Private Equity and the Organization of Firms*

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Abstract

We study how private equity (PE) buyouts reshape the internal organization of firms. Using data on over 10,000 U.S. PE buyouts combined with resume information of more than five million employees, we track changes in hierarchies, managerial control spans, and functional structure. Contrary to a widely cited view that PE streamlines and flattens organizations, we find that hierarchies become deeper after buyouts and managerial control spans shrink. PE-owned firms reallocate employment from product-related functions toward administrative and operative roles, while management expands into more specialized functions. These organizational changes hold across deal types and outcomes and persist after PE exits. Overall, our evidence suggests that PE buyouts create value by strengthening firms' organizational capabilities-enhancing how tasks and decision-making are structured and coordinated within the firm-rather than concentrating decision-making in flatter hierarchies.

Keywords: Private Equity, Firm Organization, Hierarchies, Human Capital, Corporate Governance

JEL Classification: G34, L22, M12, J24, D23

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1 Introduction

Private equity (PE) has become one of the most consequential forms of corporate ownership. Over the past four decades, PE-backed firms have on average outperformed their public market peers (Kaplan and Schoar, 2005; Harris et al., 2014), with operating improvements explaining a substantial share of investor returns beyond leverage and sector exposure (Acharya et al., 2013). These findings imply that value creation under PE ownership is closely tied to real changes in how firms are managed and operated. Yet, despite extensive research on incentives, governance, deal design, and aggregate workforce outcomes, we know little about how PE firms reshape the internal organization of the companies they control.

A widely cited view of organizational change following PE buyouts holds that PE ownership creates value through organizational streamlining: small top management teams with high-powered incentives operate in flat hierarchies and lean administrative structures, reducing bureaucracy while strengthening governance (Jensen, 1989; Lichtenberg and Siegel, 1990; Kaplan and Strömberg, 2009; Gompers et al., 2016). However, the modern PE landscape may differ meaningfully from this characterization. A large share of transactions now involves smaller, private firms that often lack the organizational capacity to scale. At the same time, survey evidence shows that PE-owned firms adopt structured management practices similar to those of publicly listed firms (Bloom et al., 2015). Public firms, in turn, are characterized by greater formalization and standardization (Rajan, 2012). Motivated by this tension, this paper provides first systematic evidence on how PE ownership reshapes firms' internal organization along hierarchical and functional dimensions.

To guide our analysis, we formulate two stylized views of organizational change under PE ownership. The talent-based view is consistent with organizational streamlining and operates through changes in managerial human capital. In this view, PE investors create value by installing managers with superior skills. Higher managerial ability allows firms to eliminate less productive middle managers while increasing the productivity of subordinates—an outcome referred to as the "shadow of the superstars" (Garicano and Rossi-Hansberg, 2015). The organizational-capability view emphasizes the deliberate redesign of organizational structure to improve the firm's organizational capabilities, defined as the firm's ability to efficiently structure, coordinate,

and integrate tasks and decision-making processes. Under this view, PE investors introduce more formalized organizational structures that support standardized processes and a clearer allocation of responsibilities, enabling greater specialization and coordination and thereby improving firms' operational efficiency.

We rely on models of knowledge-based hierarchies (cf., Garicano, 2000; Garicano and Rossi-Hansberg, 2006, 2012) to derive the organizational implications of these two views. In these models, firms allocate expertise across hierarchical layers to solve production problems: lower layers handle routine tasks, while more complex problems are escalated to higher-level managers with greater expertise. Organizational structure—captured by hierarchical depth and managerial control spans—emerges from a tradeoff between the benefits of specialization and the costs of coordination. More layered hierarchies facilitate greater specialization but require increased coordination across levels.

This framework maps the two views into distinct organizational predictions. Under the talent view, more skilled executives solve escalated problems faster, freeing up managerial time. Managers can then supervise larger teams, and fewer intermediate layers are needed to route problems upward—producing flatter hierarchies with wider spans of control. Efficiency gains arise from upgrading managerial talent. Under the organizational-capability view, by contrast, firms enter the buyout under-structured: managerial capacity is too thin to coordinate complex tasks, forcing lower-level employees into ad hoc solutions. PE investors create value by reorganizing the firm to introduce additional hierarchical layers that support greater specialization. Adding managerial layers will allow lower layers to focus on narrower tasks while more complex decisions will be handled at higher levels by an increasing number of specialized managers. The two views therefore imply opposing predictions: improvements in managerial talent lead to flatter hierarchies with wider spans, whereas investments in organizational capabilities lead to deeper hierarchies with narrower spans.[1]

To analyze organizational change under PE ownership, we assemble a novel dataset that combines 10,239 U.S. leveraged buyouts completed between 2008 and 2020 with granular firm-level

[1] Bolton and Dewatripont (1994) model organizations as communication networks that process information under capacity constraints. While their framework emphasizes different primitives, it yields closely related trade-offs between specialization and coordination, implying similar comparative statics for hierarchical structure. See Section 2 for a broader discussion of the organizational economics literature.

employment histories reconstructed from online resume data. The resulting panel allows us to observe monthly employment at each firm, together with each employee's hierarchical position, job function, and career background. We construct matched control firms that never receive PE financing but are otherwise comparable in industry, employment, growth, public listing status, and organizational structure prior to the buyout. Using a difference-in-differences event-study design, we track how firms' internal organization evolves in the years surrounding the buyout.

We begin by examining how PE buyouts reshape the vertical organization of firms, focusing on hierarchical depth and managerial control spans. Following buyouts, firms develop deeper hierarchies and narrower managerial control spans, even after accounting for firm growth, indicating that these changes go beyond scale effects. The increase in hierarchical depth is concentrated at the top of the organization, with additional managerial layers added at higher levels while lower layers are occasionally removed. At the same time, control spans shrink across all supervisory layers and most strongly at the top, implying that managers oversee fewer subordinates. Interpreted through the model of knowledge-based hierarchies in Garicano (2000), these changes indicate a shift toward more structured problem-solving, with additional layers used to filter and route problems, and an expansion of managerial capacity reflecting greater demands on coordination and specialization. Overall, the results suggest that the organizational changes enhance the firm's ability to efficiently handle complex problems.[2]

We complement the vertical perspective on organizational design with a horizontal view of how firms reallocate employment across functions (following Guadalupe et al., 2014). Following buyouts, the share of employees in administrative functions—particularly finance and general management—increases significantly, while employment in product-facing functions such as engineering declines. This shift is not uniform across all administrative roles, but reflects a targeted expansion of coordination-intensive functions. Together with the deepening of hierarchies, these patterns indicate that PE-owned firms build administrative and coordination capacity, consistent with a more structured allocation of tasks and a greater reliance on specialized managerial roles.

This reorganization is accompanied by a substantial expansion and restructuring of executive leadership that follows a distinct two-phase pattern. In an initial phase, buyout targets expand

[2] A similar interpretation can be derived from communication-based models (e.g., Bolton and Dewatripont, 1994), in which greater operational complexity raises information-processing demands, tightens managerial capacity constraints, and leads to narrower control spans and the introduction of additional hierarchical layers.

their C-suite significantly, hiring CEOs, CFOs, and other specialized executives predominantly from outside the firm. These hires are disproportionately drawn from a pool of managers with prior private equity experience—often with the same investor—and appear to play a central role in implementing organizational change. In a second phase, as the new structure becomes operational, part of this PE-specific leadership is replaced by managers with more general experience in running complex organizations. This dynamic suggests that buyout firms not only expand leadership teams, but actively manage their composition over time to match the evolving organizational needs of the firm.

These changes in organizational structure and executive management are implemented through substantial workforce turnover and are reflected in the firm's wage structure. Over the four years following acquisition, annualized abnormal turnover rises by roughly 20% relative to baseline levels, with pronounced differences across hierarchical layers. Turnover among top managers nearly doubles at the time of the buyout, while adjustments among lower layers occur more gradually, consistent with a top-down implementation of organizational change. At the same time, wages increase throughout the firm, with the largest gains concentrated at the top of the hierarchy.

We can decompose this wage growth into three components. First, changes in workforce composition—toward higher layers and more administrative functions—mechanically raise average wages. Second, the expansion of hierarchical depth accounts for roughly one quarter of the increase, consistent with knowledge-based hierarchy models in which deeper hierarchies raise the productivity and utilization of managerial knowledge (Garicano and Rossi-Hansberg, 2015). Third, the remaining wage growth reflects an upgrading of managerial talent. Importantly, this improvement in managerial quality does not lead to organizational streamlining, but instead supports the operation of deeper, more specialized hierarchies.

We next examine how these organizational changes vary across firms and transaction environments and find that the deepening of hierarchies is highly pervasive. The increase in hierarchical depth appears across industries, deal types, and growth trajectories, including both standalone and buy-and-build transactions as well as expanding and contracting firms. Notably, hierarchies do not decline even in public-to-private transactions with substantial employment reductions, indicating that these changes are not mechanically driven by firm growth or downsizing. This pattern aligns with evidence in Bloom et al. (2015) that PE-owned firms adopt management prac-

tices similar to those of public firms. At the same time, the effects are strongest in growth-oriented LBOs, consistent with the view that the organizational changes facilitate scaling. Taken together, the results point to a common organizational blueprint under PE ownership, characterized by the systematic expansion of managerial layers and coordination capacity.

We also analyze how these organizational changes evolve after PE investors exit. We find that the deeper and more top-heavy hierarchical structures introduced under PE ownership are highly persistent when firms continue as independent entities, such as after IPOs or secondary buyouts, and in some cases continue to deepen further. In contrast, hierarchies partially unwind following M&A exits, where integration into an acquiring firm reduces the need for standalone coordination layers. This divergence provides a sharp validation test: organizational changes persist when they remain operationally valuable and are reversed when they become redundant. Overall, the evidence suggests that PE-induced organizational restructuring reflects durable investments in organizational capabilities rather than transitory adjustments.

To summarize, PE-backed firms build and operate more structured organizations by adding managerial layers, increasing specialization, and strengthening coordination-intensive functions, supported by targeted hiring of specialized executives. These results indicate that PE investors do not merely improve incentives or managerial talent but actively redesign how tasks, decision-making, and information are structured within the firm. Overall, our findings suggest that PE plays an important role in the lifecycle of firms by building organizational capabilities that enable them to scale and coordinate more effectively.

A potential concern when using resume data is representativeness. If employees hired by PE-backed firms were systematically more likely to maintain LinkedIn profiles than those at control firms, our estimates of employment dynamics could be inflated. Reassuringly, our estimates closely mirror established findings in the literature. On average, leveraged buyouts are associated with employment growth of approximately 16% by year two after the buyout, while public-to-private transactions exhibit declines of about -14%, consistent with population-level evidence in Davis et al. (2025). A more specific concern is differential coverage at the top of the organization. To address this, we use archived leadership webpages as a ground-truth measure of executive teams. We find that coverage increases modestly after buyouts, from 66% to 71%. Adjusting for this change reduces the estimated expansion in management by roughly 20%. The economic and

statistical significance of our main results remains intact after this adjustment, including when controlling for firm size.

Our paper contributes to several strands of literature. First, we contribute to the large literature on how private equity creates value. Prior work emphasizes financial engineering and operational improvements (see Kaplan and Strömberg, 2009 for a survey). Within this literature, our paper is most closely related to research examining the impact of PE ownership on firms' human capital and organizational practices. Early work highlights the role of incentives and monitoring in PE-backed firms (Jensen, 1989; Kaplan, 1989; Lichtenberg and Siegel, 1990), while more recent studies document differences in management practices (Bloom et al., 2015) and workforce dynamics (Davis et al., 2014; Agrawal and Tambe, 2016; Olsson and Tåg, 2017; Antoni et al., 2019; Davis et al., 2025; Garcia-Gomez et al., 2025). One important insight of our paper for this literature is that PE can strengthen management structures even when incumbent management, the focus of many papers, is actually cut. More generally, we complement this literature by providing the first systematic evidence on how PE buyouts reshape firms' internal organization along hierarchical and functional dimensions.

Second, we also contribute to a growing literature documenting that PE ownership affects real outcomes at portfolio companies, with consequences ranging from employee health and workplace safety (Bernstein and Sheen, 2016; Cohn et al., 2021) to customer and patient outcomes (Gupta et al., 2024; Gao et al., 2025). While these studies establish that PE ownership induces substantial operational changes, our paper informs how PE ownership brings these changes about.

Third, we contribute to the literature on internal firm organization. A growing body of work studies how firms structure hierarchies and allocate managerial authority. Much of this work infers hierarchies from census-based occupational codes (e.g., Tåg, 2013; Caliendo et al., 2015; Bastos et al., 2018; Spanos, 2019; Mariscal, 2018; Gumpert et al., 2021; Friedrich, 2022; Bias et al., 2025). U.S. evidence largely relies on survey data (e.g., Rajan and Wulf, 2006; Guadalupe and Wulf, 2010; Guadalupe et al., 2014) with the exception of Ewens and Giroud (2025) who use resume data to estimate public firms' hierarchies from employee flows, a strategy that only works for large firms with a sufficient amount of internal employee flows. We complement this literature by using resume data to map out the internal organizational of private firms. More specifically, we contribute to the literature that studies the link between finance and firm organization (cf., Rajan,

2012; Bias et al., 2025) in the context of the lifecycle of the firm.

2 Conceptual Framework and Testable Predictions

A central question in organizational economics is how firms structure the allocation of tasks and decision rights to maximize efficiency. A unifying insight is that hierarchies align individual actions with organizational objectives and are shaped by a fundamental trade-off between the benefits of specialization and the costs of coordination. Delegating decisions to specialized agents allows firms to exploit comparative advantage and process information more efficiently, but comes with communication, monitoring, and incentive costs. Early work emphasizes hierarchies as a governance mechanism that enables monitoring and incentive provision (e.g., Williamson, 1967; Alchian and Demsetz, 1972; Calvo and Wellisz, 1978; Rosen, 1982; Qian, 1994; see also Jensen and Meckling, 1976; Holmstrom, 1979; Grossman and Hart, 1986).

A complementary strand highlights the role of hierarchies in processing and communicating information within the firm (e.g., Radner, 1993; Bolton and Dewatripont, 1994; Stein, 2002). In these models, organizational structure can be understood as a communication system that processes information under capacity constraints. When tasks are complex and interdependent, firms must determine how information is partitioned, transmitted, and aggregated across agents. Because communication is costly and agents have limited processing capacity, hierarchical layers emerge to filter and route information. Managers' spans of control are constrained by their processing capacity, while additional layers facilitate information processing but may introduce distortions. Organizational structure therefore reflects a trade-off between reducing communication burdens and preserving the accuracy of information transmission.

Building on these insights, the literature on knowledge-based hierarchies emphasizes how firms allocate expertise to solve production problems (e.g., Garicano, 2000; Garicano and Rossi-Hansberg, 2006; Caliendo et al., 2015). Workers solve routine problems up to their knowledge threshold, while more complex problems are escalated to managers with greater expertise. By adding hierarchical layers, firms invest in specialized problem solvers that allow lower-level employees to focus on narrower tasks. This increases the utilization of knowledge and enables specialization, but comes at a cost: managers do not engage directly in production and require train-

ing and coordination. Hierarchical structures thus emerge as a way to economize on knowledge acquisition while managing communication and coordination costs. An important implication is that these mechanisms generate unequal returns to workers. When knowledge and decision-making authority are concentrated at higher levels, managers can leverage their expertise across many subordinates, amplifying their impact on production (e.g., Garicano and Rossi-Hansberg, 2015).[3]

We integrate this framework into two stylized views of organizational change under PE ownership. The first view–the *talent-based view*–emphasizes improvements in managerial human capital. In this view, PE investors create value by installing more skilled managers at the top of the organization. Higher managerial ability increases the speed and quality with which problems are resolved, relaxing managerial capacity constraints. As a result, managers can oversee larger teams, leading to wider control spans. With greater problem-solving capacity concentrated at the top, fewer intermediate layers are required to filter and route problems, resulting in flatter hierarchies. Under the talent-based view, PE buyouts should lead to (i) a reduction in the number of hierarchical layers, (ii) an increase in managerial control spans, and (iii) limited changes in the functional composition of employment beyond improvements in managerial quality.

The second view–the *organizational-capability view*–emphasizes the deliberate redesign of organizational structure to improve operational efficiency. In this view, firms initially lack sufficient organizational structure to efficiently coordinate complex and specialized tasks. In particular, firms may lack sufficient managerial capacity, forcing lower-level employees to handle problems that exceed their optimal scope and to rely on ad hoc, non-scalable solutions. In these settings, PE investors can create value by introducing additional hierarchical layers that support greater specialization and clearer allocation of responsibilities. Lower layers focus on narrower tasks, while more complex decisions are handled by an expanded set of specialized managers at higher levels. This reorganization increases coordination capacity but also raises the demand for managerial oversight. In contrast, the organizational-capability view predicts (i) an increase in hierarchical depth, (ii) a reduction in managerial control spans reflecting greater coordination needs, and (iii) a reallocation of employment toward administrative and coordination-intensive functions.

[3] A comprehensive overview of the role of information flows and communication frictions in shaping organizational structure and corporate governance is provided by Malenko (2024), who synthesizes theoretical and empirical research on how firms organize the production and transmission of information.

3 Data

We combine private equity (PE) buyout data from Pitchbook with firm-level workforce histories constructed from LinkedIn resumes provided by Revelio Labs. The resume data allow us to observe, at a monthly frequency, the composition of firms' workforces, including employees' hierarchical positions, job functions, and career backgrounds. For each PE buyout target, we construct a matched control firm from the universe of companies that never receive PE financing. Our final sample comprises 10,239 U.S. buyouts completed between 2008 and 2020, each paired with a control firm.

This section proceeds as follows. Section 3.1 describes the buyout data and sample construction. Section 3.2 outlines how we use resume data to measure employment, hierarchical structure, and job functions within firms. Section 3.3 describes the matching procedure used to construct the control group.

3.1 PE Buyout Deals

We obtain all PE buyout deals from Pitchbook.[4] We restrict the sample to deals completed in the United States between 2008 and 2020. We start in 2008 because Revelio begins to provide comprehensive coverage of online resumes in the US from around that year. We end in 2020 to allow at least four years of post-buyout observation for all deals in the sample. We focus on transactions in which a PE fund acquired majority control of a company for the first time. To this end, we exclude add-on acquisitions (bolt-on transactions adding a company to an existing PE platform), secondary transactions (sales between PE sponsors), and growth or expansion capital deals (minority investments).

Figure 1 breaks down our final sample of 10,239 PE buyout deals by deal year and industry sector. We can see that 67% of the deals in our sample period are in the Services sector, 27% in Manufacturing, and 6% in Natural Resources–much higher share of service-related businesses compared to older studies of PE buyouts.

[4] Pitchbook is currently one of the most comprehensive sources of PE deal activity, with coverage comparable to or exceeding other major databases. It has therefore become a leading source for PE buyout studies in the U.S. (see, e.g., Gupta et al., 2024; Gornall et al., 2025).

3.2 Firm Organization Data

We use online resume data from LinkedIn, supplied by Revelio Labs. Revelio compiles approximately 780 million profiles, representing the near-complete universe of LinkedIn users worldwide. For the United States, the data covers approximately 150 million individuals who have listed at least one position at a U.S.-based company, including current and former employees who retain their profiles. This is in a similar dimension as the total size of the US labor force totaling 172 million persons as of Jan 2026.[5][6]

We match companies across Pitchbook and Revelio using a multi-criteria algorithm based on LinkedIn-URL, website-URL, company name (including former and also-known-as names), geographic location, and founding year. Full details of the matching algorithm and its scoring methodology are provided in Appendix A.2. In cases where a target company has multiple LinkedIn company pages (e.g., a subsidiary with a separate profile), we allow a single deal to map to multiple LinkedIn company identifiers and sum employment across them.[7] After requiring a confirmed match and complete employment history (non-missing employment, employment growth, and industry classification), we retain 10,639 PE buyout deals.[8]

3.2.1 Employment measurement and coverage

We use the position start and end dates listed on individual resumes to reconstruct monthly employment at each firm. Specifically, we aggregate worker-level employment histories to obtain a firm-month panel of employment counts, which forms the basis for all employment-related measures used in the analysis.

A potential concern when using resume data is that not all workers maintain a LinkedIn profile, so observed employment may understate the true workforce. In a sample of U.S. public firms, Ewens and Giroud (2025) report that the number of employees observed in LinkedIn-based data corresponds to roughly 47% of employment reported in Compustat. To assess coverage in our setting, we focus on the subset of leveraged buyouts in which a public firm is taken private and

[5] See https://www.bls.gov/, accessed on Mar 4, 2026.

[6] Revelio Labs data has been increasingly used in economics and finance research (e.g., Babina et al., 2024).

[7] All results are similar when we restrict the sample to companies that are uniquely identified across both datasets.

[8] Pitchbook contains 14,795 PE buyout deals with our filters, so we are able to match 72% of these to LinkedIn ($= 10,639/14,795$).

match these firms to their last available SEC 10-K filing prior to the deal. In the 214 cases where U.S. employment is reported, LinkedIn captures 45% of the workforce of the median firm (364 out of 812 employees).

Even with incomplete coverage, employment changes can be consistently estimated if the propensity to maintain a LinkedIn profile is stable over time and does not differentially evolve for treated and control firms. We assess this assumption along two dimensions: aggregate employment dynamics and top management coverage.

First, we compare employment dynamics in our data to estimates obtained from datasets covering the full population of U.S. workers. Davis et al. (2025) analyze employment effects of PE buyouts using comprehensive administrative data and find that private-to-private deals increase employment by 15% two years after the buyout, while public-to-private deals reduce employment by -12%. Table 3 presents our replication using LinkedIn-based employment measures. We closely reproduce their findings: pre-treatment coefficients are small and statistically insignificant, indicating no signs of pre-trends. When we weight observations by pre-buyout employment and restrict the sample to deals prior to 2014 to align with their specification, employment decreases by -14% in public-to-private deals and increases by 18% in private-to-private deals, closely matching their estimates. The close correspondence suggests that resume-based measures provide a reliable approximation of aggregate employment dynamics and that coverage does not change systematically after buyouts, in which case we would observe upwardly biased effects.

Second, a more specific concern is that PE-installed executives come from a pool of managers who are more likely to maintain a LinkedIn profile than the incumbents they replace. If true, replacing managers could generate the higher-top-heaviness that we find, not actual expansion in management. We assess this possibility directly by searching historic company webpages for the *actual management team* (for all details see Appendix A.3). In particular, we go to the firm's own archived "Leadership / Executive / Team" webpage, read off the names and titles of the executives listed there, and then check whether each of those executives is also present in our LinkedIn data. The archived webpage is independent of LinkedIn and therefore serves as a ground truth for who actually sits at the top of the firm. Doing this search for all 10,239 firms and their matched controls, we find at least one website-based leadership team page for 4229 companies. We find that a given CXO listed on a private firm's website is observed on LinkedIn with a likelihood

of about 66%, which is substantially higher than the overall employee-level coverage of ≈45% documented above.

We indeed find that the coverage rate of CXOs at treated firms rises by about 5.1 percentage points (≈ 8%) after PE buyouts, relative to matched controls (Appendix Table A3). This change is mainly driven by CEOs, for other chief executives we find no evidence of higher LinkedIn coverage post-buyout. We therefore use the 8% as the upper bound of how much top-layer employment could increase mechanically after a buyout, without any actual organizational change, and use it to stress-test our main results: we deflate LinkedIn employment counts layer by layer by this gain–strongest at the top, tapered to zero at the bottom (equation 3)–and re-estimate the employment-share regressions on the adjusted counts. About four-fifths of the baseline top-layer effect survives this correction (Appendix Table A4), also when we restrict the sample to the firms for which we can measure the LinkedIn coverage change (Appendix Table A5).

Taken together, these results demonstrate that while LinkedIn data do not capture the full workforce, they provide a consistent and informative proxy for both aggregate employment dynamics and top management composition. The archived-website validation, in particular, shows that the organizational changes we document at the top of the hierarchy are not driven by differential LinkedIn coverage following PE buyouts.

3.2.2 Measuring firm hierarchies

A main challenge of our analysis is the measurement of the hierarchical organization of firms. Following Baker et al. (1994), we define hierarchies as job titles aggregated into "levels" that reflect an employee's authority and position in the firm's decision-making structure. Empirically, this requires mapping observed job titles into a set of ordered layers.

The literature has developed two main approaches to infer such hierarchies from data. A first approach relies on *static mappings* that assign occupational codes to a small number of predefined layers, typically four, based on qualification or task content (e.g., Caliendo et al., 2015; Gumpert et al., 2021). A second approach identifies *job ladders* within firms or industries, allowing for more flexible, context-specific mappings of job titles into hierarchical positions (e.g., Huitfeldt et al., 2023; Ewens and Giroud, 2025; Bias et al., 2025). While the former emphasizes comparability

across firms, the latter captures richer within-firm variation in organizational structure.

We rely on an approach developed by Revelio Labs that blends elements of both static mappings and dynamic job-ladder approaches by assigning each job position to one of seven ordered seniority levels using proprietary machine learning algorithms. The construction proceeds in several steps.

First, Revelio generates a *continuous seniority score* using an ensemble of models that incorporate multiple sources of information. One component is based on the individual's current job characteristics, including job title, company, and industry. A second component uses the individual's *career history*, such as the duration and seniority of prior positions. A third component incorporates demographic proxies such as age. These components are combined into a single continuous seniority metric.

Second, this continuous score is mapped into *discrete seniority levels* by anchoring it to benchmark job titles. Specifically, Revelio uses recognizable keywords (e.g., "junior," "manager," "director") to associate ranges of the continuous score with economically meaningful categories, which are then discretized into seven ordered layers.[9]

This approach allows the classification to incorporate both cross-sectional information (job titles and firm characteristics) and longitudinal information (career trajectories), thereby combining the advantages of static mappings and job-ladder methods. Compared to purely title-based mappings, it allows for more nuanced and context-dependent classification of roles, while maintaining comparability across firms. Throughout the paper, we use the terms *seniority levels* and *layers* interchangeably. The seven layers are summarized below, together with representative job titles:

Layer	Designation	Three most frequent job titles
7	Senior executive level	CEO, Chief Executive Officer, Chief Financial Officer
6	Executive level	Partner, Principal, Managing Director
5	Director level	Director, General Manager, Realtor
4	Manager level	Consultant, Manager, Vice President
3	Associate level	Account Manager, Project Manager, Senior Software Engineer
2	Junior level	Software Engineer, Registered Nurse, Associate
1	Entry level	Customer Service Representative, Sales Associate, Student

[9] For a detailed description of the seniority classification methodology, see Revelio Labs' data documentation: https://www.data-dictionary.reveliolabs.com/methodology.html.

Validation of the hierarchy measure. To assess whether this classification captures economically meaningful hierarchies, we analyze the cross-section of U.S. firms as of December 2020, comprising approximately 85 million LinkedIn job positions. Table 2 shows that the Revelio seniority levels organize the workforce in ways consistent with standard models of organizational economics.

First, firms exhibit a *pyramidal structure*, with employment concentrated in lower layers and fewer employees at the top. Second, *compensation increases monotonically across layers*, and wage dispersion rises with hierarchical depth. Third, higher layers are associated with greater *human capital*, as measured by experience, education, and compensation, all of which increase steadily from layer 1 to layer 7.

The finer granularity of the seven-layer classification amplifies these differences relative to standard four-layer mappings. For example, compensation at layer 7 is approximately 17–20 times that at layer 1, compared to a ratio of 2–4 in typical four-layer classifications (e.g., Caliendo et al., 2015; Gumpert et al., 2021). At the same time, when we aggregate the seven layers into four broader categories—top management, middle management, supervisors, and workers—we recover employment patterns very similar to those documented in prior work (see Online Appendix A.5). This suggests that the Revelio classification is both more granular and consistent with established measures.

Stability of the mapping across firms. A key concern when using title-based classifications is whether job titles are mapped consistently across firms. We address this by examining how benchmark job titles are distributed across seniority levels in the same 2020 cross-section. As shown in Table A6, the mapping is highly stable. For example, 99.8% of "CEO" positions are classified in layers 6–7. Similarly, "Director of Engineering" is concentrated in layer 5 (89.4%), "Engineering Manager" is primarily in layers 4–5, and "Software Engineer" is overwhelmingly assigned to layer 2 (90.2%).

This stability implies that the presence or absence of layers has a clear interpretation. For instance, firms without layers 6–7 typically do not employ a CEO (except in rare cases where the CEO is classified into a lower layer). We verify this by examining the most frequent job titles in firms without a top layer, which indeed lack CEO roles (see Table A8).

Why the hierarchy measure is well suited for our analysis. The Revelio-based hierarchy measure has several features that make it particularly well suited for our analysis. First, the *seven-layer granularity* allows us to distinguish finely between different tiers of the managerial hierarchy. In contrast to standard four-layer mappings, which typically collapse multiple managerial levels into a single category, our measure separates, for example, directors (layer 5), executives (layer 6), and C-suite positions (layer 7). This additional resolution is central to our setting, as it enables us to trace how private equity affects different parts of the hierarchy, rather than only broad categories such as "management" versus "workers."

Second, the measure provides a *consistent and scalable classification across firms*. Because the seniority assignment is based on a combination of job titles, career histories, and firm characteristics, it allows us to compare hierarchical structures across a large and heterogeneous set of firms without relying on firm-specific job ladders or hand-coded mappings. This is particularly important in our setting, which spans thousands of private firms across industries.

Third, our main outcome–the *number of hierarchical layers*–is inherently robust to incomplete workforce coverage. Identifying a layer requires observing only a single employee assigned to that level. As a result, even partial coverage is sufficient to detect the presence of hierarchical layers, making it unlikely that entire layers are systematically missed in the data. This feature is especially valuable when working with resume-based data, where coverage is incomplete but non-random.

Taken together, these properties allow us to construct a detailed and comparable measure of firm hierarchies that is both sufficiently granular to capture meaningful organizational changes and robust to the limitations of the underlying data.

3.2.3 Measuring job functions

Revelio also classifies each position into one of seven job function categories: Administration, Finance, Operations, Sales, Marketing, Research & Development, and Engineering. The classification first maps the millions of distinct raw job titles in the data to 1,500 standardized occupational roles, which are then aggregated into the seven function categories. The mapping algorithm uses not only the raw job title but also job descriptions, listed skills, position descriptions of colleagues

with the same title, profiles of similar users, and prior positions held by the worker.

As with the layer classification, we test the cross-firm consistency of the function assignment using our snapshot of 85 million US-jobs as of December 2020. Table A7 reports where seven recognizable benchmark titles are classified across the seven function categories. The classification concentrates overwhelmingly in the expected category: 'Software Engineer' maps to Engineering in 99.0% of cases, 'Financial Analyst' to Finance in 99.3%, 'Logistics Coordinator' to Operations in 99.6%, and 'Sales Manager' to Sales in 94.4%. For certain analyses, we further group these into three broad functions: Corporate (Finance and Administration), Product (Engineering and R&D), and Business Operations (Operations, Sales, and Marketing).

3.3 Control group and matching success

For each PE buyout target, we identify a control firm twelve months before the deal date. Only firms that *never* appear as a PE buyout target in Pitchbook are eligible as controls.[10] The pool of potential controls comprises the approximately 6.8 million U.S. companies observed in Revelio.

We first require exact matching on five dimensions: (i) industry, using the Revelio industry classification RICS with 50 categories; (ii) U.S. headquarters; (iii) hierarchical structure, requiring that the control firm fills the same number of layers as the target; (iv) public listing status (0/1); and (v) employment, namely that control firm's employment must be within $\pm 20\%$ of the target's employment at the matching date. Within this set of candidates, we select the single nearest neighbor by Mahalanobis distance on the following vector of variables: employment, employment growth in the past 12 months, and the employment shares (in %) of the seven layers in the firm–as second proxy for hierarchical structure. Of the 10,639 deals with complete data, we find a suitable control firm for 10,239 (or 96%); the remaining deals lack a candidate satisfying the exact-match constraints.

Table 1 reports balance statistics at the matching date, one year before the deal month. Mean employment is 223 for PE targets and 218 for controls; the difference is statistically insignificant ($t = 0.22$). Median employment is balanced across both groups at 38. By construction, treated and control firms have the same average number of filled hierarchy levels (5.5 out of 7). The number

[10] By restricting to never-treated units, we avoid the biases that can arise in staggered difference-in-differences designs when previously treated firms serve as controls (Baker et al., 2022).

of hirings in the last 12 months (57 vs. 56), separations (41 vs. 39), and twelve-month employment growth (13% vs. 13%) are all closely balanced.

The only notable pre-treatment difference is that PE targets are somewhat more likely to have a CEO, CFO, and COO at the matching date. We attribute this primarily to anticipation effects: some newly appointed CXOs report only the calendar year rather than the exact month of their start date on their resumes. Since, as we show later, PE sponsors frequently appoint all kinds of new CXOs shortly after the deal, matching twelve months before the transaction mechanically captures a subset of these early appointments. Importantly, applying the normalized-difference balance test proposed by Imbens and Wooldridge (2009), none of the variables used in our analysis exceeds the 0.25 imbalance threshold, as reported in the final column of Table 1.

Figure 2 provides visual evidence that matching ensures that there are no pre-trends with respect to our main outcome variables. In the figure, we plot monthly averages of employment, the number of hierarchical layers, hirings, and separations for treated and control firms around the buyout event.

4 Empirical Strategy

We use a difference-in-differences (DiD) approach to compare outcomes at PE buyout targets relative to their matched control firms in the years around the transaction. Specifically, we estimate the following event-study specification:

$$Y_{it} = \delta_i + \gamma_t + \sum_{\substack{t=-4 \\ t\neq -1}}^{4} \beta_t \mathbb{1}(t) \times PE_i + f(L_{it}) + \varepsilon_{it}, \tag{1}$$

where i indexes firms and t indexes event time relative to the buyout. The observation level is a yearly firm panel, and $t = 0$ denotes the month of the deal. All event-time coefficients β_t reported in tables and figures are estimated at yearly snapshots around this deal month, i.e. $t \in \{-4, -3, -2, -1, 0, +1, +2, +3, +4\}$ years relative to the buyout. Y_{it} denotes the outcome of firm i at event time t. We study a range of firm-level outcomes, including the number of filled hierarchy layers, the employment share at each seniority level, and the employment share in each job function category. PE_i is an indicator equal to one if firm i is a buyout target and zero if it

is the matched control. δ_i denotes firm fixed effects, which absorb all time-invariant firm characteristics. γ_t denotes event-time fixed effects, which control for shocks common to all firms at the same horizon relative to the deal. The term $f(L_{it})$ is a flexible control for firm size, specified as a third-degree polynomial in the firm's lagged employment (measured one year prior to t) together with its twelve-month employment growth rate up to t. These controls ensure that our estimates of organizational changes–such as shifts in layer structure or job-function composition–are not mechanically driven by contemporaneous changes in firm size. We cluster standard errors at the firm level.

The main coefficients of interest are β_t, which estimate the difference in outcomes between buyout targets and control firms at event time t, relative to the omitted period $t = -1$. We take one year before the buyout as the benchmark and omit the associated indicator from the regression. This choice allows for anticipation effects in the year immediately preceding the deal, which may already reflect early restructuring activity. In our baseline specification, we let t range from -4 to $+4$ years, yielding a symmetric four-year window around the buyout.

We also examine the dynamics of the outcomes, paying particular attention to potential pre-trends. Although conditional parallel trends cannot be tested directly, we follow the standard procedure and analyze the interaction terms β_t for $t < -1$ for any signs of a violation. As we show in the results, we find little evidence of differential trends in the four years prior to the buyout. Moreover, as reported in Table 1, treated and control firms are closely balanced on employment, employment growth, hirings, separations, and hierarchical structure at the matching date. Since our control group is matched on characteristics associated with buyouts and restricted to firms that *never* appear as PE targets, our design does not suffer from the biases that can arise in staggered setups when previously treated units serve as controls (Baker et al., 2022).

5 Organizational Design After Private Equity Buyouts

This section examines how private equity (PE) buyouts reshape firms' internal organization. We proceed in several steps. We first examine how hierarchical depth and managerial control spans evolve, providing a direct view of how authority and problem-solving are organized within the firm (Section 5.1). We then analyze how firms build coordination capacity through changes in

functional employment (Section 5.2). Next, we study turnover, wages, and executive leadership to understand how these organizational changes are implemented and what types of workers they require (Sections 5.3 and 5.4). Finally, we assess how broadly these patterns apply and whether they persist beyond PE ownership (Sections 5.5 and 5.6).

5.1 Vertical organization: Hierarchical Structure and Managerial Control

We begin by examining how hierarchical structures change following PE buyouts. Hierarchies determine how decision-making authority and problem-solving responsibilities are distributed within firms, and thus provide a direct window into how organizations allocate expertise. In the framework outlined above, improvements in managerial talent predict flatter hierarchies with broader control spans, whereas organizational redesign aimed at building organizational capabilities predicts deeper hierarchies with narrower spans.

Figure 5 plots difference-in-differences estimates for the number of layers relative to matched control firms (results are tabulated in Table 4). The coefficient estimates confirm the visual impression of Figure 2: treated and control firms evolve similarly prior to the buyout, with no evidence of pre-trends. After the buyout, PE-backed firms add approximately 0.5 layers within two years, which corresponds to about 10% of the pre-buyout mean (column (1)).

Hierarchical depth is strongly correlated with firm size (cf. Garicano and Rossi-Hansberg, 2015; Bias et al., 2025; Ewens and Giroud, 2025). We therefore control for firm size using a cubic polynomial in employment and recent employment growth in column (2). This approach absorbs the component of hierarchization mechanically driven by size, allowing us to isolate changes in organizational structure beyond scale effects. As expected, controlling for size reduces the estimated effect of PE buyouts on the number of hierarchical layers by roughly 25% in the year of the buyout and by about 60% four years after. The remaining effect indicates that a substantial share of organizational restructuring occurs immediately upon PE ownership, consistent with the notion that investments in organizational capabilities enable future firm growth.

Jensen (1989) introduced the notion of organizational streamlining in light of a wave of large public-to-private transactions. These delistings are associated with employment declines following the buyout (cf. Table 3 and, for example, Davis et al., 2025). Hierarchical changes may therefore

differ for this subset for both conceptual and mechanical reasons. Surprisingly, however, hierarchies do not meaningfully decline after public-to-private deals (column (3)). Once we account for firm size and growth (column (4)), these firms even exhibit more hierarchical structures relative to control firms after the buyout.

Where in the hierarchy do the new layers appear? To answer this question, we estimate the same event-study regression with the full set of size controls, but now use indicators for whether each hierarchical layer (1–7) is occupied as dependent variables. Table 5 shows that layers are added at the top of the organization. The probability of having a layer-7 position rises by 22% (0.13 relative to a pre-deal mean of 0.58), layer 6 by 10%, and layer 5 by 2%. In a small number of cases, the bottom layer is removed, suggesting that automation of very simple tasks may also accompany PE buyouts.

Consistent with these results, we observe a reallocation of employment toward higher layers. Figure 6, Panel A (tabulated in Table A15), shows that the employment share of top managers increases significantly following the buyout, while the share of lower-level employees declines. Middle layers remain broadly stable. These patterns hold after accounting for firm size and growth. Specifically, the top layer's employment share rises by 1.1 percentage points by year two after the buyout (36% relative to a mean of 3.0%), while the shares of the two lowest layers fall and the middle layers (3 and 4) remain largely unchanged. This pattern also holds among firms that already had a full hierarchy prior to the transaction, indicating that the results are not driven by the mechanical addition of previously missing layers (cf. Table A17). Figure 7 aggregates layers into three conventional management categories: top management (layers 6 and 7), middle management (layers 3 to 5), and rank-and-file employees (layers 1 and 2). We find that top management grows by almost 2 percentage points of total employment and middle management by about 1.5 percentage points, both at the expense of rank-and-file workers. Overall, firms become more top-heavy after PE buyouts.

Accordingly, we find that managerial control spans decline across all layers. We define the control span of layer l as the number of employees below that layer divided by the number of managers in layer l, consistent with Friedrich (2022) and Bias et al. (2025). Figure 6, Panel B (tabulated in Table A16), reports the results, where the dependent variable is the natural log of the control span of each layer. Managerial control spans fall at every layer, most sharply at

the top. Layer-7 spans decline by 0.15 log points—about 14% fewer subordinates per manager ($= \exp(-0.15) - 1$)—and layer-6 spans shrink by 0.11 (10%). The compression is monotone across layers: the higher the layer, the larger the reduction in span. This pattern implies that managers devote more attention to a smaller set of subordinates, consistent with increased monitoring, coordination, and problem-solving demands.

Taken together, the evidence points to a systematic restructuring of firm hierarchies following PE buyouts. Firms add layers at the top, reallocate employment toward the top layers of the organization, and reduce control spans throughout the organization. We find these patterns difficult to reconcile with a pure streamlining view in which better managers allow firms to operate with flatter hierarchies. Instead, these patterns are consistent with firms reorganizing to manage more complex and specialized activities, increasing the role of coordination and structured decision-making within the firm.

5.2 Horizontal organization: functions

Having established that PE buyouts lead to deeper hierarchies and narrower managerial control spans, we next examine how firms reorganize activities across functions. The functional composition of employment reflects how firms structure and coordinate production, and thus provides insight into how the additional managerial capacity documented above is deployed within the organization. In particular, administrative and coordination functions play a central role in monitoring performance, integrating business units, and implementing standardized processes.

Following Guadalupe et al. (2014), we classify functions according to their proximity to the product. Product-facing functions include sales, marketing, R&D, and engineering, while administrative functions include general management, finance, and other administrative roles. Operations occupy an intermediate position.

Table 6 reports event-study regressions where the dependent variable is the employment share of the different functional categories. General management exhibits the largest increase, rising by 1.1 percentage points by year 2 after the buyout (34% relative to a pre-deal mean of 3.2%), followed by finance. The expansion is not uniform across all administrative roles—other administrative functions contract—indicating a targeted build-up of coordination capacity rather than a general

expansion of back-office activities. At the same time, employment shares in product-related functions decline across the board. Consistent with this pattern, Figure 8 (tabulated in Table A18) shows that, when aggregating functions into broader categories, administrative employment increases by about 2 percentage points after the buyout, largely offset by the 2 percentage point decline in product-related employment.

Taken together, the evidence points to a systematic reallocation of employment toward administrative and coordination functions following PE buyouts. In combination with the deepening of hierarchies documented in Section 5.1, these findings suggest that PE-owned firms expand their internal capacity for monitoring, coordination, and structured decision-making. Viewed through the lens of the framework, this pattern is consistent with firms reorganizing towards a more specialized labor force.

5.3 Organizational change, workforce turnover, and compensation

This section examines to what extent the organizational changes in terms of hierarchies and functions are accompanied by workforce adjustments. We analyze which parts of the organization are most affected and how compensation evolves across hierarchical layers, providing a comprehensive view of how PE ownership reshapes the composition and value of labor within the firm.

We begin by examining how employee turnover evolves across hierarchical layers following buyouts. Turnover is defined as the average of hirings and separations in the preceding 12-month period, divided by midpoint average employment. Table 7 shows that turnover increases sharply among managerial positions at the time of the buyout. Top management turnover rises by 9.3 percentage points from a pre-deal mean of 13.7%, implying that turnover nearly doubles. Middle management turnover increases by 3.6 percentage points (21% relative to its pre-deal mean of 16.8%), while turnover among rank-and-file employees remains small and statistically insignificant at the time of the buyout. The functional view highlights that the initial changes concern mostly operations, consistent with the notion that PE buyouts focus on operational improvements.

Over time, these dynamics propagate through the organization. By year 1, top management turnover peaks at 11.3 percentage points above baseline, and turnover among rank-and-file employees becomes economically meaningful, increasing by 3.8 percentage points. This sequence

suggests that organizational change is implemented from the top down: managerial positions are restructured first, followed by adjustments among lower layers. Table A22 furthermore highlights that practically all of the abnormal turnover in the later years after the buyout are associated with replacements. Towards the exit, PE buyout firms further adjust the workforce, but keep the new organizational structure in place.

We next examine how these organizational changes are reflected in compensation. Knowledge-based hierarchy models predict that deeper hierarchies increase the returns to being at the top of the organization, as managerial knowledge is leveraged over a larger structure. Consistent with the theory, Column (1) of Table 8 shows that average compensation increases by approximately 13% in PE-backed firms relative to control firms by year 2. To assess the role of organizational restructuring, Column (2) adds controls for the number of hierarchical layers. The estimated effect declines to 10%, implying that roughly one quarter of the wage increase can be attributed to changes in hierarchical structure. The remaining increases, therefore, mainly reflect changes in workforce composition and skill.

The size of the composition effect is revealed when we decompose these effects across layers in Columns (3)-(5). We find that wage growth is highly concentrated at the top of the organization. Top management compensation increases by 9%, middle management by 5%, and rank-and-file employees by only 1% within two years after the buyout. As a result, the wage structure steepens and within-firm wage dispersion rises.

Overall, the evidence shows that organizational change is implemented through managerial turnover and reflected in wage structure. These results highlight that the firm's human capital needs to be adapted to fit the new organizational design. These patterns are consistent with firms expanding their reliance on specialized managerial expertise to operate more complex and coordinated organizational structures.

5.4 Executive management restructuring

This section examines how executive leadership evolves following PE buyouts and how these changes relate to the broader organizational restructuring documented above. Executive leaders play a central role in shaping firm organization, as they allocate decision rights, coordinate ac-

tivities across units, and design reporting structures. We identify C-suite executives via keyword search, including all job titles containing "Chief" and "Officer", as well as standalone 3–4 letter words beginning with "C" and ending with "O" (to capture, e.g., CEO, CFO, but also "President and CEO"). This approach captures employees across hierarchical layers, though the vast majority are located at the top of the firm.

Figure 3 plots inflows ("hirings") and outflows ("separations") of executives for PE buyouts and their control firms. C-suite hiring increases sharply at the time of the buyout and remains persistently elevated thereafter, while pre-buyout trends are similar between treated and control firms. Separations also rise at the time of the buyout, but hiring exceeds separations in the first years, generating a net expansion in top management. By the end of year two, hiring and separation rates converge, suggesting that the buildup of executive management is completed, whereas staffing remains less stable than in the control group.

Table 9 examines how the composition of the C-suite changes following buyouts. The dependent variable is an indicator for whether a firm employs a given C-suite role, covering general management (CEO, COO), administrative functions (CFO, CHRO, CIO, CLO, CAO), and product-related roles (CTO, CMO, CPO, CRO), plus a residual indicator for any CXO title not captured by these categories.[11] We find that PE buyouts increase the likelihood that firms employ specialized executives across nearly all functions. The largest absolute increases occur for CEOs and CFOs, which rise by 13 and 15 percentage points, corresponding to increases of 34% and 57% relative to their pre-deal means. Aggregating across roles, the number of C-suite positions increases by about 0.5 within two years after the buyout, a 35% increase relative to the pre-deal mean. Importantly, these changes are not explained by firm growth, but reflect an expansion of executive roles beyond what would be expected from scaling alone. Overall, this pattern indicates an increase in the functional specialization of top management, mirroring the broader reorganization of the firm and providing further evidence for the build-up of organizational capabilities.

Panels B and C show that this expansion is driven predominantly by external hiring rather than internal promotion. Approximately 91% of new C-suite positions are filled by external hires,

[11] The 11 CXO indicators map as follows: CEO (executive), COO (operations), CFO (financial), CHRO (human resources/talent/people), CIO (information), CLO (legal/compliance), CAO (administration), CTO (technology), CMO (marketing), CPO (product), CRO (sales/revenue/growth). We additionally construct a residual indicator for any CXO title that does not fall into these categories.

consistent with PE investors actively recruiting managers to implement organizational change. These patterns also mitigate concerns that the results are driven by title inflation rather than real organizational change, as they cannot be explained by a simple relabeling of job titles (cf. Cohen et al., 2023).

We next examine the characteristics of executives hired into and separated from PE-backed firms. To do so, we estimate a difference-in-differences specification at the individual level, pooling all hires and separations within the event window:

$$X_j = \alpha + \beta_1 PE_j + \beta_2 \text{Post}_t + \beta_3 (PE_j \times \text{Post}_t) + \varepsilon_j, \tag{2}$$

where X_j denotes characteristics of individual j such as age, MBA attainment, or prior PE experience. The post period is split into years 0–2 and years 2–4, corresponding to the initial restructuring phase and the later operating phase suggested by Figure 3. The coefficient β_3 captures how the composition of hires (or separations) changes at PE-backed firms relative to control firms. We additionally estimate a triple-difference specification that compares hires to separations to isolate net inflows of specific types of executives.

Table 10 reports the results. Executives hired into PE-backed firms are systematically more senior and more experienced than those hired by control firms. They are about 1.4 years older and originate from higher hierarchical positions in their previous roles. In terms of background, they are 3 percentage points more likely to hold an MBA and 5 percentage points less likely to have an IT background.[12] These patterns indicate targeted recruitment of managers with general managerial capabilities rather than technical expertise.

The most pronounced differences concern prior experience with Private Equity buyouts. Newly hired executives at PE-backed firms are 11 percentage points more likely to have prior experience in another PE-backed company in the first two years after the buyout, rising to 12 percentage points in years 2–4, relative to a baseline of about 24%. Experience working directly at a PE firm also increases, strengthening the notion that exposure with the PE firm's value creation strategy is important for the hiring decision.

Turnover patterns reveal a distinct temporal structure. While the characteristics of departing

[12] IT background is defined as having at least one prior experience in an occupation classified under SOC major group 15 (Computers and Mathematics), based on Revelio's mapping of standardized roles to O*NET/SOC 2018 occupations.

executives are initially similar to those in control firms, separations among PE-experienced executives rise sharply over time, reaching 18 percentage points above controls by years 2–4. The triple-difference estimates in Panel C show that the net inflow of PE-experienced executives is mainly positive in the first two years, but turns significantly negative thereafter (-7 percentage points, $t = -4.5$). The net outflow in years 2-4 is even stronger for executives that already worked with the deal's GP (-8 percentage points, $t = -12.58$).

These patterns corroborate a two-stage process in executive hiring. In the early post-buyout period, PE investors draw heavily on a specialized pool of managers with prior PE experience–often from within their own network–to implement organizational change. In later periods, these managers are largely rotated out and replaced by executives suited to operate the newly established structure. Taken together, the functional specialization of the C-suite, the dominance of external hiring, and the deployment of PE-experienced talent point to a coherent organizational strategy: PE firms actively manage reusable talent pools to build executive functions in their portfolio companies, expanding and specializing top management teams before handing them off to a more permanent leadership.

5.5 Heterogeneities

While the organizational changes documented above appear systematic, the magnitude of these effects may vary across firms and transactions. Differences in industry characteristics, growth trajectories, or value creation strategies may influence the extent to which firms reorganize their internal structures.

To explore these possibilities, we examine whether the organizational patterns documented above vary across different deal types, industries, and firm growth environments. Table 11 re-estimates the hierarchy-depth regression–with the number of hierarchical layers as the dependent variable–across subsamples defined by growth strategy (buy & build vs. standalone LBO)[13], industry sector (manufacturing vs. services), pre-buyout growth (above vs. below median), post-buyout growth (growth $g \geq 0$ vs. decline $g < 0$), and exit route (IPO, secondary, M&A, or bankruptcy). The hierarchy-deepening effect is strikingly consistent, both economically and sta-

[13]We identify buy-and-build deals by searching Pitchbook for whether an Add-on acquisition took place with the LBO deal in our sample as the mentioned "platform". All deals without an add-on are categorized as standalone LBO.

tistically, across all these deal types. By year 2 after the deal, PE adds about 0.2 layers in almost all situations. The only exception is PE deals ending up in IPO exits. This may be a special case, as IPO firms deepen their hierarchical structure well before the actual IPO (Bias et al., 2025)–which we can confirm as a pre-trend in our sample. Appendix Table A19 confirms the same stability for hierarchical employment reallocation across all these situations.

The results show that the organizational changes associated with PE buyouts appear broadly and across a wide range of firms and transaction environments. The consistency of the findings suggests that the restructuring of managerial hierarchies and organizational functions is a general feature of PE ownership.

5.6 Private Equity and the organizational lifecycle of the firm

This section examines how organizational changes evolve after PE investors exit their ownership stakes. By tracking firms through exit events, we assess whether the restructuring implemented under PE ownership persists, reverses, or continues under new ownership, thereby placing PE-induced organizational change within the broader lifecycle of the firm.

We construct a sample of PE exit events by combining PitchBook exit data with information from SDC's IPO and M&A databases and Orbis' M&A database (formerly Zephyr). We identify exit events for approximately 6,600 firms (about two-thirds of our sample). To observe outcomes over a symmetric $\pm$4-year window around exit, we restrict the sample to exits occurring by 2020, yielding 4,787 deals with complete exit information. We distinguish four exit routes: secondary buyouts (2,893 deals), IPOs (105 deals), M&A transactions (1,535 deals), and bankruptcies (254 deals). For this analysis, we construct a new set of control firms matched in $t-1$ (one year prior to exit) using the same procedure as in Section 3.3.

Different exit routes generate distinct predictions about the persistence of organizational changes. Secondary buyouts and IPOs leave firms as independent entities; if the organizational complexity built under PE ownership reflects a durable operating model, hierarchies should persist or continue to deepen under new ownership. In contrast, M&A exits involve integration into an acquiring firm, where existing structures are often replaced, implying that PE-induced hierarchies may unwind (cf. Gehrke et al., 2021). Bankruptcies represent a separate case, reflecting firm failure

rather than a transition to a new operating equilibrium.

Table 12 reports results for hierarchical depth using an event-study specification centered on the exit date. Table A20 complements this analysis by reporting post-exit effects across all main organizational outcomes, including hierarchy depth, employment shares by layer, and control spans. Column 1 of Table 12 shows that, on average, hierarchy depth does not decline following PE exit. However, patterns differ markedly across exit types. In secondary buyouts, hierarchies continue to deepen, increasing by 0.07 layers within two years, consistent with incoming PE investors further building organizational capacity. In contrast, M&A exits lead to a reduction in hierarchy depth of 0.09 layers, consistent with the integration of the target firm into the acquirer's organizational structure. This divergence provides a sharp validation test: hierarchies unwind when there is a clear structural reason for doing so, implying that their persistence in other exit modes reflects the continued value of the organizational structures established under PE ownership.

6 Conclusion

We examine the impact of PE buyouts on the internal organization of firms. Following buyouts, firms develop deeper hierarchies, narrower managerial control spans, and a reallocation of employment toward administrative and coordination functions. These changes are implemented through the targeted recruitment of experienced executives and substantial turnover in managerial positions, and are reflected in a steepening of the wage structure. Taken together, the evidence indicates that PE ownership increases the role and value of managerial expertise by reorganizing how decision-making and problem-solving are distributed within the firm.

Private equity is often viewed as a governance mechanism that improves incentives and disciplines management. Our findings point to a broader role in shaping firm organization. Rather than merely altering incentives, PE investors systematically reshape internal structures to build organizational capabilities that enhance coordination, specialization, and managerial oversight. In doing so, they act as agents of organizational change, providing both access to managerial talent and expertise in organizational design.

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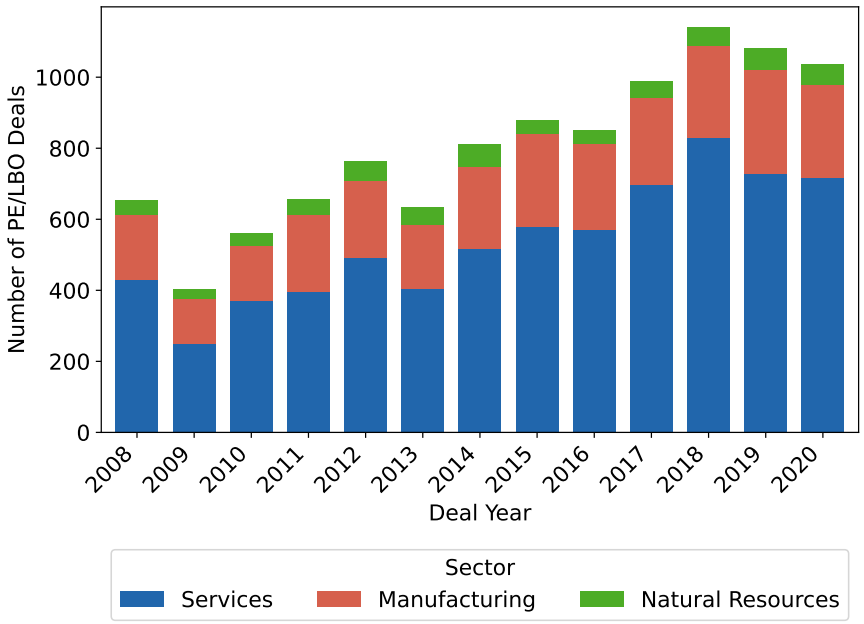
Tables and Figures

Figure 1: Sample

This figure shows the distribution of 10,239 PE Buyout deals in our main sample across years and industry sector.

Panel A: Deals over Time



Panel B: Industry Sector share over Time

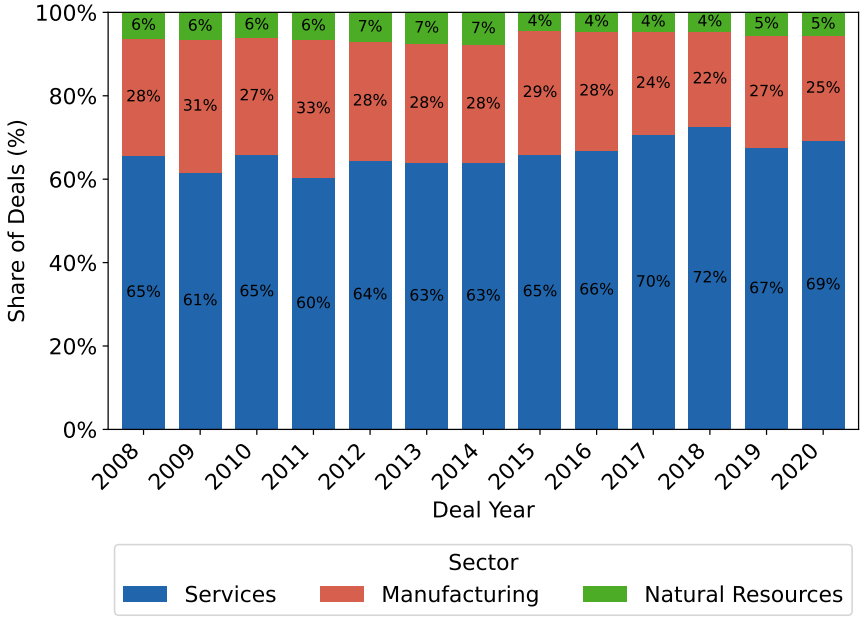


Figure 2: Employment Dynamics around PE Buyouts

This figure shows the average employment, number of hierarchy layers, number of hirings and separations, of all 10,239 treated and control firms in our sample.

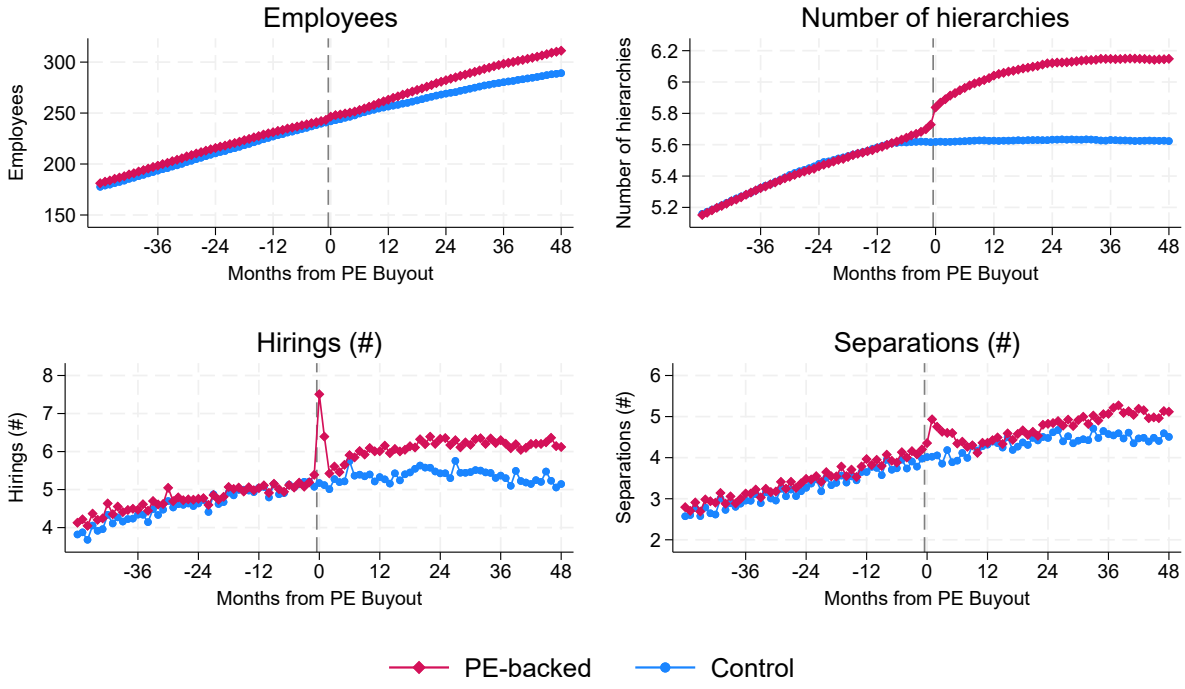


Figure 3: C-Suite Turnover around PE Buyouts

This figure shows the total monthly hirings and separations of C-suite executives ("Chief *X* Officers") of the 10,239 treated and control firms in our sample.

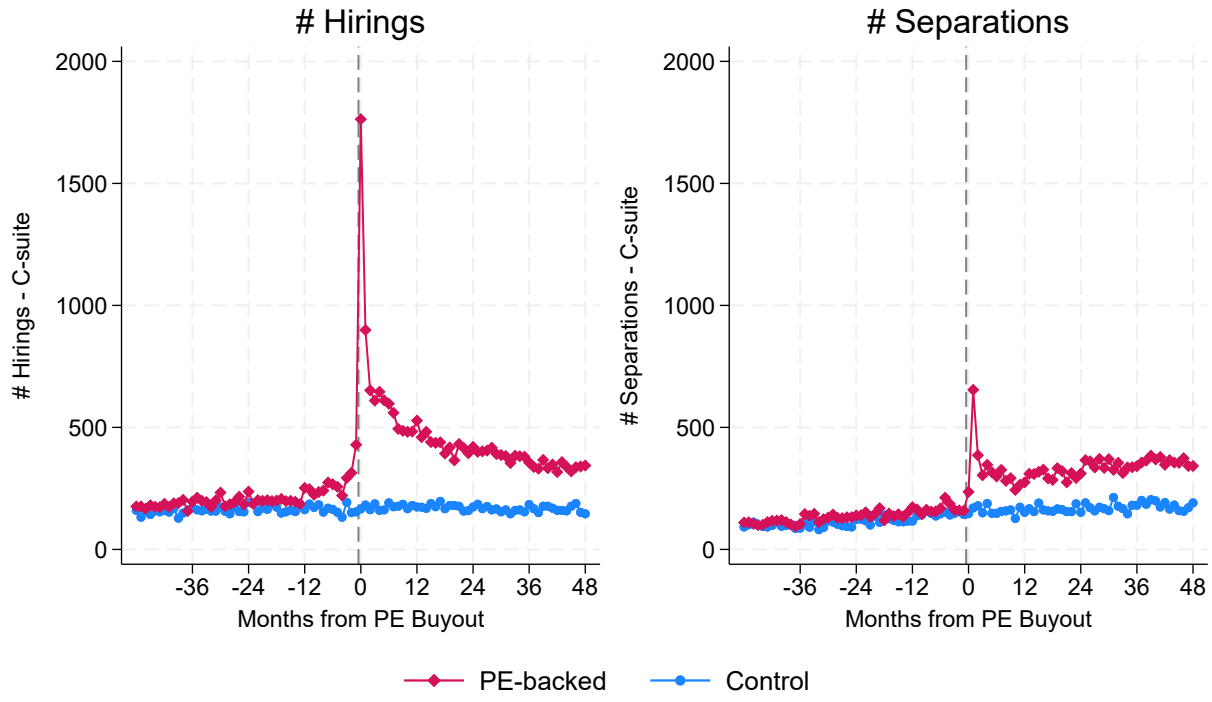


Figure 4: PE buyout Effects on Employment

This figure shows event study plots for the natural logarithm of employment at target firms relative to the matched control group. We plot the coefficients on the event-time fixed effects interacted with the PE Buyout indicator estimating equation (1). The x-axis displays the years relative to the PE Buyout closing date. The vertical lines indicate the 95% confidence intervals, based on standard errors clustered at the firm level. Each panel shows the results of three regressions: all deals, the subset of public-to-private deals, and the subset of private-to-private deals.

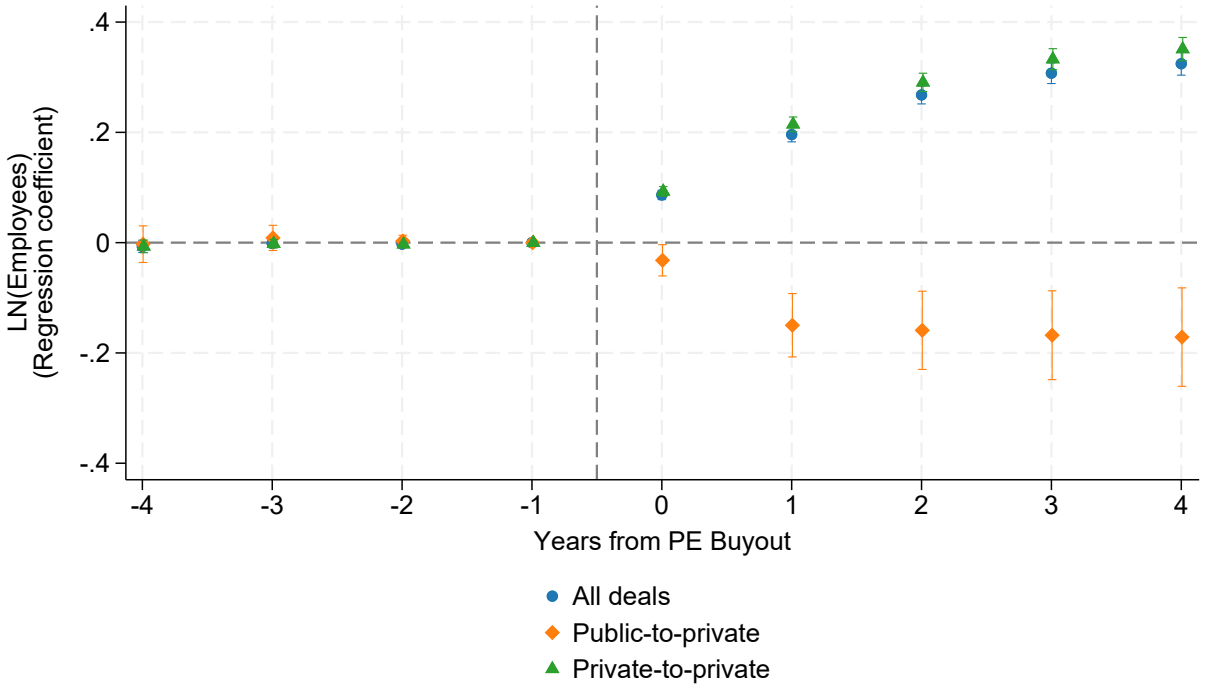
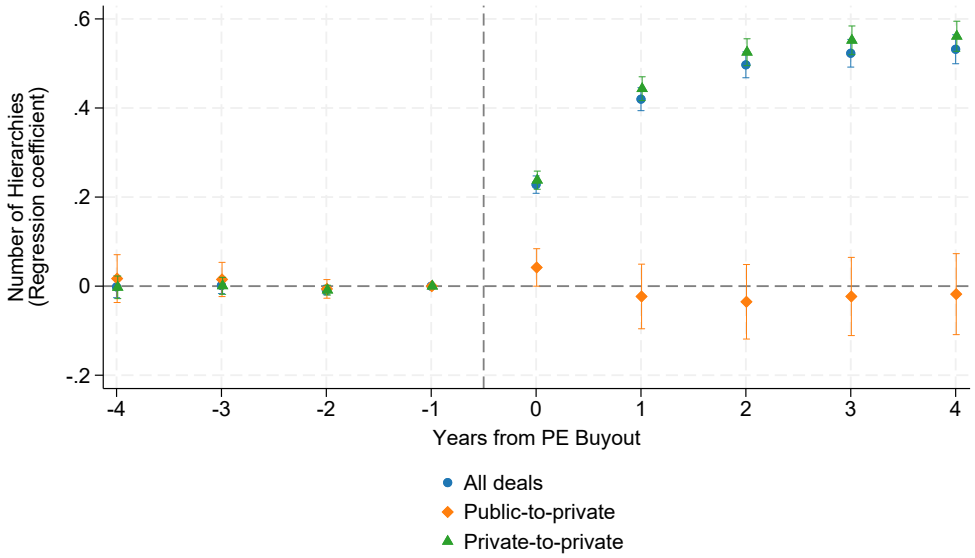


Figure 5: PE Buyout Effects on Hierarchies

This figure shows event study plots for the number of hierarchy layers at target firms relative to the matched control group. We plot the coefficients on the event-time fixed effects interacted with the PE Buyout indicator estimating equation (1). The x-axis displays the years relative to the PE Buyout closing date. The vertical lines indicate the 95% confidence intervals, based on standard errors clustered at the firm level. Panel A and B show regressions without and with firm size controls, respectively. Each panel shows the results of three regressions: all deals, the subset of public-to-private deals, and the subset of private-to-private deals.

Panel A: No Controls



Panel B: Controlling for Firm Size

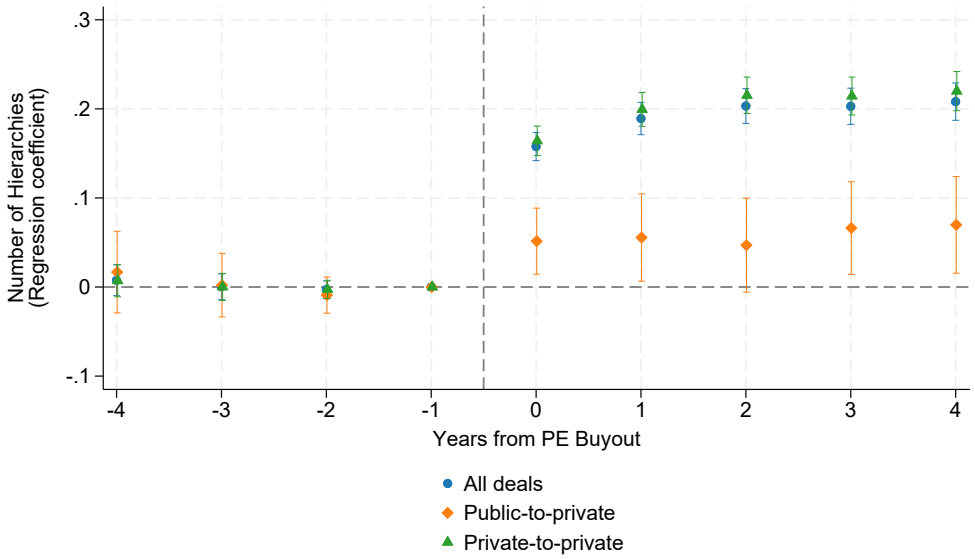
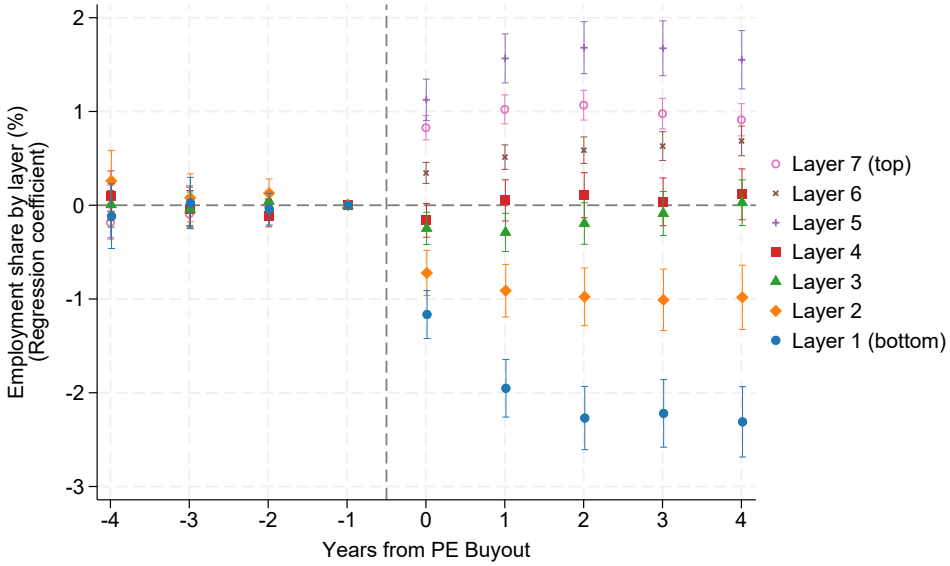


Figure 6: PE Buyout Effects on Employment Share and Control Spans of Layers

This figure shows event study plots for employment shares and control spans by layer at target firms relative to the matched control group. We plot the coefficients on the event-time fixed effects interacted with the PE indicator estimating equation (1). The x-axis displays the years relative to the PE Buyout closing date. The vertical lines indicate the 95% confidence intervals, based on standard errors clustered at the firm level. Panel A shows regressions with the employment share of layer l as dependent variables. Panel B shows regression results with the natural logarithm of the control span of layer l as dependent variables.

Panel A: Employment Share by Layer



Panel B: Control Span by Layer

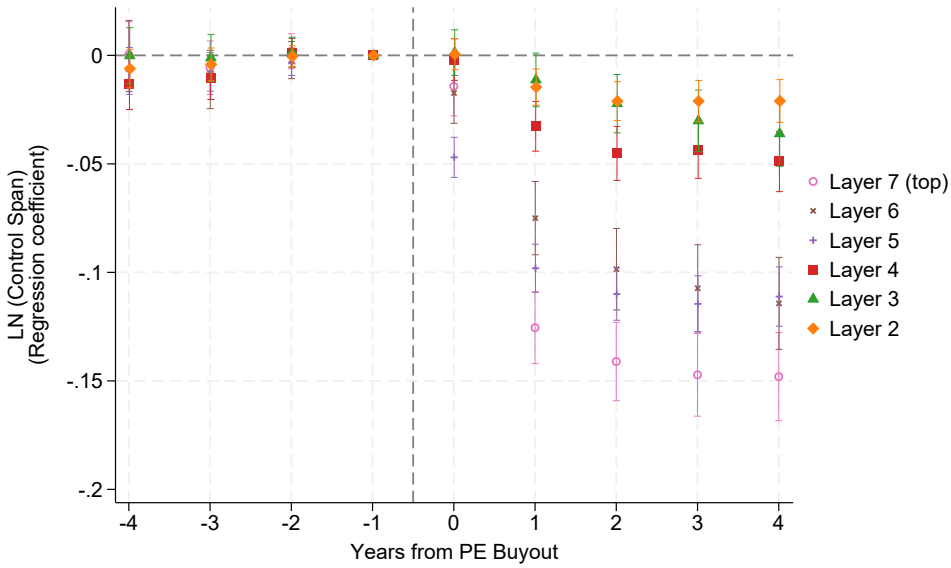


Figure 7: PE Buyout Effects on Management Employment Shares

This figure shows event study plots for employment shares of different firm functions at target firms relative to the matched control group. The dependent variable is the employment share (in %) each management level group. Top management is layers 6&7, middle management is layers 3-5, rank-and-file includes layers 1&2. We plot the coefficients on the event-time fixed effects interacted with the PE Buyout indicator estimating equation (1). The x-axis displays the years relative to the PE Buyout closing date. The vertical lines indicate the 95% confidence intervals, based on standard errors clustered at the firm level.

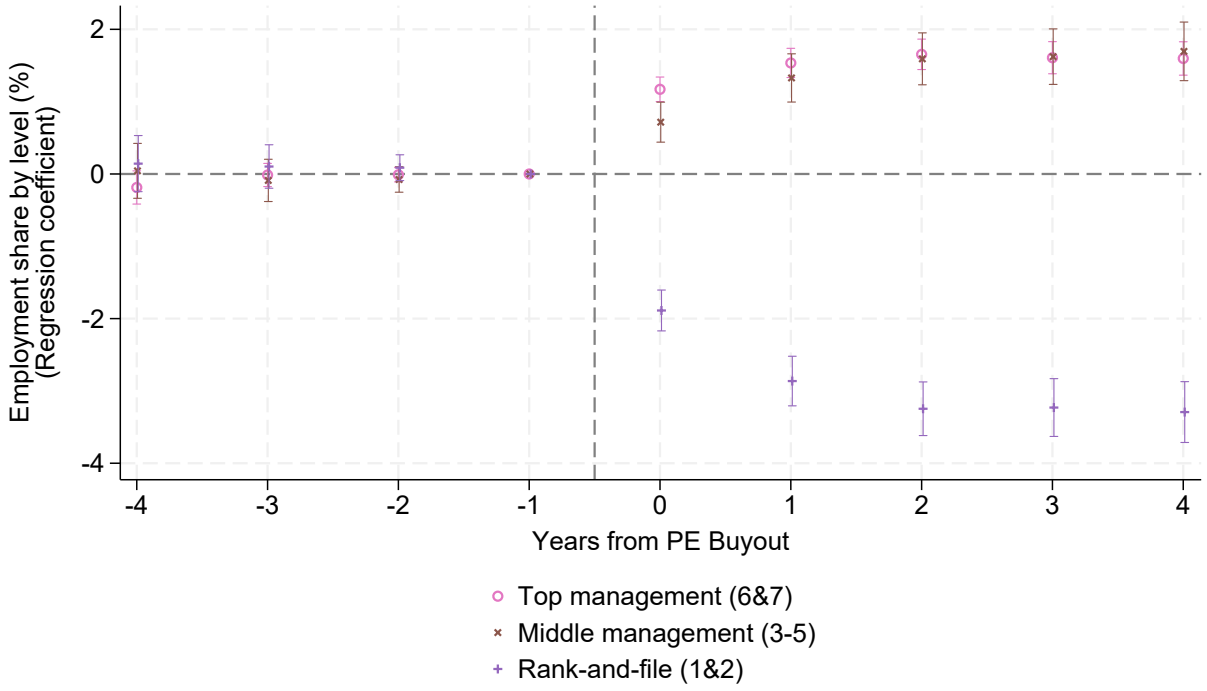


Figure 8: PE Buyout Effects on Firm Functions

This figure shows event study plots for employment shares of different firm functions at target firms relative to the matched control group. The dependent variable is the employment share (in %) of each functional category. Product-related functions are sales&marketing, engineers, and R&D; administrative functions are finance, general management, and other admin. Operations functions are a separate category. We plot the coefficients on the event-time fixed effects interacted with the PE Buyout indicator estimating equation (1). The x-axis displays the years relative to the PE Buyout closing date. The vertical lines indicate the 95% confidence intervals, based on standard errors clustered at the firm level.

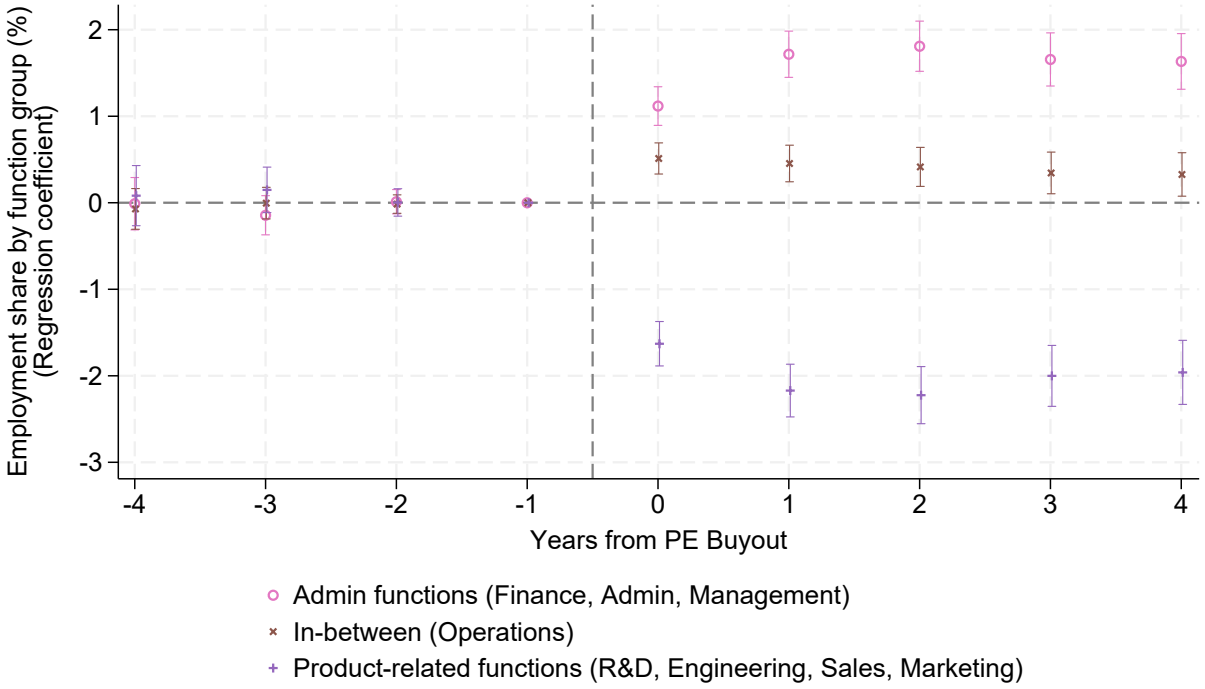


Table 1: Matching Statistics: PE Buyout targets and Control Firms

This table reports summary statistics for the 10,239 PE Buyout targets and 10,239 matched control firms in the matching month, 1 year before PE Buyout $(t-1)$. Firms are matched on industry (50 categories), employment, employment growth, public listing status, and hierarchical structure (dummies of existence of layers and employment shares of layers) before the buyout. For detailed variable definitions see Appendix A.1. Columns "Difference" report test results of whether PE Buyout targets and control firms differ on observable characteristics: we use a two sample t-test for equality of means and the normalized difference test developed by Imbens and Wooldridge (2009).

	PE Buyout targets		Control firms		Difference	
	Mean	Median	Mean	Median	*t*-stat for equal means	Imbens-Wooldridge test
Panel A: Employment						
Employees	223.42	38.00	218.46	38.00	0.22	0.00
Employees in layer 1	71.59	9.00	70.13	9.00	0.25	0.00
Employees in layer 2	59.94	9.00	59.91	9.00	0.00	0.00
Employees in layer 3	25.00	4.00	24.05	4.00	0.27	0.00
Employees in layer 4	29.39	5.00	28.28	5.00	0.26	0.00
Employees in layer 5	29.48	5.00	28.58	5.00	0.24	0.00
Employees in layer 6	6.36	1.00	5.95	1.00	0.36	0.01
Employees in layer 7	1.66	1.00	1.56	1.00	1.28	0.02
Employees in product functions	168.10	25.00	162.84	25.00	0.29	0.00
Employees in operations	16.53	3.00	15.93	3.00	0.41	0.01
Employees in administrative functions	38.80	6.00	39.69	6.00	−0.29	0.00
Panel B: Hierarchy						
Number of hierarchies	5.53	6.00	5.53	6.00	0.00	0.00
Filled layer 1? (0/1)	0.91	1.00	0.91	1.00	0.05	0.00
Filled layer 2? (0/1)	0.90	1.00	0.90	1.00	0.07	0.00
Filled layer 3? (0/1)	0.81	1.00	0.81	1.00	0.04	0.00
Filled layer 4? (0/1)	0.85	1.00	0.85	1.00	0.57	0.01
Filled layer 5? (0/1)	0.88	1.00	0.88	1.00	−0.75	−0.01
Filled layer 6? (0/1)	0.58	1.00	0.58	1.00	0.20	0.00
Filled layer 7? (0/1)	0.58	1.00	0.59	1.00	−1.53	−0.02
Panel C: Other Firm Characteristics						
Employment growth 12m	0.13	0.10	0.13	0.10	0.66	0.01
# Hirings (12m)	57.29	9.00	55.81	9.00	0.29	0.00
# Separations (12m)	41.36	4.00	39.30	5.00	0.52	0.01
Average compensation (USDk)	129.99	112.01	134.65	113.78	−1.54	−0.03
Has CEO? (0/1)	0.39	0.00	0.38	0.00	1.81	0.03
Has CFO? (0/1)	0.28	0.00	0.25	0.00	3.90	0.05
Has COO? (0/1)	0.19	0.00	0.17	0.00	2.11	0.03
Has CTO? (0/1)	0.10	0.00	0.09	0.00	1.47	0.02
Has CIO? (0/1)	0.08	0.00	0.08	0.00	0.10	0.00
Has CHRO? (0/1)	0.03	0.00	0.02	0.00	0.31	0.00

Table 2: Distribution of the U.S. Workforce by Hierarchy

This table reports summary statistics for the cross-section of US-based firms as of 2020–broken down by hierarchical layers. It report the number of persons, share of persons, mean and median of experience (in years), education, and total compensation (in US$). Education levels: 1 - primary/secondary/high school, no university level education; 2 - college degree / bachelors degree; 3 - master's degree / MBA; 4 - doctoral degree, PhD. For detailed variable definitions see Appendix A.1. Panel A contains all 7-layered firms, Panel B all 6-layered firms, without a layer 7.

Layer	Persons		Experience		Education		Compensation	
	Number	Share (%)	Mean	Median	Mean	Median	Mean	Median
Panel A: All 7-layer firms								
7	455,332	0.74	24.91	25.00	1.77	2.00	824,850	745,510
6	1,638,293	2.67	23.64	23.00	1.80	2.00	286,164	278,395
5	7,404,138	12.06	21.97	21.00	1.74	1.00	216,575	212,709
4	7,186,667	11.71	19.16	17.00	1.68	1.00	113,091	110,984
3	6,711,682	10.94	17.12	15.00	1.67	1.00	87,272	84,661
2	18,195,718	29.65	15.58	13.00	1.59	1.00	77,183	73,387
1	19,785,450	32.24	13.29	10.00	1.35	1.00	46,496	44,056
All	61,377,280	100.00	16.49	14.00	1.56	1.00	100,537	69,791
Panel B: All 6-layer firms								
6	187,983	3.19	24.92	24.00	1.73	2.00	328,063	316,324
5	718,738	12.21	22.74	21.00	1.69	1.00	235,100	232,436
4	626,392	10.64	20.00	18.00	1.62	1.00	118,375	115,374
3	563,333	9.57	18.36	16.00	1.61	1.00	89,898	88,042
2	1,559,509	26.49	16.56	14.00	1.57	1.00	78,305	75,375
1	2,230,110	37.89	14.43	11.00	1.41	1.00	50,521	48,005
All	5,886,065	100.00	17.31	15.00	1.54	1.00	100,274	71,223

Table 3: PE Buyout Effects on Employment

This table shows the results of firm-level difference-in-differences regressions comparing employment at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the natural logarithm of number of employees. For detailed variable definitions see Appendix A.1. The coefficients are from estimating equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference period. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	LN Employees					
Sample:	All PE Buyouts		Public-to-private deals		Private-to-private deals	
	un-weighted	empl-weighted & Deal-year<2014	un-weighted	empl-weighted & Deal-year<2014	un-weighted	empl-weighted & Deal-year<2014
	(1)	(2)	(3)	(4)	(5)	(6)
PE x t-4	-0.01	-0.01	-0.00	-0.00	-0.01	-0.01
	(-0.99)	(-0.69)	(-0.22)	(-0.22)	(-0.97)	(-0.67)
PE x t-3	-0.00	-0.00	0.01	0.00	-0.00	-0.00
	(-0.45)	(-0.32)	(0.77)	(0.16)	(-0.58)	(-0.37)
PE x t-2	-0.00	-0.00	0.00	0.00	-0.00	-0.00
	(-1.52)	(-0.27)	(0.69)	(0.36)	(-1.64)	(-0.36)
PE x t=0	0.09***	0.05***	-0.03**	-0.03	0.09***	0.06***
	(19.54)	(7.81)	(-2.10)	(-1.59)	(20.31)	(8.63)
PE x t+1	0.19***	0.10***	-0.15***	-0.14***	0.21***	0.13***
	(28.81)	(9.95)	(-5.05)	(-3.48)	(31.06)	(12.28)
PE x t+2	0.27***	0.15***	-0.16***	-0.15***	0.29***	0.17***
	(32.01)	(11.57)	(-4.35)	(-3.05)	(34.20)	(13.83)
PE x t+3	0.31***	0.17***	-0.17***	-0.17***	0.33***	0.21***
	(31.91)	(11.04)	(-4.08)	(-2.92)	(33.96)	(13.14)
PE x t+4	0.32***	0.18***	-0.17***	-0.18***	0.35***	0.22***
	(30.51)	(10.32)	(-3.71)	(-2.69)	(32.40)	(12.25)
Observations	184302	78723	9342	4914	174960	73809
# deals	10239	4375	519	273	9720	4102
R-squared	0.95	0.95	0.97	0.96	0.95	0.94
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=-1	3.74	3.65	5.93	5.65	3.63	3.52

Table 4: PE Buyout Effects on Hierarchies

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the number of hierarchy layers. For detailed variable definitions see Appendix A.1. The coefficients are from estimating equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference period. *t*-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Number of hierarchies					
Sample:	All PE Buyouts		Public-to-private deals		Private-to-private deals	
	(1)	(2)	(3)	(4)	(5)	(6)
PE x t-4	0.00	0.01	0.02	0.02	0.00	0.01
	(0.17)	(0.95)	(0.55)	(0.81)	(0.11)	(0.85)
PE x t-3	0.00	−0.00	0.02	0.00	0.00	−0.00
	(0.21)	(−0.15)	(0.77)	(0.12)	(0.12)	(−0.18)
PE x t-2	−0.01	−0.00	−0.01	−0.01	−0.01	−0.00
	(−1.22)	(−0.55)	(−0.58)	(−0.87)	(−1.17)	(−0.47)
PE x t=0	0.23***	0.16***	0.04**	0.05***	0.24***	0.16***
	(22.56)	(19.53)	(2.01)	(2.88)	(22.53)	(19.41)
PE x t+1	0.42***	0.19***	−0.02	0.06**	0.44***	0.20***
	(31.70)	(20.51)	(−0.54)	(2.37)	(32.26)	(20.65)
PE x t+2	0.49***	0.20***	−0.04	0.05*	0.52***	0.22***
	(33.28)	(20.52)	(−0.83)	(1.79)	(33.96)	(20.78)
PE x t+3	0.52***	0.20***	−0.03	0.07**	0.54***	0.21***
	(32.40)	(19.23)	(−0.61)	(2.51)	(33.00)	(19.40)
PE x t+4	0.52***	0.20***	−0.01	0.08***	0.55***	0.21***
	(31.27)	(19.01)	(−0.31)	(2.71)	(31.78)	(19.15)
Controls						
ln Employees (t-1)		3.63***		3.70***		3.63***
		(119.56)		(18.92)		(114.68)
ln Employees $(t-1)^2$		−0.51***		−0.50***		−0.51***
		(−68.60)		(−13.88)		(−64.19)
ln Employees $(t-1)^3$		0.02***		0.02***		0.02***
		(42.34)		(10.84)		(38.31)
Employment growth 12m		0.05***		0.08**		0.05***
		(7.20)		(2.37)		(6.93)
Observations	183710	183706	9319	9319	174391	174387
R-squared	0.85	0.93	0.83	0.92	0.85	0.93
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	5.53	5.53	6.71	6.71	5.46	5.46

Table 5: PE Buyout Effect on Existence of Hierarchical Layers

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variables are dummy variables indicating whether the respective layer is filled. For detailed variable definitions see Appendix A.1. The coefficients are from estimating equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference period. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Filled layer? (0/1)						
	Layer 7 (top)	Layer 6	Layer 5	Layer 4	Layer 3	Layer 2	Layer 1 (bottom)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	0.00	0.00	0.00	−0.00	−0.00	0.00	0.00
	(0.76)	(0.46)	(0.53)	(−0.73)	(−0.25)	(0.93)	(0.73)
PE x t-3	0.00	0.00	0.00	−0.00	−0.00	−0.00	0.00
	(0.19)	(0.83)	(0.56)	(−0.69)	(−0.76)	(−0.06)	(0.15)
PE x t-2	0.00	0.00	−0.00	−0.00	−0.00	−0.00	−0.00
	(0.66)	(0.19)	(−0.21)	(−0.23)	(−0.51)	(−0.20)	(−1.20)
PE x t=0	0.09***	0.03***	0.03***	0.01**	0.00	0.00	−0.00
	(22.00)	(8.73)	(9.63)	(2.28)	(0.24)	(1.51)	(−1.10)
PE x t+1	0.12***	0.05***	0.02***	0.01***	0.00	−0.00	−0.01**
	(24.28)	(10.76)	(7.68)	(3.33)	(0.69)	(−0.44)	(−2.48)
PE x t+2	0.13***	0.06***	0.02***	0.01**	0.00	−0.00	−0.01***
	(23.65)	(11.42)	(7.18)	(2.28)	(0.58)	(−0.14)	(−2.82)
PE x t+3	0.12***	0.06***	0.03***	0.01**	−0.00	−0.00	−0.01***
	(21.64)	(10.90)	(7.53)	(2.22)	(−0.20)	(−0.36)	(−2.89)
PE x t+4	0.11***	0.06***	0.02***	0.01***	0.00	−0.00	−0.01*
	(19.29)	(10.80)	(6.78)	(2.78)	(0.86)	(−0.60)	(−1.88)
Controls							
ln Employees (t-1)	0.15***	0.08***	0.62***	0.62***	0.54***	0.71***	0.70***
	(10.67)	(6.05)	(46.66)	(48.55)	(41.28)	(55.14)	(52.51)
ln Employees $(t-1)^2$	0.03***	0.05***	−0.11***	−0.10***	−0.07***	−0.13***	−0.13***
	(8.39)	(12.86)	(−35.55)	(−32.69)	(−22.02)	(−46.06)	(−42.31)
ln Employees $(t-1)^3$	−0.00***	−0.01***	0.01***	0.00***	0.00***	0.01***	0.01***
	(−13.12)	(−19.09)	(27.72)	(22.34)	(10.57)	(38.05)	(34.76)
Employment growth 12m	0.05***	0.02***	−0.01***	−0.02***	−0.02***	−0.01***	−0.00
	(12.87)	(5.43)	(−4.33)	(−5.96)	(−5.36)	(−3.60)	(−0.28)
Observations	183965	183965	183965	183965	183965	183965	183965
R-squared	0.78	0.80	0.78	0.77	0.77	0.75	0.72
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	0.58	0.58	0.88	0.85	0.81	0.90	0.91

Table 6: PE Buyout Effects on Firm Functions

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the employment share (in %) of each functional category. Product functions are sales&marketing, engineers, and R&D; administrative functions include finance, general management, and other admin. Operations functions are a separate category. For detailed variable definitions see Appendix A.1. The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference period. *t*-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable:	Employment share (%) in functions:						
	Admin. functions			In-between	Product functions		
	General management	Finance	Admin.	Operations	Sales & Marketing	R&D	Engineer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	−0.17**	0.02	0.12	−0.12	−0.11	0.05	0.22
	(−1.97)	(0.17)	(1.09)	(−1.02)	(−0.63)	(0.60)	(1.52)
PE x t-3	−0.08	0.00	0.00	0.06	−0.07	−0.04	0.13
	(−1.39)	(0.02)	(0.03)	(0.67)	(−0.54)	(−0.70)	(1.14)
PE x t-2	−0.03	−0.01	0.07	0.02	−0.08	0.02	0.01
	(−0.73)	(−0.25)	(1.48)	(0.45)	(−1.03)	(0.45)	(0.10)
PE x t=0	0.86***	0.49***	−0.28***	0.57***	−0.59***	−0.16***	−0.89***
	(12.78)	(6.36)	(−3.62)	(6.22)	(−4.80)	(−3.03)	(−7.95)
PE x t+1	1.05***	0.71***	−0.11	0.53***	−0.67***	−0.25***	−1.27***
	(13.44)	(7.54)	(−1.20)	(4.98)	(−4.57)	(−3.81)	(−9.27)
PE x t+2	1.11***	0.75***	−0.09	0.47***	−0.57***	−0.31***	−1.36***
	(13.73)	(7.32)	(−0.88)	(4.08)	(−3.56)	(−4.27)	(−9.16)
PE x t+3	1.02***	0.71***	−0.05	0.35***	−0.49***	−0.26***	−1.27***
	(12.13)	(6.63)	(−0.51)	(2.83)	(−2.86)	(−3.48)	(−7.82)
PE x t+4	0.96***	0.75***	−0.02	0.34***	−0.54***	−0.22***	−1.27***
	(10.84)	(6.62)	(−0.19)	(2.63)	(−2.95)	(−2.80)	(−7.49)
Controls							
ln Employees (t-1)	−0.63	2.69***	−0.24	−3.18***	−0.84	−0.21	2.41**
	(−1.02)	(3.78)	(−0.36)	(−3.66)	(−0.76)	(−0.38)	(2.43)
ln Employees $(t-1)^2$	−0.18	−0.32**	0.07	0.48**	0.15	0.04	−0.25
	(−1.27)	(−2.05)	(0.50)	(2.48)	(0.62)	(0.36)	(−1.14)
ln Employees $(t-1)^3$	0.02**	0.01	−0.01	−0.03**	−0.01	−0.00	0.01
	(2.12)	(0.75)	(−0.64)	(−2.16)	(−0.33)	(−0.04)	(0.86)
Employment growth 12m	1.01***	−0.18	−0.13	−0.12	−0.00	−0.16	−0.41**
	(7.17)	(−1.56)	(−1.01)	(−0.91)	(−0.01)	(−1.54)	(−2.44)
Observations	183706	183706	183706	183706	183706	183706	183706
R-squared	0.74	0.89	0.84	0.81	0.91	0.95	0.92
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	3.22	9.56	8.71	10.23	34.93	5.82	27.53

Table 7: PE Buyout Effects on Employee Turnover

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the 12-month rolling employee turnover rate. Column 1 reports results for all employees. Columns 2–4 split by vertical layer (top management, middle management, rank-and-file). Columns 5–7 split by horizontal function (admin, operations, product-related). For detailed variable definitions see Appendix A.1. The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference year .t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Turnover rate 12m rolling						
		Vertical layers			Horizontal functions		
	All	Top mgmt.	Middle mgmt.	Rank-and-file	Admin	Operations	Product-related
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	0.43*	0.09	0.43	0.39	0.38	−0.21	0.60**
	(1.75)	(0.19)	(1.43)	(1.01)	(0.60)	(−0.39)	(1.98)
PE x t-3	0.13	−0.39	0.36	0.02	−0.59	−0.75	0.02
	(0.60)	(−0.87)	(1.28)	(0.04)	(−0.95)	(−1.42)	(0.07)
PE x t-2	−0.03	−0.05	−0.09	0.10	0.58	−0.38	−0.17
	(−0.24)	(−0.15)	(−0.46)	(0.33)	(1.23)	(−0.96)	(−0.86)
PE x t=0	2.50***	9.34***	3.55***	0.81**	1.29**	4.92***	1.12***
	(11.32)	(19.45)	(12.66)	(2.16)	(2.23)	(9.43)	(3.89)
PE x t+1	4.66***	11.28***	5.68***	3.75***	4.58***	3.57***	3.72***
	(19.08)	(23.35)	(19.62)	(9.42)	(7.60)	(6.74)	(12.19)
PE x t+2	3.51***	4.05***	4.27***	3.97***	3.39***	2.36***	3.68***
	(14.68)	(8.53)	(15.12)	(9.94)	(5.49)	(4.49)	(11.82)
PE x t+3	4.16***	3.83***	4.74***	4.75***	3.41***	3.58***	4.03***
	(16.58)	(8.04)	(16.40)	(11.39)	(5.42)	(6.78)	(12.76)
PE x t+4	3.93***	3.14***	4.68***	4.50***	2.89***	3.22***	3.91***
	(15.58)	(6.53)	(16.12)	(10.66)	(4.62)	(6.05)	(12.46)
Controls							
ln Employees (t-1)	−9.92***	−38.14***	−19.77***	−16.32***	−29.96***	−25.74***	−14.11***
	(−7.99)	(−20.37)	(−14.47)	(−9.60)	(−12.21)	(−13.25)	(−9.88)
ln Employees (t-1)^2	3.23***	6.03***	4.42***	4.39***	5.25***	4.24***	3.92***
	(10.57)	(15.06)	(14.15)	(10.70)	(10.27)	(10.11)	(11.55)
ln Employees (t-1)^3	−0.24***	−0.32***	−0.30***	−0.29***	−0.27***	−0.22***	−0.28***
	(−10.57)	(−11.99)	(−13.35)	(−9.70)	(−7.98)	(−7.75)	(−11.05)
Employment growth 12m	12.15***	7.41***	12.14***	15.64***	16.54***	12.60***	12.95***
	(28.80)	(14.38)	(29.90)	(26.86)	(24.92)	(23.07)	(30.33)
Observations	183946	140311	177924	178206	143019	150610	180445
R-squared	0.49	0.32	0.41	0.47	0.37	0.34	0.48
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	21.36	13.68	16.80	28.43	25.89	20.36	23.25

Table 8: PE Buyout Effects on Employee Compensation

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the natural log of average total compensation. Columns 1–2 report results for all employees without and with controls for the number of layers of the firm (dummies). Columns 3–5 split by vertical layer (top management, middle management, rank-and-file). Columns 6–8 split by horizontal function (admin, operations, product-related). For detailed variable definitions see Appendix A.1. The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference year. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	LN (Average total compensation)							
			Vertical layers			Horizontal functions		
	All	All	Top mgmt.	Middle mgmt.	Rank-and-file	Admin	Operations	Product-related
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PE x t-4	−0.01**	−0.01**	0.00	−0.00	0.01**	0.02**	0.01	−0.00
	(−2.21)	(−2.40)	(0.45)	(−1.42)	(2.53)	(2.41)	(0.95)	(−0.98)
PE x t-3	−0.01*	−0.01*	0.00	−0.00	0.01**	0.02***	0.01**	−0.00
	(−1.75)	(−1.76)	(0.29)	(−0.79)	(2.36)	(3.65)	(2.27)	(−0.45)
PE x t-2	−0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
	(−0.02)	(0.29)	(1.43)	(1.04)	(0.82)	(1.37)	(1.63)	(0.86)
PE x t=0	0.09***	0.07***	0.07***	0.04***	0.00	0.01**	0.09***	0.02***
	(25.06)	(21.14)	(10.97)	(16.15)	(1.12)	(2.81)	(15.28)	(8.32)
PE x t+1	0.12***	0.10***	0.08***	0.06***	0.01***	0.03***	0.11***	0.04***
	(28.96)	(25.17)	(11.61)	(17.71)	(4.15)	(4.42)	(16.37)	(11.58)
PE x t+2	0.12***	0.10***	0.09***	0.05***	0.01***	0.04***	0.11***	0.05***
	(28.84)	(24.93)	(11.00)	(15.52)	(4.82)	(6.05)	(15.24)	(12.98)
PE x t+3	0.12***	0.10***	0.09***	0.06***	0.02***	0.05***	0.11***	0.05***
	(27.13)	(23.50)	(10.33)	(15.55)	(5.24)	(6.75)	(14.85)	(12.99)
PE x t+4	0.12***	0.10***	0.08***	0.05***	0.02***	0.04***	0.11***	0.05***
	(25.20)	(21.70)	(9.29)	(13.45)	(4.90)	(6.20)	(13.97)	(12.53)
Controls								
ln Employees (t-1)	0.28***	−0.31***	0.14***	0.10***	0.11***	0.00	−0.00	0.16***
	(9.95)	(−11.31)	(4.07)	(4.52)	(5.33)	(0.06)	(−0.17)	(6.26)
ln Employees (t-1)^2	−0.08***	0.02***	−0.02**	−0.03***	−0.02***	0.02**	0.01	−0.04***
	(−12.14)	(3.96)	(−2.62)	(−5.73)	(−4.68)	(2.29)	(1.04)	(−7.21)
ln Employees (t-1)^3	0.01***	−0.00	0.00	0.00***	0.00***	−0.00***	−0.00**	0.00***
	(11.50)	(−1.17)	(0.97)	(5.18)	(3.47)	(−3.56)	(−2.22)	(6.61)
Employment growth 12m	0.03***	0.02***	0.05***	0.00	−0.03***	−0.01	0.03***	−0.01**
	(5.16)	(3.78)	(7.08)	(0.31)	(−7.71)	(−0.94)	(3.80)	(−2.20)
Observations	183706	183706	138279	177218	177176	139803	147867	179855
R-squared	0.84	0.85	0.79	0.84	0.86	0.80	0.83	0.85
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# Hierarchies FE	No	Yes	No	No	No	No	No	No
Mean dep. var. in t=−1	11.66	11.66	12.99	11.88	10.99	11.27	11.66	11.48

Table 9: PE Buyout Effects on Executive Specialization

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable in each column is an indicator for whether the firm has filled the indicated "chief officer" role (0/1). Panel A includes all Chief Officers. Panel B includes only Chief Officers with a prior internal experience ("Internal"). Panel C includes only Chief Officers without prior internal experience ("external"). The table reports only the coefficient on $PE \times t+2$ from estimating equation (1). Employment controls include ln Employees (t-1), its square, its cube, and employment growth over 12 months. For detailed variable definitions see Appendix A.1. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Admin functions					Operations		Product functions					
Dependent variable:	Has CFO? (0/1)	Has CHRO? (0/1)	Has CIO? (0/1)	Has CLO? (0/1)	Has CAO? (0/1)	Has CEO? (0/1)	Has COO? (0/1)	Has CTO? (0/1)	Has CPO? (0/1)	Has CMO? (0/1)	Has CSRO? (0/1)	Has any other CXO? (0/1)	# Chief Officers
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Panel A: All													
PE x t+2	0.15***	0.02***	0.02***	0.01	0.00	0.13***	0.03***	0.01***	0.00**	0.02***	0.03***	0.06***	0.45***
	(24.65)	(8.03)	(5.71)	(1.51)	(0.63)	(22.89)	(5.83)	(3.87)	(2.14)	(5.62)	(8.84)	(6.93)	(29.26)
Mean dep. var. in $t=-1$	0.26	0.03	0.08	0.01	0.02	0.38	0.18	0.09	0.02	0.05	0.03	0.13	1.27
Panel B: Internal promotions													
PE x t+2	0.01***	0.00***	−0.00	−0.00	−0.00	0.03***	−0.00	0.00*	0.00	0.00	0.01***	0.01***	0.06***
	(3.04)	(3.00)	(−0.49)	(−0.25)	(−0.99)	(6.46)	(−0.83)	(1.83)	(0.49)	(0.86)	(3.74)	(2.88)	(6.26)
Mean dep. var. in $t=-1$	0.04	0.01	0.02	0.00	0.01	0.08	0.05	0.02	0.00	0.01	0.01	0.04	0.29
Panel C: External hires													
PE x t+2	0.14***	0.02***	0.02***	0.00**	0.00	0.11***	0.04***	0.01**	0.00**	0.02***	0.02***	0.03***	0.41***
	(23.53)	(6.87)	(6.44)	(2.25)	(1.32)	(19.82)	(7.22)	(2.70)	(2.25)	(5.40)	(7.89)	(6.83)	(28.19)
Mean dep. var. in $t=-1$	0.23	0.02	0.06	0.01	0.01	0.33	0.14	0.07	0.01	0.04	0.02	0.11	1.06
Observations	183974	183974	183974	183974	183974	183974	183974	183974	183974	183974	183974	183974	183974
Employment controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 10: Characteristics of Top Managers Around PE Buyouts

This table reports difference-in-differences estimates for the characteristics of executives hired into and separated from C-suite positions at PE-backed firms relative to matched control firms. The sample consists of 54,030 hires and 40,948 separations of individuals holding a "Chief X Officer" title. Each column corresponds to a different characteristic of the hired or separated executive, as indicated in the column header. Panel A reports estimates for hirings, Panel B for separations, and Panel C reports triple-difference estimates from a pooled regression of hires and separations. In Panels A and B, the reported coefficients are β_3 from the specification $Y_{ijt} = \alpha + \beta_1 PE_j + \beta_2 \text{Post}_t + \beta_3 (PE_j \times \text{Post}_t) + \varepsilon_{ijt}$, estimated separately for the early post-period (years 0–2, "Post 0-2y") and the late post-period (years 3–4, "Post 3-4y"), both relative to the pre-period (years -4 to 0). In Panel C, β_3 is the coefficient on $PE_j \times \text{Post}_t \times \text{Hire}_{ijt}$ from a pooled regression stacking hires and separations. "Seniority in prior position" is the hierarchy layer (1–7) of the individual's most recent position before the current spell. "PE-backing experience" indicates prior employment at any PE-backed firm; "PE-backing exp. w/ deal GP" restricts to firms backed by the same GP as the current deal. "PE-firm experience" indicates prior employment at a PE firm itself; "PE-firm exp. w/ deal GP" restricts to the deal's GP. t-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable:	Age	Seniority in prior position	MBA (0/1)	IT skill (0/1)	PE-backing experience (0/1)	PE-backing exp. w/ deal GP (0/1)	PE-firm experience (0/1)	PE-firm exp. w/ deal GP (0/1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Hirings								
PE × Post (0-2y)	1.35***	0.10***	0.03***	−0.05***	0.11***	0.05***	0.03***	0.02***
	(4.56)	(2.89)	(2.58)	(−5.20)	(11.52)	(16.32)	(6.82)	(12.65)
PE × Post (3-4y)	0.70**	0.06	0.02	−0.01	0.12***	0.06***	0.02***	0.01***
	(2.21)	(1.54)	(1.48)	(−0.87)	(11.41)	(15.64)	(3.22)	(6.22)
Observations	31924	51739	54030	54030	54030	54030	54030	54030
Mean dep. var. pre	45.26	5.29	0.29	0.22	0.24	0.02	0.04	0.00
Panel B: Separations								
PE × Post (0-2y)	0.82**	0.07*	0.02	−0.01	0.08***	0.06***	0.02***	0.01***
	(2.36)	(1.79)	(1.42)	(−1.24)	(8.20)	(14.85)	(4.03)	(6.18)
PE × Post (3-4y)	0.24	0.11***	0.04***	−0.02*	0.18***	0.14***	0.02***	0.01***
	(0.71)	(2.78)	(3.14)	(−1.89)	(17.70)	(27.21)	(4.86)	(9.87)
Observations	24202	38962	40948	40948	40948	40948	40948	40948
Mean dep. var. pre	47.59	5.23	0.29	0.23	0.18	0.02	0.03	0.00
Panel C: Hirings vs. Separations								
PE × Post (0-2y) × Hirings	0.53	0.03	0.01	−0.03**	0.03*	−0.01***	0.01**	0.01***
	(1.16)	(0.53)	(0.62)	(−2.41)	(1.80)	(−2.68)	(1.99)	(6.29)
PE × Post (3-4y) × Hirings	0.45	−0.05	−0.02	0.01	−0.07***	−0.08***	−0.01	−0.00
	(0.97)	(−0.98)	(−1.29)	(0.81)	(−4.50)	(−12.58)	(−1.06)	(−1.75)
Observations	56126	90701	94978	94978	94978	94978	94978	94978
Mean dep. var. pre	46.22	5.26	0.29	0.22	0.22	0.02	0.04	0.00

Table 11: Heterogeneity

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group, estimated separately for subsamples defined by deal characteristics. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the number of hierarchy layers. For detailed variable definitions see Appendix A.1. The coefficients are estimated from equation (1). We split the sample by: growth strategy type, i.e. buy & build platforms and standalone companies (Columns 1-2), industry (Manufacturing and Services, Column 3-4), employment growth pre-deal (above and below median growth between $t-2$ and $t-1$, Column 5-6), employment growth g post-deal ($g \geq 0$ or $g < 0$ between $t+1$ and $t+4$ (Column 7-8), and by exit type (Columns 9-12). The period one year before the PE Buyout, $t-1$, is the omitted reference period. Employment controls include ln Employees (t-1), its square, its cube, and employment growth over 12 months. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable:	Number of hierarchies											
Sample breakdown by:	Growth type		Industry		Pre-LBO growth		Post-LBO growth		Exit type			
	Buy & build platform (inorganic)	Standalone PE Buyout (organic)	Manufac-turing	Services	High	Low	Growth (g>=0)	Decline (g<0)	IPO	M&A (strat. acquirer)	Secondary (fin. acquirer)	Bankruptcy
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
PE x t-4	−0.00	0.02	0.03	0.00	−0.00	0.02*	0.01	0.00	−0.09	0.02	0.01	0.07
	(−0.03)	(1.22)	(1.58)	(0.16)	(−0.04)	(1.84)	(1.00)	(0.12)	(−1.45)	(0.84)	(0.96)	(1.39)
PE x t-3	−0.00	0.00	0.01	−0.01	−0.00	0.00	0.00	−0.01	−0.07	0.01	0.01	0.02
	(−0.45)	(0.17)	(0.81)	(−0.59)	(−0.21)	(0.26)	(0.26)	(−0.80)	(−1.29)	(0.36)	(0.78)	(0.58)
PE x t-2	−0.00	−0.00	0.01	−0.01	0.00	−0.01	−0.00	−0.01	−0.01	0.00	−0.00	0.02
	(−0.42)	(−0.36)	(1.20)	(−0.97)	(0.23)	(−1.27)	(−0.10)	(−1.05)	(−0.30)	(0.21)	(−0.19)	(0.90)
PE x t=0	0.16***	0.15***	0.22***	0.13***	0.17***	0.15***	0.18***	0.12***	0.09*	0.15***	0.15***	0.20***
	(14.30)	(13.49)	(13.87)	(13.64)	(13.63)	(14.51)	(18.77)	(7.44)	(1.77)	(8.27)	(12.73)	(3.93)
PE x t+1	0.21***	0.18***	0.25***	0.16***	0.21***	0.18***	0.24***	0.09***	0.02	0.20***	0.20***	0.18***
	(16.14)	(13.41)	(13.83)	(14.62)	(15.17)	(14.13)	(22.28)	(5.17)	(0.31)	(9.56)	(14.14)	(3.27)
PE x t+2	0.22***	0.19***	0.28***	0.17***	0.22***	0.19***	0.26***	0.10***	0.04	0.20***	0.22***	0.20***
	(16.25)	(13.53)	(14.14)	(14.55)	(14.69)	(14.20)	(22.76)	(5.08)	(0.70)	(9.11)	(14.27)	(3.33)
PE x t+3	0.22***	0.19***	0.28***	0.17***	0.21***	0.18***	0.27***	0.07***	0.06	0.17***	0.22***	0.16**
	(15.65)	(12.50)	(13.87)	(13.70)	(13.87)	(12.99)	(22.53)	(3.45)	(0.99)	(7.39)	(13.97)	(2.48)
PE x t+4	0.23***	0.19***	0.28***	0.17***	0.21***	0.19***	0.28***	0.09***	0.07	0.17***	0.22***	0.17**
	(15.50)	(12.38)	(13.38)	(13.76)	(13.45)	(12.98)	(22.07)	(3.95)	(1.00)	(7.06)	(13.53)	(2.58)
Employment controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	83320	100386	50759	122735	92333	91373	136467	47239	2549	40581	71684	4751
R-squared	0.93	0.93	0.93	0.93	0.92	0.94	0.93	0.94	0.94	0.93	0.92	0.95
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	5.86	5.25	5.25	5.71	5.58	5.47	5.52	5.55	6.34	5.44	5.80	5.40
Mean firm age	27.15	28.65	36.09	24.82	21.51	34.57	27.57	29.09	29.38	26.80	29.00	36.35
Mean holding period									4.03	4.92	3.75	3.96

Table 12: Effects on Hierarchies Around PE Exit

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group, estimated around the *exit* from PE Buyout ownership rather than the PE Buyout entry event. Firms are matched on industry (50 categories), employment, employment growth, public listing status, and hierarchical structure (dummies of existence of layers and employment shares of layers) before the exit. The dependent variable is the number of hierarchy layers. For detailed variable definitions see Appendix A.1. The coefficients are estimated from equation (1) with time indexed relative to the exit event. The sample is split by exit type: all exits (Column 1), secondary buyout (Column 2), IPO (Column 3), M&A (Column 4), and bankruptcy (Column 5). The period one year before the exit, $t-1$, is the omitted reference period. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Number of hierarchies				
Sample:	All exits	Secondary exit	IPO exit	M&A exit	Bankruptcy
	(1)	(2)	(3)	(4)	(5)
Exit from PE x t-4	0.00	−0.00	0.01	0.02	−0.08
	(0.07)	(−0.15)	(0.14)	(0.79)	(−1.38)
Exit from PE x t-3	0.01	0.00	0.03	0.04*	−0.05
	(1.11)	(0.18)	(0.54)	(1.92)	(−1.03)
Exit from PE x t-2	0.01	0.01	0.02	−0.00	0.02
	(1.10)	(1.37)	(0.48)	(−0.29)	(0.60)
Exit from PE x t=0	0.03***	0.05***	0.02	−0.02	−0.04
	(2.60)	(4.33)	(0.56)	(−1.00)	(−0.89)
Exit from PE x t+1	−0.00	0.05***	0.01	−0.11***	−0.08
	(−0.36)	(3.38)	(0.23)	(−4.77)	(−1.20)
Exit from PE x t+2	0.01	0.07***	−0.01	−0.09***	−0.09
	(0.84)	(4.30)	(−0.18)	(−3.86)	(−1.38)
Exit from PE x t+3	0.00	0.06***	−0.04	−0.10***	−0.04
	(0.19)	(3.21)	(−0.60)	(−3.83)	(−0.63)
Exit from PE x t+4	−0.01	0.04**	−0.04	−0.09***	−0.04
	(−0.52)	(2.08)	(−0.47)	(−3.47)	(−0.64)
Controls					
ln Employees (t-1)	3.52***	3.73***	3.26***	3.37***	2.89***
	(68.39)	(52.41)	(6.88)	(38.14)	(17.55)
ln Employees (t-1)^2	−0.48***	−0.53***	−0.45***	−0.45***	−0.34***
	(−40.48)	(−32.92)	(−4.92)	(−20.16)	(−8.61)
ln Employees (t-1)^3	0.02***	0.02***	0.02***	0.02***	0.01***
	(26.37)	(22.48)	(3.80)	(11.77)	(4.78)
Employment growth 12m	0.06***	0.07***	−0.03	0.04**	0.07*
	(5.59)	(4.94)	(−0.39)	(2.46)	(1.89)
Observations	85620	51883	1889	27336	4512
# deals	4787	2893	105	1535	254
R-squared	0.93	0.92	0.94	0.94	0.95
Firm FE	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes
Mean dependent var	5.91	6.08	6.61	5.62	5.45

Internet Appendix for

Private Equity and the Organization of Firms

Contents

A.1 Variable Definitions

The table reports variable definitions. All variables are measured at the firm–month level unless otherwise noted. Data from Revelio Labs are matched to private equity deal–level information from PitchBook. Employees are assigned to hierarchical layers based on the Revelio Labs seniority layer, which ranges from $\ell = 1$ (lowest) to $\ell = 7$ (highest). We further group layers into three levels: rank-and-file ($\ell \in \{1, 2\}$), middle management ($\ell \in \{3, 4, 5\}$), and top management ($\ell \in \{6, 7\}$). We also classify employees into horizontal functions f (e.g., product-related (R&D, Sales, Marketing, Engineering), administrative (Admin, Finance, General Management), and in-between (Operations)) based on the Revelio Labs job category taxonomy. Unless otherwise noted, all variables that are reported at the aggregate firm level are also computed separately by layer ℓ, by management level, and by function f within the firm.

Variable	Definition
Employment	
Employees	Total number of employees in the firm.
Employment growth (12m)	Twelve-month employment growth rate using the Davis–Haltiwanger–Schuh (DHS) midpoint employment growth formula: $g_t = \frac{E_t - E_{t-12}}{\frac{1}{2}(E_t + E_{t-12})}$.
Hirings	Number of employees newly hired at the firm in a given month.
Firings	Number of employees separated from the firm in a given month.
Turnover (12m)	Twelve-month rolling turnover rate: $\text{Turnover}_t = \frac{\sum_{s=t-11}^{t}(H_s + F_s)\,/\,2}{\frac{1}{2}(E_t + E_{t-12})}$ where H_s and F_s denote hirings and firings in month s, and E_t denotes employment in month t.
Replacement (12m)	Twelve-month rolling replacement rate: $\text{Replacement}_t = \frac{\min\left(\sum_{s=t-11}^{t} H_s, \sum_{s=t-11}^{t} F_s\right)}{\frac{1}{2}(E_t + E_{t-12})}$ The numerator captures worker flows that constitute direct replacements–positions that are both vacated and refilled.
Hierarchy	
Number of hierarchies	Number of filled hierarchical layers in the firm, ranging from 1 to 7. A layer is counted as filled if the firm has at least one employee in that layer.
Filled layer ℓ? (0/1)	Indicator equal to one if the firm has at least one employee in layer ℓ, and zero otherwise.
Employment share of layer ℓ	Employees in layer ℓ divided by total employees.
Control span of layer ℓ	Total employees in all layers below ℓ divided by employees in layer ℓ. Only defined for $\ell = 2, \ldots, 7$.
Firm functions	
Employment share of function f	Employees in function f divided by total employees. Functions: General management, Finance, Admin. (administrative); Operations (in-between); Sales & Marketing, R&D, Engineering (product-related).

Continued on next page

Appendix A.1 (continued)

Variable	Definition
Has CXO? (0/1)	Indicator equal to one if the firm has at least one employee whose title matches the respective C-suite role, and zero otherwise. Defined for CEO (*Executive*), CFO (*Financial*), COO (*Operating*), CTO (*Technology*), CHRO (*Human Resources/People/Talent*), CIO (*Information*), CLO (*Legal*), CAO (*Administrative*), CPO (*Product*), CMO (*Marketing*), and CSRO (*Sales/Revenue/Growth*). Each role is identified via keyword search, including all job titles containing "Chief" and "Officer", as well as standalone 3–4 letter words beginning with "C" and ending with "O" (to capture, e.g., CEO, CFO, but also "President and CEO"). We group functionally equivalent variants under a single indicator, e.g. Sales/Revenue/Growth.
Has any other CXO? (0/1)	Indicator for any chief officer title not in the list above.
# Chief Officers	Count of distinct C-suite positions filled at the firm.
Individual characteristics	
Age	Age of the individual in years, computed by assuming age 18 at high-school graduation, age 23 at college graduation, or age 26 at post-graduate education, whichever is available. Firm-level averages are computed across employees within the firm.
Experience	Years of work experience of the individual, measured as years since the employee's earliest observed job position or earliest graduation date, whichever comes first. Firm-level averages are computed across employees within the firm.
Education	Categorical education level: 1 = high school, 2 = bachelor's, 3 = master's / MBA, 4 = doctoral.
Total compensation	Total compensation per employee, taken from Revelio's expected-compensation algorithm, which is based on job position, firm, and individual career background. Firm-level averages are computed as $\frac{1}{E_t}\sum_{i\in E_t} w_{it}$, where w_{it} is the compensation of employee i in month t.
MBA (0/1)	Indicator for whether the employee holds an MBA degree.
IT skill (0/1)	Indicator for whether the employee was previously observed in an occupation classified under SOC major group 15 (Computer and Mathematical Occupations), based on Revelio's mapping of standardized roles to O*NET / SOC 2018 occupations.
Seniority in prior position	Hierarchy layer (1–7) of the individual's most recent position.
PE-backing experience (0/1)	Indicator for whether the individual was previously employed at any PE-backed portfolio firm.
PE-backing experience w/ deal GP (0/1)	Indicator for whether the individual was previously employed at a portfolio firm backed by the GP of the focal deal.
PE-firm experience (0/1)	Indicator for whether the individual was previously employed at a private-equity firm itself (i.e., the GP / advisor), as distinct from a portfolio firm.
PE-firm experience w/ deal GP (0/1)	Indicator for whether the individual was previously employed at the GP of the focal deal.

A.2 Firm Matching and Dataset Linkage Procedures

This appendix describes the procedures used to link firms across the five datasets used in the analysis: Revelio Labs, PitchBook, Refinitiv IPO, Refinitiv M&A, and Orbis M&A. Because these databases do not share a universal firm identifier, we implement a structured entity-matching procedure based on standardized identifiers, hierarchical matching rules, and score-based validation.

The matching procedure consists of three steps. First, firm identifiers are standardized across datasets to ensure comparability. Second, candidate matches are generated using a hierarchical matching procedure that prioritizes LinkedIn identifiers, corporate websites, and company names, which are the most reliable firm-level identifiers available across databases. Third, candidate pairs are evaluated using a scoring algorithm and the highest-quality match is selected. The aggregate similarity score captures the primary evidence linking firms across datasets and therefore serves as the first-order criterion for match selection, as it reflects agreement in the most informative identifiers. The secondary validation score provides additional confirmation based on geographic, temporal, and industry information, which are useful for distinguishing firms with similar names but are less reliable as primary identifiers. Accordingly, the validation score is used only to rank candidate matches with similar aggregate scores rather than to impose an independent threshold.

I. Standardization of Firm Identifiers

Before matching firms across datasets, we standardize key identifiers to ensure comparability across sources. Corporate website URLs are normalized by converting all text to lowercase, removing prefixes such as "www", enforcing a consistent protocol format (e.g., converting HTTPS to HTTP), removing default ports, and eliminating trailing slashes. Company names are standardized by converting text to lowercase, removing punctuation and non-ASCII characters, and replacing common abbreviations (for example, "ltd" is replaced by "limited"). Because firms may appear under multiple names across datasets, we retain and standardize all available name variants, including legal names, historical names, aliases, and short names. Geographic identifiers such as country, state, and city are harmonized using consistent naming conventions.

II. Hierarchical Firm Matching

Firms are matched across datasets using a hierarchical procedure that sequentially applies identifiers with decreasing specificity. The algorithm first attempts to match firms using LinkedIn company URLs and corporate websites, which typically correspond to unique firm entities. When these identifiers are unavailable, the procedure relies on company names. Because firms often appear under multiple name variants across datasets, the algorithm compares all available versions of corporate names across candidate pairs. Let N_i denote the set of standardized names associated with firm i and N_j denote the set associated with firm j. The name similarity score is defined as $\text{NameScore}_{ij} = \max_{n \in N_i, m \in N_j} \text{sim}(n, m)$, where $\text{sim}(\cdot)$ denotes the fuzzy string similarity metric.

III. Aggregate Matching Score

For each candidate firm pair (i, j) we compute an aggregate similarity score summarizing the primary evidence linking the two firms:

$$\text{AggScore}_{ij} = S_{ij}^{\text{LinkedIn}} + S_{ij}^{\text{Website}} + S_{ij}^{\text{Name}}.$$

The components are defined as follows. The LinkedIn component equals $S_{ij}^{\text{LinkedIn}} = 1$ if LinkedIn URLs match and -1 otherwise. The website component equals $S_{ij}^{\text{Website}} = 1$ if corporate websites match, -1 if websites conflict, and 0 if one or both websites are missing. The name component equals $S_{ij}^{\text{Name}} = 1$ if $\text{NameScore}_{ij} \geq \tau$ and 0 otherwise. Candidate matches are retained only if $\text{AggScore}_{ij} > 0.85$.

IV. Secondary Validation Score

To further distinguish firms with similar names, we compute a validation score based on geographic location, founding year, and industry classification:

$$\text{SubScore}_{ij} = S_{ij}^{\text{Location}} + S_{ij}^{\text{Year}} + S_{ij}^{\text{Industry}}.$$

The location component is defined as $S_{ij}^{\text{Location}} = 0.75\, I(\text{country match}) + 0.50\, I(\text{state match}) + 0.25\, I(\text{city match})$, where $I(\cdot)$ denotes an indicator function. The founding-year component equals $S_{ij}^{\text{Year}} = 0.5$ if founding years match and -0.5 otherwise. The industry component equals $S_{ij}^{\text{Industry}} = 1$ if NAICS codes match and -1 otherwise.

V. Final Match Selection

After applying the aggregate score threshold, a firm may still have multiple candidate matches. The final match is selected by ranking candidate pairs according to $\max_j \text{AggScore}_{ij}$. If multiple candidates share the same aggregate score, ties are broken using $\max_j \text{SubScore}_{ij}$. The candidate with the highest aggregate score and, conditional on that, the highest validation score is selected as the final match.

VI. Linking IPO and M&A Transactions

We link PitchBook firms to the Refinitiv IPO database using the matching procedure described above. Candidate pairs are first restricted to observations with identical headquarters country. Corporate websites and company names are then compared across datasets, and matches are retained only if the aggregate similarity score exceeds the threshold.

To identify acquisition events, we combine transaction data from the Refinitiv M&A and Orbis M&A databases. Two additional filters are applied to ensure that transactions correspond to strategic acquisitions rather than financial sponsor deals. First, we exclude transactions in which the acquiring firm is a financial investor or the deal is classified as a financial sponsor transaction. Second, we restrict the sample to transactions representing a transfer of corporate control; a deal is included only when the ownership stake acquired is at least 50% or when the transaction description explicitly indicates that the acquirer obtained majority shares. For acquisition events, we combine Refinitiv and Orbis M&A databases because each source captures transactions that may be missing in the other, allowing us to improve coverage of exit outcomes while maintaining consistent identification of control-changing acquisitions.

VII. Final Linked Dataset

Applying the procedures described above produces a unified dataset linking firm-level organizational information from Revelio with private equity transactions from PitchBook and exit outcomes from Refinitiv IPO and the M&A databases. The hierarchical matching procedure combined with score-based validation ensures consistent firm identifiers across databases while minimizing false matches arising from naming inconsistencies or changes in corporate structure.

A.3 Is the Top-of-Hierarchy Expansion Driven by LinkedIn Coverage? A Check Using Archived Corporate Websites

Motivation

Our main results document a post-buyout expansion of the top of the firm hierarchy: more top-layer employees, a higher management employment share, and narrower spans of control at the top (Tables 4, A15, and A16). A natural concern is that these findings are an artifact of measurement rather than of organization. The measurement concern is specifically: if private equity acquirers systematically install executives who are more likely than incumbents to maintain a LinkedIn profile, the apparent increase in top-layer headcount in LinkedIn data would reflect improved *coverage* of top management, not a genuine reshaping of the firm. Because our hierarchy measures are constructed from LinkedIn/Revelio Labs employment records, any differential improvement in LinkedIn coverage at the top of PE-backed firms would mechanically bias the paper's main coefficients upward.

This appendix addresses the concern directly. We construct an independent, non-LinkedIn measure of who sits at the top of each firm by retrieving the firm's own archived "Leadership," "Executive," or "Team" webpage from the Internet Archive. Using this website-based management team as ground truth, we (i) quantify the post-buyout change in LinkedIn coverage of top management, and (ii) re-estimate the paper's main employment-share regressions after deflating the LinkedIn data by the measured coverage change. The adjustment is conservative: the coverage gain is estimated on website-verified C-suite executives—a CEO-heavy group—but is applied to the firm's entire top layer, which also contains many lower-ranked roles (VPs, SVPs, directors, general managers) whose LinkedIn presence is far less likely to respond to a change in ownership. Deflating the full top layer by this CEO-driven rate therefore likely over-corrects, biasing the adjusted estimates *against* our baseline findings. The paper's central organizational result survives these tests.

Data: Archived Leadership Pages

For each of the 10,239 PE-backed firms and matched controls in our sample, we retrieve archived snapshots of the firm's corporate website from the Internet Archive (Wayback Machine) in three reference years around the buyout: $t = -1$, $t = +1$, and $t = +2$. Starting from the homepage, we follow internal hyperlinks up to depth 2 within the same domain, which is the structural location of leadership pages on a typical corporate site (e.g. "About" $\rightarrow$ "Leadership" or "Company" $\rightarrow$ "Management Team"). A page is identified as a leadership page on the basis of its URL and anchor text together with a content-based rule that requires the co-occurrence of multiple executive titles and multiple distinct person names. From each identified page we extract name–title pairs directly from the HTML, imposing strict co-location of name and title within the same local block (table row, card, or paragraph) and restricting attention to C-suite roles: CEO, CFO, COO, CTO, CIO, CHRO, CLO, CAO, CMO, CPO, CSRO, and any other "Chief ... Officer".

Coverage of Archived Leadership Pages

Table A2 summarizes the coverage of the archived-website data and the correspondence between website-listed C-suite positions and LinkedIn. Overall, we find at least one historic team-website for 4,229 firms. We retrieve a usable leadership page for a broadly similar number of treated and control firms in the pre-period ($t = -1$: 1,058 treated versus 1,114 controls). Post-buyout, leadership website coverage rises modestly for the control group and noticeably more for treated

firms. The number of C-suite positions disclosed on the treated firms' pages rises from 1.05 per firm pre-buyout to 1.55 per firm by $t = +2$; the control group rises from 1.00 to 1.16. Crucially, the share of these website-listed C-suite positions that are independently verifiable on LinkedIn rises from 766/1,115 $\approx$ 69% pre-buyout to 1,509/2,049 $\approx$ 74% by $t = +2$ in the treated group, while remaining essentially flat (69% $\rightarrow$ 69%) in the control group. The same pattern shows up at the firm level (last row): mean LinkedIn coverage rises from 65.5% to 71.7% for treated firms and stays near 66% for controls. These descriptive patterns are consistent with a modest post-buyout improvement in LinkedIn coverage of senior management, which is precisely the bias channel we want to quantify.

Table A2: Leadership Team Website Coverage and C-Suite Position Counts Around Private Equity Buyouts

This table reports counts of sample firms with identifiable leadership or executive team pages on their historical corporate websites, the number of C-suite positions disclosed on those pages, and the subset of those positions that are also verifiable on LinkedIn. Statistics are reported for private equity-backed firms ("Treated") and matched control firms ("Control") in the year before the buyout ($t = -1$) and in the first two years following the buyout ($t = +1$; $t = +2$). The sample consists of the 10,239 firms in our main sample and their matched controls. "Firms with leadership page" reports the count of firms where a leadership team was identified in the internet archive. "C-suite positions on website" reports the total number of positions listed on those pages that are classified as C-suite (CEO, CFO, COO, CTO, CIO, CHRO, CLO, CAO, CMO, CPO, CSRO), identified via regex matching on position titles; the "per firm" row divides this total by the count of firms with a leadership page. "C-suite positions also found on LinkedIn" restricts to the subset of these website-listed positions for which a matching LinkedIn record is found in the same firm and year—the website listing serves as the ground truth against which LinkedIn coverage of C-suite positions is benchmarked. "LinkedIn coverage (%)" is the mean share of a firm's website-based C-suite executives for which a LinkedIn profile is identified in the Revelio Labs data.

	Pre ($t = -1$)		Post1 ($t = +1$)		Post2 ($t = +2$)	
	Control (1)	Treated (2)	Control (3)	Treated (4)	Control (5)	Treated (6)
Firms with leadership page	1,114	1,058	1,227	1,294	1,121	1,320
C-suite positions on website	1,116	1,115	1,349	1,708	1,302	2,049
per firm	1.00	1.05	1.10	1.32	1.16	1.55
C-suite positions also found on LinkedIn	768	766	912	1,225	898	1,509
per firm	0.69	0.72	0.74	0.95	0.80	1.14
LinkedIn coverage (%, mean)	66.75	65.50	66.59	69.63	65.71	71.67

Regression Evidence on LinkedIn Coverage of Website-Listed Executives

Table A3 formalizes the descriptive patterns in the difference-in-differences framework of Equation (1). For each C-suite role and each firm-year (i, t) for which a website-listed person in role r is observed, we estimate a linear probability model with an indicator for whether the same individual also appears in the LinkedIn data. All regressions include firm and event-time fixed effects, and standard errors are clustered at the firm level. Results are reported in Columns (1)-(12). Column (13) is the analogous regression on the firm-level share of website-listed C-suite executives covered by LinkedIn, in percent.

The coefficient of interest is the aggregate coverage gain in column (13): website-listed C-suite executives at PE-backed firms are +4.4 percentage points more likely to be observed on LinkedIn at $t = +1$ and +5.1 percentage points more likely at $t = +2$, against a pre-buyout mean of 65.9%. This corresponds to a relative coverage gain at the top of approximately $5/66 \approx 8\%$. At the role-by-role level, the effect is concentrated in the CEO coefficient (significant at $t = +1$ and $t = +2$), consistent with the interpretation that it is newly installed top executives–whose public visibility and LinkedIn presence are higher–that drive the coverage change. In the remaining 11 roles we find no evidence of a linkedin-coverage increase, if anything, coefficients are mostly negative without being statistically significant. We take the $\delta \approx 8\%$ aggregate coverage gain as the input to the adjustment exercise below.

A Layer-Wise Coverage Adjustment

We use the estimate in column (13) of Table A3 to construct an adjustment that directly nets the coverage channel out of the paper's main regressions. Let $E_{i\ell,t}$ denote the observed (LinkedIn-measured) employment count of firm i at layer $\ell \in \{1, \ldots, L\}$ with $L = 7$ and event time t. We define an adjusted employment count

$$\tilde{E}_{i\ell,t} = \frac{E_{i\ell,t}}{1 + \delta \cdot \dfrac{\ell - 1}{L - 1}} \quad \text{if } PE_i = 1 \text{ and } t \geq 0, \qquad \tilde{E}_{i\ell,t} = E_{i\ell,t} \text{ otherwise,} \tag{3}$$

where $\delta = 0.08$ is the estimated relative LinkedIn-coverage gain at the top of PE-backed firms from Table A3, column (13). The layer-wise weight $(\ell - 1)/(L - 1)$ calibrates the per-layer discount to the top: at $\ell = 7$ the discount is the full 8.0%; at $\ell = 6$, $\approx$ 6.7%; at $\ell = 5$, $\approx$ 5.3%; at $\ell = 4$, 4.0%; at $\ell = 3$, $\approx$ 2.7%; at $\ell = 2$, $\approx$ 1.3%; and at $\ell = 1$ (rank-and-file) the discount is zero. The motivation for the linear schedule is that the coverage-bias concern operates through PE-installed senior executives; the further down the hierarchy one goes, the weaker the link between PE hiring and LinkedIn visibility, and at the bottom of the firm there is no reason to expect PE ownership to change the probability that a given worker has a LinkedIn profile.

The adjustment is conservative. The coverage gain $\delta = 0.08$ in Table A3, column (13), is estimated on website-verified C-suite executives and is identified primarily by the CEO coefficient. However, we apply this rate uniformly to the firm's entire top layer, which also contains other C-suite roles, for which, as we document, we can find no LinkedIn presence increase. Since the true coverage gain for the broader top-layer population is smaller than the CEO-driven estimate, deflating the full top layer by δ over-corrects and biases the adjusted top-layer estimates against the baseline. The taper to zero at the bottom reflects the same conservative spirit: by modeling the LinkedIn coverage increase to be stornger at the top is biasing against our results (compared to modeling it more uniformly across all layers of PE-backed companies).

Main Check: Coverage-Adjusted Employment Share by Layer

Table A4 re-estimates the paper's employment-share regression (Figure 6, Table A15) using $\tilde{E}$ in place of E. The specification, sample (10,239 deals and their matched controls), and control variables are unchanged; only the dependent variables are recomputed from the adjusted employment counts.

The effect on the top of the hierarchy is attenuated but overwhelmingly preserved. At $t = +4$, the top-layer (Layer 7) employment-share effect falls from +0.96 pp in the baseline to +0.78 pp once coverage is netted out–about four-fifths of the baseline magnitude, still highly significant

Table A3: LinkedIn Presence of Website-Listed C-Suite Executives Around Private Equity Buyouts

This table reports firm-level difference-in-differences regressions of LinkedIn presence of website-listed C-suite executives at target firms relative to the matched control group. The sample is restricted to firm–year observations for which the corresponding executive title ("CXO") is identified on the firm's archived leadership page, retrieved from the Internet Archive (see Table A2 for sample construction). In columns (1)–(12) the dependent variable is an indicator equal to one if the website-listed individual in the respective role is also observed in the LinkedIn data at the same firm in the same year. In column (13) the dependent variable is the firm-level share (in percent) of website-listed C-suite executives covered by LinkedIn. All specifications include firm and event-time fixed effects. The period one year before the PE buyout, $t = -1$, is the omitted reference period. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. A "." indicates that the coefficient is not identified because the outcome has no within-firm variation in the relevant cell.

Sample:	Conditional on finding the corresponding "CXO" on the archived leadership page												
Dependent variable:	CEO on LinkedIn? (0/1)	CFO on LinkedIn? (0/1)	COO on LinkedIn? (0/1)	CTO on LinkedIn? (0/1)	CIO on LinkedIn? (0/1)	CMO on LinkedIn? (0/1)	CHRO on LinkedIn? (0/1)	CSRO on LinkedIn? (0/1)	CLO on LinkedIn? (0/1)	CAO on LinkedIn? (0/1)	CPO on LinkedIn? (0/1)	other CXO on LinkedIn? (0/1)	Share Chief Officers on LinkedIn (%)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
PE × $t+1$	0.04*	−0.02	−0.05	−0.08	−0.13	−0.13	.	−0.22	.	.	0.09	−0.09**	4.41**
	(1.82)	(−0.61)	(−1.00)	(−0.99)	(−0.89)	(−0.61)	(.)	(−1.19)	(.)	(.)	(0.98)	(−2.03)	(1.97)
PE × $t+2$	0.06**	−0.03	0.01	−0.16	−0.10	−0.15	.	−0.32	.	.	0.28	−0.07	5.09**
	(2.19)	(−0.66)	(0.20)	(−1.62)	(−0.54)	(−0.56)	(.)	(−1.41)	(.)	(.)	(1.60)	(−1.56)	(1.97)
Observations	2,221	832	579	295	132	81	79	73	35	30	51	354	2,608
# firms	970	373	261	134	60	36	36	36	16	13	24	162	1,138
R-squared	0.90	0.90	0.89	0.86	0.86	0.85	1.00	0.88	1.00	1.00	0.89	0.95	0.87
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var., PE=1, $t=-1$	0.71	0.68	0.60	0.83	0.80	0.86	0.83	0.80	0.60	0.75	1.00	0.84	65.87
Mean dep. var., PE=1, $t=+1$	0.76	0.75	0.62	0.75	0.74	0.75	0.76	0.76	0.50	0.62	0.92	0.72	70.72
Mean dep. var., PE=1, $t=+2$	0.73	0.76	0.67	0.71	0.69	0.72	0.73	0.67	0.60	0.71	0.89	0.75	70.23

($t = 8.95$), and economically large relative to the pre-period mean of 3.06%. The Layer 6 effect (+0.56 vs. baseline +0.63) and the Layer 5 effect (+1.18 vs. baseline +1.53) follow the same pattern: modest attenuation, clear preservation. The displacement from the bottom of the firm is likewise preserved: the Layer 1 effect at $t = +4$ moves from −2.25 pp (baseline) to −1.75 pp (adjusted), remaining highly significant. Pre-period coefficients are small and centered on zero, consistent with the parallel-trends assumption. The central organizational finding of the paper–top and upper-middle layers expand, rank-and-file layer contracts–is robust under the conservative coverage-bias correction.

Stress Test: Coverage Adjustment on the Archived-Website Subsample

We now go further to a maximum stress test. In addition to the coverage deflator in equation (3), we limit the regression sample to the 66,122 firm-year observations that belong to firms found in the web archive–that is, firms for which we successfully retrieved an archived leadership page in at least one event year. This is the most stringent specification we can run: the coverage adjustment is applied only on the subsample where the coverage change is derived from. The results are reported in Table A5.

The qualitative picture is unchanged. Top and upper-middle layers expand significantly at every post-buyout horizon (Layer 7: +0.47 pp at $t = +4$, $t \approx 3.6$; Layers 5–6 similarly significant and positive), and the bottom layer contracts (Layer 1: −0.52 pp at $t = +4$, $t \approx -2.0$). The top-layer coefficient is smaller in magnitude than in Table A4, and the reason makes this sample a particularly demanding test. Firms with an archived leadership page are systematically larger than the average firm in our main sample: mean (median) pre-deal employment is 287 (75) in the archived-website subsample versus 223 (38) in the main sample. Even though being larger, the selected firms also have relatively *more* top management: the pre-period top-layer share is 3.32% here versus 3.06% in the full sample. So, in this special website-sample, there is less room for a proportional expansion at the top, yet we still find a significant and economically meaningful effect after the coverage correction. Unreported results re-estimating the control-span regression (Table A16) on the same restricted subsample and with the same coverage adjustment deliver the same qualitative conclusion: the narrowing of control spans at the top is preserved (top-layer coefficient ≈ -0.09 log points at $t = +4$). Taken together, Tables A4 and A5 establish that the paper's main organizational result is not an artifact of LinkedIn coverage: the top of the firm expands, the bottom shrinks, and spans of control at the top narrow, both under the layer-wise coverage deflator alone and under the combined, strictest joint restriction.

Summary

The concern that the paper's main hierarchy result is driven by LinkedIn coverage at the top of PE-backed firms is real but small. Using an independent, non-LinkedIn benchmark–the firm's own archived leadership page–we estimate a post-buyout LinkedIn-coverage gain at the top of roughly 5.1 percentage points, an approximate 8% relative gain to a 66% baseline. Deflating the main regressions by this estimate, layer by layer and only for the PE-treated, attenuates the top-layer employment-share effect by about one-fifth in the full sample and by more (as expected) in the highly selected team-website subsample. In both specifications–as well as in unreported analogous adjustments to the control-span regression–the central organizational finding of the paper is preserved: after a PE buyout, top and upper-middle layers of the firm expand, the bottom contracts, and spans of control at the top narrow. LinkedIn coverage bias at the top is a second-order phenomenon and does not overturn our conclusions.

Table A4: PE Buyout Effects on Employment Share by Layer — LinkedIn-Coverage Adjusted

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group, using the LinkedIn-coverage-adjusted employment counts $\tilde{E}_{i\ell,t}$ defined in equation (3). The matched control group consists of firms that never experienced a PE buyout ("never treated") and show no observable differences in firm organization in $t-1$. The dependent variable is the employment share (in %) of each hierarchy layer computed from the adjusted counts. The sample is the full panel of 10,239 deals and their matched controls, identical to Table A15. The coefficients are estimated from equation (1). The period one year before the PE buyout, $t-1$, is the omitted reference period. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Employment share (%) [LinkedIn-coverage adjusted]						
	Layer 7 (top)	Layer 6	Layer 5	Layer 4	Layer 3	Layer 2	Layer 1 (bottom)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	−0.19**	−0.00	−0.07	0.10	0.01	0.26	−0.12
	(−2.06)	(−0.01)	(−0.46)	(0.77)	(0.04)	(1.57)	(−0.66)
PE x t-3	−0.09	0.08	−0.00	−0.04	−0.04	0.08	0.02
	(−1.51)	(1.39)	(−0.04)	(−0.42)	(−0.45)	(0.61)	(0.17)
PE x t-2	−0.00	−0.01	−0.01	−0.11*	0.04	0.13*	−0.04
	(−0.07)	(−0.25)	(−0.09)	(−1.92)	(0.81)	(1.65)	(−0.48)
PE x t=0	0.68***	0.23***	0.75***	−0.32***	−0.26***	−0.47***	−0.61***
	(10.38)	(4.03)	(6.73)	(−3.55)	(−2.93)	(−3.84)	(−4.66)
PE x t+1	0.87***	0.39***	1.19***	−0.11	−0.30***	−0.66***	−1.39***
	(11.16)	(5.94)	(8.96)	(−1.00)	(−2.87)	(−4.59)	(−8.88)
PE x t+2	0.92***	0.47***	1.31***	−0.06	−0.20*	−0.72***	−1.71***
	(11.47)	(6.51)	(9.25)	(−0.48)	(−1.81)	(−4.59)	(−9.92)
PE x t+3	0.84***	0.51***	1.30***	−0.13	−0.10	−0.76***	−1.66***
	(10.16)	(6.55)	(8.72)	(−1.00)	(−0.83)	(−4.52)	(−9.02)
PE x t+4	0.78***	0.56***	1.18***	−0.05	0.01	−0.73***	−1.75***
	(8.95)	(7.01)	(7.45)	(−0.37)	(0.12)	(−4.20)	(−9.13)
Controls							
ln Employees (t-1)	−0.84	−1.59**	−1.36	−0.70	−1.75**	0.75	5.48***
	(−1.41)	(−2.55)	(−1.36)	(−0.81)	(−2.20)	(0.73)	(5.18)
ln Employees (t-1)^2	−0.13	0.20	0.08	0.19	0.49***	0.22	−1.05***
	(−0.98)	(1.44)	(0.35)	(0.97)	(2.79)	(0.97)	(−4.38)
ln Employees (t-1)^3	0.02*	−0.01	−0.00	−0.01	−0.04***	−0.03	0.07***
	(1.89)	(−1.13)	(−0.12)	(−0.98)	(−2.89)	(−1.62)	(4.11)
Employment growth 12m	0.98***	0.41***	−0.06	−0.80***	−0.40***	−0.62***	0.49**
	(7.06)	(3.72)	(−0.37)	(−5.71)	(−3.02)	(−3.40)	(2.54)
Observations	183,720	183,720	183,720	183,720	183,720	183,720	183,720
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	3.06	3.33	15.79	13.47	10.77	25.26	28.34

Table A5: PE Buyout Effects on Employment Share by Layer — LinkedIn-Coverage Adjusted, Archived-Website Subsample

This table replicates Table A4 on the subsample of firm–month observations for which an archived leadership page is identified in at least one event year (see Table A2 for the construction of the archived-website sample). Employment counts of PE-treated firms from event time $t \geq 0$ onward are adjusted by equation (3) prior to computing layer shares. The coefficients are estimated from equation (1) with firm and event-time fixed effects. The period one year before the PE buyout, $t-1$, is the omitted reference period. t-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Employment share (%) [LinkedIn-coverage adjusted]						
	Layer 7 (top)	Layer 6	Layer 5	Layer 4	Layer 3	Layer 2	Layer 1 (bottom)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	−0.06	0.05	−0.37*	0.23	0.06	−0.01	0.11
	(−0.41)	(0.37)	(−1.76)	(1.17)	(0.31)	(−0.03)	(0.43)
PE x t-3	−0.09	0.19*	−0.18	0.03	0.07	−0.11	0.11
	(−0.92)	(1.94)	(−1.13)	(0.18)	(0.48)	(−0.58)	(0.55)
PE x t-2	−0.06	0.08	−0.08	0.01	0.08	−0.01	−0.02
	(−1.10)	(1.50)	(−0.86)	(0.15)	(1.01)	(−0.09)	(−0.15)
PE x t=0	0.57***	0.15*	0.55***	−0.58***	−0.14	−0.37**	−0.17
	(5.82)	(1.89)	(3.54)	(−4.60)	(−1.17)	(−2.17)	(−0.96)
PE x t+1	0.54***	0.18*	0.69***	−0.30**	−0.33**	−0.26	−0.52**
	(4.73)	(1.83)	(3.72)	(−1.98)	(−2.21)	(−1.30)	(−2.47)
PE x t+2	0.54***	0.20*	0.83***	−0.19	−0.32**	−0.39*	−0.65***
	(4.40)	(1.78)	(4.05)	(−1.14)	(−2.04)	(−1.80)	(−2.82)
PE x t+3	0.51***	0.21*	0.84***	−0.33*	−0.26	−0.32	−0.64**
	(4.21)	(1.78)	(3.90)	(−1.88)	(−1.58)	(−1.36)	(−2.55)
PE x t+4	0.47***	0.32**	0.65***	−0.33*	−0.12	−0.47*	−0.52**
	(3.62)	(2.57)	(2.85)	(−1.74)	(−0.68)	(−1.90)	(−2.00)
Controls							
ln Employees (t-1)	−3.67***	−1.58	1.31	0.12	−3.28**	1.98	5.13***
	(−3.05)	(−1.29)	(0.73)	(0.08)	(−2.28)	(1.15)	(2.90)
ln Employees $(t\text{-}1)^2$	0.36	0.16	−0.54	0.08	0.83***	0.07	−0.98**
	(1.41)	(0.62)	(−1.38)	(0.26)	(2.68)	(0.19)	(−2.56)
ln Employees $(t\text{-}1)^3$	−0.01	−0.01	0.04	−0.01	−0.06***	−0.02	0.06**
	(−0.52)	(−0.40)	(1.63)	(−0.38)	(−2.71)	(−0.84)	(2.28)
Employment growth 12m	1.23***	0.45**	−0.25	−0.52**	−0.46**	−0.51*	0.05
	(4.80)	(2.19)	(−0.98)	(−2.53)	(−2.18)	(−1.80)	(0.19)
Observations	66,122	66,122	66,122	66,122	66,122	66,122	66,122
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	3.32	3.99	16.47	13.73	11.41	25.73	25.36

A.4 Plausibility of the assignment of job titles

Table A6: Distribution of Example Job Titles Across Seniority Levels

The table reports the distribution of six benchmark job titles across the seven Revelio seniority levels, based on all 85 million active LinkedIn positions in the United States as of December 2020. Each column sums to 100%. The titles are identified by string search in the raw job title field.

	Share of occurrences at each seniority level (%)					
Layer	'CEO'	'CTO'	'Director of Engineering'	'Engineering Manager'	'Senior Software Engineer'	'Software Engineer'
7	94.5	91.0	0.0	0.0	0.0	0.0
6	5.3	0.5	10.2	0.0	0.0	0.0
5	0.0	8.3	89.4	50.4	3.7	0.0
4	0.0	0.0	0.2	48.9	11.9	0.3
3	0.2	0.2	0.1	0.5	30.4	8.8
2	0.0	0.1	0.0	0.2	54.0	90.2
1	0.0	0.0	0.0	0.0	0.0	0.7

Table A7: Distribution of Example Job Titles Across Job Functions

The table reports the distribution of seven benchmark job titles across Revelio job functions, based on all 85 million active LinkedIn positions in the United States as of December 2020. Each row sums to 100%. The titles are identified by string search in the raw job title field.

Job Category	Share of occurrences within job category (%)						
	'Administrative Assistant'	'Software Engineer'	'Financial Analyst'	'Marketing Manager'	'Logistics Coordinator'	'Sales Manager'	'Researcher'
Admin	90.3	0.9	0.0	1.0	0.0	0.8	6.4
Engineer	0.0	99.0	0.0	0.2	0.0	0.5	0.1
Finance	0.5	0.0	99.3	0.7	0.0	3.0	0.1
Marketing	0.6	0.0	0.0	90.1	0.0	0.6	0.2
Operations	0.7	0.0	0.6	0.1	99.6	0.5	0.0
Sales	6.6	0.0	0.0	7.7	0.3	94.4	0.0
Scientist	1.2	0.0	0.0	0.1	0.0	0.1	93.2

Table A8: Job Titles by Organizational Layer - Six-layer firms only

This table lists the five most frequent job titles for each organizational layer for all persons employed in US-based firms with six layers, as of December 2020. A six-layered firm is defined as having at least one employee in all six bottom seniority levels, that is, except the top level 7, as classified by Revelio Labs.

Layer	Frequency rank	Title	Count	Total persons in layer	Percentage share
7	#N/A	#N/A	#N/A	#N/A	#N/A
7	#N/A	#N/A	#N/A	#N/A	#N/A
7	#N/A	#N/A	#N/A	#N/A	#N/A
7	#N/A	#N/A	#N/A	#N/A	#N/A
7	#N/A	#N/A	#N/A	#N/A	#N/A
6	1	Partner	21,312		11.34
6	2	Principal	9,169		4.88
6	3	Managing Partner	4,781	187,983	2.54
6	4	Managing Director	4,621		2.46
6	5	Executive Director	4,199		2.23
5	1	President	19,012		2.67
5	2	Realtor	18,638		2.62
5	3	Adjunct Professor	15,965	710,929	2.25
5	4	General Manager	14,664		2.06
5	5	Director	12,267		1.73
4	1	Member	14,108		2.26
4	2	Consultant	10,540		1.68
4	3	Manager	10,455	625,588	1.67
4	4	Sales Manager	9,639		1.54
4	5	Vice President	9,044		1.45
3	1	Account Manager	13,880		2.47
3	2	Project Manager	11,578		2.06
3	3	Account Executive	8,250	562,961	1.47
3	4	Owner	7,291		1.30
3	5	Operations Manager	6,604		1.17
2	1	Project Manager	24,620		1.58
2	2	Registered Nurse	19,314		1.24
2	3	Software Engineer	15,174	1,559,193	0.97
2	4	Associate	13,794		0.88
2	5	Supervisor	10,613		0.68
1	1	Teacher	43,885		1.97
1	2	Administrative Assistant	25,341		1.14
1	3	Student	24,498	2,230,075	1.10
1	4	Sales Associate	17,639		0.79
1	5	Substitute Teacher	17,076		0.77
		Total		5,876,729	

A.5 Formal check of layer properties - replicating Caliendo et al. (2015)

Tables Table A9 to Table A13 present summary statistics of the compensation, education, and experience distributions by layer in the 2020 cross-section of US firms using Revelio data. This analysis replicates the layer property analysis of Caliendo et al. (2015). To make the analysis comparable, we re-map the 7 Revelio seniority levels into 4 Caliendo-comparable layers:

- Layer 4 (Top management) = seniority 6–7
- Layer 3 (Mid-management) = seniority 5
- Layer 2 (Supervisors) = seniority 3–4
- Layer 1 (Workers) = seniority 1–2

We find that education, experience, and compensation are all higher for higher layers.

Table A9: Distribution of compensation, education, and experience by layer (remapped)

This table is based on Table 1 in Caliendo et al. (2015). It reports mean and percentiles of career experience (in years), education, and total annual compensation (USD) for each of the 4 re-mapped layers in the 2020 cross-section of US firms. Education levels: 1 – High school or below; 2 – Bachelor's degree; 3 – Master's degree; 4 – PhD. Experience is counted from the first job entry date or earliest graduation date, whichever comes first.

(a) Experience (years), 2020 cross-section				
	Layer 1	Layer 2	Layer 3	Layer 4
mean	14.44	18.39	22.08	23.52
p5	2	4	6	7
p10	3	6	8	10
p25	6	10	14	15
p50	12	16	21	23
p75	20	25	29	31
p90	31	34	38	38
p95	37	40	43	43
N	52,989,320	18,618,648	10,653,154	3,513,015
(b) Education, 2020 cross-section				
	Layer 1	Layer 2	Layer 3	Layer 4
mean	1.45	1.64	1.70	1.76
p5	1	1	1	1
p10	1	1	1	1
p25	1	1	1	1
p50	1	1	1	2
p75	2	2	2	2
p90	2	3	3	3
p95	3	3	3	3
N	52,989,320	18,618,648	10,653,154	3,513,015
(c) Compensation, 2020 cross-section				
	Layer 1	Layer 2	Layer 3	Layer 4
mean	61,043	102,802	228,861	484,904
p5	11,638	16,780	44,937	66,271
p10	21,623	30,777	68,835	99,110
p25	35,960	64,562	129,563	239,285
p50	54,182	99,333	224,951	355,277
p75	78,633	133,065	305,984	602,222
p90	107,105	169,724	386,401	1,050,890
p95	127,608	199,562	446,910	1,311,336
N	52,989,320	18,618,648	10,653,154	3,513,015

Table A10: Data description by number of managerial layers (remapped)

This table is based on Table 3 in Caliendo et al. (2015). It reports descriptive statistics for firms by the number of filled seniority layers in the 2020 cross-section. *# of emp.* refers to the number of employees. *Comp.* refers to mean total annual compensation (USD) across employees. *Exp.* refers to mean experience years across employees. Firm-level means are first computed within each firm, then averaged across firms.

		# of emp.		Compensation		Experience	
# layers	firms	median	mean	mean	median	mean	median
4	409,915	25	175.21	174,011	152,021	17.84	17.64
3	540,978	7	13.75	167,758	130,718	17.77	17.20
2	836,436	3	4.40	171,133	110,120	17.41	16.09
1	1,922,360	1	1.47	177,461	82,255	16.81	14.33

Table A11: Percentage of firms that have consecutively ordered layers (remapped)

This table is based on Table 4 in Caliendo et al. (2015). It reports the fraction of firms with consecutively ordered layers (i.e., a firm with k filled layers fills exactly layers 1 through k) for different numbers of seniority layers in the 2020 cross-section. The first row presents the unweighted share. The second row presents the shares weighted by the total number of employees.

	Among firms with				
	4 layers	3 layers	2 layers	1 layer	All Firms
Unweighted	100.00	64.09	43.59	52.20	57.27
Weighted by # emp.	100.00	80.56	52.54	62.41	94.94

Table A12: Firms that satisfy a hierarchy in the number of employees (remapped)

This table is based on Table 5 in Caliendo et al. (2015). It reports the share of firms that satisfy a hierarchy in the number of employees separately for firms with 1 to 4 layers in the 2020 cross-section. Column (1) reports the fraction of firms that satisfy a hierarchy at all layers. Columns (2)–(4) display the fraction of firms that satisfy a hierarchy at each adjacent pair. A firm satisfies a hierarchy in the number of employees if $n_\ell \geq n_{\ell+1}$ for all relevant layers ℓ.

		(1)	(2)	(3)	(4)
# layers	n firms	$n_L^\ell \geq n_L^{\ell+1}$ $\forall \ell$	$n_1 \geq n_2$	$n_2 \geq n_3$	$n_3 \geq n_4$
1	1,922,360	100.0	80.2	85.3	86.7
2	836,436	81.9	81.9	66.8	82.1
3	540,978	57.2	84.8	70.3	78.3
4	409,915	49.4	85.8	72.2	84.9

Table A13: Firms that satisfy a hierarchy in wages (remapped)

This table is based on Table 6 in Caliendo et al. (2015). It reports the share of firms that satisfy a hierarchy in wages separately for firms with 1 to 4 layers in the 2020 cross-section. Column (1) reports the fraction of firms that satisfy a hierarchy at all layers. Columns (2)–(4) display the fraction of firms that satisfy a hierarchy at each adjacent pair. A firm satisfies a hierarchy in wages if $w_{\ell+1} \geq w_\ell$ for all relevant layers ℓ.

		(1)	(2)	(3)	(4)
# layers	n firms	$w_L^{\ell+1} \geq w_L^\ell$ $\forall \ell$	$w_2 \geq w_1$	$w_3 \geq w_2$	$w_4 \geq w_3$
1	1,922,360	100.0	0.0	0.0	0.0
2	836,436	38.5	38.5	7.0	4.9
3	540,978	53.3	73.6	63.6	14.5
4	409,915	76.2	92.9	95.2	86.3

A.6 Firm Size and Hierarchies

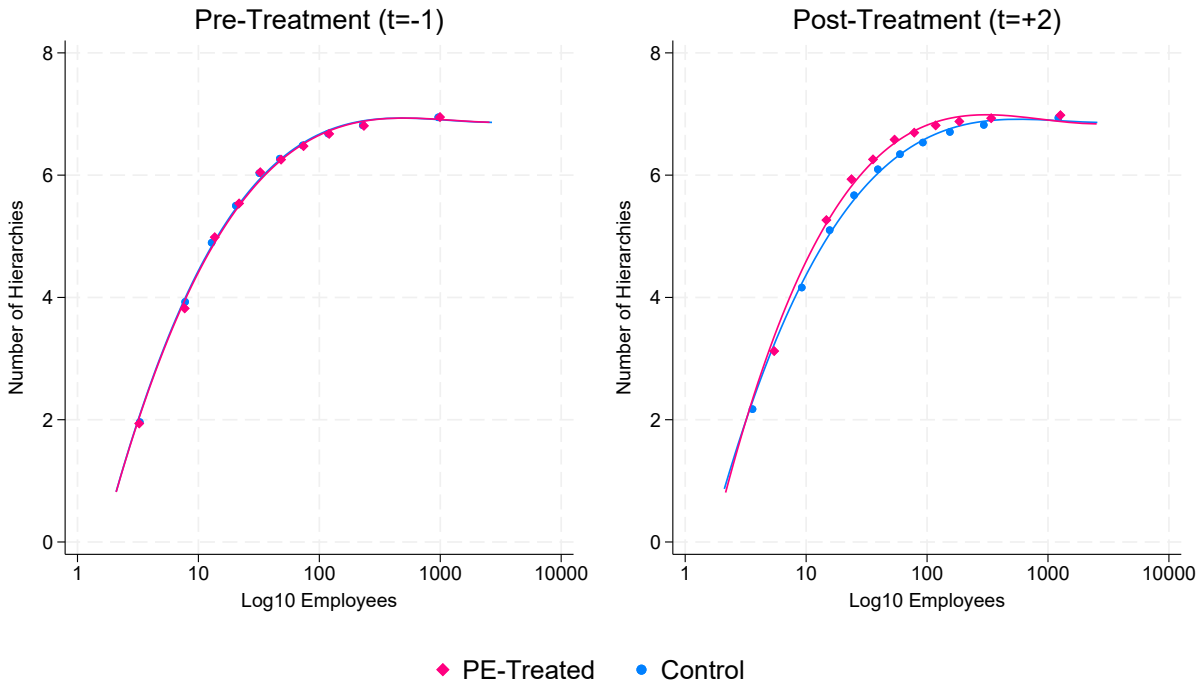
Table A14: Firm Size and Hierarchies

This table reports OLS regressions of the number of hierarchy layers on firm size, estimated in the cross-section of PE-backed and control firms at $t = -1$ (one year before the buyout). The dependent variable is the number of hierarchy layers. The independent variables are polynomial terms of the natural log of employment. Each column adds a higher-order polynomial term. T-statistics based on robust standard errors are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable:	Number of hierarchies			
	(1)	(2)	(3)	(4)
ln Employees (t-1)	0.82***	2.44***	3.69***	3.61***
	(133.73)	(140.17)	(118.71)	(39.18)
ln Employees (t-1)^2		−0.20***	−0.53***	−0.49***
		(−86.47)	(−64.59)	(−12.40)
ln Employees (t-1)^3			0.02***	0.02***
			(39.65)	(2.96)
ln Employees (t-1)^4				0.00
				(0.69)
Constant	2.42***	−0.31***	−1.58***	−1.53***
	(97.78)	(−10.68)	(−48.28)	(−23.60)
Observations	20902	20902	20902	20902
R-squared	0.62	0.80	0.82	0.82
Mean dep. var. in t=-1	5.49	5.49	5.49	5.49

Figure A1: Size and Hierarchies–Pre and post PE buyout

This figures shows binned scatterplots of the number of hierarchies as a function of firm size. The figure plots four binscatters: one year pre- and two years post buyout ($t-1$ and $t+2$), each for PE-treated and control. The dots are averages for binned observations split into 10 deciles of the firm size variable. The lines are regressions of number of hierarchies on a third polynomial of firm size based on the raw data (not the binned averages).



A.7 Additional Analyses

Table A15: PE Buyout Effects on Employment Share by Layer

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the employment share (in %) of each hierarchy layer. The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference period. T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Employment share (%)						
	Layer 7 (top)	Layer 6	Layer 5	Layer 4	Layer 3	Layer 2	Layer 1 (bottom)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	−0.17**	0.04	−0.23	0.10	0.04	0.23	−0.02
	(−1.97)	(0.56)	(−1.59)	(0.80)	(0.33)	(1.40)	(−0.10)
PE x t-3	−0.08	0.10*	−0.12	−0.03	−0.05	0.06	0.11
	(−1.39)	(1.80)	(−1.06)	(−0.28)	(−0.53)	(0.48)	(0.82)
PE x t-2	−0.03	0.02	−0.06	−0.08	0.06	0.05	0.03
	(−0.73)	(0.68)	(−0.90)	(−1.36)	(1.08)	(0.60)	(0.40)
PE x t=0	0.86***	0.36***	1.06***	−0.18*	−0.20**	−0.70***	−1.20***
	(12.78)	(6.24)	(9.45)	(−1.88)	(−2.31)	(−5.67)	(−9.12)
PE x t+1	1.05***	0.52***	1.54***	0.04	−0.27***	−0.92***	−1.96***
	(13.44)	(7.80)	(11.64)	(0.33)	(−2.59)	(−6.46)	(−12.52)
PE x t+2	1.11***	0.58***	1.61***	0.08	−0.19*	−0.96***	−2.24***
	(13.73)	(8.02)	(11.56)	(0.63)	(−1.65)	(−6.11)	(−13.02)
PE x t+3	1.02***	0.60***	1.67***	0.05	−0.13	−0.98***	−2.22***
	(12.13)	(7.68)	(11.23)	(0.35)	(−1.06)	(−5.92)	(−12.06)
PE x t+4	0.96***	0.63***	1.53***	0.08	0.01	−0.96***	−2.25***
	(10.84)	(7.85)	(9.67)	(0.59)	(0.09)	(−5.47)	(−11.76)
Controls							
ln Employees (t-1)	−0.63	−1.10*	−1.49	−0.51	−1.84**	0.12	5.45***
	(−1.02)	(−1.81)	(−1.51)	(−0.59)	(−2.28)	(0.12)	(5.19)
ln Employees $(t-1)^2$	−0.18	0.09	0.12	0.13	0.51***	0.36	−1.04***
	(−1.27)	(0.66)	(0.56)	(0.66)	(2.85)	(1.60)	(−4.38)
ln Employees $(t-1)^3$	0.02**	−0.00	−0.01	−0.01	−0.04***	−0.03**	0.07***
	(2.12)	(−0.34)	(−0.34)	(−0.63)	(−2.95)	(−2.24)	(4.11)
Employment growth 12m	1.01***	0.37***	−0.29*	−0.68***	−0.28**	−0.59***	0.46**
	(7.17)	(3.45)	(−1.70)	(−4.90)	(−2.14)	(−3.21)	(2.37)
Observations	183706	183706	183706	183706	183706	183706	183706
R-squared	0.74	0.72	0.76	0.72	0.74	0.75	0.83
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	3.04	3.33	15.74	13.37	10.88	25.28	28.36

Table A16: PE Buyout Effects on Control Spans

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the natural logarithm of the control span in layer l, defined as the number of employees in all layers below layer l, divided by the employees in layer l. The coefficients are estimating from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference period. T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	LN (Control Span)					
	Layer 7 (top)	Layer 6	Layer 5	Layer 4	Layer 3	Layer 2
	(1)	(2)	(3)	(4)	(5)	(6)
PE x t-4	0.00	−0.00	−0.01	−0.01**	0.00	−0.01
	(0.02)	(−0.05)	(−0.91)	(−2.04)	(0.15)	(−1.62)
PE x t-3	−0.01	−0.01*	−0.01	−0.01**	−0.00	−0.01
	(−0.96)	(−1.70)	(−1.39)	(−2.04)	(−0.17)	(−1.47)
PE x t-2	0.00	−0.00	−0.00	0.00	0.00	−0.00
	(0.44)	(−0.52)	(−1.04)	(0.67)	(0.24)	(−0.48)
PE x t=0	−0.01**	−0.02**	−0.05***	−0.00	0.00	−0.00
	(−2.01)	(−2.50)	(−10.06)	(−0.64)	(0.24)	(−0.41)
PE x t+1	−0.13***	−0.08***	−0.10***	−0.03***	−0.01*	−0.02***
	(−14.84)	(−8.75)	(−17.50)	(−5.69)	(−1.71)	(−3.81)
PE x t+2	−0.14***	−0.10***	−0.11***	−0.05***	−0.02***	−0.02***
	(−15.31)	(−10.31)	(−17.90)	(−7.18)	(−3.03)	(−5.09)
PE x t+3	−0.15***	−0.11***	−0.12***	−0.04***	−0.03***	−0.02***
	(−15.16)	(−10.49)	(−17.49)	(−6.51)	(−3.96)	(−4.78)
PE x t+4	−0.15***	−0.11***	−0.11***	−0.05***	−0.03***	−0.02***
	(−14.39)	(−10.58)	(−16.06)	(−6.97)	(−4.48)	(−4.48)
Controls						
ln Employees (t-1)	1.30***	1.88***	1.19***	1.43***	1.56***	0.70***
	(34.25)	(44.24)	(43.29)	(48.23)	(48.88)	(35.36)
ln Employees $(t\text{-}1)^2$	−0.10***	−0.26***	−0.22***	−0.27***	−0.29***	−0.15***
	(−11.48)	(−28.08)	(−34.64)	(−40.54)	(−41.61)	(−33.27)
ln Employees $(t\text{-}1)^3$	0.00***	0.01***	0.01***	0.02***	0.02***	0.01***
	(5.17)	(18.54)	(28.97)	(34.34)	(35.33)	(30.07)
Employment growth 12m	−0.03***	−0.02**	−0.01	0.02***	0.01**	0.02***
	(−3.98)	(−2.06)	(−1.51)	(3.20)	(2.26)	(4.28)
Observations	113915	110514	163590	158425	151070	167157
R-squared	0.94	0.90	0.85	0.83	0.85	0.83
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	3.78	3.33	1.88	1.81	1.80	0.74

Table A17: PE Buyout Effects on Employment Share by Layer — Seven-Layer Firms

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The sample is restricted to firms with all seven hierarchy layers filled at $t = -1$. The dependent variable is the employment share (in %) of each hierarchy layer. The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t - 1$, is the omitted reference year. T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Employment share (%)						
Sample	Only 7-layer firms (in t=-1)						
	Layer 7 (top)	Layer 6	Layer 5	Layer 4	Layer 3	Layer 2	Layer 1 (bottom)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	−0.04	−0.03	0.04	0.09	−0.08	−0.02	0.04
	(−0.46)	(−0.35)	(0.36)	(0.85)	(−0.80)	(−0.16)	(0.25)
PE x t-3	−0.00	0.09*	−0.04	−0.01	−0.09	0.00	0.04
	(−0.06)	(1.82)	(−0.47)	(−0.11)	(−1.13)	(0.01)	(0.40)
PE x t-2	0.00	0.01	0.01	−0.09**	−0.03	0.01	0.09
	(0.06)	(0.42)	(0.18)	(−2.03)	(−0.62)	(0.09)	(1.41)
PE x t=0	0.15***	0.08**	0.33***	−0.19***	−0.17**	−0.16*	−0.04
	(3.76)	(2.02)	(4.47)	(−2.80)	(−2.54)	(−1.77)	(−0.41)
PE x t+1	0.18***	0.14***	0.40***	−0.10	−0.27***	−0.20*	−0.15
	(3.74)	(2.64)	(4.25)	(−1.14)	(−3.44)	(−1.75)	(−1.32)
PE x t+2	0.14***	0.18***	0.53***	−0.08	−0.22**	−0.21*	−0.34**
	(2.66)	(3.05)	(4.96)	(−0.88)	(−2.48)	(−1.66)	(−2.54)
PE x t+3	0.08	0.17***	0.63***	−0.10	−0.26***	−0.16	−0.36**
	(1.63)	(2.64)	(5.35)	(−1.02)	(−2.62)	(−1.15)	(−2.48)
PE x t+4	0.09*	0.17**	0.51***	−0.01	−0.19*	−0.15	−0.43***
	(1.76)	(2.53)	(4.12)	(−0.06)	(−1.85)	(−1.04)	(−2.69)
Controls							
ln Employees (t-1)	−7.29***	−0.51	2.15	1.21	1.00	2.84	0.60
	(−4.10)	(−0.40)	(1.26)	(0.74)	(0.58)	(1.40)	(0.24)
ln Employees (t-1)^2	0.98***	−0.13	−0.61*	−0.12	−0.02	−0.06	−0.04
	(2.89)	(−0.52)	(−1.89)	(−0.39)	(−0.07)	(−0.15)	(−0.08)
ln Employees (t-1)^3	−0.04**	0.02	0.04**	0.00	−0.00	−0.02	0.00
	(−2.09)	(1.11)	(2.10)	(0.17)	(−0.19)	(−0.70)	(0.06)
Employment growth 12m	1.20***	0.44***	0.31*	−0.43***	−0.37**	−0.72***	−0.42**
	(5.39)	(2.81)	(1.68)	(−2.85)	(−2.55)	(−3.32)	(−2.07)
Observations	76858	76858	76858	76858	76858	76858	76858
R-squared	0.68	0.76	0.82	0.79	0.78	0.83	0.93
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	2.51	4.21	15.41	13.52	11.54	26.82	25.99

Table A18: PE Buyout Effects on Vertical Layers and Horizontal Functions

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the employment share (in %) in each vertical layer and each horizontal function category. The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference year. T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable:	Employment share (%)					
	Vertical layers			Horizontal functions		
	Top mgmt.	Middle mgmt.	Rank-and-file	Admin.	Operations	Product-related
	(1)	(2)	(3)	(4)	(5)	(6)
PE x t-4	−0.13	−0.08	0.21	−0.04	−0.12	0.16
	(−1.12)	(−0.43)	(1.08)	(−0.26)	(−1.02)	(0.92)
PE x t-3	0.02	−0.19	0.17	−0.08	0.06	0.02
	(0.24)	(−1.30)	(1.14)	(−0.68)	(0.67)	(0.13)
PE x t-2	−0.01	−0.07	0.08	0.03	0.02	−0.06
	(−0.11)	(−0.85)	(0.89)	(0.45)	(0.45)	(−0.70)
PE x t=0	1.22***	0.68***	−1.90***	1.08***	0.57***	−1.64***
	(13.94)	(4.80)	(−13.07)	(9.21)	(6.22)	(−12.45)
PE x t+1	1.57***	1.31***	−2.88***	1.66***	0.53***	−2.19***
	(15.35)	(7.73)	(−16.57)	(11.97)	(4.98)	(−14.06)
PE x t+2	1.69***	1.51***	−3.19***	1.77***	0.47***	−2.24***
	(15.74)	(8.23)	(−16.93)	(11.71)	(4.08)	(−13.20)
PE x t+3	1.62***	1.59***	−3.21***	1.67***	0.35***	−2.02***
	(14.21)	(8.14)	(−15.80)	(10.52)	(2.83)	(−11.12)
PE x t+4	1.59***	1.62***	−3.21***	1.68***	0.34***	−2.03***
	(13.41)	(7.89)	(−15.10)	(10.06)	(2.63)	(−10.61)
Controls						
ln Employees (t-1)	−1.72**	−3.84***	5.57***	1.82*	−3.18***	1.36
	(−2.03)	(−3.07)	(4.48)	(1.71)	(−3.66)	(1.13)
ln Employees $(t-1)^2$	−0.09	0.77***	−0.68**	−0.43*	0.48**	−0.06
	(−0.46)	(2.72)	(−2.43)	(−1.79)	(2.48)	(−0.21)
ln Employees $(t-1)^3$	0.02	−0.05**	0.03*	0.02	−0.03**	0.01
	(1.31)	(−2.57)	(1.70)	(1.33)	(−2.16)	(0.39)
Employment growth 12m	1.38***	−1.25***	−0.13	0.70***	−0.12	−0.58***
	(8.11)	(−5.70)	(−0.58)	(3.53)	(−0.91)	(−2.71)
Observations	183706	183706	183706	183706	183706	183706
R-squared	0.75	0.78	0.81	0.87	0.81	0.86
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	6.37	39.99	53.64	21.08	10.20	68.72

Table A19: PE Buyout Effects on Vertical Employment Shares – Heterogeneity by Exit Type

This table displays the results of firm-level difference-in-differences regressions comparing employment shares across vertical layers at target firms relative to the matched control group, estimated separately for subsamples defined by exit type. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variables are the employment shares (in %) of top management, middle management, and rank-and-file employees. The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference year. Employment controls include ln Employees (t-1), its square, its cube, and employment growth over 12 months. T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Employment share (%) of:											
	IPO			M&A (strat. acquirer)			Secondary (fin. acquirer)			Bankruptcy		
Sample breakdown by exit type:	Top mgmt.	Middle mgmt.	Rank-and-file	Top mgmt.	Middle mgmt.	Rank-and-file	Top mgmt.	Middle mgmt.	Rank-and-file	Top mgmt.	Middle mgmt.	Rank-and-file
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
PE x t-4	0.06	−0.92	0.86	−0.27	−0.09	0.36	0.05	0.08	−0.14	−0.29	−0.06	0.35
	(0.06)	(−0.73)	(0.63)	(−1.03)	(−0.20)	(0.82)	(0.34)	(0.32)	(−0.51)	(−0.36)	(−0.05)	(0.29)
PE x t-3	−1.23**	0.28	0.95	−0.03	−0.26	0.30	−0.00	0.23	−0.23	0.19	−0.32	0.13
	(−2.21)	(0.30)	(0.89)	(−0.18)	(−0.79)	(0.88)	(−0.04)	(1.13)	(−1.08)	(0.33)	(−0.34)	(0.13)
PE x t-2	−0.67	0.13	0.54	0.01	0.05	−0.06	−0.06	0.01	0.05	0.57	−0.82	0.26
	(−1.62)	(0.29)	(0.94)	(0.08)	(0.23)	(−0.29)	(−0.93)	(0.13)	(0.40)	(1.53)	(−1.53)	(0.42)
PE x t=0	−0.16	0.43	−0.27	1.10***	0.79**	−1.89***	0.89***	0.38*	−1.27***	−0.27	1.00	−0.73
	(−0.31)	(0.54)	(−0.36)	(5.51)	(2.48)	(−5.86)	(8.55)	(1.91)	(−6.40)	(−0.51)	(1.24)	(−0.80)
PE x t+1	−0.48	0.62	−0.13	1.39***	1.22***	−2.61***	1.39***	1.06***	−2.45***	0.61	2.13**	−2.74**
	(−0.69)	(0.58)	(−0.13)	(6.01)	(3.27)	(−6.76)	(10.21)	(4.46)	(−10.33)	(1.06)	(2.12)	(−2.54)
PE x t+2	−0.71	1.51	−0.80	1.55***	1.43***	−2.98***	1.52***	1.16***	−2.68***	1.06*	1.80*	−2.86***
	(−1.07)	(1.20)	(−0.68)	(6.25)	(3.43)	(−6.94)	(10.81)	(4.57)	(−10.32)	(1.89)	(1.83)	(−2.64)
PE x t+3	−0.45	1.18	−0.73	1.23***	1.46***	−2.69***	1.52***	1.23***	−2.75***	0.47	1.40	−1.87
	(−0.65)	(0.84)	(−0.55)	(4.88)	(3.22)	(−5.76)	(10.05)	(4.59)	(−9.92)	(0.75)	(1.27)	(−1.63)
PE x t+4	−0.41	1.17	−0.76	1.14***	1.53***	−2.68***	1.40***	1.29***	−2.69***	0.34	1.31	−1.65
	(−0.51)	(0.83)	(−0.58)	(4.31)	(3.29)	(−5.58)	(8.77)	(4.56)	(−9.09)	(0.51)	(1.02)	(−1.24)
Employment controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2549	2549	2549	40581	40581	40581	71684	71684	71684	4751	4751	4751
R-squared	0.74	0.84	0.87	0.74	0.75	0.80	0.74	0.80	0.83	0.75	0.81	0.82
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	6.00	40.49	53.51	6.87	40.84	52.29	5.90	40.15	53.96	4.56	34.12	61.32

Table A20: PE Buyout Exit Effects – Event Study Around Exit

This table summarizes the effects of exiting PE Buyout ownership across all main outcome variables. Each cell reports the coefficient on Exit from PE Buyout × t+2 from a separate regression based on equation (1), with time indexed relative to the *exit* from PE Buyout ownership rather than the PE Buyout entry event. The sample is split by exit type: all exits (Column 1), secondary buyout (Column 2), IPO (Column 3), M&A (Column 4), and bankruptcy (Column 5). Firms are matched on industry (50 categories), employment, employment growth, and hierarchical structure (dummies of whether layers are filled and employment shares by layer) before the exit. The period one year before the exit, $t-1$, is the omitted reference year. All regressions include firm and event time fixed effects as well as employment controls (ln Employees (t-1), its square, its cube, and employment growth over 12 months). T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	Exit from PE x t+2 coefficient (t-stat)				
	All exits	Secondary exits	IPO exits	M&A exits	Bankruptcy
	(1)	(2)	(3)	(4)	(5)
Panel A: Employment					
LN(1+employees)	−0.09***	0.04**	0.18***	−0.27***	−0.61***
	(−7.58)	(2.56)	(3.02)	(−11.97)	(−10.46)
Panel B: Hierarchy Depth					
No. hierarchies	0.01	0.07***	−0.01	−0.09***	−0.09
	(0.84)	(4.30)	(−0.18)	(−3.86)	(−1.38)
Panel C: Filled layer? (0/1)					
Layer 7 (top)	−0.03***	0.01	0.02	−0.09***	−0.04
	(−3.40)	(0.94)	(0.66)	(−6.92)	(−1.12)
Layer 6	0.01*	0.03***	0.00	−0.02*	0.01
	(1.74)	(3.31)	(0.13)	(−1.78)	(0.17)
Layer 5	0.01	0.00	0.00	0.01*	−0.01
	(1.51)	(0.64)	(0.46)	(1.65)	(−0.52)
Layer 4	0.01	0.01**	−0.01	0.00	−0.03
	(1.48)	(2.40)	(−0.71)	(0.07)	(−1.28)
Layer 3	0.01**	0.02***	−0.03	0.02	−0.03
	(2.30)	(2.71)	(−1.63)	(1.52)	(−1.06)
Layer 2	−0.00	−0.00	0.02	−0.00	−0.00
	(−0.38)	(−0.36)	(1.62)	(−0.61)	(−0.05)
Layer 1 (bottom)	0.00	0.01	−0.02	−0.00	0.02
	(1.10)	(1.56)	(−1.02)	(−0.24)	(0.81)
Panel D: Employment share (%) of:					
Top management	−0.21	0.36**	0.86*	−1.22***	−0.98
	(−1.57)	(2.47)	(1.91)	(−4.18)	(−1.08)
Middle management	0.29	0.51**	−0.92	0.40	−2.09
	(1.27)	(1.97)	(−0.99)	(0.86)	(−1.61)
Rank-and-file	−0.08	−0.87***	0.05	0.82*	3.07**
	(−0.32)	(−3.24)	(0.05)	(1.74)	(2.14)
Panel E: LN(Control Span) of:					
Layer 7 (top)	0.01	−0.03*	−0.10	0.11***	0.21***
	(1.13)	(−1.82)	(−1.47)	(4.53)	(3.22)
Layer 6	−0.02*	−0.05***	−0.10**	0.06**	−0.10
	(−1.88)	(−3.24)	(−2.03)	(2.20)	(−1.60)
Layer 5	0.01*	−0.01	−0.05	0.06***	0.05
	(1.65)	(−1.00)	(−1.35)	(3.55)	(1.33)
Layer 4	0.01	−0.01	−0.01	0.05***	0.05
	(1.35)	(−1.06)	(−0.23)	(3.22)	(1.22)
Layer 3	0.01	0.01	−0.01	0.00	0.04
	(0.92)	(0.85)	(−0.16)	(0.04)	(0.96)
Layer 2	0.01	−0.00	−0.01	0.02**	0.04
	(1.08)	(−0.64)	(−0.36)	(2.19)	(1.16)
No. obs.	86166	52074	1890	27630	4572
No. deals	4787	2893	105	1535	254

Table A21: PE Buyout Effects on Employee Experience

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the natural log of years of work experience. Column 1 reports results for all employees. Columns 2–4 split by vertical layer (top management, middle management, rank-and-file). Columns 5–7 split by horizontal function (admin, operations, product-related). The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference year. Employment controls include ln Employees (t-1), its square, its cube, and employment growth over 12 months. T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	LN (Experience years)						
		Vertical layers			Horizontal functions		
	All	Top mgmt.	Middle mgmt.	Rank-and-file	Admin	Operations	Product-related
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	−0.01	−0.00	−0.00	0.00	−0.01	−0.01	−0.01*
	(−1.55)	(−0.72)	(−0.58)	(0.18)	(−1.01)	(−1.22)	(−1.67)
PE x t-3	−0.00	−0.00	0.00	0.00	0.01	0.00	−0.01**
	(−1.61)	(−0.65)	(0.03)	(1.08)	(0.88)	(0.14)	(−1.99)
PE x t-2	−0.00*	0.00	−0.00	−0.00	−0.00	0.00	−0.00*
	(−1.93)	(0.08)	(−0.51)	(−0.15)	(−0.38)	(0.21)	(−1.90)
PE x t=0	0.02***	0.01***	0.02***	0.00	0.01*	0.03***	0.01***
	(10.25)	(3.12)	(6.28)	(0.54)	(1.65)	(4.71)	(4.06)
PE x t+1	0.03***	0.00	0.02***	0.01**	0.01**	0.04***	0.02***
	(11.42)	(0.43)	(6.10)	(2.39)	(2.03)	(6.36)	(6.00)
PE x t+2	0.02***	−0.01*	0.01***	−0.00	0.01	0.03***	0.01***
	(7.85)	(−1.85)	(3.49)	(−0.69)	(1.12)	(4.08)	(3.09)
PE x t+3	0.01***	−0.02***	0.00	−0.01***	−0.00	0.02***	0.00
	(4.32)	(−3.18)	(1.21)	(−2.68)	(0.60)	(2.64)	(1.03)
PE x t+4	0.01**	−0.03***	−0.00	−0.02***	−0.01	0.01	−0.00
	(2.13)	(−4.26)	(−0.68)	(−3.07)	(−0.62)	(1.28)	(−0.54)
Controls							
ln Employees (t-1)	0.10***	0.22***	0.24***	0.21***	0.29***	0.22***	0.18***
	(4.90)	(7.95)	(10.05)	(7.71)	(6.50)	(6.39)	(7.63)
ln Employees (t-1)^2	−0.02***	−0.02***	−0.04***	−0.04***	−0.03***	−0.02***	−0.04***
	(−5.18)	(−3.24)	(−8.00)	(−6.99)	(−3.30)	(−2.80)	(−7.18)
ln Employees (t-1)^3	0.00***	0.00	0.00***	0.00***	0.00	−0.00	0.00***
	(3.51)	(0.43)	(5.72)	(4.42)	(0.31)	(−0.15)	(5.16)
Employment growth 12m	−0.10***	−0.05***	−0.08***	−0.15***	−0.12***	−0.09***	−0.12***
	(−21.40)	(−9.90)	(−15.48)	(−28.23)	(−15.23)	(−11.57)	(−22.87)
Observations	183706	138280	177218	177176	139803	147867	179855
R-squared	0.85	0.79	0.81	0.78	0.74	0.75	0.82
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	2.48	2.87	2.62	2.25	2.36	2.50	2.44

Table A22: PE Buyout Effects on Employee Replacement Rates

This table displays the results of firm-level difference-in-differences regressions comparing firm outcomes at target firms relative to the matched control group. The matched control group consists of firms that never experienced a PE Buyout *("never treated")*, and show no observable differences in firm organization in $t-1$. The dependent variable is the 12-month rolling replacement rate (share of departing employees replaced by a new hire within 12 months). Column 1 reports results for all employees. Columns 2-4 split by vertical layer (top management, middle management, rank-and-file). Columns 5-7 split by horizontal function (admin, operations, product-related). The coefficients are estimated from equation (1). The period one year before the PE Buyout, $t-1$, is the omitted reference year. Employment controls include ln Employees (t-1), its square, its cube, and employment growth over 12 months. T-statistics based on standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable	Replacement rate 12m rolling						
		Vertical layers			Horizontal functions		
	All	Top mgmt.	Middle mgmt.	Rank-and-file	Admin	Operations	Product-related
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
PE x t-4	0.77***	0.25	0.31*	0.74**	1.07**	0.34	0.96***
	(4.05)	(1.20)	(1.65)	(2.37)	(2.55)	(1.04)	(4.09)
PE x t-3	0.24	−0.10	0.25	0.27	0.22	−0.20	0.41*
	(1.28)	(−0.47)	(1.39)	(0.75)	(0.51)	(−0.63)	(1.80)
PE x t-2	0.27**	0.15	−0.01	0.28	0.55	−0.17	0.22
	(1.99)	(0.80)	(−0.04)	(0.99)	(1.55)	(−0.62)	(1.25)
PE x t=0	−0.19	0.88***	−0.02	−0.52	−0.42	0.38	−0.39*
	(−1.08)	(3.76)	(−0.08)	(−1.63)	(−1.04)	(1.17)	(−1.73)
PE x t+1	1.43***	3.96***	2.10***	1.01***	1.12***	1.45***	1.21***
	(7.60)	(16.03)	(10.82)	(3.13)	(2.62)	(4.36)	(5.15)
PE x t+2	1.64***	3.39***	1.98***	1.92***	1.52***	0.95***	1.83***
	(8.49)	(13.45)	(10.41)	(5.77)	(3.51)	(2.89)	(7.38)
PE x t+3	2.00***	2.99***	2.06***	2.41***	1.69***	1.69***	1.94***
	(10.22)	(12.37)	(10.99)	(7.00)	(3.75)	(5.09)	(7.92)
PE x t+4	1.66***	2.36***	1.79***	2.07***	1.53***	1.25***	1.51***
	(8.43)	(9.85)	(9.43)	(5.94)	(3.54)	(3.75)	(6.35)
Controls							
ln Employees (t-1)	7.10***	−1.26**	4.03***	13.37***	1.26	3.29***	8.98***
	(11.36)	(−2.41)	(8.10)	(13.67)	(1.03)	(4.76)	(12.90)
ln Employees (t-1)^2	−0.05	0.94***	0.41***	−1.20***	1.30***	0.43***	−0.41**
	(−0.30)	(7.75)	(3.47)	(−4.71)	(4.95)	(2.73)	(−2.43)
ln Employees (t-1)^3	0.01	−0.06***	−0.03***	0.08***	−0.08***	−0.02**	0.03**
	(0.56)	(−6.23)	(−3.60)	(4.17)	(−4.76)	(−2.09)	(2.39)
Employment growth 12m	−4.14***	−1.35***	−2.50***	−3.70***	−1.05***	−1.37***	−3.89***
	(−19.13)	(−7.54)	(−16.13)	(−8.43)	(−2.64)	(−5.15)	(−17.56)
Observations	183946	140311	177924	178206	143019	150610	180445
R-squared	0.52	0.27	0.41	0.43	0.31	0.27	0.49
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Event time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mean dep. var. in t=−1	12.59	3.78	8.04	16.21	10.88	7.11	13.20