOUSEWORK

[BACK](#)

Pre-birth job in bottom tercile of casual contracts



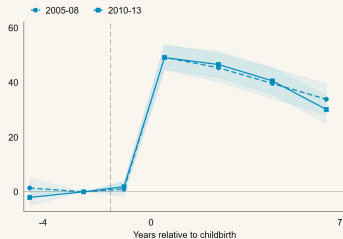
Middle tercile [most exposed]



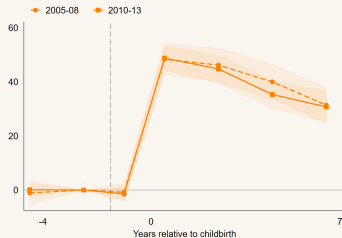
Top tercile

**Figure:** Weekly Hours of Housework, Women,  
By terciles of prevalence of casual contracts in occupation-by-industry  
Triple diff coeff, middle vs bottom: -5.141\*\*

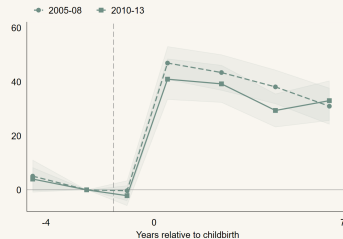
# TREATED MOTHERS DO NOT CUT ON PARENTING TIME

[BACK](#)

Pre-birth job in bottom tercile of casual contracts



Middle tercile [most exposed]



Top tercile

**Figure:** Weekly Hours Spent Playing With or Caring Of Own Children, Women,  
By terciles of prevalence of casual contracts in occupation-by-industry

Triple diff coeff, middle vs bottom: 0.830

**Paid Parental Leave (2010):** Up to 18 weeks at the national minimum wage

**Institution:** mothers already had job-protected leave, and child payments  $\Rightarrow$  unclear if incentives change

**Variation:** 55% of working women already eligible for paid maternity leave from employer  $\Rightarrow$  *not* treated by PPL

**Results:**

- Our findings don't change if we look at the sample of women unaffected by the 2010 reform

## REFERENCES I

- Breen Creighton and Andrew Stewart. *Labour Law. Fifth Edition*. The Federation Press, 2010.
- Claudia Goldin. A Grand Gender Convergence: Its Last Chapter. *American Economic Review*, 104(4):1091–1119, 2014.
- Henrik Kleven, Camille Landais, and Gabriel Leite-Mariante. The Child Penalty Atlas. *The Review of Economic Studies*, October 2024. ISSN 0034-6527. doi: 10.1093/restud/rdae104. URL <https://doi.org/10.1093/restud/rdae104>.