

# Navigating the New Normal: Examining Co-Attendance in a Hybrid Work Environment

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## Abstract

The recent rise of hybrid work poses novel challenges for synchronizing in-office work schedules. Using anonymized building access data, we quantified co-attendance patterns among ~43k employees at a large global technology company. We used two-way fixed effects regression models to investigate the association between an employee’s presence in the office and that of their manager and teammates. Our analysis shows that employee in-person attendance was 29% higher when their manager was present. Moreover, a one-standard-deviation increase in the share of teammates who were present yielded a 16% increase in the individual employee’s attendance. We also observed greater co-attendance among employees who were recently hired, have a Corporate or Operations role, or work in shared office spaces. Thus, we find evidence of some voluntary alignment of work schedules. Companies could bolster such organic coordination by leveraging digital scheduling tools or providing guidance specifically aimed at increasing co-attendance.

As the COVID-19 pandemic subsides, much of the workforce—28% of US full-time employees as of March 2023 [Barrero et al., 2021]—has transitioned to hybrid work arrangements, wherein employees work from home on some days and in the office on others. Hybrid work seeks to combine the benefits of in-office and remote work. Face-to-face encounters, resulting from in-office work, can improve team collaboration [Pentland, 2012] and connection [Waber et al., 2010] and facilitate activities like brainstorming [Brucks and Levav, 2022]. Remote work, on the other hand, offers flexibility, saved commute time, and enhanced individual focus time [Ford et al., 2021, Gajendran and Harrison, 2007, Allen et al., 2015]; it also enables access to a broader talent pool [Choudhury et al., 2021] and potential cost savings for organizations and employees [Gajendran and Harrison, 2007]. Hybrid work aims to retain some of the remote work advantages, while capturing some of the collaboration and productivity benefits of in-person time [Microsoft, 2022a]. However, hybrid work poses new challenges, particularly the synchronization of in-office workdays among employees [Kniffin et al., 2021]. Misaligned work schedules can lead to missed opportunities for in-person

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interactions [Cheshin et al., 2011], which is one of the top reasons employees come to the office [Microsoft, 2022b]. By examining attendance patterns in hybrid settings, organizations can learn from scheduling preferences and assess coordination levels. Such learnings, in turn, can help organizations design better hybrid work policies to foster teamwork and co-attendance.

In this study, we quantify attendance patterns among ~43k employees at a global technology company. We leverage anonymized building access data, obtained from electronic badges used by employees at three major office sites worldwide (US headquarters, India, Ireland), along with data on each employee’s job category, workspace type, new-hire status, and anonymized manager’s identifier. Throughout our analyses, we ensured the data was fully anonymized and no individual information was revealed. We focus on the tendency of an employee to co-attend with their direct manager and teammates (i.e., people reporting to the same manager). Although our approach does not allow us to determine who is influencing whom to go to the office due to the reflexive nature of co-attendance [Manski, 1993], it enables us to reliably assess alignment of in-office work schedules. To uncover factors that affect co-attendance patterns, we investigate whether such correlations differ by employee job category, new-hire status, and workspace type. Our overall objective is to understand the extent and heterogeneity of team coordination in office attendance among the employees we study and knowledge workers more broadly. We aim to provide useful insights both for organizations setting their hybrid work policies and for companies developing products and services to improve hybrid work environments.

## Results

After fully closing in March 2020, the company’s offices partially reopened in 2021 at all three considered sites. On February 28, 2022, offices at the US headquarters fully reopened, marking the end of our 60-day “pre-period” and the start of a 30-day transition period intended for employees to adapt their schedules; our 60-day “post-period” follows. After reopening, employees were encouraged to go onsite more, but generally no attendance requirements were enforced.

We began our analysis by estimating conditional average attendance nonparametrically, assessing how the likelihood of an employee working in the office varies with their manager’s and teammates’ presence on that day. Smoothed attendance patterns are shown under four distinct scenarios in Figure 1, reflecting whether an employee’s manager or at least one teammate was onsite. Employees were more likely to be in the office when their manager or teammates were present and even more likely when both were there. Although attendance increased at the start of the transition period, the four lines in Figure 1 shifted in tandem, suggesting that there continued to be partial coordination in attendance.

Next, we employed a two-way fixed effects (TWFE) regression model to investigate the association between an employee’s presence in the office and that of their manager and teammates. The TWFE model uses *individual* fixed effects to control for each employee’s baseline attendance rate and *date* fixed effects to control for day-to-day fluctuations in company-wide attendance, due to factors such as free lunch or events happening on that day. The two variables of interest in the model are manager’s attendance (binary variable) and the share of

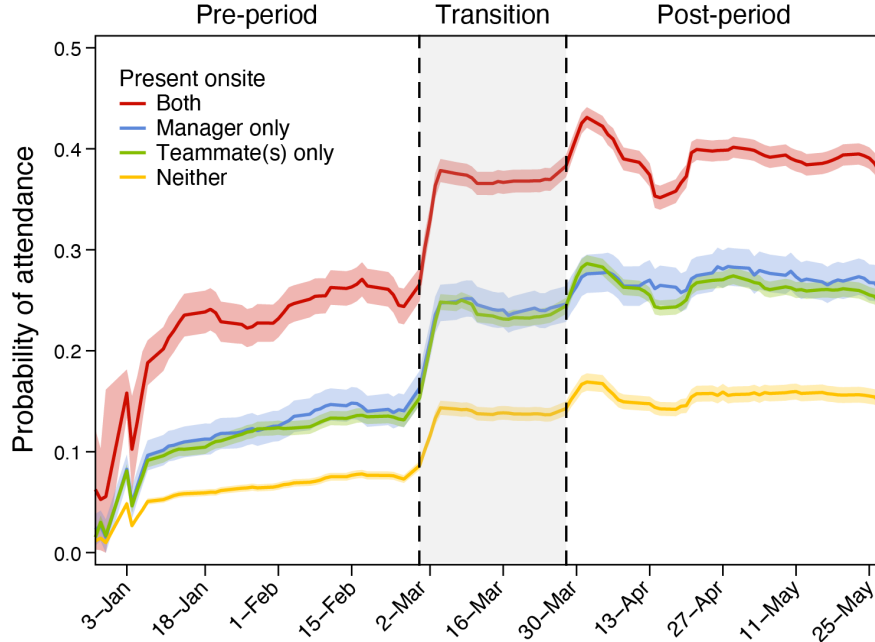


Figure 1: Employees’ office attendance rates in 2022, given the presence of their manager or teammates. The conditional average attendance for employees at the US headquarters was estimated nonparametrically and smoothed using a 5-day rolling window. Shaded bands represent 95% confidence intervals with team-level clustering.

teammates who are in the office (continuous variable, unlike Figure 1, which uses a binary variable for whether at least 1 teammate attends). Since attendance of the full team was very rare, even during the post-period, we report the change associated with a one-standard-deviation increase ( $\sim 0.27$ ) in teammates’ attendance instead of the coefficient itself.

Results of TWFE regression models for the US headquarters, run separately for the pre- and post-period, are shown in Figure 2A. During the post-period, an employee was 29% (7.7 percentage points or pp) more likely to be present onsite when their manager was and 16% (4.2pp) more likely when the share of their teammates present onsite increased by one standard deviation. During the pre-period, the association with manager’s attendance was proportionally larger than in the post-period, at 42% (p<.01); however, the baseline attendance rate was also much lower (9pp pre vs 27pp post). In contrast, the proportional association with teammates’ attendance in the pre-period (13%) was qualitatively similar to that of the post-period, albeit statistically significantly smaller (p<.01). These results suggest that coordination between employees and their managers decreased from the pre- to the post-period, whereas coordination with teammates remained stable. A possible explanation is that during the pre-period some employees only went in on days when they had 1:1 meetings with their managers, but in the post-period they also went in on other days, uncoordinated with their manager.

We performed the same analysis for employees located in India and Ireland, using country-specific reopening dates (Figure 2B). In the post-period, we observed similar associations between a given employee’s presence onsite and that of their manager across all three countries (26% in India and 29% in Ireland and the US). The association with teammates’ attendance

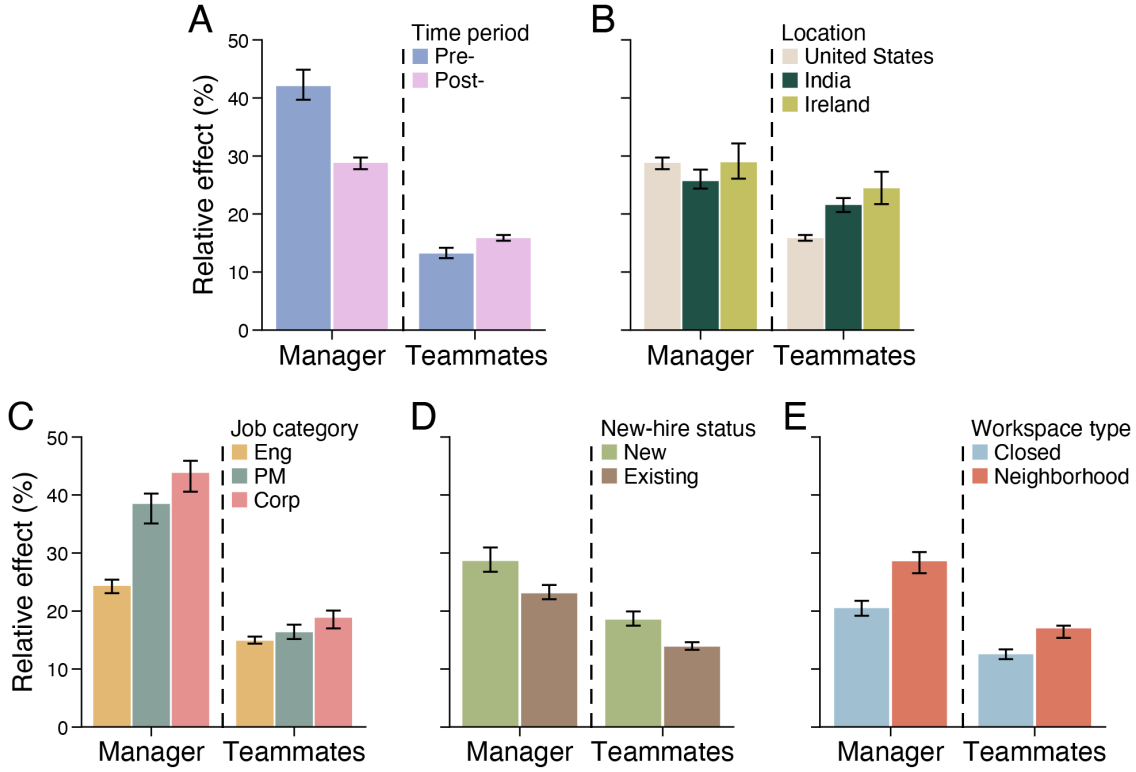


Figure 2: Relative association with manager’s and teammates’ attendance for models run separately by period, location, job category, new-hire status, and workspace type. All graphs except B are for employees at the US headquarters only. Eng, PM, and Corp refer to Engineering & Research, Product & Program Management, and Corporate & Operations, respectively. We report TWFE coefficients of teammates’ attendance multiplied by the corresponding standard deviation 0.17 (Pre), 0.27 (Post), 0.27 (US), 0.24 (India), 0.26 (Ireland), 0.26 (Eng), 0.28 (PM), 0.29 (Corp), 0.26 (New), 0.27 (Existing), 0.26 (Closed), 0.26 (Neighborhood), divided by baseline attendance. Error bars represent 95% confidence intervals with team-level clustering.

was somewhat larger in India (21%) and in Ireland (24%) than in the US (16%).<sup>1</sup> We discuss possible factors contributing to heterogeneity in peer effects by location, including differing workplace cultures and distributions of employees across job categories, in the *SI Appendix*. The existence of meaningful co-attendance patterns at multiple locations worldwide supports the robustness of our findings, emphasizing the importance of manager’s and team’s presence in driving employee’s attendance across geographical and socio-cultural settings.

Depending on their job category, employees may have different reasons for office attendance. For instance, non-technical staff may prioritize seamless operations and direct communication facilitated by in-person interactions, while technical personnel might value onsite meetings for improved knowledge transfer and problem-solving. Focusing on the US headquarters in the post-period, we analyzed these associations for the top three categories by number of employees: Engineering & Research (Eng), Product & Program Management (PM), and Corporate & Operations (Corp). Both in relative and absolute terms, the association with manager’s attendance for Corp (44%, 10.3pp) and PM (38%, 8.9pp) were notably larger than for Eng (24%, 6.9pp) (Figure 2C). The relative increases associated with a one-standard-deviation increase in teammates’ attendance were more similar across job categories, but the ordering was identical (Corp 19%, PM 16%, Eng 15%; standard deviations were similar across categories).<sup>2</sup> This finding suggests that employees in Corp and PM may rely more on managerial guidance and face-to-face communication for decision-making, whereas employees in Eng might work more independently.

Next, we categorized employees into “new hires” vs “existing hires”, based on their start date at the company (after vs before the pandemic began in March 2020). New hires may prefer frequent office visits to acclimate themselves to company culture and seek out mentorship, whereas experienced employees might opt for a flexible work location, reserving office visits for critical meetings or collaborative projects. Focusing on Eng employees to avoid confounding by job category, we found substantial differences between these two subgroups, as shown in Figure 2D. The association with manager’s attendance was significantly larger for new versus existing hires (29% vs 23%, on a relative scale,  $p < .01$ ). A similar difference was observed for teammates’ attendance, with a relative association of 18% among new hires and 14% among existing hires ( $p < .01$ ). We conjecture that new hires may either experience more peer or manager pressure to be onsite when their colleagues are, or actively seek in-office time to learn from colleagues, form better ties, and improve their social capital [Yu et al., 2023, Maurer et al., 2011].

Finally, we examined differences in co-attendance patterns by workspace type. Some employees work from open, neighborhood spaces shared with their teammates, whereas others have closed, private offices. We hypothesized that the two groups had different reasons to go to the office: employees with a closed office might be more motivated by a quiet space conducive to focused work and confidential discussions, while those working in a neighborhood space might be more motivated by social interactions with colleagues. For estimation,

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<sup>1</sup>For managers, the only statistically significant difference was between India and the US ( $p < .01$ ). For teammates, t-tests comparing the US with India or Ireland gave  $p < .01$ . The difference between India and Ireland was borderline significant with  $p = .06$ .

<sup>2</sup>For managers, the difference between Eng and its counterparts was statistically significant ( $p < .01$ ); for teammates, t-tests comparing Eng versus PM and Corp yielded  $p = .06$  and  $p < .01$ , respectively.

we again focused on Eng employees, who are more evenly distributed across the two major workspace types. While employees assigned to neighborhood spaces had a 5.0pp lower average attendance rate than employees with closed offices, their attendance was more correlated with that of their manager (neighborhood: 29%, 7.6pp; closed office: 20%, 6.6pp) and teammates (neighborhood: 17%, 4.5pp; closed office: 13%, 4.0pp), see Figure 2E. Employees working in neighborhood spaces might benefit more from the collaborative environment, resulting in greater motivation to co-attend, or might experience greater peer pressure to go onsite when others do.

## Discussion

We interpret our findings as evidence of “organic coordination” among employees. Even with the ongoing COVID-19 pandemic and limited attendance expectations, employees went to the office more on the days when their manager and teammates were present. In practice, coordination may have taken multiple forms. For example, some teams agreed on a day of the week to prioritize for in-person meetings among team members; other teams fostered the habit of posting to a chat channel on Friday their planned in-office workdays for the following week. There was evidence of this coordination even before the site’s full reopening, as employees’ attendance was already correlated with that of their managers and teammates during the pre-period. In sum, even without any dedicated digital scheduling tool, or official encouragement, employees managed to partially align their in-office workdays.

While our study does not speak to the optimal balance between remote and in-office days, co-attendance is necessary for employees to get the most out of in-office days. Feedback loops can make coordinating attendance even more important. Specifically, employees who initially exhibit a high level of motivation for onsite work may experience diminished enthusiasm for future office attendance if they encounter limited coworker presence; conversely, increasing attendance rates among colleagues may bolster an employee’s willingness to go onsite.

We study the time period when offices first reopened at this company, in the aftermath of the Omicron wave; the pervasiveness of COVID-19 concerns may explain the relatively low attendance rates. Since then, office attendance rates at this company and nationally have increased. More recently, many companies have announced new policies to increase office attendance. Our research suggests that companies implementing hybrid work policies like the one examined here, or asking people to come in any 3 days per week, may wish to complement such approaches with efforts to increase bottom-up coordination; these could take the form of team-level discussions and explicit coordination of regular in-office days, software tools to facilitate coordination among coworkers, or both. Companies requiring office attendance on certain days of the week (e.g., Tuesday, Wednesday, and Thursday) are missing many of the flexibility and office-use efficiency benefits of hybrid work, but could still benefit from bottom-up coordination for employees to align their schedules when they need to do in-office work on non-required days. Our heterogeneous findings—across job categories, new-hire status, and workspace types—suggest that tailored strategies to encourage coordination could also be beneficial.

There are several avenues for future research. First, using instrumental variables or conducting field experiments would provide more causal evidence supporting our results. Exper-

iments could also help identify the feedback loops we hypothesize—that higher initial attendance yields higher future attendance. Second, exploring the factors driving co-attendance is critical to better understand the observed patterns. Qualitative approaches, such as interviews or surveys, could help elucidate how employees communicate their work-location plans and coordinate with colleagues. Behavioral data on when and with whom employees meet could also shed light on the mechanisms at play. Finally, our study investigated only one-hop hierarchical relationships, but collaboration networks go beyond an employee’s immediate team. Hence future work could evaluate coordination among employees who are on unofficial teams, working together from different parts of a company.

## Data, materials, and software availability

Descriptions of our data and regression models are in *SI Appendix*.

Due to employee privacy and other legal restrictions, raw confidential data underlying this study is not available for public sharing. Code is available at <https://github.com/dehaoterryzhang/Co-Attendance-Hybrid/tree/main>. This study was reviewed by the Microsoft Research IRB (ID#10441) and determined to meet the criteria for exemption under 45 CFR 46 thus individual consent was not obtained. Research use of this data is consistent with the notice provided to users, and the data were anonymized and aggregated prior to use.

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## Supplementary Information Appendix (SI)

### A Background on the full reopening of office sites

Our study focuses on the time period before and the time period after the implementation of the company’s “full reopening”, with a transition period in between. The reopening took effect at different times across sites: the US headquarters reopened on February 28, 2022 (Figure 1), while offices in India and Ireland followed suit on March 8 and April 4, 2022, respectively.



From the outbreak of COVID-19 in March 2020 up until the “full reopening”, the company underwent several operational stages. These stages ranged from mandatory work-from-home due to complete office closures to gradual, partial reopenings with health-related restrictions such as required COVID-19 testing and vaccinations. After office sites reopened, these restrictions were largely relaxed.

Post-reopening, employees who wanted to continue working from home 50% of the time or more were asked to get the approval of their manager; those employees were also at risk of losing their assigned workspace, but widespread enforcement of that part of the policy did not occur until almost a year after our study period. The specific details of hybrid work attendance decisions (such as which days to attend) and enforcement were left to teams and individuals. Hence, we describe the associations we observe between individuals and their manager and teammates as “organic coordination”.

Our study centered on two distinct 60-calendar-day periods: one before (“pre-period”) and one after (“post-period”) the implementation of the full reopening. Importantly, the “post-period” period starts only after a 30-day “transition” period following the reopening. Within these 60-day periods, we only considered business days, thus excluding weekends and holidays. The “transition” period was excluded from our analysis to account for employees needing time to adapt their schedules. By focusing on days within these specific “pre-period” and “post-period” windows, we can examine how co-attendance patterns vary in different situations.

## B Data

The dataset utilized in this study consists in anonymized daily attendance records from employees at a global technology company. Three major office sites were considered, including the US headquarters, India, and Ireland. Most employees were assigned to a workspace located in a specific building, subsequently referred to as the “assigned building”. Employees who already worked fully remotely before the pandemic were excluded from our analysis. Initially, our dataset comprised about 75k employees (72% US headquarters, 24% India, 4% Ireland), with attendance measured via badge swipes at their assigned building.

Our data included each employee’s anonymized identifier and daily attendance at their assigned building for the pre- and post-period. The data also included each employee’s job category at the company, hire date, assigned office type, and an anonymized identifier of their manager, on a daily basis.

A team is defined as the set of employees reporting to the same manager. These teams typically have fewer than 10 people, usually around 5. They are organized as a functional group of employees who are working primarily with each other, but can also have substantial collaboration with coworkers who are not on their immediate team.

Our analysis has two preprocessing steps. First, we focused on employees who were assigned to the same building as their manager or at least one teammate. This choice was made to reflect situations whereby the presence of managers or teammates could strongly influence an individual’s inclination to go to the office on the same day. Indeed, among employees who had an office or desk in the same building as their manager or teammates, co-attendance on the same day implies that they had the potential to see each other in

person. Consequently, 16% of employees who did not meet our inclusion criterion regarding building assignment were excluded from the analysis.

Second, to maintain a “balanced” panel of employees, we ensured that each employee had complete data across both the 60-day pre- and 60-day post-period. Consequently, employees joining or leaving the firm between the start of the pre-period and the end of the post-period and a small number of others with partial data (e.g., due to parental leave) were removed. This resulted in the exclusion of an additional 27% of employees. Ultimately, our inclusion-exclusion criteria yielded a final dataset comprising 43k employees (77% US, 19% India, 4% Ireland).

## B.1 Variables

Next, we define the variables used in our study.

- **Fraction of teammates’ attendance:** Among all teammates who are located in the same location, the fraction of office attendance on the given day. We excluded employees who had no teammates located in the same location.
- **Job category:** Among individuals at the US headquarters who met the inclusion criteria, we focused on employees in the three largest, distinct job categories. Among these employees, the distribution of job categories was as follows: Engineering & Research (Eng, 71%), Product & Program Management (PM, 15%), and Corporate & Operations (Corp, 14%).
- **New-hire status:** Employees who were hired after March 1st, 2020 are considered ‘new hires’ (20%) and those who started before that date are ‘existing hires’ (80%).
- **Workspace type:** We categorize the workspace type of included US employees in Eng into individual offices (57%) and team neighborhoods (43%).

## C Regression models

For each period of interest (pre- and post-) and site, we built a two-way fixed effects binary choice model relating the attendance of employee  $i$  on day  $t$  to their manager’s attendance and their teammates’ attendance on that day. We employ the logit model with two-way fixed effects for results in the main text, although the results for the linear probability model are consistent. This consistency will be shown in a robustness check in the next section.

$$\text{logit}[\text{Pr}(Y_{it} = 1)] = \beta_M M_{it} + \beta_T T_{it} + \gamma_i + \eta_t + \varepsilon_{it}. \quad (1)$$

Here,  $\text{logit}(p) = \log(\frac{p}{1-p})$ .  $Y_{it}$  is a dummy variable that indicates whether an employee, indexed by  $i$ , attends the office on day  $t$ .  $M_{it}$  is a dummy variable that indicates whether an employee’s direct manager attends the office on day  $t$ .  $T_{it} \in [0, 1]$  is the fraction of an employee’s teammates who attend the office on day  $t$ .  $\gamma_i$  and  $\eta_t$  are two-way fixed effects for the employee and the day, which control for the individual-level attendance rate and

the daily variation in attendance at the company.  $\varepsilon_{it}$  is the error term, assumed to be clustered at the team level. We report the marginal effects  $\beta_M \Pr[Y_{it} = 1](1 - \Pr[Y_{it} = 1])$  or  $\beta_T \Pr[Y_{it} = 1](1 - \Pr[Y_{it} = 1])$ .

As the individual attendance rates of most employees increased significantly after the reopening, we ran separate regressions for the pre- and post-period. Since different sites had different reopening dates, we also ran separate regressions for each site. For the effect heterogeneity analysis, we ran the regression on each subgroup separately, except for the analysis of new vs existing hires, whereby we added interaction terms between an employee’s new-hire status (binary variable) and their manager’s daily attendance (binary variable) or the daily share of their teammates present in the office.

To estimate the variance, we use bootstrapping. In each replication, we randomly select half of the teams from our original dataset and consider the set of employees in those teams as the sample of interest. We then apply the logit two-way fixed effects model exclusively to the sampled teams and individuals and obtain the corresponding regression coefficients and marginal effects. We execute the bootstrapping algorithm over 200 replications and determine the 2.5th and 97.5th percentiles of the estimated marginal effects.

We employ a two-way fixed effects model for distinct locations separately. This allows the date-level fixed effects to capture external factors that systematically influence all employees within the same location on a given day. For instance, if free lunch was offered or if light commuter traffic happened in a location on a given day, affecting employee attendance, such variations are accounted for by the date-level fixed effects. Consequently, the regression coefficients still properly represent the coordination between employees and their managers or teammates, uninfluenced by this type of location-date specific external factors.

Regression coefficients (including absolute and relative effects) and standard errors are reported in <https://github.com/dehaoterryzhang/Co-Attendance-Hybrid/blob/main/tables/table.md>.

## C.1 Linear probability model

We also employ the linear probability model as a robustness check:

$$Y_{it} = \beta_M M_{it} + \beta_T T_{it} + \gamma_i + \eta_t + \varepsilon_{it}. \quad (2)$$

We present supplementary findings utilizing a linear probability model for all employees. In the post-period, the regression coefficient for a manager’s attendance was  $0.0849 \pm 0.0012$ , and the change associated with a one-standard-deviation increase in teammates’ attendance was  $0.0503 \pm 0.0009$ . In the pre-period, the regression coefficient for a manager’s attendance was slightly lower at  $0.0558 \pm 0.0016$ , and the change associated with a one-standard-deviation increase in teammates’ attendance was  $0.0219 \pm 0.0007$ . When evaluating these results across different countries and subgroups, we also find consistency with those derived from the logit model with two-way fixed effects. Therefore, we only report the results from the logit model in the main text.

## D Robustness – building-date-level fixed effects

Although we believe date-level fixed effects would capture the majority of shifts in aggregate attendance, to account for scenarios such as free lunch being offered only to certain buildings rather than to all employees in a given location, we ran a linear two-way fixed effects model with a building-date interaction term, as a robustness check. The estimated marginal effects (on the absolute scale) changed very little. Marginal effects on manager attendance decreased from 0.085 (SE= 0.0012) to 0.080 (SE= 0.0012). The absolute effect of a one-standard-deviation increase in teammates’ attendance decreased from 0.050 (SE=0.0009) to 0.044 (SE= 0.0009). Therefore, our main conclusions of coordination were not substantially affected by building-date specific events.

## E Additional details on the impact of the reopening on attendance rates

Although our focus is not the impact of the reopening on office attendance rates, it would be interesting to examine whether it affected employee subgroups differently. We therefore summarize our findings as below.

Considering all employees at the US headquarters, the average office attendance rate increased from 9.4% [95% CI: 9.1%, 9.6%] in the pre-period to 26.8% [95% CI: 26.5%, 27.0%] in the post-period, representing a 2.9-fold increase ( $p < .01$ ). For Engineering & Research employees, the attendance rate significantly increased from 10.1% pre- to 28.3% post-reopening (2.8-fold increase). Similarly, for Product & Program Management employees, the attendance rate rose from 7.4% pre- to 23.2% post-reopening (3.2-fold increase). For Corporate & Operations employees, attendance rates also increased, from 8.5% to 23.6% post-reopening (2.8-fold increase).

New hires’ attendance increased from 7.8% to 25.2% (3.2-fold increase), while pre-pandemic hires’ attendance rose from 9.8% to 27.1% (2.8-fold increase). Furthermore, employees with closed office spaces had a pre-period attendance rate of 10.4% and a post-period attendance rate of 30.3% (2.9-fold increase). In parallel, employees assigned to team-based spaces had a pre-period attendance rate of 8.0% and a post-period attendance rate of 24.7% (3.1-fold increase). These findings indicate that the reopening had a significant impact, resulting in notable (2.8- to 3.2-fold) increases in office attendance across different subgroups.

In summary, we found that across all employee job categories and workspace types, and for both new and existing hires, the average attendance rates increased by about threefold between the pre- and post-period. This result suggests that the reopening had a similar impact on office attendance across all employee subgroups. However, the heterogeneity in the regression coefficients characterizing the effects of manager’s and teammates’ attendance suggests that some employees, such as new hires or those working in shared office spaces, not only went to the office more frequently but were also more inclined to align their attendance with their managers or teammates, potentially driven by collaboration opportunities or heightened visibility.

## F Additional discussion

### F.1 Cross-country heterogeneity

We did not observe substantial differences across countries in the association with manager’s attendance; yet Ireland and India exhibited a larger association with teammates’ attendance than in the US. Several factors could contribute to country-specific heterogeneity in peer effects. First, variations in workforce composition may play a role. For example, the proportion of employees in Engineering & Research (Eng) roles is higher in the US than in Ireland. Second, distinctions in social culture in the workplace may also contribute to this heterogeneity. For example, US companies generally adopt flat organizational structures and promote individualism with a focus on personal achievement, whereas in many Asian cultures the workplace is often characterized by hierarchy and collectivism. This opposition between low and high power distance cultures, respectively, might lead to different levels of expectation of office attendance synchronization across countries.<sup>3</sup> Finally, variations in the context of the COVID-19 pandemic could have influenced the findings. Although our analysis sought to align the three considered countries based on their campus reopening timelines to ensure fair comparisons, the actual dates of policy implementation and corresponding public health conditions—such as the severity of COVID-19 waves and rates of vaccine uptake—varied.

### F.2 Interpreting marginal effects

In the main text, the focus is on reporting the change associated with a one-standard-deviation increase in teammates’ attendance. Here, alternative interpretations are presented to facilitate a more comprehensive understanding of our results.

For the post-period in the US, an employee’s entire team attending (which rarely or never happened) was associated with a 59% (15.6pp) increase in the probability of attendance. This result implies that if a quarter (25%) of an employee’s team was present, then the employee would be 15% (3.9pp) more likely to attend. That increased probability corresponds to an increase in office attendance of an average of 1.6 hours per week when 25% of an employee’s teammates are present (assuming a 40-hour workweek)—a sizable effect given a baseline average attendance of 10.7 hours per week and the pandemic context.

### F.3 Balancing remote and in-office days

While our study does not speak to the optimal balance between remote and in-office days, co-attendance is necessary for employees to get the most out of in-office days. Feedback loops can make coordinating attendance even more important. Specifically, employees who initially exhibit a high level of motivation for onsite work may experience diminished enthusiasm for future office attendance if they encounter limited coworker presence; conversely, increasing attendance rates among colleagues may bolster an employee’s willingness to go onsite.

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<sup>3</sup><https://hbr.org/2020/01/how-corporate-cultures-differ-around-the-world>