Managers and the Cultural Transmission of Gender Norms*

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Abstract

This paper studies how managers' gender attitudes shape workplace culture and gender inequality. Using data from a multinational firm operating in over 100 countries, we leverage cross-country manager rotations to identify the effects of male managers' gender attitudes on gender pay gaps within a team. Managers from countries with one standard deviation more progressive gender attitudes reduce the pay gap by 5 percentage points (18%), largely through higher promotion rates for women. These effects persist after managers rotate out and are strongest in more conservative countries. Managers with progressive attitudes also influence the local office culture, as local managers who interact with but are not under the purview of the foreign manager begin to have smaller pay gaps in their teams. Our evidence points to individual managers as critical in shaping corporate culture.

Keywords: managers, gender gaps, corporate culture, multinationals

JEL: J16, J24, F23, M14, M5

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1 Introduction

Gender gaps within firms can arise from both managers' biases and from broader aspects of firm practices, policies, and culture.[1] Managers may directly influence pay and promotion decisions, but a firm's overall culture can also affect women and men's career outcomes even when the manager changes. A natural question is then: to what extent can individual managers reshape the firm's culture itself?

This paper addresses this question by studying how foreign managers' gender attitudes impact both worker outcomes and the behavior and practices of local managers. Using 11 years of detailed personnel records from a large multinational operating in over 100 countries, we exploit quasi-exogenous cross-country manager rotations to estimate the impact of a manager's gender attitudes on the work culture and outcomes in the destination offices.[2] We find that expat managers impact local employees' outcomes along two dimensions. First, expat managers from countries with progressive gender attitudes narrow gender gaps in pay and promotions among their direct subordinates. Second, expat managers have a lasting influence on local managers who interact with the expat. These local managers narrow gender pay gaps among their own subordinates, over whom the expat manager has no direct control.

Studying this question in the context of multinationals offers four advantages. First, the multinational operates in over 100 countries that range in their degree of gender attitudes, providing sufficient variation in attitudes. Second, the multinational emphasizes foreign rotations as necessary for promotions into senior leadership positions, and the locations of rotations are determined by factors orthogonal to managers' gender views. This allows us to estimate the impact of a manager on employee outcomes in the destination offices. Third, because we have a panel of employees, we can include worker fixed effects to control for possible changes in worker composition that come with manager

[1] On the role of managers, see Ronchi and Smith (2026); Cullen and Perez-Truglia (2023); Fortin et al. (2022). On the role of policies and culture, see, for example, the role of evaluation practices (Benson et al., 2019), negotiating practices (Masso et al., 2022), and family-friendly firms (Hampole et al., 2025).

[2] Throughout the paper, we use gender attitudes and gender norms interchangeably. Our measure of norms/attitudes comes from the World Values Survey, which elicits individual attitudes and, therefore, the norms individuals face.

rotations. Finally, the structure of the company allows us to test for cultural spillovers to other managers and workers in the local subsidiaries within the firm, both during and after the expat manager's rotation.

We begin by assessing the expat managers' impacts on gender gaps among their direct subordinates. We measure a manager's inherited gender attitudes as the average gender attitudes among World Values Survey respondents of the same home country and birth cohort, building on the literature emphasizing the role of cultural origin in shaping one's values and preferences (Bisin and Verdier, 2001; Giuliano, 2007; Fernández and Fogli, 2009; Luttmer and Singhal, 2011).[3] We use a triple differences strategy to compare men's and women's pay before and after they are exposed to managers from countries with more and less progressive gender attitudes. Because expat assignments are positively selected, rotations generate an average improvement in team outcomes relative to typical local-manager turnover – even when the incoming expat's gender norms are less egalitarian than those prevailing in the destination office. Our empirical comparison is expat-to-expat – contrasting genders gaps in teams exposed to an expat with more versus less gender-egalitarian attitudes.

We find that the gender pay gap under a manager with one standard deviation more progressive gender views, a difference roughly equivalent to that between an American and a Chinese manager, or between a Chinese and an Indian manager, is 4.9 percentage points (18% of the baseline mean) smaller than the pay gap among employees exposed to a manager with more conservative norms. This effect is larger in destination offices with more conservative gender norms. Moreover, it persists well after employees' exposure to the expat manager, and even after the expat has left the destination office.[4] We find no evidence of corresponding adverse effects in contexts where the incoming expat's norms are less gender-egalitarian than prevailing local norms.[5]

[3]There is a large body of literature establishing the role of cultural origin in influencing economic outcomes, such as the theoretical foundation by Bisin and Verdier (2000, 2001); Tabellini (2008); Guiso et al. (2008), and the empirical evidence in Giuliano (2007); Fernández and Fogli (2009); Algan and Cahuc (2010); Guiso et al. (2016), among others.

[4]These findings align with a literature showing that exposure to a more diverse workforce, even via temporary policies, can have long-lasting effects on workplaces (Miller, 2017; Miller et al., 2022).

[5]Compared to local managers, expat arrivals are associated with improvements in outcomes for both women and men—even when the incoming expat's gender attitudes are less progressive than those pre-

The gender pay gap may narrow under a progressive expat manager for a variety of reasons. We find that a substantial portion of the narrowing pay gap comes from women being promoted to higher salary grades and work levels, with results not driven by changes in the composition of employees. There is some evidence that expat managers move women to different tasks, suggesting a role for lateral reallocation on top of promotions. Furthermore, evidence from company surveys suggest that expat managers with progressive gender attitudes positively influence employees' perceptions of managerial effectiveness and overall morale.

We then turn to estimate how exposure to progressive expat managers affects local managers' behaviors. We distinguish two channels of transmission. First, we define *horizontal transmission* as effects on local managers who operate at the same hierarchical level as the expat manager – peers who interact with the expats but do not report to them. Second, we define *vertical transmission* as effects on local managers who report directly to the expat managers. The former allows us to test whether managers who interact with but are not under the purview of the expat manager change their behavior. For each group, we examine outcomes for their subordinates during the expat's rotation and after the expat has rotated out.

Both types of managers who interacted with a progressive expat manager improve the pay of their own female subordinates relative to those who interacted with a conservative expat manager. The effects are roughly half the magnitude of the direct impact of the expat manager on his subordinates. This suggests that expat managers influence the practices and culture of the destination office not only through the direct impact on their immediate subordinates, but also through a broader set of workplace contacts that allow norms and managerial styles to diffuse across peers and down the hierarchy. In other words, expat managers reshape the local office environment in ways that propagate beyond the boundaries of the initial reporting relationships.

In the final part of the paper, we extend our analysis beyond this multinational firm using Brazil's linked employer–employee data, Relação Anual de Informações Sociais (RAIS) from 2009 to 2021. We track quarterly establishment-level exposure of local em-

vailing in the destination office, which can be explained by expat managers' higher average quality.

ployees to foreign managers with different gender norms. We find that firms with foreign managers from countries with more progressive attitudes have a smaller gender pay gap among high-skilled white-collars (3%) as well as higher female representation in the managerial ranks. Although they are correlations, these findings echo our primary results, suggesting that managers' norms shape gender outcomes even outside our multinational setting.

Taken together, our results highlight the role of managers in transmitting and shaping workplace culture and practices by influencing workers' outcomes and attitudes, particularly in the context of gender norms. In this regard, the paper contributes novel evidence of how corporate culture evolves and affects worker performance and inequality within the firm. The results speak to a growing literature documenting the lasting impact that managers and, in turn, culture play in determining firm performance (Bertrand and Schoar, 2003; Guiso et al., 2015; Graham et al., 2022; Alan et al., 2023). Beyond the existing evidence on the CEOs' influence on corporate culture (Nguyen, 2025), this paper looks further down the firm's hierarchy, examining how middle managers, who operate between top management and frontline employees, transmit and reshape practices and norms within organizations.

A set of papers within the managerial literature focus specifically on the impact that managers have on gender gaps within the firm (Ronchi and Smith, 2026; Fortin et al., 2022; Cullen and Perez-Truglia, 2023; Chen et al., 2025). We bring complementary evidence that managers can influence gender pay gaps through mechanisms that extend beyond hiring and contemporaneous pay adjustments. Our setting exploits cross-office rotations that generate systematic differences in managers' gender norms relative to the destination office's environment. This norms mismatch creates scope for cultural transmission via changes in managerial practices and workplace norms. Empirically, we estimate (i) direct effects on the expat's own subordinates, including their *persistence* after the rotation ends, and (ii) spillovers to other local managers – both peers and direct reports – through *horizontal and vertical* channels. Together, these estimates point to a long-run imprint of managers on internal practices and culture.

Next, we also contribute to a growing body of evidence that documents multination-

als' role in transposing wages and practices across national borders (Hjort et al., 2026; Tang and Zhang, 2021; Alfaro-Urena et al., 2022; Minni, 2024; Boudreau, 2024). This paper highlights *managers' rotations* as a transmission channel for norms across establishments. This channel is likely to become increasingly important as multinationals continue to drive the globalization of labor markets and intensify cross-cultural working relations.[6]

Last, in the literature on the evolution of (gender) norms and economic disparities (Giuliano, 2021), prior work has mostly shown that inherited gender norms are a key determinant of women's labor market outcomes (Fernández et al., 2004; Bertrand, 2011; Olivetti et al., 2020) and more broadly, gender disparities (Tur-Prats, 2019; Ashraf et al., 2020). Because these norms are often persistent and slow to change (Alesina et al., 2013), theories of cultural transmission emphasize multiple channels through which norms evolve over space and time – intergenerational transmission within families as well as transmission outside of the family among peers and from non-parental authority figures or role models (Bisin and Verdier, 2001). Our paper contributes to a small recent literature studying these mechanisms through *workplace relationships* (Miho et al., 2024; Boelmann et al., 2025; Aneja et al., 2025). Using within-firm variation, we document how gender norms spread within organizations and show that this transmission has persistent effects on gender gaps and workplace practices.

2 Institutional Context and Data

2.1 Institutional Context

The multinational. Our empirical analysis uses administrative data from a global consumer goods multinational headquartered in Europe, operating in over 100 countries worldwide. The multinational has a workforce of about 155,000 people, of which roughly 60,000 are white collar workers, and turnover of well over €50 billion in 2019.[7] This setting is ideal for studying the impact of culture within firms because of its vast geographic

[6] Globally, there are 50,000 multinational enterprises, with 450,000 subsidiaries, employing 200 million people worldwide (ILO, 2017).

[7] For a detailed description of the firm's structure and workforce, see Minni (2025).

reach. Moreover, its business activities span a wide variety of jobs, which allows us to assess whether cultural transmission operates across very different tasks and career ladders within a common internal labor market, rather than reflecting a mechanism specific to a single occupation or business line.

International assignments. Like many multinationals, the company follows a policy of international assignments for its top managers, designed to foster global experience and build leadership capability. To progress to the upper echelon of the firm, a manager is typically required to complete at least one international assignment in which he works in a foreign country for a limited period of between one and three years on average.[8] These rotations are seen as crucial for understanding the firm and developing the skills necessary to lead diverse teams. Importantly, the program is designed to develop and screen managerial talent, not to implement gender-equity mandates. Consistent with this interpretation, our results are unchanged when we account for expat managers with strong headquarters ties, and we find no evidence that expats are subsequently rewarded for reducing the gender pay gap during their rotation.

Although the managers can submit their country preferences, the final placement is mostly determined based on availability within their function and the associated relocation costs. Furthermore, managers do not have any say over the team they will lead in the destination country. This institutional setting provides variation that enables us to study the impact of expat managers on the performance of local employees who experience managerial turnover.

Since being on an international assignment is part of the career progression of managers, these individuals are considered the "most promising" managers. Our identification strategy focuses on how expat managers with different gender attitudes affect female versus male subordinates, thereby netting out the average performance effects associated with expat managers, who tend to be more experienced and higher-performing on average. Hence, the relevant source of variation comes from differences across expat managers themselves – specifically, between more and less progressive expat managers –

[8] As we focus on male expat managers in our analyses, we will refer to a manager as he/him/his throughout this paper.

rather than between expat and local managers.

Since expat managers typically occupy relatively senior positions within the firm, their direct subordinates are middle managers who, in turn, supervise other employees, allowing us to capture both direct and cascading effects of managerial influence within the organization. We leverage this aspect to examine how the expat managers' gender norms permeate down the hierarchy.

Appendix Figure A.1 illustrates the countries of origin of the managers (Panel A) and their destination countries (Panel B).

2.2 Multinational Data

Our primary dataset comes from the personnel records of the firm between 2011 and 2021, which are monthly snapshots of employees all around the globe with detailed information on performance and pay (since 2016), as well as job rotations, promotions, and leaves. The data also contain information on supervisory relationships. This feature enables us to precisely reconstruct the entire managerial chain and the structure of teams, thereby observing the entire organizational hierarchy and its evolution over time.

Employees of the firm are organized into six work levels (WL1 to WL6), with WL6 being C-suite executives. This structure allows us to identify and analyze work level promotions, alongside salary grade promotions, in our analysis. Jobs are also organized into 17 functions and over 120 sub-functions. Functions include typical divisions within a firm, such as Marketing, Human Resources, Sales, and Supply Chain. Sub-functions are finer job distinctions within each function. For example, within the Human Resources function, an employee can work in Data Analytics, in Rewards, or in Occupational Health, among others. We will also analyze how expat managers allocate male and female workers across functions and sub-functions.

We perform further analysis using individual responses from four worldwide annual surveys administered by the company between 2017 and 2021. These surveys were designed to assess the overall "pulse" of the workforce, capturing employees' perceptions of the organization, their work environment, and overall job satisfaction. The surveys

provide a rich dataset with standardized questions that track key aspects of workplace experiences, including employees' views on managerial effectiveness, opportunities for professional growth, sense of autonomy, and overall well-being.

2.3 Gender Attitudes Measures

We proxy for a manager's gender attitudes using aggregated data from the World Values Survey (WVS). For each employee, we construct a proxy based on the average gender attitudes of WVS respondents from the same nationality and birth cohort, thereby capturing cross-country and generational variation in gender views.[9] Although we do not observe individual employees' gender attitudes, this group-average approach does not introduce classical attenuation bias, as the measurement error is orthogonal to the regressor rather than the latent variable.[10] Finally, the group-average measure reflects the gender norms to which individual employees were likely exposed during their formative years; hence, throughout the paper, we use the terms gender attitudes and gender norms interchangeably.

Our main measure of gender attitudes is constructed using responses to three statements regarding women's roles in the workplace: (i) *"When jobs are scarce, men should have more of a right to a job than women,"* (ii) *"When mother works for pay, the children suffer,"* and (iii) *"On the whole, men make better business executives than women do."*[11] These questions were asked in both early and recent WVS waves, with responses standardized as "strongly agree/agree" (1 for being conservative) or "disagree/strongly disagree" (2 for being progressive). We first average the responses to each question by country and birth

[9] Bena et al. (2025) find that improvements in gender norms across countries in recent decades are driven mostly by composition effects, while respondents from the same birth cohorts hold fairly consistent gender views over time. This motivates our gender norms measure that varies by country and birth cohort.

[10] See Angrist and Pischke (2009) chapter 2. In the classical case, measurement errors are correlated with the regressor but orthogonal to the latent variable, leading to attenuation bias. In contrast, under the group-average approach, measurement errors are orthogonal to the regressor yet correlated with the latent variable. It also helps to smooth out individual-level measurement errors that are often present in survey- or game-based measures of individuals' beliefs or preferences. Nguyen (2025) evaluates a similar group-average measure for trust attitude and shows that the group-average measure is about 80% as precise as an individual-level game-based measure.

[11] We follow Kleven (2025), who uses survey data from the U.S. General Social Survey.

year,[12] and verify that the resulting measures are highly correlated with country-cohort-level female labor force participation, with correlations of around 0.6. We then compute our main gender attitudes measure as the average of these three measures and merge it into the multinational data.

The fact that the MNE has expat managers from 50 home countries going to 77 destination countries allows us to exploit substantial variation in our measure of gender attitudes. For context, a one standard deviation difference in gender attitudes corresponds approximately to the difference between an American and a Chinese born in the 1980s, or between a Chinese and an Indian born in the 1980s.

We use responses from all WVS respondents to construct this measure, which may underestimate how progressive expat managers are if, for example, they are more educated than the general population. This is not a first-order concern if this difference is not disproportionately larger (or smaller) for more (or less) progressive country-cohorts. Indeed, Appendix Table A.1 shows that the paper's main results are unchanged when using alternative measures of gender attitudes constructed using only WVS respondents with upper- or college-level education, or based on responses to individual or alternative WVS questions.[13]

Compared with possible alternative "outcome-based" measures of gender attitudes, e.g., those inferred from gender gaps observed under the expat manager prior to his international rotation, our measure offers some advantages. First, as an ex-ante measure, it is not confounded by other workplace factors that may also influence workers' outcomes, such as worker selection, persistent effects of prior managers, or reflection effects between managers' behaviors and those of their teams (Manski, 1993).[14] Second, while both mea-

[12] As there may be too few WVS respondents in each country $\times$ birth year cell, we also include same-country respondents born "around" the focal birth year in our computation but attribute higher weights to those born closer to the focal birth year. In addition, the specific weight kernel and bandwidth are picked to minimize the mean squared error between predicted and actual responses.

[13] Our main specification uses the level of the expat manager's gender attitudes as the key regressor. As a separate check, we test whether the manager–destination 'mismatch' – the difference between the expat manager's attitudes and the destination country's average gender attitudes – has an independent effect on the gender pay gap. We find little evidence that it does (results reported in column 6 of Panel A of Appendix Table A.1). This suggests that the effects we document are primarily driven by the manager's own gender attitudes, rather than by the magnitude of the cultural distance between the manager's origin and the destination environment.

[14] E.g., Ashraf et al. (2025) shows that female workers are more positively selected in less gender-

sures contain measurement errors, the home country-based group-average approach does not introduce classical attenuation bias as discussed earlier, while most outcome-based measures do.

We also show in Appendix Table A.4 that the results are robust to controlling for a broad set of expat-manager characteristics and other cultural traits. Taken together, the WVS-based measure that exploits variation at the country-cohort level, provides an empirically appealing proxy for managers' gender attitudes.

2.4 Sample Construction

Expat managers. We leverage manager rotations across country offices to identify the impact of an expat manager's gender attitudes on the outcomes of male and female employees. As mentioned, international rotations are an important prerequisite for moving to upper-level positions within the company. As such, the managers we study in this paper are relatively senior and are identified as those in WL3 or above (directors or vice presidents). They oversee teams of around 8 employees on average. Employees in WL3 through WL6 have substantial responsibility and oversight within the company. They guide the company's strategy and set long-term goals, but also work to translate those strategic goals into actionable plans and ensure their execution within the respective departments.

We identify international rotations as cases in which managers are no longer located in their home country and spend at least three months in the foreign office location. Because a growing literature finds that manager gender itself can affect women's outcomes – specifically, prior works documents a positive impact of female managers, and a negative impact of male managers, on women's outcomes (Fortin et al., 2022; Cullen and Perez-Truglia, 2023; Biasi and Sarsons, 2022) – we restrict our attention to male expat managers. This allows us to directly estimate the impact of gender attitudes on the managerial decisions of men, net of any "same gender" effect, while retaining most expat managers, who are predominantly male (74%).

progressive countries, implying that a naive outcome-based measure would conflate managers' gender norms with gender-biased worker selection.

Our identification strategy focuses on expat managers only, comparing outcomes across rotations led by more gender-progressive (vs. less progressive) expat managers, as measured by their gender attitudes. Separately, Panel A of Table I provides descriptive evidence on selection into expat manager status by comparing observable characteristics of male managers who do versus do not become expat managers within a year. For each expat manager, we compare his characteristics in the year before he goes on his rotation with those of other managers in his office who have not gone and do not go on rotation the next year. Managers who go on rotation within a year are younger and have a shorter tenure with the firm, but they earn higher pay, indicating that they are on average higher performing.

Exposed workers. To look at the impact of expat managers' gender attitudes on employees, we focus on all employees who are exposed to an expat manager and compare outcomes depending on whether their expat manager comes from a more or less gender-progressive country. Treatment is therefore exposure to an expat manager with progressive attitudes, as opposed to one with conservative attitudes.

In terms of the worker sample, Panel B of Table I compares the characteristics of employees who are and are not exposed to an expat worker within a given office. Characteristics are measured the year prior to the expat entering the office. Employees who work for the expat manager are younger, have been at the firm for a shorter period of time, and are at a lower work level. They do, however, receive slightly higher pay, suggesting that expat managers are allocated to high-performing teams.

We impose two further restrictions when constructing our main analysis sample. First, we require that the employee is exposed to the expat manager for at least three months, ensuring sufficient time for meaningful interaction. Second, we restrict these worker-manager pairs to a worker's first exposure to an expat manager, which provides the cleanest identification of an expat manager's impact on local employees.

Baseline sample. The final sample includes 909 male expat managers from 50 home countries (0.4% of the firm's workforce). Panel A of Appendix Figure A.2 plots the distri-

bution of their gender attitudes, which exhibits substantial variation. Panel A of Figure I shows that around 26% of the managers go to countries with gender norms in a quartile below those of their home countries, while 40% travel to countries with gender norms in a quartile above. This allows us to examine heterogeneous effects of expat manager's gender norms depending on whether the manager is more or less gender-progressive than the destination country. Panel B further shows expat managers' flows based on geography. Both figures reveal no systematic pattern in the matching between expat managers' home and destination countries in terms of gender norms or geographic region.

We exploit cross-country variation in the relative progressiveness of expat managers' gender norms, comparing cases where expats are more or less progressive than the destination country's prevailing norms. In particular, we examine whether the effects are asymmetric – that is, whether having a less progressive manager in a more progressive environment affects workers differently from having a more progressive manager in a less progressive environment.

Table II presents descriptive statistics for expat managers and the workers they oversee in the destination countries. Expats are experienced, high-earning employees, averaging 43 years of age with mean tenure of 15 years. Nearly all (95%) hold WL3 or WL4 positions during their first rotation. The median time that an expat spends on an international rotation is 32 months (mean of roughly 40 months). There are 4,873 employees working across 77 destination countries who are exposed for the first time to these expat managers. During the first month of exposure, workers are younger (mean age of 37 years) and earlier in tenure (mean of 9 years) relative to their managers. The majority (84%) occupy positions below WL3. Workers earn considerably less than expats, with teams averaging eight members and approximately balanced gender composition. Their turnover rates are 11% and 71% within one and five years respectively. The panel contains approximately 250,000 employee $\times$ month observations between 2016 and 2021.

3 Empirical Strategy

Our goal is to test whether expat managers with more or less progressive attitudes impact women's outcomes, and whether they influence the local managers they work with. To do so, we compare workers who are ever-expat-exposed and receive a manager with progressive attitudes with those who receive a manager with conservative attitudes. Specifically, we use a triple differences design in which we compare male and female workers before and after they are exposed to a progressive versus conservative manager.

Our main estimating equation is:

$$\begin{aligned} Y_{imlkt} &= \sum_{K=0}^{2} \gamma_K \mathbf{1}_{\{k_{it}=K\}}(Norms_m \times Fem_i) + \Gamma_{imk} \\ &+ \theta_i + \theta_{mk} + \theta_{l,Year(t),Fem(i)} + \mathbf{X}_{it}\beta + \varepsilon_{imlkt} \end{aligned} \tag{1}$$

where each observation represents a worker i in a calendar month t. Subscript m denotes worker i's first expat manager, l worker i's contemporaneous manager at t, and k the time period relative to i's exposure to m. We consider three time periods: before ($k = 0$), during ($k = 1$), and after ($k = 2$) exposure. The three dimensions of the triple differences design are worker i's gender, Fem_i; exposure period k; and expat manager m's gender attitudes, $Norms_m$. To test for the differential impact of expat managers on men and women, we focus on the interactions of $Norms_m$, Fem_i, and exposure period indicators. For ease of interpretation, we standardize $Norms_m$ by its standard deviation across expat managers.

To fully implement a triple differences design, the aggregate term Γ_{imk} includes all three uninteracted variables ($\mathbf{1}_{\{k_{it}=K\}}$, $Norms_m$, and Fem_i), and their pairwise interactions in the estimating equation, although most of these terms are absorbed by fixed effects.[15] As a result, our main coefficients of interest, $\hat{\gamma}_K$ for $K \in \{1, 2\}$,[16] capture how the female-male gender gap in the outcome changes during and after workers' exposure to an expat manager (relative to the corresponding pre-exposure gap) with one standard deviation more progressive gender norms (compared with exposure to an expat manager with less

[15] Fem_i and $Fem_i \times Norms_m$ are absorbed by worker fixed effects θ_i, and $\mathbf{1}[k_{it} = K]$, $Norms_m$ and $\mathbf{1}[k_{it} = K] \times Norms_m$ are absorbed by expat manager $\times$ exposure period fixed effects θ_{mk}.

[16] The pre-exposure period $k = 0$ serves as the base for comparison, so $\mathbf{1}_{\{k_{it}=0\}}(Norms_m \times Fem_i)$ is absorbed in the regression.

progressive gender attitudes). Conceptually, they are akin to difference-in-differences estimates of the contemporaneous and persistent effects of the expat manager's gender norms on the within-team gender gap.[17] For brevity, we will refer to these coefficients as the impact of a more (gender-)progressive expat manager on gender gaps when discussing their magnitudes.

We further include additional fixed effects to account for other alternative determinants of workers' outcomes. To address changes in the composition of workers or local managers when the expat manager arrives, we include worker fixed effects (θ_i) and contemporaneous manager fixed effects ($\theta_{l,Year(t),Fem(i)}$).[18] The contemporaneous manager fixed effects are interacted with calendar year and the worker's gender when $k \neq 1$ to allow for the fact that contemporaneous managers may have a different impact on male and female employees over time.[19] We include expat manager $\times$ exposure period fixed effects θ_{mk} to account for the expat manager's overall impact on exposed employees. In an augmented specification we further include country $\times$ exposure period $\times$ worker's gender fixed effects to ensure that we are comparing employees within the same destination country during and surrounding exposure. Other worker controls, $\mathbf{X}_{it}$, include worker age, age squared, tenure, and tenure squared. Standard errors are corrected for two-way clustering by worker and by expat manager's home country $\times$ worker's gender (the level of treatment).

The primary outcomes we consider are pay (base plus bonus pay), performance rating, promotions, lateral moves, and retention. The manager has considerable influence over most of these metrics. Performance assessments, which encompass the determination of pay and bonus, are set by the manager taking into account the views of all the colleagues that have interacted with the employee and are conducted in a standardized

[17] With expat manager $\times$ exposure period fixed effects θ_{mk}, we always compare female versus male workers exposed to the same expat manager.

[18] We rely on a triple differences strategy to account for level differences in gender gaps that may exist independently of expat exposure, as shown in Figure II. By including worker and contemporaneous manager fixed effects, we aim to isolate the effect of being exposed to a progressive manager from underlying differences that persist across teams or over time.

[19] These fixed effects also help account for the fact that within-team gender gaps widen as employees progress up the rank. This is particularly important as we find that promotions are a key driver of the narrowing of the gender pay gap. Excluding these fixed effects yields qualitatively similar results of smaller magnitudes.

way across functions so that comparisons can be made between employees with different types of jobs. Similarly, promotions and lateral moves depend on the manager's recommendations.

Our main identification assumption is that more progressive managers are not systematically sent to teams with improving (or worsening) gender gaps. In our setting, managers do not get to choose their teams in the destination offices. We test for this by plotting event-time coefficients and analyzing pre-trends in the pay gap. We also test for pre-trends in all of our main outcomes in Appendix Table A.2, finding no evidence of differential pre-trends.

4 Direct Impacts on Exposed Employees' Outcomes

This section estimates how expat managers affect gender gaps among their direct subordinates in destination offices. We find that managers with more progressive gender attitudes narrow the gender pay gap within their immediate teams. We then explore mechanisms underlying this effect.

4.1 Raw Data

We begin by examining the raw salaries of men and women exposed to expat managers with different gender attitudes. Panel A of Figure II plots average log pay for male and female employees before, during, and after exposure to expat managers with either conservative or progressive gender views, defined by a split at the median of the gender attitudes measure. The estimates are normalized to men exposed to conservative managers in the pre-exposure period. A gender pay gap exists for all groups prior to and after exposure. Pay rises for all workers following the arrival of an expat manager, but men disproportionately benefit under conservative managers compared to women. By contrast, under progressive managers, the gender pay gap narrows, a pattern that persists even after the manager's departure.

Panel B visualizes the data in a second way, plotting the difference between women's

and men's pay when they work under an expat manager with progressive (solid line) or conservative (dashed line) gender attitudes. The pay gap does not change when workers are exposed to a progressive manager but widens over time when they are exposed to a conservative manager. This is largely because the pay gap widens with worker tenure, as men are promoted and women are not, suggesting that managers with more progressive attitudes counteract the widening gap. We account for such baseline differences across groups next.

4.2 Gender Pay Gap

Expat manager's gender norms. We now turn to our main estimation strategy and plot the event study coefficients from an augmented version of equation (1) in Figure III (see figure notes for specification details). Importantly, there are no trends in the gender pay gap prior to the expat manager rotation. Expat managers have an immediate impact: those with one standard deviation higher gender norms narrow the gender pay gap by 2-4 percentage points more during the exposure period (quarters 0-6). Notably, the effect persists beyond exposure to the manager and increases up to 6 percentage points at 16 quarters after.[20]

The immediate change in the pay gap, though statistically insignificant in the first four quarters, can be attributed to two factors, supported by anecdotal evidence from HR managers. First, expat managers typically have the opportunity to gather information and learn about their new team and work context before their relocation and thus make changes as soon as they arrive in the destination country. Second, unlike local managers, they are not entrenched in the pre-existing network of workplace relationships and alliances, which allows them to approach their role with fewer social constraints (Macchiavello and Morjaria, 2022). Thus, they have greater freedom to introduce new ideas without being influenced by prior relational dynamics and, with a pre-existing understanding of the team's dynamics and challenges, they can quickly implement changes.

Table III presents the results from estimating equation 1 and further probes the results.

[20]On average, an exposed worker remains under an expat manager for six quarters; the vertical line in Figure III marks the timing of the expat manager's exposure.

The first row shows the estimates for γ_1, i.e., the impact of an expat manager's gender attitudes on the within-team gender pay gap *during* the period of exposure. The second row presents the estimates for γ_2, i.e., the expat manager's impact *after* the exposure period. The base for comparison is the period prior to exposure ($k = 0$). We again see that expat managers with more progressive gender attitudes have a significant positive impact on the gender pay gap. Controlling for worker and manager fixed effects (column 1), a one standard deviation increase in the manager's gender attitudes is associated with a 4.9% pay increase for exposed female employees relative to exposed male employees.[21] For context, the overall baseline gap among countries that receive an expat manager is 28%. Hence, a one standard deviation increase in the expat manager's gender attitudes reduces the baseline gap by about a sixth ($\frac{4.9}{28} = 17.5\%$).

After an expat manager leaves, the gender gap remains 4.9% smaller than it was before the manager's arrival.[22] This persistent effect suggests that the narrowing of the gender pay gap reflects more than a mechanical wage adjustment by the expat manager. In particular we note that, even in the presence downward wage rigidity, there could be eventual catch-up on the male side, i.e., increases in male pay that undo the initial reduction in the gap. Instead, we continue to observe a sustained narrowing. These results are robust to including destination country $\times$ exposure period $\times$ worker's gender fixed effects (column 2) and sub-function fixed effects (column 3). When we include work level fixed effects in column (4), the size of the coefficient falls by nearly 50%, indicating that part of the narrowing gap comes from women being promoted to higher work levels rather than solely receiving higher pay relative to men.

Appendix Table A.3 shows that the main result is robust to several alternative constructions of the sample. In column (1), we restrict the sample to only the first international rotation for the expat manager, when he is unlikely to have been influenced by prior experiences in other offices. In column (2), we account for the fact that workers who

[21] The standard deviation of the gender-attitudes measure across expat managers is 0.196. A one standard deviation change in gender attitudes corresponds approximately to the difference between an American and a Chinese manager born in the 1980s, or between a Chinese and an Indian manager born in the 1980s.

[22] The analogous contemporaneous and persistent effects (standard errors in parenthesis) of expat manager's gender norms on the gender gap in log(pay) are 0.046 (0.010) and 0.043 (0.013) respectively, and those on the gender gap in log(bonuses) are 0.167 (0.151) and 0.137 (0.172).

stay in the sample longer will disproportionately contribute to our estimates by reweighting workers by the inverse number of months they are in the sample. Columns (3) and (4) report results separately for employees who were already part of the expat manager's team upon his arrival in the destination country and for those who joined afterward. In particular, column (3) shows that results remain robust when restricting the sample to workers who were already in the team at the time of the manager's arrival. Finally, column (5) shows the results are robust to including employees who are never exposed to an expat manager; as they experience no expat rotation, their variation only contributes to the estimation of the common fixed effects.

Other economic and cultural traits. It is possible that the results are driven by other economic or cultural traits that are correlated with gender attitudes. For example, if women are more likely to work in countries with higher GDP, it might be easier for managers from those countries, who also typically have more progressive gender attitudes, to identify female talent.[23] To investigate this, we augment the main specification with controls for a range of expat manager characteristics and other cultural traits in Appendix Table A.4. In particular, in Panel A, we control for the manager's age, tenure, and work level at the time of exposure in column (1), and for his performance in column (2).[24] In columns (3) and (4), we control for his home country's level of development using GDP per capita and average education attainment. In column (5), we control for his home country's average management talent score, as measured by the World Management Survey - Management.[25] In Panel B, we control for the other cultural traits that have been shown to matter to both macroeconomic and firm outcomes, including trust (e.g., Bloom et al., 2012; Nguyen, 2025), work ethic (e.g., Weber, 1905; Spenkuch, 2017), preference for redistribution (e.g., Alesina and Angeletos, 2005), and risk preference.[26] In all columns,

[23]Note that any expat manager characteristics that affect male and female workers similarly are already absorbed by expat manager $\times$ exposure period fixed effects.

[24]Following Minni (2025), we measure performance as the age and tenure at which the expat manager progressed to WL3. High performers are more likely to progress to the next work level sooner than others.

[25]The average management talent score is based on the following questions from the WMS: (i) instilling a talent mindset, (ii) building a high-performance culture, (iii) making room for talent, (iv) developing talent, (v) creating a distinctive EVP, and (vi) retaining talent (Bloom et al., 2021).

[26]Measures of these other cultural traits are constructed analogously to those of gender norms using World Values Survey responses to the relevant questions (details in notes to Appendix Table A.4).

we interact the additional controls with worker's gender and exposure period, similar to $Norms_m$.

The impact of expat managers' gender norms on the within-team gender pay gap is robust to the inclusion of these controls. That said, our estimates are best interpreted as capturing the effect of a broader cultural package. Expat managers import a bundle of cultural and managerial practices from their home countries, and this overall package shapes how talent is developed, evaluated, and rewarded inside the firm. Within this broader set of traits, however, gender norms remain the most compelling explanation for the gender-differentiated patterns we document.

We also test whether managers affect broader patterns of inequality, which in turn could affect the gender pay gap. In Appendix Table A.6 we use as outcomes the 25^{th}-75^{th} percentile pay and bonus ratio within each team. The results show no significant relationship between managers' gender attitudes and the compression of pay or bonus distributions within teams. These null effects reinforce the interpretation that our main findings reflect gender-specific mechanisms.

Finally, the results could be driven by firm-level policies rather than managers' individual attitude. For example, seeking to improve gender inequality, the firm might send managers from countries with gender-progressive norms to other countries with the directive of lessening inequality. If this is the case, the results would be driven by managers who have closer ties to the headquarter office, who are most likely to transmit the MNE's goals. Appendix Table A.7 examines this possibility by controlling for the expat manager's links to HQ in column (2), and excluding managers who either originate from the headquarters country or have previously worked there in columns (3) to (5). Across all specifications, the results remain robust relative to the benchmark in column (1), supporting the interpretation that the observed effects are driven by the individual manager's norms rather than HQ-driven directives. We also find no evidence that expat managers' subsequent career outcomes in terms of pay and promotion differ based on how much they reduced the gender pay gap during their rotation. Furthermore, the results using multinationals in Brazil speak to the external validity of our estimates.

Effects on men versus women. A natural question is whether women's gains under an expat manager come at the expense of men's careers. Appendix Figure A.3 replicates Figure II while additionally controlling for worker characteristics and office $\times$ year fixed effects. It therefore shows the residualized pay of male and female employees who are exposed to expat managers with conservative and progressive gender attitudes. The excluded group is men exposed to conservative managers in the pre-exposure period. Within office-year, there is no statistically significant difference between women who are eventually exposed to progressive versus conservative expat managers prior to exposure. During the exposure period, the pay of women working for progressive expat managers improves relative to that of women exposed to conservative ones. However, these gains do not come at the expense of men's pay: men exposed to both conservative and progressive expat managers also experience pay increases. This pattern persists beyond exposure and is consistent with the expat managers being at the top end of the manager quality distribution regardless of their gender attitudes. [27]

Destination country's gender norms. We next examine heterogeneity by gender attitudes in the destination country. A country's gender attitudes are computed as the average individual attitudes of all local managers from that country, hence a higher score reflects a more progressive culture within the firm's offices regarding women's roles in society in general and in the workplace in particular. Figure IV plots semi-parametric estimates of the contemporaneous and persistent impacts of expat manager's gender norms on the gender pay gap as a function of destination country's gender attitudes in absolute terms (Panels A and B) and relative to the expat manager's attitudes (Panels C and D). In all panels, but particularly for the relative attitudes (i.e., when the manager's attitudes diverge more sharply from local norms), we find that the impact of progressive expat managers on the gender pay gap is stronger in more gender-traditional countries.

[27] Panel B of Appendix Figure A.3 shows the same estimates using work level as the outcome.

4.3 Promotions, Lateral Moves, and Retention

We now explore the mechanisms behind the narrowing gender pay gap. We examine whether women's relative gains under more progressive expat managers arise from differences in promotion rates, horizontal job re-assignments, or worker turnover patterns.

We first test whether women's performance improves under progressive expat managers. The results from estimating (1) but using the bonus-to-pay ratio and employee performance ratings as outcomes are shown in columns (1) and (2) of Table IV. There is a limited impact on women's bonus-to-pay ratio during the expat manager's rotation. Women receive higher performance ratings under progressive managers, but the estimate is noisy and statistically insignificant. Importantly, though, women receive significantly higher performance ratings *after* an expat manager has departed.[28] This result suggests that expat managers may be better at identifying and promoting talented women, a possibility we explore next.

Promotions. In columns (3) and (4) of Table IV, we assess the impact of managers on gender gaps in promotions. We again estimate equation (1) but use the number of work level promotions (column 3) and the highest work level achieved (column 4) as the outcomes. Under a gender-progressive expat manager, women are 4.8 percentage points more likely to be promoted to a higher work level, an effect that persists into the post-exposure period. These effects translate into these women moving up 0.06 work levels within the firm (column 4).

That women exposed to a more progressive expat manager continue to be promoted even after the manager rotates out of the office suggests a longer-term change in the destination office. Since the expat manager is no longer in charge of promotions, other managers are promoting women more. We study this possibility in Section 5.

Lateral moves. Next, we examine whether more gender-progressive expat managers partially improve women's earnings by changing the task allocation of their team, e.g.,

[28] This result holds even when controlling for work level, indicating that within the same work level, women consistently receive higher ratings, underscoring an overall positive effect on women's performance.

by better identifying and allocating female talent to tasks (Minni, 2025). Columns (5) and (6) test whether the horizontal allocation of employees to jobs after the arrival of an expat manager varies by the manager's gender norms. Specifically, we look at the number of transfers to another sub-function a worker has, both across all possible functions within the firm (column 5) and within the same function to which the worker was initially assigned (column 6). Women are more likely to be moved within the same function, suggesting that managers may be reallocating women into roles that better suit their talents.

Retention. Because more gender-progressive expat managers improve women's pay and promotions rates, it is possible that they also impact the retention of female employees. In columns (7) and (8), we estimate the impact of a progressive expat manager on whether a worker leaves the firm within one year (column 7) and five years (column 8) of exposure to the expat at the individual worker level. The results indicate that women are less likely to leave the MNE within five years of exposure. The effect on one-year retention is also sizable in magnitude, although it is not statistically significant.

Quantification. In Appendix Table A.5, we summarize the main findings regarding the contribution of each channel – promotions, lateral moves, and worker retention – to the change in the gender pay gap. Column (1) reports the baseline results; column (2) adds work level fixed effects to quantify the impact of promotions; column (3) controls for cumulative function and subfunction transfers and sub-function fixed effects to net out the effect of lateral moves; and column (4) estimates a two-step Heckman selection estimator to account for potentially selective worker retention.[29] Column (5) includes all three channels.

Roughly half of the expat managers' effect on the gender pay gap is due to promotions. Lateral moves and worker retention do not meaningfully contribute to the narrowing of the pay gap. Put differently, the primary driver behind the smaller gender pay gap is a more equal representation of women in managerial positions, which likely also explains its persistence.

[29] Following Benson et al. (2019), we use the number of worker exits in the same office $\times$ function $\times$ year as the excluded variable for the exit equation.

4.4 Employees' Perceptions from Surveys

To better understand aspects of manager-worker interactions not captured in personnel records, we turn to an annual employee survey conducted by the MNE between 2017 and 2021. Due to the shorter time frame of these surveys, the sample includes observations from employees during and after their exposure to an expat manager, with the observation unit defined at the worker-year level.[30] Table V relates expat managers' gender attitudes to gender differences in employees' perceptions of managerial effectiveness and job satisfaction. We group the survey questions into two main buckets based on whether they primarily capture outcomes that managers directly influence in Panel A, or that instead reflect broader organizational policies and culture in Panel B.

The dependent variables in Panel A correspond to standardized worker responses to nine main survey questions related to line manager's effectiveness and feedback, as well as worker's sense of autonomy, development opportunities, work-life balance, motivation, and overall morale. Female workers exposed to more gender-progressive expat managers respond more positively to all these questions during their exposure period. These results provide suggestive evidence that more gender-progressive expat managers grant female workers greater autonomy, and also help develop it through providing feedback and development opportunities. Importantly, this does not come at the expense of worse work–life balance for female workers. Appendix Table A.9 shows that the positive coefficients on gender heterogeneity are primarily driven by improvements in outcomes for female employees, rather than declines among their male counterparts.

Panel B turns to outcomes reflecting the broader organizational environment. We expect less of an impact on these outcomes if women's improved outcomes are primarily driven by interactions with the expat manager. We group the remaining survey questions into several indices capturing confidence in corporate strategy, trust in the company and senior leadership, perceived commitment to diversity and inclusion, effectiveness of personnel management practices, and quality of team dynamics. The results in Panel B are

[30] As a result, the estimating equation implements a difference-in-differences design that compares the female–male difference in outcomes among workers exposed to gender-progressive expat managers with the corresponding difference among those exposed to more conservative expat managers.

close to zero and statistically insignificant. The absence of effects suggests that the findings in Panel A are unlikely to be driven by a general "halo effect," whereby more progressive managers simply improve employees' overall perceptions of the firm. Instead, they are more consistent with genuine changes in dimensions of work that managers directly shape through their day-to-day decisions and practices.

5 Cultural Transmission

We have documented that expat managers have a lasting impact on the gender pay and promotion gaps of the employees they directly supervise. We now ask whether their influence extends beyond their own teams – shaping the behavior of local managers in the destination offices, and, in doing so, shifting managerial practices and workplace culture more broadly.

We consider two channels of spillovers. First, we examine *horizontal transmission* by identifying local peer managers who work alongside the expat manager but are neither his subordinates nor under his authority. We analyze how these peer managers subsequently treat their own subordinates. Second, we study *vertical transmission* by focusing on the expat manager's direct subordinates, who are themselves managers, and assess how these managers in turn alter the outcomes of their own subordinates.

Figure V illustrates these two forms of cultural transmission. The dark blue circles represent local managers who are influenced by the expat manager, while the light blue circles represent workers who are indirectly impacted through these local managers. Panel A depicts horizontal transmission, focusing on peer managers at the same work level and within the same function as the expat manager (who are therefore likely to interact with him). Panel B depicts vertical transmission: although expat managers directly affect only their own subordinates, approximately 60% of these subordinates are themselves managers. We therefore analyze whether expat managers shape workplace practices by influencing how these local managers subsequently manage their own teams.

5.1 Horizontal Transmission

To test for the horizontal transmission of culture, we identify local peer managers, those who work with but not for the expat manager in the same destination office and function, and their subordinates, focusing on those who begin working under a local peer manager after the peer manager's exposure to the expat manager. We then estimate:

$$\begin{aligned} Y_{jimlkt} &= \sum_{K=0}^{2} \kappa_K \mathbf{1}[k_{jt} = K](Norms_m \times Fem_j) + \mathrm{K}_{jmt} \\ &+ \sum_{K=0}^{2} \gamma_K \mathbf{1}[k_{jt} = K](Norms_i \times Fem_j) + \Gamma_{jit} \\ &+ \theta_j + \theta_{ik} + \theta_{l,Year(t),Fem(i)} + \mathbf{X}_{jt}\beta + \varepsilon_{jimlkt} \end{aligned} \tag{2}$$

where each observation represents a worker j who is a subordinate of a local peer manager i in a calendar month t. Subscript m the expat manager, l worker j's contemporaneous manager at t, and k the time period relative to j's exposure to i. This equation is analogous to equation (1) but with two differences. First, the perspective shifts from *i-m* being the worker-manager pair in equation (1) to *j-i* being the worker-manager pair in equation (2). As such, exposure period is defined based on the worker's exposure to the local peer manager. Second, equation (2) additionally includes $\mathbf{1}[k_{jt} = K]Norms_m \times Fem_j$, i.e., the expat manager's gender attitudes interacted with the worker's gender and exposure period indicators.[31] These are also the main explanatory variables. That is, we are interested in the coefficients $\hat{\kappa}_K$, which tell us the impact of a local peer manager's exposure to a more gender-progressive expat manager, relative to one exposed to a conservative expat manager, on the gender pay gap among the local manager's subordinates. Similar to equation (1), standard errors are corrected for two-way clustering by worker and by expat manager's home country $\times$ worker's gender.

Table VI presents the results. Column (1) shows that exposure to an expat manager has a lasting influence on local peer managers' behavior. The gender pay gap narrows among employees who work for a manager who interacted with an expat manager with more

[31] We also include in the aggregate term K_{jmt} the uninteracted variables and their pairwise interactions, most of which are absorbed by the fixed effects.

progressive gender norms. The effect also persists after exposure to the peer manager ends, which is typically well after the expat manager leaves the office, suggesting that the results are not solely due to the presence of the expat manager. In column (2), we consider work level as the outcome and see the same pattern of peer managers exposed to expats with more progressive norms promoting women to higher work levels.

Qualitative interviews with firm managers are consistent with this interpretation. Expat managers consistently report working long hours, making themselves highly available for informal conversations also outside the office, and frequently joining peer managers for lunches and unstructured discussions. Peer managers describe these interactions as opportunities to observe the expats' day-to-day management practices and attitudes.

5.2 Vertical Transmission

To test for vertical transmission, we identify "second-generation" local managers who are direct subordinates of an expat manager and the employees they begin to manage after their exposure to the expat manager. We then estimate equation (2) with i being the "second-generation" local manager and j being i's subordinate.

The results, presented in Table VI, again show that expat managers have a large, indirect impact on the outcomes of future employees under their direct subordinates. A "second-generation" manager who has worked under a more progressive expat manager considerably narrows the gender pay gap among his/her team members relative to a "second-generation" manager who has worked under a conservative expat manager (column 3). The effects again persist after the worker's exposure to the "second-generation" manager, and extends to work level outcome, as shown in column (4).

5.3 Aggregate Effects

Motivated by the persistent direct and spillover effects of expat managers, we examine, at a correlational level, whether offices more exposed to expat managers with progressive gender norms experience different workplace outcomes than those exposed to more

conservative norms. Using office–function–quarter variation in managerial norms, we assess their broader association with office environment beyond direct effects on exposed employees.

To quantify an office-function's exposure to progressive versus conservative gender norms, we first average the gender norms measure among all male expat managers in that office-function in each quarter. We then estimate:

$$Y_{efq} = \phi AvgNorms_{efq} + \theta_e + \theta_{f,Year(q)} + \mathbf{X}_{efq}\delta + \mu_{efq} \tag{3}$$

where each observation represents an office e's function f in quarter q that has at least one male expat manager. $AvgNorms_{efq}$ represents the average gender norms measure among male expat managers in the corresponding office-function-quarter, standardized by its standard deviation across office-function-quarter's, which exhibits substantial variation (Panel B of Appendix Figure A.2). The coefficient ϕ thus captures the increase in the outcome variable associated with a one standard deviation increase in exposure to more progressive gender norms, relative to exposure to more conservative norms.

We include office fixed effects (θ_e) and function $\times$ year fixed effects ($\theta_{f,Year(q)}$), ensuring that ϕ is identified from within-office variation in exposure to progressive gender norms while controlling for time-varying function-specific shocks. Other office-function-quarter level controls include the number of local employees, their average age and tenure in years, and the fraction of expat managers. Standard errors are corrected for clustering by office $\times$ year.

Aggregate office-function gender gaps. We focus on three key outcomes among local employees: (i) the gender pay gap, (ii) the gender promotion gap, and (iii) exit rates of local managers. Panel A of Table VII reports estimates from equation (3) using the female–male pay gap (columns 1 to 3) and the share of women in leadership (columns 4 to 6) as outcome variables. The results show that exposure to expat managers with more progressive gender norms is associated with narrower gender pay and promotion gaps at the office–function level: a one standard deviation increase in expat managers' average

gender norms is linked to a 2.1 percent reduction in the gender pay gap among employees at WL2 and above (column 1), along with a 2.3 percentage-point increase in the share of women promoted to WL3 or above (column 4).

We further examine whether this pattern is concentrated among employees having worked directly under expat managers (columns 2 and 5) or also extends to those without such direct exposure (columns 3 and 6). For both pay and promotions, the positive association between expat managers' average gender norms and female-male gender gaps at the office-function level is present in both groups, although the estimates are noisy. That is, in office-function's with gender-progressive expat managers, unexposed female employees are not displaced by those with direct expat exposure; if anything, they also appear to benefit, consistent with the transmission of expat managers' managerial practices documented earlier.

Panel B of Table VII reports estimates from equation (3) using female (columns 1 to 3) and male (columns 4 to 6) manager exit rates as outcome variables. The coefficients are small in magnitude and statistically insignificant throughout, suggesting that reducing gender disparities does not lead to a talent drain through male manager exits.[32]

Office-function and team performance. In Table VIII, we assess whether expat managers' gender attitudes have implications for aggregate performance, as measured by average pay and the bonus-to-pay ratio. At the aggregate level, the bonus-to-pay ratio provides a useful proxy for overall performance, as a given unit's total bonus pool is calibrated to unit performance and then distributed among the unit's employees based on individual performance assessments.

We consider two complementary levels of aggregation: the office–function level, as in Table VII (columns 1 and 2), and the team level, which focuses on teams under local managers and uses the average gender norms of workers' prior expat managers as the explanatory variable (columns 3 and 4). The estimated coefficients, although small and statistically insignificant, are uniformly positive, suggesting that the observed improvements in gender equity under more gender-progressive expat managers are not associ-

[32]Analogously, we find no association between average expat managers' gender norms and office-function hiring rates by gender.

ated with trade-offs in aggregate performance.

6 Beyond the Firm: Evidence from Brazil

We use employer-employee data to examine whether the relationship between foreign managers' gender norms and workplace outcomes generalizes beyond the multinational setting analyzed above. This section uses administrative data from Brazil that offer complete coverage of formal employment relationships and detailed information on workers and firms.

6.1 Data and Sample Construction

We use the *Relação Anual de Informações Sociais* (RAIS), an administrative employer-employee dataset covering the universe of formal employment in Brazil from 2009 to 2021. The data include worker demographics (age, gender, tenure), occupation, and earnings, as well as firm and establishment identifiers. Crucially, RAIS records the nationality of each employee, allowing us to identify foreign managers.[33]

We focus on establishments that, at some point between 2009 and 2021, employed at least one foreign manager.[34] To improve comparability with the multinational sample, we restrict attention to establishments that had, on average, at least 5% of foreign managers (men and women) over the sample period. We exclude non-private entities, retaining only firms with private-sector legal status. We construct a quarterly establishment-level panel using workers' main job spells, defined as the employment relationship that generated the highest quarterly earnings. Among local (Brazilian) employees, we compute four outcomes: (i) the establishment-level gender pay gap among high-skilled white-collars, (ii) the share of women in managerial positions, and (iii) exit rates of female and male

[33]The data identify the following nationalities: Brazil, Argentina, Bolivia, Chile, Paraguay, Uruguay, Venezuela, Colombia, Peru, Ecuador, Germany, Belgium, United Kingdom, Canada, Spain, United States, France, Switzerland, Italy, Haiti, Japan, China, South Korea, Russia, Portugal, Pakistan, India, Guinea-Bissau, Morocco, Cuba, Syria, Bangladesh, Angola, Congo, South Africa, Ghana, and Senegal.

[34]Managers are identified as workers classified in the first major group of the International Standard Classification of Occupations (ISCO).

high-skilled white-collars, measured as the fraction of workers who leave the establishment in a given quarter.

We again use the WVS to measure foreign managers' gender attitudes as described in sub-section 2.3. Each foreign manager in RAIS is assigned their country-cohort-level gender norms index. We then compute the quarterly average of male foreign managers' gender norms for each establishment. Figure A.4 shows the distribution of this measure.

6.2 Empirical Strategy

Similarly to sub-section 5.3 that looks at aggregate effects in the MNE, in order to examine the relationship between exposure to more gender-progressive male expat managers and gender outcomes within establishments, we estimate:

$$Y_{eq} = \Phi AvgNorms_{eq} + \theta_{Firm(e)} + \theta_{Ind(e),Year(q),State(e)} + \mathbf{X}_{eq}\delta + \mu_{eq} \tag{4}$$

where each observation is an establishment e in a quarter q. Y_{eq} is one of the outcomes defined above for the corresponding establishment-quarter. $AvgNorms_{eq}$ represents the standardized average gender norms of male foreign managers in the establishment-quarter. $\boldsymbol{X}_{eq}$ includes controls for the share of foreign managers, the average age and tenure of local employees, and the number of workers and managers. The specification includes firm fixed effects ($\theta_{Firm(e)}$) and 1-digit industry $\times$ year $\times$ state fixed effects ($\theta_{Ind(e),Year(q),State(e)}$). Standard errors are corrected for clustering by firm $\times$ year.

The coefficient Φ captures the within-firm correlation between male foreign managers' gender norms and gender gaps among local employees, controlling for sectoral and regional shocks. This specification parallels equation (3) in the analysis, facilitating a direct comparison of magnitudes.

6.3 Effects of Foreign Managers' Gender Norms

Table IX presents estimates from equation (4). Column (1) shows that, among high-skilled white-collar workers, exposure to male foreign managers from countries with more pro-

gressive gender norms is associated with a reduction in the female–male pay gap of 3 percent. Consistent with this result, column (2) indicates that a one–standard-deviation increase in the average gender-norms measure is associated with a 0.7 percentage-point increase in the share of women among managers, pointing to gains in female representation in leadership positions.

Columns (3) and (4) of Table IX report the estimates for managers' exit rates. The coefficients are close to zero and statistically insignificant for both female and male high-skilled white-collar workers, indicating no evidence that the observed gains in female representation occur through higher male turnover. These results are consistent with the multinational evidence: exposure to foreign managers from countries with more progressive gender norms leads to more gender-balanced outcomes within firms, without offsetting male employment.

Taken together, these findings suggest that the relationship between foreign managers' gender attitude and workplace outcomes extends even outside the multinational context.

7 Conclusion

Firm culture is increasingly recognized as a determinant of firm performance, particularly when it comes to employee recruitment, motivation, and retention (Graham et al., 2013; Adams et al., 2021; Nguyen, 2025). Yet, its effects are difficult to identify because culture is often unobserved and correlated with worker characteristics. Using managers' gender attitudes as an observable proxy for culture, we show that exposure to expat managers with more progressive norms is associated with persistent reductions in the gender pay gap in foreign establishments, with effects that are strongest in more gender-traditional destination offices. These reductions operate primarily through higher promotion rates of women into senior management and spill over to peer managers, indicating a broader influence on workplace culture.

More generally, our results highlight the role of middle managers in diffusing managerial practices and influencing corporate culture (Minni, 2025). They also suggest that multinational firms play a role in transmitting cultural norms across borders, beyond

their role in inducing productivity catch-up throughout the economy (Alfaro, 2017). By operating in diverse cultural environments but sharing a common internal labor market, these firms can serve as conduits for the diffusion of values, managerial practices, and workplace norms. Hence, the practice of rotating managers across space is not only a tool for knowledge transfer, but also contributes to cultural transmission.

To gauge the scope for narrowing gender gaps through managerial assignments, we simulate an "optimal rotation policy" based on the estimated interaction between managers' gender norms and the cultural context of the destination country. Specifically, holding constant the set of managers and destination countries, the assignment that minimizes the predicted gender pay gap exhibits negative assortative matching – that is, assigning more gender-egalitarian managers to less gender-egalitarian country contexts. Under this counterfactual policy, the gender pay gap would narrow by an additional 36 percent. Taken together, our results suggest that, by exposing workers to managers from different cultural contexts, cross-border rotations can transmit gender-related attitudes and managerial practices across offices, shifting workplace behavior in ways that matter for within-firm gender pay gaps.

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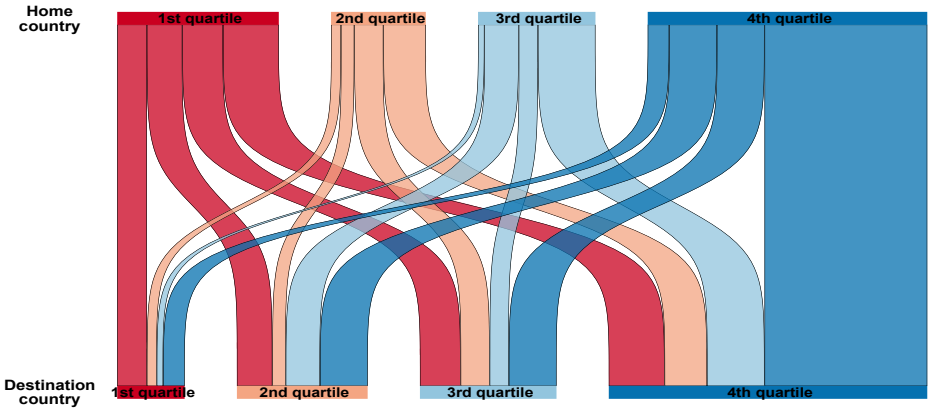
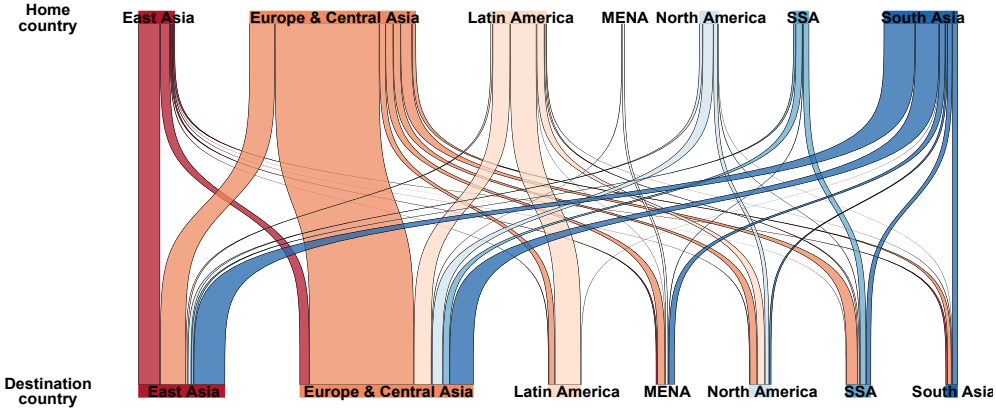
Figures and Tables

Figure I: Expat Managers' Home and Destination Countries



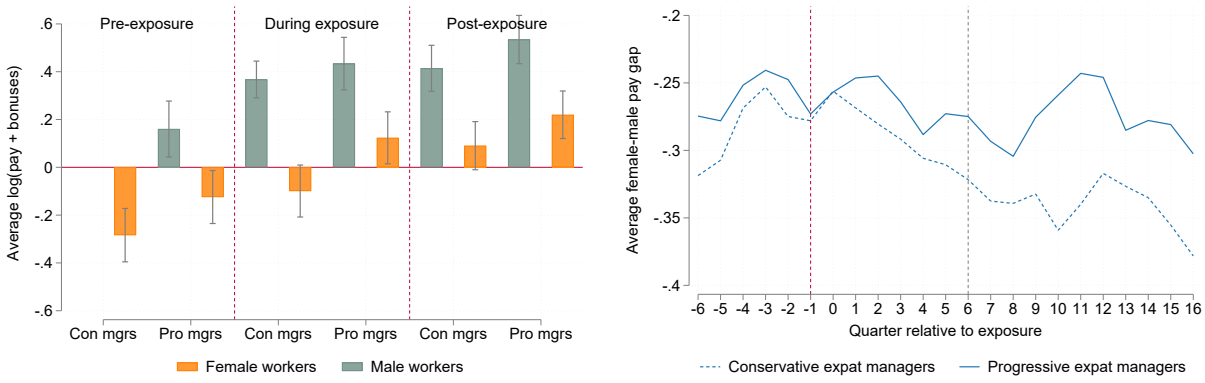
A. By country gender norms



B. By geographical region

Notes: This figure shows baseline sample's manager flows during their expat rotations across countries based on the origin and destination countries' gender norms and geographical regions. The top row corresponds to the home countries of expat managers and the bottom row corresponds to the destination countries where expat managers are posted during their expat rotations. In **Panel A**, countries are grouped into quartiles based on their country-level gender norms. The first quartile is the most gender-conservative and the fourth quartile the most gender-progressive. In **Panel B**, countries are grouped into regions following the World Bank classification. Latin America stands for Latin America and Caribbean countries, SSA Sub-Saharan Africa, and MENA Middle-East and North Africa.

Figure II: Pay of Women and Men Exposed to Expat Managers

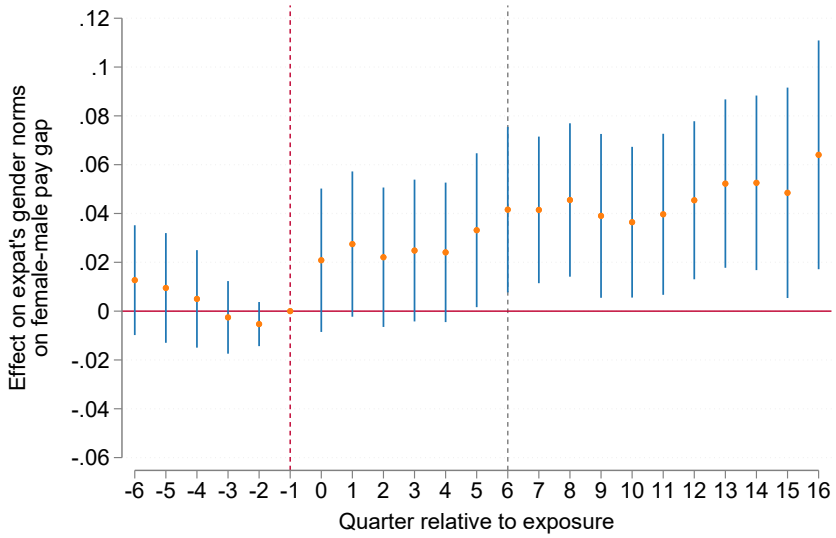


A. Average pay

B. Female-male pay gap

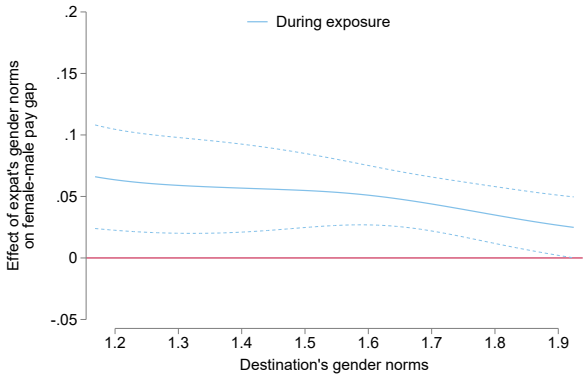
Notes: **Panel A** plots the average log(pay + bonuses) of female and male workers exposed to expat managers with conservative and progressive gender norms before, during, and after such exposure, relative to that of male workers exposed to gender-conservative expat managers pre-exposure. Gender-conservative and progressive expat managers are defined by a split at the median of the gender norms measure. Standard errors used to compute the 95% confidence intervals are clustered by worker. **Panel B** plots the average female-male pay gap among workers exposed to gender-progressive (solid lines) and conservative (dotted lines) expat managers. Exposure to the expat manager begins in quarter zero and, on average, ends in quarter six.

Figure III: Evolution of Impact of Expat Manager's Gender Norms on the Gender Pay Gap

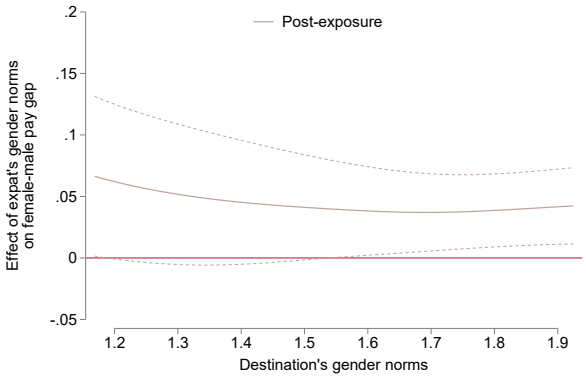


Notes: This figure presents the results from estimating the event-study equation: $Y_{imlkqt} = \sum_{Q=-7}^{17} \sigma_Q \mathbf{1}[q_{it} = Q](Norms_m \times Fem_i) + \Sigma_{imq} + \theta_i + \theta_{mk} + \theta_{l,Year(t),Fem(i)} + \mathbf{X}_{it}\beta + \varepsilon_{imlkqt}$ where q indexes the quarter relative to worker i's exposure to expat manager m, with $q = -7$ subsuming the time period before quarter -6 and $q = 17$ the time period after quarter 16, and Σ_{imq} includes all three uninteracted variables ($\mathbf{1}[q_{it} = Q]$, $Norms_m$, and Fem_i) and their pairwise interactions (see Section 3 for other notation details). The plotted coefficients $\hat{\sigma}_q$ capture the impacts of the expat manager's gender norms on the within-team female-male gender pay gap in the quarter q relative to that in quarter -1 (the quarter right before the exposure). Exposure to the expat manager, on average, ends in quarter six. The estimation sample includes all ever–expat-exposed workers whose pay is observed for more than three months both before and after their expat exposure. Standard errors used to compute the 95% confidence intervals are clustered two-way by worker and expat manager's home country $\times$ worker's gender.

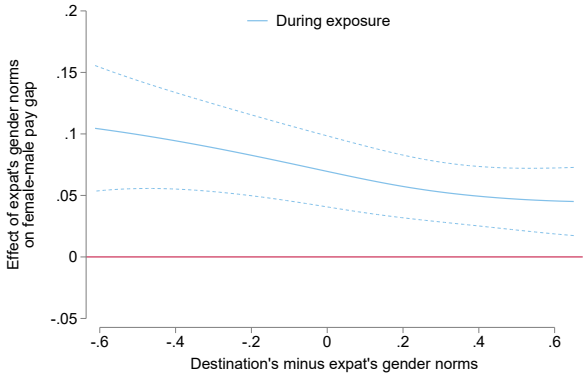
Figure IV: Impact of Expat Manager's Gender Norms by Destination Country



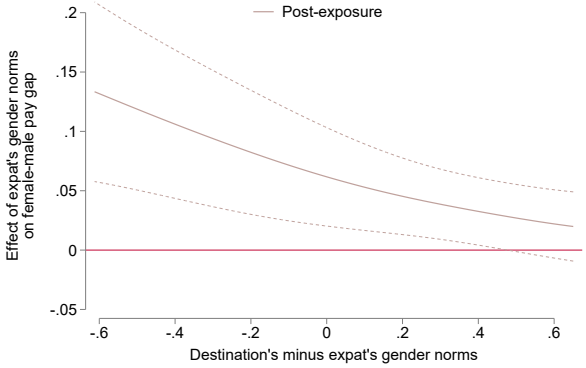
A. Contemporaneous effect by destination's absolute gender norms



B. Persistent effect by destination's absolute gender norms



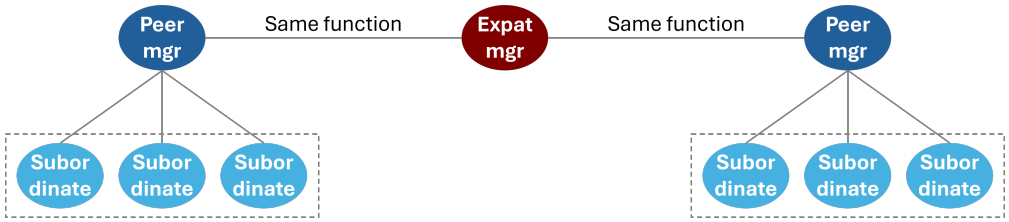
C. Contemporaneous effect by destination's relative gender norms



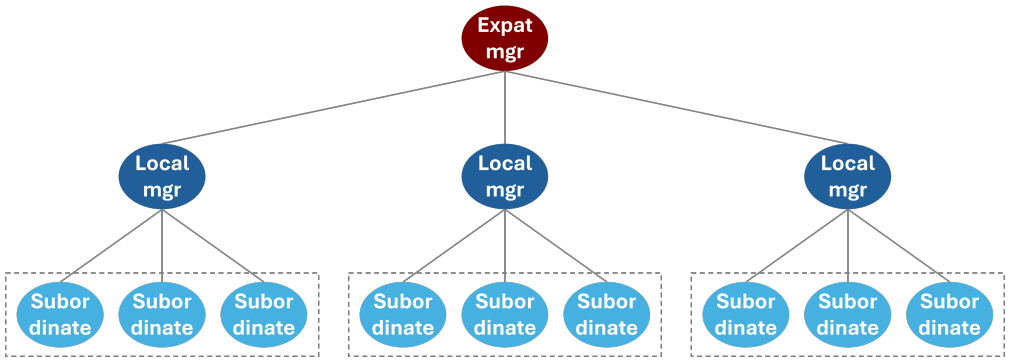
D. Persistent effect by destination's relative gender norms

Notes: This figure plots semi-parametric estimates of the impact of expat manager's gender norms on the gender pay gap as a function of the X-axis variable. The point estimates of the contemporaneous and persistent effects at each value of the X-axis variable are obtained from the baseline regression in equation (1), weighted by a Gaussian kernel function of the X-axis variable around that particular value with a bandwidth equal to 25% of the range of X-axis variable. The X-axis variable is the destination country's gender norms in **Panels A** and **B** and the difference between the destination country's and expat manager's gender norms in **Panels C** and **D**. Standard errors used to compute the 95% confidence intervals are clustered two-way by worker and expat manager's home country × worker's gender.

Figure V: Transmissions Along and Across the Hierarchy



A. Horizontal transmission



B. Vertical transmission

Notes: This figure illustrates the horizontal (**Panel A**) and vertical (**Panel B**) transmissions of expat managers' gender norms along and across the hierarchy.

Table I: Expat Managers and Exposed Employees versus Peers

Panel A: Expat managers vs. peers prior to international rotations

Dependent variable:	(1) **Age**	(2) **Tenure**	(3) **Log(Pay + bonuses)**	(4) **Bonuses-pay ratio**	(5) **Work level**
Expat managers	-2.381***	-0.701	0.035*	-0.003	0.022
	(0.321)	(0.446)	(0.018)	(0.004)	(0.031)
Peer dependent variable mean	45.690	15.640	12.150	0.260	3.130
Peer dependent variable std. dev.	7.106	9.028	0.411	0.075	0.339
Office × Year × Func × WL FEs	✓	✓	✓	✓	
Office × Year × Func FEs					✓
N	162,450	162,450	77,275	77,275	162,520

Panel B: Exposed workers vs. peers prior to expat exposure

Dependent variable:	(1) **Female**	(2) **Age**	(3) **Tenure**	(4) **Log(Pay + bonuses)**	(5) **Bonuses-pay ratio**	(6) **Work level**
Exposed workers	0.003	-2.111***	-1.192***	0.043***	0.001*	0.021
	(0.009)	(0.184)	(0.200)	(0.009)	(0.001)	(0.021)
Peer dependent variable mean	0.440	40.260	11.050	10.930	0.150	1.780
Peer dependent variable std. dev.	0.496	9.624	9.368	0.758	0.093	0.618
Office × Year × Func × WL FEs	✓	✓	✓	✓	✓	
Office × Year × Func FEs						✓
N	863,180	863,251	863,251	455,734	455,734	863,801

Notes: **Panel A** compares male employees who subsequently become expats with peers who do not, restricting the peer group to managers at WL3 or WL4. For expat managers, outcomes are measured one year prior to their first international rotation. **Panel B** compares employees who will work under an expat with peers who never do, restricting the peer group to employees who work under managers at WL3 or WL4. For exposed workers, outcomes are measured one year prior to working under an expat. Standard errors in parentheses are clustered by office.

Table II: Baseline Sample Summary Statistics

Sample:	(1) Expat managers	(2)	(3) Exposed workers	(4)
	Male	All	Female	Male
Age	43.094	37.271	35.981	38.585
	(5.779)	(8.731)	(8.436)	(8.833)
Tenure	15.110	8.938	7.819	10.077
	(7.139)	(8.204)	(7.413)	(8.793)
Log(Pay + bonuses)	12.428	11.036	10.905	11.169
	(0.569)	(0.819)	(0.753)	(0.863)
Bonuses-pay ratio	0.310	0.156	0.145	0.167
	(0.226)	(0.097)	(0.084)	(0.108)
VPA percentile	52.304	51.798	52.495	51.060
	(24.536)	(27.768)	(27.320)	(28.229)
Work level	3.406	1.853	1.717	1.992
	(0.648)	(0.787)	(0.717)	(0.830)
Expat's gender norms	1.602			
	(0.204)			
Expat's norms $>$ Destination's norms	0.406			
	(0.491)			
Length of expat rotation (months)	39.818			
	(23.263)			
Female team share	0.506			
	(0.375)			
Team size	7.696			
	(4.460)			
Leave in 1 year		0.106	0.088	0.125
		(0.308)	(0.284)	(0.331)
Leave in 5 years		0.714	0.692	0.736
		(0.452)	(0.462)	(0.441)
Number of managers/workers	909	4,873	2,459	2,414
Observations	1,210	4,873	2,459	2,414

Notes: Statistics for expat managers are constructed at the expat $\times$ destination country level. For each manager-country stint, the first month of the rotation is identified using the earliest month in which the manager supervises workers in that destination. All expat characteristics are measured at this first month. Length of rotation is computed from the identified first and last month of the stint. Team size and female share are first averaged within manager-country stint and then summarized across stints. For each worker, the first month of exposure to an expat manager is defined as the first month in which the worker is supervised by an expat. Worker characteristics are measured at this first month. Leave-in-1-year and leave-in-5-years indicators are defined only for workers whose future employment histories are observed, and the table reports means among those. For each variable, the mean is reported on the first line and the standard deviation the second line in parenthesis.

Table III: Impact of Expat Manager's Gender Norms on the Gender Pay Gap

Dependent variable:	(1)	(2)	(3)	(4)
	Log(Pay + bonuses)			
Expat mgr norms × Female × During	0.049***	0.039**	0.041***	0.027***
	(0.012)	(0.018)	(0.010)	(0.009)
Expat mgr norms × Female × Post	0.049***	0.057***	0.042***	0.021
	(0.015)	(0.020)	(0.013)	(0.013)
Team F-M gap pre-exposure	-0.277	-0.277	-0.277	-0.277
P-value: During vs. Post	0.994	0.106	0.924	0.553
Worker FEs	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓
Dest. country × Period × Fem FEs		✓		
Sub-function FEs			✓	
Work level FEs				✓
N	249,968	249,968	249,968	249,968

Notes: Column (1) reports the coefficients from estimating equation (1) using worker's log(pay + bonuses) as the outcome variable. Column (2) additionally controls for destination country × exposure period × worker's gender fixed effects; column (3) worker's sub-function fixed effects; and column (4) worker's work level fixed effects. Baseline controls include worker's age, age^2, tenure, and tenure^2. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table IV: Impact of Expat Manager's Gender Norms on Worker's Performance, Promotions, Lateral Moves, and Retention

Channel:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Performance		Promotions		Lateral moves		Retention	
Dependent variable:	**Bonuses-pay ratio**	**Performance rating**	**Work level promotions**	**Work level achieved**	**All sub-function transfers**	**Only same-function transfers**	**Leave in 1 year**	**Leave in 5 years**
Expat mgr norms × Female × During	0.006	0.744	0.048***	0.064***	0.018	0.114**		
	(0.005)	(1.451)	(0.013)	(0.018)	(0.060)	(0.046)		
Expat mgr norms × Female × Post	0.010*	4.267**	0.052***	0.079***	0.067	0.107*		
	(0.006)	(1.919)	(0.015)	(0.020)	(0.066)	(0.056)		
Expat mgr norms × Female							-0.018	-0.070***
							(0.013)	(0.026)
Dependent variable mean	0.155	53.964	0.345	1.968	1.419	1.088	0.104	0.710
Dependent variable std. dev.	0.101	28.266	0.508	0.843	1.446	1.271	0.305	0.454
Team F-M gap pre-exposure	-0.025	-1.349	-0.054	-0.266	0.023	-0.026		
P-value: During vs. Post	0.134	0.028	0.728	0.219	0.185	0.851		
Worker FEs	✓	✓	✓	✓	✓	✓		
Expat manager × Period FEs	✓	✓	✓	✓	✓	✓		
Manager × Year × Fem FEs	✓	✓	✓	✓	✓	✓		
Expat manager FEs							✓	✓
Work level × Female FEs							✓	✓
Function × Female FEs							✓	✓
Dest. country × Female FEs							✓	✓
Year × Female FEs							✓	✓
N	249,968	215,741	249,968	249,968	249,968	249,968	2,055	921

Notes: Columns (1) to (6) report the coefficients from estimating equation (1) using worker's performance (columns 1 and 2), promotions (columns 3 and 4), and lateral moves (columns 5 and 6) as the outcome variables. Performance rating (column 2) is percentile relative to all workers. Work level promotions (column 3) and sub-function transfers (columns 5 and 6) are cumulative counts. Controls include worker's age, age^2, tenure, and tenure^2. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender. Columns (7) and (8) report the coefficients from estimating the equation: $Y_{im} = \gamma Norms_m \times Fem_i + \theta_m + \mathbf{X_i}\beta + \varepsilon_i$ (see Section 3 for notation details). Each observation is an expat-exposed worker. Dependent variables are whether the worker leaves the firm within 1 year (column 7) and 5 years (column 8) from the first month of their expat exposure. Controls $\mathbf{X_i}$ include worker's age, age^2, tenure, tenure^2, log(pay + bonuses), work level dummies, function dummies, country dummies, and year dummies, all measured at that first month and interacted with worker's gender. Standard errors in parentheses are clustered by expat manager's home country × worker's gender.

Table V: Expat Manager's Gender Norms and Worker's Pulse Surveys

Panel A. Direct managerial influence

Dependent variable:	(1) **Manager**	(2) **Feedback**	(3) **Control**	(4) **Development**	(5) **Balance**	(6) **Extra mile**	(7) **Morale**
Expat mgr norms × Female × During	0.098**	0.156**	0.089*	0.116**	0.072*	0.078*	0.077**
	(0.047)	(0.074)	(0.052)	(0.044)	(0.038)	(0.046)	(0.033)
Team F-M gap during exposure	0.105	0.116	0.251	0.227	0.092	0.059	0.119
Expat manager FEs	✓	✓	✓	✓	✓	✓	✓
Work level × Female FEs	✓	✓	✓	✓	✓	✓	✓
Function × Female FEs	✓	✓	✓	✓	✓	✓	✓
Dest. country × Female FEs	✓	✓	✓	✓	✓	✓	✓
Year × Female FEs	✓	✓	✓	✓	✓	✓	✓
N	7,152	4,112	6,386	7,894	7,899	7,903	7,880

Panel B. Broader organizational culture

Dependent variable:	(1) **Corporate strategy**	(2) **Trust & integrity**	(3) **Inclusive leadership**	(4) **Personnel management**	(5) **Team dynamics**
Expat mgr norms × Female × During	0.008	0.022	0.003	0.020	0.020
	(0.037)	(0.035)	(0.046)	(0.025)	(0.033)
Team F-M gap during exposure	0.192	-0.037	-0.073	0.133	0.063
Expat manager FEs	✓	✓	✓	✓	✓
Work level × Female FEs	✓	✓	✓	✓	✓
Function × Female FEs	✓	✓	✓	✓	✓
Dest. country × Female FEs	✓	✓	✓	✓	✓
Year × Female FEs	✓	✓	✓	✓	✓
N	7,852	7,085	7,163	6,253	7,832

Notes: This table reports the coefficients from estimating equation: $Y_{imkt} = \sum_{k=1,2} \gamma_k \mathbf{1}[K_{it} = k](Norms_m \times Fem_i) + \theta_m + \mathbf{X_{it}}\beta + \varepsilon_{imkt}$ (see Section 3 for notation details). Each observation is a worker × year during or after the worker's expat exposure. Dependent variables are the worker's standardized responses to the MNE's annual employee survey. **Panel A:** Column (1) considers the question *"My line manager is an effective leader;"* column (2) *"I receive feedback from my line manager that helps me grow;"* column (3) *"I have control over prioritising tasks when facing multiple demands at work;"* column (4) *"I am satisfied with my development opportunities at [MNE];"* column (5) *"I can maintain a reasonable balance between my personal life and work life;"* column (6) *"My job inspires me to go the extra mile;"* and column (7) considers three questions *"Overall, I am extremely satisfied with [MNE] as a place to work," " I am proud to say that I work for [MNE],"* and *"I would gladly refer a friend or family member to [MNE] for employment."* **Panel B** considers the set of questions related to confidence in corporate strategy (column 1), trust in the company and senior leadership (column 2), leadership's commitment to diversity and inclusion (column 3), effectiveness of personnel management practices (column 4), and quality of team dynamics (column 5). Controls $\mathbf{X_{it}}$ include worker's age, age^2, tenure, tenure^2, and log(pay + bonuses), together with worker's work level dummies, function dummies, country dummies, and year dummies, each interacted with worker's gender. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table VI: Impacts of Expat Manager's Gender Norms on Local Managers' Subordinates

Sample: Subordinates of	(1) Peer managers (horizontal)	(2) Peer managers (horizontal)	(3) Direct employees (vertical)	(4) Direct employees (vertical)
Dependent variable:	**Log(Pay + bonuses)**	**Work level**	**Log(Pay + bonuses)**	**Work level**
Expat mgr norms × Female × During	0.037**	0.060***	0.021*	0.049***
	(0.015)	(0.020)	(0.011)	(0.018)
Expat mgr norms × Female × Post	0.024*	0.065***	0.030***	0.060***
	(0.014)	(0.020)	(0.010)	(0.017)
P-value: During vs. Post	0.243	0.818	0.476	0.532
Worker FEs	✓	✓	✓	✓
Local peer manager × Period FEs	✓	✓	✓	✓
Manager × Year × Female FEs	✓	✓	✓	✓
N	249,308	249,308	375,509	375,509

Notes: This table reports the coefficients from estimating equation (2) using indirectly-impacted worker's log(pay + bonuses) and work level as the outcome variables. Columns (1) and (2) examine horizontal transmission through local peer managers at the same work level in the same function, while columns (3) and (4) examine vertical transmission through local direct employees who are themselves "second-generation" managers. Exposure period is defined based on the worker's exposure to the local manager, which is measured within three years of the local manager's first month of expat exposure. Controls include worker's age, age^2, tenure, tenure^2, and local manager's gender norms × worker's gender × exposure period dummies. Standard errors in parentheses are clustered two-way by worker and by expat manager's home country × worker's gender.

Table VII: Aggregate Impacts on Office-Function's Gender Gaps and Exit Rates

Panel A. Gender pay and promotion gaps

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
	Female-male pay gap			**Female share of leadership**		
Local employee sample:	All	Exposed	Unexposed	All	Exposed	Unexposed
Male expat mgrs' average norms	0.021**	0.006	0.018	0.022*	0.012	0.011
	(0.010)	(0.019)	(0.019)	(0.012)	(0.011)	(0.009)
Dependent variable mean	-0.130	-0.097	-0.177	0.433	0.300	0.124
Dependent variable std. dev.	0.191	0.297	0.745	0.269	0.249	0.177
Expat manager share control	✓	✓	✓	✓	✓	✓
Office × Year FEs	✓	✓	✓	✓	✓	✓
Function × Year FEs	✓	✓	✓	✓	✓	✓
N	2,048	2,048	2,048	2,048	2,048	2,048

Panel B. Managers' exit rates

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
	Female exit rates			**Male exit rates**		
Local employee sample:	All	Exposed	Unexposed	All	Exposed	Unexposed
Male expat mgrs' average norms	-0.003	-0.001	-0.004	0.002	0.000	0.000
	(0.005)	(0.004)	(0.003)	(0.006)	(0.001)	(0.001)
Dependent variable mean	0.116	0.053	0.052	0.135	0.007	0.005
Dependent variable std. dev.	0.099	0.063	0.063	0.118	0.016	0.014
Expat manager share control	✓	✓	✓	✓	✓	✓
Office × Year FEs	✓	✓	✓	✓	✓	✓
Function × Year FEs	✓	✓	✓	✓	✓	✓
N	2,048	2,048	2,048	2,048	2,048	2,048

Notes: This table reports coefficients from estimating equation (3) using aggregate gender gaps (**Panel A**) and exit rates (**Panel B**) as outcome variables. Each observation is an office × function × quarter. In both panels, columns (1) and (4) consider all local employees at WL2 or above in each office × function × quarter, while the remaining columns consider only expat-exposed employees (columns 2 and 5) or unexposed employees (columns 3 and 6). To compute the female–male pay gap (columns 1 to 3 of Panel A), we estimate a worker × quarter-level wage regression controlling for workers' age, age^2, tenure, and tenure^2, and then store the worker gender coefficient for each office × function × quarter. To compute the female share of leadership (columns 4 to 6 of Panel A), we further restrict the sample to local employees at WL3 or above. For the female–male pay gap, we estimate the wage regression separately for expat-exposed and unexposed employees. For the female share of leadership and for female and male exit rates, we decompose the overall shares and exit rates into the corresponding values for expat-exposed and unexposed employees. Exit rates are defined as the fraction of employees in a given office × function × quarter who leave the firm within the subsequent year. Controls include the share of expat managers, the number of local employees, and their average age and tenure. Standard errors in parentheses are clustered by office × year.

Table VIII: Aggregate Impacts of Office-Function's and Team's Performance

Level of analysis:	(1)	(2)	(3)	(4)
	Office-function		Team	
Dependent variable:	**Log(Avg. pay + bonuses)**	**Bonuses-pay ratio**	**Log(Avg. pay + bonuses)**	**Bonuses-pay ratio**
Male expat mgrs' average norms	0.005	0.001	0.014	0.001
	(0.010)	(0.002)	(0.009)	(0.001)
Dependent variable mean	10.816	0.162	10.726	0.134
Dependent variable std. dev.	0.513	0.046	0.685	0.073
Expat manager share control	✓	✓		
Exposed worker share control			✓	✓
Office × Year FEs	✓	✓	✓	✓
Function × Year FEs	✓	✓	✓	✓
Local manager FEs			✓	✓
N	2,052	2,052	108,231	108,231

Notes: Columns (1) and (2) report the coefficients from estimating equation (3) using aggregate log(pay + bonuses) and bonuses-to-pay ratio as the outcome variables, computed using all local employees. Each observation is an office × function × quarter. Columns (3) and (4) replicate columns (1) and (2) at the team level. Each observation is a team × quarter with a local manager and at least one prior-expat-exposed worker. Controls include number of local employees and their average age and tenure, measured at the corresponding level of aggregation. Columns (1) and (2) additionally control for the share of expat managers. Standard errors in parentheses are clustered by office × year. Columns (3) and (4) additionally control for the share of prior-expat-exposed workers and local manager fixed effects. Standard errors in parentheses are clustered by manager.

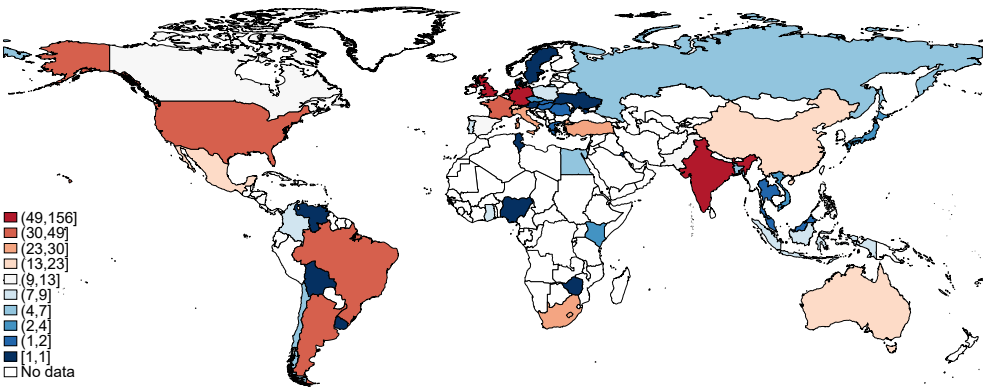
Table IX: Impacts of Foreign Managers' Gender Norms on Brazilian Establishment-Level Gender Gaps and Exit Rates

Dependent variable:	(1) **Female-male pay gap**	(2) **Female share of leadership**	(3) **Female exit rate**	(4) **Male exit rate**
Male expat mgrs' average norms	0.030*	0.007**	-0.002	-0.000
	(0.018)	(0.003)	(0.001)	(0.001)
Dependent variable mean	-0.161	0.284	0.040	0.040
Dependent variable std. dev.	1.680	0.240	0.108	0.095
Foreign manager share control	✓	✓	✓	✓
Firm FEs	✓	✓	✓	✓
Industry × State × Year FEs	✓	✓	✓	✓
N	60,824	60,824	60,824	60,824
Number of firms	3,776	3,776	3,776	3,776

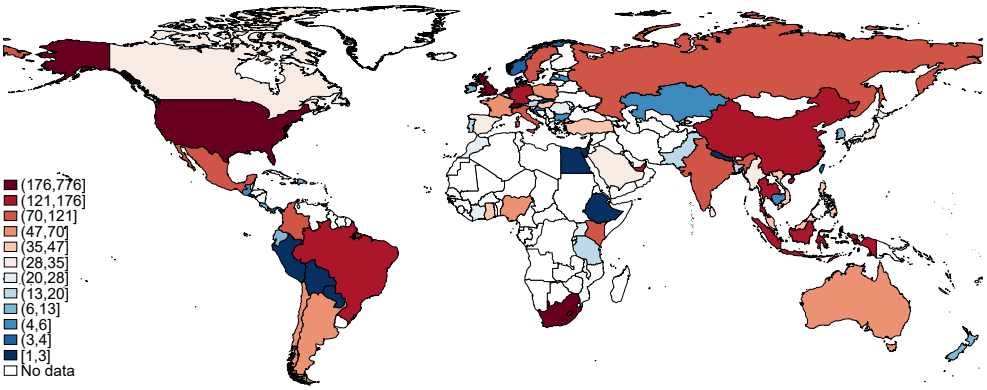
Notes: This table reports the coefficients from estimating equation (4) using quarterly establishment-level RAIS data. Column (1) examines the female-male pay gap among high-skilled local employees, column (2) examines the female share among managers, and columns (3) and (4) examine female and male exit rates, respectively, among high-skilled white-collar employees. Managers correspond to the first major group of the ISCO classification. High-skilled white-collar employees include both managers and professionals (first and second major ISCO groups). To compute the female-male pay gap (column 1), we estimate a worker × quarter-level wage regression controlling for workers' age, age^2, tenure, tenure^2, and 1-digit ISCO occupation code dummies, then store the worker gender coefficient for each establishment × quarter. Controls include the share of foreign managers, numbers of workers and managers, and local employees' average age and tenure. Industry is classified according to the 1-digit ISIC code. Standard errors in parentheses are clustered by firm × year.

A Appendix Figures and Tables

Figure A.1: Distributions of Expat Managers' and Workers' Countries



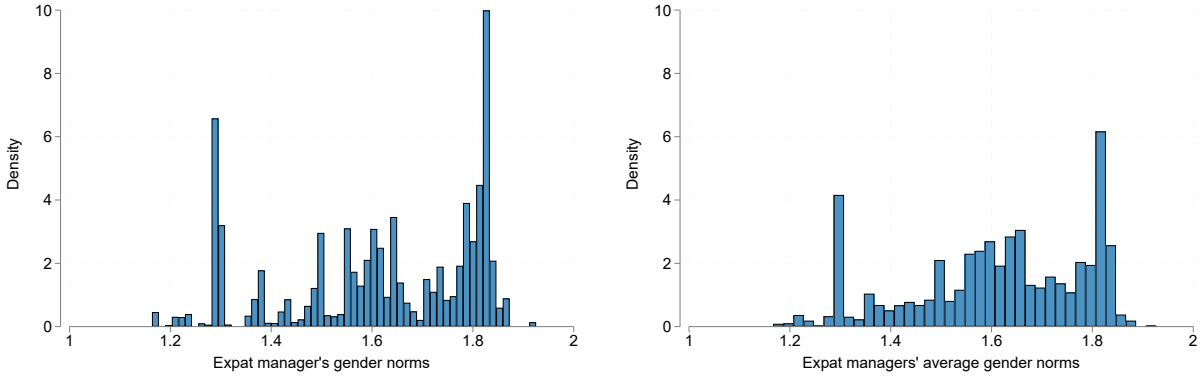
A. Expat managers' countries



B. Workers' countries

Notes: **Panel A** shows the geographical distribution of baseline sample's expat managers' home countries (origin countries). **Panel B** shows the geographical distribution of baseline sample's workers' countries at exposure (destination countries).

Figure A.2: Distribution of Expat Managers' Gender Norms

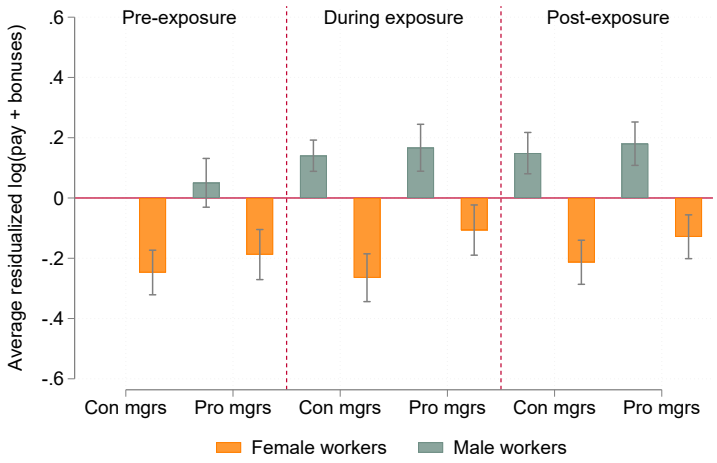


A. Individual expat managers

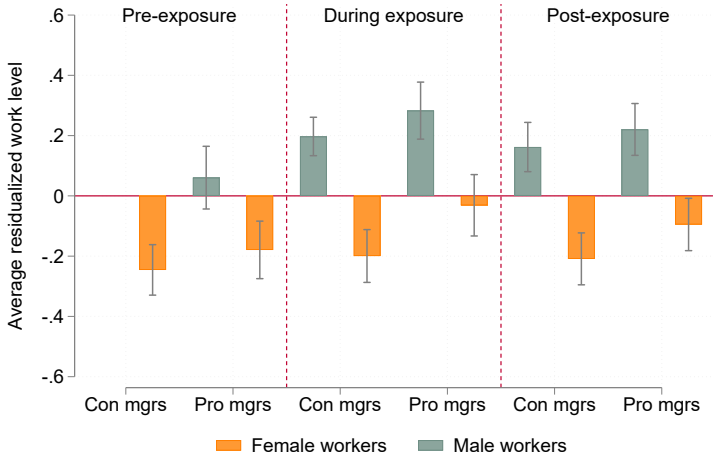
B. Office-function-quarter averages

Notes: **Panel A** plots the distribution of baseline sample's expat managers' gender norms before standardization. **Panel B** plots the distribution of male expat managers' average gender norms at the office-function-quarter level before standardization.

Figure A.3: Pay and Work Level by Gender and Expat Managers' Gender Norms



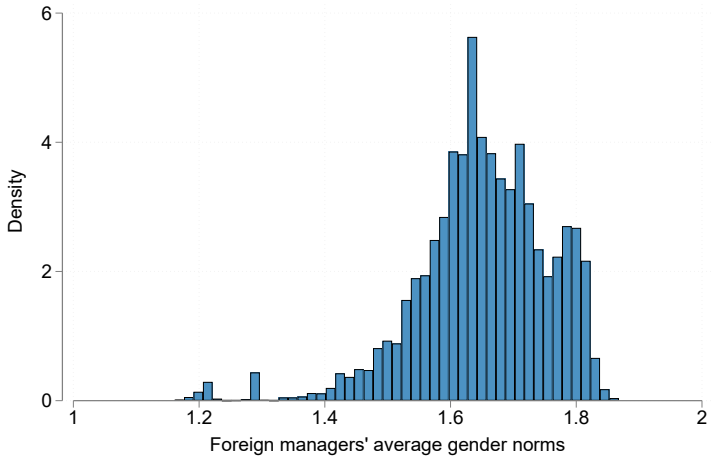
A. Log(Pay + bonuses)



B. Work level

Notes: This figure plots the average log(pay + bonuses) (**Panel A**) and average work level (**Panel B**) of male and female employees exposed to expat managers with conservative and progressive gender norms before, during, and after such exposure, after partialling out worker's age, age^2, tenure, tenure^2, and office x year fixed effects. These averages are shown relative to those of male workers exposed to gender-conservative expat managers pre-exposure. Gender-conservative and progressive expat managers are defined by a split at the median of the gender norms measure. Standard errors used to compute the 95% confidence intervals are clustered by worker.

Figure A.4: Distribution of Foreign Managers' Average Gender Norms at Establishment-Quarter Level in Brazil



Notes: This figure plots the distribution of male foreign managers' average gender norms at the establishment-quarter level before standardization.

Table A.1: Impact of Expat Manager's Gender Norms Using Other Norms Measures

Panel A. Other gender norms measures

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
	Log(Pay + bonuses)					
Gender norms measure:	Right to jobs	Working mothers	Business executives	University education	Working to be independent	Gender norms difference
Expat mgr norms × Female × During	0.042***	0.039***	0.046***	0.046***	0.048***	
	(0.014)	(0.011)	(0.012)	(0.011)	(0.016)	
Expat mgr norms × Female × Post	0.050**	0.043***	0.046***	0.046***	0.038*	
	(0.020)	(0.013)	(0.015)	(0.017)	(0.021)	
Norms difference × Female × During						0.007
						(0.010)
Norms difference × Female × Post						0.019*
						(0.010)
Worker FEs	✓	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓	✓	✓
N	253,514	251,612	249,113	250,575	247,386	233,989

Panel B. Baseline gender norms measure by education

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
	Log(Pay + bonuses)					
Respondent sample:	All respondents			Male respondents		
Respondent education:	All levels	Upper level	College	All levels	Upper level	College
Expat mgr norms × Female × During	0.049***	0.050***	0.044***	0.052***	0.044***	0.043***
	(0.012)	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)
Expat mgr norms × Female × Post	0.049***	0.050***	0.049***	0.052***	0.048***	0.049***
	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)
Worker FEs	✓	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓	✓	✓
N	249,968	248,479	249,113	249,968	249,225	249,113

Notes: This table reports the coefficients from estimating equation (1) using alternative constructions of the gender norms measure. In **Panel A**, the gender norms measure used in column (1) is constructed from WVS responses to the statement *"When jobs are scarce, men should have more of a right to a job than women"*; column (2) *"When mother works for pay, the children suffer"*; column (3) *"On the whole, men make better business executives than women do"*; column (4) *"A university education is more important for a boy than a girl"*; and column (5) *"Having a job is the best way for a woman to be an independent person"*. Column (6) considers the difference between the expat manager's and destination country's gender norms. In **Panel B**, the gender norms measure used in column (1) is constructed using responses from all WVS respondents (baseline gender norms measure); column (2) respondents with upper-level education; column (3) respondents with college education; column (4) male respondents; column (5) male respondents with upper-level education; and column (6) male respondents with college education. Controls include worker's age, age^2, tenure, and tenure^2. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table A.2: Impacts of Expat Manager's Gender Norms on Gender Gaps Prior to Exposure

Dependent variable:	(1) **Log(Pay + bonuses)**	(2) **Bonuses-pay ratio**	(3) **Performance rating**	(4) **Work level promotions**	(5) **Work level achieved**
Expat mgr norms × Fem × Quarter -2	-0.009*	-0.002	0.734	0.001	0.005
	(0.005)	(0.002)	(0.536)	(0.006)	(0.005)
Expat mgr norms × Fem × Quarter -3	-0.004	-0.001	0.571	-0.002	0.004
	(0.007)	(0.003)	(0.834)	(0.011)	(0.011)
Expat mgr norms × Fem × Quarter -4	0.002	-0.001	0.309	0.001	0.007
	(0.010)	(0.004)	(1.012)	(0.014)	(0.012)
Expat mgr norms × Fem × Quarter -5	0.005	-0.001	-0.612	0.001	0.005
	(0.012)	(0.003)	(1.139)	(0.012)	(0.011)
Expat mgr norms × Fem × Quarter -6	0.003	-0.001	-1.495	-0.010	-0.007
	(0.011)	(0.004)	(1.182)	(0.013)	(0.012)
Worker FEs	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓	✓
Expat manager FEs	✓	✓	✓	✓	✓
N	249,968	249,968	215,741	249,968	249,968

Notes: This table reports the results from estimating the equation: $Y_{imlkqt} = \sum_{Q=-7}^{0} \sigma_Q \mathbf{1}[q_{it} = Q](Norms_m \times Fem_i) + \Sigma_{imq} + \theta_i + \theta_{mk} + \theta_{l,Year(t),Fem(i)} + \mathbf{X}_{it}\beta + \varepsilon_{imlkqt}$ where q indexes the quarter relative to worker i's exposure to expat manager m, with $q = -7$ subsuming the time period before quarter -6 and $q = 0$ the time period after quarter -1, and Σ_{imq} includes all three uninteracted variables ($\mathbf{1}[q_{it} = Q]$, $Norms_m$, and Fem_i) and their pairwise interactions (see Section 3 for other notation details). The reported coefficients $\hat{\sigma_q}$ capture the impacts of the expat manager's gender norms on the within-team female-male gender gap in quarter q relative to that in quarter -1 (the quarter right before the exposure). Performance rating (column 3) is percentile relative to all workers. Work level promotions (column 4) is cumulative count. Controls $\mathbf{X}_{it}$ include worker's age, age^2, tenure, and tenure^2. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table A.3: Impact of Expat Manager's Gender Norms Using Alternative Samples

Dependent variable:	(1)	(2)	(3)	(4)	(5)
	Log(Pay + bonuses)				
Sample type:	Expat managers	Workers			
Sample:	First rotation	Equal weight	First team	Non-first team	Incl. non-exposed
Expat mgr norms × Female × During	0.065**	0.036***	0.047**	0.052***	0.034***
	(0.031)	(0.012)	(0.020)	(0.017)	(0.012)
Expat mgr norms × Female × Post	0.097***	0.039***	0.042**	0.053***	0.029***
	(0.036)	(0.015)	(0.018)	(0.020)	(0.008)
Worker FEs	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓
Manager × Year × Female FEs	✓	✓	✓	✓	✓
N	146,674	249,968	249,968		1,762,700

Notes: This table reports the coefficients from estimating equation (1) using alternative samples. Column (1) restricts the sample to expat managers' first international rotations. Column (2) assigns equal weight to each worker by weighting each observation by the inverse of the number of months the worker appears in the sample. Columns (3) and (4) report the results from one single regression with separate $Norms_m \times Fem_i$ coefficients for employees who join the expat manager's team within the expat manager's first quarter in the destination country (column 3) and employees who subsequently join the expat manager's team (column 4). Column (5) employs the full sample of workers, including never-exposed ones. Controls include worker's age, age^2, tenure, and tenure^2. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table A.4: Impact of Expat Manager's Gender Norms
Controlling for Expat Manager's Other Characteristics and Cultural Traits

Panel A. Other characteristics

Dependent variable:	(1)	(2)	(3)	(4)	(5)
	Log(Pay + bonuses)				
Characteristic type:	Of expat manager		Of home country		
Other characteristic:	Demo-graphic	Performance	GDP per capita	Education	WMS talent mgmt. score
Expat norms × Fem × During	0.039***	0.036***	0.053*	0.059***	0.047**
	(0.011)	(0.013)	(0.030)	(0.019)	(0.021)
Expat norms × Fem × Post	0.031**	0.035**	0.083**	0.108***	0.051***
	(0.013)	(0.015)	(0.039)	(0.033)	(0.015)
Worker FEs	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓	✓
N	249,099	249,968	243,540	247,244	194,051

Panel B. Other cultural traits

Dependent variable:	(1)	(2)	(3)	(4)	(5)
	Log(Pay + bonuses)				
Other trait:	Trust	Work ethic	Preference for redistri-bution	Risk preference	Cultural proximity
Expat norms × Fem × During	0.051***	0.040***	0.083***	0.036**	0.042***
	(0.013)	(0.013)	(0.018)	(0.015)	(0.012)
Expat norms × Fem × Post	0.043**	0.032	0.077***	0.028	0.053***
	(0.017)	(0.019)	(0.018)	(0.018)	(0.015)
Other trait × Fem × During	0.005	-0.023	0.043**	-0.016	-0.032**
	(0.013)	(0.014)	(0.019)	(0.017)	(0.013)
Other trait × Fem Post	0.016	-0.033	0.038**	-0.031	0.008
	(0.018)	(0.020)	(0.018)	(0.023)	(0.016)
Worker FEs	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓	✓
N	247,706	247,706	245,238	234,305	249,968

Notes: This table reports the coefficients from estimating equation (1) with additional controls for expat managers' other characteristics and cultural traits. Baseline controls include worker's age, age^2, tenure, and tenure^2. In **Panel A**, column (1) additionally controls for expat manager's age, tenure, and work level at the time of exposure; column (2) expat manager's performance, measured as his age and tenure at achieving WL3; column (3) expat manager's home country's GDP per capita; column (4) expat manager's home country's average years of schooling; and column (5) expat manager's home country's average management talent score from the World Management Survey - Manufacturing. In **Panel B**, column (1) additionally controls for expat manager's trust; column (2) expat manager's work ethic; column (3) expat manager's preference for redistribution; column (4) expat managers' risk preference; and column (5) expat manager's home country-destination country genetic proximity as a proxy for cultural proximity (Spolaore and Wacziarg, 2016). Trust, work ethic, preference for redistribution, and risk preference are constructed analogously to gender norms, using WVS responses to the statements *"Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"*; *"Important in life: work"*; *"In the long run, hard work usually brings a better life" or "Hard work doesn't generally bring success – it's more a matter of luck and connections"*; and *"Adventure and taking risks are important to have an exciting life"* respectively. All additional controls are standardized by their respective standard deviations across expat managers and fully interacted with worker's gender and exposure period. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table A.5: Contributions of Promotions, Lateral Moves, and Retention

Dependent variable:	(1)	(2)	(3)	(4)	(5)
	Log(Pay + bonuses)				
Channel:	Baseline	Promotions	Lateral moves	Retention	All three
Expat mgr norms × Female × During	0.049***	0.027***	0.039***	0.050***	0.021**
	(0.012)	(0.009)	(0.010)	(0.012)	(0.009)
Expat mgr norms × Female × Post	0.049***	0.021	0.038***	0.050***	0.015
	(0.015)	(0.013)	(0.012)	(0.015)	(0.011)
Worker FEs	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓	✓
Work level FEs		✓			✓
Lateral move controls			✓		✓
Sub-function FEs			✓		✓
Heckman selection correction				✓	✓
N	249,968	249,968	249,180	249,968	249,180

Notes: This table reports the coefficients from estimating equation (1). Baseline controls include worker's age, age^2, tenure, tenure^2. Column (2) additionally includes work level fixed effects. Column (3) additionally includes sub-function fixed effects and lateral move controls, which are second-order polynomials of cumulative function and sub-function transfers. Column (4) additionally includes a Heckman selection correction term, specified as a third-order polynomial of worker's estimated exit probability. Following Benson et al. (2019), we use the number of worker exits in the same office × function × year as the excluded variable in the exit equation. Column (5) incorporates all additional fixed effects and controls included in columns (2) to (4). Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table A.6: Impacts on Within-Team 25th-75th Percentile Gaps

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)
	25th-75th percentile ratio					
	Pay + bonuses		Pay		Bonuses	
Worker sample:	All	Male	All	Male	All	Male
Expat mgr norms × During	0.001	0.006	0.002	0.007	-0.004	0.001
	(0.005)	(0.006)	(0.005)	(0.005)	(0.007)	(0.008)
Expat mgr norms × Post	-0.001	0.000	-0.001	-0.000	-0.002	0.001
	(0.006)	(0.005)	(0.005)	(0.005)	(0.007)	(0.007)
Dependent variable mean	0.877	0.928	0.883	0.931	0.834	0.902
Dependent variable std. dev.	0.228	0.172	0.218	0.165	0.299	0.231
Office × Year FEs	✓	✓	✓	✓	✓	✓
Function × Year FEs	✓	✓	✓	✓	✓	✓
N	144,792	87,150	144,792	87,150	139,225	83,807

Notes: This table reports the results from estimating the effects of expat manager's gender norms on the within-team 25th-75th percentile pay and bonuses gaps. Each observation is a team × exposure period × month, where a team is defined as all employees exposed to a given expat manager. The dependent variable is the ratio of the 25th to the 75th percentiles of pay + bonuses in columns (1) and (2), of pay in columns (3) and (4), and of bonuses in columns (5) and (6). Columns (1), (3), and (5) compute these ratios using all employees exposed to the expat manager, whereas columns (2), (4), and (6) restrict the sample to male employees. Controls include the number of local employees and their average age and tenure. Standard errors in parentheses are clustered by expat manager.

Table A.7: Impact of Expat Manager by Expat Manager's Link to Headquarters

Dependent variable:	(1)	(2)	(3)	(4)	(5)
	Log(Pay + bonuses)				
Expat mgrs excluded from sample:	None		From HQ	Exposed to HQ	From or exposed to HQ
Expat mgr norms × Female × During	0.065***	0.082***	0.077***	0.066***	0.085**
	(0.013)	(0.015)	(0.028)	(0.015)	(0.035)
Expat mgr norms × Female × Post	0.039*	0.034	0.052	0.041*	0.064
	(0.020)	(0.025)	(0.032)	(0.023)	(0.040)
Expat mgr's HQ link controls		✓			
Worker FEs	✓	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓	✓
Manager × Year × Fem FEs	✓	✓	✓	✓	✓
N	187,268	187,268	144,074	173,567	130,405

Notes: This table reports the coefficients from estimating equation (1) excluding the headquarters (HQ) country as destination country. Column (2) additionally controls for whether the expat manager is from the HQ country and whether the manager has previously spent time working in the HQ country, both fully interacted with worker's gender and exposure period. Column (3) excludes expat managers who are from the HQ country. Column (4) excludes expat managers who have previously spent time working in the HQ country. Column (5) excludes both types of expat managers with HQ links. Baseline controls include worker's age, age^2, tenure, and tenure^2. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table A.8: Heterogeneous Impacts on Managers versus Non-managers

Dependent variable:	(1)	(2)	(3)	(4)
	Log(Pay + bonuses)		**Work level**	
Worker sample:	Managers	Non-managers	Managers	Non-managers
Expat mgr norms × Female × During	0.059***	0.028	0.086***	0.040
	(0.011)	(0.028)	(0.017)	(0.039)
Expat mgr norms × Female × Post	0.064***	0.018	0.102***	0.046
	(0.015)	(0.027)	(0.025)	(0.043)
Worker FEs	✓	✓	✓	✓
Expat manager × Period FEs	✓	✓	✓	✓
Manager × Year × Female FEs	✓	✓	✓	✓
N	249,968		249,968	

Notes: This table reports the coefficients from estimating equation (1) with separate $Norms_m \times Fem_i$ coefficients for exposed employees who are managers (columns 1 and 3) and non-managers (columns 2 and 4) prior to their expat exposure. Columns (1) and (2) report the results from one single regression; the same holds for columns (3) and (4). Controls include worker's age, age^2, tenure, tenure^2. Standard errors in parentheses are clustered two-way by worker and expat manager's home country × worker's gender.

Table A.9: Expat Manager's Gender Norms and Worker's Pulse Surveys, by Gender

Panel A: Female employees

Dependent variable:	(1) **Manager**	(2) **Feed-back**	(3) **Control**	(4) **Devel-opment**	(5) **Balance**	(6) **Extra mile**	(7) **Morale**
Expat mgr norms × During	0.053**	0.068***	0.024	0.014	0.030	0.002	0.007
	(0.025)	(0.025)	(0.021)	(0.024)	(0.031)	(0.027)	(0.016)
Work level FEs	✓	✓	✓	✓	✓	✓	✓
Function FEs	✓	✓	✓	✓	✓	✓	✓
Dest. country FEs	✓	✓	✓	✓	✓	✓	✓
Year FEs	✓	✓	✓	✓	✓	✓	✓
N	3,604	2,110	3,215	3,930	3,936	3,940	3,926

Panel B: Male employees

Dependent variable:	(1) **Manager**	(2) **Feed-back**	(3) **Control**	(4) **Devel-opment**	(5) **Balance**	(6) **Extra mile**	(7) **Morale**
Expat mgr norms × During	-0.005	-0.001	-0.002	-0.012	-0.006	0.007	-0.025
	(0.023)	(0.021)	(0.025)	(0.017)	(0.021)	(0.018)	(0.023)
Work level FEs	✓	✓	✓	✓	✓	✓	✓
Function FEs	✓	✓	✓	✓	✓	✓	✓
Dest. country FEs	✓	✓	✓	✓	✓	✓	✓
Year FEs	✓	✓	✓	✓	✓	✓	✓
N	3,613	2,111	3,229	4,030	4,030	4,030	4,020

Notes: This table reports the coefficients from estimating equation: $Y_{imkt} = \sum_{k=1,2} \gamma_k \mathbf{1}[K_{it} = k] Norms_m + \mathbf{X_{it}}\beta + \varepsilon_{imkt}$ (see Section 3 for notation details) separately for female workers (**Panel A**) and male workers (**Panel B**). Each observation is a worker × year during or after the worker's expat exposure. Dependent variables are the worker's standardized responses to the MNE's annual employee survey. Column (1) considers the question *"My line manager is an effective leader;"* column (2) *"I receive feedback from my line manager that helps me grow;"* column (3) *"I have control over prioritising tasks when facing multiple demands at work;"* column (4) *"I am satisfied with my development opportunities at [MNE];"* column (5) *"I can maintain a reasonable balance between my personal life and work life;"* column (6) *"My job inspires me to go the extra mile;"* and column (7) considers three questions *"Overall, I am extremely satisfied with [MNE] as a place to work," " I am proud to say that I work for [MNE],"* and *"I would gladly refer a friend or family member to [MNE] for employment."* Controls $\mathbf{X_{it}}$ include worker's age, age^2, tenure, tenure^2, and log(pay + bonuses), together with worker's work level dummies, function dummies, country dummies, and year dummies. Standard errors in parentheses are clustered two-way by worker and expat manager's home country.