

MONOPSONY ONE HUNDRED YEARS ON

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Outline

The Resurrection of Monopsony

Beyond Functional Inequality

Channel 1: Amenities

Channel 2: Collective Bargaining and Minimum Wages

Channel 3: Regulatory Failures on Anticompetitive Practices

Conclusions

The Word “Monopsony” in the Literature

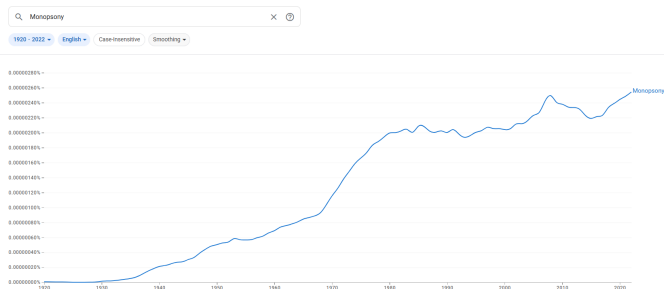


Figure: Frequency of “Monopsony” in published literature (1920–2022).
Source: Google Ngram

100 years old

The Economics of Imperfect Competition (1933). Joan Robinson
monopsony as a single buyer of labour facing an upward-sloping supply curve.

Resurgence associated with 3 facts

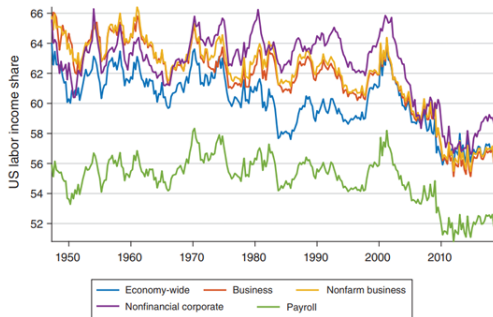
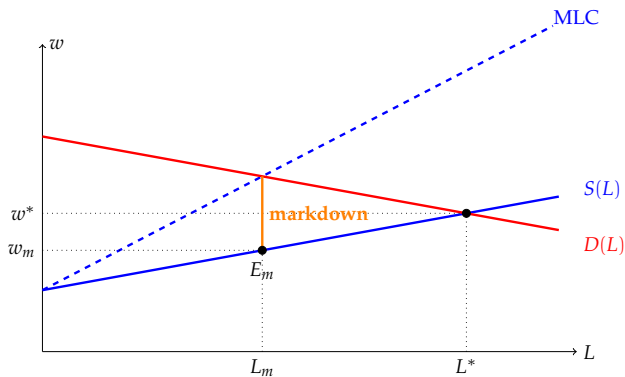


Figure: Source: Bergholt et al., 2022. "The Decline of the Labor Share: New Empirical Evidence." (*American Economic Journal: Macroeconomics*)

- 1 Decline of the **labour share** since the 1980s
- 2 **Wageless recoveries**, and wage moderation in tight markets
- 3 Non-negative employment effects of **minimum wage hikes**.

What does (pure) monopsony do to wages?



More compelling evidence of Monopsony Power

Estimate	Min	Median	Max
Firm-level labour supply elasticity (ϵ)	0.096 ^a	1.69 [†]	5.1 ^b
Markdown (w/MRPL)	0.13 ^a	0.63 [‡]	0.87 ^c
Wage–HHI elasticity	−0.095 ^d	−0.045 [§]	−0.019 ^e

[†]Weighted median, Sokolova & Sorensen (2021) meta-analysis (1,320 estimates). [‡]Derived from S&S (2021) weighted median $m = 0.59$: $w/\text{MRPL} = 1/(1 + m)$. [§]Author's computation: median across 7 studies (one representative estimate per study). ^aDube, Jacobs, Naidu & Suri (2020) — Amazon Mechanical Turk. ^bGoolsbee & Syverson (2023) — US tenure-track faculty. ^cLamadon, Mogstad & Setzler (2022) — US administrative data. ^dMarinescu, Ouss & Pape (2021) — France. ^eBassanini et al. (2022/2026) — Germany. *Source:* Author's elaboration based on ≈ 32 studies.

► Full table

And stronger theoretical foundations

① **Beyond *pure* Monopsony** [Burdett & Mortensen, 1998]

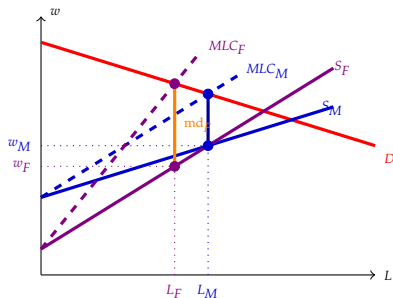
Even with many firms and homogeneous labour, search frictions and on-the-job search generate upward-sloping firm-level labor supply. Equilibria with high-wage and low-separations (large) firms, and low-wage high-separation (small) firms.

② **Monopsony as normal case** [Manning 2003]

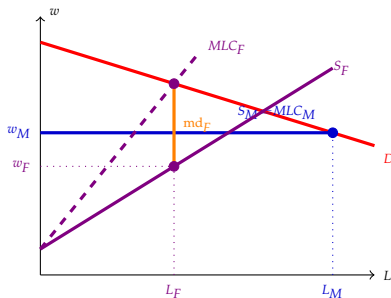
Any friction (mobility costs, family ties, information frictions, preferences over amenities) generates **upward-sloping** labor supply.

The original intuition was also about *personal* earning inequality

(a) Upward-sloping S_M



(b) Perfectly elastic S_M



"There may be two type of workers (for example, men and women) whose efficiencies are equal, but whose conditions of supply are different. It may be necessary to pay the same wage within each group, but the wages of the two groups may differ." [Robinson, 1933]

What does Monopsony do to Earnings Inequality?

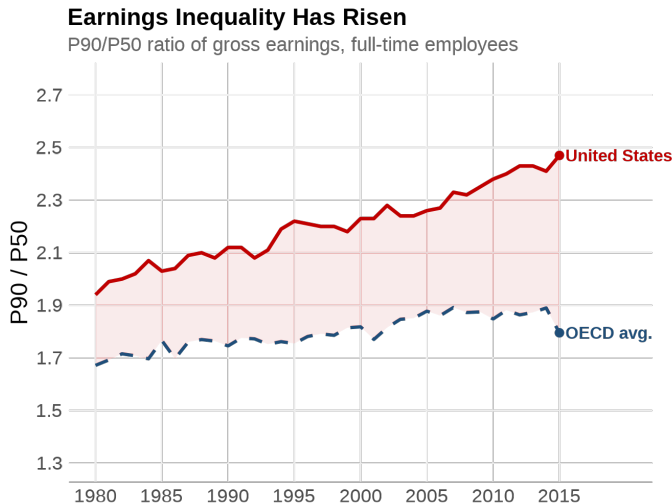


Figure: Source: The Chartbook of Economic Inequality

Three avenues of research at the roots of monopsony power

① Amenities and idiosyncratic preferences

Workers value different non-wage attributes. Heterogeneous preferences make firm-level supply more inelastic. Like frictions.

② Decline of collective bargaining coverage

Reduction in the main institutional counterweight to employer power, notably at the lower end of the wage distribution. Relevance of minimum wages.

③ Regulatory failures

Poorly regulated anticompetitive practices in the labor market. Non-compete agreements (NCAs) and other contractual covenants limiting mobility, even when legally void.

Common thread

All three reduce **workers' outside options or bargaining power**, making labor supply more inelastic. **How do they operate along the wage distribution?**

Amenities and Idiosyncratic Preferences

Standard theory: workers accept lower wages for valuable job attributes. Competitive markets generate *compensating differentials* — workers are fully compensated. [Rosen, 1974]

Under monopsony: workers who strongly value a specific amenity have a lower reservation wage for that job. Employers can **offer amenities instead of wages** and extract surplus. [Manning, 2003]

- More idiosyncratic preferences (horizontal taste for amenities differentiation) $\Rightarrow$ more inelastic supply, even without concentration [Taber & Vejlín, 2020]
- Wage moderation in tight markets may partly reflect amenity-for-wage substitution (e.g., remote working after Covid)
- But amenities can also affect market size potentially increasing competition in labor markets.

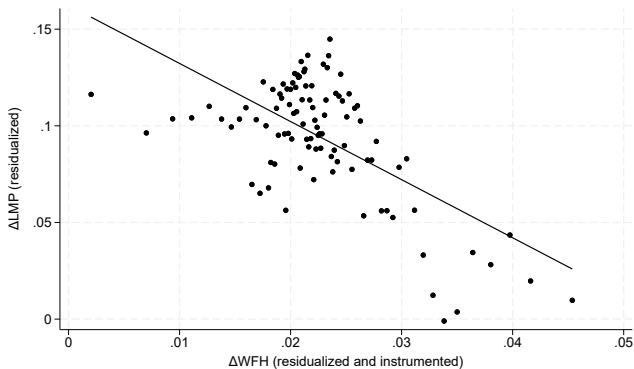
Example of Working from Home (WFH)

Remote work and labour market power (Boeri, Lambert, Mottironi, Naticchioni, in progress)

- Preferences for Remote Work idiosyncratic, depending on preferences for alternative locations and housing conditions (*horizontal differentiation increasing monopsony power*)
- but WFH also reduces travel to work time for everybody expanding labor market borders (*increasing market size hence competition*)
- Based on frontier ltm over Lightcast job posting, we measure those offering WFH arrangements and use the pre-pandemic **share** of remotable jobs in US as instrument, and Covid as **shift**
- WFH reduces (revenue based) markdowns by 1/5 wrt counterfactual. The **competition effect dominates**. Also workers with no WFH (and little preferences for it) may benefit.

Markdowns and WFH

Figure: Change in Labor Market Power and Exposure to WFH



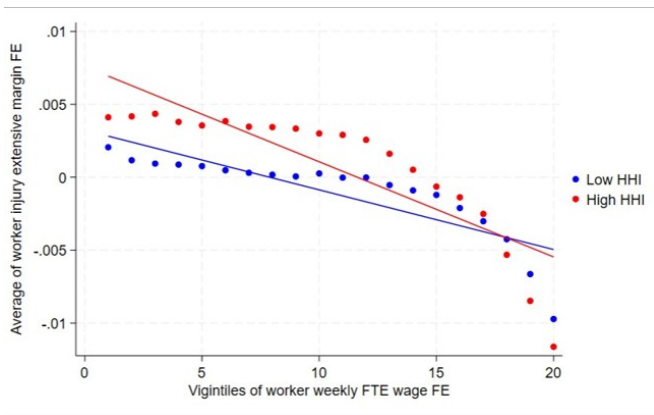
Endogenous Amenities: Work Safety

Market Concentration, Work Injuries and Reporting (Armillei, Boeri, Manning, Naticchioni, in progress):

- Model where employers choose wages, investment in safety and injury reporting policy subject to workers participation constraint
- Theory predicts that higher monopsony power involves a lower wage, and lower investment in workplace safety. Effects on reporting accidents are ambiguous (depend on inspections, replacement rates and value of leisure).
- Based on social security data and controlling for unobservable firm and worker (time invariant) characteristics, We find that in concentrated markets injury risk increases especially for low type workers.

Fixed effects correlations

Figure: Injury risk and monopsony power by vigintiles of workers FE



Unions as a Counterweight

A union facing a monopsonist can restore competitive wages — in theory. In practice:

- Union density: 40–60% in most OECD countries in the 1970s → 10–20% today [OECD, 2024]
- Decline also in the effective coverage of collective bargaining and increasing competition between unions
- Union decline linked to declining labour share, and rising **markdowns**. [Card, Lemieux & Riddell, 2004; Farber et al., 2021; Crescioli & Martelli, 2023]

The open questions

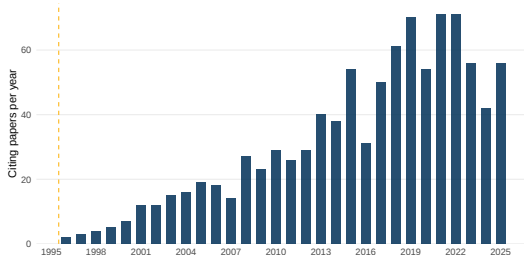
To which extent minimum wages compensate for loss of power of unions?

Literature on Employment Effects of MINWA hikes

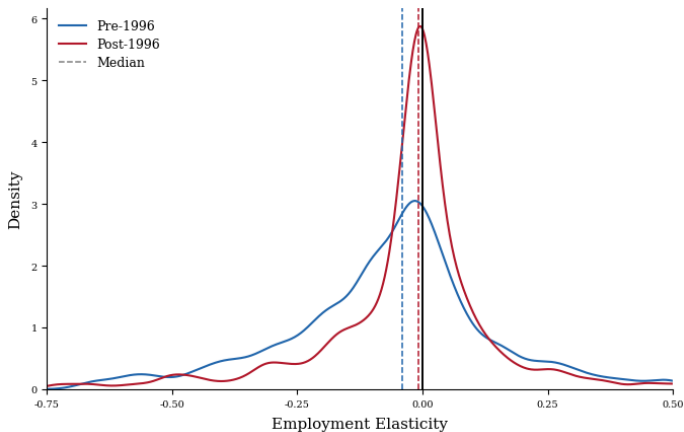
Boeri and Tartaglia (ongoing)

- review 2145 elasticity estimates from 114 studies in 20 countries
- elasticity to MINWA hikes of employment to minwage elasticities
- We find a positive linear and a negative quadratic in line with monopsony
- Focus also on before and after Card and Kruger (1994 and 1996)

Figure: Citations of Card and Krueger (1996)



Employment elasticities to Minimum Wage Hikes



Shift rightwards

Before 1996: mean=-0.066 median=-0.040 34.5 % ≥ 0

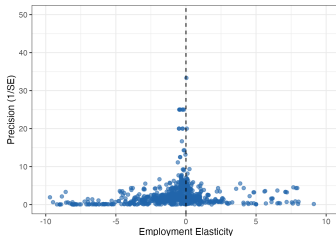
After 1996: mean=-0.031 median=-0.008 44.0 % ≥ 0

Publication bias?

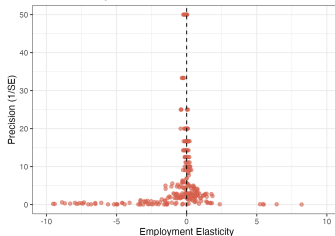
Figure: Funnel Plots — Top Four Countries by Observation Count

Funnel Plots — Top 4 Countries by Observation Count

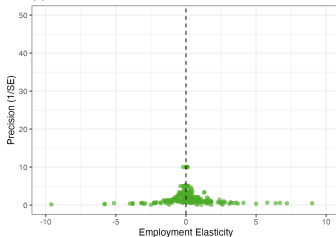
(b) United States



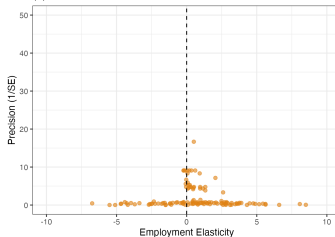
(c) United Kingdom



(d) Brazil



(e) China



Elasticity trimmed to [-10, 10].

Otherways Unions can Counteract Monopsony Power: Anti-competitive practices

Boeri, Crescioli, Garnero & Luisetto (2026)

- **Data:** ~1,000 sectoral CBAs (Légifrance, 1950–2024) linked to firm balance sheets (Orbis, 1996–2023)
- **Treatment:** year CBA first regulates NCAs *beyond* national case law (duration, scope, or minimum compensation)
- **Strategy:** staggered DiD + shift-share IV (union density in other European countries)

Enforcement of regulations and collective bargaining

- Sectors with active NCA regulation in CBAs: **1.3%–2.2% lower markdowns**
- Effect grows over time (gradual compliance and contract renewal)
- Strongest for **smaller, lower-wage firms** where workers are least informed

Complementarity

2002 Court of Cassation ruling (mandatory NCA compensation) reduces markdowns *only* in sectors where CBAs already regulated NCAs.

National law needs CBA enforcement to bite.

Key takeaway

Unions remain effective — but only when they **actively regulate** the specific practices that generate monopsony. Passive presence is not enough.

NCAs: A Global Regulatory Failure

Boeri, Garnero, Luisetto & Meluzzi (ongoing) — first multi-country NCA survey: $\approx 6,000$ firms + 32,000 workers, 15 OECD countries.

- NCAs cover **between one sixth and two fifths** of private-sector workers — median is 30 %
- **Rising in nearly every country**: 8–20% of firms report increased use over the past five years; a clear majority plan further expansion
- Spread across the **full skill and wage distribution**, not confined to high-skilled workers

Three uses

Targeted (hold-up): protects training and confidential information.

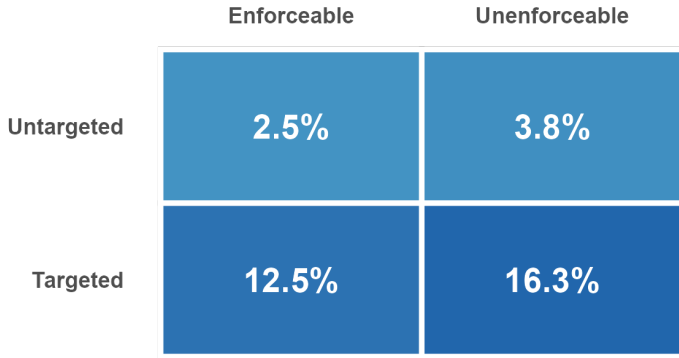
Untargeted (rent-extraction): applied to workers with no access to either.

Collusive: correlated with no-poaching agreements — especially in small firms.

NCA Types: Incidence

NCA Types: Incidence Among All Workers

% of all employees (pooled, weighted)



Source: Employee Survey (Lot 1). Weighted pooled estimates.

Regulatory Failure: Unenforceable NCAs Are the Norm

- Between **one third and four fifths** of NCAs fail at least one statutory requirement for validity
- In **9 out of 15 countries**, unenforceable clauses outnumber enforceable ones
- **55–80% of employers** using invalid clauses in countries with mandatory compensation *know* compensation is required

Deliberate noncompliance, not ignorance

Firms knowingly deploy unenforceable clauses. This is rational: workers behave as if bound, regardless of legal validity.

Even bans fail

Mexico prohibits NCAs outright — yet 36% of Mexican workers report being covered by one, *all* unenforceable by definition.

The *In Terrorem* Effect: Unenforceable NCAs Restrict Mobility

Workers subject to NCAs search **less for alternative employment**, even when their clause is legally void:

NCA status	Reduction in job search
Enforceable NCA	−17%
Unenforceable NCA	−8%

Why? Workers are poorly positioned to assess legal validity for two compounding reasons:

- ① **Inattention at signing:** clauses are buried in contracts and accepted under time pressure
- ② **Timing:** $\approx$ half of workers first learn about their NCA *after* accepting the offer — when outside options have already narrowed

Bargaining Restores Efficiency — When It Happens

Only $\approx 30\%$ of **NCA holders** negotiate their clause. Those who do obtain sharply better outcomes:

- **+11–16 pp** more likely to receive employer-provided training
- **+17–18 pp** more likely to receive a retention raise after an outside offer
- Non-negotiated NCAs: **no amenity premium** over workers without NCAs

Disclosure works

Learning about the NCA *before* accepting the offer raises:

- +18% probability of bargaining
- +29% conditional success rate

Policy implication

Pre-acceptance disclosure — requiring full contract disclosure before the offer is accepted — targets the informational mechanism directly, without restricting legitimate NCA use.

Putting things together on NCAs

- NCAs directly reduce outside options $\Rightarrow$ more inelastic supply $\Rightarrow$ higher markdown — even when the clause is legally void
- Harm is concentrated among **untargeted** uses: women, older, low-wage workers with no training or confidential-information exposure
- Collective bargaining **reduces markdowns precisely by regulating NCAs** — but only where CBAs actively set stricter floors

Taking stock (to date)

- Research on monopsony is more than ever lively
- Monopsony is **large, widespread, and growing** — documented consistently across methods and countries
- The empirical evidence is robust; the gap is in understanding **structural sources**
- Collapse of collective bargaining, regulatory failures, and horizontal taste differentiation over amenities contribute to explain it.
- The three forces reinforce each other.
- Low end of the wage distribution particularly exposed
- More than about functional we should worry about personal inequality over earning and welfare

Open Questions and Policy Choices

- ① **The amenity channel:** how much of the markdown is offset by non-wage compensation? Needs survey-based hedonic estimates.
- ② **NCA's and investment:** do NCAs also encourage R&D and training, or only suppress wages? The hold-up vs. mobility trade-off is unsettled.
- ③ **Unions and NCAs** Ideology or ignorance? Under tight markets flexibility is pro-workers. Train union members?
- ④ **Policy in low-union environments:** not only minimum wages, better controls on dis-amenities (e.g., better enforcement of safety standards) and transparency over contracts (not only over pay!)
- ⑤ **No-poaching and informal collusion:** hard to detect, harder to prosecute — but survey evidence suggests it is common: should Antitrust keep on ignoring the labor market?

Thank you!

Appendix: Labour-Supply Elasticities

Study	Country	Period	Key estimate
Azar, Berry & Marinescu (2022)	US	early 2010s	$\varepsilon_f = 4.8$; markdown $m \approx 0.21$
Bassier, Dube & Naidu (2022)	US (Oregon)	2000–2017	$\varepsilon_f = 4.0$ –4.2
Berger, Herkenhoff & Mongey (2022)	US	1977–2014	$\varepsilon_f = 2.56$; $w/\text{MRPL} = 0.72$ –0.78
Caldwell & Oehlens (2022)	US (Uber)	2012–2019	$\varepsilon_f = 1.5$; markdown = 30%
Dube, Jacobs, Naidu & Suri (2020)	US (AMT)	2014–2017	$\varepsilon_f = 0.096$; $w/\text{MRPL} < 0.13$
Goolsbee & Syverson (2023)	US (univ.)	2002–2016	$\varepsilon_f = 5.1$ –28.6
Kroft, Luo, Mogstad & Setzler (2022)	US (constr.)	2001–2015	$\varepsilon_f = 4.1$; markdown = 25–29%
Lamadon, Mogstad & Setzler (2022)	US	2001–2015	$\varepsilon_f = 6.52$; $w/\text{MRPL} = 0.87$
Rousille & Scuderi (2023)	US (online)	2010s	$\varepsilon_f = 3.6$ –5.7; markdown = 24%
Sokolova & Sorensen (2021)	Meta (53 st.)	–2020	Weighted median $\varepsilon_f = 1.69$; w/MRPL median = 0.63
Sulis (2011)	Italy	1985–1996	$\varepsilon_f = 0.31$ –0.40; $m \approx 2.5$ –3.3
Webber (2015)	US	1985–2008	ε_f mean = 1.08; w/MRPL mean = 0.52
Yeh, Macaluso & Hershbein (2022)	US (manuf.)	1976–2014	$\varepsilon_f = 1.88$; $\text{MRPL}/w = 1.53$, $m = 0.53$

Appendix: Production-Function Markdowns

Study	Country	Period	Key estimate
Caselli, Mondolo & Schiavo (2023)	Italy (manuf.)	2011–2018	w / MRPL rises from 1.05 to 1.17
Diez, Malacrino & Shibata (2022)	10 EU countries	2000–2017	Median MRPL / w = 1.58; mean = 1.83
Kirov & Traina (2023)	US (manuf.)	1972–2014	Mean MRPL / w rises from ~ 1 to ~ 2
Kroft et al. (2022)	US (constr.)	2001–2015	Markdown = 25–29%
Mertens (2022)	Germany	1995–2014	Markdown = 31–42%
Mondolo (2022)	Italy (manuf.)	2010–2018	Avg. w / MRPL slightly > 1 , growing
Yeh, Macaluso & Hershbein (2022)	US (manuf.)	1976–2014	MRPL / w = 1.53 on avg.; m = 0.53

Note: Caselli et al. and Mondolo find w / MRPL > 1 in Italian manufacturing, consistent with bargaining power shifting over the sample period.

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Appendix: Concentration and Wages

Study	Country	Period	Key estimate
Arnold (2025)	US	1999–2009	Market LS elasticity = 0.87; earnings–HHI $\approx$ -0.22 (IV)
Azar et al. (2020)	US	2016	Baseline HHI $\approx$ 3,953; 54% markets highly conc.
Bassanini, Batut & Caroli (2023)	France	2010–2017	Wage–HHI elasticity: -0.019 to -0.030
Bassanini et al. (2022/2026)	6 EU cttries	2010s	Wage–HHI elasticity: -0.022 to -0.029
Benmelech, Bergman & Kim (2022)	US (manuf.)	1978–2016	Wage–HHI semi-el.: -0.03 to -0.06 (IV)
Marinescu, Ouss & Pape (2021)	France	2011–2015	Wage–HHI elasticity: -0.095
Passerini (2025)	Italy	2005–2018	Wage–HHI elasticity: -0.09 to -0.14 ; median HHI $\approx$ 0.14
Rinz (2022)	US	1976–2015	Preferred wage–HHI elasticity: -0.032

Notes: HHI on 0–10,000 scale except Passerini (0–1 scale). All estimates suggest higher concentration is associated with lower wages; magnitude ranges from -0.019 to -0.14 across specifications and countries.

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Appendix: NCA Incidence by Country

Country	Targ.+Enf.	Targ.+Unenf.	Untarg.+Enf.	Untarg.+Unenf.
			(% of all workers)	
Belgium	10.4	18.4	1.6	3.0
Canada	20.4	15.6	2.0	2.9
France	12.7	18.2	3.3	6.9
Germany	11.0	18.1	1.5	4.0
Italy	2.8	9.8	0.4	2.7
Japan	19.1	12.0	6.9	6.3
Korea	18.9	18.0	5.3	5.2
Mexico	0.0	31.7	0.0	4.3
New Zealand	20.0	10.6	4.8	2.0
Poland	9.4	11.8	2.4	3.7
Portugal	4.7	17.9	1.1	4.1
Spain	8.6	15.4	0.7	5.0
Sweden	12.3	20.2	1.1	2.9
Switzerland	22.4	15.4	3.5	1.9
UK	14.8	10.7	2.4	1.6

Notes: Each cell = share of all employees (weighted) whose NCA falls in that cell. **Targeted** = worker received employer-provided training or has access to confidential information. **Enforceable** = NCA satisfies legal requirements (compensation, time limit, geographic scope). Source: Employee Survey (Lot 1).

Appendix: NCA Incidence Heterogeneity

	Targ.+Enf.	Targ.+Unenf. (% of all workers)	Untarg.+Enf.	Untarg.+Unenf.
<i>Gender</i>				
Male	13.0	16.9	2.5	3.7
Female	12.0	15.5	2.4	3.9
<i>Age</i>				
18–29	17.7	19.7	1.7	2.4
30–44	13.4	17.4	2.3	3.7
45–54	10.6	15.3	2.8	3.9
55+	8.4	12.3	3.2	5.0
<i>Education</i>				
Low (ISCED 0–2)	11.3	13.9	3.8	5.8
Medium (ISCED 3–4)	9.4	14.7	2.9	4.4
High (ISCED 5+)	17.2	19.6	1.9	2.5
<i>Occupation</i>				
Manager	24.2	24.9	0.6	0.9
Professional	16.4	19.7	1.5	2.0
Other	8.2	12.8	3.3	5.2
<i>Sector</i>				
Business Services	19.4	18.6	1.8	2.4
Manufacturing	10.7	15.4	2.8	4.1
Trade & Hospitality	9.1	14.8	2.9	4.3
Construction	13.0	16.9	2.5	4.4
Other Services	8.2	14.4	2.5	4.6

Notes: Each cell = % of all employees (weighted, pooled) in that NCA type and demographic group. **Targeted** = worker received employer-provided training or has access to confidential information. **Enforceable** = NCA satisfies legal requirements. Income percentiles based on self-reported earnings. Occupation: manager, professional, other. Source: Employee Survey.