Common Ownership, Employment, and Worker Mobility: Evidence from Venture Capital*

Mario Leccese† Zeyang Xue◇

July 1, 2026

Abstract

We study how common ownership shapes employment and the mobility of human capital across firms. We construct a novel dataset combining LinkedIn-based employment histories with venture capital (VC) investment data for U.S. ventures. Common ownership links firms that may otherwise compete for workers, but shared investors may also reduce matching frictions and facilitate worker reallocation across portfolio companies. We find that ventures with shared investors expand employment and experience higher turnover and job-to-job mobility. These effects are partly driven by worker flows within investor portfolios and are stronger when the shared investor holds a board seat, pointing to active governance as an important channel. Employment and mobility rise without corresponding wage growth, suggesting that common ownership may increase the supply of workers to portfolio firms. The positive effects on employment and mobility are also weaker in more concentrated local labor markets, indicating that network benefits are attenuated when labor market power concerns are more salient. Overall, our results suggest that common ownership can operate as an internal labor market across formally independent ventures, facilitating hiring and worker mobility.

Keywords: common ownership; labor market; venture capital; competition; innovation

JEL Codes: J60, L20, L40, O31

*We thank Jill Grennan, Ginger Jin, Joao Monteiro, Katie Moon (Discussant), Raviv Murciano-Goroff, Tim Simcoe, Rosemarie Ziedonis, Luigi Zingales and conference and seminar participants at Boston University, EIEF, the 2026 UniBg Winter IO Workshop, and the 2026 ASSA meeting for constructive comments. We are grateful to the Mehrotra Institute for Business, Markets, and Society for providing us with the Pitchbook database, and to OpenCorporates for providing free academic access through its Public Benefit Project. Yongjang Seo provided excellent research assistance. All errors are our own.

†Boston University, Questrom School of Business. Email: leccese@bu.edu.

◇Boston University, Questrom School of Business. Email: zxue@bu.edu.

1. Introduction

This paper provides new evidence on how common ownership affects employment and worker mobility. Common ownership arises when investors hold stakes in multiple firms within the same industry and has become increasingly prevalent (Gutiérrez and Philippon 2016; Backus et al. 2021b), raising new questions about how overlapping financial interests shape firm behavior. A large literature shows that common ownership can soften product market rivalry and alter firms' innovation incentives (Azar et al. 2018; Antón et al. 2025), yet we know much less about its implications for the allocation of human capital, where the networks created by shared investors may influence how firms compete for, retain, and deploy workers. We address this gap by studying the venture capital sector. This sector is not only central to entrepreneurial growth and innovation (Kortum and Lerner 2000; Puri and Zarutskie 2012), but also one in which investors frequently hold stakes in multiple ventures within the same industry and geography (Eldar and Grennan 2021; Chen et al. 2010) and play active roles in monitoring and governance (Hellmann and Puri 2002; Bernstein et al. 2016; Gompers et al. 2020).

Understanding how common ownership affects labor-market dynamics is important for assessing its broader implications for firm growth and competition, especially in settings where human capital is central to innovation (Stolpe 2002; Rosenkopf and Almeida 2003; Agrawal et al. 2006) and competitive advantage (Coff 1997; Lippman and Rumelt 1982). This question is also increasingly relevant for antitrust policy. Recent antitrust enforcement debates have placed greater emphasis on labor-market considerations (Shapiro 2019), while agencies have also expressed growing concern about common ownership and minority investments.[1] These concerns are reflected in the 2023 Merger Guidelines, which separately address mergers involving competing buyers in labor markets and acquisitions involving partial ownership or minority interests.[2]

The existing literature on common ownership points to a potential negative effect on employment and worker mobility. If managers maximize shareholders' value, the presence of investors with financial interests in multiple firms that compete with one

[1] For example, the Federal Trade Commission held a hearing on common ownership in 2018, and the European Commission examined the potential effects of common ownership in Dow/DuPont and Bayer/Monsanto (Burnside and Kidane 2020).

[2] Guideline #10 of the 2023 Merger Guidelines states: "When a Merger Involves Competing Buyers, the Agencies Examine Whether It May Substantially Lessen Competition for Workers, Creators, Suppliers, or Other Providers." Guideline #11 of the 2023 Merger Guidelines states: "When an Acquisition Involves Partial Ownership or Minority Interests, the Agencies Examine Its Impact on Competition." Guidelines: https://www.justice.gov/atr/merger-guidelines.

another may reduce firms' incentives to compete aggressively. In labor markets, this logic implies that common ownership may soften competition for workers: portfolio firms may internalize worker diversion across commonly owned employers, becoming less willing to poach employees from one another. Ownership links may also facilitate collusion through "no-poach" agreements.[3]

However, we highlight a countervailing channel through which common ownership can increase employment and worker mobility: common investors may act as labor-market intermediaries. Even without direct control over hiring decisions, shared investors can transmit information about job opportunities, refer talent across portfolio companies, and facilitate worker redeployment after shocks or exits, thereby reducing search and matching frictions across otherwise independent firms. In this sense, common VC ownership may create an internal labor market across formally independent ventures, analogous to the way large organizations reallocate workers across units (Baker and Holmstrom 1995; Cestone et al. 2024).[4] This mechanism is visible in the recruiting infrastructure of the venture capital industry, where many VC firms maintain portfolio-wide job boards and talent networks that aggregate vacancies across independent portfolio companies.[5] Therefore, the net effect of common ownership on employment and worker mobility is theoretically ambiguous.

To provide evidence on how common ownership affects employment and worker mobility, we combine comprehensive venture capital (VC) investment data from PitchBook and VentureXpert with micro-level data on employee movements from Revelio Labs to construct a panel of ventures operating across industries and Core Based Statistical Areas (CBSAs). We focus on high-growth ventures that raised VC financing between 1990 and 2021, and collect information on their state of incorporation from VentureXpert and OpenCorporates.

We first examine whether ventures that start sharing investors with other ventures active in the same industry–CBSA (henceforth, "a local market") exhibit changes in employment and worker mobility. Becoming commonly owned is associated with a 32% expansion in venture employment and a 30% increase in the turnover rate relative to independent ventures. We also document a 42% increase in the likelihood of a job-to-

[3]For instance, in the early 2000s, several Silicon Valley firms entered into agreements not to recruit each other's employees (Gibson 2024). Herrera-Caicedo et al. (2025) shows that such agreements were associated with firms sharing a common leader, such as a board member.

[4]Appendix A offers a discussion of the theoretical foundation of our empirical analyses.

[5]As an example, Figure D.1 reports a screenshot of Andreessen Horowitz's portfolio jobs board. Although the public components of these platforms are accessible to workers outside the portfolio, they illustrate that investors actively organize labor-market information around their portfolio firms.

job (J2J) mobility event, defined as an employee leaving the firm and starting a new job within one year, with even larger effects for within-local-market J2J. These effects are economically large. As a benchmark, Johnson et al. (2023) estimates that banning non-compete agreements in a state where they are fully enforceable would increase high-tech worker mobility by roughly 60%. The corresponding mobility effect of common VC ownership is about 40% as large as moving from full non-compete enforceability to non-enforceability. These patterns are not driven solely by low-seniority personnel: common ownership raises the likelihood of C-suite replacement and expands the hiring of scientists and engineers. Moreover, J2J flows increase across all seniority levels and are especially pronounced among scientists and engineers.

To address potential endogeneity concerns arising from unobservable local-market, time-varying shocks that may affect both investors' incentives to engage in common ownership and firm labor outcomes, we exploit variation from the staggered adoption of corporate opportunity waiver (COW) statutes across nine U.S. states between 2000 and 2016. These laws authorize firms incorporated in adopting states to include charter provisions that release directors and investors from liability when they pursue business opportunities that could otherwise be viewed as belonging to the firm (e.g., Rauterberg and Talley 2017). Because VCs often hold board seats and have access to sensitive information about their portfolio companies, investing in multiple related ventures can expose them to potential conflicts of interest. By limiting directors' and investors' exposure to this litigation risk, COW statutes reduce legal frictions associated with investing in multiple firms within the same local market. Importantly, Eldar and Grennan (2024) provides evidence that COW adoption was not driven by lobbying efforts or broader economic trends, was narrowly targeted at limiting fiduciary-duty liability, and was unrelated to incorporation choices, making these statutes unlikely to affect venture outcomes through channels other than common ownership.

We implement a stacked difference-in-differences design (Cengiz et al. 2019), constructing cohort-specific datasets around each COW law passage and estimating treatment effects within each cohort window. This design addresses the heterogeneity-induced biases that can affect conventional two-way fixed-effects DiD when treatment timing is staggered (Goodman-Bacon 2021). In the five years following COW adoption, firms incorporated in adopting states experience a 36% increase in common VC presence, accompanied by a 10.5% rise in employment, a 12.5% rise in turnover, and an 16% increase in the probability of worker mobility. We also follow Eldar and Grennan (2024) and instrument for common VC ownership with a venture's incorporation in a COW-

adopting state, with qualitatively similar results.

We then examine whether the effects of common ownership vary with the investors' ability to influence the governance of portfolio firms. If common investors facilitate labor reallocation by transmitting information, coordinating hiring, or actively connecting portfolio firms, their effects should be stronger when they have board representation. We find larger effects on employment and mobility when the shared investors sit on the board, indicating that common ownership operates not only through passive financial links but through active governance.

Two sets of analyses help interpret the economic forces behind our findings. First, we provide direct evidence that shared investors can function as intermediaries that facilitate worker mobility within investor portfolios. For each pair of ventures in the same CBSA, we estimate whether at least one worker moves between them as a function of sharing a common investor. Worker flows between two same-CBSA ventures are significantly more likely when the pair shares an investor, and more so when they operate in the same industry. Common ownership also facilitates redeployment after firm-level shocks: workers leaving sharply contracting firms are more likely to land at another portfolio firm, and C-suite executives leaving ventures that had an IPO more often join firms backed by the same investors. These results indicate that common ownership can create internal labor markets across formally independent ventures and that within-portfolio flows are one component of the documented increase in worker mobility.

Second, we consider wage adjustment and heterogeneity by local market concentration. The wage evidence helps interpret the joint increase in employment and worker mobility. If common ownership primarily raised labor demand or firm productivity, employment growth should place upward pressure on wages. Instead, we find that employment and mobility increase without corresponding wage growth; if anything, average wages decline, especially when common investors hold board seats. We interpret this evidence cautiously because wages are estimated, but the joint pattern of higher employment, greater mobility, and muted wage growth suggests that common ownership does not operate solely through a labor-demand channel. It points instead to an outward shift in effective labor supply: investor networks channel workers toward portfolio firms by making jobs more visible, reducing uncertainty about firm quality, and raising the value workers place on future mobility within the portfolio.

Nonetheless, common ownership could still soften competition for workers in some settings, particularly where workers have few outside options and commonly owned firms account for a large share of local employment. Measuring concentration with the

Herfindahl–Hirschman Index based on firms' employment shares within each industry–CBSA before common ownership arises, we show that the effects of common ownership on employment and worker mobility are systematically attenuated, but remain positive, in more concentrated local markets. This pattern suggests that common ownership may entail labor-market-power costs, but that in the VC ecosystem these costs coexist with, and on net do not offset, network benefits that facilitate hiring and worker reallocation.

Finally, we ask whether these firm-level effects translate into changes in local market outcomes. Aggregating to the industry–CBSA–year level and exploiting variation in the share of commonly owned ventures, we find that common ownership raises total employment and worker mobility within a local market, with no corresponding rise in average wages.

Overall, our results show that common ownership has effects that extend beyond product-market competition. In entrepreneurial labor markets, shared investors can function as intermediaries that facilitate hiring and worker mobility across independent ventures. The resulting expansion in employment and worker reallocation does not appear to reflect solely higher labor demand; it is also consistent with a shift in effective labor supply toward portfolio firms. Potential labor-market-power costs attenuate, but do not overturn, these effects.

Related Literature. Our analyses contribute to a large literature examining the effects of common ownership of public firms by passive institutional investors on prices (Azar et al. 2018), entry (Newham et al. 2025), innovation (Antón et al. 2025), and overall welfare (Backus et al. 2021a; Ederer and Pellegrino 2026). Closer to our work, Azar et al. (2022b) exploits a firm's inclusion in the S&P 500 index as a shock to the common ownership of its competitors in local labor markets. They conclude that common ownership reduces average annual earnings per employee and raises separation rates, but ultimately increases total employment in the local labor market.[6]

We complement this line of research by studying the VC industry, a different institutional setting characterized by the presence of investors with more significant control rights (Gompers et al. 2020) and by the existence of clear formal and informal mechanisms through which investors can monitor and influence the managerial strategy of their portfolio firms—such as the appointment of board representatives (Amornsiri-

[6]Relatedly, Emmens et al. (2024) studies how common ownership affects firms' automation decisions and the implications for employment. Moreover, Antón et al. (2023) shows that common ownership can shape managerial contracts, making them less performance-sensitive.

panitch et al. 2019; Ewens and Malenko 2020).[7] In this context, we provide evidence of novel outcomes shaped by common ownership. By doing so, we also contribute to an emerging literature on common ownership in the VC industry, which has documented its effects on firms' ability to raise VC, exit rates, innovation efficiency, and the reallocation of financial and innovation resources within the portfolio (González-Uribe 2020; Li et al. 2023; Eldar and Grennan 2024; Leccese 2024).

Moreover, our paper relates to the literature on internal labor markets and labor reallocation within ownership networks. Prior work shows that conglomerates and business groups use internal labor markets to reallocate workers across organizational units or affiliated firms in response to shocks and changing business conditions, with implications for productivity and competitive advantage (Giroud and Mueller 2015; Tate and Yang 2015; Belenzon and Tsolmon 2016; Faccio and O'Brien 2021; Huneeus et al. 2021; Tate and Yang 2024; Cestone et al. 2024). Unlike conglomerates or business groups, commonly owned ventures do not typically share a common balance sheet, integrated human-resources departments, or a controlling shareholder. Instead, they are independent firms connected through investors that hold minority stakes but may possess information about portfolio firms' labor needs and workers' skills. Our results show that such weaker ownership links can nevertheless generate labor-market intermediation, increasing within-portfolio flows and facilitating worker redeployment across portfolio firms after shocks. In doing so, we show that internal-labor-market forces can arise not only inside conglomerates or business groups, but also in investor networks connecting independent firms.

Labor-market outcomes have also become central in antitrust. A first strand of research examines the effects of mergers on labor markets, showing that consolidation can depress wages, reduce match quality, and sometimes lead to layoffs (Arnold 2019; Prager and Schmitt 2021; Montag 2023; Shi 2024). A second strand focuses on collusive practices, such as no-poach and wage-fixing agreements, which restrict worker mobility and suppress wages (Krueger and Ashenfelter 2022; Callaci et al. 2024; Lafontaine et al. 2025; Delabastita and Rubens 2025). Particularly relevant to our setting, where VCs often hold board seats, Herrera-Caicedo et al. (2025) show that sharing a common leader, such as a board member, increases the likelihood of entering a no-poach agreement. We contribute to this literature by focusing on a different form of consolidation—common ownership—which has gained traction in antitrust debates. We examine its implications

[7] A distinct but related literature studies the product market implications of interlocking directorates, highlighting how governance links across firms can affect competitive conduct (e.g., Barone et al. 2025).

not only for employment but also for worker mobility, a key driver of knowledge diffusion and innovation (Dasaratha 2023).[8]

2. Data

We assemble a novel dataset that combines venture capital investment, workers' employment trajectories, and legal incorporation records. This section describes the data sources, the procedure used to merge them, the construction of the main variables, and some summary statistics.

2.1. Data sources

Our primary data on venture capital investments comes from PitchBook and VentureXpert (LSEG Data & Analytics). Both datasets report detailed information on financing rounds, including the identity of the investee and investors, the date and type of each round, the investee's headquarters ZIP code, and an industry classification. PitchBook assigns each venture to one of 41 industries, while VentureXpert uses a related but non-identical proprietary taxonomy. Because our measure of common ownership relies on consistent industry definitions, we manually construct a crosswalk between the two taxonomies (Appendix Table C.1).[9] To assign ventures to local labor markets, we map headquarters ZIP codes to Core Based Statistical Areas (CBSAs) using ZIP-code–level definitions from the U.S. Census Bureau.[10]

Data on employment, job transitions, and worker characteristics come from Revelio Labs, which extracts individual employment histories from LinkedIn profiles. Revelio provides start and end dates for each position, worker moves across employers, educational and skill information, and salary estimates based on a model trained on more than 200 million salary observations.[11] These data have been widely used in recent work,

[8] A distinct body of work studies how non-compete agreements shape labor market outcomes, consistently finding that stricter enforceability reduces mobility and suppresses wage growth (Marx et al. 2009; Balasubramanian et al. 2022; Johnson et al. 2025). Common ownership is an alternative channel influencing similar outcomes in the VC ecosystem, where investor coordination rather than contractual restrictions governs worker reallocation.

[9] We rely on PitchBook's "Industry Group" and VentureXpert's "Primary Industry Sub-Group" in the baseline analyses and show robustness to using more granular classifications.

[10] This data is available at https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.html.

[11] The model uses role, seniority, firm, and country characteristics and obtains an out-of-sample root mean square error of 14%.

including studies of labor markets, firm dynamics, and entrepreneurship.[12]

Our identification strategy uses the staggered adoption of corporate opportunity waivers across U.S. states, which requires reliable information on ventures' incorporation states. We obtain this information from VentureXpert and from OpenCorporates, the largest global open database of legal entities. OpenCorporates provides firm-level registration and incorporation records.[13]

2.2. Sample construction and key variables

Our dataset combines venture investment histories, worker-level employment data, and incorporation records. We begin with the universe of ventures that raised at least one VC round between 1990 and 2021 in either PitchBook or VentureXpert. Because PitchBook provides rich recent coverage while VentureXpert offers substantially deeper pre-2007 coverage, we merge the two sources to obtain the most comprehensive longitudinal dataset available for VC-backed ventures.

We treat PitchBook as the primary dataset and merge in venture and investor records from VentureXpert. Ventures appearing in both sources are linked using fuzzy matching on firm names combined with exact matching on headquarters state. Ventures found only in VentureXpert are retained to expand historical coverage. Investor identities are matched by fuzzy name matching and exact matching on investor location to ensure consistency in venture–investor relationships.

To link ventures to worker-level employment histories, we follow a two-stage procedure. First, when PitchBook reports a LinkedIn URL, we match firms to Revelio using the exact URL. Second, for firms without a LinkedIn URL, we employ fuzzy matching on firm names combined with exact matching on headquarters state.

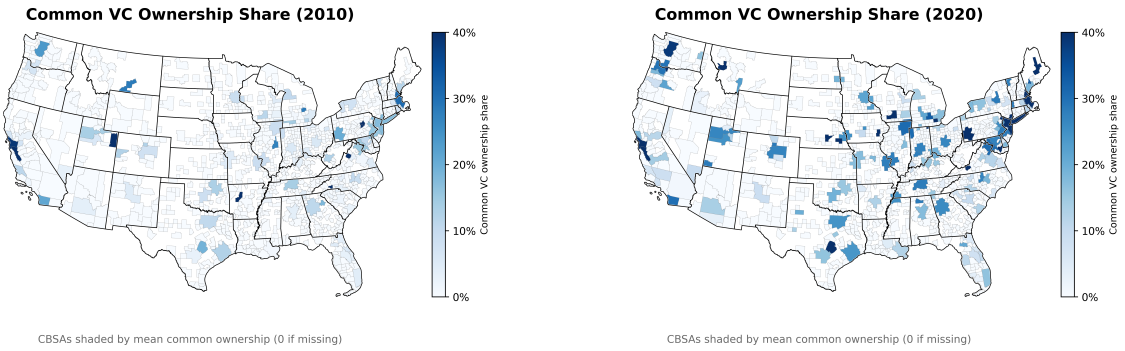
The merged dataset integrates (i) venture characteristics and investment histories from PitchBook and VentureXpert, (ii) worker mobility and employment outcomes from Revelio Labs, and (iii) incorporation-state information from VentureXpert and OpenCorporates.

Final Sample. We construct our firm–year panel considering all years in which a venture is active as a private firm. A venture exits the sample when it undergoes an IPO or when acquired. When these dates are unavailable, we follow Li et al. (2023) and assume that

[12] See, for example, Hacamo and Kleiner (2022), Bernstein et al. (2023), Jeffers (2023), Amanzadeh et al. (2024), Chen et al. (2025), Kwan et al. (2025).

[13] We gratefully acknowledge OpenCorporates for providing free academic access through its Public Benefit Project; data are available at https://opencorporates.com/use-cases/academia.

FIGURE 1. Common ownership U.S. CBSAs, 2010 vs. 2020



A. 2010 B. 2020

Notes: Each circle represents a CBSA; size indicates the number of VC-backed ventures and shading reflects the share of those ventures with at least one common-VC investor.

a venture is written off from an investor's balance sheet if it receives no new financing for five years after its last round. The year in which a venture enters our sample is the founding year when reported, and the year of first investment otherwise. The final sample includes 70,551 ventures across 39 industries and 567 CBSA.

Our measure of common ownership is a binary indicator, *Common VC*, equal to one if venture i shares at least one VC investor with another active venture in the same CBSA–industry–year. We drop CBSA–industry–years with only one active venture because neither common ownership nor worker mobility can be defined in such local markets.

Common ownership has expanded broadly across U.S. local labor markets. Figure 1 maps the share of VC-backed ventures with common ownership across U.S. CBSAs in 2010 (Panel a) and 2020 (Panel b). In 2010, common ownership was already present in a wide range of CBSAs—including established entrepreneurial hubs such as the San Francisco Bay Area, Boston, and New York, but also smaller markets in the Midwest, South, and Mountain West. By 2020, common ownership has expanded substantially, with meaningful shares now visible across most of the country. While the highest concentrations of common ownership remain in major hubs (with within-local market shares reaching 30–40%), the phenomenon is geographically widespread: approximately half of the ventures in our sample experience common ownership at some point during their life-cycle within our sample.

Using Revelio data, we define several firm-year outcomes. *Employment* is the number

TABLE 1. Summary Statistics

	Obs	Mean	SD	p10	p50	p90
Common VC	1081109	0.162	0.37	0.00	0.00	1.00
Common VC with Board Seat	1081109	0.022	0.15	0.00	0.00	0.00
Employment	1081109	36.011	100.41	1.00	7.00	73.00
Turnover Rate	1030961	0.123	0.21	0.00	0.01	0.34
$\mathbb{1}\{J2J\}$	1081109	0.232	0.42	0.00	0.00	1.00
$\mathbb{1}\{\text{Internal J2J}\}$	1081109	0.010	0.10	0.00	0.00	0.00
$\mathbb{1}\{\text{Innovator J2J}\}$	1081109	0.035	0.18	0.00	0.00	0.00
C-Suite Move	1081109	0.002	0.05	0.00	0.00	0.00
Wage	1030961	115,931.160	63,080.93	57,079.90	99,989.28	194,440.66
Cumulative VC Investment	1081109	7.481	32.63	0.00	0.00	10.00
VC Investor Count	1081109	0.760	1.77	0.00	0.00	3.00
Firm Age	1081109	14.812	11.38	3.00	12.00	32.00

Notes: This table presents the summary statistics at the firm-year level.

of workers employed by the firm in a year. *Turnover Rate* equals the number of workers separating from the firm in a year divided by the average of the firm's employment at the start and end of that year. To capture worker mobility, we count workers who leave the focal firm and join another employer in the same or following year, and construct $\mathbb{1}\{J2J\}$ is a binary variable equal to one whenever afirm-year exhibits a positive count. $\mathbb{1}\{\textit{Internal J2J}\}$ is constructed similarly but restricts these transitions to moves within the same CBSA–industry. For example, if a worker employed at a biotech venture in Boston leaves the firm and joins another biotech venture in Boston within a year, we classify the move as an internal J2J. By contrast, if the same worker moves to a biotech firm in New Jersey or to a non-biotech firm in Boston, the move is coded as a J2J but not as an internal J2J. Finally, we also collect information on wages: *Wage* is the average estimated worker salary at the firm in a year.

Table 1 reports summary statistics. The average venture in our sample employs 36 workers, pays an average annual wage of approximately $116,000, and experiences a turnover rate of 12% per year. Moreover, the average venture has 0.76 prior VC investors, a cumulative investment of approximately $7.5 million, and is 15 years old at the time of observation. A nontrivial fraction of firms exhibit common ownership: 16% of firm-years feature at least one common investor; this figure falls to 2% of firm-years when conditioning on common investors who also sit on the firm's board.[14]

[14]Figure D.2 compares the distribution of cumulative VC investment for firm-years where common ownership is observed against all the others, restricting attention to observations with positive cumulative VC investment. The distributions are similar, which is consistent with the fact that common ownership is

Worker mobility is sizable on the extensive margin—23% of firm-years record at least one job-to-job transition—but transitions within the same industry-CBSA occur in only 1% of firm-years. We additionally examine the mobility of two worker categories of particular interest: scientists and engineers (which we label as "innovators"), and senior executives (C-Suites). These categories are substantively important because innovators carry technical knowledge central to entrepreneurial ventures, while executives shape firm strategy and governance. They also help address a potential data-coverage concern: while LinkedIn-based data may underrepresent low-skill workers who maintain less active profiles, coverage is particularly strong among skilled employees—the workers who constitute the bulk of the labor force in high-growth, innovation-driven ventures and whose mobility is most relevant for our analysis. In our sample, 3.5% of firm-years record an innovator transition and 0.2% record a C-suite move.

3. Empirical Framework

We estimate the effect of common VC ownership on firm hiring and worker mobility using three complementary empirical approaches. We first estimate a firm-level panel specification that exploits within-firm changes in common VC exposure. We then use the staggered adoption of Corporate Opportunity Waiver (COW) statutes as a source of plausibly exogenous variation in the legal costs associated with investing in related firms. After having analyzed the implications of COW statutes in a stacked difference-in-differences (DiD) design, we use COW eligibility as an instrument for common VC ownership.

3.1. Firm-level panel specification

For each firm j operating in industry n and CBSA c in year t, we use ordinary least squares (OLS) to estimate:

$$y_{j,n,c,t} = \mu_j + \alpha_{c,t} + \gamma_{n,t} + \beta \cdot \text{CommonVC}_{j,t} + \mathbf{X}'_{j,t}\Lambda + \varepsilon_{j,n,c,t}, \tag{1}$$

where $y_{j,n,c,t}$ denotes one of four outcomes: log employment, the turnover rate, an indicator for any J2J move, and an indicator for any within-market J2J move. The variable $\text{CommonVC}_{j,t}$ equals one if firm j shares at least one VC investor with another firm in the same industry-CBSA in year t. Firm fixed effects, μ_j, absorb time-invariant differences

not simply concentrated among the most heavily funded ventures.

across firms. CBSA-year fixed effects, $\alpha_{c,t}$, absorb time-varying local shocks, while industry-year fixed effects, $\gamma_{n,t}$, absorb shocks common to firms in the same industry and year. The vector $\mathbf{X}_{j,t}$ includes controls for investor characteristics. Standard errors are clustered at the industry-CBSA level.

While Equation (1) exploits within-firm variation in common ownership while flexibly controlling for local and industry-specific shocks, it remains subject to endogeneity concerns. Venture capitalists financing multiple firms in the same industry–CBSA may select ventures with different growth prospects, different risk profiles, or recent unobservable shocks that also affect hiring and worker mobility. We therefore complement this specification with variation from the staggered adoption of Corporate Opportunity Waiver (COW) statutes. We describe our approach below.

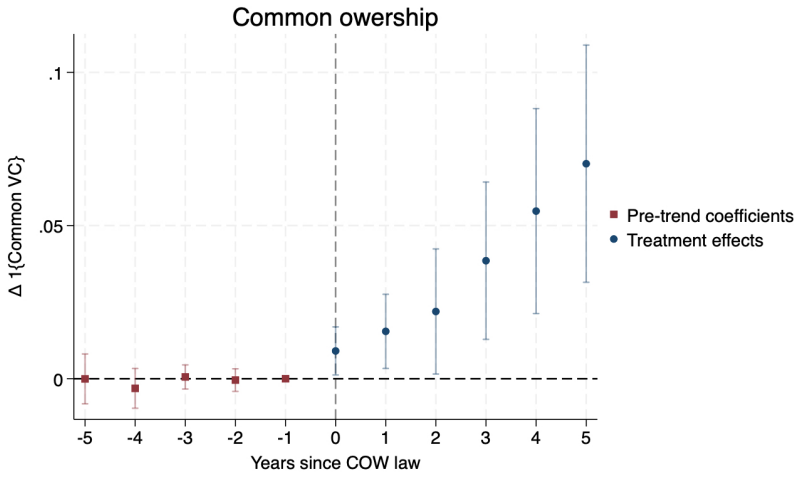
3.2. Corporate Opportunity Waiver laws and common VC ownership

COW statutes allow firms to waive the corporate opportunity doctrine, reducing the risk that fiduciaries face liability when they pursue business opportunities that may overlap with those of another firm. In the venture capital setting, these statutes reduce legal uncertainty for investors and directors involved with multiple firms operating in related business areas. These laws were implemented by nine U.S. states in a staggered fashion between 2000 and 2016. Table D.1 provides details on these amendments.

Our empirical strategy builds on Eldar and Grennan (2024), which provides extensive qualitative and quantitative institutional evidence on the origins and implications of COW statutes. They show that the primary motivation for the adoption of COWs was to eliminate legal uncertainty surrounding fiduciary duties, rather than to respond to lobbying or broader economic trends. Their analyses further indicate that these laws had the main objective to shield investors and directors from liability when managing or investing in multiple firms with overlapping business opportunities. These institutional features mitigate concerns that COW statutes directly affected employment or worker mobility through channels unrelated to common ownership. Moreover, they survey venture lawyers to analyze the extent to which state incorporation decisions are endogenous. Specifically, while one may be concerned that high-growth ventures are more likely to incorporate in Delaware, Eldar and Grennan (2024) shows that incorporation decisions are largely driven by the familiarity of legal counsel with Delaware law and not by differences in substantive provisions such as COW statutes.

We use a stacked DiD design (Cengiz et al. 2019) to estimate the effect of COW adoption on: (i) the prevalence of common VC ownership; (ii) firm hiring and worker mobil-

FIGURE 2. COW law adoption and common VC ownership



Notes: Event-study coefficients from Equation (2), estimated using the common VC indicator as the outcome. The reference period is $k = -1$. Confidence intervals are based on state-of-incorporation cluster-robust standard errors.

ity. This approach addresses concerns that arise in conventional two-way fixed-effects estimators with staggered treatment timing (Goodman-Bacon 2021; De Chaisemartin and d'Haultfoeuille 2020). For each adoption cohort $g \in \{2000, 2001, 2003, 2005, 2006, 2007, 2011, 2014, 2016\}$, corresponding to the year in which a state adopted a COW statute, we construct a cohort-specific dataset containing treated firms incorporated in the adopting state and control firms incorporated in states that never adopted COW statutes. We observe firms in a symmetric window from five years before to five years after COW adoption, $[g-5, g+5]$, and then stack the cohort-specific datasets.

We estimate the following event-study specification:

$$Y_{j,t,g} = \sum_{\substack{k=-5 \\ k\neq -1}}^{5} \beta_k \mathbf{1}\{t-g=k\} \cdot D_{j,g} + \mu_j + \gamma_{n,t} + \delta_{g,t} + \mathbf{X}'_{j,t}\Lambda + \varepsilon_{j,t,g}, \tag{2}$$

where $D_{j,g}$ equals one for firms incorporated in the state adopting a COW statute in cohort g. The omitted period is $k = -1$. The fixed effect μ_j absorbs time-invariant firm heterogeneity, $\gamma_{n,t}$ absorbs industry-year shocks, and $\delta_{g,t}$ absorbs shocks common to all firms in a given cohort stack and calendar year. Standard errors are clustered at the state of incorporation level.

Figure 2 reports event-study coefficients from Equation (2) using the common VC

indicator as the outcome. The pre-treatment coefficients are small and statistically indistinguishable from zero, suggesting that treated and control firms followed similar trends before COW adoption. After adoption, common VC ownership rises steadily, consistent with the interpretation that COW statutes reduce the legal costs of overlapping VC investments.

Because never-treated firms can appear in multiple cohort-specific stacks, we also estimate a more saturated specification that replaces firm fixed effects with firm-by-cohort fixed effects and adds CBSA-year fixed effects. This alternative allows each firm to have a separate baseline in each adoption window and controls flexibly for local labor-market shocks. We report these estimates in Appendix Figure B.1. The saturated specification yields a similar effect of COW adoption on common VC ownership. We therefore use Equation (2) as the preferred stacked specification and interpret the saturated estimates as a robustness check.

3.3. Instrumental variables specification

Finally, we follow Eldar and Grennan (2024) and use COW eligibility as an instrument for common VC ownership. Let $Z_{j,s,h,n,t}$ be an indicator equal to one if firm j, operating in industry n and headquartered in state h, is incorporated in a state s that has adopted a COW statute by year t. The first stage relates common VC ownership to COW eligibility:

$$\text{CommonVC}_{j,s,h,n,t} = \pi \cdot Z_{j,s,h,n,t} + \alpha_h + \gamma_{n,t} + \mathbf{X}'_{j,t}\Lambda + u_{j,t}. \tag{3}$$

The second stage replaces $\text{CommonVC}_{j,t}$ in Equation (1) with its predicted value from Equation (3). We estimate the model using two-stage least squares (TSLS) and cluster standard errors at the state of incorporation level.

The relevance condition is supported by the event-study evidence in Figure 2, which shows that COW adoption increases common VC ownership. The exclusion restriction requires that COW eligibility affects firm outcomes only through its effect on common VC ownership, conditional on firm fixed effects, state shocks, industry-year shocks, and controls for investor characteristics. This assumption would be violated if COW adoption directly affected employment or worker mobility through other channels, such as changes in governance, financing, or director behavior unrelated to common ownership. We address this concern by relying on the institutional evidence in Eldar and Grennan (2024), by documenting the absence of differential pre-trends in the first-stage event study, and by reporting reduced-form estimates of the effect of COW eligibility on

the main outcomes.

4. Common VC Ownership, Employment, and Mobility

This section summarizes our findings on the effects of common VC ownership on firm hiring and the mobility of human capital. Appendix B reports robustness checks using a saturated stacked COW specification, alternative inference for the COW first stage, alternative common-ownership definitions, Delaware-exclusion specifications, and a post-2010 sample restriction.

4.1. Baseline results

Table 2 presents our baseline estimates. After receiving capital from a VC that also invests in another venture operating in the same local market, firms significantly expand employment. The effect is economically large: common ownership increases employment by approximately 25%, corresponding to roughly nine additional employees at the average firm in our sample. Theory and evidence link firm growth to greater worker reallocation, as expanding employers attract workers from contracting firms (Burdett and Mortensen 1998; Postel–Vinay and Robin 2002; Moscarini and Postel-Vinay 2017). Plausibly exogenous shocks to local VC increase local startup hiring but also increase startup labor turnover. We document that common ownership increases turnover by 2.6 percentage points from a baseline of 12% and raises the probability of observing a J2J transition by 8.8 percentage points relative to a baseline of 25%. The mobility effects are not limited to movements across local labor markets. Column (4) shows that common ownership also increases within-market transitions, defined as workers moving between firms operating in the same industry–CBSA market. Taken together, these findings suggest that common ownership is associated with both firm expansion and greater labor-market dynamism, rather than worker retention or labor-market foreclosure.

To benchmark the magnitude of these mobility effects, we compare them to estimates from the literature on non-compete agreements. Johnson et al. (2023) find that banning non-compete agreements significantly increases worker mobility in high-tech industries. Because their outcome is the number of J2J transitions rather than the probability of any J2J event, we re-estimate Equation (1) using the corresponding count outcome. We find that common VC ownership increases the number of J2J transitions by approximately 26%.[15] This effect corresponds to roughly 40% of the change in mobility associated with

[15]This result, together with other robustness analyses replacing binary outcomes with count outcomes

TABLE 2. Common ownership, employment, and worker mobility

	(1) Employment	(2) Turnover	(3) $\mathbb{1}\{\text{J2J}\}$	(4) $\mathbb{1}\{\text{Internal J2J}\}$
CommonVC	0.226***	0.026***	0.088***	0.015***
	(0.016)	(0.003)	(0.005)	(0.001)
Observations	779,996	779,996	779,996	779,996
Adj. R-squared	0.87	0.25	0.43	0.20
Mean DV	2.17	0.12	0.25	0.01
Firm FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes
CBSA-Year FE	Yes	Yes	Yes	Yes

Notes: OLS estimates of Equation (1). Standard errors clustered at the industry-CBSA level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

moving from full non-compete enforceability to non-enforceability. While smaller in size than the effect of non-competes enforcement, the magnitude is nonetheless substantial, particularly given that common ownership operates through a comparatively informal organizational channel rather than a direct change in labor-market regulation.

The results thus far establish that common ownership increases hiring and worker mobility. An important question, however, is whether these effects are concentrated among particular categories of workers. This distinction matters because the movement of technical and managerial talent is likely to have different implications for firm performance, innovation, and organizational change. Table 3 therefore examines heterogeneity across worker types.

Common VC ownership increases the probability that a firm hires a scientist or engineer by 7.5 percentage points and the probability of replacing a member of the C-suite by 2.8 percentage points (columns 1 and 2). Mobility rises throughout the organizational hierarchy, with statistically significant increases for innovators, junior employees, middle-management personnel, and senior employees. Although the largest increase in mobility is observed among junior workers in absolute terms, the baseline mobility rate is considerably lower for senior personnel, implying even larger relative effects at the top of the organization. Overall, the results indicate that common ownership affects

estimated using Poisson Pseudo-Maximum Likelihood (PPML), is reported in Table D.3 of the appendix.

TABLE 3. New hires and worker mobility by worker type

	New Hires		Mobility			
	(1) Any Hired Innovator	(2) Any C-suite Replacement	(3) Any Innovator J2J	(4) Any Junior J2J	(5) Any Mid-Seniority J2J	(6) Any Senior J2J
Common VC	0.0748***	0.0282***	0.0287***	0.0761***	0.0440***	0.00859***
	(0.00678)	(0.00186)	(0.00239)	(0.00358)	(0.00225)	(0.000769)
Observations	826,413	826,413	826,413	826,413	826,413	826,413
Adj. R-squared	0.452	0.154	0.328	0.208	0.226	0.057
Mean DV	0.238	0.043	0.038	0.189	0.067	0.011
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
CBSA-Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: OLS estimates of Equation (1). Standard errors clustered at the industry-CBSA level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

both the hiring and reallocation of human capital across a broad range of worker categories, including employees whose skills and responsibilities are likely to be particularly important for innovation and firm strategy.

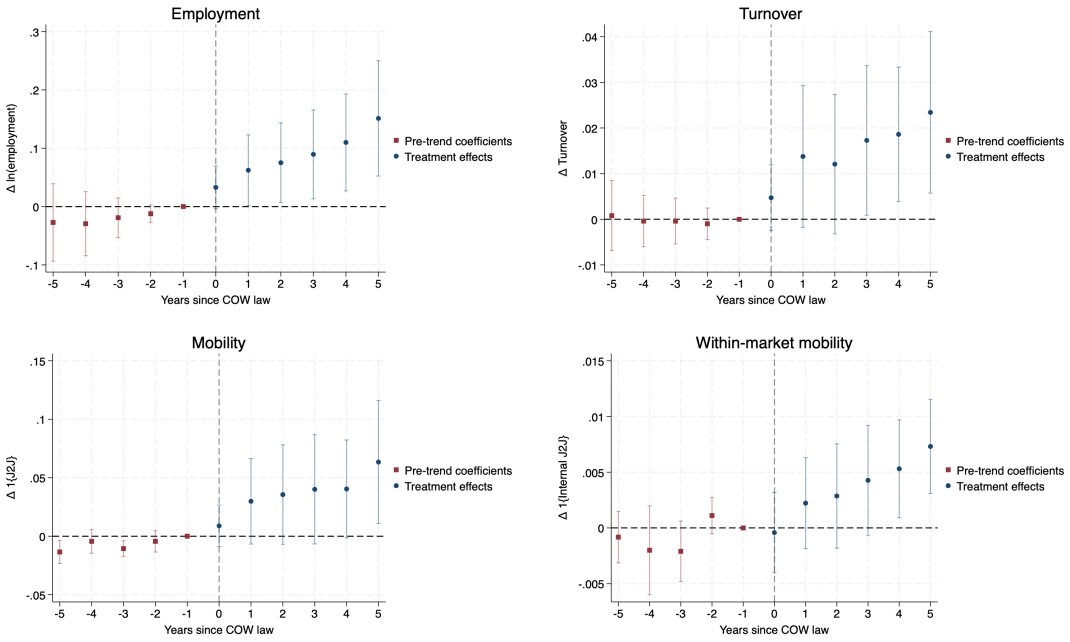
4.2. Stacked difference-in-Differences and instrumental variable estimates

The baseline results above document robust associations, but they cannot be interpreted as causal effects of common ownership on hiring and worker mobility. We therefore turn to the stacked difference-in-differences specification in Equation (2). This design compares firms incorporated in states that adopt COW statutes to similar firms incorporated in states that never amended their corporate laws to allow for COWs, before and after the institutional change.

Figure 3 shows little evidence of differential pre-trends across any of the four outcomes. The coefficients in the years preceding COW adoption are economically small and statistically indistinguishable from zero. After adoption, employment, turnover, and worker mobility increase gradually and persistently. The absence of detectable pre-trends alleviates concerns that the baseline estimates simply reflect differential growth trajectories among firms that subsequently become commonly owned.

The timing of the effects is also informative. Rather than producing an immediate discontinuous response, common VC ownership appears to induce gradual and persis-

FIGURE 3. Stacked DiD: employment, turnover, and mobility



Notes: The figure reports event-study coefficients from the stacked DiD specification in Equation (2). The omitted category is the year before COW adoption. Panels report effects on log employment (top left), turnover rate (top right), any J2J mobility (bottom left), and within-market J2J mobility (bottom right). Vertical bars report 95% confidence intervals. Standard errors are clustered at the state of incorporation level.

tent changes in hiring and worker mobility. This pattern is consistent with mechanisms that require time to operate, such as investors learning about portfolio firms' labor needs, identifying suitable workers across ventures, and facilitating matches between expanding and contracting firms.

Table 4 reports instrumental variable (IV) estimates using COW adoption as an instrument for common VC ownership. The first stage is strong: COW adoption increases common VC ownership by 10.9 percentage points, with a KP Wald F-statistic of 103.22. The second-stage estimates are positive and statistically significant across all outcomes, reinforcing the conclusion that common ownership increases employment and worker mobility.

The IV estimates are larger than the corresponding OLS estimates.[16] We interpret these magnitudes with caution for two reasons. First, the non-instrumented estimates

[16]It is not uncommon for IV estimates to be larger than OLS estimates. For example, Samila and Sorenson (2011) estimates the effect of VC on total MSA-level employment and finds IV estimates around five times larger than the corresponding OLS estimates.

TABLE 4. Instrumental variable estimates

	First Stage	Second Stage			
	(1) CommonVC	(2) Employment	(3) Turnover	(4) 𝟙{J2J}	(5) 𝟙{Internal J2J}
Z	0.109***				
	(0.011)				
CommonVC		1.210**	0.197***	0.469***	0.052***
		(0.526)	(0.025)	(0.126)	(0.004)
Obs	831,171	831,171	831,171	831,171	831,171
KP Wald F	103.22				
R-square Adj	0.31				
Mean DV	0.195	2.17	0.12	0.25	0.01
Industry-by-year FE	Yes	Yes	Yes	Yes	Yes
HQ State FE	Yes	Yes	Yes	Yes	Yes

Notes: Column (1) reports the first-stage estimate of COW adoption on common VC ownership. Columns (2)–(5) report second-stage IV estimates using COW adoption as an instrument for common VC ownership. All specifications include industry-by-year and HQ-state fixed effects. KP Wald F reports the Kleibergen–Paap F-statistic. Standard errors, clustered at the state of incorporation level, are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

may be downward biased if omitted factors are negatively correlated with common VC ownership but positively correlated with firm-level employment growth and worker mobility.[17] Second, under the usual local average treatment effect interpretation, the IV estimates capture the effect for firms whose likelihood of becoming commonly owned is shifted by COW adoption. These compliers are likely to be firms for which actual and prospective investors' litigation risk previously constrained overlapping ownership or portfolio management activities. The larger IV estimates can therefore also reflect treatment effect heterogeneity: common ownership may have especially large effects when legal frictions were binding and the reform meaningfully expanded investors' ability to shape the governance of portfolio firms.

Taken together, the OLS, stacked difference-in-differences, and IV estimates point in the same direction: common VC ownership increases firm employment and worker mobility. The IV results are therefore best interpreted as evidence that these patterns are not solely driven by selection into common ownership.

[17] For example, safer or more obviously scalable ventures may be more likely to attract capital without relying on overlapping investors, while common ownership may arise precisely when investor coordination, monitoring, or legal constraints are more salient.

4.3. The Role of Governance: Board Representation

We next examine whether the effects of common VC ownership are stronger when shared investors have greater ability to influence portfolio-firm decisions. If firms act to maximize shareholder profits, commonly owned firms can be shown to place positive weight on the profits of other firms in the investor's portfolio (Rotemberg 1984; O'brien and Salop 1999). This weight depends on both cash-flow rights and control rights.

Although these weights are not directly observable, board representation provides a natural proxy for investor influence. Board seats give investors greater capacity to monitor managers, advise founders, transmit information across portfolio firms, and shape hiring and personnel decisions. We therefore decompose common VC ownership according to whether a shared investor holds a board seat at the focal firm. Specifically, we construct two mutually exclusive indicators. *CommonVC with Board Seat* equals one when the focal firm shares a VC investor with another venture in the same industry–CBSA and at least one shared investor holds a board seat at the focal firm. *CommonVC without Board Seat* equals one when the focal firm shares a VC investor with another venture in the same industry–CBSA but no shared investor holds a board seat at the focal firm. Then, we run regressions similar to that in Equation 1 including both *CommonVC with Board Seat* and *CommonVC without Board Seat* simultaneously as covariates in the model. The results of these analyses are reported in Table 5. The estimates should not be interpreted as the causal effect of board representation. Rather, they illustrate how the association between common ownership and firm hiring and labor-mobility outcomes changes when shared investors have formal channels to monitor, advise, and influence portfolio firms.

We find that the associations between common ownership and firm outcomes are substantially stronger when the shared investor holds a board seat at the focal firm. Common ownership is associated with employment growth even in the absence of formal board representation, but the magnitude is nearly four times larger when the shared investor sits on the board. Similar patterns appear for turnover, overall J2J mobility, and within-market J2J mobility. For example, the estimated association with turnover is 8 percentage points with board representation, compared with 2.2 percentage points without it.

We also examine whether common ownership with board representation is associated with changes at the top of the organization. Columns (5) and (6) show that C-suite and CEO replacement become more likely after common ownership when the shared investor holds a board seat. Common ownership with board representation is associated with a 7 percentage point increase in the probability of C-suite replacement and a 1.8

TABLE 5. The role of board representation

	(1) Firm Employment	(2) Turnover Rate	(3) Any J2J	(4) Internal J2J	(5) C-Suite Replacement	(6) CEO Replacement
CommonVC with Board Seat	0.716***	0.080***	0.202***	0.052***	0.070***	0.018***
	(0.043)	(0.007)	(0.014)	(0.008)	(0.006)	(0.002)
CommonVC without Board Seat	0.189***	0.022***	0.080***	0.012***	0.023***	0.006***
	(0.013)	(0.003)	(0.004)	(0.001)	(0.002)	(0.001)
Observations	779,996	779,996	779,996	779,996	779,996	779,996
R-square	0.87	0.25	0.43	0.20	0.25	0.16
Mean DV	2.17	0.12	0.25	0.01	0.04	0.01
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes
CBSA-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The table reports OLS estimates of Equation (1). *CommonVC with Board Seat* equals one when the focal firm shares a VC investor with another venture in the same industry–CBSA and at least one shared investor holds a board seat at the focal firm. *CommonVC without Board Seat* equals one when the focal firm shares a VC investor with another venture in the same industry–CBSA but no shared investor holds a board seat at the focal firm. All specifications include firm, industry-by-year, and CBSA-by-year fixed effects. Standard errors clustered at the industry-CBSA level are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

percentage point increase in the probability of CEO replacement, compared with 2.3 and 0.6 percentage points, respectively, for common ownership without board representation. These patterns suggest that board representation is also associated with greater investor influence over managerial and organizational decisions.

5. Internal Labor Markets across Firm Boundaries

Common ownership can create governance and information links among independent firms. We argue that these links can generate an internal labor market across firm boundaries: a setting in which shared investors facilitate matching between workers and jobs across portfolio companies without integrating the firms under common majority control. Prior research on interorganizational networks shows that such ties foster trust, repeated interaction, and information exchange (Gulati 1998; Ahuja 2000). A related literature in labor economics and sociology documents that social networks improve screening and match quality by expanding access to candidates and transmitting credible information about worker ability (Granovetter 1973; Montgomery 1991, 1992).[18]

[18]Consistent with this view, empirical evidence shows that referrals give firms access to otherwise untapped worker pools and mitigate information asymmetries about candidate quality (Beaman and

Venture capital investors are well-positioned to play a similar role across portfolio firms because they often possess detailed information about their investees, their personnel, and their hiring needs. When multiple ventures share the same investor, this informational advantage can reduce uncertainty about prospective matches and facilitate the redeployment of workers to firms where their skills are more valuable. On the worker side, entrepreneurial firms are difficult to evaluate, and workers may have limited information about job quality and growth prospects (Bryan et al. 2026). On the employer side, common ownership can reduce screening and hiring frictions by making information about worker capabilities more visible within the portfolio network. Importantly, these mechanisms need not rely on direct control over hiring decisions. Instead, they operate through increased visibility of job opportunities and worker capabilities via shared board members, advisors, and overlapping professional networks.

To test this mechanism, we construct a dataset of venture pairs located in the same CBSA and estimate the likelihood that at least one worker moves between them in a given year as a function of whether the pair shares a common VC investor. Specifically, we use OLS to estimate the following regression:

$$
\begin{aligned}
1\{Mobility\}_{i,j,t} = \alpha_{i,j} \; + \; \alpha_t \; + \; \beta \cdot SharedVC_{i,j,t} \; + \\
+ \gamma \cdot (SharedVC_{i,j,t} \times SameInd_{i,j}) \; + \; \varepsilon_{i,j,t}
\end{aligned}
\tag{4}
$$

where $1\{Mobility\}_{i,j,t}$ is a binary variable equal to one if at least one employee moves from i to j in year t; $SharedVC_{i,j,t}$ equals one if i and j share an investor at t, while $SameInd_{i,j}$ is one when i and j operate in the same industry. We also include dyad and year fixed effects, thereby absorbing yearly shocks as well as all persistent pair characteristics such as industry similarity, geographic proximity, or unobserved relational ties. Standard errors are clustered at the CBSA level.[19]

The results in column 1 of Table 6 show that two ventures are significantly more likely to exchange workers when they share a common investor. This effect is larger when the two ventures operate in the same industry, where worker skills are likely to be more transferable (column 2). We then examine whether this pattern is concentrated among workers for whom information frictions are likely to be especially important. Specifically, we repeat the analysis for mobility events involving innovation workers—

Magruder 2012; Brown et al. 2016; Dustmann et al. 2016; Hensvik and Skans 2016; Pallais and Sands 2016).

[19] As a robustness check, we replace the dyad fixed effects with origin-by-year and destination-by-year fixed effects. This addresses the concern that the result is driven by firm-year shocks correlated with the shared-ownership tie rather than by the shared tie itself; the trade-off is that this specification no longer absorbs time-invariant pair match quality. The estimates are robust (Table D.4).

TABLE 6. Within-portfolio worker mobility

VARIABLES	(1) 𝟙{Mobility}	(2) 𝟙{Mobility}	(3) 𝟙{Mobility}	(4) 𝟙{Mobility}	(5) 𝟙{Mobility}	(6) 𝟙{Mobility}
SharedVC	0.000396***	0.000310***	0.000074***	0.000058***	0.000011***	0.000009**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Multiplier	4.4×	3.4×	7.4×	5.8×	5.5×	4.5×
SameInd × *SharedVC*		0.000294***		0.000054***		0.000006**
		(0.000)		(0.000)		(0.000)
Multiplier		3.3×		5.4×		3.0×
Sample	Full	Full	Innovators	Innovators	C-suites	C-suites
Observations	479,695,002	479,695,002	479,695,002	479,695,002	479,695,002	479,695,002
Mean DV	0.00009	0.00009	0.00001	0.00001	0.000002	0.000002
Dyad FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each observation is a dyad of ventures in a given year. *Multiplier* reports the coefficient divided by the dependent variable mean within the estimation sample, expressing the treatment effect as a multiple of the baseline rate. Standard errors clustered at the CBSA level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

scientists and engineers—and C-suite executives. These workers are likely to possess more specialized, firm-specific, or strategically valuable knowledge, making external hiring more informationally sensitive. They are also the positions over which VC investors are most likely to have relevant information. Columns 3–6 of Table 6 show that sharing a VC increases the dyad-year probability of mobility for both innovation workers and C-suite executives, with stronger effects for within-industry dyads.

Sharing a VC may also facilitate the redeployment of workers who leave their firms. To study how common ownership shapes where departing workers land, we focus on workers who separate from their origin firm and analyze whether they transition to another local firm connected through a shared investor. The unit of observation is a worker–origin firm–destination firm–year-of-move combination, indexed by (w, i, j, t). We estimate:

$$\mathbb{1}\{\text{New job in } m \text{ months}\}_{w,i,j,t} = \alpha_i + \delta_j + \gamma_t + \beta \cdot \mathit{SharedVC}_{i,j,t} + \varepsilon_{w,i,j,t}, \tag{5}$$

where the dependent variable is an indicator equal to one if worker w moves from origin firm i to destination firm j within $m = \{6, 12, 18, 36\}$ months. The key regressor, $\mathit{SharedVC}_{i,j,t}$, equals one if the origin and destination firms share a common venture capital investor in year t. The specification includes separate origin firm fixed effects,

α_i, and destination firm fixed effects, δ_j, which absorb time-invariant determinants of a firm's propensity to lose and to attract workers, together with year-of-move fixed effects, γ_t, which control for aggregate shocks to labor mobility. The coefficient of interest, β, captures whether shared VC ties increase the probability that a departing worker moves to a given destination firm, relative to what the origin's and destination's overall flow propensities would predict. Standard errors are clustered at the CBSA level.

Table 7 reports the results. Panel A shows that, conditional on leaving the origin firm, workers are significantly more likely to move to a destination firm that shares a VC with their prior employer. Sharing a VC increases the probability of moving to the destination firm within six months by approximately 22%(7.3 percentage points, relative to a mean of 34.5%). The estimated effect remains positive and statistically significant at longer horizons, although the magnitude declines from 5.8 percentage points at 12 months to 1.5 percentage points at 36 months. This pattern is consistent with shared investors being especially important for facilitating relatively rapid worker redeployment across connected firms.

Panel B examines workers leaving severely contracting firms, defined as firms experiencing an employment decline of at least 70 percent. This subsample speaks more directly to the insurance-like role of common ownership: when a venture contracts sharply, shared investors may help redirect displaced workers toward other local firms in their portfolio network. The estimates are positive across all horizons and statistically significant at 12 and 36 months. These results suggest that common ownership can facilitate not only ordinary worker flows across connected ventures, but also the redeployment of workers leaving firms under substantial distress.

In the Appendix, we report a specification that replaces α_i with origin-by-year-of-move fixed effects, additionally absorbing each origin firm's propensity to shed workers in the specific year its workers separate. This addresses the concern that departures are concentrated in years when an origin's firm-level circumstances may independently affect where workers land, rather than the shared tie itself channeling the move. As shown in Table D.5, the estimates are similar.[20]

Finally, we examine whether shared investors also facilitate the redeployment of top workers following positive shocks. This analysis is motivated by evidence from internal labor markets in business groups, where joint ownership helps reallocate top workers endowed with general management skills in response to changing business conditions

[20]For Panel B, the concern is largely addressed by construction, since the sample already conditions on origin firms undergoing severe contraction, leaving little residual origin-year variation for the fixed effects to absorb.

TABLE 7. Robustness check on movers' redeployment

VARIABLES	(1) New Job in 6m	(2) New Job in 12m	(3) New Job in 18m	(4) New Job in 36m
Panel A: All movers				
SharedVC	0.07262***	0.05848***	0.04818***	0.01500***
	(0.015)	(0.012)	(0.011)	(0.003)
Observations	11,520,641	11,520,641	11,520,641	11,520,641
Adj. R-squared	0.059	0.064	0.081	0.366
Mean DV	0.345	0.460	0.516	0.540
Panel B: Movers from severely contracting firms				
SharedVC	0.01692	0.05435**	0.01485	0.05400***
	(0.028)	(0.023)	(0.022)	(0.010)
Observations	49,415	49,415	49,415	49,415
Adj. R-squared	0.261	0.237	0.251	0.528
Mean DV	0.438	0.576	0.654	0.683
Origin FE	Yes	Yes	Yes	Yes
Destination FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes

Notes: This table reports linear probability estimates of Equation (5). The unit of observation is a worker–origin firm–potential destination firm–year-of-move combination (w, i, j, t). The sample is restricted to workers who depart their firm; potential destination firms are all firms located in the same CBSA as the origin firm. The dependent variable is an indicator equal to one if the worker moves from the origin to the destination firm within 6, 12, 18, or 36 months (columns 1–4). *SharedVC* equals one if the origin and destination firms share a common VC investor in year t. Panel A includes all movers; Panel B restricts to movers from firms experiencing an employment decline of at least 70% ("Movers from severely contracting firms"). All specifications include a dummy controlling for whether the two firms operate in the same industry, as well as the origin fixed effects, destination fixed effects and year-of-move fixed effects. Standard errors, clustered at the CBSA level, are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

(Huneeus et al. 2021). IPOs provide a natural setting in which this mechanism may be especially relevant. After a successful liquidity event, C-suite executives may leave the focal firm, and their managerial experience may be particularly valuable to other entrepreneurial firms facing growth opportunities. Hence, we focus on the sample of C-suite executives leaving firms after an IPO and ask whether shared VC ownership facilitates top-management redeployment. We estimate regressions similar to Equation (5), defining potential destinations as VC-backed firms located in the same CBSA as the origin firm. The key regressor is an indicator for whether the origin and potential destination firms share at least one VC investor. The dependent variable equals one if the focal C-suite executive moves to the potential destination firm. Table D.6 shows that

shared VC ownership increases the probability that C-suite executives leaving post-IPO firms are redeployed to connected portfolio firms. Together with the evidence above, this pattern suggests that common VC ownership creates an internal-labor-market channel through which human capital is reallocated across formally independent ventures.

6. Common Ownership and Labor-market Competition

Common ownership may prompt managers at portfolio firms to internalize the negative externalities that their hiring decisions impose on other commonly owned ventures. For instance, a manager may refrain from raising wages if doing so would poach employees from another firm in their investor's portfolio. This internalization can reduce effective competition for workers and attenuate the benefits of common ownership documented so far. Such behavior may arise through explicit or tacit collusion (e.g., "no-poach" agreements) or simply through implicit alignment of incentives induced by managers' maximization of shareholders' value. This sections studies wage adjustment and heterogeneity by local labor-market concentration to assess whether the expansion in employment and mobility is accompanied by evidence of softened labor-market competition.

6.1. Wage adjustments

A natural question is whether the employment expansion documented above is accompanied by higher wages. A standard employer-size wage effect suggests that firms expanding along an upward-sloping labor supply curve may need to raise wages to attract additional workers (Brown and Medoff 1989). Similarly, if common VC ownership increases labor demand by improving screening, referrals, and firm-worker match quality, wages at portfolio firms may rise. However, the relationship between employment growth and wages need not be mechanical. Recent evidence cautions that larger employers do not always pay higher wages (Diegmann et al. 2026). In our setting, common ownership may increase employment not only by raising labor demand, but also by increasing the effective value of portfolio-firm jobs to workers. By improving information about firm prospects, reducing uncertainty about match quality, and creating opportunities for future mobility within the investor's network, common VC ownership can make workers more willing to join portfolio firms at a given wage.[21]

[21] Appendix A formalizes this intuition. In the model, common ownership can affect wages and employment through three conceptually distinct forces: a labor-demand or recruiting-synergy channel, which tends to increase both employment and wages; a worker-information channel, which shifts labor supply toward commonly owned firms and can increase employment without requiring higher wages;

TABLE 8. Common ownership and wages

VARIABLES	(1) ln(wage)	(2) ln(wage)
CommonVC	-0.018***	
	(0.003)	
CommonVC with Board Seat		-0.038***
		(0.005)
CommonVC without Board Seat		-0.014***
		(0.003)
Observations	826,413	779,996
Adj. R-squared	0.736	0.78
Mean DV	114,543.3	114,543.3
Firm FE	Yes	Yes
Industry-by-year FE	Yes	Yes
CBSA-by-year FE	Yes	Yes

Notes: This table reports OLS estimates of the relationship between common ownership and worker wages. The unit of observation is a firm-year; the dependent variable is the natural logarithm of average firm wages. In column 1, estimates of Equation (1) are reported. In column 2, *CommonVC with Board Seat* equals one when the focal firm shares a VC investor with another venture in the same industry–CBSA and at least one shared investor holds a board seat at the focal firm. *CommonVC without Board Seat* equals one when the focal firm shares a VC investor with another venture in the same industry–CBSA but no shared investor holds a board seat at the focal firm. All specifications include firm, industry-by-year, and CBSA-by-year fixed effects. Standard errors clustered at the industry-CBSA level are reported in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 8 reports estimates of Equation (1) using log wages as the outcome. The estimate in column (1) indicates that common VC ownership is associated with a 1.8% decline in average wages. The decline is driven by the cases in which common ownership is accompanied by board representation: column (2) shows a 3.8% wage decline when the shared investor holds a board seat. Because wages are estimated by Revelio Labs rather than directly observed in administrative payroll records, we interpret the wage magnitudes cautiously and emphasize the qualitative pattern. Figure D.3 presents the results of the stacked DiD event study analysis, where we estimate Equation 2 using log wages as the outcome: wages do not increase after the adoption of COW laws, with the post-treatment coefficients statistically indistinguishable from zero. Thus, we conclude

and a labor-market-power channel, which reduces wage competition among commonly owned firms and tends to lower wages.

that the documented employment expansion is not accompanied by rising firm wages.

A potential concern is that the decline in average wages mechanically reflects changes in workforce composition if commonly owned firms expand primarily by hiring lower-paid junior workers. Table D.7 examines this possibility by separately estimating effects on the share of junior, mid-seniority, and senior workers, as well as wages within each seniority group. Common VC ownership is associated with a modest increase in the junior share and a decline in the senior share, but the within-seniority wage estimates do not point to broad wage growth hidden by composition effects: junior wages increase slightly, mid-seniority wages are unchanged, and senior wages decline modestly. These patterns suggest that the main conclusion is not driven solely by mechanical reweighting toward lower-wage workers. Rather, even after looking within broad seniority categories, the evidence continues to indicate that common VC ownership increases employment without generating corresponding wage increases.

Overall, these patterns are difficult to reconcile with a pure labor-demand story, which would tend to predict higher wages as firms expand. At the same time, the employment expansion documented above is difficult to reconcile with a pure labor-market-power story, which would tend to predict lower wages through reduced hiring incentives. Instead, the joint pattern of higher employment and lower wages is consistent with an important role played by common VC ownership in shifting supply toward portfolio firms.

6.2. Local market concentration

A key determinant of labor-market power is employer concentration. When a small number of employers account for a large share of local employment, firms may be able to pay wages below workers' marginal revenue product and restrict employment relative to the competitive benchmark (Robinson 1969). Consistent with this view, recent studies document a negative relationship between employer concentration and wages (Azar et al. 2022a; Benmelech et al. 2022).[22]

In our setting, local market concentration provides a natural way to assess whether common ownership attenuates competition for workers. In fragmented markets, workers employed by portfolio firms retain many outside options beyond the investor's portfolio. These outside options discipline commonly owned firms, which must still compete with

[22] Beyond concentration, monopsony power can also arise in markets with many potential employers if workers face frictions that limit job mobility (Burdett and Mortensen 1998; Jarosch et al. 2024) or if worker preferences are heterogeneous, as in Lamadon et al. (2022). For a comprehensive overview of monopsony theories and related policy responses, see Azar and Marinescu (2024).

TABLE 9. Local market concentration: HHI heterogeneity

	(1) ln(Employment)	(2) Turnover	(3) 𝟙{J2J}	(4) 𝟙{Internal J2J}	(5) ln(Wage)
CommonVC × *PreHHI*	-0.101*	-0.00957	-0.0690***	-0.0240***	-0.00673
	(0.0602)	(0.0131)	(0.0216)	(0.00719)	(0.0159)
CommonVC	0.298***	0.0394***	0.121***	0.0216***	-0.0166***
	(0.0255)	(0.00620)	(0.00890)	(0.00299)	(0.00486)
Observations	826,413	826,413	826,413	826,413	826,413
Adj. R-squared	0.866	0.236	0.423	0.192	0.736
Firm FE	Yes	Yes	Yes	Yes	Yes
Industry-by-year FE	Yes	Yes	Yes	Yes	Yes
CBSA-by-year FE	Yes	Yes	Yes	Yes	Yes

Notes: This table reports OLS estimates of Equation 1 augmented with an interaction between common ownership and the pre-period local labor market concentration (*PreHHI*). *PreHHI* is the pre-period Herfindahl-Hirschman index in the firm's industry-CBSA, computed as $\sum_j s^2_{j,\tau}$, where $s_{j,\tau}$ is firm j's employment share in the cell in year τ, the first year the cell exhibits any common-VC ownership. Standard errors, clustered at the industry-CBSA level, are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

the broader market to attract and retain talent. As concentration rises, a smaller number of firms account for a larger share of local employment, and workers have fewer outside options. If common ownership reduces competition among portfolio firms, its effects should therefore be strongest in already concentrated labor markets, where workers face a more limited set of alternative employers. Thus, if the wage patterns documented above partly reflect reduced competition for workers, the positive employment and mobility effects of common ownership should attenuate in more concentrated local markets.

To test this prediction, we compute a pre-period industry-CBSA Herfindahl-Hirschman Index as:

$$PreHHI_{n,c} = \sum_j s^2_{j,\tau},$$

where $s_{j,\tau}$ is firm j's employment share in industry-CBSA (n, c) in year τ, defined as the first year in which the cell exhibits any common VC ownership. Figure D.4 displays the distribution of this measure. We then interact $PreHHI_{n,c}$ with *CommonVC* and re-estimate Equation (1).

The results in Table 9 show that the effects of common ownership depend systematically on local market structure. As employer concentration increases, the positive effects of common ownership on employment and worker mobility become significantly

smaller. Although the interaction coefficients are not statistically significant for turnover and wages, the pattern is consistent with labor-market-power forces partially offsetting the recruiting and matching benefits associated with common ownership. At the same time, these benefits appear to dominate in our sample: the implied marginal effect of common ownership remains positive across relevant concentration levels, including at the DOJ–FTC benchmark for a highly concentrated market, HHI = 2,500.[23]

This dominance of the matching and recruiting benefits is consistent with the setting we study. Our sample consists of VC-backed ventures, a segment of the labor market in which specialized human capital, uncertainty about firm quality, and search frictions are likely to be especially important. In such markets, common investors may have substantial scope to reduce information frictions, certify firm quality, and facilitate worker mobility across portfolio companies. Although our HHI measure does not capture all potential employers in the broader industry-CBSA, it is likely to be informative about concentration within the startup labor market if workers attracted to innovative, VC-backed firms perceive these employers as distinct from larger incumbents or non-VC-backed firms (Bar-Isaac et al. 2025). Thus, the fact that the benefits of common ownership dominate in our sample should not be interpreted as evidence that labor-market-power concerns are absent in general. Rather, it suggests that in the VC-backed segment of the labor market, the intermediation benefits of common ownership are sufficiently strong to outweigh the attenuating effects of concentration for most markets we observe.

Overall, the concentration analysis suggests that labor-market-power forces become more relevant in concentrated local markets, but they do not overturn the positive employment and mobility effects of common ownership for most markets in our sample. Taken together with the wage evidence, the results are most consistent with common ownership reducing search and matching frictions and shifting workers toward portfolio firms, while also partially attenuating competition for workers when outside options are limited.

7. Aggregate Implications of Common VC Ownership

The firm-level evidence shows that commonly owned ventures expand employment and experience greater worker mobility. We next ask whether these effects translate into broader local-market expansion or instead reflect reallocation across firms within the

[23] Figure D.5 plots the marginal effects by HHI bin. The pattern is non-monotonic, but effects attenuate in both more competitive and more concentrated markets.

same local labor market. To do so, we aggregate the firm-level panel to the industry–CBSA–year level and examine whether markets with greater exposure to common VC ownership also exhibit higher aggregate employment and mobility.

We define $CommonVCShare_{n,c,t}$ as the fraction of active ventures in industry–CBSA (n, c) and year t that share at least one investor with another active venture in the same local market. This measure ranges from zero, when no local ventures share an investor, to one, when every local venture shares at least one VC with another venture in the same industry–CBSA. We construct four local-market outcomes: total employment (in logs), the mobility rate, the internal mobility rate, and average wages (in logs) across workers employed by ventures in the industry-CBSA.

We estimate the following regressions:

$$y_{n,c,t} = \alpha_{n,c} + \alpha_{n,t} + \alpha_{c,t} + \beta \cdot CommonVCShare_{n,c,t} + \varepsilon_{n,c,t}, \tag{6}$$

where $y_{n,c,t}$ is one of the four outcomes above, while $\alpha_{n,c}$, $\alpha_{n,t}$, and $\alpha_{c,t}$ are industry-CBSA, industry-year, and CBSA-year fixed effects, respectively. Consequently, β is identified from changes over time in the prevalence of common ownership within an industry–CBSA, after netting out permanent differences across local markets, industry-year shocks, and CBSA-year shocks. We estimate Equation (6) by OLS when the outcome is log total employment or log average wages. For mobility outcomes, we estimate Poisson pseudo-maximum likelihood (PPML) specifications with local-market employment included as an exposure variable. This approach accounts for the fact that worker transitions are count outcomes that mechanically scale with market size and allows us to interpret the estimates as semi-elasticities of the underlying mobility rate rather than changes in the number of transitions.

Table 10 reports the results. A one-standard-deviation increase in *CommonVCShare* is associated with a 10.4% increase in total local-market employment. This finding indicates that the firm-level employment gains are not merely offset by contraction among other ventures in the same industry–CBSA. Instead, markets with greater exposure to common VC ownership experience higher aggregate employment among VC-backed ventures.

We also find economically meaningful increases in worker mobility. A one-standard-deviation increase in *CommonVCShare* is associated with a 2.9% increase in the overall mobility rate and a 24.3% increase in the internal mobility rate. Thus, the mobility effects documented at the firm and dyad levels are also visible in the aggregate local-market data. Markets with more common ownership experience greater worker flows across ventures, especially within the same industry–CBSA. Finally, column (4) shows no

TABLE 10. Common VC Ownership and Local-Market Labor Outcomes

	(1) Total Employment	(2) Mobility Rate	(3) Internal Mobility Rate	(4) Average Wage
CommonVCShare	0.673***	0.195**	1.479***	-0.0219
	(0.0735)	(0.0862)	(0.268)	(0.0161)
+ 1SD	10.40%	2.91%	24.29%	·
+ Avg. *CommonVCShare*	3.12%	0.90%	6.99%	·
Method	OLS	PPML	PPML	OLS
Observations	81,827	77,797	77,797	81,827
Adj./Pseudo R-squared	0.87	0.901	0.407	0.62
Mean DV	374.28	1.89%	0.01%	94,031.5
Industry-CBSA FE	Yes	Yes	Yes	Yes
CBSA-Year FE	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes

Notes: This table reports industry–CBSA–year estimates of Equation (6). *CommonVCShare* is the fraction of active ventures in an industry–CBSA–year that share at least one investor with another active venture in the same industry–CBSA. Column (1) uses log total employment as the outcome. Column (4) uses log average wages as the outcome. Columns (2)–(3) estimate PPML specifications for mobility-rate outcomes with employment as an exposure variable; coefficients are semi-elasticities of the corresponding mobility rate. All specifications include industry–CBSA, industry-by-year, and CBSA-by-year fixed effects. Standard errors are clustered at the industry–CBSA level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

statistically significant change in average wages at the local-market level. Consistent with the firm-level wage evidence, the aggregate results suggest that employment and mobility increase without detectable wage growth across the local market.

8. Conclusion

This paper studies how common ownership affects firm hiring and the mobility of human capital in the venture capital sector. While the existing literature has largely focused on how common ownership may soften competition among firms, we highlight a distinct channel through which shared investors can influence labor-market outcomes. By connecting otherwise independent ventures, common investors may facilitate the flow of information about workers, vacancies, and growth opportunities across portfolio firms, thereby reducing search and matching frictions in labor markets.

Using a novel employer–employee dataset covering VC-backed ventures, we show

that common ownership is associated with substantial increases in employment, worker turnover, and job-to-job mobility. These effects are economically large, persist across a variety of specifications, and are strongest when common investors hold board seats.

We also provide evidence that common ownership facilitates worker mobility across formally independent firms. Shared investors increase mobility between connected venture pairs, particularly when firms operate in the same industry and for workers whose skills and information are likely to be especially valuable, including innovation workers and senior executives. Common ownership additionally shapes where workers move following firm-level shocks, increasing the likelihood that workers are redeployed to connected firms within the investor's portfolio. Taken together, these findings are consistent with the existence of internal labor markets that operate across firm boundaries. Unlike conglomerates or business groups, VC-backed ventures remain legally and operationally independent. Nevertheless, shared investors appear capable of performing some of the coordinating and information-transmission functions typically associated with internal labor markets.

At the same time, we document that the employment expansions associated with common ownership are not accompanied by higher wages, and that the positive effects on employment and worker mobility attenuate in more concentrated local labor markets. The absence of wage growth is consistent with common ownership shifting labor supply toward portfolio firms by improving information about job opportunities, firm prospects, and future mobility within investor networks. The attenuation of employment and mobility effects in concentrated markets further suggests that labor-market-power forces partially offset these recruiting and matching benefits. However, even in relatively concentrated markets, the net effects on employment and mobility remain positive, suggesting that the intermediation benefits of common ownership tend to dominate in our sample of VC-backed firms.

More broadly, our findings suggest that common ownership can affect labor markets not only by changing firms' incentives to compete for workers, but also by shaping the allocation of human capital across firms. Understanding when these efficiency-enhancing forces outweigh potential reductions in competition remains an important challenge for researchers and policymakers alike. Future work quantifying the welfare consequences of ownership-induced labor reallocation, and exploring whether similar mechanisms operate outside venture capital, would help clarify the broader role of common ownership in shaping labor-market outcomes and economic dynamism.

References

Agrawal, A., I. Cockburn, and J. McHale (2006): "Gone but not forgotten: knowledge flows, labor mobility, and enduring social relationships," *Journal of Economic Geography*, 6, 571–591.

Ahuja, G. (2000): "Collaboration networks, structural holes, and innovation: A longitudinal study," *Administrative science quarterly*, 45, 425–455.

Amanzadeh, N., A. Kermani, and T. McQuade (2024): "Return migration and human capital flows," Tech. rep., National Bureau of Economic Research.

Amornsiripanitch, N., P. A. Gompers, and Y. Xuan (2019): "More than money: Venture capitalists on boards," *The Journal of Law, Economics, and Organization*, 35, 513–543.

Antón, M., F. Ederer, M. Giné, and M. Schmalz (2023): "Common ownership, competition, and top management incentives," *Journal of Political Economy*, 131, 1294–1355.

——— (2025): "Innovation: the bright side of common ownership?" *Management Science*, 71, 3713–3733.

Arnold, D. (2019): "Mergers and acquisitions, local labor market concentration, and worker outcomes," *Local Labor Market Concentration, and Worker Outcomes (October 27, 2019)*.

Azar, J. and I. Marinescu (2024): "Monopsony power in the labor market: From theory to policy," *Annual Review of Economics*, 16, 491–518.

Azar, J., I. Marinescu, and M. Steinbaum (2022a): "Labor Market Concentration," *Journal of Human Resources*, 57, S167–S199.

Azar, J., Y. Qiu, and A. Sojourner (2022b): "Common ownership in labor markets," Tech. rep., WE Upjohn Institute for Employment Research.

Azar, J., M. C. Schmalz, and I. Tecu (2018): "Anticompetitive effects of common ownership," *The Journal of Finance*, 73, 1513–1565.

Backus, M., C. Conlon, and M. Sinkinson (2021a): "Common ownership and competition in the ready-to-eat cereal industry," Tech. rep., National Bureau of Economic Research.

——— (2021b): "Common Ownership in America: 1980–2017," *American Economic Journal: Microeconomics*, 13, 273–308.

Baker, G. and B. Holmstrom (1995): "Internal labor markets: Too many theories, too few facts," *The American Economic Review*, 85, 255–259.

Balasubramanian, N., J. W. Chang, M. Sakakibara, J. Sivadasan, and E. Starr (2022): "Locked in? The enforceability of covenants not to compete and the careers of high-tech workers," *Journal of Human Resources*, 57, S349–S396.

Bar-Isaac, H., J. P. Johnson, and V. Nocke (2025): "Acquihiring for Monopsony Power," *Management Science*, 71, 3485–3496.

Barone, G., F. Schivardi, and E. Sette (2025): "Interlocking Directorates and Competition in Banking," *The Journal of Finance*, 80, 1963–2016.

Beaman, L. and J. Magruder (2012): "Who gets the job referral? Evidence from a social networks experiment," *American Economic Review*, 102, 3574–3593.

Belenzon, S. and U. Tsolmon (2016): "Market frictions and the competitive advantage of internal labor markets," *Strategic Management Journal*, 37, 1280–1303.

Benmelech, E., N. K. Bergman, and H. Kim (2022): "Strong Employers and Weak Employees,"

Journal of Human Resources, 57, S200–S250.

Bernstein, S., X. Giroud, and R. R. Townsend (2016): "The impact of venture capital monitoring," *The Journal of Finance*, 71, 1591–1622.

Bernstein, S., R. R. Townsend, and T. Xu (2023): "Flight to Safety: How Economic Downturns Affect Talent Flows to Startups," *The Review of Financial Studies*, 37, 837–881.

Brown, C. and J. Medoff (1989): "The employer size-wage effect," *Journal of Political Economy*, 97, 1027–1059.

Brown, M., E. Setren, and G. Topa (2016): "Do informal referrals lead to better matches? Evidence from a firm's employee referral system," *Journal of Labor Economics*, 34, 161–209.

Bryan, K. A., M. Hoffman, and A. Sariri (2026): "Information Frictions and Employee Sorting between Start-ups," *American Economic Journal: Applied Economics*, 18, 369–406.

Burdett, K. and D. T. Mortensen (1998): "Wage differentials, employer size, and unemployment," *International Economic Review*, 257–273.

Burnside, A. J. and A. Kidane (2020): "Common ownership: an EU perspective," *Journal of Antitrust Enforcement*, 8, 456–510.

Callaci, B., M. Gibson, S. Pinto, M. Steinbaum, and M. Walsh (2024): "The effect of franchise no-poaching restrictions on worker earnings," *Review of Economics and Statistics*, 1–35.

Cengiz, D., A. Dube, A. Lindner, and B. Zipperer (2019): "The effect of minimum wages on low-wage jobs," *The Quarterly Journal of Economics*, 134, 1405–1454.

Cestone, G., C. Fumagalli, F. Kramarz, and G. Pica (2024): "Exploiting Growth Opportunities: The Role of Internal Labour Markets," *The Review of Economic Studies*, 91, 2676–2716.

Chen, A., M. B. Zhang, and Z. Zhang (2025): "Talent market competition and firm growth," *Available at SSRN 4597388*.

Chen, H., P. Gompers, A. Kovner, and J. Lerner (2010): "Buy local? The geography of venture capital," *Journal of Urban Economics*, 67, 90–102, special Issue: Cities and Entrepreneurship.

Coff, R. W. (1997): "Human assets and management dilemmas: Coping with hazards on the road to resource-based theory," *Academy of Management Review*, 22, 374–402.

Dasaratha, K. (2023): "Innovation and strategic network formation," *The Review of Economic Studies*, 90, 229–260.

De Chaisemartin, C. and X. d'Haultfoeuille (2020): "Two-way fixed effects estimators with heterogeneous treatment effects," *American Economic Review*, 110, 2964–2996.

Delabastita, V. and M. Rubens (2025): "Colluding against workers," *Journal of Political Economy*, 133, 1796–1839.

Diegmann, A., S. Müller, and B. Schoefer (2026): "Off the Labor Supply Curve: The Zero Employer Size Wage Effect Within Large Firms," Tech. rep., National Bureau of Economic Research, Inc.

Dustmann, C., A. Glitz, U. Schönberg, and H. Brücker (2016): "Referral-based job search networks," *The Review of Economic Studies*, 83, 514–546.

Ederer, F. and B. Pellegrino (2026): "A Tale of Two Networks: Common Ownership and Product Market Rivalry," *The Review of Economic Studies*, 93, 1746–1788.

Eldar, O. and J. Grennan (2021): "Common Ownership and Entrepreneurship," *AEA Papers and Proceedings*, 111, 582–86.

——— (2024): "Common venture capital investors and startup growth," *The Review of Financial Studies*, 37, 549–590.

Emmens, J., D. Hutschenreiter, S. Manfredonia, F. Noth, and T. Santini (2024): "From shares to machines: How common ownership drives automation," Tech. rep., IWH Discussion Papers.

Ewens, M. and N. Malenko (2020): "Board Dynamics over the Startup Life Cycle," Working Paper 27769, National Bureau of Economic Research.

Faccio, M. and W. J. O'Brien (2021): "Business groups and employment," *Management Science*, 67, 3468–3491.

Gibson, M. (2024): "How Major Tech Firms Used Illegal "No-Poach" Agreements to Control Workers' Salaries," Tech. rep., WE Upjohn Institute for Employment Research.

Giroud, X. and H. M. Mueller (2015): "Capital and Labor Reallocation within Firms," *The Journal of Finance*, 70, 1767–1804.

Gompers, P. A., W. Gornall, S. N. Kaplan, and I. A. Strebulaev (2020): "How do venture capitalists make decisions?" *Journal of Financial Economics*, 135, 169–190.

González-Uribe, J. (2020): "Exchanges of innovation resources inside venture capital portfolios," *Journal of Financial Economics*, 135, 144–168.

Goodman-Bacon, A. (2021): "Difference-in-differences with variation in treatment timing," *Journal of Econometrics*, 225, 254–277.

Granovetter, M. S. (1973): "The strength of weak ties," *American Journal of Sociology*, 78, 1360–1380.

Gulati, R. (1998): "Alliances and networks," *Strategic Management Journal*, 19, 293–317.

Gutiérrez, G. and T. Philippon (2016): "Investment-less growth: An empirical investigation," Tech. rep., National Bureau of Economic Research.

Hacamo, I. and K. Kleiner (2022): "Forced entrepreneurs," *The Journal of Finance*, 77, 49–83.

Hellmann, T. and M. Puri (2002): "Venture capital and the professionalization of start-up firms: Empirical evidence," *The Journal of Finance*, 57, 169–197.

Hensvik, L. and O. N. Skans (2016): "Social networks, employee selection, and labor market outcomes," *Journal of Labor Economics*, 34, 825–867.

Herrera-Caicedo, A., J. Jeffers, and E. Prager (2025): "Collusion through Common Leadership," Working Paper 33866, National Bureau of Economic Research.

Huneeus, F., B. Larrain, M. Larrain, and M. Prem (2021): "The internal labor markets of business groups," *Journal of Corporate Finance*, 69, 102017.

Jarosch, G., J. S. Nimczik, and I. Sorkin (2024): "Granular search, market structure, and wages," *Review of Economic Studies*, 91, 3569–3607.

Jeffers, J. S. (2023): "The Impact of Restricting Labor Mobility on Corporate Investment and Entrepreneurship," *The Review of Financial Studies*, 37, 1–44.

Johnson, M. S., K. Lavetti, and M. Lipsitz (2025): "The Labor Market Effects of Legal Restrictions on Worker Mobility," *Journal of Political Economy*, 133, 2735–2793.

Johnson, M. S., M. Lipsitz, and A. Pei (2023): "Innovation, Inventor Mobility, and the Enforceability of Noncompete Agreements," Working Paper 31487, National Bureau of Economic Research.

Kortum, S. and J. Lerner (2000): "Assessing the contribution of venture capital," *the RAND*

Journal of Economics, 31, 674–692.

Krueger, A. B. and O. Ashenfelter (2022): "Theory and evidence on employer collusion in the franchise sector," *Journal of Human Resources*, 57, S324–S348.

Kwan, A., B. Matthies, R. R. Townsend, and T. Xu (2025): "Entrepreneurial Spawning from Remote Work," Working Paper 33774, National Bureau of Economic Research.

Lafontaine, F., Saattvic, and M. E. Slade (2025): "No-poaching clauses in franchise contracts, anticompetitive or efficiency enhancing?" *Available at SSRN 4404155*.

Lamadon, T., M. Mogstad, and B. Setzler (2022): "Imperfect Competition, Compensating Differentials, and Rent Sharing in the US Labor Market," *American Economic Review*, 112, 169–212.

Leccese, M. (2024): "Strategic Investment in Competitors: Theory and Evidence from Technology Startups," *Available at SSRN 4968068*.

Li, X., T. Liu, and L. A. Taylor (2023): "Common ownership and innovation efficiency," *Journal of Financial Economics*, 147, 475–497.

Lippman, S. A. and R. P. Rumelt (1982): "Uncertain imitability: An analysis of interfirm differences in efficiency under competition," *The Bell Journal of Economics*, 418–438.

Marx, M., D. Strumsky, and L. Fleming (2009): "Mobility, skills, and the Michigan non-compete experiment," *Management Science*, 55, 875–889.

Montag, F. (2023): "Mergers, foreign competition, and jobs: Evidence from the US appliance industry," *George J. Stigler Center for the Study of the Economy & the State Working Paper*.

Montgomery, J. D. (1991): "Social networks and labor-market outcomes: Toward an economic analysis," *The American economic review*, 81, 1408–1418.

——— (1992): "Job search and network composition: Implications of the strength-of-weak-ties hypothesis," *American Sociological Review*, 586–596.

Moscarini, G. and F. Postel-Vinay (2017): "The relative power of employment-to-employment reallocation and unemployment exits in predicting wage growth," *American Economic Review*, 107, 364–368.

Newham, M., J. Seldeslachts, and A. Banal-Estañol (2025): "Common Ownership and Market Entry: Evidence from the Pharmaceutical Industry," *American Economic Journal: Microeconomics*, 17, 260–327.

O'brien, D. P. and S. C. Salop (1999): "Competitive effects of partial ownership: Financial interest and corporate control," *Antitrust LJ*, 67, 559.

Pallais, A. and E. G. Sands (2016): "Why the referential treatment? Evidence from field experiments on referrals," *Journal of Political Economy*, 124, 1793–1828.

Postel–Vinay, F. and J. Robin (2002): "Equilibrium Wage Dispersion with Worker and Employer Heterogeneity," *Econometrica*, 70, 2295–2350.

Prager, E. and M. Schmitt (2021): "Employer Consolidation and Wages: Evidence from Hospitals," *American Economic Review*, 111, 397–427.

Puri, M. and R. Zarutskie (2012): "On the Life Cycle Dynamics of Venture-Capital- and Non-Venture-Capital-Financed Firms," *The Journal of Finance*, 67, 2247–2293.

Rauterberg, G. and E. Talley (2017): "Contracting out of the fiduciary duty of loyalty: An empirical analysis of corporate opportunity waivers," *Colum. L. Rev.*, 117, 1075.

Robinson, J. (1969): *The economics of imperfect competition*, Springer.

Rosenkopf, L. and P. Almeida (2003): "Overcoming local search through alliances and mobility," *Management Science*, 49, 751–766.

Rotemberg, J. (1984): "Financial transaction costs and industrial performance," Tech. rep., Sloan School of Management Working paper; 1554-84.

Samila, S. and O. Sorenson (2011): "Venture capital, entrepreneurship, and economic growth," *The Review of Economics and Statistics*, 93, 338–349.

Shapiro, C. (2019): "Protecting Competition in the American Economy: Merger Control, Tech Titans, Labor Markets," *Journal of Economic Perspectives*, 33, 69–93.

Shi, K. (2024): "Mergers and Mismatches in the Labor Market for Creativity," .

Stolpe, M. (2002): "Determinants of knowledge diffusion as evidenced in patent data: the case of liquid crystal display technology," *Research Policy*, 31, 1181–1198.

Tate, G. and L. Yang (2015): "The Bright Side of Corporate Diversification: Evidence from Internal Labor Markets," *The Review of Financial Studies*, 28, 2203–2249.

——— (2024): "The human factor in acquisitions: Cross-industry labor mobility and corporate diversification," *The Review of Financial Studies*, 37, 45–88.

ONLINE APPENDICES

Appendix A. Theoretical Background

This section outlines how common ownership can shape wages, employment, and worker mobility. The goal is not to provide a full formal model with testable predictions, but to highlight the key mechanisms linking ownership structures to the labor-market outcomes examined in our empirical analyses.

Baseline environment. Workers choose among potential employers based on wages and non-wage attributes. Let a worker's utility from joining firm j depend on the offered wage w_j and on a firm-specific component a_j that captures job characteristics. Because employers are differentiated, each has some wage-setting power. On the firm side, let the marginal product of a new hire be y and the hiring cost h. The firm's payoff π_f from hiring a worker is $(y–h–w_j)s_j$, where s_j denotes the firm's employment share. The firm chooses w_j to balance the benefits of attracting more workers against the costs of higher wages.[1]

Common ownership and portfolio internalization. Suppose some investors hold stakes in multiple firms operating in the same local market. For simplicity, we summarize the strength of common ownership with a scalar $\kappa \in [0, 1]$, which captures the extent to which decisions at one portfolio firm internalize the payoffs of other firms in the investor's portfolio, so that the objective of a portfolio firm f can be expressed as:[2]

$$\Omega_f = \pi_f + \kappa \sum_{g \in \mathcal{P} \setminus \{f\}} \pi_g,$$

where π_i is the profit firm i and $\mathcal{P}$ is the investor's portfolio. Therefore, at portfolio firms, hiring decisions account for the implications on the other firms in the portfolio of the investor. The investor's oversight and board presence provide informal capacity to monitor the alignment of managerial decisions with ownership interest, ultimately shaping them.

Labor market frictions and network synergies. We distinguish between two channels through which network synergies operate. First, workers may have difficulty identifying

[1] This setup is consistent with a differentiated employer model with logit labor supply.

[2] In principle, κ depends on the full ownership and governance structure, including investors' equity stakes and the Pareto-weights attached to them by shareholders (Rotemberg 1984). Because these details are not observed in our data, we treat κ as a reduced-form measure of the intensity of common ownership.

high-quality jobs, especially in entrepreneurial firms (Bryan et al. 2026). Ownership links can reduce worker-side information frictions when investors, founders, and employees share information about openings and job quality across portfolio firms. These links may also increase the value of joining a portfolio firm by improving match quality, reducing uncertainty about firm prospects, and creating opportunities for future mobility within the investor's network. We refer to this as the *worker-information channel*. In the model, this channel is captured by decomposing the firm-specific component of worker utility into

$$a_j(\kappa) = \bar{\alpha}_j + \tilde{\alpha}_j(\kappa),$$

where $\bar{\alpha}_j$ is a fixed firm component, $\tilde{\alpha}_j(0) = 0$, and $\tilde{\alpha}'_j(\kappa) > 0$. Thus, common ownership increases the effective non-wage value of portfolio jobs and shifts labor supply toward commonly owned firms.

Second, common ownership can reduce employers' screening and hiring frictions by facilitating information sharing about worker capabilities across portfolio firms. We refer to this as the *screening channel*. In the model, this employer-side channel is represented by $\lambda(\kappa)$, with $\lambda(0) = 0$ and $\lambda'(\kappa) > 0$. The term $\lambda(\kappa)$ can be interpreted either as improving employer–employee match quality, thereby increasing the marginal product of a new hire y, or as reducing hiring/search costs h.

Importantly, these mechanisms need not rely on direct control over hiring decisions; instead, they operate through increased visibility of job opportunities and worker capabilities via shared board members, advisors, and overlapping professional networks.[3] The profit of a portfolio firm i can then be written as,

$$\text{(A1)} \qquad \big(y - h - w_i + \lambda(\kappa)\big)s_i(w,\kappa) + \kappa \sum_{j \in \mathcal{P}\setminus\{i\}} \big(y - h - w_j + \lambda(\kappa)\big)s_j(w,\kappa).$$

Implications for wages and employment. A portfolio firm chooses w_i to maximize (A1), yielding the first-order condition:

$$\text{(A2)} \quad w_i = \big[y - h + \lambda(\kappa)\big] - \frac{s_i(w,\kappa)}{\eta_i} - \kappa \sum_{j \in \mathcal{P}\setminus\{i\}} D_{j\to i}\big(y - h - w_j + \lambda(\kappa)\big)s_j(w,\kappa),$$

where $\eta_i = \frac{\partial s_i}{\partial w_i}$ is the slope of firm i's labor supply and $D_{j\to i}$ denotes the diversion

[3] This is particularly salient in venture capital settings, where investors are active, well connected, and closely involved with portfolio firms.

ratio, i.e., the fraction of workers moving from j to i following an increase in the wage offered at i. The first term reflects the synergy channel that raises productivity or lowers firm hiring costs: as $\lambda(\kappa)$ rises, the firm's willingness to pay for a worker increases, pushing wages and employment up. The second term is the standard monopsony markdown. Under common ownership, the worker-information channel raises $s_i(w, \kappa)$, which reduces wages. However, the same channel directly expands labor supply to portfolio firms, raising employment. The third term captures internalized diversion. The investor internalizes that raising wages attracts workers from other portfolio firms, which relaxes labor market competition. The lower wages translate into lower employment.

The overall effect of common ownership depends on the relative strength of these forces. When the screening and worker-information channels combined dominate the internalization effect, employment rises at portfolio firms. The wage response, however, is determined by a different balance: the screening channel pushes wages up, whereas both the worker-information channel and internalization push wages down. Employment growth at portfolio firms can therefore coexist with muted or even negative wage responses. A feature of the venture capital ecosystem is that workers' outside options may extend beyond the VC universe: public firms compete for talent in the same local labor markets, and VC-backed workers routinely transition to public-firm employment.[4] This external competitive pressure mechanically attenuates the ability of common VC investors to coordinate wage suppression.

Our empirical analysis will not aim to separately identify these forces. The purpose of the framework is instead to clarify why the joint pattern of wages and employment is informative. In particular, wage declines are not necessarily evidence of a pure internalization effect: they may also reflect an outward shift in effective labor supply toward portfolio firms. Conversely, employment growth suggests that common ownership is not operating only through a contractionary wage-suppression channel.

[4] In our data, approximately 6% of firm-years record an outflow from a VC-backed firm to a public firm.

Appendix B. Robustness and Sensitivity Analyses

This appendix reports robustness checks for the main empirical results. We focus on the core outcomes in the paper: log employment, turnover, any job-to-job (J2J) mobility, and within-market J2J mobility. The checks assess sensitivity to fixed-effect saturation in the stacked COW design, inference in the COW first stage, alternative definitions of common VC ownership, Delaware incorporation, and post-2010 data coverage.

B.1. Saturated stacked COW specification

Our baseline stacked specification includes firm fixed effects, industry-year fixed effects, and cohort-year fixed effects. Because never-treated firms can appear in multiple cohort-specific stacks, we also estimate a more saturated specification that replaces firm fixed effects with firm-by-cohort fixed effects and adds CBSA-year fixed effects:

$$\text{(A3)}\quad Y_{j,n,c,t,g} = \sum_{\substack{k=-5 \\ k\neq -1}}^{5} \beta_k \mathbf{1}\{t-g=k\} \times D_{j,g} + \mu_{j,g} + \alpha_{c,t} + \gamma_{n,t} + \delta_{g,t} + \mathbf{X}'_{j,t}\Lambda + \varepsilon_{j,n,c,t,g}.$$

The firm-by-cohort fixed effects, $\mu_{j,g}$, allow each firm to have a separate baseline level in each adoption cohort stack. The CBSA-year fixed effects, $\alpha_{c,t}$, absorb time-varying local labor-market shocks.

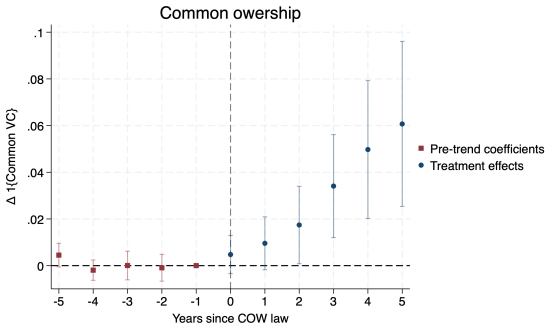
Appendix Figure B.1 reports the corresponding event-study estimates. The saturated specification yields a similar first-stage effect of COW adoption on common VC ownership. The estimates for the main employment, turnover, and mobility outcomes are less precise, but display broadly similar post-adoption patterns. We therefore use the more parsimonious specification in Equation (2) as the preferred stacked specification and interpret Equation (A3) as a sensitivity check.

B.2. Alternative definitions of common VC ownership

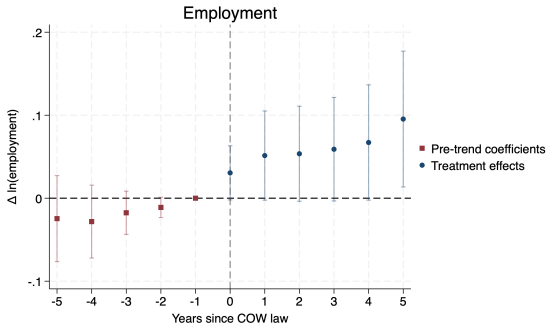
The baseline measure of common VC ownership is an indicator equal to one if a firm shares at least one VC investor with another firm in the same industry-CBSA-year. We assess the sensitivity of the main firm-level results to three alternative definitions.

First, we use a continuous measure equal to the share of a firm j's VC investors $\mathcal{V}_{j,t}$

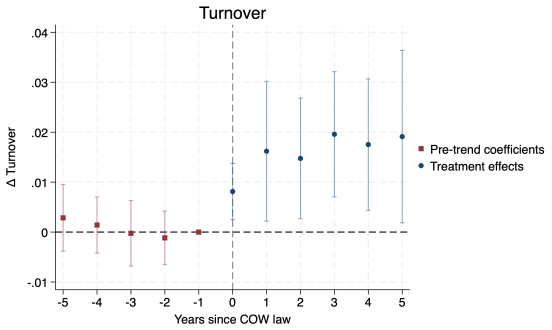
FIGURE B.1. COW event studies with firm-by-cohort and CBSA-year fixed effects



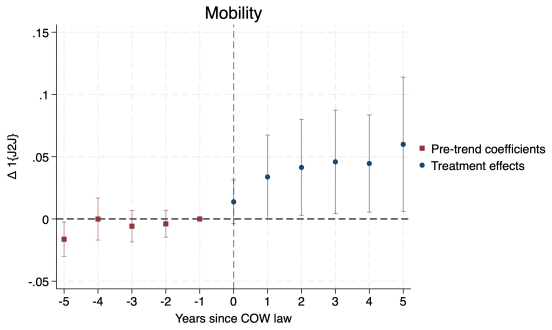
(a) Common VC ownership



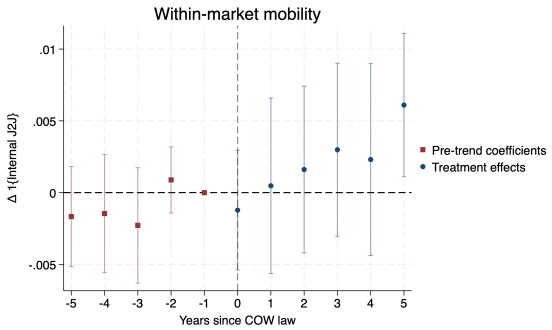
(b) Log employment



(c) Turnover



(d) Any J2J mobility



(e) Within-market J2J mobility

Notes: This figure reports event-study coefficients from the saturated specification in Equation (A3). The specification includes firm-by-cohort fixed effects, CBSA-year fixed effects, industry-year fixed effects, and cohort-year fixed effects. The reference period is $k = -1$. Confidence intervals are based on state-of-incorporation cluster-robust standard errors. The figure reports the common-ownership first stage and the primary outcomes used in the main analysis.

that also invest in another firm in the same market:

(A4)

$$CommonVCShare_{j,t} = \frac{\#\{v \in \mathcal{V}_{j,t} : v \text{ also invests in at least one firm in } j\text{'s market}\}}{\#\mathcal{V}_{j,t}}.$$

TABLE B.1. Firm-level estimates using alternative common ownership definitions

	(1) Employment	(2) Turnover	(3) 𝟙{J2J}	(4) 𝟙{Internal J2J}
CommonVC (Baseline)	0.226***	0.026***	0.088***	0.015***
	(0.016)	(0.003)	(0.005)	(0.001)
CommonVCShare	0.150***	0.020***	0.052***	0.011***
	(0.008)	(0.002)	(0.002)	(0.002)
CBSA-only *CommonVC*	0.213***	0.024***	0.098***	0.009***
	(0.012)	(0.003)	(0.004)	(0.001)
HQ-state-by-industry *CommonVC*	0.212***	0.023***	0.091***	0.012***
	(0.014)	(0.003)	(0.004)	(0.001)
Firm FE	Yes	Yes	Yes	Yes
Industry-by-year fixed effects	Yes	Yes	Yes	Yes
CBSA-by-year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates from Equation (1) using alternative measures of common VC ownership along with the baseline. Each row reports a separate set of regressions. The headquarters-state-by-industry measure is based on firms' operating location, not state of incorporation. Standard errors are clustered at the industry-CBSA level. *** p<0.01, ** p<0.05, * p<0.1.

Second, we define common ownership using a broader CBSA-only market definition, which requires shared VC ownership with another firm in the same CBSA but not necessarily the same industry. Third, we define markets using headquarters-state-by-industry cells rather than industry-CBSA cells. This state-by-industry measure uses firms' operating location, not state of incorporation.

Appendix Table B.1 reports estimates of Equation (1) using these alternative measures. Each row reports a separate specification. The results assess whether the main estimates are driven by the binary common-ownership definition or by the baseline industry-CBSA market definition.

Table B.2 reports corresponding first-stage estimates from the stacked COW design using the alternative common-ownership measures as outcomes. This table tests whether COW adoption increases broader or more intensive measures of overlapping VC ownership.

TABLE B.2. COW adoption and alternative common ownership measures

Outcome	Estimate	Standard error	Observations
CommonVC (Baseline)	0.0353***	0.0125	1,579,029
CommonVCShare	0.0342**	0.0132	1,579,029
CBSA-only *CommonVC*	0.0576***	0.0173	1,579,029
HQ-state-by-industry *CommonVC*	0.0348**	0.0157	1,579,029

Notes: This table reports average post-adoption effects from the stacked COW design using alternative common ownership measures as outcomes. The specifications include the fixed effects from Equation (2). Standard errors are clustered at the state-of-incorporation level. *** p<0.01, ** p<0.05, * p<0.1.

B.3. Excluding Delaware-incorporated firms

Delaware is a central state of incorporation for venture-backed firms. As a sample-composition check, we re-estimate the main firm-level panel specification after excluding Delaware-incorporated firms. Table B.3 reports the results. The estimates are similar to the baseline estimates, indicating that the main panel results are not driven by firms incorporated in Delaware.

This exercise is distinct from excluding Delaware in the COW design: because COW eligibility is assigned by state of incorporation, dropping Delaware from the COW analysis removes an important source of legal variation and changes the relevant estimand. Here, we instead ask whether the baseline within-firm relationship between common VC ownership and firm outcomes is driven by Delaware-incorporated firms. Nonetheless, in Figure B.2 we report the COW first-stage event study after excluding Delaware-incorporated firms. The estimated effect remains positive but is less precise as excluding Delaware-incorporated firms removes an important source of COW-induced variation and should be interpreted as a diagnostic.

B.4. Post-2010 sample

We re-estimate the main firm-level specifications on the post-2010 sample. This restriction addresses concerns that employment, worker mobility, and investor links are measured more consistently in later years. Appendix Table B.4 reports estimates of Equation (1) using only post-2010 observations.

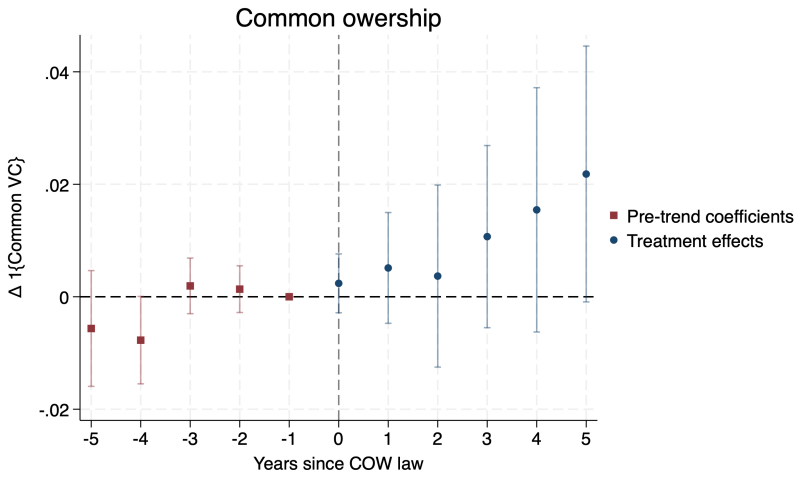
We use this restriction for the firm-level panel rather than the stacked COW event study. Many COW adoptions occurred before 2010, and imposing a post-2010 restriction would mechanically remove pre-treatment observations for several cohorts and alter the

TABLE B.3. Estimates excluding Delaware-incorporated firms

	(1) Employment	(2) Turnover	(3) 𝟙{J2J}	(4) 𝟙{Internal J2J}
CommonVC	0.159***	0.0184***	0.0802***	0.0149***
	(0.0161)	(0.00355)	(0.00581)	(0.00181)
Observations	533,792	533,792	533,792	533,792
R-squared	0.875	0.225	0.416	0.161

Notes: This table reports estimates from Equation (1) excluding Delaware from the sample. All specifications include firm, CBSA-year, and industry-year fixed effects, along with the baseline investor controls. Standard errors are clustered at the industry-CBSA level. *** p<0.01, ** p<0.05, * p<0.1.

FIGURE B.2. COW law adoption and common VC ownership excluding Delaware-incorporated firms



Notes: Event-study coefficients from Equation (2), estimated using the common VC indicator as the outcome. The reference period is $k = -1$. Confidence intervals are based on state-of-incorporation cluster-robust standard errors. Delaware-incorporated firms (i.e., $g = 2000$) are excluded from the sample.

interpretation of the event-study design.

TABLE B.4. Estimates in the post-2010 sample

	(1) Employment	(2) Turnover	(3) $\mathbb{1}\{\text{J2J}\}$	(4) $\mathbb{1}\{\text{Internal J2J}\}$
CommonVC	0.260***	0.0281***	0.0893***	0.00981***
	(0.0137)	(0.00476)	(0.00649)	(0.00143)
Observations	418,992	418,992	418,992	418,992
R-squared	0.909	0.261	0.476	0.260

Notes: This table reports estimates from Equation (1) restricting the sample to post-2010 observations. All specifications include firm, CBSA-year, and industry-year fixed effects, along with the baseline investor controls. Standard errors are clustered at the industry-CBSA level. *** p<0.01, ** p<0.05, * p<0.1.

Appendix C. Details on Industry Crosswalk Construction

This appendix describes the construction of the industry crosswalk between PitchBook and VentureXpert. The purpose of the crosswalk is to harmonize industry classifications across the two data sources. Because PitchBook and VentureXpert use different industry taxonomies, we map each VentureXpert industry category to the closest corresponding PitchBook industry category.

We construct the crosswalk at the broad industry level. Table C.1 reports the resulting mapping. The first column lists PitchBook industries, and the second column lists the corresponding VentureXpert industries. The mapping is many-to-one because VentureXpert often uses more granular categories than PitchBook. Thus, multiple VentureXpert industries may map to the same PitchBook industry.

The matching procedure proceeds in three steps. First, we standardize industry labels across the two data sources. We harmonize common abbreviations and closely related terms, remove punctuation, and remove generic words that do not distinguish industries, such as "other" and "related." Second, we compare each VentureXpert industry category with candidate PitchBook industries based on semantic similarity between industry labels and the underlying economic activities they describe. Third, we assign each VentureXpert industry to the PitchBook industry that best captures its primary activity.

In most cases, the mapping is straightforward. For example, VentureXpert com munication-related categories such as *Data Comm.*, *Wireless Communications*, *Satellite Comm*, and *Telephone Rel.* are mapped to PitchBook's *Communications and Networking*. VentureXpert biotechnology-related categories such as *Biotech Research*, *Biotech-Human*, *Biotech-Animal*, and *Biotech-Industrial* are mapped to PitchBook's *Pharmaceuticals and Biotechnology*. Medical diagnostics, biosensors, and medical/health products are mapped to PitchBook's *Healthcare Devices and Supplies*, while medical/health services are mapped to PitchBook's *Healthcare Services*.

For ambiguous categories, we manually review the automated match and assign the VentureXpert category to the PitchBook industry that best reflects its substantive economic activity. For instance, internet-related categories are classified based on whether they primarily correspond to software, retail, communications infrastructure, or media content. This procedure preserves the VentureXpert industry information while allowing VentureXpert observations to be classified consistently using the PitchBook industry taxonomy.

TABLE C.1. Pitchbook and VenturExpert Industry Crosswalk

Pitchbook Industry	VenturExpert Industry
Agriculture	Agricultural, Forestry
Chemicals and Gases	Chemicals and Materials
Commercial Products	Scientific Instrumentation
Commercial Products	Industrial Products, Other
Commercial Products	Manufacturing
Commercial Products	Industrial Automation
Commercial Products	Laser Related
Commercial Products	Electronics Equipment
Commercial Products	Industrial Equipment
Commercial Services	Business Services
Commercial Services	Industrial Services
Communications and Networking	Telephone Rel.
Communications and Networking	Data Comm.
Communications and Networking	Satellite Comm
Communications and Networking	Fiber Optics
Communications and Networking	Wireless Communications
Communications and Networking	Internet Communications
Communications and Networking	Facsimile Trans
Communications and Networking	Internet Services
Communications and Networking	Comm. Other
Communications and Networking	Commer. Comm.
Computer Hardware	Computers Hardware
Computer Hardware	Computer Peripherals
Construction (Non-Wood)	Construction
Consumer Non-Durables	Food and Beverage
Energy Equipment	Power Supplies
Energy Equipment	Batteries
Energy Services	Energy, Conservation

Continued on next page

TABLE C.1 – *Continued from previous page*

Pitchbook Industry	VenturExpert Industry
Energy Services	Energy, Enhanced Recovery
Exploration, Production and Refining	Oil & Gas Exploration
Healthcare Devices and Supplies	Biotech Equipment
Healthcare Devices and Supplies	Medical Diagnostics
Healthcare Devices and Supplies	Biosensors
Healthcare Devices and Supplies	Med/Health Products
Healthcare Services	Med/Health Services
IT Services	Internet Programming
IT Services	Computer Services
IT Services	Computer Programming
IT Services	Turnkey Integrated Systems and Solutions
Media	Internet Content
Other Business Products and Services	Other
Other Consumer Products and Services	Consumer Services
Other Consumer Products and Services	Consumer, Other
Other Consumer Products and Services	Consumer Products
Other Energy	Energy, Alternative
Other Energy	Energy, Coal
Other Energy	Energy, Other
Other Financial Services	Financial Services
Other Information Technology	Computer Other
Other Information Technology	Electronics, Other
Other Materials	Pollution and Recycling
Pharmaceuticals and Biotechnology	Biotech-Industrial
Pharmaceuticals and Biotechnology	Biotech Research
Pharmaceuticals and Biotechnology	Biotech Other
Pharmaceuticals and Biotechnology	Pharmaceutical
Pharmaceuticals and Biotechnology	Biotech-Animal
Pharmaceuticals and Biotechnology	Biotech-Human

Continued on next page

TABLE C.1 – *Continued from previous page*

Pitchbook Industry	VenturExpert Industry
Pharmaceuticals and Biotechnology	Medical Therapeutics
Restaurants, Hotels and Leisure	Entertainment and Leisure
Retail	Retailing Related
Retail	Internet Ecommerce
Semiconductors	Semiconductors/Other Electronics
Semiconductors	Optoelectronics
Software	Internet Software
Software	E-Commerce Technology
Software	Computer Software
Software	Digital Imaging and Computer Graphics
Transportation	Transportation
Utilities	Utilities

Notes: This table reports the industry crosswalk between PitchBook and VentureXpert. The first column reports the PitchBook industry category, and the second column reports the corresponding VentureXpert industry category. The crosswalk is many-to-one because VentureXpert often uses more granular categories than PitchBook. Therefore, multiple VentureXpert industries may map to the same PitchBook industry.

Appendix D. Additional Figures and Tables

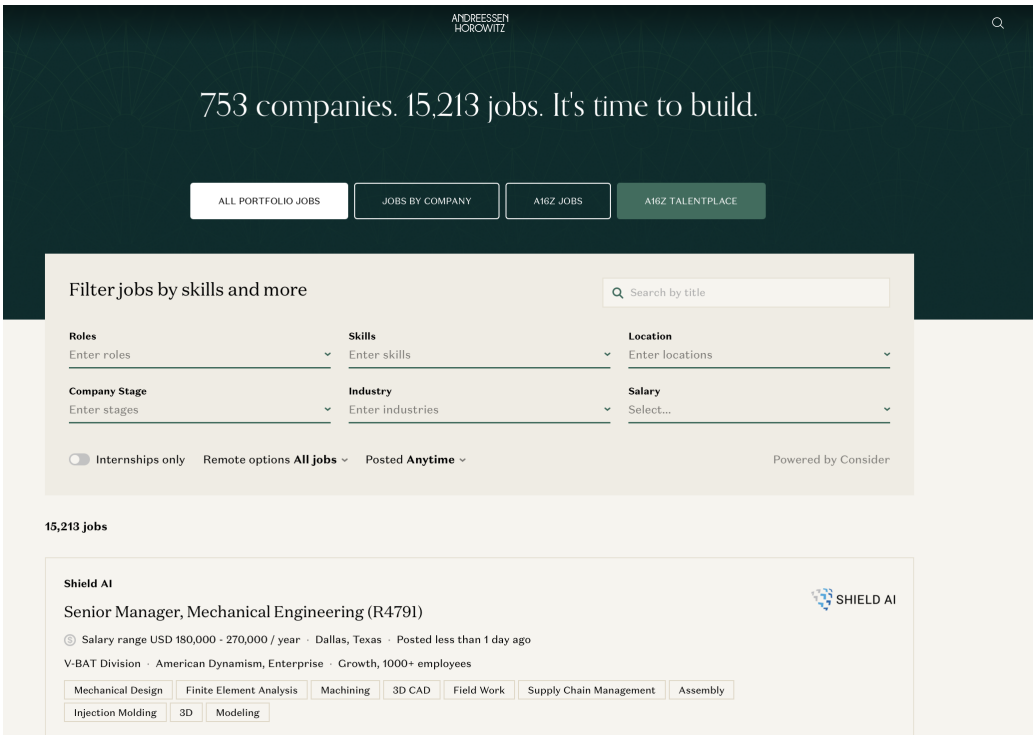
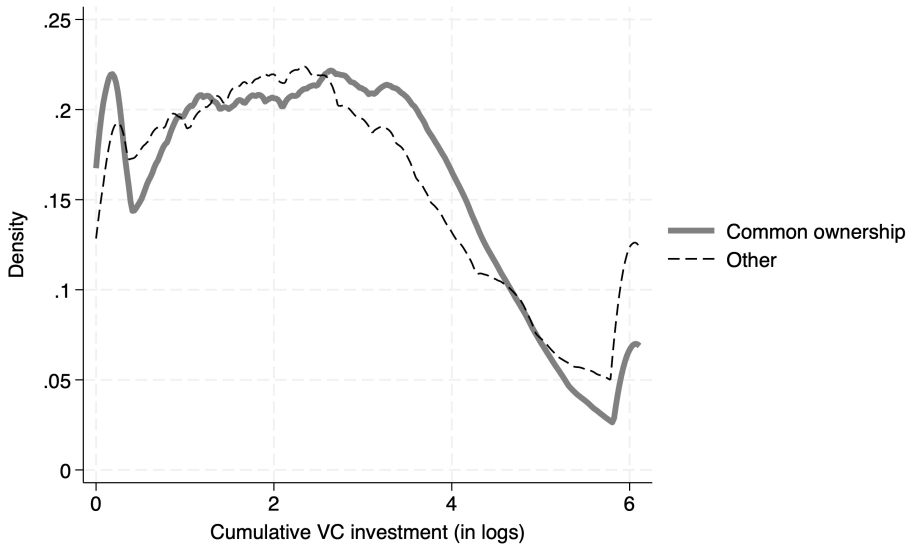


FIGURE D.1. A venture capital firm's portfolio jobs board

Notes: Screenshot of the Andreessen Horowitz (a16z) portfolio jobs board, accessed in April 2026, available at https://jobs.a16z.com/jobs. The board aggregates open positions across a16z portfolio companies and allows candidates to filter by industry, company stage, location, skills, and salary. Headline counts of listed companies and open positions reflect the date of access and change over time.

FIGURE D.2. Distribution of cumulative VC investment, by common ownership status



Notes: This figure plots kernel density estimates of cumulative venture capital investment (in logs) for ventures in the sample, separately by common ownership status. The solid grey line corresponds to venture-years where at least one common VC investor is observed (common ownership); the black dashed line corresponds to all other venture-years. Cumulative VC investment is measured in millions of USD and transformed as ln(1 + cumulative VC investment). The sample is restricted to ventures with strictly positive cumulative VC investment. Densities are estimated using an Epanechnikov kernel.

TABLE D.1. Summary of Corporate Opportunity Waiver Timeline

State incorp	Effective Date	By Charter	By bylaws	By Board action	Covers directors	Covers Shareholders
DE	7/1/2000	Yes	Possible	Yes	Yes	Yes
OK	11/1/2001	Yes	Possible	Yes	Yes	Yes
MO	10/1/2003	Yes	Possible	Yes	Yes	Yes
KS	1/1/2005	Yes	Possible	Yes	Yes	Yes
TX	1/1/2006	Yes	Possible	Yes	Yes	Yes
NV	10/1/2007	Yes	Possible	Yes	Yes	Yes
NJ	3/11/2011	Yes	Possible	Yes	Yes	Yes
MD	10/1/2014	Yes	Possible	Yes	Yes	No
WA	1/1/2016	Yes	No	No	Yes	Yes

Note: This table provides the summary information of the states that amended their corporate laws explicitly to allow COWs (Source: Rauterberg and Talley (2017)).

Table D.2. Average effects of COW adoption

	(1) Employment	(2) Turnover	(3) $\mathbb{1}\{\text{J2J}\}$	(4) $\mathbb{1}\{\text{Internal J2J}\}$
COW	0.1006*	0.0148**	0.0422*	0.0041**
	(0.0501)	(0.0066)	(0.0226)	(0.0018)
Observations	1,579,029	1,579,029	1,579,029	1,579,029
Adj. R^2	0.892	0.195	0.406	0.157
Firm FE	Yes	Yes	Yes	Yes
Cohort×Year FE	Yes	Yes	Yes	Yes
Industry×Year FE	Yes	Yes	Yes	Yes

Notes: This table reports estimates of the average post-adoption effects from the stacked COW design on the main outcomes considered in the study. Standard errors are clustered at the industry-CBSA level. Standard errors are clustered at the state-of-incorporation level. *** p<0.01, ** p<0.05, * p<0.1.

Table D.3. Common ownership, employment, and worker mobility

VARIABLES	(1) J2J Count	(2) Internal J2J Count	(3) Count hired innovator
CommonVC	0.230***	0.705***	0.292***
	(0.0273)	(0.0638)	(0.0362)
Observations	613,708	73,008	483,191

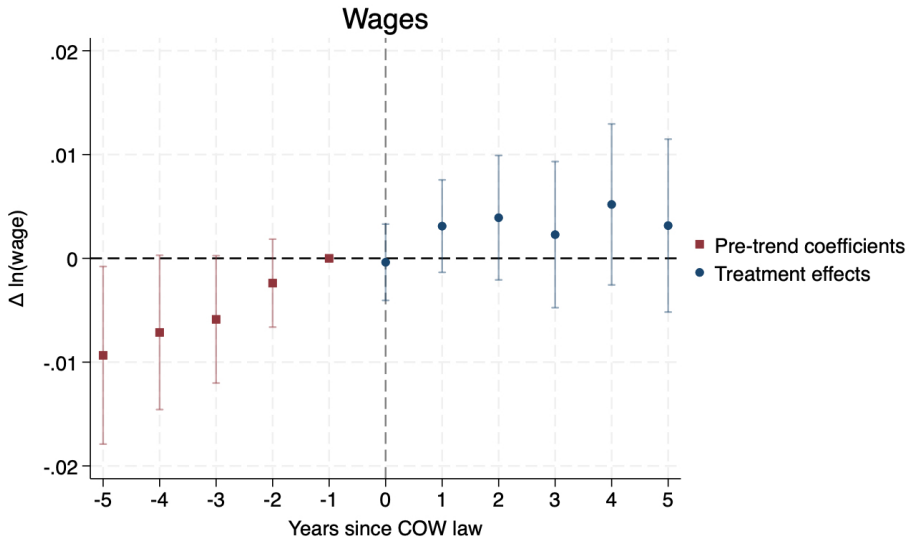
Note: PPML estimates of Equation (1). Standard errors clustered at the industry-CBSA level in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

TABLE D.4. Robustness analysis on within-portfolio worker mobility

VARIABLES	(1) 𝟙{Mobility}	(2) 𝟙{Mobility}	(3) 𝟙{Mobility}	(4) 𝟙{Mobility}	(5) 𝟙{Mobility}	(6) 𝟙{Mobility}
SharedVC	0.000214***	0.000148***	0.000045***	0.000033***	0.000005***	0.000003**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
SameInd × *SharedVC*		0.000236***		0.000044***		0.000007***
		(0.000)		(0.000)		(0.000)
Sample	Full	Full	Innovators	Innovators	C-suites	C-suites
Observations	1,809,801,970	1,809,801,970	1,809,801,970	1,809,801,970	1,809,801,970	1,809,801,970
Mean DV	0.00009	0.00009	0.00001	0.00001	0.000002	0.000002
Origin-Firm-by-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Destination-Firm-by-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each observation is a origin firm and destination firmin a given year. Standard errors clustered at the CBSA level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

FIGURE D.3. Dynamic effects of COW law adoption on wages



Notes: Event-study coefficients from Equation (2), estimated using the logarithm of wages as the outcome. The reference period is $k = -1$. Confidence intervals are based on state-of-incorporation cluster-robust standard errors. Delaware-incorporated firms (i.e., $g = 2000$) are excluded from the sample.

TABLE D.5. Robustness check on movers' redeployment

VARIABLES	(1) New Job in 6m	(2) New Job in 12m	(3) New Job in 18m	(4) New Job in 36m
All movers				
SharedVC	0.07223***	0.05867***	0.04854***	0.01511***
	(0.016)	(0.012)	(0.010)	(0.003)
Observations	11,296,100	11,296,100	11,296,100	11,296,100
Adj. R-squared	0.072	0.075	0.093	0.377
Mean DV	0.345	0.460	0.516	0.540
Movers from severely contracting firms				
SharedVC	0.01977	0.05909**	0.01598	0.05196***
	(0.028)	(0.025)	(0.022)	(0.010)
Observations	49,383	49,383	49,383	49,383
Adj. R-squared	0.263	0.239	0.253	0.529
Mean DV	0.438	0.576	0.654	0.683
Origin-Year FE	Yes	Yes	Yes	Yes
Destination FE	Yes	Yes	Yes	Yes

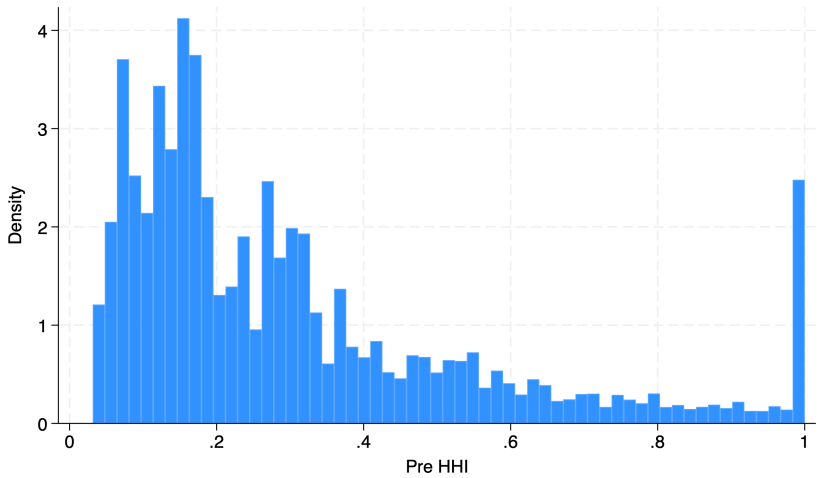
Notes: This table reports linear probability estimates of Equation (5). The unit of observation is a worker–origin firm–potential destination firm–year-of-move combination (w, i, j, t). The sample is restricted to workers who depart their firm; potential destination firms are all firms located in the same CBSA as the origin firm. The dependent variable is an indicator equal to one if the worker moves from the origin to the destination firm within 6, 12, 18, or 36 months (columns 1–4). *SharedVC* equals one if the origin and destination firms share a common VC investor in year t. Panel A includes all movers; Panel B restricts to movers from firms experiencing an employment decline of at least 70% ("Movers from severely contracting firms"). All specifications include a dummy controlling for whether the two firms operate in the same industry, as well as the origin fixed effects, destination fixed effects and year-of-move fixed effects. Standard errors, clustered at the CBSA level, are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table D.6. Post-IPO C-suite redeployment

VARIABLES	(1) CEO Move	(2) C-Suite Move	(3) CEO Move	(4) C-Suite Move
	0.00026	0.00751***	0.00013	0.00614*
	(0.001)	(0.003)	(0.001)	(0.003)
Observations	1,192,737	1,192,737	1,190,361	1,190,361
Adjusted R-squared	0.086	0.068	0.118	0.092
Mean DV	0.0009	0.0047	0.0009	0.0047
Origin FE	Yes	Yes	No	No
Destination FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	No	No
Origin-Year FE	No	No	Yes	Yes

Notes: This table reports linear probability estimates of a model similar to that of Equation (5). The unit of observation is a worker–origin firm–potential destination firm–year-of-move combination (w, i, j, t). The sample is restricted to CEOs (column 1) or C-suite executives (column 2) who depart their firm after an IPO; potential destination firms are all firms located in the same CBSA as the origin firm. The dependent variable is an indicator equal to one if the worker moves from the origin to the destination firm. The coefficient reported is that on *SharedVC*, which equals one if the origin and destination firms share a common VC investor in year t. All specifications include origin-by-destination firm-pair (Dyad FE) and year-of-move fixed effects. Standard errors, clustered at the CBSA level, are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Figure D.4. Distribution of pre-period HHI



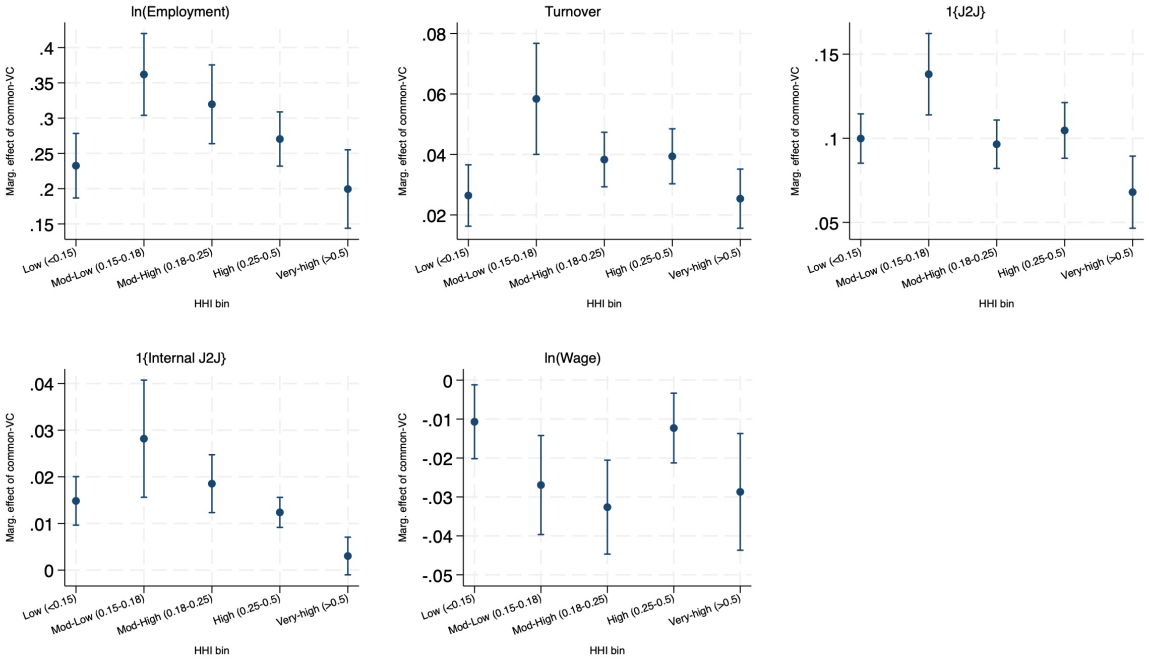
Notes: This figure plots the distribution of pre-period local labor market concentration across industry-CBSA cells. Concentration is measured by the Herfindahl-Hirschman index, $\text{PreHHI}_{n,c} = \sum_j s^2_{j,\tau}$, where $s_{j,\tau}$ is firm j's employment share in industry-CBSA cell (n, c) in year τ, the first year the cell exhibits any common-VC ownership.

TABLE D.7. Workforce composition and wages by seniority

	Share of workforce			Per-worker wage (logs)		
	(1)	(2)	(3)	(4)	(5)	(6)
	Junior	Mid-seniority	Senior	Junior	Mid-seniority	Senior
CommonVC	0.013***	0.002	-0.022***	0.012***	0.002	-0.008***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Observations	779,996	779,996	779,996	736,335	686,599	495,319
Adj. R-square	0.62	0.60	0.65	0.75	0.71	0.76
Mean DV	0.52	0.32	0.11	69,818.14	137,654.40	235,754.80
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
CBSA-Year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table reports estimates of Equation (1) separately by worker seniority. Columns (1)–(3) use as outcomes the share of the firm's workforce classified as junior, mid-seniority, and senior, respectively. Columns (4)–(6) use as outcomes the log of average per-worker wages within each seniority group. Wage measures and seniority classifications are based on Revelio Labs estimates. Mean dependent variables for wage outcomes are reported in dollars. All specifications include firm fixed effects, industry-by-year fixed effects, and CBSA-by-year fixed effects. Standard errors, reported in parentheses, are clustered at the industry-CBSA level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

FIGURE D.5. Marginal effects of common-VC by HHI bin



Notes: Each panel plots the effect of common ownership (*CommonVC*) on the indicated outcome across bins of pre-period local labor market concentration. Estimates come from a single specification per outcome in which *CommonVC* is fully interacted with indicators for bins of pre-period industry-CBSA HHI; each point is the average marginal effect of *CommonVC* within the bin, i.e. the discrete change associated with moving from no common ownership to common ownership. All specifications control for investor characteristics and and include firm, industry-by-year, and CBSA-by-year fixed effects. Vertical capped bars denote 95% confidence intervals based on standard errors clustered at the industry-CBSA level.