

MAKING THE INVISIBLE HAND VISIBLE: MANAGERS AND THE ALLOCATION OF WORKERS TO JOBS*

VIRGINIA MINNI

Why do managers matter for firm performance? This article provides evidence of the critical role of managers in matching workers to jobs within the firm using the universe of personnel records from a large multinational firm. The data cover 200,000 white-collar workers and 30,000 managers over 11 years in 100 countries. I identify good managers by their speed of promotion and leverage exogenous variation induced by the rotation of managers across teams. I find that good managers cause workers to reallocate within the firm through lateral and vertical transfers and generate large and persistent gains in workers' career progression and productivity. My results imply that the visible hands of managers match workers' specific skills to specialized jobs, leading to an improvement in the productivity of existing workers that outlasts the managers' time at the firm. *JEL codes:* J24, M5.

Modern business enterprise took the place of market mechanisms in coordinating the activities of the economy and allocating its resources. In many sectors of the economy, the visible hand of management replaced what Adam Smith referred to as the invisible hand of market forces.

—[Alfred D. Chandler \(1993\)](#), *The Visible Hand: The Managerial Revolution in American Business*

* I am particularly grateful to the global learning team and the data analytics team at the MNE for sharing the data and invaluable context knowledge over the years. Data access is provided through a collaboration agreement with the LSE Altruistic Capital Lab, whose support I gratefully acknowledge. I thank Nava Ashraf, Oriana Bandiera, Robin Burgess, and John Van Reenen for their priceless guidance and encouragement throughout the project. I thank Wenzhi Wang and Ayse Tumturk for outstanding research assistance. IRB approval was obtained from the London School of Economics under protocol no. 90561. I gratefully acknowledge financial support from ESRC and STICERD at the London School of Economics. The manuscript was not subject to prior review by any party, except to verify that it does not contain any confidential data or information, as per the research collaboration contract signed at the beginning of the project.

© The Author(s) 2026. Published by Oxford University Press on behalf of President and Fellows of Harvard College. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted reuse, distribution, and reproduction in any medium, provided the original work is properly cited.

The Quarterly Journal of Economics (2026), 1871–1920. <https://doi.org/10.1093/qje/qjag017>. Advance Access publication on March 23, 2026.

I. INTRODUCTION

Economics studies how to allocate scarce resources. Traditionally, labor economics focused on the labor market, rather than looking inside the “black box” of firms, within which most workers are allocated to jobs. In firms, managers take the place of the price mechanism in directing the allocation of resources (Coase 1937). In particular, they shape the allocation of workers to jobs through internal labor markets (Doeringer and Piore 1985). Understanding the managers’ role in the allocation of workers to jobs is key to understanding why differences in management across and within firms explain an important share of the persistent differences in productivity (Gibbons and Henderson 2013).

The idea that there are gains from the division of labor with people specializing their efforts across tasks is an old one and among the cornerstones of economics (Smith 1776). Yet the matching of workers to jobs as a way to reach an organization’s objectives has received little attention. Managers, acting as gatekeepers in internal labor markets (the bosses), can play an essential role in facilitating the discovery of workers’ unique skills and hence their effective utilization through job allocation.

In this article, I document how managerial skill shapes workers’ allocation to jobs and future career outcomes and whether this ultimately impacts firm productivity. I consider a setting that allows the study of workers’ career trajectories both horizontally—through lateral moves—and vertically—through promotions, which is the internal labor market of a large multinational firm.

Studying the role of managers in internal labor markets requires tackling three steps. The first is access to “insider” firm data, which also combines cross-sectional granularity with a sufficiently long time dimension. Second, estimating the added value of managers has proven challenging because measures that identify good managers independently of workers’ outcomes are hard to come by. Third, to analyze the effect of managers on workers, one needs to pin down the manager’s contribution to the worker’s outcomes, which necessitates plausibly exogenous assignment of managers to workers.

With respect to the data, I bring together a rich collection of high-granularity administrative records from a multi-billion euro multinational enterprise (MNE). The data reveal the organization’s inner workings over several years and cover the universe of

managers and workers in the MNE: more than 200,000 workers and 30,000 managers over the span of 11 years in 100 countries.

To address the first identification step, I identify successful managers based on managers' promotion speed as a revealed preference measure of the firm. I build on the literature on internal labor markets documenting fast-track careers inside organizations (Baker, Gibbs, and Holmstrom 1994a) by focusing on the age at promotion from worker to manager and defining a binary measure to classify managers as "high flyers" and "low flyers." The measure results in 26.2% of managers being singled out as high flyers, and is a strong predictor of ex post managerial performance. A key feature is that it is defined ex ante—before the manager supervises the worker—mitigating concerns about reverse causality or confounding shocks that might jointly affect both the manager and the worker outcomes. The results are robust to using alternative age thresholds and alternative definitions of high flyers based on firm tenure at promotion.

To tackle the second identification step, I leverage managers' lateral rotations across teams that are outside of the control of the worker and conduct an event-study analysis exploiting the worker's first manager rotation. These rotations are part of the requirement for the managers' career progression and anecdotal evidence and empirical tests indicate that they are orthogonal to workers' characteristics. An example can illustrate the empirical strategy. Consider two teams, each managed by a low-flyer manager. One of these teams transitions from a low-flyer manager to a high-flyer manager, and the other team transitions from a low-flyer manager to a different low-flyer manager. Because both teams are affected by a manager transition, the design nets out the effect of the transition (Cullen and Perez-Truglia 2023). Hence, the results can be summarized in the effects of (i) gaining a good manager, that is, switching from a low- to a high-flyer manager, and (ii) losing a good manager, that is, switching from a high- to a low-flyer manager, relative to switching managers but without changing manager type. I compare the outcomes of the employees each month leading up to the manager transition date and each month after the transition.¹

1. Having panel data over several years is essential to be able to evaluate the returns of a worker-job match because they may not manifest immediately. I keep following the workers even if they change managers again, irrespective of whether the worker remains with the manager of the first transition.

First, gaining a good manager causes significant worker reallocation to different jobs inside the firm through lateral transfers; seven years after the first manager transition event, lateral moves are 40% higher. Examples of lateral moves include transfers such as from customer service to logistics, from merchandising to sales, or from product development to quality. High-flyer managers not only increase the rate of lateral moves in the firm but also shape their nature. In particular, while these moves show no systematic pattern in direction, they involve meaningful shifts in task content. By matching the occupation titles at the MNE with those from the Occupational Information Network (O*NET), I document that workers exposed to a high-flyer manager are more likely to move occupations across task groups (e.g., from cognitive to routine and vice versa) and to make larger task-distance changes—for example, from computer service to manufacturing engineer, or from logistician to customer service.

Second, gaining a good manager results in an improvement in worker performance and long-run career progression. Seven years after the manager transition, workers earn a salary that is 13% higher. In addition, using sales productivity data from field sales workers in 15 countries, I show that good managers raise actual worker performance, rather than inflating pay for the same performance. Three years after gaining a high-flyer manager, workers' sales performance increases by 0.347 standard deviations.

These effects are asymmetric. Gaining a good manager has positive effects, while losing one—comparing the high-to-low transition group with the high-to-high group—has no corresponding negative effects. Hence, there are long-term benefits of a one-time exposure to a good manager: the gains from a high-flyer manager persist even after a downgrade in manager quality. In terms of organizational design, these asymmetries indicate that it suffices to expose each worker to a high-flyer once as a low-flyer manager cannot spoil away the benefits of a good match created by a high-flyer manager.

I present evidence that sheds light on how managers shape worker outcomes through the worker-job allocation channel and helps address competing explanations. Combining the results on lateral reallocation with those on pay progression, a mediation analysis quantifies that 64% of the higher salary can be explained by lateral job changes. The estimate likely understates the full contribution of the manager's allocation role, as it excludes vertical transfers—which mechanically involve salary increases—and

does not capture gains from workers remaining in their current job (rather than changing jobs) because it is a good match for them.

In terms of manager behavior, time-use data show that high-flyer managers spend 19% more time in one-on-one meetings with subordinates, and engage more in communication and multitasking—suggesting a more involved, coordination-intensive management style. Skill profiles align with this pattern: high-flyer managers are more likely to have strengths in strategy and talent management skills compared with project management.

In terms of worker behavior, the firm's internal mobility platform data indicate that workers exposed to high-flyer managers are more inclined to explore new roles, teams, and skill sets. They participate more in flexible, short-term projects outside their core teams, which offer a low-risk way to experiment. Complementing the quantitative findings, in-depth interviews reinforce these patterns: workers describe good managers as mentors who guide career development, offer structured feedback, foster autonomy, and create opportunities aligned with employees' individual skills and aspirations.

Heterogeneity analyses provide additional support for the allocation channel, showing that the gains from high-flyer managers are strongest when conditions are most conducive to effective talent matching—such as when managers work in the same office as the employee or operate in environments with more diverse job roles. Effects are also larger for younger workers, who are still learning about their skills and fit. Importantly, the benefits are not concentrated among high performers: even workers with low baseline pay growth see comparable gains, consistent with high-flyer managers improving allocation across the board by uncovering and deploying hidden talent.

The evidence on greater task distance and the persistence of the effects are not easily reconciled with primarily short-term, contemporaneous channels such as motivation or oversight. The pattern of lateral moves is also less consistent with an explanation based solely on high-flyer managers teaching workers how to become more productive on the job, since that mechanism would imply the opposite prediction for lateral mobility.²

2. I formalize the economic intuition in a conceptual framework with task-specific human capital and learning about innate talent. In the framework, better

The findings on worker performance cannot be explained by high-flyer managers engaging in worker selection out of the firm (Fenizia 2022). I observe no effect on exit from the firm, and the null result is not masked by heterogeneity by baseline performance: effects are indistinguishable from zero for both high- and low-performing workers. Hence, the higher rate of internal transfers points to high flyers finding suitable redeployments inside the firm.

I find no evidence that workers' lateral or vertical moves occur in the managers' existing networks and prior locations, nor that workers follow their managers as they move within the firm. If anything, subordinates of high-flyer managers are less likely to move into roles connected to the manager's prior colleagues. Combined with the result on higher worker sales productivity, these results cast doubt on explanations rooted in favoritism and personal networks, or information advantages.

Overall, these findings suggest that good managers can achieve a more productive workforce by creating better matches between the present labor pool and specialized jobs in the firm. In so doing, they have a long-lasting effect on workers' trajectories that outlives their time overseeing the workers. This allocation mechanism offers firms a resource-neutral lever for productivity—especially when compared with more resource-intensive interventions such as hiring, firing, or formal training programs.

A major question in labor economics is how workers match to jobs and how that determines wages and their evolution over time. Extensive research on labor markets has studied job mobility between firms (e.g., Jovanovic 1979; Rosen 1986; Acemoglu and Autor 2011; Card, Heining, and Kline 2013; Chade, Eeckhout, and Smith 2017; Card et al. 2018). Yet wage growth and job mobility also happen within firms, as examined by a literature on internal labor markets, largely theoretical and descriptive (e.g., Waldman 1984; Topel and Ward 1992; Baker, Gibbs, and Holmstrom 1994a, 1994b; Gibbons and Waldman 1999; Kahn and Lange 2014; Huitfeldt et al. 2023; Pastorino 2024). I provide new

managers can improve both learning about workers' task-specific talent (the allocation channel) and the rate of job-specific learning by doing (the teaching channel). The two channels generate opposite predictions for job transfers. The empirical patterns are more consistent with the allocation channel as the main driver of the productivity results.

evidence on managers' role in allocating workers to jobs inside internal labor markets and show how these allocation decisions shape workers' long-run careers.

The findings also advance our understanding of the effect of individual managers on firm and worker outcomes (e.g., [Bertrand and Schoar 2003](#); [Bandiera, Barankay, and Rasul 2007](#); [Lazear, Shaw, and Stanton 2015](#); [Bandiera et al. 2020](#); [Frederiksen, Kahn, and Lange 2020](#); [Hoffman and Tadelis 2021](#); [Adhvaryu, Kala, and Nyshadham 2022](#); [Adhvaryu, Nyshadham, and Tamayo 2023](#); [Metcalf, Sollaci, and Syverson 2023](#)). Compared with the widely studied CEOs, this article focuses on managers in the middle of the firm hierarchy. I contribute to this growing strand of research by documenting the matching of workers to jobs as an important mechanism that determines managers' long-run effects on workers' careers. In terms of management practices, this study puts the emphasis on managerial policies governing the allocation of workers to jobs within firms, an area largely overlooked by previous research but aligned with recent evidence highlighting the importance of economic decision-making skills ([Deming 2017](#); [Caplin et al. 2023](#); [Weidmann et al. 2026](#)).³

More broadly, by providing micro-level evidence on the role of managers in the efficient assignment of workers to jobs, this study speaks to the research on the misallocation of productive inputs and its consequences for growth ([Hsieh and Klenow 2009](#)) particularly on the mismatch between workers and jobs and its consequences for workers' careers and aggregate output ([Hsieh et al. 2019](#)).

The remainder of the article is organized as follows. [Section II](#) describes the institutional background and [Section III](#) delves into the data. [Section IV](#) introduces the research design centered around manager rotations and discusses its validity. [Section V](#) presents the main results, and [Section VI](#) discusses additional evidence corroborating the allocation channel. [Section VII](#) concludes.

3. The managerial practices analyzed by previous literature focus on workers' incentives via pay for performance, promotions, and monitoring ([Bloom and Reenen 2011](#)). The tools of monetary and career incentives have also been widely examined theoretically and empirically by a prominent strand of research in organizational economics ([Holmström 1979](#); [Lazear and Rosen 1981](#); [Lazear 2000](#); [Bandiera, Barankay, and Rasul 2007, 2013](#); [Bertrand et al. 2020](#)).

II. INSTITUTIONAL CONTEXT

II.A. *Firm Overview*

I collaborate with a private consumer goods multinational with offices in more than 100 countries worldwide.⁴ It has a workforce of about 120,000 workers each year, of which approximately 60,000 have white-collar jobs, and its turnover in 2020 was over €50 billion. I collect novel data on the full population of white-collar and management employees and construct a panel data set that links workers to their managers and tracks workers' career progression inside the firm (see [Online Appendix Figure A.1](#) for an overview of the data sources).

The company is organized into a hierarchy of work levels (WLs) that goes from WL1 to WL6 (C-suite) (see [Online Appendix Figure A.2](#) for a graphical visualization of the hierarchy). Employees with a work level above 1 are considered to be performing managerial roles (WL2+). Moreover, in each WL, there is a further vertical differentiation of workers through salary grades. A salary grade increase entails a permanent change in salary but not a major change in job responsibilities while a WL promotion would also entail a considerable change in job responsibilities (usually less execution and more strategy and planning). The firm has the same organizational structure across all countries, across functions, and over time. [Online Appendix Figure A.3](#) shows that average tenure, age, and WL shares have remained very stable over the years of the panel.

[Table I](#) describes the sample, which consists of the universe of white-collar workers from January 2011 to December 2021. There are 224,117 distinct regular full-time workers in 118 countries (10,083,638 worker-month observations). Supervisors (i.e., those that supervise at least one worker) make up 21% of the sample, although only 14% of the sample is in managerial roles (i.e., has a WL above 1).

[Table II](#), Panels A and B present summary statistics for the main variables. Women represent 44% of employees, 39% of workers are aged between 30–39, and the large majority of workers are in WL 1 (80%). The workers have homogeneous levels of human capital as applications require a college degree, and most employ-

4. I have a portfolio of papers based on the collaboration with the same MNE, each examining a different dimension of the firm's organization and policies. These currently include [Minni \(2024\)](#); [Ashraf et al. \(2024, 2025\)](#); [Minni et al. \(2026\)](#).

TABLE I
NUMBER OF OBSERVATIONS BY WORKERS, MANAGERS, JOBS

Variable	No. unique values
Total white collar $\times$ months	10,083,638
Employee	224,117
Managers (work level 2+)	32,473
Supervisors	47,816
Year-month	132
Standard job	2,118
Subfunction $\times$ work level	473
Offices	2,645
Countries	118
Country $\times$ year	1,187
Office $\times$ year	14,769
Employee $\times$ job	462,286

Notes. The data contain personnel records for the entire white-collar employee base from January 2011 to December 2021.

ees have degrees in either economics and business administration (48%) or STEM (30%). Tenures at the firm are long, with an average of 8.5 years, highlighting the importance of internal career progression for employees' long-term income. Teams (i.e., a group of workers reporting to the same supervisor) are small, with an average of five workers per team, although team size increases over a manager's seniority, with top managers overseeing on average eight workers.

Because I am interested in career progression to higher-level positions, I focus on white-collar employees. Blue-collar workers have very limited career progression opportunities as well as horizontal job differentiation (87% of blue-collar workers are machine operators). Moreover, the organization of work in factories is different from offices; blue-collar employees are supervised by white-collar front-line workers (denoted as first-line managers) instead of employees in actual managerial positions and teams can be as large as 80 workers.

The workers and workplace practices at the firm are comparable to those of other large European manufacturing firms. I consider European-wide statistics from the European Company Surveys ([van Houten et al. 2020](#)). On average, in firms with more than 250 workers, the female share of the workforce is 40%, age is 41 years, and tenure is 9.8 years. Moreover, the typical large firm would have at least four hierarchical levels. As of June 2022, the

TABLE II
DESCRIPTIVE STATISTICS

	Mean	Std. dev.	P1	P99	N
Panel A: Gender, age, and education					
Female	0.44	0.5	0.0	1.0	224,117
Share in cohort 18–29	0.25	0.4	0.0	1.0	10,083,638
Share in cohort 30–39	0.39	0.5	0.0	1.0	10,083,638
Share in cohort 40–49	0.23	0.4	0.0	1.0	10,083,638
Share in cohort 50+	0.13	0.3	0.0	1.0	10,083,638
Econ., business, and admin.	0.48	0.5	0.0	1.0	14,741
Sci., engin., math, and stat.	0.30	0.5	0.0	1.0	14,741
Social sciences and humanities	0.15	0.4	0.0	1.0	14,741
Other educ.	0.08	0.3	0.0	1.0	14,741
Panel B: Tenure, hierarchy, and team size					
Tenure (years)	8.50	8.8	0.0	35.0	10,083,638
Share in work level 1	0.80	0.4	0.0	1.0	10,083,625
Share in work level 2	0.16	0.4	0.0	1.0	10,083,625
Share in work level 3+	0.04	0.2	0.0	1.0	10,083,625
No. of months per worker	44.99	41.4	1.0	132.0	224,117
No. of supervisors per worker	3.49	3.0	1.0	13.0	224,117
No. of workers per supervisor	5.02	7.8	1.0	33.0	47,816
Panel C: Outcome variables					
Number of salary grade increases	0.60	1.0	0.0	4.0	224,117
Number of lateral moves	0.24	0.6	0.0	3.0	224,117
Number of promotions (work level)	0.06	0.3	0.0	1.0	224,117
Monthly exit	0.01	0.1	0.0	1.0	10,083,638
Pay + bonus (logs)	10.27	0.9	8.2	12.5	4,977,935
Sales bonus (std. dev.)	0.00	1.0	−2.0	2.2	146,831

Notes. An observation is a worker-year-month or a worker or a manager, depending on the nature of the variable. The data contain personnel records for the entire white-collar employee base from January 2011 to December 2021. In Panel A, “cohort” refers to the age group, and education data are only available for a subset of workers. In Panel B, “work level” denotes the hierarchical tier (from level 1 at the bottom to level 6). In Panel C, salary information is only available since 2016, and the information on sales bonus is only available for a subset of countries.

most common job in the MNE in the United Kingdom was a product developer in the R&D function with an average annual salary of £39,190 (around €45,930), very much in line with Glassdoor’s average salary of £39,313 for product developers in the United Kingdom.⁵

5. See Glassdoor’s page for Product Developer in the United Kingdom (https://www.glassdoor.co.uk/Salaries/product-developer-salary-SRCH_KOO,17.htm).

II.B. Internal Labor Market and Middle Managers

Workers typically explore internal job opportunities by applying through an internal talent marketplace platform, where roles across teams are openly advertised. Managers play a critical role throughout the process, as they regularly engage in one-on-one meetings and quarterly reviews with workers, offering coaching, feedback, and explicit recommendations for promotions and lateral transfers (in line with other organizations; see [Frederiksen, Kahn, and Lange 2020](#); [Haegle 2025](#)).

Managers' recommendations for workers' lateral moves and promotions are formally discussed and evaluated in dedicated talent forums, with the aim to ensure a structured, transparent process rather than informal placements. Managers formally review their subordinates' work every quarter, where they also identify priority skills and development areas for each worker, but the overall performance rating is annual. They are also encouraged to have weekly one-on-one meetings with each worker to reassess priority and check status.⁶

Qualitative evidence from focus groups of workers at the firm indicates that frequent one-on-one meetings with the manager tend to go hand in hand with good managers. In 2020, employees reported in the annual global pulse survey at the MNE that their manager was among the top three areas of importance to them, further underscoring the relevance of the manager-worker relationship in the workplace.

In terms of the managers' own performance assessment, they are explicitly incentivized to enhance their teams' capabilities, as captured by the firm's guideline to "develop and magnify the power of people." Their periodic evaluation is structured around seven standards of leadership and one of these is to be a "talent catalyst" who "coaches individuals and teams to realize their full potential." The firm uses 360-degree evaluations for the performance appraisal process: a manager receives written evaluations from superiors and subordinates on each indicator, which are then reviewed by their own manager to decide on an overall (numerical) performance rating for each year, used to determine the annual bonus.

6. The firm HR guidelines to managers encourage check-ins with subordinates about priorities, capacity and resources, and well-being and development, on a weekly basis.

These firm policies are in line with managers' job responsibilities among white-collar employees in other companies (Clifton and Harter 2019). In these higher-skilled, knowledge-based jobs, production is often complex and multifaceted, and firms care about both current performance and future performance, that is, workers' "potential" and career paths (Benson, Li, and Shue 2026).⁷

III. DATA

The main variables in the analysis are obtained from the personnel records of the organization, which provide monthly snapshots of the workers worldwide. I assemble rich panel data by combining the global HR records with the organizational chart, the payroll and performance data, and the annual surveys. Online Appendix Figure A.1 illustrates the various data sources and the time periods for which they are available. Table II, Panel C presents the summary statistics for the main variables.

III.A. Personnel Records

The global personnel records keep track of demographic variables of interest (age, gender, tenure, education), and give a monthly snapshot of the workers' hierarchy levels, functions, and job titles (from which promotions and lateral moves can be constructed). It is also recorded if a worker has been made redundant (involuntary exit) or has decided to quit the job for alternative employment or other activities (voluntary exit).

In terms of the types of jobs, there are 16 functions in the MNE, with the biggest six being sales, HR, R&D, supply chain, finance, and marketing. In each function, there are multiple subfunctions (for example, in the finance function one can be working in the tax subfunction or in the mergers and acquisitions subfunction). Typically, a subfunction would have roles spanning from WL 1 to WL 4, so workers do not have to change subfunction to move up the job ladder as it is possible to advance vertically in a given subfunction. The median size of a subfunction is 240 workers, the 10th percentile is 16 workers and the 90th percentile is 2,103 workers. Online Appendix Figure A.4 shows that lateral moves

7. The study population is knowledge-based workers as opposed to lower-skilled workers, who have been the subjects of most of the empirical personnel papers.

are common in every subfunction; salary grade increases display the same pattern.

I also observe the job titles detailing a worker's exact job in the subfunction. There are almost 1,000 horizontally differentiated job titles in the firm among WL 1 employees, and, on average, there are two distinct job titles in a team supervised by the same WL 2 manager. These are some examples of job titles: logistic specialist, supply planning admin, HR recruiting specialist, occupational health admin, field sales specialist, vice president of brand development.

III.B. Organizational Chart

The organizational chart indicates the manager each individual worker reports to, where workers reporting to the same manager belong to the same team. Because these data capture team assignments over many years, I am also able to construct indicators of managers' formal ties to other units at the firm by measuring whether they have previously worked with anyone in that unit.

III.C. Performance and Productivity

I complement these administrative data with payroll data, which include employees' earnings, and bonus payments measured in euros in all countries. Pay, which is available from 2016 onward, captures differences in performance across workers, and there is considerable variation in pay within a given job in a specific office-month pair, where the median standard deviation in pay is around €6,000 (for the whole distribution see [Online Appendix Figure A.5](#), Panel A).

Practically, there are three ways in which workers with the same job title can earn different salaries: the salary grade, which is positively associated with sales productivity (as shown in [Online Appendix Figure A.5](#), Panel B); the salary band, which ranges from 80% to 120% of target pay based on market benchmark data; and the annual bonus, the variable pay that averages 10% of fixed pay for WL 1 workers.

In addition, I collect information from the firm's talent management system, which includes worker evaluations, such as performance ratings that are set annually by the manager, described in [Section II.B](#). Salary increases and promotions are the main metrics to assess performance in the firm. The manager is the

main decision maker after taking into account the views of all the colleagues who have interacted with the worker (360-degree reviews). The decision process is designed to be as fair as possible and to limit manager bias; the manager has to justify any salary increase, transfer, or promotion decision against a set of objective criteria to the rest of their colleagues in talent forums dedicated to this discussion. The performance assessment is done in the same way in every function and office so that comparisons can be made between workers in different jobs and offices.

I complement the performance data with two independent sources of productivity data. The first is sales bonus data at the worker-month level for the field sales population in 15 countries from January 2018 until December 2021 (5,604 employees).⁸ The worker sales bonus is based on reaching targets each month set by the country demand planning teams in the supply chain function. Some examples of sales targets include growth of sales, product placement, on-shelf availability, additional exhibitions, and number of orders versus total visits each month. [Online Appendix Figure A.5](#), Panel B shows that there is a positive relationship between sales bonus and future salary grade increase.

The second is operational data at the establishment level: output per worker (tons per FTE or full-time equivalent), a common metric of productivity in manufacturing firms, and costs per unit of output (operational costs per ton).⁹ Both measures are at the establishment-year level, and the company shared all data available for every establishment globally (around 150 sites) over 2019–2021. Because of changing reporting requirements, the costs per ton data could only be shared for the main product category (there are three product categories in total).

III.D. Digital Platforms

In 2018, the firm introduced two platforms aimed at fostering an internal talent marketplace. The first is denoted as a learning platform and works as a talent tool combining learning and de-

8. While most of the data come from the global personnel records, sales data are managed independently in each of the countries, and the data need to be separately collected on a country-by-country basis by liaising with local sales teams. A second data challenge is that the field sales teams are increasingly being outsourced to contractors.

9. The operational costs are predominantly made up of labor and energy costs, and they do not include the cost of raw materials.

velopment, skill analytics, and career mobility. Workers can use the platform to do workshops, search for internal jobs and share learning/job opportunities (Cowgill et al. 2025). The data available tracks the workers' activities in the company, such as the number of completed courses, number of posted skills, and number of items shared with colleagues.

The second platform is a tool that enables workers to apply for short-term projects inside the company but outside their current team, which are denoted as flexible projects. These projects can vary in duration but typically range from one to six months and entail one or two days a week of work on the flexible opportunity. The rationale underlying the initiative is rooted in two objectives: to allow workers to engage in small projects to experiment with different jobs, expand and test their skills, and fill new positions in real time in response to quickly changing market needs.

Finally, for managers, I have access to time-use data, which is at weekly frequency spanning 2019, and contains a random sample of around 600 WL 2 managers across different countries and functions.

III.E. Employee Surveys

I conduct additional secondary analysis using individual responses to four global annual surveys that the company ran in 2017–2021. Each September, all workers are invited to the survey; the response rate is around 60%. The survey is designed to measure the “pulse” of the workers across the globe, gathering data on how the organization is perceived by the workers themselves and on their job satisfaction and well-being (questions are on a five-point Likert scale). Respondents are broadly similar to non-respondents in terms of demographics; they generally tend to be slightly older and higher up in the hierarchy (I provide additional details in [Online Appendix E](#)).

III.F. External Data Sets

I supplement the firm data with other sources of external data. Specifically, I use O*NET data set 29.1 to measure occupation-level task intensity (National Center for O*NET Development 2024). O*NET is a comprehensive database of worker attributes and job characteristics, which is administered by the U.S. Department of Labor, Employment and Training Administration. In particular, I identify relevant descriptors follow-

ing [Deming \(2017\)](#) to construct the task intensity measure for each occupation, and match the O*NET occupations to MNE job titles. A complete description of the data is in [Online Appendix D](#).

In addition, I use the Restrictive Labor Regulations Index from the World Economic Forum. This index is based on an annual survey administered to a representative sample of around 15,000 business executives in 150 countries. It includes measures related to labor–employer relations, wage flexibility, hiring and firing practices, labor taxes, and attraction and retention of talent.

IV. EMPIRICAL STRATEGY

My analysis revolves around the causal effects of high-flyer managers on the subsequent career progressions of their workers. For example, I want to measure whether workers have differential career paths after transitioning from a low- to a high-flyer manager. To estimate these manager effects I would ideally randomize employees to their managers. Because this experiment is not feasible, I instead exploit naturally occurring exogenous rotations in manager assignments in the organization. I first describe how I identify high flyers and the manager transitions, and then specify the research design and the formal econometric framework for the event-study analysis.

IV.A. High Flyers

I construct an empirical measure for good managers based on managers' speed of promotion, building on the notion of fast-track promotions studied by the literature on internal labor markets ([Rosenbaum 1984](#); [Baker, Gibbs, and Holmstrom 1994a](#); [Bernhardt 1995](#); [Prendergast 1998](#); [Gibbons and Waldman 1999](#)). Prior work has shown, both empirically and in models with learning and assignment, that wage changes and promotion rates inside organizations are serially correlated. In particular, employees who are promoted quickly to one level tend to be promoted sooner to the next, and higher-ability employees climb the ladder faster.

The key metric I consider is age at promotion to manager. In particular, I define high-flyer managers as those who achieve WL 2 at a relatively younger age (time-invariant). I only look at WL 2 managers since the focus of the article is on middle managers, who represent the predominant segment of the managerial workforce in large firms (see [Figure I](#), Panel A for the distribution of WLs at

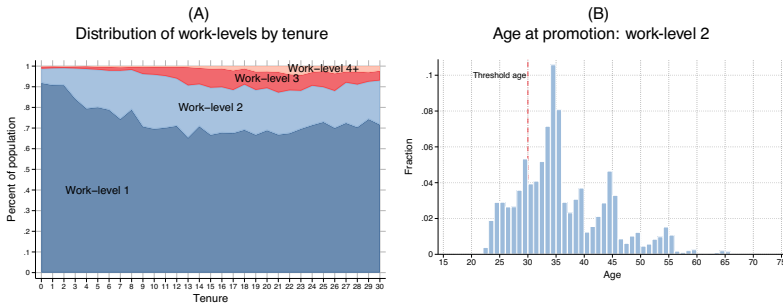


FIGURE I

Work Levels, Tenure, and Promotion

Panel A presents the cumulative distribution of work levels at different tenure years. Panel B presents the distribution of the minimum continuous age when an employee is observed to be work level 2 in the data. About 26.2% of managers are identified as high flyers, that is, the minimum continuous age first observed at work level 2 is ≤ 30 .

different tenure years). I consider worker age instead of tenure as the former is a better proxy of labor market experience.

1. Empirical Definition of High-Flyer Managers. Because of data confidentiality, I only observe 10-year age groups. To obtain a continuous age measure from the original discrete age bands, I adopt the following two-part procedure. For the subset of employees who transition from one age bracket to another age bracket (e.g., from 30–39 to 40–49), I can precisely infer their age based on the timing of the transition. For the remaining employees in the same age bracket throughout, I first calculate the earliest and latest possible birth months consistent with their age bracket and observation window. Then I take the midpoint of this interval to estimate their birth month, from which I derive a continuous age.

Figure I, Panel B plots the distribution of age at promotion. I define a fast promotion as being promoted by age 30, resulting in 26.2% of the managers in the sample being classified as high flyers. To establish robustness of different potential high-flyer measures, in Section V.D, I compare the baseline event-study results with those that are obtained using different high-flyer measures. The results remain unchanged whether I use different age thresholds to define high-flyer managers, or an alternative tenure-based measure.

TABLE III
HIGH-FLYER MANAGERS' CHARACTERISTICS

Variable	Low flyers (1)	High flyers (2)	Difference (3)
Panel A: Demographics			
Female	0.451 (0.498)	0.582 (0.493)	0.131*** (0.000)
MBA	0.001 (0.026)	0.000 (0.020)	−0.000 (0.656)
Econ., business, and admin.	0.464 (0.499)	0.546 (0.498)	0.082*** (0.000)
Sci., tech., engin., and math	0.325 (0.468)	0.241 (0.428)	−0.083*** (0.000)
Social sciences and humanities	0.147 (0.354)	0.185 (0.389)	0.038*** (0.001)
Other educ.	0.070 (0.255)	0.039 (0.193)	−0.031*** (0.000)
Mid-career hire	0.277 (0.447)	0.131 (0.338)	−0.145*** (0.000)
Panel B: Performance after high-flyer status is determined			
Monthly salary growth	0.009 (0.040)	0.019 (0.049)	0.010*** (0.000)
Promotion work level 3	0.080 (0.271)	0.093 (0.291)	0.013*** (0.000)
Perf. rating (1–150)	96.431 (21.380)	102.733 (17.156)	6.302*** (0.000)
Effective leader (survey)	4.047 (0.704)	4.145 (0.683)	0.098*** (0.000)
Observations	24,506	8,692	33,198

Notes. The table reports means, standard deviations (in parentheses), and *p*-values for differences in means, which are computed using robust standard errors. *Mid-career hire* refers to managers who have been hired directly as managers by the firm (at work level 2 instead of work level 1). *Perf. rating* refers to the performance assessment given annually to each employee; and *Effective leader (survey)* refers to the workers' anonymous upward feedback on the managers' leadership. * $p < .1$; ** $p < .05$; *** $p < .01$.

2. *Demographics and Performance Correlates.* In terms of demographics (Table III, Panel A), high-flyer status is positively correlated with being female and having a degree in economics and the social sciences, which is consistent with positive selection into corporate jobs for women and negative selection for those who have a STEM major. High flyers are more likely to have been developed internally as they are 14.5 percentage points less likely to be mid-career recruits.

The intuition behind the high-flyer measure is that the speed at which a worker progresses up the corporate ladder is a holistic metric of performance, which reflects the extent to which the firm

values the manager's work and is symptomatic of leadership potential. I validate this intuition empirically by showing that the high-flyer status is significantly positively correlated with other measures of performance. [Table III](#), Panel B shows that the high-flyer manager status is positively correlated with a number of ex post performance metrics (taken after these employees are promoted from WL 1): managers' future salary growth, probability of promotion to WL 3, performance ratings, and workers' anonymous upward feedback on the managers' leadership.

3. Comparison to Other Studies. The approach in this article is to study how high-flyer managers, who are recognized as particularly productive by the firm, affect their subordinates' outcomes. Previous studies have based their measure of manager quality directly on workers' outcomes or on workers' assessments of their manager ([Lazear, Shaw, and Stanton 2015](#); [Frederiksen, Kahn, and Lange 2020](#); [Hoffman and Tadelis 2021](#)). I adopt a different yet complementary approach by identifying the managers that the firm recognizes as high performers and then looking at their effects on workers. An advantage is that it avoids issues of circular reasoning whereby good managers are defined on the same outcomes that are then used to estimate their effects. It is also a metric defined ex ante, before the manager supervises the worker, thus addressing concerns of reverse causality or of common shocks simultaneously affecting the manager and the worker's performance.

It is worth highlighting how promotion speed can easily be applied to other contexts as a holistic metric of performance to single out talented leaders: the data requirements are not particularly stringent and are not context specific. Any organization typically establishes a career ladder for its employees, and worker age is easily observable and verifiable.

As with any proxy, there is scope for measurement error. For example, fast promotions might be an imperfect measure of managerial quality due to the Peter principle ([Benson, Li, and Shue 2019](#)). These measurement issues would lead to downward bias in the results and hence to underestimating the effect of high-flyer managers on workers' outcomes.

IV.B. Manager Transitions

I leverage the naturally occurring rotation of WL 2 managers between teams to conduct an event-study analysis after a manager transition. In an ideal experiment, I would randomize workers with different skills to managers of different qualities and then measure the effects on the workers' career progression in subsequent years. Because it would be unfeasible for most real-world companies to randomly shuffle their workers and managers, I use managerial rotations across teams that generate variation in the manager types that each worker meets and allow for causal identification of manager effects. I only consider the manager transitions that result from the reassignment across teams as part of the managerial lateral rotations. I do not include cases where the manager is promoted to a higher position or transitions that result from employee promotions to another team or employee transfers.

1. *The Firm's Rotation Policy.* These manager rotations are not literally decided by a coin toss, but anecdotal evidence suggests that they are exogenous to workers and teams. Testimonies from executives and HR representatives suggest that these transitions are orthogonal to employee characteristics. As part of corporate strategy, WL 2 managers are expected to gain experience in different projects and teams in a subfunction. For this reason, managers are reassigned laterally across teams in random fashion to gain exposure to different teams and activities and hence broaden their managerial skills. The aim is for the managers to eventually experience all teams in a subfunction. The rotations are also used as a screening mechanism to evaluate who should progress further to WL 3 (director level). The firm has been implementing the rotation policy for several decades.¹⁰

2. *Endogenous Mobility Checks.* Rather than relying exclusively on testimony that these manager rotations are orthogonal to the workers' characteristics, I evaluate the assumption by examining the parallel trajectories of employees who undergo dif-

10. The rotation of managers is a common practice in large organizations, and other studies have exploited similar rotations in different organizations for their identification strategy (see [Cullen and Perez-Truglia 2023](#); [Haegele 2025](#)). In addition to firms in the private sector, rotation policies are used in large public organizations such as the [World Bank](#) and the [United Nations](#). In [Online Appendix E](#), I provide additional details on the manager rotations at the MNE.

ferent transitions along a wide range of outcomes using an event-study analysis (see [Section IV.C](#) for more details). Moreover, I conduct additional endogenous mobility tests where I show that an array of past team characteristics in the two years before the manager transition—including team performance, inequality, transfer rates, and team diversity—cannot predict the type of the incoming manager. To evaluate the correlation between current team characteristics and high-flyer status of future managers, I estimate the following model at the team level:

$$(1) \quad y_{\text{team},t} = \alpha_0 + \pi_0 \text{High-flyer manager}_{\text{team}} + \mathbf{X}'_{\text{team},t} \boldsymbol{\beta} + \epsilon_{\text{team},t},$$

where $\text{High-flyer manager}_{\text{team}}$ denotes the quality of the future manager and controls ($\mathbf{X}_{\text{team},t}$) include function, country, and year fixed effects. Under the null of $\pi_0 = 0$ managers cannot affect team performance before they take charge, thus any correlation between change in manager type and past team characteristics is indicative of sorting. [Online Appendix Table B.1](#) shows the results: past team-level performance and other metrics do not predict the incoming managers' quality.

Since the identification strategy relies on manager transitions, I do an additional identification check by running a similar model as in [equation \(1\)](#) but allowing for different transitions to have a different effect, leaving the *LowtoLow* transition as the omitted category:

$$y_{\text{team},t} = \alpha_0 + \tau_1 E_{\text{team}}^{LtoH} + \tau_2 E_{\text{team}}^{HtoL} + \tau_3 E_{\text{team}}^{HtoH} + \mathbf{X}'_{\text{team},t} \boldsymbol{\beta} + \epsilon_{\text{team},t}.$$

In particular, I am interested in testing the hypotheses that $\tau_1 = 0$ and $\tau_2 - \tau_3 = 0$. [Online Appendix Table B.2](#) shows the results, and there is no evidence that the type of manager transition is correlated with teams' prior performance.¹¹

3. Addressing Concerns of Common Shocks. By design, the empirical strategy tackles potential concerns that common shocks to a unit drive both manager promotions and worker outcomes. Two features are key. First, the measure of high-flyer manager

11. The statistically significant coefficients in [Online Appendix Table B.2](#) can be due to chance because I am testing 24 hypotheses. Applying the Bonferroni correction to account for multiple hypothesis testing, the significance threshold is adjusted to $\alpha = \frac{0.05}{24} \approx 0.0021$. Under such a threshold, none of the coefficients remain statistically significant.

is defined *ex ante*, before the manager interacts with the worker (see [Section IV.A](#)). Second, manager quality is assessed in a different unit from the one where the manager is later assigned. Together, these features help alleviate concerns that the determination of high-flyer status may be correlated with shocks affecting the worker's unit.

To further support the identification strategy, I complement this design-based argument with empirical tests that directly address the role of potential confounding shocks. In [Online Appendix Table B.3](#), I leverage establishment-level productivity data to examine whether the share of high flyers correlates with local-performance trends (establishment-level output and costs). I do not find evidence of such a correlation, which helps assuage concerns of high flyers simply reflecting establishments' past positive shocks as a lagging indicator.

To address concerns of common shocks at the function level, I extend the analysis to the function-country level in [Online Appendix Table B.4](#). In the absence of comparable productivity measures, I proxy local shocks using employment growth among entry-level employees and the ratio of total bonus to total pay, which captures overall key performance indicator achievement. Again, I find no evidence that the share of high flyers reflects lagged responses to positive shocks, providing additional reassurance that the estimated effects are not driven by unobserved, correlated shocks at the establishment, or function level.

IV.C. Event-Study Design

The analysis focuses on the first manager transition observed for each worker and tracks their outcomes for up to 10 years after the event with the objective of estimating the long-run effect of manager quality on career trajectories.

1. Event-Study Specification. The event-study data comprise 29,423 transition events, involving 29,423 unique workers and 14,616 unique managers.¹² Events occur every year, but the majority of them take place in the first three years of the panel (2011–2013) since I only consider the first manager transition. They affect workers in every function and country.

12. As I only consider the first transition event experienced by a worker, the number of unique workers is the same as the number of transition events.

Let y_{it} be an outcome of interest, where the subscripts i and t denote employees and year-month, respectively. The main outcomes analysis are the number of lateral transfers, number of salary grade increases, and performance metrics such as salary and sales bonus. I specify the following model:

$$(2) \quad y_{it} = \sum_{j \in J} \sum_{s \neq -1, -2, -3} \beta_{j,s} D_{i,t+s}^j + \alpha_i + \xi_t + \epsilon_{it},$$

where s indexes the months relative to a change in manager, α_i are worker fixed effects to control for permanent differences in worker productivity,¹³ ξ_t comprises year-month fixed effects, and D^j denotes the event-study indicators for the periods leading up to and following a transition event $j \in \{LtoH, LtoL, HtoL, HtoH\}$. For instance, *LtoH* denotes a transition from a low- to a high-flyer manager. Standard errors are clustered at the manager level.

The event-study window spans from 24 months before the event to 84 months after the event. In the event-study graphs, I average the monthly coefficients to the quarterly level for ease of presentation; the months -1 , -2 , and -3 are all taken as the omitted category in event studies as the quarter -1 estimate. Some outcome variables, for example, the number of work-level promotions, can only be defined after the manager transition event. Since there are no pre-event measurements for these variables, [equation \(2\)](#) is modified to include only post-event periods, and month 0 is taken as the omitted category.

2. Interpreting Event-Study Estimates. To isolate the effect of a change in manager type from a change in manager more generally, I always compare employees undergoing manager transitions where one of those transitions results in a change of manager type and the other does not. Hence, the estimates of interest are the differences between types of transitions: $\hat{\beta}_{LtoH,s} - \hat{\beta}_{LtoL,s}$ (i.e., transitioning from a low-flyer manager to a high-flyer manager, relative to transitioning from a low-flyer manager to another low-flyer manager) and $\hat{\beta}_{HtoL,s} - \hat{\beta}_{HtoH,s}$, where s indicates the time since (or until) the transition date.

The key assumption is that before the transitions, employees were on the same career trajectories irrespective of their up-

13. The worker fixed effects also account for different starting points (initial age or workforce experience) and the time fixed effects then account for the variables increasing by the same amount for each worker.

coming transition. The event-study framework provides a further intuitive check of the identifying assumption: I can assess the evolution of the outcomes in each month before the date of the transition to confirm whether the trends were truly parallel before the event date.

3. *Robustness.* In [Section V.D](#), I report a series of robustness exercises for the event-study estimates including restricting the sample to only new hires, for whom I can tell for certain that it is their first manager change at the firm, and accounting for cohort-specific effects. In this setting, contamination from effects from other periods such as cohort-specific effects is not an issue as the firm's policies and organizational structure remained unchanged for the 11-year period, as described in [Section II](#). Reestimating the event study using the interaction-weighted estimator developed by [Sun and Abraham \(2021\)](#) yields nearly identical estimates as the two-way fixed-effect estimates.

4. *Worker Exit and Count Outcomes.* For the exit outcomes (quits and layoffs), I estimate the following cross-sectional regression:

$$(3) \quad y_i^P = \sum_{j \in J} \beta_j D_i^j + \mathbf{X}_i \boldsymbol{\alpha}_i + \varepsilon_i,$$

where y_i^P is a set of outcome variables indicating whether the employee left the firm voluntarily or involuntarily within P years after the transition event, D_i^j are event indicators for $j \in \{LtoH, HtoL, HtoH\}$ ($LtoL$ group is omitted as the reference group), and $\mathbf{X}_i$ are fixed effects for event date, the interaction of office and function, and the interaction between age band and gender, all taken at the time of the event. Standard errors are clustered at the manager level. I report $\hat{\beta}_{LtoH}$ for the effect of gaining a high-flyer manager and report $\hat{\beta}_{HtoL} - \hat{\beta}_{HtoH}$ for the effect of losing a high-flyer manager.

Finally, since some outcomes are count variables, such as the number of salary increases and the number of transfers, I also estimate the model in [equation \(2\)](#) using a Poisson quasi-maximum likelihood model. The estimator is consistent in the presence of high-dimensional fixed effects and can be used to model nonnegative dependent variables without the need to specify a distribution

(Correia et al. 2020):

$$(4) \mathbb{E}(y_{it} | \mathbf{X}_{it}) = \exp \left(\sum_{j \in J} \sum_{s \neq -1, -2, -3} \beta_{j,s} D_{i,t+s}^j + \xi_t + \alpha_i + \epsilon_{it} \right).$$

V. MANAGERS AND WORKERS' CAREERS

I document the effects of gaining a high-flyer manager on the workers' lateral and vertical moves, exit from the firm, and career progression. Then, in Section VI, I provide additional evidence indicating that the job-allocation margin is a quantitatively important channel underlying the observed effects of high-flyer managers.

V.A. Worker Lateral Moves and Exit

Figure II presents the effect of gaining a high-flyer manager based on the econometric model discussed in Section IV: it compares the effects on the number of lateral moves when transitioning from a low- to a high-flyer manager (*LtoH*) relative to transitioning from a low to another low-flyer manager (*LtoL*). Panel A shows the evolution of the number of lateral moves in each of the 8 quarters (2 years) leading up to a manager transition and the 28 quarters (7 years) after the manager transition.

Figure II shows that prior to the event date, the differences in the coefficients are statistically indistinguishable from zero. After the transition date, Panel A shows that the evolution of lateral moves starts to gradually diverge between the *LtoH* and *LtoL* workers. The moves increase up to 20 quarters after the manager transition and then level off at the new higher level. At 28 quarters after the manager transition, the number of lateral moves is 0.10 higher in the *LtoH* group than in the *LtoL* group (or a 40% increase, $p < .05$). The effects of gaining a high-flyer on the number of lateral moves come from many workers making at least one lateral move, rather than few workers making many lateral moves, as shown in Figure III, Panel C, which plots the probability of making at least one lateral move since the manager transition.

As the average duration of a manager's assignment to a team is two years, it might seem unusual that workers' lateral moves can occur several years after the initial high-flyer exposure. Some institutional context can clarify. Conversations with HR managers indicate that the time from when an employee begins ex-

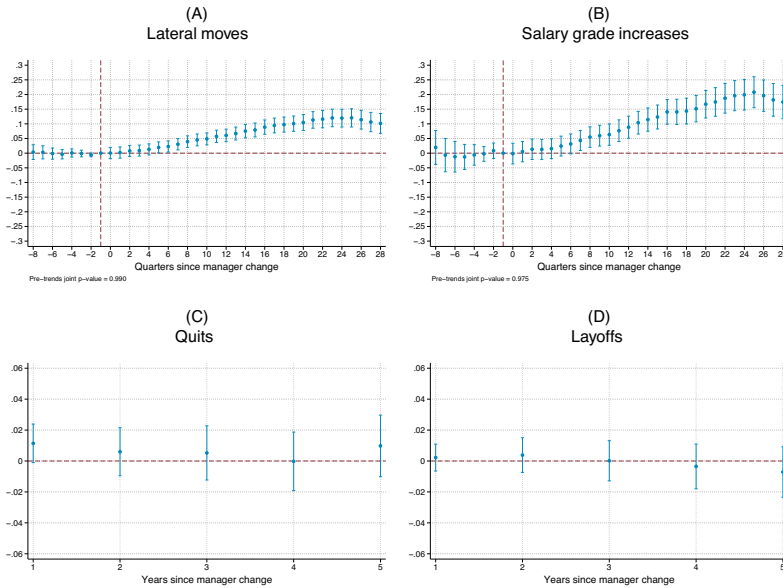


FIGURE II

Effects of Gaining a High-Flyer Manager ($\hat{\beta}_{LtoH,s} - \hat{\beta}_{LtoL,s}$)

For Panels A and B, an observation is a worker-year-month; coefficients are estimated from equation (2) and are aggregated to the quarterly level for ease of presentation. The outcome variables are the number of lateral moves and the number of salary grade increases. The baseline means for the *LtoL* group of these two outcomes are 0.393 and 0.191, respectively. For Panels C and D, an observation is a worker; coefficients are estimated from equation (3), where controls include the fixed effects of the event time, the interaction of office and function, and the interaction between age band and gender. The controls are at the time of the event. The outcome variables are whether the worker quits or gets laid off within years after the event. All standard errors are clustered by manager, and 95% confidence intervals are presented.

ploring internal opportunities to when a move is completed can vary—in some cases happening quickly, but in others taking up longer timelines, especially job transitions involving more complex or cross-domain moves. This helps explain the dynamics of Figure II, where the effect on lateral moves becomes significant around 5 quarters after the manager transition, continues to rise until roughly 20 quarters later, and then levels off. The slower adjustments are most relevant for longer-distance moves, such as cross-functional transfers, which motivates the following analysis.

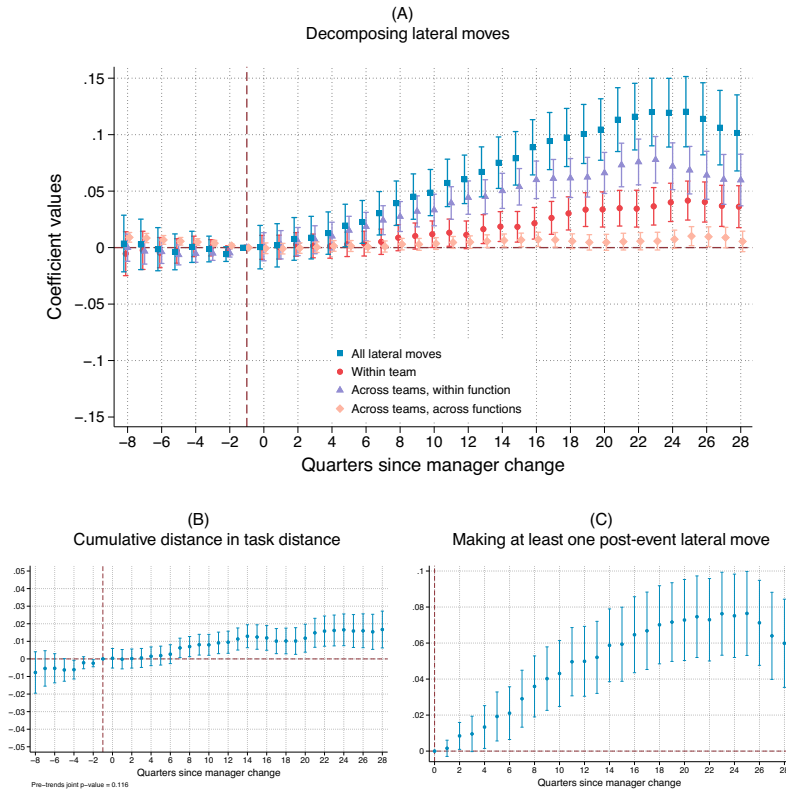


FIGURE III
Effects of Gaining a High-Flyer Manager, Lateral Moves

An observation is a worker-year-month. Coefficients are estimated from [equation \(2\)](#), and are aggregated to the quarterly level for ease of presentation. All standard errors are clustered by manager, and 95% confidence intervals are presented. In Panel A, for each lateral move, it can be classified exclusively into one of three types: (i) within team; (ii) across teams, within function; and (iii) across teams, across functions. Similar to the construction of the main outcome variables, I construct the cumulative number of these different types of lateral moves and use them as the dependent variable in event studies. This makes sure that the sum of the coefficients on the three outcomes equals the corresponding coefficients on the number of lateral moves. In Panels B and C, the outcome variables are the cumulative measure of task-distance moves using O*NET data and the probability of at least one post-event lateral move. Task distance between any two jobs is constructed by matching the firm's job titles with O*NET occupation titles and constructing intensity for three tasks: cognitive, routine, and social (explained in [Online Appendix D](#)). The baseline mean for the *LtoL* group is 0.015 for this cumulative task-distance measure.

1. *Task Changes.* To better understand the nature and direction of lateral mobility following a manager change, I first decompose job moves by organizational boundaries—within team, within function, and across functions—and then examine whether these transitions involve meaningful shifts in task content using measures of task distance and occupational classification based on cognitive, routine, and social task profiles.

In [Figure III](#), Panel A, I decompose the overall increase in lateral transfers by whether they occur in the team, outside of the team but in the same function, or across functions. The figure shows a clear and sustained increase in lateral mobility after the transition to a high-flyer manager across all types of moves. The largest contribution comes from moves across teams in the same function. However, both within-team and across-function transitions also rise—suggesting that high-flyer managers facilitate a broader reallocation of workers across the organizational structure, not limited to one specific margin. The figure further shows that cross-functional moves take the longest to materialize, with effects becoming significant only after quarter 13, reflecting their broader scope and the greater procedural hurdles they might entail. Within-team moves also emerge slowly, reaching significance after quarter 10, a pattern consistent with the fact that teams typically include only two distinct job titles.

To further characterize these reallocations, I focus on task-distant lateral transfers. Following [Deming \(2017\)](#) and [Cortes, Jaimovich, and Siu \(2023\)](#), I identify questions that are related to an occupation's cognitive, routine, and social task intensity from O*NET questionnaires. I match job titles inside the MNE to the O*NET occupation titles, allowing me to assign percentile ranks to each occupation based on the empirical distribution of all MNE employees. To analyze job transitions, I take two complementary approaches.

First, I calculate a composite measure of task distance between the origin and destination jobs using the angular separation across these three tasks as in [Gathmann and Schönberg \(2010\)](#). It ranges from zero to one, where zero indicates identical skill sets and one indicates completely distinct ones. Additional details on how the outcome variable is constructed are in [Online Appendix D](#). As the main outcome, I use the cumulative task distance an individual experiences over time. The corresponding event-study results are shown in [Figure III](#), Panel B, which shows that after the manager change, cumulative task distance grad-

ually increases, becoming statistically distinguishable from zero approximately seven quarters after the change and continues to rise thereafter. These dynamics are consistent with the greater adjustment costs that likewise underlie the slow emergence of cross-functional moves. Overall, these patterns suggest that manager changes are followed by a gradual shift in the types of tasks employees perform, leading to increasing divergence from their original task profile over time.

Second, to identify transition patterns across the three task groups, I classify a job as a cognitive, routine, or social job based on the highest intensity measure. I track the workers' occupations at the time of their first manager transition event, then two and seven years after, and construct a transition matrix with each entry representing the fraction of workers doing that transition. [Online Appendix Figure A.6](#) shows the heat map for the difference between *LtoH* and *LtoL* transition matrices. It can be seen that for *LtoH*, there are more off-diagonal transitions for cognitive and routine tasks, a sign of broader lateral mobility across different task domains over time and diversification in *LtoH* trajectories. For social occupations, the effect of high-flyer managers appears to operate more within-domain: *LtoH* workers are more likely to remain in social jobs compared with their *LtoL* counterparts. The stronger diagonal effect may reflect the fact that social occupations are the most prevalent in the sample, comprising 43% of workers at the time of the manager transition, compared with 31% in cognitive and 26% in routine occupations.

2. *Worker Exit.* I also examine whether there is an effect on worker exit from the firm. [Figure II](#), Panels C and D show that there is no impact on worker exit—both voluntary (quits) and involuntary (layoffs) exits. Moreover, in [Section VI.C](#), I show that there are no heterogeneous effects by whether the worker is an under- or overperformer in terms of pay growth at baseline. Combined with the increase in lateral transfers, the evidence points to high-flyer managers finding alternative suitable deployments inside the organization rather than pushing workers out.

V.B. Workers' Career Progression and Productivity

The previous subsection shows that high-flyer managers cause higher job reallocation to the workers they supervise through lateral transfers. This subsection presents evidence that

they also have a positive persistent impact on workers' career progression.

1. *Salary.* Figure II, Panel B compares the effects on the number of salary-grade increases when transitioning from a low- to a high-flyer manager (*LtoH*) relative to transitioning from a low- to another low-flyer manager (*LtoL*). Before the event date, the differences in the coefficients are statistically indistinguishable from zero. In contrast, after the transition date, the evolution of salary-grade increases starts to gradually diverge between the *LtoH* and *LtoL* workers. At 28 quarters after transitioning to a high-flyer manager (relative to transitioning to another low-flyer manager), the salary-grade increases are 0.17 higher ($p < .05$).

Salary is 13% higher: Figure IV, Panels A–C show the salary estimates (pay plus bonus), as well as the pay and bonus estimates separately. The bonus increases by 116%, but it should be considered that bonus is only roughly 10% of fixed pay for WL 1 workers.

The gap in overall pay is economically large: in the United States it represents \$11,962 in annual salary, on average.¹⁴ An alternative way of illustrating the magnitude is to consider that a 13% higher salary corresponds, on average, to the salary increment a WL 1 new hire would accumulate over seven years of employment.

2. *Promotions.* In Figure IV, Panel D, I look at work-level promotions, which in this case entail transitioning from a WL 1 position to a WL 2 managerial position. Seven years after transitioning to a high-flyer manager (relative to transitioning to another low-flyer manager), the number of work-level promotions is 0.02 higher or a 31% increase ($p < .05$). The WL promotions manifest after the manager transition and start to show significant effects from three years onward.

3. *Sales Productivity.* So far, I have interpreted higher worker pay growth as evidence of higher productivity. By leverag-

14. To quantify how influential high flyers are for workers' careers, one can also compute how they affect the present value of the workers' lifetime income. Assuming that careers last another 30 years (since most workers are in their late twenties or early thirties) and using a discount rate of 5% (I follow Frederiksen, Kahn, and Lange (2020) for this assumption), a two-year exposure to a high-flyer manager is associated with an increase in the present discounted value of pay of 167.6% of average annual pay.

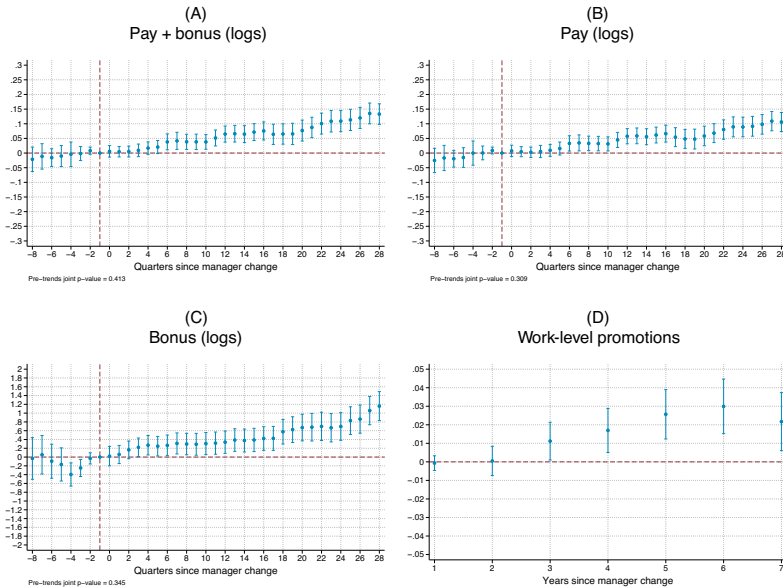


FIGURE IV

Effects of Gaining a High-Flyer Manager on Salary and Promotions

An observation is a worker-year-month. All coefficients are estimated from a single regression as in [equation \(2\)](#) and are aggregated to the quarterly level for ease of presentation for Panels A–C, or to the yearly level for Panel D. All standard errors are clustered by manager, and 95% confidence intervals are presented. The outcome variables in the first three panels are pay + bonus in logs, pay in logs, bonus in logs, and the outcome variable in Panel D is the number of work-level promotions. For Panel D, since I consider workers who experience the manager transition event at work level 1, there are no pre-event promotions, and only post-transition coefficients can be estimated.

ing sales performance data from the subset of field sales workers, I can provide further evidence in favor of the proposed interpretation. Specifically, I have sales bonus data on 5,604 employees in 15 countries over 2018–2021. Field sales workers are paid a variable sales bonus according to what they achieve relative to their targets each month.¹⁵ The data are high frequency as sales performance is tracked monthly, but they are relatively noisy. The results are shown in [Figure V](#). Compared with *LtoL* workers, *LtoH*

15. Some examples of sales targets include growth of sales, product placement, on-shelf availability, additional exhibitions, and the number of orders versus total visits each month.

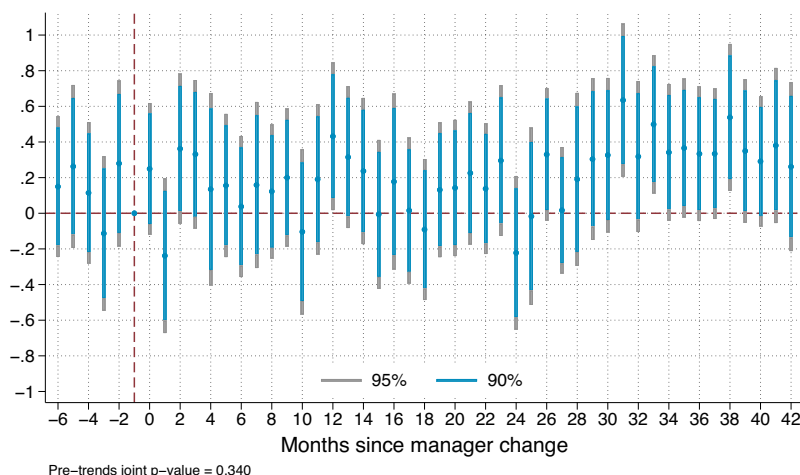


FIGURE V

Effects of Gaining a High-Flyer Manager on Sales Productivity

An observation is a worker-year-month. All coefficients are estimated from equation (2). The outcome variable is sales bonus (std. dev.), which is available for 15 countries for a subset of sales-related occupations inside the MNE. Countries for which the sales-bonus data are available are India, Indonesia, Italy, Russia, Mexico, the Philippines, Guatemala, Malaysia, South Africa, Nicaragua, El Salvador, Costa Rica, Colombia, Honduras, and Greece. All standard errors are clustered by manager; 90% and 95% confidence intervals are presented. The 12th quarter estimate (the average of month 34, 35, and 36 estimates) is 0.347 ($p = .052$).

workers' standardized sales bonus is 0.347 standard deviations higher by 12 quarters after the event ($p = .052$).

V.C. Asymmetric Effects, Losing a High Flyer

So far, I analyzed the impact of gaining a high-flyer manager. Now I look at the reverse transitions, that is, losing a high-flyer manager (moving from a high-flyer to a low-flyer manager compared with moving to another high-flyer manager). Figure VI shows that there is no differential effect when losing a high-flyer manager; the estimates are close to zero and statistically insignificant. In particular, the point estimates do not exhibit a detectable downward trend, which would be expected if losing a high-flyer manager had the opposite effect of gaining a high-flyer manager.¹⁶

16. Because of the reduced number of *HtoH* transitions (by virtue of the definition of a high-flyer manager that categorizes less than one-third of managers

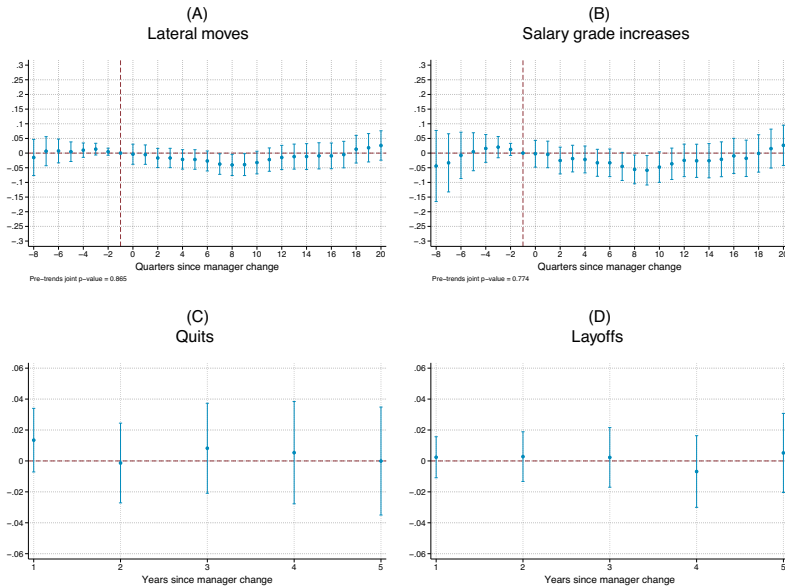


FIGURE VI

Effects of Losing a High-Flyer Manager ($\hat{\beta}_{HtoL.s} - \hat{\beta}_{HtoH.s}$)

For Panels A and B, an observation is a worker-year-month; coefficients are estimated from [equation \(2\)](#) and are aggregated to the quarterly level for ease of presentation. The outcome variables are the number of lateral moves and the number of salary grade increases. For Panels C and D, an observation is a worker; coefficients are estimated from [equation \(3\)](#), where controls include the fixed effects of the event time, the interaction of office and function, and the interaction between age band and gender. The controls are at the time of the event. The outcome variables are whether the worker quits or gets laid off within given years after the event. All standard errors are clustered by manager, and 95% confidence intervals are presented.

Hence, the high-flyer manager results are asymmetric: compared with gaining a high-flyer ([Figure II](#)), losing a high flyer does not lead to similar findings in the opposite direction, such as lower salary growth and transfers (see [Online Appendix Figure A.7](#) for a formal test of asymmetries).

This evidence conveys two key points. First, there are dynamic benefits of a one-time exposure to a high-flyer manager (which lasts two years on average): the effect endures even af-

as high flyers), the number of observations is insufficient to estimate the effects beyond the 20th quarter (five years post-manager transition). Hence, the x-axis of these plots ends at the 20th quarter.

ter transitioning to a low-flyer, and there is no additional effect of having a second high-flyer manager.¹⁷ Second, these findings reinforce the interpretation of the allocation channel as, once a worker has found the right job match, the gains cannot be erased by transitioning to a low-flyer manager. If high flyers were mainly motivating or monitoring workers to exert higher effort, we would expect to see symmetric effects so that on transferring from a high- to a low-flyer manager, there is a negative effect on the worker's career progression (compared with transferring from a high- to another high-flyer manager).

V.D. Robustness

I report a series of robustness exercises to the event-study estimates. In [Online Appendix E](#), I report the results of a placebo exercise where I reproduce the analysis, but instead of focusing on high-flyer managers as the relevant characteristic of managers, I focus on a characteristic that I know *ex ante* should not be relevant: whether the manager's "position number" (generated automatically by the HR system when hiring a worker) is even or odd.

1. Different Definitions of High-Flyer Managers. I conduct robustness checks using alternative age cutoffs. The results are shown in [Online Appendix Figure A.8](#). The blue lines present the baseline event-study results, and the red ones present the results using different age-based high-flyer measures. In particular, I make the criterion for high-flyer managers to be more or less stringent by using continuous age 28 or 32 as the threshold. I also use the original (nonimputed) coarse age-band variable to construct the high-flyer measure. As can be seen from [Online Appendix Figure A.8](#), results are very similar when adopting different high-flyer definitions.

17. It is helpful to consider this result in light of the identification strategy that relies on manager rotations. A threat to the validity of the strategy is potential nonrandom assignment of managers to teams. A profit-maximizing firm may want to design rotations to maximize output, which may cast doubt on the firm's rationale for having rotations in random order. Yet the results suggest that the optimal policy would be close to random assignment because it would entail assigning managers to teams to maximize the chance that each worker gets exposed to a high-flyer manager at least once. This is because, as the asymmetric effects make evident, a one-time exposure to a high-flyer has a persistent effect on a worker's career.

Tenure is also a natural and intuitive metric to capture a worker's speed of progression in the firm. In [Online Appendix Figure A.9](#), I use an alternative high-flyer definition based on tenure at promotion to WL 2. The tenure-based high-flyer manager definition is constructed as follows: a manager is defined as a high-flyer manager if their minimum tenure when they are in WL 2 (middle management position) is ≤ 5 . It is clear from the figure that the key patterns hold under tenure-based definitions as well.

I ultimately adopt age at promotion to WL 2 as the primary proxy for high-flyer managers because age serves as a more comprehensive proxy for labor market experience than does firm tenure. Variation in age more accurately reflects differences in cumulative labor market exposure and labor market experience, whereas tenure captures experience only in the current firm and overlooks prior relevant employment history.

2. *Cohort Dynamics.* I run the event study using the interaction-weighted estimator developed by [Sun and Abraham \(2021\)](#). [Online Appendix Figure A.10](#) presents the results, which remain very similar. As discussed in [Section II](#), cohort-specific contamination is unlikely to bias the results, as the firm's policies and organizational structure remained stable over the 11-year study period.

3. *Restricting the Event Study to New Hires.* Throughout the article, I am only considering the first observed manager transition. However, because my data are only available from January 2011, some workers may have experienced other manager transitions before then. If so, my estimates are averaging the effects on workers who have different histories in terms of manager transitions. This would not cause bias in my estimates provided each transition event is independent, which follows from the managers' rotations. I show that my results are robust to only considering new hires, identified as those workers whose minimum tenure in the data is strictly less than two years. I retain 64% of events. [Online Appendix Figure A.11](#), Panels A and B show that the event studies limited to new hires have very similar results.

4. *Poisson Model for Count Data.* [Online Appendix Figure A.11](#), Panels C and D show the event-study graphs when using a Poisson model as in [equation \(4\)](#) for the count variables:

lateral transfers and salary-grade increases. The figures report the first differences in the exponentiated coefficients, so they should be interpreted as the differences in the incidence-rate ratios. For example, [Online Appendix Figure A.11](#), Panel D indicates that workers gaining a high-flyer manager have a rate of salary increases 1.4 times greater five years post-transition (where $\hat{\beta}_{LtoH,20} - \hat{\beta}_{LtoL,20} = 0.334$, and $e^{0.334} = 1.40$).

VI. EVIDENCE FOR THE ALLOCATION CHANNEL

The results in [Section V](#) show higher lateral transfers and career progression for workers gaining a high-flyer manager. Here I provide evidence indicating that matching workers to jobs is a quantitatively important mechanism underlying the observed effects of high flyers on workers' careers.

VI.A. *Linking Job Moves to Performance*

A story by a worker from the firm illustrates the proactive "match-making" role that managers can play. In this case, the manager recognized the worker's passion for environmental sustainability and recommended the worker for a lead role in the firm's new green initiative. The opportunity not only aligned with the worker's personal values but also served as a pivotal step in the employee's progression toward a strategic leadership role.

To quantify the role of lateral moves in driving the salary gains of high flyers, I conduct a mediation analysis following the method by [Imai, Keele, and Tingley \(2010\)](#) and [Imai, Keele, and Yamamoto \(2010\)](#), which decomposes the total effect of high-flyer managers on salary growth into an indirect component operating through lateral transfers and a residual direct effect. Using the number of salary-grade increases in the 28th quarter as the outcome and the number of lateral moves in the 16th quarter as the mediator, I find that lateral transfers explain about 64% of the total effect. The estimate likely represents a lower bound on the importance of job matching, as it excludes vertical moves and task reallocations that do not involve formal job changes. Details of the procedure are provided in [Online Appendix D.3](#). With the caveat that the exercise conditions on an endogenous outcome, the evidence supports the interpretation of high-flyers as better allocators, rather than simply more active reallocators. I turn next to

characterizing the managerial skills and behaviors of high-flyers in the data.

VI.B. Managers and Workers' Skills and Behavior

Insights from individual qualitative interviews conducted with workers at the firm highlight some key behaviors exhibited by effective managers. Workers report that good managers actively support career development by initiating conversations about growth opportunities, providing constructive feedback through structured one-on-one meetings, encouraging autonomy, and giving employees space to take initiative. Rather than simply assigning and supervising tasks, these managers act as mentors—engaging with employees about their interests and aspirations. For example, one worker describes how their manager recognized an interest in graphic design during a routine project presentation and subsequently arranged for them to take the lead on the design component of a future campaign—an opportunity that aligned closely with the employee's skills and long-term goals.

I find support for these qualitative insights in quantitative measures that track the behavior of managers and workers. Specifically, I draw on time-use and skills data to assess how high-flyer managers differ from their peers in how they allocate their time and what types of skills they have. Then I turn to workers and examine whether employees under high-flyer managers behave differently in terms of career engagement using internal job-search data.

1. Manager Behavior. [Table IV](#) draws on time-use data covering a random sample of 600 WL 2 managers across multiple functions and countries. The data show that high-flyer managers spend 0.63 more hours per week in one-on-one meetings with subordinates (a 19% increase relative to low-flyer managers). They also send more emails, have fewer uninterrupted one-hour blocks, and engage in more multitasking (e.g., sending emails or messages while in meetings). These patterns are consistent with the idea that high-flyer managers facilitate better worker-job allocation by maintaining denser and more responsive communication with their teams and operating as active coordinators.

In addition, I use data on managers' skills from a new platform gradually introduced in 2018 where employees can post skills acquired, and these are in turn certified by their supervisor.

TABLE IV
HIGH-FLYER MANAGERS' TIME USE

Variable	Low flyers	High flyers	Difference
Work-week span	41.977 (9.512)	40.983 (10.595)	-0.995 (.336)
Meeting hours	12.759 (4.757)	13.140 (4.491)	0.381 (.401)
Meeting hours one-on-one with reportees	3.242 (2.401)	3.869 (2.666)	0.627** (.016)
Meeting hours internal	4.821 (4.618)	3.628 (4.426)	-1.193*** (.008)
Meeting hours external	4.696 (3.273)	5.643 (3.746)	0.947*** (.009)
Emails sent	65.216 (36.008)	74.859 (46.765)	9.642** (.030)
Open one-hour block	26.927 (7.574)	24.787 (8.279)	-2.140*** (.008)
Multitasking hours	2.712 (2.081)	3.222 (2.220)	0.510** (.020)
Observations	455	129	584

Notes. This table uses time-use data from Microsoft to document how high- and low-flyer managers use their time differently. The original data set is at weekly frequency spanning 2019 and contains a random sample of 2,000 employees from multiple work levels, gender, age, countries, and functions. All variables are the average across all weeks in the year. The table shows the mean and standard deviations (in parentheses) for high- and low-flyer managers and *p*-values for the difference in means. *p*-values are calculated using robust standard errors. * *p* < .1; ** *p* < .05; *** *p* < .01.

Because employees can post multiple skills, I reduce the dimensionality of the data by implementing a three-topic latent Dirichlet allocation (LDA) algorithm. Each topic represents a probability distribution over the skill descriptions. The three topics are illustrated in the word clouds in [Online Appendix Figure A.12](#), Panels B and C. Based on visual inspection, they broadly correspond to project management, strategy, and talent management skills.

Because the LDA algorithm returns a skill distribution for each manager over the three topics that sums to one, I estimate seemingly unrelated regressions using the topic shares as outcomes, with project management as the reference category. [Online Appendix Figure A.12](#), Panel A presents the results. High-flyer managers are significantly more likely to report skills related to strategy and talent management compared with low-flyer managers, thus reinforcing the view of high flyers being better positioned to allocate and develop talent in their teams. In [Online Appendix E](#), I also document that workers under a high-flyer man-

TABLE V
WORKER ENGAGEMENT IN FLEXIBLE PROJECTS AND LEARNING PLATFORM

	Profile completed (1)	Applied to any project role (2)	Number of project roles applied (3)	Number of skills (4)
<i>LtoH</i>	0.0458* (0.024)	0.0434* (0.022)	0.4818** (0.211)	0.6552** (0.267)
Mean, <i>LtoL</i>	0.474	0.281	0.954	6.581
<i>R</i> ²	0.296	0.244	0.270	0.251
<i>N</i>	3,638	3,638	3,638	13,526

Notes. An observation is a worker. The regression sample consists of workers in the *LtoL* and *LtoH* event groups. The regressor is whether the employee is in the *LtoH* event group. Controls include event-time fixed effects, and the interaction of office and function fixed effects. All standard errors (in parentheses) are clustered by manager. For columns (1)–(3), data are taken from flexible project program at the firm that allows workers to apply for short-term projects inside the company but outside their current team. Data for column (4) come from the internal talent matching platform. *Profile completed* indicates whether the profile on the platform is fully completed; *Applied to any project role* indicates whether the employee has applied to any project role through the platform; *Number of project roles applied* indicates the number of project roles the employee has applied to; *Number of skills* is the number of skills posted on the platform. * *p* < .1; ** *p* < .05; *** *p* < .01.

ager are more likely to report higher manager effectiveness in the annual engagement surveys run by the company.

Given the value that high-flyer managers bring to the MNE, a natural question is the extent to which these managers are “re-warded” by the firm. On average, a high-flyer manager has a 12.0 percentage point higher increase in salary over a 12-month period compared with a low-flyer manager (from Table III, Panel B, which shows that the monthly salary growth is 1.0 percentage point higher). As the average annual increase in salary for low-flyer managers is 10.8%, this estimate is economically meaningful.

2. *Worker Behavior.* Table V examines worker behavior by analyzing data from the firm’s flexible project program and from the internal learning platform. Workers who gain a high-flyer manager are significantly more engaged in the flexible projects initiative: they are 9.7% more likely to complete their profile on the platform, 15.4% more likely to apply to project roles, and they apply to 50.5% more projects overall. These short-term projects, which take place inside the company but outside the worker’s current team, are designed precisely to allow greater career and organizational agility by allowing workers to explore different career paths. In addition, data from the internal talent-matching platform show that workers who gain a high-flyer manager post 0.66 more skills (a 10.0% increase), suggesting that these workers be-

come more proactive in signaling and developing their capabilities.

VI.C. *Heterogeneous Effects*

To further probe the allocation mechanism, I examine heterogeneous treatment effects by extending the model in [equation \(2\)](#) to allow the effects to vary with characteristic H_i :

$$y_{it} = \sum_{j \in J} \sum_{s \neq -1} \beta_{j,s} D_{i,t+s}^j + \sum_{j \in J} \sum_{s \neq -1} \beta_{j,s}^H D_{i,t+s}^j \times H_i + \xi_t + \alpha_i + \epsilon_{it}, \quad (5)$$

where all the variables are defined as in [equation \(2\)](#). Let H_i be a dummy variable that indexes, for example, younger workers; then β identifies the effect of high-flyers on older workers, and β^H identifies the differential impact between younger and older workers. Thus, β^H tests for the presence of heterogeneous treatment effects and is the main coefficient of interest. Since the high-flyer managers appear to have the largest effect on worker outcomes in the 20th quarter, the display of the heterogeneity analysis focuses on workers' heterogeneous outcomes (β^H) in that quarter.

I explore a number of dimensions of heterogeneity on the four main outcomes: lateral moves, salary-grade increases, WL promotions, and worker exit. First, I investigate workers' and managers' characteristics: manager tenure, manager and worker being in the same office, manager and worker sharing the same gender, and worker age. Second, I consider characteristics concerning the environment in which they operate: office size, number of different jobs in the office, and country labor laws as measured by the Restrictive Labor Regulations Index from the World Bank. Third, I look at worker baseline performance and team baseline performance in terms of average pay growth in the two years preceding the manager transition: above and below the median and top 10% versus bottom 10%.

1. *Worker and Manager Characteristics.* [Table VI](#), Panel A shows that the effects are strongest for managers with higher tenure, workers that are in the same office as their manager, and younger workers, while they largely do not seem to be different based on whether the manager shares the same gender as the worker. It is helpful to interpret these heterogeneous effects through the lens of the allocation channel. Conditional on having

TABLE VI
HETEROGENEOUS EFFECTS OF GAINING A HIGH-FLYER MANAGER

	Lateral move (1)	Salary- grade increase (2)	Work-level promotion (3)	Exit from the firm (4)
Panel A: Worker and manager characteristics				
Manager tenure, high	0.080* (0.05)	0.090 (0.08)	0.053** (0.03)	-0.017 (0.02)
Same office as manager	0.182*** (0.04)	0.178*** (0.06)	0.069*** (0.02)	-0.037* (0.02)
Same gender as manager	0.060* (0.04)	0.060 (0.05)	0.007 (0.02)	-0.005 (0.01)
Worker age, young	0.080** (0.04)	0.087* (0.05)	0.062*** (0.02)	0.003 (0.02)
Panel B: Office and country-wide characteristics				
Office size, large	0.173*** (0.04)	0.193*** (0.06)	0.067*** (0.02)	0.017 (0.03)
Office job diversity, high	0.172*** (0.04)	0.194*** (0.06)	0.068*** (0.02)	0.006 (0.02)
Labor laws, high	0.177*** (0.04)	0.242*** (0.06)	0.085*** (0.02)	0.016 (0.02)
Panel C: Worker performance				
Worker performance, high (p50)	0.004 (0.12)	0.208 (0.20)	0.050 (0.07)	-0.033 (0.04)
Worker performance, high (p90)	-0.092 (0.18)	0.273 (0.29)	0.002 (0.09)	0.020 (0.11)
Team performance, high (p50)	0.023 (0.13)	0.250 (0.19)	0.036 (0.07)	-0.044 (0.03)

Notes. An observation is a worker-year-month. Coefficients in columns (1)–(3) are estimated from a regression as in [equation \(5\)](#), and the table reports the coefficient at the 20th quarter since the manager transition. Controls include worker and year-month fixed effects. Coefficients in column (4) are estimated from a cross-sectional regression, where the outcome variable is whether the worker left the firm within two years after the treatment, and where controls include the fixed effects of event time, the interaction of office and function, as well as the interaction between age band and gender. All standard errors (in parentheses) are clustered by manager. Each row displays the differential heterogeneous impact of each respective variable. Panel A: The first row looks at the differential impact between having the manager with over and under seven years of tenure (the median tenure years for high-flyer managers); the second row looks at the differential impact between sharing and not sharing the office with the manager; the third row looks at the differential impact between sharing and not sharing the same gender with the manager; the fourth row looks at the differential impact between being under and over 30 years old. Panel B: The first row looks at the differential impact between large and small offices (above and below the median number of workers); the second row looks at the differential impact between offices with high and low number of different jobs (above and below the median); the third row looks at the differential impact between countries having stricter and laxer labor laws (above and below the median). Panel C: The first row looks at the differential impact between better and worse performing workers at baseline in terms of salary growth; the second row looks at the differential impact between the top 10% and the bottom 10% of workers in terms of salary growth; the third row looks at the differential impact between better and worse performing teams at baseline in terms of salary growth. * $p < .1$; ** $p < .05$; *** $p < .01$.

a high-flyer manager, a higher manager tenure in the firm tends to correlate with more information regarding job opportunities and career paths at the firm, as well as with higher general experience in managing workers. Second, the worker being in the same office as the manager facilitates interactions and observation by the manager. The larger effects for younger workers make sense when thinking that these workers have just started operating in the labor market: they have a lot to discover about their skills and fit and, relatedly, they have not yet accumulated a lot of job-specific experience.¹⁸

2. *Environmental Characteristics.* Table VI, Panel B shows that the gains are larger for bigger offices, offices with a larger number of different jobs, and countries with stricter labor laws. The heterogeneous effects along these dimensions also corroborate the allocation channel: small offices or offices with a smaller number of different jobs have less job variety, and hence there is less scope for worker-job reallocation, and stricter labor laws impose constraints on hiring and firing, making reallocation of existing talent to jobs particularly crucial.¹⁹

3. *Worker and Team Performance.* Table VI, Panel C displays no evidence of heterogeneity in terms of worker and team performance, indicating that high flyers are not disproportionately benefiting higher- or lower-performing workers. Going back to the allocation channel, in a world where workers have horizontal differentiation in task-specific skills, it pans out that high flyers affect both high and low performers. In both cases, there could be cases of misallocation, which the high-flyer manager uncovers.

VI.D. *Alternative Channels*

1. *Manager Teaching, Motivating, or Monitoring Workers.* A high-flyer manager could affect workers through multiple channels. Beyond internal assignment, they may teach workers, raise

18. The framework in Online Appendix C clarifies the trade-off between finding a better job match and losing previously accumulated job-specific human capital.

19. The heterogeneous effects by labor laws echo the findings of Fenizia (2022) on good managers having large effects on the efficiency of the public sector despite the lack of many of the tools available to private sector firms such as hiring, firing, and promotions.

motivation, or monitor more effectively. The evidence discussed below suggests that these channels—while potentially present—are unlikely to fully account for the joint patterns in lateral mobility and career outcomes.

First, lateral moves, including the task-distant moves and out-of-team moves, cannot be easily reconciled with these other channels (see [Figure III](#), Panels A and B).²⁰ Second, worker exits do not increase ([Figure II](#), Panels C and D). An outside-option argument would imply that higher general human capital or broadly higher motivation should increase quits by improving opportunities outside the firm. Third, pay dispersion rises when teams move from low- to high-flyer managers, which is less consistent with uniform effort-raising mechanisms that would tend to shift outcomes more evenly across workers ([Online Appendix Figure A.13](#)).²¹ Relatedly, worker survey outcomes related to effort, such as “going the extra mile,” do not differ across manager types, providing limited direct support for an aspirations/effort story (see Section E in the [Online Appendix](#)).

Taken together, the combination of (i) task-distant and out-of-team lateral moves, (ii) unchanged exits, and (iii) rising within-team pay dispersion is hard to reconcile with a purely effort- or teaching-based account.

2. Manager Bias, Social Connections, and Information. I interpret the lateral moves and career effects as the causal impact of high-flyer managers improving worker–job match and performance, rather than merely boosting pay. Three facts argue against bias or network favoritism. First, productivity rises: exposure to a high-flyer increases monthly sales productivity by 0.347 standard deviations 12 quarters after the event ([Figure V](#)). Second, workers under high flyers are more likely to move outside the manager’s prior network (in terms of subfunctions/branches/peers) and are less likely to remain with the same supervising manager, inconsistent with a pure information or “plug-in to my network” channel ([Online Appendix Table B.5](#)). Third, homophily does not appear to

20. [Online Appendix C](#) shows, with a conceptual framework, that these other channels would have opposite predictions on lateral moves.

21. To shut down effects due to changes in team composition, I keep the team constant at the time of the manager transition, regardless of whether a worker continues to work under the manager of the transition or changes manager after some time.

drive the results: effects do not vary by manager–worker gender match (Table VI, Panel A). A leniency-bias story would also require the bias to be correlated with high-flyer status; if uncorrelated, it is differenced out by the design.

In terms of talent hoarding, if high-flyer status is uncorrelated with hoarding, it cannot account for the findings—consistent with Haegele (2025), which finds no link between hoarding and manager characteristics. If high-flyers hoard more, my estimates are a lower bound because hoarding suppresses lateral and vertical moves. If they hoard less, we should see heterogeneity by baseline performance (low flyers retaining stars and shedding low performers), which I do not observe (Table VI, Panel C). Workers who make a lateral move also do not differ in engagement survey responses, reducing “escape from hoarding” concerns (see Section E in the Online Appendix). Finally, asymmetric career effects on losing a high-flyer manager are difficult to square with a hoarding explanation.

3. Institutional Factors. Congestion effects—where subordinates benefit simply from their manager’s promotion (Bianchi et al. 2023)—are not supported by the data because workers are no more likely to inherit their manager’s role (Online Appendix Table B.5), and promotions are determined at the subfunction level, not the team. In addition, high-flyer managers do not create new jobs or eliminate existing ones at higher rates, indicating that they are reallocating workers across preexisting roles rather than changing the opportunity set (see Online Appendix Table B.6).

Together, these findings support the interpretation that high-flyer managers improve workers’ careers by efficiently matching talent to roles, rather than through bias, favoritism, or institutional artifacts.

VII. CONCLUSION

Managers are central to the theory of the firm because they determine the allocation of resources within it (Coase 1937; Chandler 1993). Yet empirical evidence studying the long-term effect of individual managers on workers’ careers remains sparse. This article opens the “black box” of the firm by collecting novel personnel records from a large consumer goods MNE and shows that the ability of managers to match diversely skilled workers to

specialized jobs inside the firm has large and persistent effects on workers' performance and career paths.

The effects of a worker's exposure to a good manager extend far beyond the period circumscribed by the particular manager-worker spell. The magnitudes are comparable to existing estimates of manager effects in other settings (Lazear, Shaw, and Stanton 2015; Frederiksen, Kahn, and Lange 2020; Weidmann et al. 2026), but the setting additionally allows me to document persistence over many years. Moreover, the evidence suggests that a key channel through which managers affect firm productivity is by harnessing workers' heterogeneous skills through internal job allocation, rather than through hiring, firing, or formal training.

The literature on the AKM framework using matched employer-employee data sets typically documents the lack of firm-worker match effects (Abowd, Kramarz, and Margolis 1999; Card et al. 2018). Instead, my results indicate sorting on match effects within firms at the worker-job level. This contrast is consistent with managers' learning about workers' comparative advantage—or, in aggregate, employer learning (Altonji and Pierret 2001)—and suggests that internal learning and assignment are important determinants of firm boundaries.

In studying the internal labor market of an MNE, this article speaks to questions of importance to today's large companies. The focus on large firms is especially relevant when considering that across the OECD countries, firms with over 250 workers represent only 1% of enterprises but account for 40% of manufacturing employment.²² Although the results pertain to only one firm, the mechanism of managers matching workers to jobs is of general application and features of the setting suggest broader relevance. I study the full population of workers in a large manufacturing firm with operations spanning more than 100 countries.

From a policy and managerial perspective, the findings underscore that the allocation of workers to jobs is an important margin for improving performance. An additional implication is that the most successful managers (as identified by the firm) can extract more value from the same managerial practices set by firm-wide

22. Based on OECD Structural and Demographic Business Statistics, OECD Publishing, 2025. Moreover, Autor et al. (2020) documents extensively how large firms have become larger over the past five decades across high-income countries. For example, the share of U.S. employment in firms with more than 5,000 employees rose from 28% in 1987 to 34% in 2016.

policies, indicating that the effectiveness of managerial practices also depends on the managers' ability to use them. The ability to create efficient worker-job matches is particularly valuable at times when technological innovation, such as digitalization and artificial intelligence, and disruptions, such as pandemics or climate change, force widespread firm restructuring and require the reallocation of existing workers to new jobs or their replacement with workers featuring new skills.

Methodologically, instead of using surveys regarding how managers run their operations, I analyze rich administrative firm data, unpacking the managers' effects by looking at outcomes from within the firm. Understanding which managerial skills enable effective worker allocation—and whether these skills can be trained or augmented by technologies—remains an important direction for future research.

SUPPLEMENTARY MATERIAL

An Online Appendix for this article can be found at *The Quarterly Journal of Economics* online.

DATA AVAILABILITY

The code underlying this article is available in Minni (2026) in the Harvard Dataverse, <https://doi.org/10.7910/DVN/HU6OQO>.

UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS,
UNITED STATES

REFERENCES

- Abowd, John M., Francis Kramarz, and David N. Margolis, "High Wage Workers and High Wage Firms," *Econometrica*, 67 (1999), 251–333. <https://doi.org/10.1111/1468-0262.00020>.
- Acemoglu, Daron, and David Autor, "Skills, Tasks and Technologies: Implications for Employment and Earnings," in *Handbook of Labor Economics*, vol. 4B, David Card and Orley Ashenfelter, eds. (Amsterdam: Elsevier, 2011), 1043–1171. [https://doi.org/10.1016/S0169-7218\(11\)02410-5](https://doi.org/10.1016/S0169-7218(11)02410-5).
- Adhvaryu, Achyuta, Namrata Kala, and Anant Nyshadham, "Management and Shocks to Worker Productivity," *Journal of Political Economy*, 130 (2022), 1–47. <https://doi.org/10.1086/717046>.
- Adhvaryu, Achyuta, Anant Nyshadham, and Jorge Tamayo, "Managerial Quality and Productivity Dynamics," *Review of Economic Studies*, 90 (2023), 1569–1607. <https://doi.org/10.1093/restud/rdac062>.

- Altonji, Joseph G., and Charles R. Pierret, "Employer Learning and Statistical Discrimination," *Quarterly Journal of Economics*, 116 (2001), 313–350. <https://doi.org/10.1162/003355301556329>.
- Ashraf, Nava, Oriana Bandiera, Virginia Minni, and Quintas-Martínez Víctor, "Gender Gaps Across the Spectrum of Development: Local Talent and Firm Productivity," Discussion Paper no. 17103, Institute of Labor Economics, Bonn, 2024. <https://doi.org/10.2139/ssrn.4883862>.
- Ashraf, Nava, Oriana Bandiera, Virginia Minni, and Luigi Zingales, "Meaning at Work," Working Paper no. 33843, National Bureau of Economic Research, Cambridge, MA, 2025. <https://doi.org/10.3386/w33843>.
- Autor, David, David Dorn, Lawrence F. Katz, Christina Patterson, and John Van Reenen, "The Fall of the Labor Share and the Rise of Superstar Firms," *Quarterly Journal of Economics*, 135 (2020), 645–709. <https://doi.org/10.1093/qje/qjaa004>.
- Baker, George, Michael Gibbs, and Bengt Holmstrom, "The Internal Economics of the Firm: Evidence from Personnel Data," *Quarterly Journal of Economics*, 109 (1994a), 881–919. <https://doi.org/10.2307/2118351>.
- , "The Wage Policy of a Firm," *Quarterly Journal of Economics*, 109 (1994b), 921–955. <https://doi.org/10.2307/2118352>.
- Bandiera, Oriana, Iwan Barankay, and Imran Rasul, "Incentives for Managers and Inequality among Workers: Evidence from a Firm-Level Experiment," *Quarterly Journal of Economics*, 122 (2007), 729–773. <https://doi.org/10.1162/qjec.122.2.729>.
- , "Team Incentives: Evidence from a Firm Level Experiment," *Journal of the European Economic Association*, 11 (2013), 1079–1114. <https://doi.org/10.1111/jeea.12028>.
- Bandiera, Oriana, Andrea Prat, Stephen Hansen, and Raffaella Sadun, "CEO Behavior and Firm Performance," *Journal of Political Economy*, 128 (2020), 1325–1369. <https://doi.org/10.1086/705331>.
- Benson, Alan, Danielle Li, and Kelly Shue, "Promotions and the Peter Principle," *Quarterly Journal of Economics*, 134 (2019), 2085–2134. <https://doi.org/10.1093/qje/qjz022>.
- , "'Potential' and the Gender Promotion Gap," *American Economic Review*, 116 (2026), 375–417. <https://doi.org/10.1257/aer.20220831>.
- Bernhardt, Dan, "Strategic Promotion and Compensation," *Review of Economic Studies*, 62 (1995), 315–339. <https://doi.org/10.2307/2297807>.
- Bertrand, Marianne, Robin Burgess, Arunish Chawla, and Guo Xu, "The Glittering Prizes: Career Incentives and Bureaucrat Performance," *Review of Economic Studies*, 87 (2020), 626–655. <https://doi.org/10.1093/restud/rdz029>.
- Bertrand, Marianne, and Antoinette Schoar, "Managing with Style: The Effect of Managers on Firm Policies," *Quarterly Journal of Economics*, 118 (2003), 1169–1208. <https://doi.org/10.1162/003355303322552775>.
- Bianchi, Nicola, Giulia Bovini, Jin Li, Matteo Paradisi, and Michael Powell, "Career Spillovers in Internal Labour Markets," *Review of Economic Studies*, 90 (2023), 1800–1831. <https://doi.org/10.1093/restud/rdac067>.
- Bloom, Nicholas, and John Van Reenen, "Human Resource Management and Productivity," in *Handbook of Labor Economics*, vol. 4B, David Card and Orley Ashenfelter, eds. (Amsterdam: Elsevier, 2011), 1697–1767. [https://doi.org/10.1016/S0169-7218\(11\)02417-8](https://doi.org/10.1016/S0169-7218(11)02417-8).
- Caplin, Andrew, David J. Deming, Søren Leth-Petersen, and Ben Weidmann, "Economic Decision-Making Skill Predicts Income in Two Countries," Working Paper no. 31674, National Bureau of Economic Research, Cambridge, MA, 2023. <https://doi.org/10.3386/w31674>.
- Card, David, Ana Rute Cardoso, Joerg Heining, and Patrick Kline, "Firms and Labor Market Inequality: Evidence and Some Theory," *Journal of Labor Economics*, 36 (2018), S13–S70. <https://doi.org/10.1086/694153>.

- Card, David, Jörg Heining, and Patrick Kline, "Workplace Heterogeneity and the Rise of West German Wage Inequality," *Quarterly Journal of Economics*, 128 (2013), 967–1015. <https://doi.org/10.1093/qje/qjt006>.
- Chade, Hector, Jan Eeckhout, and Lones Smith, "Sorting through Search and Matching Models in Economics," *Journal of Economic Literature*, 55 (2017), 493–544. <https://doi.org/10.1257/jel.20150777>.
- Chandler, Alfred D., *The Visible Hand: The Managerial Revolution in American Business*, (Cambridge, MA: Harvard University Press, 1993).
- Clifton, Jim, and James K. Harter, *It's the Manager: Gallup Finds the Quality of Managers and Team Leaders Is the Single Biggest Factor in Your Organization's Long-Term Success*, (Washington, DC: Gallup Press, 2019).
- Coase, Ronald H., "The Nature of the Firm," *Economica*, 4 (1937), 386–405. <https://doi.org/10.1111/j.1468-0335.1937.tb00002.x>.
- Correia, Sergio, Paulo Guimarães, and Tom Zylkin, "Fast Poisson Estimation with High-Dimensional Fixed Effects," *Stata Journal*, 20 (2020), 95–115. <https://doi.org/10.1177/1536867X20909691>.
- Cortes, Guido Matias, Nir Jaimovich, and Henry E. Siu, "The Growing Importance of Social Tasks in High-Paying Occupations: Implications for Sorting," *Journal of Human Resources*, 58 (2023), 1429–1451. <https://doi.org/10.3368/jhr.58.5.0121-11455R1>.
- Cowgill, Bo, Jonathan M. V. Davis, B. Pablo Montagnes, and Patryk Perkowski, "Stable Matching on the Job? Theory and Evidence on Internal Talent Markets," *Management Science*, 71 (2025), 2508–2526. <https://doi.org/10.1287/mnsc.2023.01373>.
- Cullen, Zoë, and Ricardo Perez-Truglia, "The Old Boys' Club: Schmoozing and the Gender Gap," *American Economic Review*, 113 (2023), 1703–1740. <https://doi.org/10.1257/aer.20210863>.
- Deming, David J., "The Growing Importance of Social Skills in the Labor Market," *Quarterly Journal of Economics*, 132 (2017), 1593–1640. <https://doi.org/10.1093/qje/qjx022>.
- Doeringer, Peter B., and Michael J. Piore, *Internal Labor Markets and Manpower Analysis*, (Armonk, NY: M. E. Sharpe, 1985).
- Fenizia, Alessandra, "Managers and Productivity in the Public Sector," *Econometrica*, 90 (2022), 1063–1084. <https://doi.org/10.3982/ECTA19244>.
- Frederiksen, Anders, Lisa B. Kahn, and Fabian Lange, "Supervisors and Performance Management Systems," *Journal of Political Economy*, 128 (2020), 2123–2187. <https://doi.org/10.1086/705715>.
- Gathmann, Christina, and Uta Schönberg, "How General Is Human Capital? A Task-Based Approach," *Journal of Labor Economics*, 28 (2010), 1–49. <https://doi.org/10.1086/649786>.
- Gibbons, Robert, and Rebecca Henderson, "What Do Managers Do? Exploring Persistent Performance Differences among Seemingly Similar Enterprises," in *Handbook of Organizational Economics*, Robert Gibbons and John Roberts, eds. (Princeton, NJ: Princeton University Press, 2013), 680–731. <https://doi.org/10.1515/9781400845354-019>.
- Gibbons, Robert, and Michael Waldman, "A Theory of Wage and Promotion Dynamics Inside Firms," *Quarterly Journal of Economics*, 114 (1999), 1321–1358. <https://doi.org/10.1162/003355399556287>.
- Haeghe, Ingrid, "Talent Hoarding in Organizations," arXiv preprint, 2025. <https://doi.org/10.48550/arXiv.2206.15098>.
- Hoffman, Mitchell, and Steven Tadelis, "People Management Skills, Employee Attrition, and Manager Rewards: An Empirical Analysis," *Journal of Political Economy*, 129 (2021), 243–285. <https://doi.org/10.1086/711409>.
- Holmström, Bengt, "Moral Hazard and Observability," *Bell Journal of Economics*, (1979), 74–91. <https://doi.org/10.2307/3003320>.
- Hsieh, Chang-Tai, Erik Hurst, Charles I. Jones, and Peter J. Klenow, "The Allocation of Talent and U.S. Economic Growth," *Econometrica*, 87 (2019), 1439–1474. <https://doi.org/10.3982/ECTA11427>.

- Hsieh, Chang-Tai, and Peter J. Klenow, "Misallocation and Manufacturing TFP in China and India," *Quarterly Journal of Economics*, 124 (2009), 1403–1448. <https://doi.org/10.1162/qjec.2009.124.4.1403>.
- Huitfeldt, Ingrid, Andreas R. Kostøl, Jan Nimeczik, and Andrea Weber, "Internal Labor Markets: A Worker Flow Approach," *Journal of Econometrics*, 233 (2023), 661–688. <https://doi.org/10.1016/j.jeconom.2021.12.016>.
- Imai, Kosuke, Luke Keele, and Dustin Tingley, "A General Approach to Causal Mediation Analysis," *Psychological Methods*, 15 (2010), 309–334. <https://doi.org/10.1037/a0020761>.
- Imai, Kosuke, Luke Keele, and Teppei Yamamoto, "Identification, Inference and Sensitivity Analysis for Causal Mediation Effects," *Statistical Science*, 25 (2010), 51–71. <https://doi.org/10.1214/10-STS321>.
- Jovanovic, Boyan, "Job Matching and the Theory of Turnover," *Journal of Political Economy*, 87 (1979), 972–990. <https://doi.org/10.1086/260808>.
- Kahn, Lisa B., and Fabian Lange, "Employer Learning, Productivity, and the Earnings Distribution: Evidence from Performance Measures," *Review of Economic Studies*, 81 (2014), 1575–1613. <https://doi.org/10.1093/restud/rdu021>.
- Lazear, Edward P., "Performance Pay and Productivity," *American Economic Review*, 90 (2000), 1346–1361. <https://doi.org/10.1257/aer.90.5.1346>.
- Lazear, Edward P., and Sherwin Rosen, "Rank-Order Tournaments as Optimum Labor Contracts," *Journal of Political Economy*, 89 (1981), 841–864. <https://doi.org/10.1086/261010>.
- Lazear, Edward P., Kathryn L. Shaw, and Christopher T. Stanton, "The Value of Bosses," *Journal of Labor Economics*, 33 (2015), 823–861. <https://doi.org/10.1086/681097>.
- Metcalfe, Robert D., Alexandre B. Sollaci, and Chad Syverson, "Managers and Productivity in Retail," Working Paper no. 31192, National Bureau of Economic Research, Cambridge, MA, 2023. <https://doi.org/10.3386/w31192>.
- Minni, Virginia, "Global Managers, Local Workers: Wage Setting inside a Multinational Firm," *AEA Papers and Proceedings*, 114 (2024), 586–591. <https://doi.org/10.1257/pandp.20241076>.
- , "Replication Data for: 'Making the Invisible Hand Visible: Managers and the Allocation of Workers to Jobs,'" (2026), Harvard Dataverse. <https://doi.org/10.7910/DVN/HU6OQO>.
- Minni, Virginia, Kieu-Trang Nguyen, Heather Sarsons, and Carla Srebot, "Managers and the Cultural Transmission of Gender Norms," Working Paper no. 34782, National Bureau of Economic Research, Cambridge, MA, 2026. <https://doi.org/10.3386/w34782>.
- National Center for O*NET Development, "O*NET 29.1 Database," 2024.
- Pastorino, Elena, "Careers in Firms: The Role of Learning about Ability and Human Capital Acquisition," *Journal of Political Economy*, 132 (2024), 1994–2073. <https://doi.org/10.1086/728454>.
- Prendergast, Canice, "What Happens within Firms? A Survey of Empirical Evidence on Compensation Policies," in *Labor Statistics Measurement Issues*, John Haltiwanger, Marilyn E. Manser, and Robert H. Topel, eds. (Chicago: University of Chicago Press, 1998), 329–356.
- Rosen, Sherwin, "The Theory of Equalizing Differences," in *Handbook of Labor Economics*, vol. 1, Orley Ashenfelter and Richard Layard, eds. (Amsterdam: Elsevier, 1986), 641–692. [https://doi.org/10.1016/S1573-4463\(86\)01015-5](https://doi.org/10.1016/S1573-4463(86)01015-5).
- Rosenbaum, James E., *Career Mobility in a Corporate Hierarchy*, (New York: Academic Press, 1984).
- Smith, Adam, *An Inquiry into the Nature and Causes of the Wealth of Nations*, (London, 1776).
- Sun, Liyang, and Sarah Abraham, "Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects," *Journal of Econometrics*, 225 (2021), 175–199. <https://doi.org/10.1016/j.jeconom.2020.09.006>.

- Topel, Robert H., and Michael P. Ward, "Job Mobility and the Careers of Young Men," *Quarterly Journal of Economics*, 107 (1992), 439–479. <https://doi.org/10.2307/2118478>.
- van Houten, Gijs, and Giovanni Russo, *European Company Survey 2019-Workplace Practices Unlocking Employee Potential, European Company Survey 2019 series* (Luxembourg: Eurofound and Cedefop, Publications Office of the European Union, 2020).
- Waldman, Michael, "Job Assignments, Signalling, and Efficiency," *RAND Journal of Economics*, 15 (1984), 255–267.
- Weidmann, Ben, Joseph Vecci, Farah Said, Sonia Bhalotra, Achyuta Adhvaryu, Anant Nyshadham, Jorge Tamayo, and David Deming, "How Do You Identify a Good Manager?" *Quarterly Journal of Economics*, 141 (2026). 1581–1633. <https://doi.org/10.1093/qje/qjag004>.



CALL FOR NOMINATIONS

\$300,000 Nemmers Prize in Economics

Northwestern University invites nominations for the Erwin Plein Nemmers Prize in Economics, to be awarded during the 2026–27 academic year. The prize pays the recipient \$300,000. Recipients of the Nemmers Prize present lectures, participate in department seminars, and engage with Northwestern faculty and students in other scholarly activities.

Details about the prize and the nomination process can be found at nemmers.northwestern.edu. Candidacy for the Nemmers Prize is open to those with careers of outstanding achievement in their disciplines as demonstrated by major contributions to new knowledge or the development of significant new modes of analysis. Individuals of all nationalities and institutional affiliations are eligible except current or recent members of the Northwestern University faculty and past recipients of the Nemmers or Nobel Prize.

Nominations will be accepted until January 14, 2026.

The Nemmers prizes are made possible by a generous gift to Northwestern University by the late Erwin Esser Nemmers and the late Frederic Esser Nemmers.