Pay Transparency, Wage Inequality and Collective Bargaining

Aspasia Bizopoulou[1,2] Elias Einiö[1] Tuomo Virkola[1,2]

[1]VATT Institute for Economic Research, Finland

[2]Helsinki GSE, Finland

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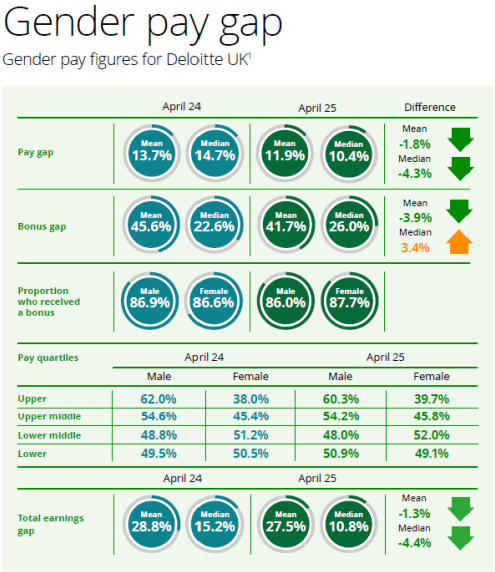
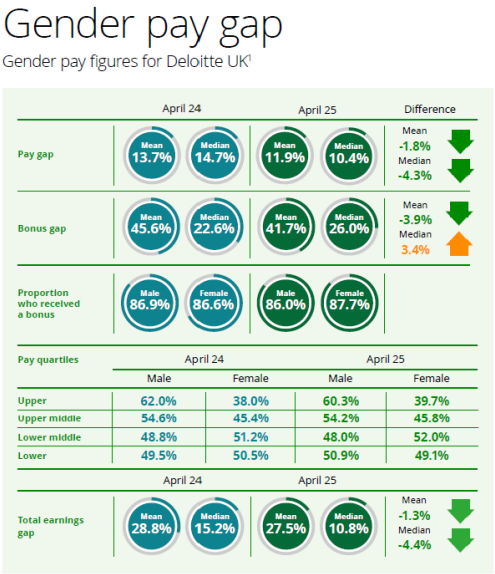
What is pay transparency?

- Make information about pay within firm (more) open
- Policy to reduce gender discrimination
- EU directive on pay transparency effective 7 June 2026



What is pay transparency?

- Make information about pay within firm (more) open
- Policy to reduce gender discrimination
- EU directive on pay transparency effective 7 June 2026
  - Pay transparency by occupation and gender within the firm
  - Pre-employment pay transparency
  - Salary history bans



Gender pay gap

Gender pay figures for Deloitte UK[1]

	April 24		April 25		Difference
Pay gap	Mean 13.7%	Median 14.7%	Mean 11.9%	Median 10.4%	Mean -1.8%, Median -4.3%
Bonus gap	Mean 45.6%	Median 22.6%	Mean 41.7%	Median 26.0%	Mean -3.9%, Median 3.4%
Proportion who received a bonus	Male 86.9%	Female 86.6%	Male 86.0%	Female 87.7%	

Pay quartiles	April 24		April 25	
	Male	Female	Male	Female
Upper	62.0%	38.0%	60.3%	39.7%
Upper middle	54.6%	45.4%	54.2%	45.8%
Lower middle	48.8%	51.2%	48.0%	52.0%
Lower	49.5%	50.5%	50.9%	49.1%

	April 24		April 25		
Total earnings gap	Mean 28.8%	Median 15.2%	Mean 27.5%	Median 10.8%	Mean -1.3%, Median -4.4%

Pay transparency does reduce the gender pay gap

Study	Point estimates for change in GWG	Notes
Obloj and Zenger (2022)	0.031 (0.004)	Treatment $\times$ Female, Table 1
Blundell et al. (2025)	0.03 (0.013)	Treatment $\times$ Post $\times$ Female, Table 3, Table A1
Bennedsen et al. (2022)	-0.0196	Treatment $\times$ Post $\times$ Male, Table 2
Baker et al. (2023)	0.020 (0.006)	Treatment $\times$ Post $\times$ Female, Table 4
Gulyas, Seitz and Sinha (2023)	-0.005	Treatment $\times$ Post $\times$ Male, Table 2

Are there any trade-offs to pay transparency?

- Can shift bargaining power from workers to firms, reduces average wages

  (Cullen and Pakzad-Hurson 2023 ECTA)

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  - Firm's willingness to pay high initial wages decreases

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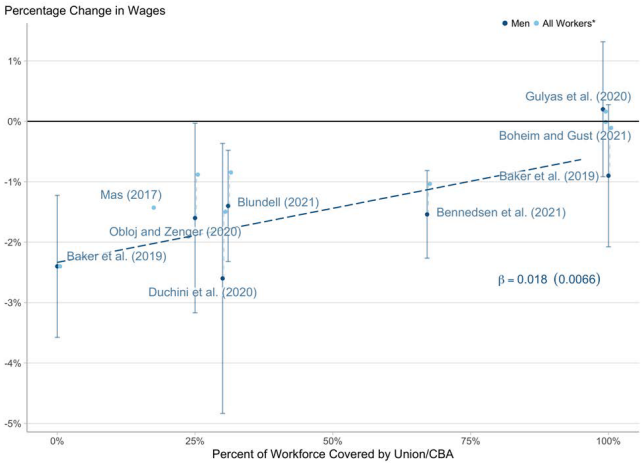
  - Pay transparency leads to spread of information, higher demands for re-negotiation of wages
  - Firm's willingness to pay high initial wages decreases
  - Workers less concerned with securing a high initial wage since they expect re-negotiation because of transparency

Bargaining power and pay transparency

Cullen and Pakzad-Hurson 2023 ECTA



Research Question

How do pay transparency and collective bargaining shape wage determination?

- Is there a trade-off between improving the gender pay gap but reducing average wages?

This Paper

- **Goal**: To understand how pay transparency affects several key outcomes within a single setting

- **Setting**: Finland offers an ideal setting
  - Government mandated pay transparency law
  - High quality administrative data
  - Well-developed collective bargaining institutions

- **Data**: Employer-employee linked administrative data
  - hourly wages for most workers and their employers in Finland
  - information on collective bargaining agreements

- **Empirical Strategy**: Difference-in-differences and event-studies using a 2005 law change which mandates firms with above 30 employees to report wages of men and women across job titles

Preview of Main Findings

1. **Coverage by collective bargaining agreement drives firm response to pay transparency**
2. Reduction in the gender wage gap driven by firms with coverage
3. However, firms without coverage respond by reducing hiring to lower paid positions

Outline

1. Institutional Setting and Data
2. Research Design
3. Results
   - Firm and Worker responses
   - Effect on the Gender Wage Gap
   - The role of Collective Bargaining

Finnish Equality Act 2005: Pay Transparency

- Mandate firms with ≥ 30 employees to prepare a **pay report** as part of equality plan
- **Pay report** includes
  - distribution of men and women across job titles
  - wages of men and women across job titles
  - wages gaps across job titles
- Allows workers to learn about
  - gender differences in positions and wages
  - their own wage relative to workers in similar positions (**horizontal inequality**)
  - their own wage relative to workers in other positions (**vertical inequality**)

Pay Report Template

Table: Pay Report Template

	Number of Workers		Base wage (euros)		Base wage gap, %	Total wage (euros)		Total gap %
	Women	Men	Women	Men		Women	Men	
Occupation A								
Occupation B								
Occupation C								
or:								
Pay Grade A								
Pay Grade B								
Pay Grade C								

This table shows a template for pay reporting from 2006 by a large trade union for municipal employers that are affected by the 2005 law change. The pay report provides information on wages of men and women across job tasks either using occupation groups or pay grades. These can further be separated by collective bargainig agreement. The report also includes information on the distribution of men and women across tasks.Link: `https://www.kt.fi/sites/default/files/media/document/yleiskirje0601-esimerkki-kuntasektorin-pakkakartoituksesta-liite-2.pdf`

Data

Structure of Earnings survey 2000-2010

- information on wages, occupation, collective bargaining agreements
- cover more than 50% of all Finnish firms
- excludes small firms < 5 employees and employees in top management positions

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Sample Construction

Define treatment and control status by firm size in 2004

- Policy takes effect in 2005

Restrict analysis to firms that have between 15-55 employees in 2004

- Common approach in recent studies evaluating effects of firm policies (Guceri and Liu 2019; Benzarti et al 2020)
- Relies on assumption of parallel trends for firms above and below 30-employee cutoff pre-policy.

Pre-Policy Characteristics

	Mean (1)	15-29 Employees (2)	30-55 Employees (3)	Observations (4)
Individual-level means				
Men	0.49 [0.50]	0.46 [0.50]	0.51 [0.50]	83,332
Age	39.62 [12.34]	39.66 [12.51]	39.59 [12.20]	83,332
Hourly Wage	16.16 [7.11]	15.81 [6.65]	16.45 [7.45]	80,038
Hourly Wage (Men)	17.78 [8.30]	17.43 [7.83]	18.03 [8.62]	38,196
Hourly Wage (Women)	14.68 [5.40]	14.50 [5.16]	14.85 [5.61]	41,842
Occupation Score	2.78 [0.27]	2.77 [0.26]	2.78 [0.27]	82,402
Occupation Score (Men)	2.83 [0.27]	2.83 [0.26]	2.84 [0.27]	40,214
Occupation Score (Women)	2.72 [0.25]	2.71 [0.24]	2.73 [0.25]	42,188
Private Sector	0.96 [0.19]	0.97 [0.16]	0.95 [0.21]	83,332
Salary Contract	0.74 [0.44]	0.77 [0.42]	0.72 [0.45]	83,332
Hourly Contract	0.26 [0.44]	0.23 [0.42]	0.28 [0.45]	83,332
Bachelor's Degree	0.14 [0.34]	0.14 [0.34]	0.14 [0.34]	83,332
CBA coverage	0.69 [0.46]	0.71 [0.45]	0.67 [0.47]	83,332
Female Manager Share	0.33 [0.39]	0.35 [0.42]	0.32 [0.37]	54,371
High Edu. Manager Share	0.26 [0.36]	0.26 [0.38]	0.26 [0.35]	54,371
# Employees	32.39 [11.00]	22.11 [4.21]	40.88 [6.83]	83,332
Firm-level means				
CBA coverage	0.65 [0.60]	0.68 [0.66]	0.61 [0.50]	3,089
Female Manager Share	0.22 [0.36]	0.26 [0.39]	0.18 [0.31]	1,937
High Edu. Manager Share	0.15 [0.30]	0.18 [0.33]	0.13 [0.26]	1,937
# Employees	28.80 [10.56]	21.33 [4.19]	39.81 [6.78]	3,089

Research Design

We estimate the following diff-in-diff model:

$$y_{ijt} = \sum_{\substack{k=-5 \\ k\neq -1}}^{5} \beta_k \mathbb{1}_{(t-2005=k)} \mathbb{1}(\#\text{Emp}_j \geq 30) + \mu_j + \lambda_t + \theta_i + \epsilon_{ijt},$$

where

- μ_j is a firm FE
- λ_t year FE
- θ_i worker FE

Outcomes of interest

- **How does the firm respond?**
  - Salience of mandate
  - Wage Setting
  - Hiring
  - Promotions
  - Gender wage gap
- **How do individual workers respond?**
  - Separations
- **Distributional effects**
  - Are effects uniformly distributed across the wage distribution or driven by the tails?
- **What is the role of collective bargaining institutions?**

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A. How salient was the law for treated firms?

Gender Equality Plans and Measures to Address Gender Wage Gaps

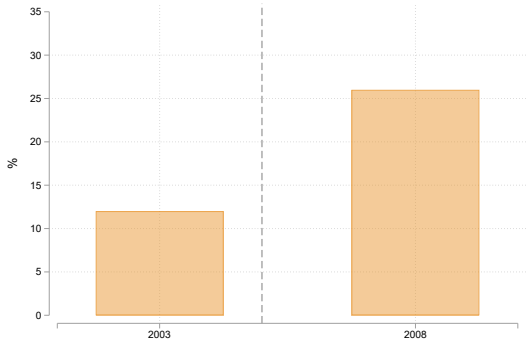


Figure: P(Equality Plan at Workplace)

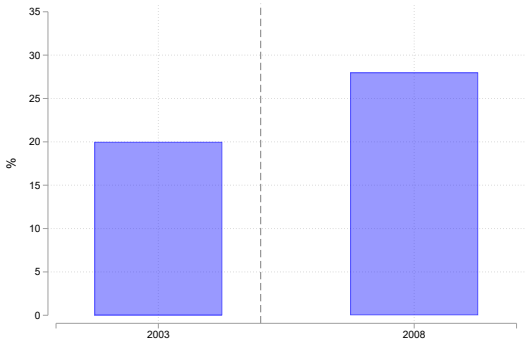


Figure: P(Measures to Reduce Gaps)

B. What was the effect on wages for treated firms?

Wages increase in treated firms driven by lower end of distribution

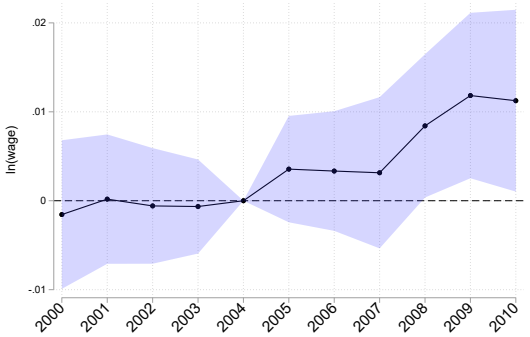


Figure:

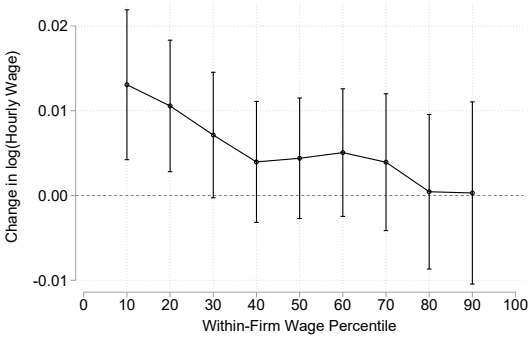


Figure: Within-Firm Wage Percentile

Diff-in-diff estimate: 0.8 percent increase

	log(Hourly Wage)			
	Firm Sample		Worker Sample	
	(1)	(2)	(3)	(4)
$\mathbb{1}(\#\text{Emp} \geq 30) \times \text{Post}$	0.008**	0.001	0.001	-0.000
	(0.003)	(0.003)	(0.003)	(0.003)
Person FE	No	Yes	No	Yes
Outcome Mean	2.739	2.739	2.752	2.752
Observations	570,571	570,571	551,042	551,042

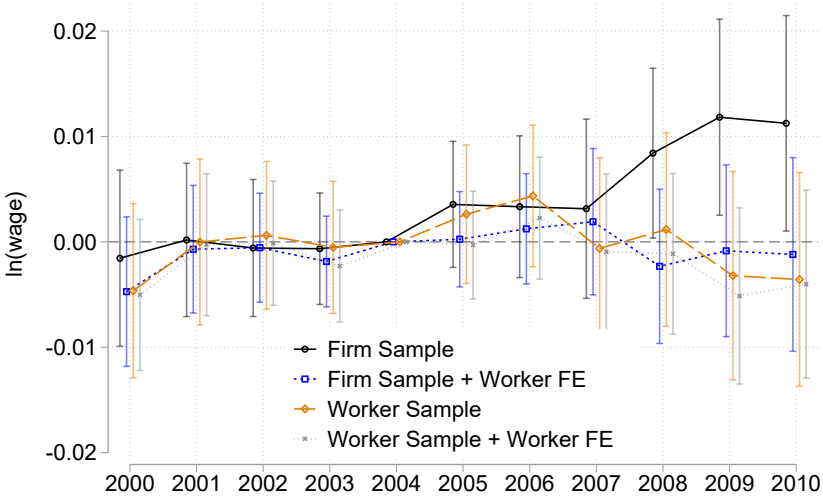
The table shows the effects of pay transparency on average wages. In the worker sample the firm FE correspond to the firm that the individual was based in the pre-policy year. Significance levels: $^{*} < 10\%$ $^{**} < 5\%$ $^{***} < 1\%$

C. What drives the wage increase: wage setting or worker composition?

Decomposing Wage Effects

- Firm-level wage effects could reflect changes in wage-setting or changes in the firm's worker composition
- To understand to what extent changes driven by **wage setting** vs **worker composition**, we
  1. Control for worker composition by adding worker fixed effects
  2. Directly look at sorting via separations and hiring

Controlling for Sorting Drives Wage-Effects Down



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Separations Weakly Decreasing and Flat Along the Distribution

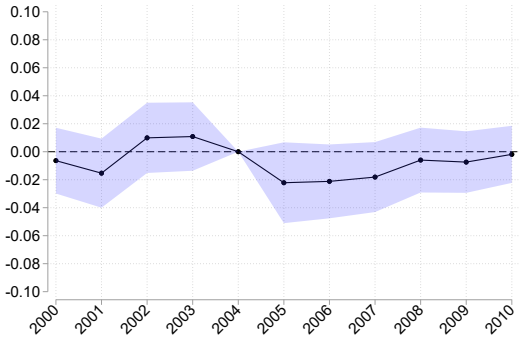

Figure: Separations

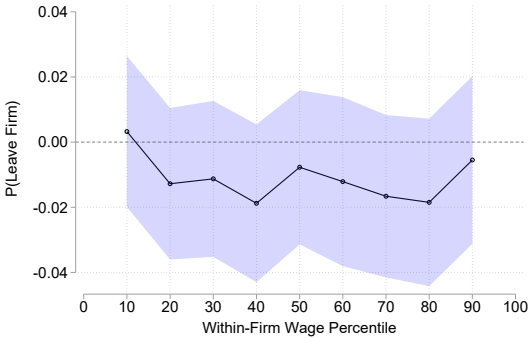

Figure: By Within-Firm Wage Percentile

Fewer Hires after Policy Contribute to Wage Compression

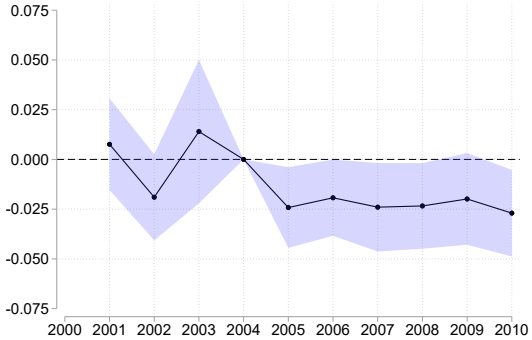

Figure: Hiring

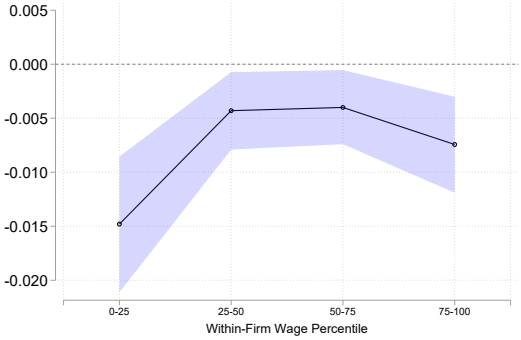

Figure: By Within-Firm Wage Percentile

DiD: -2.4 p.p. drop in new hires, driven by hires to bottom quartile

Worker Composition Drives Higher Wages

- Changes in worker composition contributes to increases in firm-level wages
- Fewer new hires, especially to lower paid positions
- Separations flat along the wage distribution

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The gender wage gap reduces by 0.9 - 1.3 p.p.

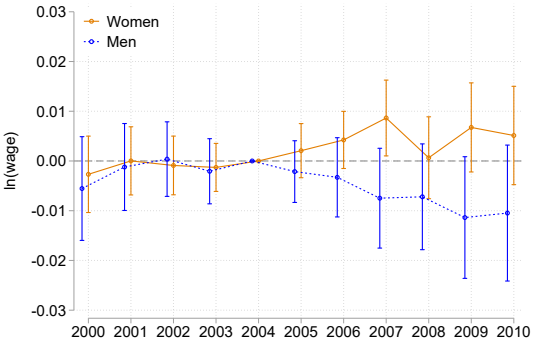


Figure: Wages by Gender controlling for sorting

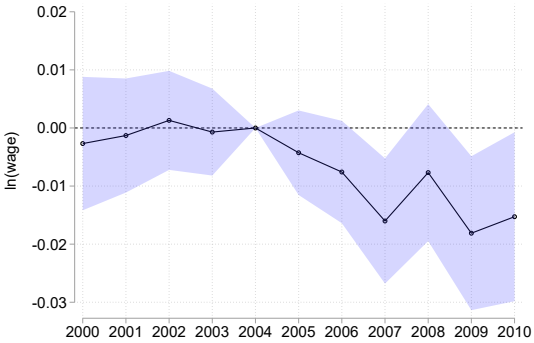
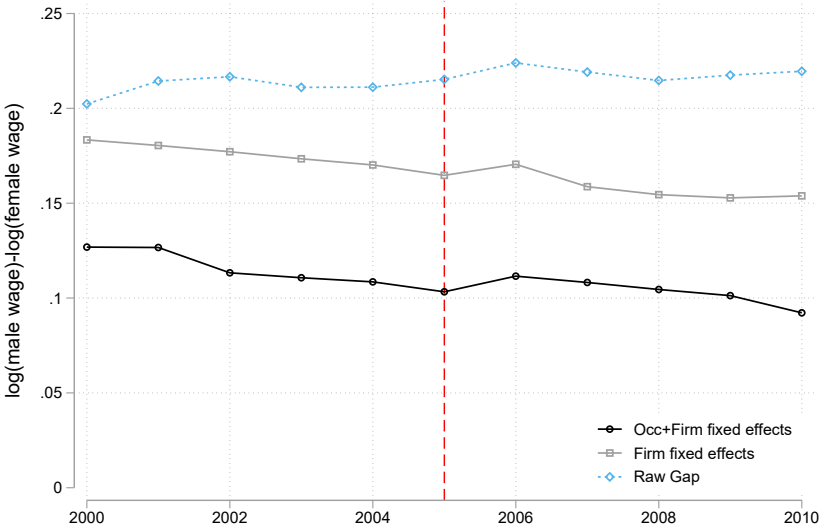


Figure: Gender Wage Gap

Residual Wage Gap drops by 1.7 p.p. or 16% within Five Years



A. What mechanism drives the decrease in the gender wage gap?

Promotions Can Account for Gender Gap Reductions

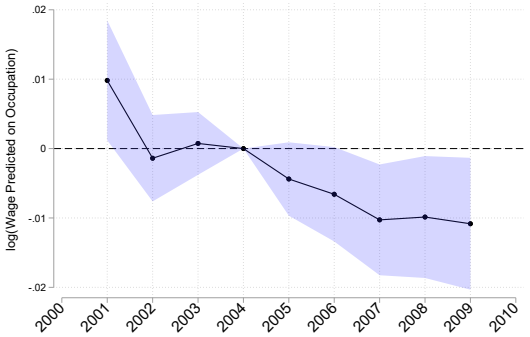


Figure: Gender Gap

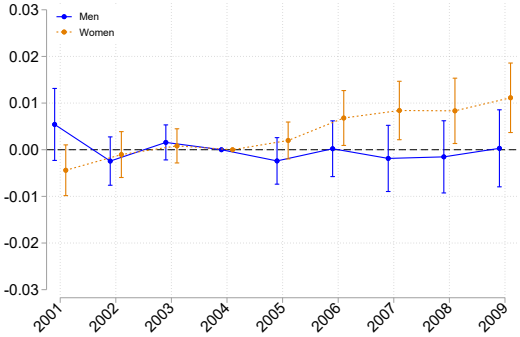


Figure: By Gender

Worker composition by Gender

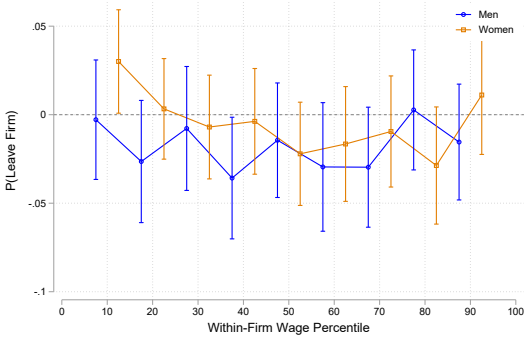


Figure: Separations

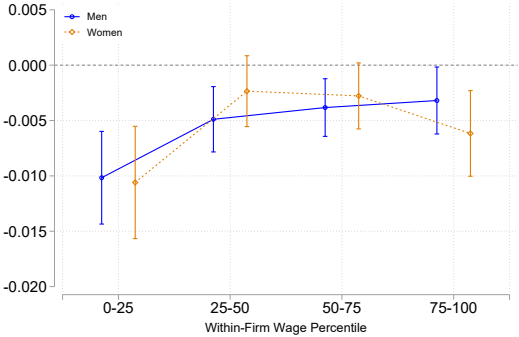


Figure: Hiring

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Higher wages in unorganised firms

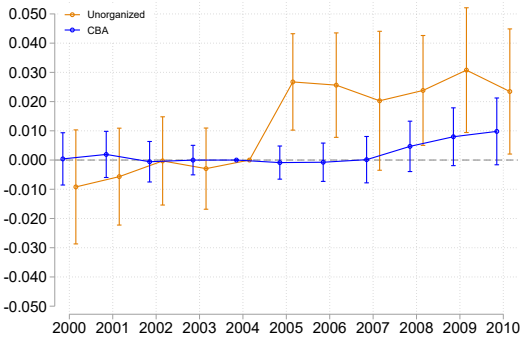

Figure: Wages by CBA

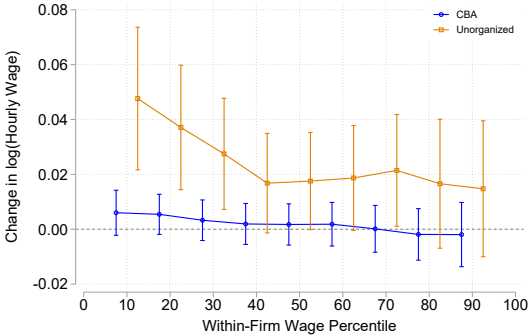

Figure: Wage Distribution by CBA

Hiring reductions into lowest paid positions for unorganised firms

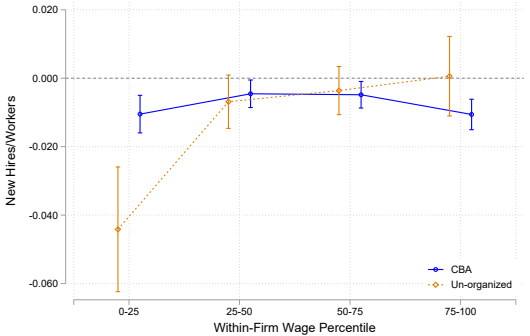

Figure: Hiring by CBA

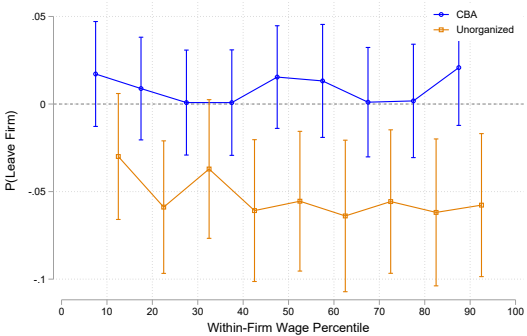

Figure: Separations by CBA

B. How does the gender wage gap change by collective bargaining status?

Gender Wage Gap Reduction driven by organised firms

	log(Hourly Wages)							
	All (1)	Women (2)	Men (3)	All (4)	All (5)	Women (6)	Men (7)	All (8)
$\mathbb{1}(\#Emp \geq 30) \times Post$	0.025*** (0.008)	0.015** (0.007)	0.034*** (0.011)	0.017** (0.008)	0.007 (0.005)	0.006 (0.005)	0.008 (0.008)	0.005 (0.005)
$\mathbb{1}(\#Emp \geq 30) \times Post \times CBA$	-0.021** (0.008)	-0.006 (0.008)	-0.038*** (0.012)	-0.009 (0.009)	-0.008 (0.006)	-0.001 (0.006)	-0.017* (0.009)	-0.001 (0.006)
$\mathbb{1}(\#Emp \geq 30) \times Post \times Male$				0.015 (0.012)				0.003 (0.009)
$\mathbb{1}(\#Emp \geq 30) \times Post \times CBA \times Male$				-0.025* (0.013)				-0.016* (0.010)
N	570,571	309,025	261,507	570,571	570,571	309,013	261,507	570,571
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Worker FE	No	No	No	No	Yes	Yes	Yes	Yes
Outcome Mean	2.739	2.664	2.827	2.739	2.739	2.664	2.827	2.739
% Organised	0.739	0.744	0.733	0.739	0.739	0.744	0.733	0.739
Pre-policy coef. on Female	-0.200*** (0.007)							
Pre-policy coef. on Female $\times$ CBA	0.056*** (0.008)							

Concluding Remarks

- Pay transparency may induce both compositional changes and wage setting changes, these should be carefully taken into account
- Transparency policy that is sufficiently salient to workers can reduce gender wage gaps
- Reduction in hiring and a compression of the within-firm wage distribution suggest pay transparency may create frictions for firms
- Unorganised firms may be worse-off since they experience most of the reduction in hiring without a reduction in the gender wage gap