

# Union Delegates Incentives and Firm-level Outcomes

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# Motivation

- What is the **impact of unionisation**? Early evidence: sizable wage premia and reduced inequality where unions are present  
Farber et al. 2018; DiNardo, Fortin, and Lemieux 1996; Dustmann, Ludsteck, and Schönberg 2009
- Interpretations of “*unionisation*” go beyond the union/non-union question  
DiNardo and Lee 2004
- **Gap:** effectiveness depends on *how* bargaining power is structured and exercised (individual, firm, sector) — not just on membership or density
- **Our question:** do stronger **electoral incentives** for workplace union delegates affect firm-level outcomes?

## Setting & Identification

- **France, 2008 reform:** unions sectoral and national representation is tied to electoral outcomes of within-firm **workers** institutions.
- Askenazy and Breda (2020) show improvement of industrial relations, workers trust in unions with no loss of profitability for firms.
  - We focus on different outcomes and exploit a different identification strategy
- **Staggered adoption:** electoral calendars set **before** elections, each establishment switches at its first regular election after Jan 2009.
- **Design:** not-yet-treated comparison, estimation of dynamic ATTs.

Baker et al. 2025

# Results and Contributions

- Key results
  - Increase in average annual earnings, driven by **more hours worked**
  - Gains concentrate in the **bottom half** of the within-firm earnings distribution
  - Hiring rates **decline** while termination rates show limited changes
- Contribution
  - Shift the focus from union *presence/density* to the **incentive environment**
  - Provide new causal evidence on unions and distributional outcomes in a continental European setting

# Agenda for today

Institutional Setting and Data

Empirical Strategy and Findings

Take Home Message

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# The Reform

- Workers in firms with more than 10 employees elect **firm-level representatives**
- Starting in 2009 these elections become more salient and *consequential*:
  1. National level union representativeness based on firm-level elections
  2. Union delegates at firm-level can be picked up *only* among elections candidates passing a 10% threshold
  3. A coalition of unions needs at least 30% to sign agreements within firms (50% for a single union)
- Union delegates negotiate every year **at firm-level**
- Firms' election calendar **unchanged**: they switch in the new system at the first post 2009 election

# Data

## 1. DADS (matched employer–employee)

- Construct *firm-level* outcomes (means, quantiles, dispersion).
- Balanced firm panel, 2005–2012.

## 2. MARS (workplace elections)

- Administrative register of workers' representative elections.
- Identify each establishment's first election after Jan 2009 (treatment start).

## 3. Base D@ccord (collective agreements)

- Administrative database of firm-level agreements
- Annual indicators for (i) presence of an agreement and (ii) presence of each content topic.

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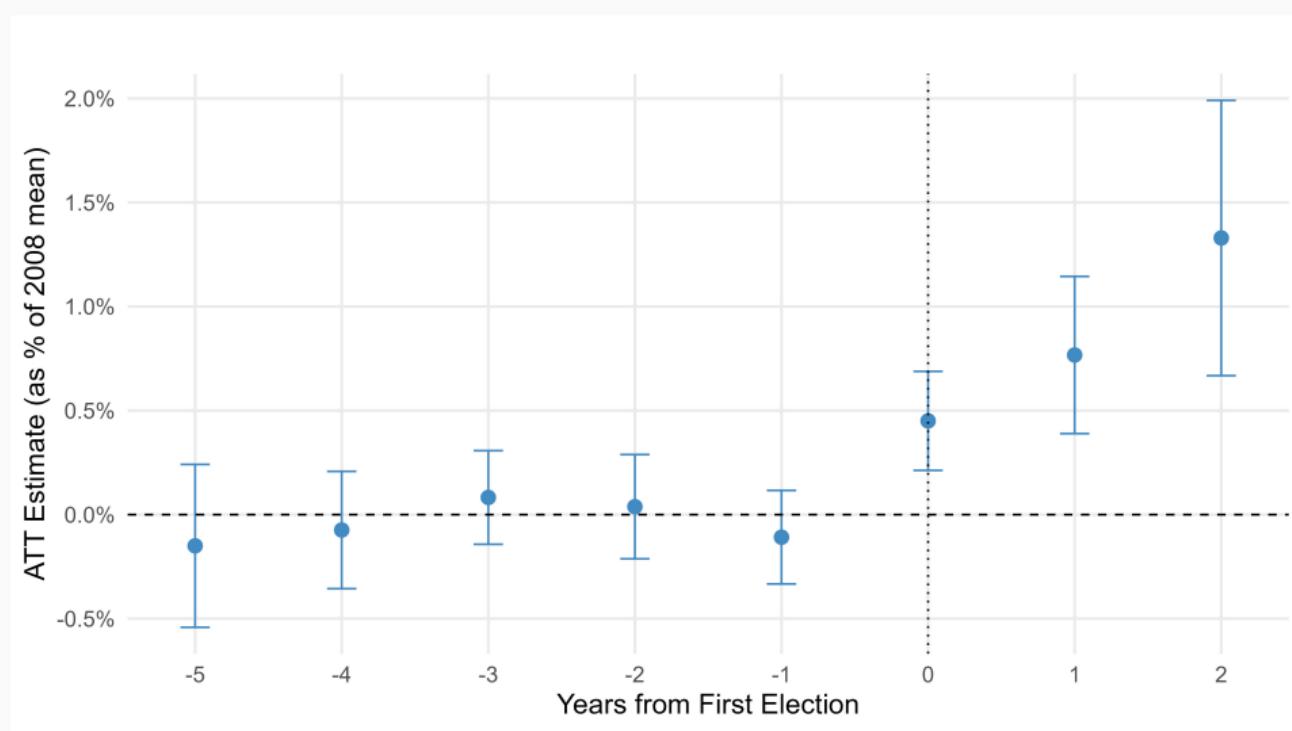
# Methodology

- **Design:** Staggered adoption of the 2008 reform  $\Rightarrow$  compare firms treated in  $t$  with those *not-yet-treated* in  $t$  (two-period  $2 \times 2$  comparisons). Baker et al. 2025
- **Assumptions:**
  - (i) *No Anticipation* (pre-treatment potential outcomes unaffected).
  - (ii) *Conditional Parallel Trends* using 2008 size, region, and sector covariates.
  - (iii) *Strong Group-level Overlap* (for each treated cohort-time, a non-empty not-yet-treated comparison set).
- **Estimation:** doubly-robust DiD with modern nuisance learning; dynamic aggregation over exposure duration (years since first post-reform election).

Sant'Anna and Zhao 2020

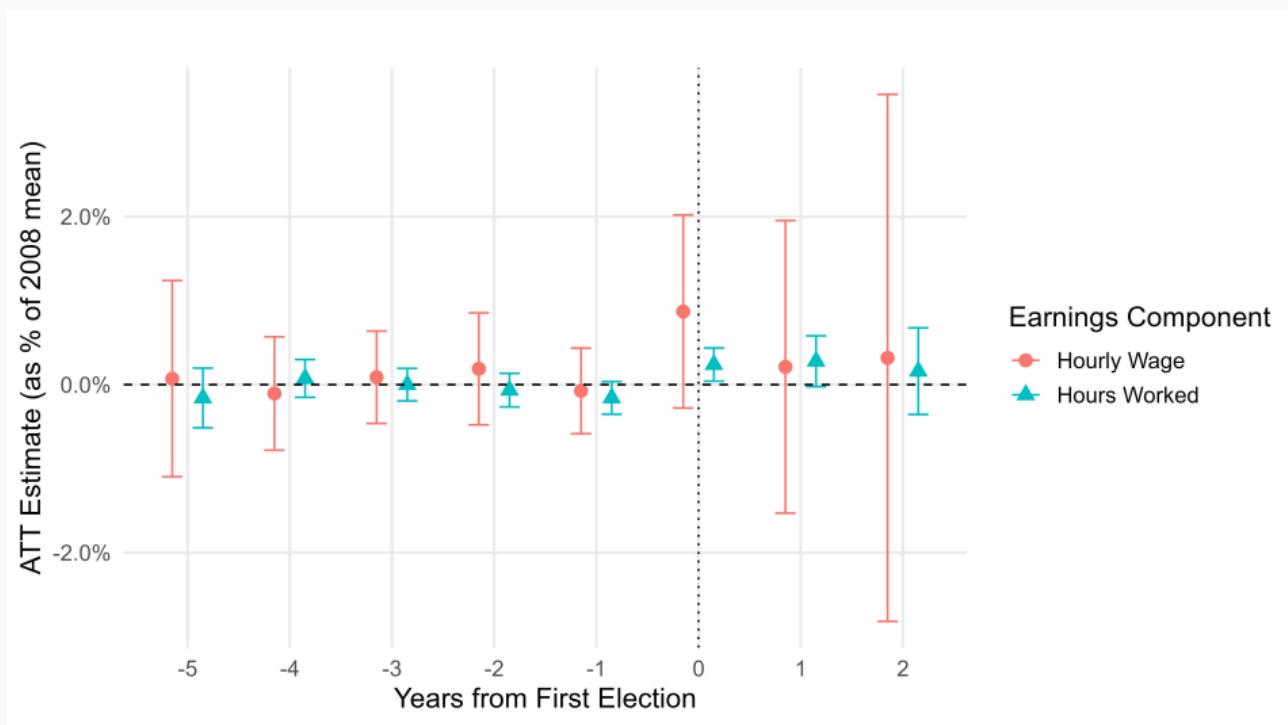
# Increase in Mean Annual Earnings

Figure 1: ATT on yearly wages



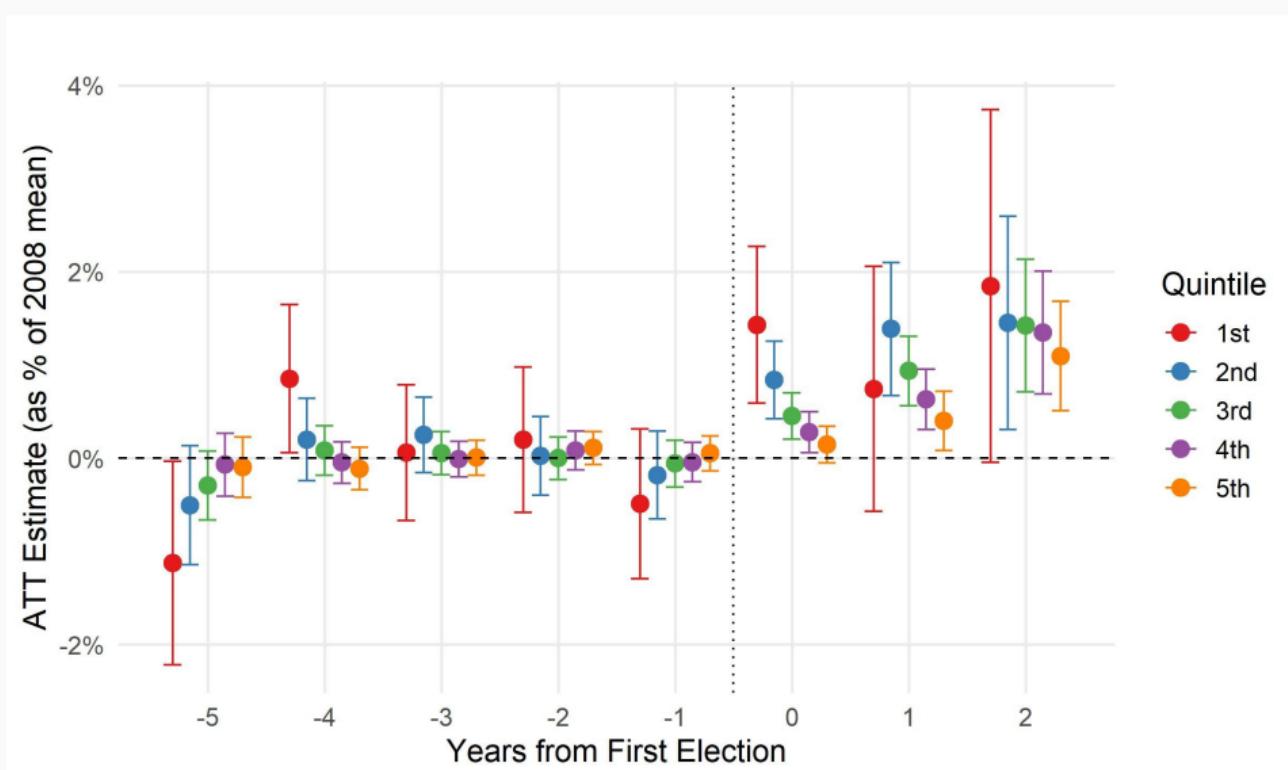
# Increase in Hours Worked not Hourly Wage

Figure 2: ATT on yearly wages



# Decrease of Within Firm Earnings Inequality

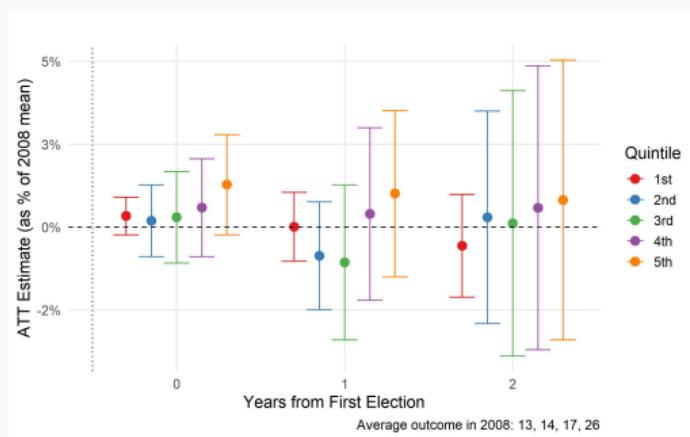
Figure 3: ATT by yearly earnings quintile means



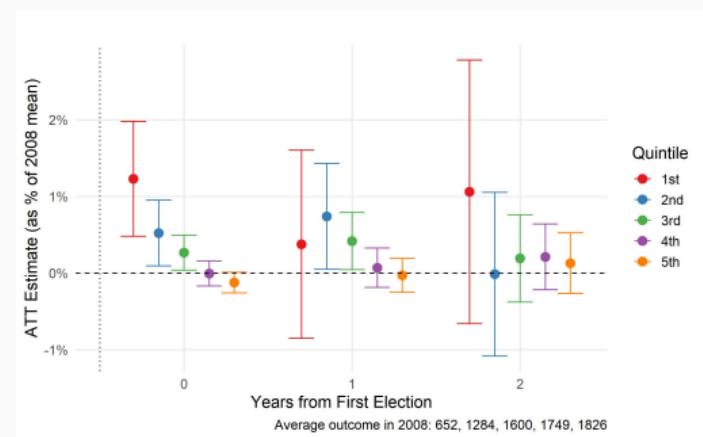
# Hours Worked as Drivers of Inequality Reduction

Figure 4: ATT on Quintiles of Earnings Components

(a) Hourly Wage



(b) Hours Worked

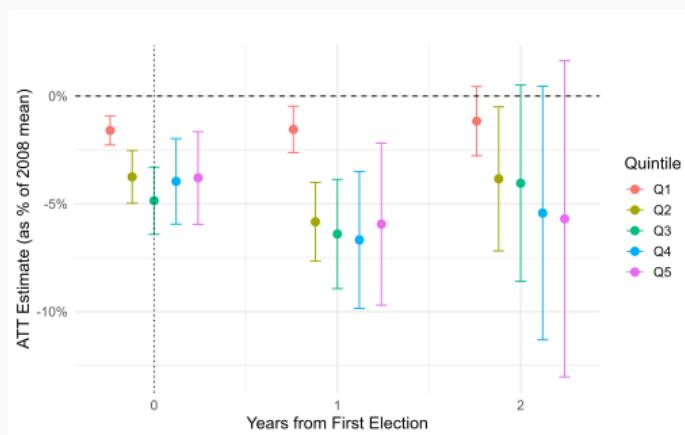


Pre-trends

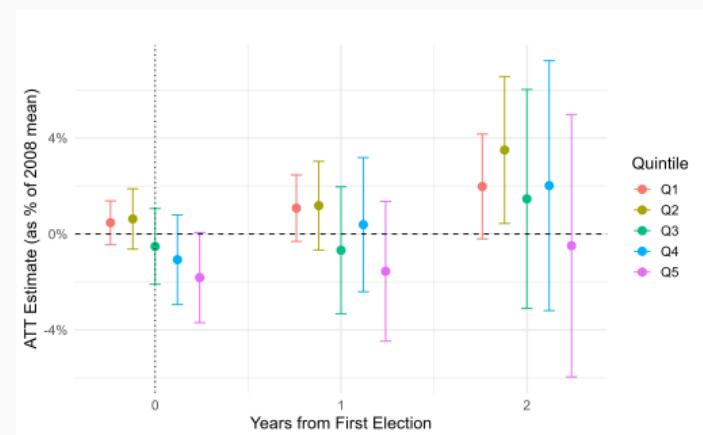
# Increase of Hours Worked for Incumbent Workers

**Figure 5:** ATT on labour flows

**(a) Hirings**



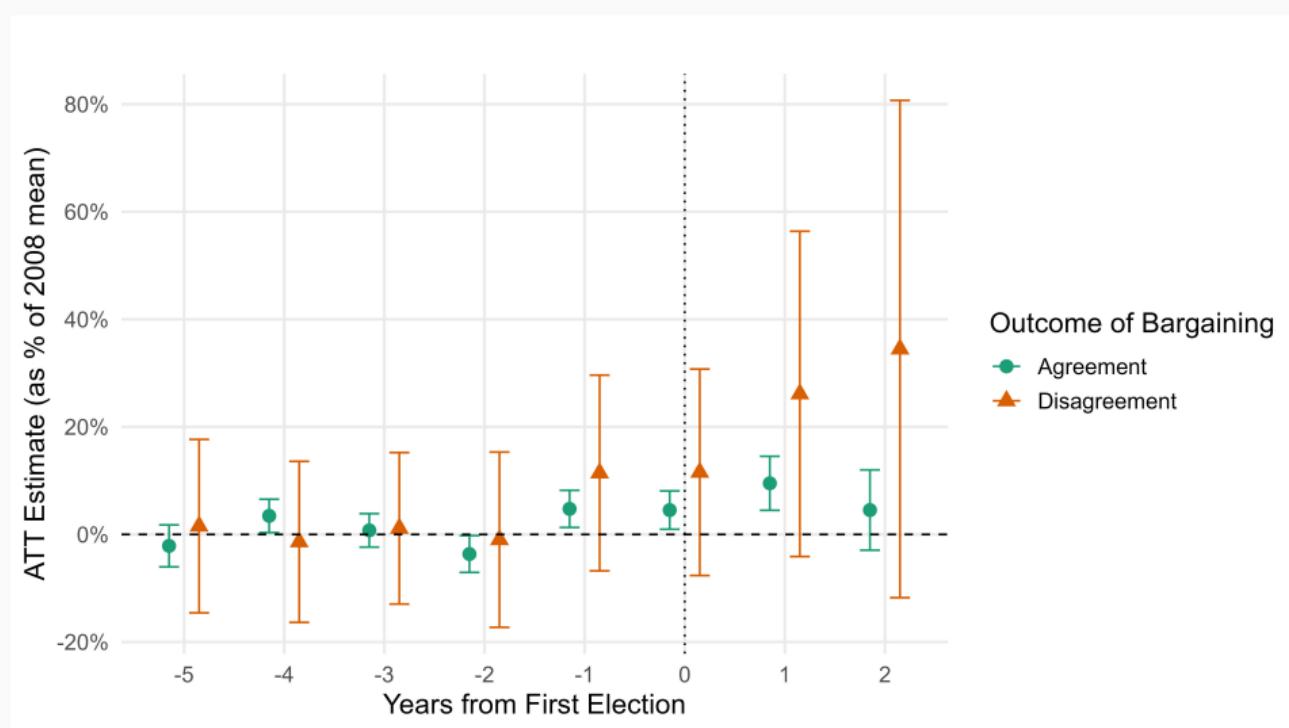
**(b) Terminations**



Pre-trends

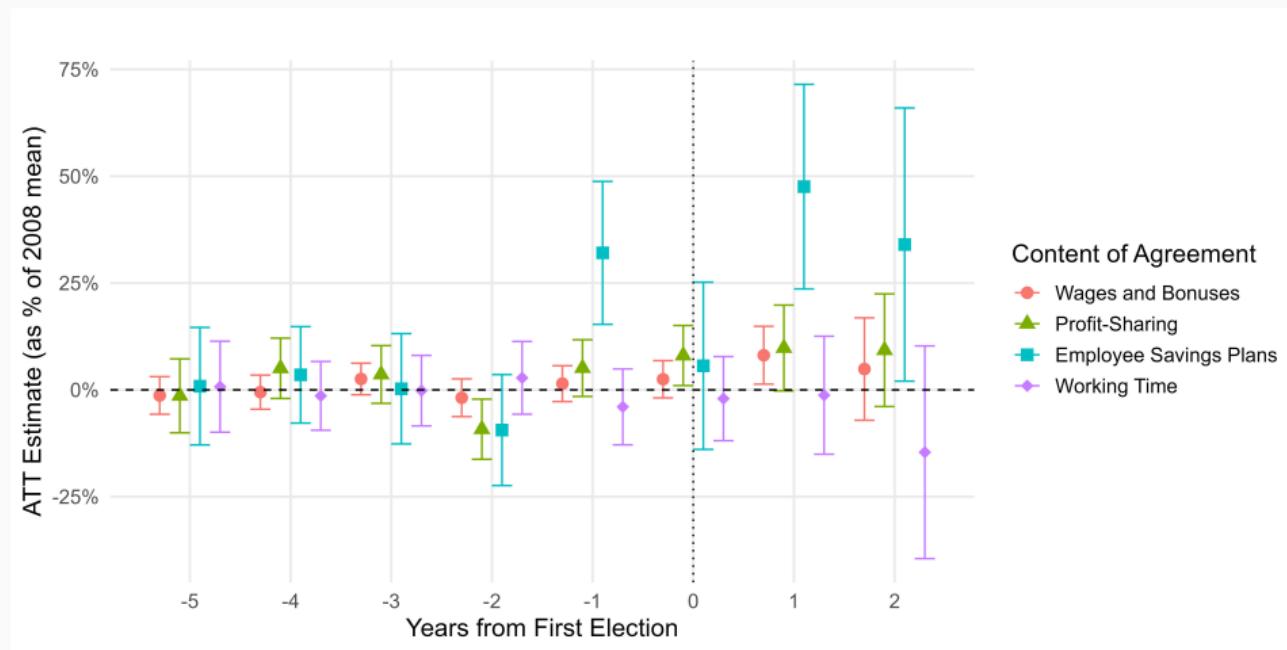
# More Agreements at the Bargaining Table

Figure 6: ATT by yearly wage quintiles



# What We are not Measuring: Saving Plans, Profit Sharing and Bonuses

Figure 7: ATT by yearly wage quintiles



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## Take Home Message

- **Electoral accountability** of union representatives can affect firm-level outcomes
- Rather than wage hikes, firms **reallocates hours to insiders**.
- **Reduction of within firm inequality**: lower earners gain more, while headcount expansion is curbed at the top.
- **Future Steps**:
  1. Investigate the **mechanism**: preference alignment vs increased legitimacy.
  2. Going **quarterly** for labour flows and bargaining.
  3. FICUS/FARE for firm-level profitability and additional outcomes.

# APPENDIX

## Previous Literature

- Early work: focus on **union presence** vs. absence → wage premia and reduced inequality (Farber et al. 2018; DiNardo, Fortin, and Lemieux 1996; Dustmann, Ludsteck, and Schönberg 2009; DiNardo and Lee 2004).
- More recent evidence: union effects depend on **context and design** — leadership (Boudreau et al. 2024), bargaining power and firm rents (Breda 2015), fragmentation costs (Dugardin 2019).
- **Ideology matters**: radical vs. reformist unions generate different wage and mobility outcomes (Pecheu, Jäger, and Breda 2024).
- Membership and agreements interact to shape **within-firm compression** (Svarstad and Nymoen 2023); new unionization can affect payrolls and survival via composition, not just wages (Frandsen 2021).

# Setup and Notation for staggered DiD

- **Panel and cohorts.** Firms  $i = 1, \dots, n$ , periods  $t = 1, \dots, T$ . First election under the new regime (first treatment time)  $G_i \in \{1, \dots, T, \infty\}$ ; never-treated  $G_i = \infty$ .
- **Treatment status.** Absorbing exposure  $D_{it} = \mathbf{1}\{t \geq G_i\}$ ; event time  $e = t - G_i$  (post:  $e \geq 0$ ).
- **Controls.**  $X_i$  are 2008 covariates used throughout (firm size, sector, region).
- **Not-yet-treated comparison.** At time  $t$ , controls are  $C_t = \{i : G_i > t\}$  (a classic “not-yet-treated” design).
- **Outcomes.** Potential outcomes  $Y_{it}(0)$  (no exposure by  $t$ ) and  $Y_{it}(1)$  (exposed by  $t$ ). We report  $\omega$ -weighted effects;  $\mathbb{E}_\omega[\cdot]$  denotes weighted means.

Notation and organization follow Baker et al. 2025.

## Identification assumptions (staggered DiD, NYT design)

### (A1) No Anticipation with Staggered Adoption

For any eventually treated unit ( $G_i = g < \infty$ ) and any pre-treatment period  $t < g$ :

$$Y_{it}(g) = Y_{it}(\infty).$$

*Interpretation:* outcomes can respond to treatment only from the adoption period onward.

### (A2) Parallel Trends using Not-Yet-Treated

For any  $g < \infty$  and  $t \geq g$ , with comparison set  $\{i : G_i > t\}$ ,

$$\mathbb{E}[ Y_{it}(\infty) - Y_{i,t-1}(\infty) \mid G_i = g, X_i] = \mathbb{E}[ Y_{it}(\infty) - Y_{i,t-1}(\infty) \mid G_i > t, X_i].$$

*Interpretation:* conditional pre-treatment drift is the same for cohort  $g$  and not-yet-treated units.

## Identification Assumptions (II)

### (A3) Overlap / Positivity

For any  $(g, t)$  with  $t \geq g$  and any  $x$  in the support of  $X_i$ :

$$0 < \Pr(G_i = g \mid X_i = x) \quad \text{and} \quad 0 < \Pr(G_i > t \mid X_i = x).$$

*Interpretation:* both the treated cohort  $g$  and the not-yet-treated comparison exist at each  $x$ ; weights and conditional adjustments are well-behaved.

# Target Parameters and Aggregation

- **Group-time effect (post  $t \geq g$ ):**

$$ATT(g, t) = \mathbb{E}_\omega [Y_t(g) - Y_t(\infty) \mid G_i = g].$$

- **Event-time effect:** pool across  $(g, t)$  with  $e = t - g$ ,

$$ATT^{ES}(e) = \mathbb{E}_\omega [ATT(g, t) \mid t - g = e].$$

- **Dynamic aggregation (what we report in tables):**

$$ATT^{Dyn}(\mathcal{E}) = \sum_{e \in \mathcal{E}} w_e ATT^{ES}(e),$$

- $w_e \propto$  treated obs. exposed at event time  $e$  ( $\sum_e w_e = 1$ ).
- Typical windows:  $\mathcal{E} = \{0, 1, 2\}$  (Years 0–2 since first election).

# Estimation with Covariates (Doubly Robust)

**Setup.** Let  $\Delta Y_{it} = Y_{it} - Y_{i,t-1}$  and  $\bar{\Delta Y}_{g,t} = \mathbb{E}_\omega[\Delta Y_{it} \mid G_i = g]$ . Define the control regression and odds:

$$m_{g,t}(x) \equiv \mathbb{E}_\omega[\Delta Y_{it} \mid X_i = x, G_i > t], \quad \pi_{g,t}(x) \equiv \frac{\mathbb{P}(G_i = g \mid X_i = x)}{\mathbb{P}(G_i > t \mid X_i = x)}.$$

**Doubly Robust (AIPW) estimator of  $ATT(g, t)$ :**

$$\widehat{ATT}_{DR}(g, t) = \bar{\Delta Y}_{g,t} - \mathbb{E}_\omega[\hat{m}_{g,t}(X_i) \mid G_i = g] \\ - \frac{\mathbb{E}_\omega[\hat{\pi}_{g,t}(X_i) \{\Delta Y_{it} - \hat{m}_{g,t}(X_i)\} \mathbf{1}\{G_i > t\}]}{\mathbb{E}_\omega[\hat{\pi}_{g,t}(X_i) \mathbf{1}\{G_i > t\}]}.$$

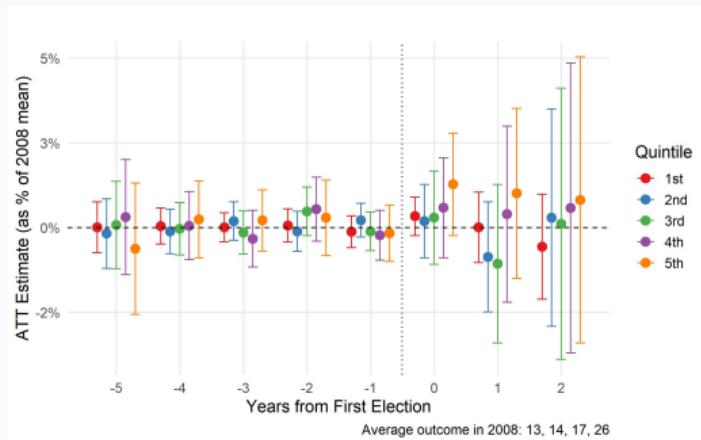
- Nuisance models  $\hat{m}_{g,t}$  and  $\hat{\pi}_{g,t}$  are fit with 2008  $X_i$ ; we use cross-fitting and firm-clustered standard errors.
- Event-study and dynamic aggregation: compute  $\widehat{ATT}(g, t)$ , map to event time  $\widehat{ATT}^{ES}(e)$ , then aggregate to  $\widehat{ATT}^{Dyn}$  using only NYT comparisons.

References: Baker et al. 2025; Sant'Anna and Zhao 2020.

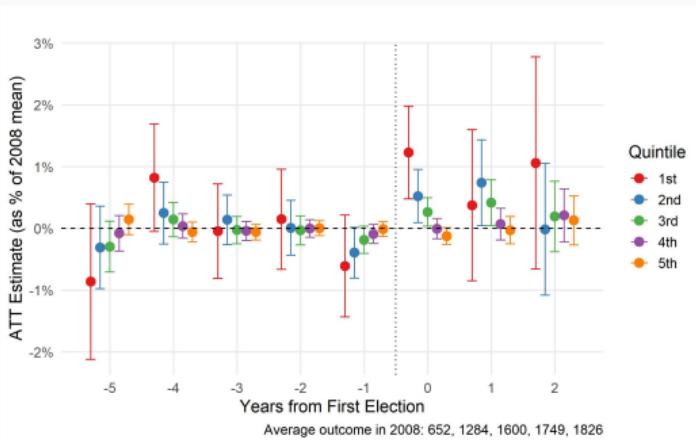
# Drivers of Earnings Inequality Reduction

**Figure 8: ATT on Quintiles of Earnings Components**

**(a) Hourly Wage**



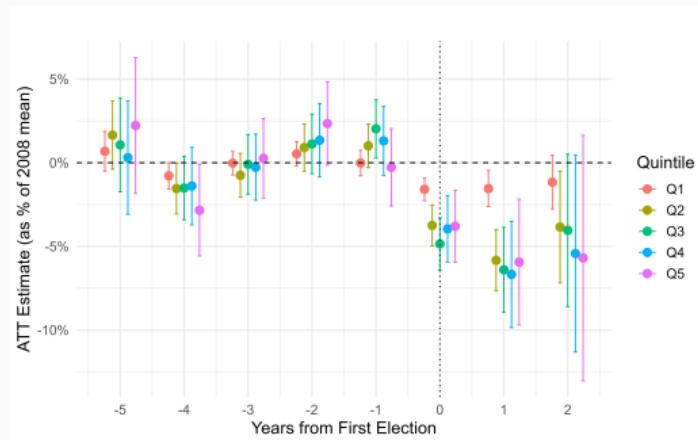
**(b) Hours Worked**



# Compositional Effects on the Labour Force

**Figure 9:** ATT on labour flows

**(a) Hirings**



**(b) Terminations**

