

The Freelance Revolution: Is It Changing How Firms Hire?

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Motivation

- Over the past two decades, freelancing has emerged as one profound structural change in labor markets
- Yet, it's a “neglected group” of the workforce
 - Not a legal nor official concept. But SE \neq “SE workers”
 - Freelancers = labor supplied *outside* employment contracts (paid by invoice)
- A new adjustment margin for firms: no payroll taxes, no termination costs, flexible, increasingly available across tasks
- **Question:** When freelance supply rises, do firms *substitute* salaried jobs or *scale* output (or both)? What happens to wages?

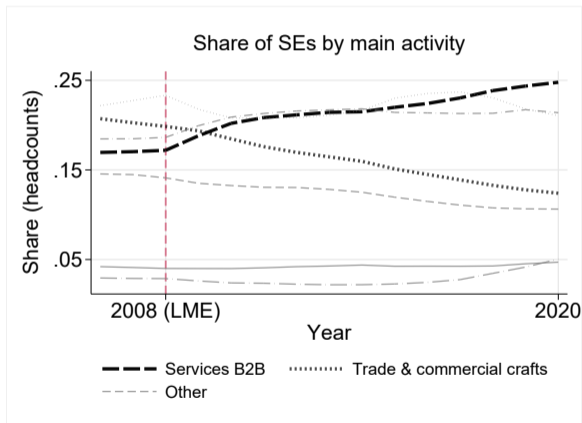
The Rise of the Freelance Economy in France

- In France, the rise of freelance labor has been particularly sharp from 2009, following the creation of the status of *autoentrepreneur* (*Loi de Modernisation de l'Économie*)



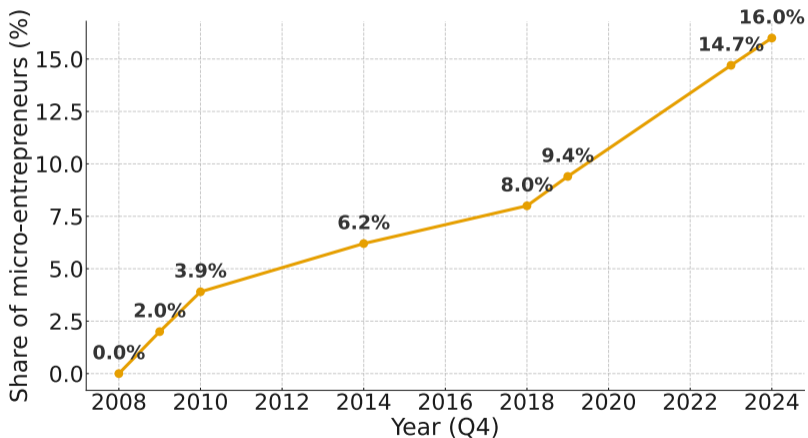
Note: AE = Auto-entrepreneur; EI = Traditional Entrepreneur Individuel; SE = Total

Firms are likely increasingly turning to Freelancers



SE growth

AE ratio of private sector employment



Note: Denominator = salaried employment in industry, construction, and market services (Insee, end of Q4). Numerator = administratively-active micro-entrepreneurs at end-December (URSSAF).

What I do

Empirical strategy

Using administrative tax data on French private sector salaried and SE workers, and firms
(*INSEE: Base Tous Salariés, Base Non Salariés, accounting FARE*):

- I exploit a quasi-natural experiment (LME reform)
- I estimate the elasticity of firms' labor demand to SE growth

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- Treatment: firm exposure X occupational SE shocks
 1. **shifts**: exogenous to conditions in a specific firm
 2. **shares**: firms are heterogeneously exposed based on their pre-reform occupational structure
- Intuition: If an occupation becomes easier to freelance, firms more reliant on it should adjust their hiring more.

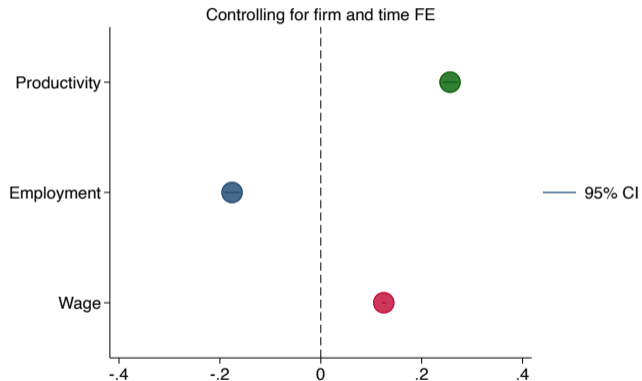
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- Intuition: If an occupation becomes easier to freelance, firms more reliant on it should adjust their hiring more.
- **Key challenge:** Matching sector-level SE growth to firms. I do it through sectors' *and* firms' occupational structures (mapping SE from sectors to occupations, then to firm's exposure)

Substitutes or complements?

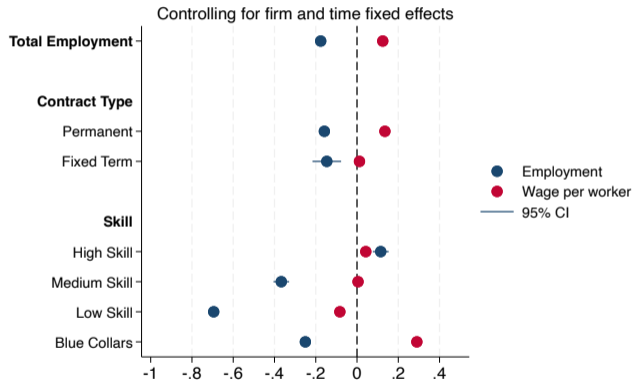


Firms incentives & Dual employment

	Permanent	Fixed-Term	SE
Flexibility	Low	Medium	High
Payroll taxes	Yes	Yes	-
Severance pay	Yes	-	-
<i>Prime de précarité</i>	-	10% gross salary	-
Social protections	Health, retirement	Health, retirement	Self-funded
Base Salary	Yes	Yes	Negotiated

- Cost-saving alternative to already flexible inputs, as they perform tasks with no comparative advantage from tenure
- Flexible alternative to permanent contracts, but the replacement cost may be too high in the short-term

Heterogeneous effects



Literature

The existing related literature focuses on

- **Technological and organizational change and job polarization**
 - Skill-biased or task-based replacement vs. augmentation vs. productivity effects
 - Unit-level occupational exposure measures to structural changes
- **“Traditional” concepts of labor domestic outsourcing**
 - Different substitution/complementarity margins: low-skill, non-core jobs, mediated relationship \neq outsourcing towards SE workers (unexplored)
 - Different consequences: Contractor firms' *employees* vs. one-individual firms
- **Dual labor markets**
 - Permanent jobs vs. temporary jobs? SE is a third distinct margin
 - SE could substitute for temporary and/or permanent roles, or none
- **The labor-supply side of freelancing**
 - Individuals' decisions into self-employment
 - The rise of the gig-economy (Katz and Krueger, ILR 2019 vs Abraham et al, AEA 2019)

Conclusion

Do firms treat freelancers as substitutes or complement?

- I study how the expansion of freelance labor in France affects firm's labor outcomes
- The literature is silent: firms' *use* of SE workers is unobserved (and endogenous)
- So I ask: Do firms *more exposed* to exogenous SE supply shocks...
 - Have higher labor productivity?
 - Mechanically, yes. This validates treatment but doesn't tell us whether SE outsourcing → productivity gains
 - Reduce employment?
 - Yes. SE workers are substitutes, overall.
 - Pay higher salaries?
 - Maybe. Their average wage per worker increases.
 - Is it pass-through or compositional effects?
 - Compositional, with job polarization implications.

Thank you.

Appendix

A policy-induced microcosm of sectoral shifts toward SE

Quasi-natural experiment

- The AE regime is a new distinct SE status with respect to traditional SE
 - Simplified tax regime subject to turnover thresholds
 - Minimal fiscal and admin burdens
- The AE regime took effect in January 2009, generating:
 - A sudden policy-driven increase in SE entries
 - SE growth in both skilled and routine tasks
 - A shift in firm hiring possibilities — a new “technology” for accessing labor
- The reform is horizontal and exogenous to firm-level demand, providing a quasi-experimental setting

SE growth

What I do

Data sources

I combine SE growth in each (4-digit) sector with occupational data for sectors and firms:

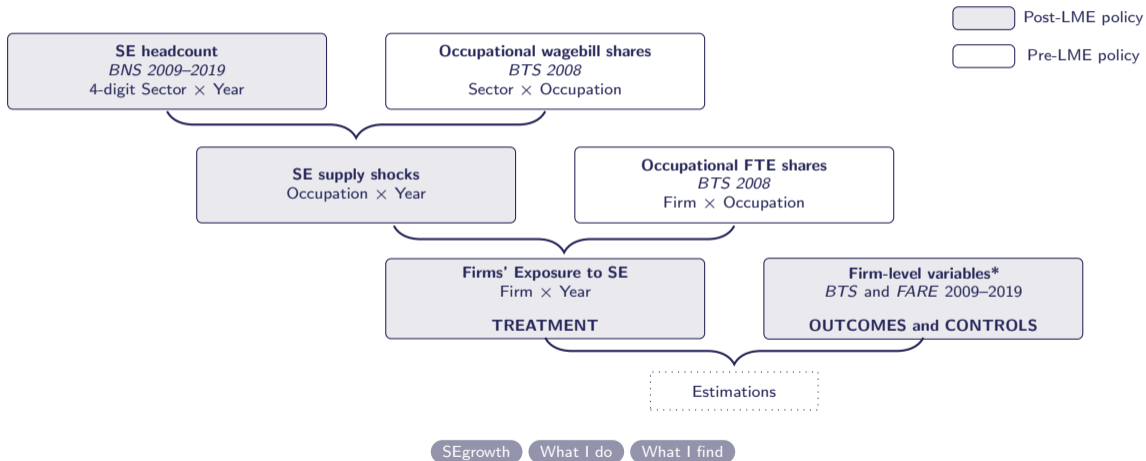
- Number of SE workers in each sector and year
 - *Base Non Salariés (2006-2019)*: Tax declarations for each SE individual
 - SE sample: active, single-worker SE, EU France
 - Excluded: Non-active SE, SE that hire employees during the year, majority shareholders
- Salaried workforce composition (e.g., by occupation, employment contract, skill)
 - *Base Tous Salariés (Postes) (2008-2019)*: Admin data on payroll taxes for each job-spell
- Firm's productivity (value added per employee)
 - FARE (2009-2019): Balance-sheet and income statement data

SEgrowth

What I do

What I find

Data and variable construction



Shift-share design

- RQ: How does the availability of SE workers affect firms?
- Treatment: firms becoming more exposed

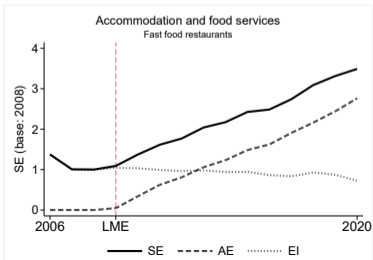
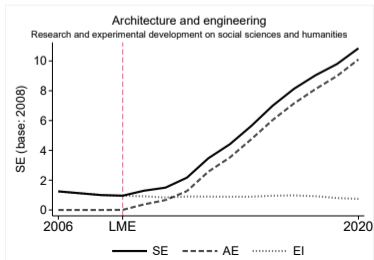
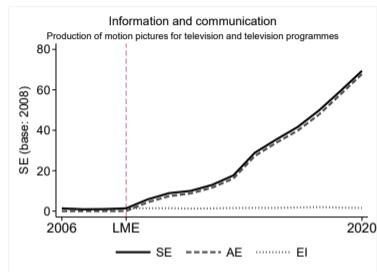
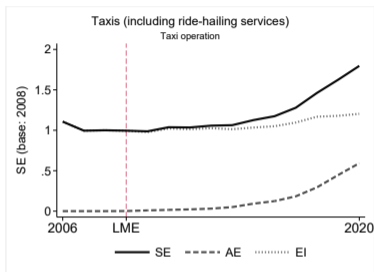
$$y_{it} = \beta + \beta_{SS} \cdot SS_{it-1} + \theta_t + \psi_i + \varepsilon_{it}$$

- y_{it} : log outcome (firm i , year t)
- SE_{ot} : SE “employable” to perform o (**unobservable**)
- SS_{it} : firm i 's exposure to shifts in SE supply

$$SS_{it} = \sum_o s_{oi} \log \hat{SE}_{ot} \quad \text{and} \quad \hat{SE}_{ot} = \sum_a s_{oa} \cdot SE_{at}$$

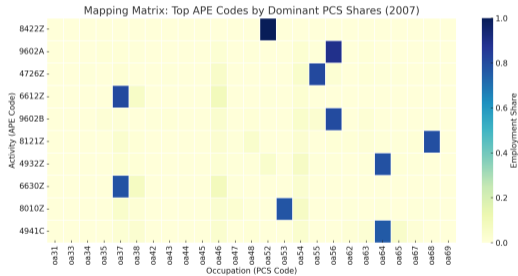
- s_{oi} , s_{oa} : FTE/wagebill labor share of o in firm i /activity a , respectively (pre reform)
- θ_t , ψ_i : year and firm effects

The extent of growth varied across business activities

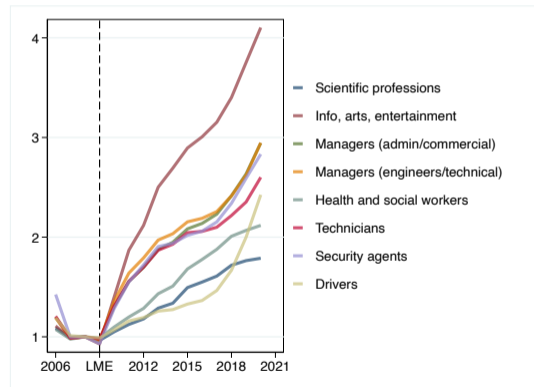


Shock: SE growth across occupations

Mapping SE activity → occupation:



SE growth by occupation:



Matrix row

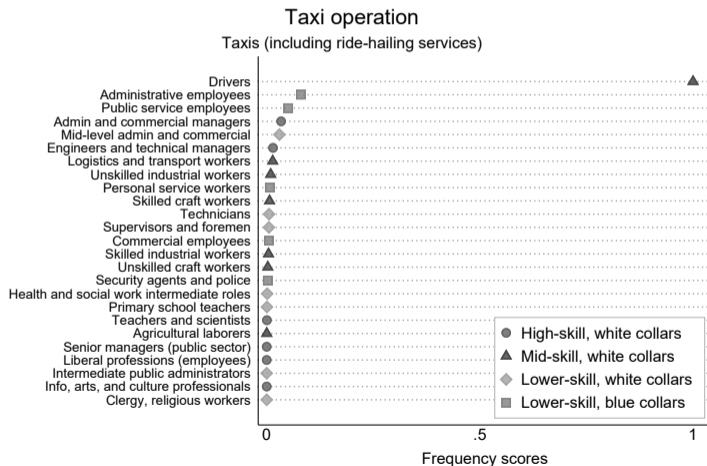
Observed shocks

Shift-share design

What I do

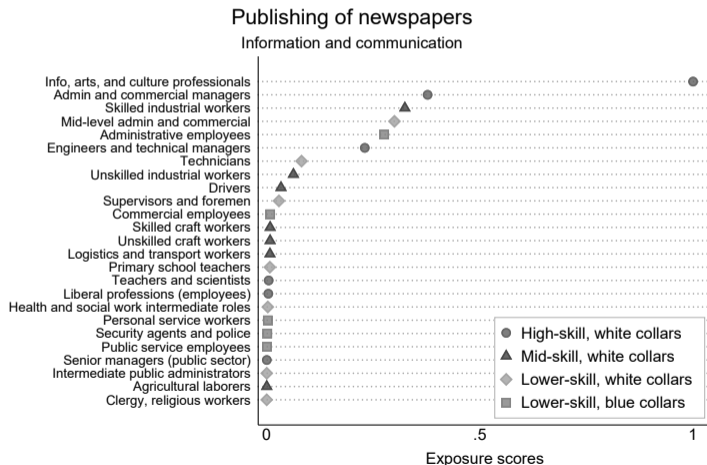
What I find

Sector-occupation mapping (example of one single row)



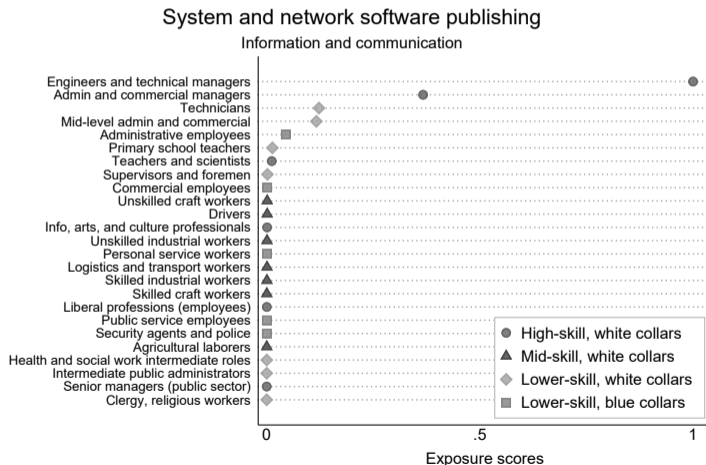
Note: Frequency scores for all (2-digit) occupation codes (descending order).

Sector-occupation mapping (example of one single row)



Note: Exposure for all (2-digit) occupation codes (descending order).

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