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Abstract

Roughly half of in-office days are spent entirely on Zoom calls or doing solo work according to a new survey of college-educated Americans. These workers commute in just to work remotely from the office. Existing measures of remote work that focus solely on working from home miss up to three quarters of its true prevalence. We use a collage of data to unpack the drivers of working remotely from the office. The biggest driver is geographic distance, which causes teammates to work in different offices or fully remotely. Other contributors include non-compliance with in-office policies, poor coordination on in-office days, and a tendency to take Zoom calls rather than booking meeting rooms even when everyone is in the office.

JEL classification: M52, J81

Key words: remote work, collaboration, organizational sprawl

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Very few workers were fully remote prior to the pandemic. Today, about one in four are (U.S. Bureau of Labor Statistics, 2026). While stark, this increase understates the explosion in the experience of remoteness from colleagues, which is often shared by those in the office. In-office workers are now likely to have colleagues who are working from home or from distant offices of their company. The result is that they have less in-person interaction with colleagues and more virtual interaction, as they commute in just to take Zoom calls and answer Slack messages from their cubicles. We document that a staggering share of the workforce experiences this form of in-office remote work.

Company leaders and workers agree that the value of the office lies in seeing one's colleagues. When implementing return-to-office (RTO) mandates, leaders cite the benefits of face-to-face connection, whether it is for mentorship (Emanuel et al., 2026b), work quality (Wang et al., 2025; Emanuel and Harrington, 2024), creativity (Brucks and Levav, 2022), or communication (Yang et al., 2022). For example, the CEO of Zoom, Eric Yuan, called workers back to the office, citing the value of face-to-face conversations (Stewart, 2023). "On Zoom, it's really hard," Yuan said. "We cannot have a great conversation. We cannot debate each other well." Yet if the debates in the office are also happening over Zoom, the benefits of the office may not be so large.

Workers similarly report that seeing their teammates is the primary draw to the office (Barrero et al., 2021). Consistent with self-reports, workers are more likely to show up when their colleagues are also in the office (Charpignon et al., 2023). They are also less likely to leave the company if they periodically socialize face-to-face with colleagues (Belot and Hakimov, 2025; Aksoy et al., 2026). Remote working from the office risks undermining compliance with RTO mandates, making them less popular and less effective for creating connections. Indeed, having even one remote teammate can move team meetings online and weaken connections between co-located teammates (Emanuel et al., 2026b).

This paper documents that the office has become less effective in delivering on its promise of co-location with colleagues. We use an original survey of 1,835 college-

educated American workers to obtain a snapshot of the current state of working remotely from the office. We find that on in-office days, 70.6% of workers had at least one teammate who was not in the office. Half had no in-person meetings with all participants present, and over a third had neither in-person or hybrid meetings. Amazingly, 37% of respondents reported that they had at least one meeting that was virtual, even though all the participants were in the same office that day. In short, many workers' commutes are simply yielding a new background for their Zoom calls.

We see similar trends in alternative data sources. Administrative datasets from a Fortune 500 company show that nearly half of corporate employees have at least one teammate who is out of the office on their in-office days. Time diaries from the American Time Use Survey similarly show that Americans now spend more time physically alone on days they go into the office than they did before the pandemic.

We use a collage of data to explore several factors contributing to remote working from the office. A large factor is organizational sprawl: if some colleagues are fully remote or assigned to distant offices, there is no longer a single hub for connecting. In the survey, 37.0% of respondents had at least one teammate who was fully remote or assigned to a different office of their company, accounting for over half of respondents whose whole team was not present on their last in-office day. Similarly, in the Fortune 500 company, only 4 in 10 employees had their team all assigned to the same office, compared to 8 in 10 before the pandemic.

We then show that organizational sprawl pervades all Fortune 500 companies. Using job post data from LinkUp, we show that companies have advertised for a specific occupation in a more dispersed set of locations ever since the pandemic. Each job post is also more likely to be agnostic to location: for example, a job ad is more likely to be open to software engineers in Denver, Detroit, and Dallas, even if the engineering group's center of mass is in Denver. Consistent with this, people working at the same company in the same occupation are more dispersed. We show this using scraped online resumes from sites like LinkedIn profiles that was collected by People Data Labs.

Several other factors contribute to in-office remote work. Compliance with in-office mandates is spotty, with people attending about one day less than mandates request. Uncoordinated attendance, in which people's in-office days do not overlap, makes a contribution. Finally, for 37% workers, in-office collaboration becomes remote because meetings are online even when all participants are in the office.

This paper contributes to the personnel and organizational behavior literatures that document how in-person contact fuels friendship, which in turn fuels workplace productivity (Belot and Hakimov, 2025; Jehn and Shah, 1997; Chung et al., 2018) and decreases attrition (Belot and Hakimov, 2025). It also contributes to the literature on remote work, arguing that classic metrics for remote work underestimate the *experience* of remote work. Further, we suggest that the technologies that enable working from home also facilitate organizational sprawl and working remotely in the office (Olson and Olson, 2000).

The paper is organized as follows: Section I describes the collage of data we use. Section II documents an increase in working remotely from the office, and Section III explores the various contributing factors for this increase in remote working from the office: organizational sprawl, noncompliance with in-office mandates, uncoordinated attendance among peers, and digital communication among colocated individuals. Section IV shows that these trends also appear in non-remotable occupations. Section V concludes.

I Data

Original Survey. We conducted an original survey of 2,422 American, full-time, college-educated workers recruited through the Prolific platform. After limiting to people who passed our data quality checks and took time to complete the survey, the final sample was 1,835. The final sample's respondents were 48.6% female, 57.1% White, 14.9% Black, and 76.4% reported that their job could be done remotely if their company allowed it. We include workers both with occupations that can be done remotely and those that cannot. When we ask about their most recent day in the office, we limit to people whose most recent day was a weekday within the last week to support the most accurate recollections. When we report on respondents' colocation with respondents' teammates, we

limit the participants to those who reported teams of 15 or fewer. Some people reported teams of 100, which may make sense if you're part of a team of emergency room nurses at a large hospital, for example, but is less relevant to our analysis.

We conducted our survey in September 2026, after Labor Day. We think this timing yields a conservative estimate of in-office remote work for two reasons. First, many companies make special pushes for in-office attendance after summer is over. Second, the period between Labor Day and Thanksgiving likely has less remote work due to holiday travel than other times of the year.

Fortune 500 data. We use proprietary data from a Fortune 500 company, where we have personnel data from 2018 onwards as well as badge-swipe data from 2022 and beyond, which indicates when a person has used their badge to gain admittance to the office building. These data are helpful since they afford a level of granularity not often in publicly available datasets.

The company we study had several RTO mandates that applied differently to different segments of the organization. This allows us to look at behavior when there is no in-office policy, when two, three, and four days per week are mandated. In each of these policies, which days to commute into the office were not specified in the policy. We focus on Tuesday-Thursday, when most employees go into the office, even though some employees go in on Monday, Friday and the weekend. Again, we hope this delivers more conservative statistics.

Additional Data. We use four other data sources. The American Time Use Survey (ATUS) identifies the share of time spent alone in the office. The Survey of Work Arrangements and Attitudes (SWAA) includes information on how many hours people spend in in-person meetings and also asks about colleagues' non-compliance with in-office policies. Resume data from People Data Labs, and job posting data from LinkUp capture organizational sprawl. The precise measures used are described below.

II Remote Working From The Office

Remote working from the office includes features of both in-office work, such as commuting, and remote work, such as solitude and meeting on video rather than in person. As a result, it often captures the worst aspects of both remote and in-office work.¹

II.A Measurement

We offer a series of measures to quantify remote work from the office. The first is whether any teammate is out of the office, which captures any proximate exposure to secondhand remote work. Having just one missing teammate can substantially increase remote work from the office because many teams operate with a "One Zoom, All Zoom" (OZAZ) norm: they switch to fully virtual meetings once one participant needs to dial in. Indeed, in our survey, 45% of respondents said their organizations followed this OZAZ norm. Teams that do not adhere to a OZAZ norm will have more hybrid meetings if some teammates are not in the office. This, in turn, causes participants to spend more time looking at screens and less time making eye contact with one another. Neuroscience studies show that conversations intermediated by screens generate weaker feelings of connection than fully in-person ones (e.g., [Schwartz et al., 2022](#); [de Groot et al., 2015](#); [Seltzer et al., 2012](#)). Digital meetings likewise tend to have less casual discussion before and after the meeting, which is unfortunate because these conversations have been associated with greater meeting effectiveness and facilitates more subsequent interaction ([Mirivel and Tracy, 2005](#); [A. Allen et al., 2014](#); [Guydish and Fox Tree, 2025](#)).

Second, we measure the share of one's teammates who are in the office at the same time. This measure captures the possibility of having spontaneous watercooler or lunchtime conversations with teammates. Even if one's team is not fully in-person, having some teammates present may offer opportunities for social contact.

Third, we explore the activities that respondents had during in-office days. Whether

¹Other features of the office may still be present, such as distance from one's kitchen, laundry machine, or other household distractions. However, we focus on proximity to colleagues, the primary draw to the office, as our main measure of remoteness.

they had in-person meetings and casual social contact are important metrics for whether the office delivered closeness or remoteness.

Our data sources offer insight into these three metrics. Our survey asked participants to recall the last time they worked in the office. We then asked them how many of their teammates were in the same office on that day. We assess whether the whole team was present, as well as the share of teammates who were present. We can construct analogous measures using the proprietary personnel data from the Fortune 500 company. We define teams as everyone who reports to the same manager and then use badge-swipe data to determine if the whole team was together as well as the share who were colocated.

The survey additionally asks about respondents' contact with their colleagues on the most recent day they were in the office. We ask about different forms of in-person contact, such as in-person meetings, hybrid meetings, and/or casual in-person contact. We also ask about digital interactions, such as Zoom calls and Slack messages. We can measure a similar concept using data from the American Time Use Survey, which records what activities people engage in, where the activity occurs, and with whom. These data allow us to document how much time in-office workers spend with their colleagues and how much time they spend alone.

II.B Prevalence of Remote Working From The Office

Remote working from the office is common, regardless of how it is measured (Figure 1). On their most recent day in the office, 70.6% of survey respondents were missing at least one member of their team. Respondents were missing 34.3% of their team on average. Conditional on missing one teammate, fully half of their team tended to be missing. We see similar patterns at the Fortune 500 company. When they were mandated to be in the office 4-days per week, a typical pattern for college-educated workers, 72.8% of those who went in had teammates out of the office. Those who were in, saw only 58.5% of their team.

Days in the office often lack human contact. On the day they were most recently in the office, 48.8% of survey respondents had no in-person meetings, either with teammates

or non-teammates. More than a third had neither in-person nor hybrid meetings. Further 15.1% reported no casual face-to-face conversations with anyone. Our findings are validated in other surveys. In early 2024, the SWAA asked people how many hours of their workday they spent in in-person, face-to-face meetings: 43.0% of respondents reported that their workday had no hours spent in face-to-face meetings.²

Those who were missing a teammate tended to have even less in-person contact. Among workers who were not with their whole team, 60.7% had no fully in-person meetings with teammates compared to 36% for those with their whole team ($pval < 0.001$, Figure A.1). Those with a missing teammate were twice as likely to have no casual, in-person contact at work (18% versus 9%, $pval < 0.001$).

Consistent with these respondents' experience of less contact with colleagues, time use data from the ATUS show that since the rise of remote work in 2020, there has been an increase in time spent alone, even when workers go into the office. Before the pandemic, on days in the office, the typical worker spent 7.1 hours working in-person with colleagues. By 2026, an in-office day featured only 6.3 hours with colleagues. This corresponds to a 59.1% increase in office-time spent alone ($pval < 0.001$).

Comparison to Conventional Measures. Measures of active remote work understate the true experience of remoteness. National estimates of working from home indicate that they account for roughly 25% of paid workdays (Figure 2). In the ATUS, 25.0% of people who spent more than 4 hours of a weekday working did all of their work outside the office. The BLS indicates that 22.6% of people work remotely and the SWAA indicates that 26% of paid workdays are remote. The estimates are slightly higher within the Fortune 500 company, where 42.3% worked remotely on any given Tuesday/Wednesday/Thursday under a 4-day in-office policy.

Yet these estimates of active remote work entirely miss the people who experience remote work from the office. We make comparison between actively working remotely

²The other possible options were "In meetings over video call or phone," "In email or text conversations," "Doing individual work (reading, writing, analyzing)," "On downtime (lunch, coffee breaks, games, personal time, chores, etc.)."

and experiencing in-office remote work in personnel data from a Fortune 500 company, which offers the most direct apples-to-apples comparison. When the company mandated 4 days in the office, 42.3% of employees were actively working remotely on Monday, Tuesday, or Wednesday.³ Yet an equal share had commuted into the office just to have a remote work experience there. All told, 84.3% had a remote-work experience by dint of either working remotely themselves or being far from at least one teammate (Figure 3). As such, the estimates of the share of employees experiencing remote work that focus only on active remote work are off by 99.3%.

The same pattern, in which estimates of active remote work miss many who *experience* remote work, shows up for every in-office policy.⁴ When employees were required to spend 2-days in the office per week, 79.7% worked remotely, and 95.1% experienced the effects. When the company required three days in the office, 53.5% worked remotely, and 81.1% experienced the effects.

III Explanations

Remote working from the office may be fueled by several factors. One contributing factor is dispersion in employees' work locations, a feature we call organizational sprawl. If a portion of a team's workers are fully remote, or a portion have a different base offices, the team is sprawled. For example, one part of team may be based in Detroit, MI while another portion is based in Durham, NC or Denver, CO. Even if all members of the team come into their assigned office, they still have team meetings over zoom. In both forms of organizational sprawl, a team that fully complies with the company's in-office policy does not meet face-to-face.

Other factors also contribute to the rise of remote working from the office. Work-

³We focus on Tuesday, Wednesday, and Thursday because when the in-office policy mandated only two or three days per week, office attendance on Monday and Friday was practically zero. We wanted to offer a fair comparison even during the four-day in-office policy. By including days when no one came in, we would be artificially inflating the share of people actually working remotely. Our choice to focus on Tuesday-Thursday therefore offers underestimates of the share of people working remotely, to try to make our estimates as conservative as possible.

⁴Throughout the company's push toward more in-office time, team size remained constant or shrank a bit. This means that for each new policy, it was mechanically equal or easier to have the whole team present.

ers may choose not to comply with in-office policies. One person's absence may make the office a less-enticing place, thereby dampening their colleagues' attendance as well. Companies may not specify which days to come in, making coordination more challenging. Sedentary habits can contribute when people are in the office with one another but they do not leave their cubicle, and so fail to see colleagues. We offer evidence for each of these contributing factors.

III.A Organizational Sprawl

Organizational sprawl is the structural inability to colocate with teammates on a daily level, even if all team members commute into the office, because they are assigned to a different office or work fully remotely.

In our survey, we asked respondents how many of their immediate teammates are assigned to a different office or are fully remote. We found that 37.0% of respondents with 15 or fewer teammates report that they have at least one distant teammate. People on sprawled teams have most of their colleagues elsewhere: Among those who are on dispersed teams, they report that 69.3% of their coworkers are far afield.

At the Fortune 500 company we study, around 60% of corporate employees have teammates who are fully remote or work in distant offices as of 2026 (Figure 4). This is up from 22% before the pandemic, reflecting a nearly three-fold increase in organizational sprawl.

To generalize how prevalent organizational sprawl may be, we use both resume data and job posting data for all Fortune 500 companies. We repurpose the Herfindahl-Hirschman Index (HHI) of concentration to consider the dispersion of a given occupation within a specific company across locations. For example, are all marketers for Procter & Gamble in Cincinnati, OH, or are they split between several different cities? We calculate the share of a given occupation that is in each location, averaging across occupations within a company, then across companies. This occupation-company measure captures the likelihood of being on-site with colleagues in the same location. As a supplementary measure, we also measure company-wide HHI to capture being on-site with colleagues

of different occupations.

To calculate HHI, we use resume data from January 2015 through May 2026. The data are from People Data Labs (PDL), which collates online resume data from LinkedIn and the like. We additionally use job posting data from LinkUp, which scrapes job-posting data directly from companies' own websites. These data includes information on the company advertising the vacancy, the occupation they're looking to hire for, and the location of where the position would be. We selected companies that were on the Fortune 500 list from 2025. Within each company, we counted the number of individuals in each occupation in each location. Resume and job posting data give complementary measures of a company's concentration. Resume data shows where self-reporting employees are currently located whereas job posting data show how the company plans to grow.

The trends toward organizational sprawl are present throughout the Fortune 500 companies. Resume data show a move toward occupational dispersion (lower geographic concentration). In 2015, the occupational concentration reflected in the HHI in resume data was 6,256.32, dropping to 5,672.01 in 2026, a change of 9.34% less concentration over the decade. Job posting data show a similar trend, with concentration around 7,572.49 in 2015, but decreasing to 6,788.31, reflecting a shift of 10.36%. To ease interpretation of HHI measures, a useful benchmark is antitrust regulation, where a shift of more than 100 points in a highly concentrated market ($HHI > 1800$) is considered a large shift in a market's concentration ([U.S. Department of Justice, 2024](#)). These drops are 5-8 times as large, reflecting a significant shift in companies' geographic concentration.

An additional metric of organizational sprawl in job-posting data is the share of a company's job adverts in which multiple locations are listed. A locationally-indifferent job post suggests that people working in the same occupation, and potentially on the same team, are able to be divided across several locations. Job posts show an increase in postings that are locationally indifferent. In 2015, only 0.67% of postings listed multiple locations. By 2026, 4.17% did, and when they did, they listed 3.69 different locations.

III.B Additional Factors

Additional factors contribute to remote working from the office, including noncompliance, coordination, and digital communication among colocated individuals.

Noncompliance. Those who commute into an emptier office often bear the burden of being rule followers. They experience remote work when they are in the office because colleagues flout the office policy. In our survey, we find that the typical worker's company required 3.74 days in the office, but that the typical worker reported commuting into the office only 2.59.⁵ In effect, people are commuting in one fewer days than companies' policies mandate.

The Fortune 500 badge data indicates that employees' compliance is incomplete for each in-office policy they implement. Indeed 63.6% of workers complied the four-day in-office policy. This is up from 46.4% and 58.4% for the two and three day mandates, respectively.

Noncompliance means that each in-office policy achieves around a day and a half less presence than mandated.⁶ When the in-office policy required two days in the office, the typical number of days/week was 0.8. As the policy shifted to three and then four days, the in-office attendance increased to 1.6 and 2.4, respectively.

The Survey of Working Arrangements and Attitudes (SWAA) asked in their January 2024 survey what share of their *co-workers* complied with their employer's current in-office policy. The respondents indicated that 77.0% of their peers complied.

Coordination. One can experience remote working from the office if there is poor coordination in when to show up in the office. Uncoordinated attendance is more likely to arise when the in-office policy does not indicate which days are to be in the office, or when there is a full in-office mandate and yet people still take remote days that are

⁵Since people generally do not like admitting that they are flouting rules in surveys, we made this comparison across respondents, rather than within. We compare the number of days attended in one half of the sample to the number of days required in the other half of the sample. Since which question a given participant was asked was randomly assigned, the distribution of responses is likely to be similar.

⁶When measuring compliance with the in-office policies, we limit to weeks without a federal holiday to avoid ambiguity about how many days are required on short weeks.

uncoordinated with teammates' remote days. Such ambiguity asks individuals and teams to coordinate independently, which may or may not occur. To assess the prevalence, we asked people in our survey whether their company specified which days to be in the office. Among those who had an in-office mandate, 35.2% had a mandate that let the workers choose what days to be in the office.

Needlessly remote meetings. It is also possible to experience remote working from the office by staying glued to one's chair. For example, in some meetings, all the participants may have commuted into the same office but nevertheless use a video link. The rationale is sometimes given that screen-sharing when everyone has access to a larger monitor makes it easier to get on the same (digital) page. But the online format also skips in-person contact.

To assess the prevalence of needlessly remote meetings, we asked in our survey the number of meetings people had in their most recent in-office day, and how many of those meetings occurred online despite all participants' presence in the same physical space. Among people who had any meeting during the day, 52.4% had at least one meeting that was needlessly remote, which amounts to 36.7% of all people who commuted in. Those who had any meetings that day, typically had 2.2 meetings, 36.8% of which were needlessly remote.⁷ This suggests that shifting culture can help prevent remote working from the office.

III.C Measurement Limitations.

We use a collage of data and measurements because each one is naturally somewhat imperfect.

Our measures of remote working from the office first focus on co-location with teammates, rather than non-teammates. Likewise, we do not capture worker's in-person interactions with clients, which might take place outside the office. We hope that providing context about meetings and in-office interactions helps account for this lost information.

⁷We dropped the one respondent who reported 30 meetings in a day. While it is possible to have meetings shorter than 30 minutes for more than 8 hours in a day, we wonder if this respondent had a different conception of meetings than we had in mind.

There are a few edge cases in which HHI might be an imperfect measure of organizational sprawl. For example, if a company has each occupations clustered in a single campus, but different campuses house different occupations — for example, all HR personnel in Buffalo and all sales people in Salt Lake City — their company-occupation HHI will measure as perfectly concentrated. Yet this setup may be inopportune for collaborating across occupations, which will be picked up in the company-level HHI.

Second, HHI measures unequal distributions of employees in two different locations as more concentrated than equal distributions. So if one company has two campuses, one with 15% of all employees, and an identical company has two campuses with employees equally distributed across the two campuses, the former will appear considerably more concentrated. However, for the 15% of the workforce that is working in the smaller office, they may actually experience more remote work from the office if they collaborate a lot with people in the central office.

Finally, opening more branches could also look like organizational sprawl in aggregated HHI measures. For example, if an urgent care clinic opened clinics in new cities and therefore hired more registered nurses into the new locations, it would show up in greater dispersion.

The measure of organizational sprawl that focuses on locationally-indifferent job postings could be interpreted as one company having many open slots for the exact same role. A consulting group may post associate positions for teams that meet in different locations because all locations take a new incoming class each year. If they open a new location that also takes an incoming class, that would be captured as greater dispersion. Nevertheless, to the extent that workers collaborate with individuals of their same occupation in other locations, as marketers or finance personnel might, these metrics likely capture a meaningful measure of how sprawled an organization's workforce is.

IV Heterogeneity by Remotability

People in non-remotable jobs also appear to experience remote working from the office, though less intensely than those in remotable occupations.

Our survey data suggests that people who say their job is non-remotable, on the last day they were in the office, were less likely to have their whole team in the office (66.5% relative to 77.0% among workers in remotable occupations, $pval = 0.002$), though they tended to have a greater share of their teammates present (70.6% relative to 55.3% among workers in remotable occupations, $pval < 0.001$). So the increase in remote working from the office is still present for those in non-remotable occupations.

This makes sense since many people in non-remotable occupations interact with those in remotable occupations: the IT specialist works with everyone who uses computers, though many of them can do their computer work outside the office; a production technician who must be onsite works alongside an industrial engineer who could do their job remotely. So when those in remotable occupations are no longer in the office, that means those in non-remotable occupations still experience some of the effects of remote work. This suggests that our estimates, which focus on teammates only, are likely an underestimate of the true experience of remote work.

This same phenomenon shows up in the ATUS data, where people in non-remotable occupations also see an increase in time spent alone. originally spent relatively few hours of their workdays in the office alone: just 1.5 hours/day. By 2026, those in non-remotable occupations spent 2.4 hours alone (58.0%; $pval < 0.001$). While people in remotable jobs saw larger increases of 71.0% ($pval < 0.001$), the change for both groups is significant.

Likewise people in non-remotable occupations also experienced a shift toward organizational sprawl. When we calculate HHI only among non-remotable occupations, according to the [Dingel and Neiman \(2020\)](#) Index of jobs' remotability, we find a 7.63% decline in concentration from 6,785.80 at the beginning of the period to 6,268.08 in 2026 ($pval < 0.0001$). Similarly, the number of locationally-indifferent job-posts increased for

both remotable and non-remotable occupations (Figure 5(C)).

V Conclusion: Presence vs Proximity

Workers indicate that seeing colleagues is a prominent draw to the office [Barrero et al. \(2021\)](#); [Charpignon et al. \(2023\)](#); [Belot and Hakimov \(2025\)](#). But since the rise of remote work, the office increasingly fails to deliver this benefit. Our survey of full-time American workers finds that on their most recent day in the office, more than 70% were without their whole team's presence. With a one-zoom, all-zoom norm, this means any team meetings will be relegated to video meetings. Indeed, nearly half of respondents had no in-person team meetings and more than one in seven had no casual face-to-face contact with anyone on their most recent day in the office. These individuals commuted into the office just to spend their day online, as they would if working remotely.

These stylized facts have practical implications. First, they mean that current discussions of the prevalence of remote work are likely underestimating the experience of remote work. Simply measuring how many people themselves worked remotely suggests one in four employees do ([Barrero et al., 2021](#)). Yet, this metric vastly under-counts workers' experience of remote work in the office. The undercount matters for understanding why, for example, remote work may impact mental health ([Emanuel et al., 2026a](#)), even when people say they like remote work.

Second, underestimating what factors contribute to remote working from the office can help shape in-office policies. We find that 48% of the loss of face-to-face contact arises due to an increase in organizational sprawl. In a sprawled team, even if every team member comes into the office, the team will not be united. In these cases, demanding workers come into the office may result in more pushback. On the other hand, we find that 37% of the loss is due to spillovers from colleagues' non-attendance. In that case, ensuring adherence to the policy helps deliver the face-to-face contact that workers crave.

Many return to office mandates encourage presence in the office. But many offices fail to deliver proximity to teammates, underscoring the difference between presence and

proximity.

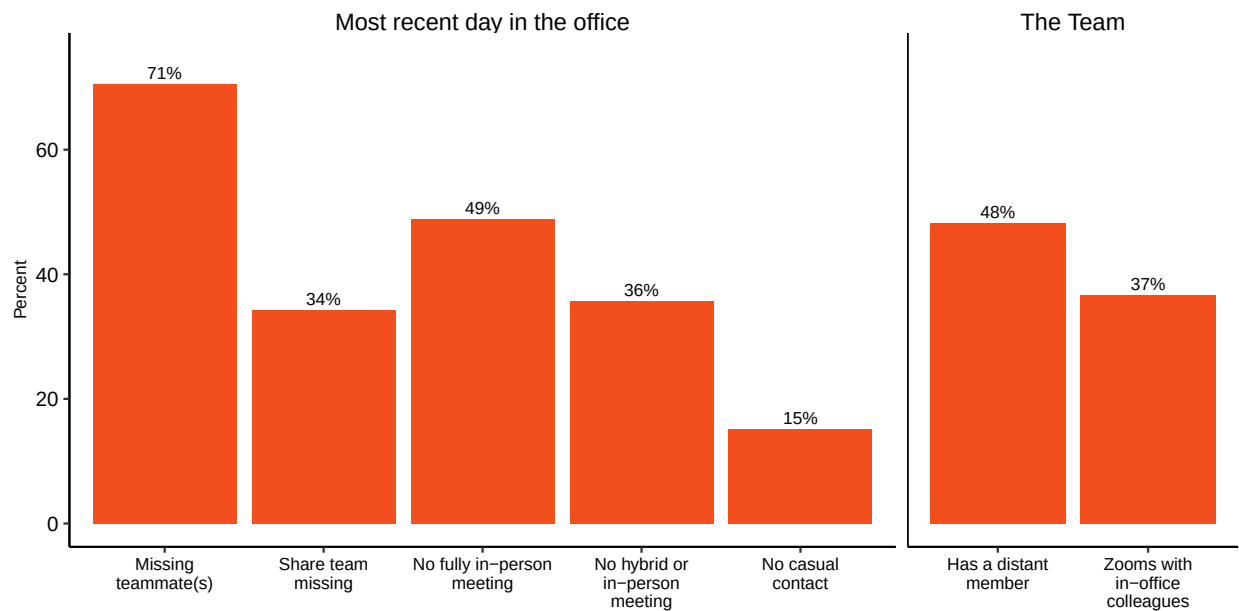
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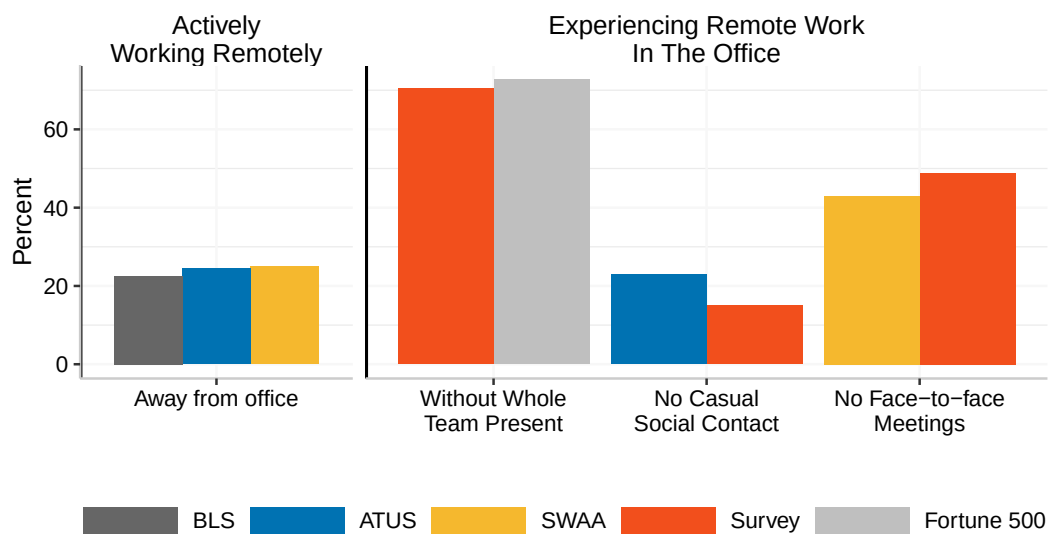
VI Figures

Figure 1: Degrees of Remoteness In the Office

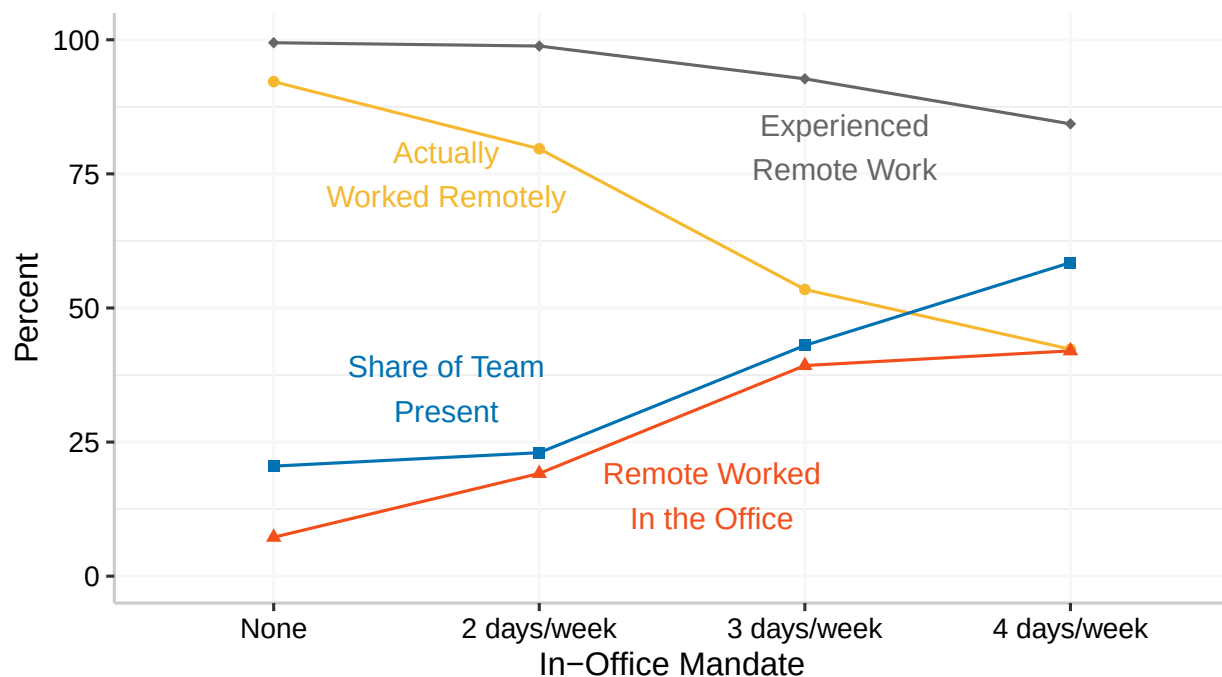


Note: The graph shows the share of employees in our survey who report different degrees of remote-ness on their most recent full day in the office. We include only those respondents whose most recent day in the office was a week day in the past week. We define a team having a distant member as having at least one teammate whose base office is different or who is fully remote. The survey was conducted in September 2026.

Figure 2: Remote Working Directly versus From The Office

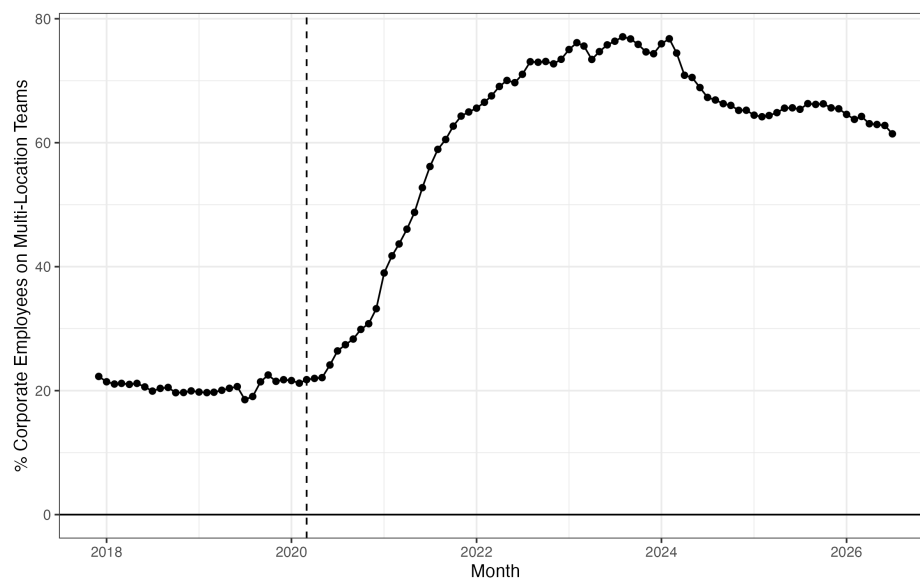


Note: The graph shows how measures of direct remote work differ from measures of experienced remote working in the office from the most recent data available as of September 2026. Survey sources include the 2024 American Community Survey (ACS), the 2025 American Time Use Survey (ATUS), the 2026 Survey of Working Arrangements and Attitudes (SWAA), our 2026 original survey, and proprietary data from a Fortune 500 company. Away from the office measures in the ATUS what share of people who worked more than 4 hours that workday did all of it outside the office. No social contact is defined as having no time in the office where a colleague or client was listed as also being present in the ATUS, or having indicated in our survey that their was neither a meeting nor casual social contact in their day.

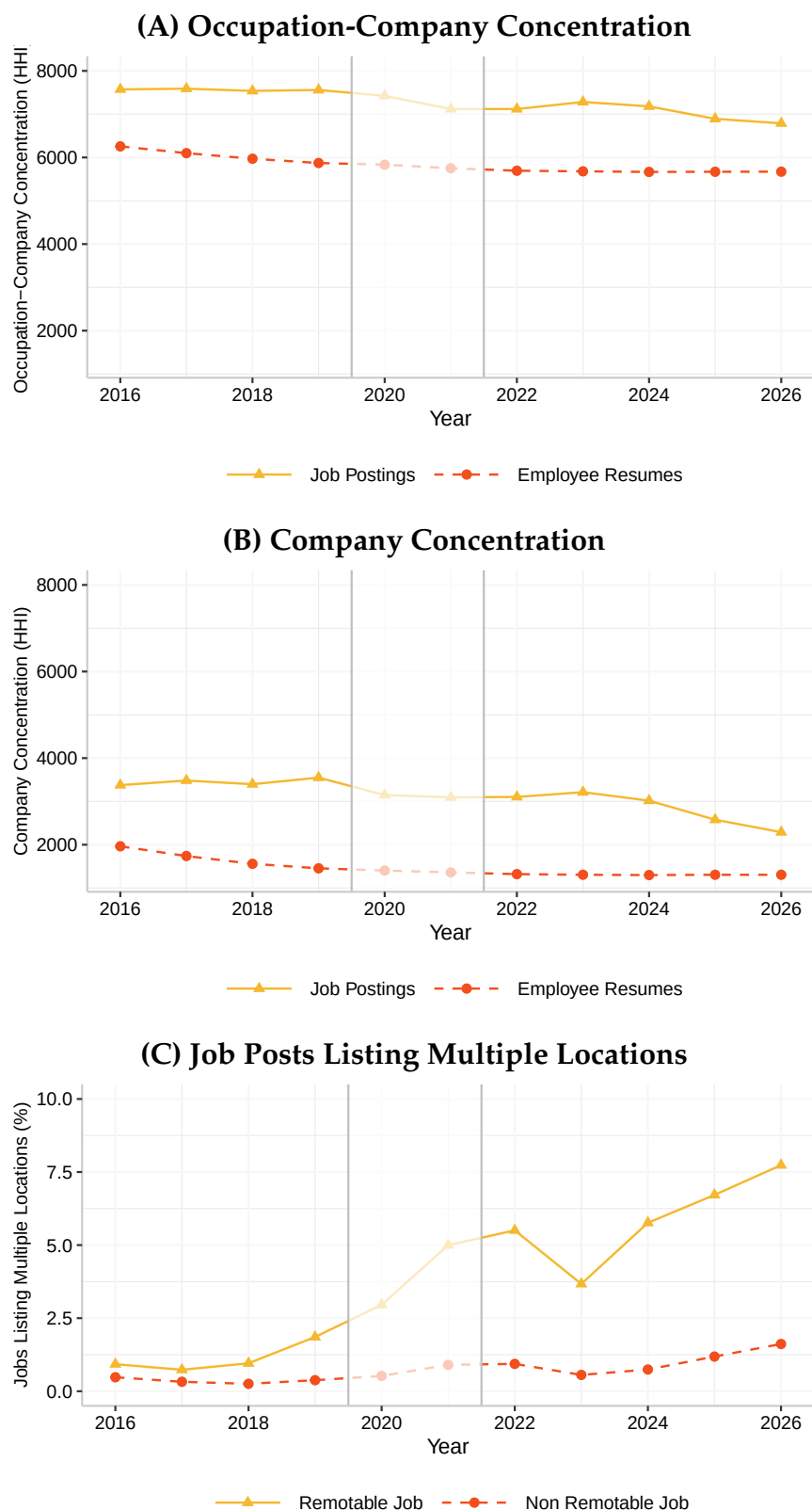
Figure 3: Presence vs Proximity at a Fortune 500 Company

Note: The gold circles show the share of workers who are actually working remotely under various different in-office mandates at a Fortune 500 company, based on badge data. The orange triangles show the share of workers who are remote working in the office because they are in the office without teammates. The grey diamonds show the share of people who experienced remote work either directly or indirectly. The blue squares show the share of the team that was present on the days that people were in the office. Displayed are Tuesday–Thursday, which are the most common in-office days at the company.

Figure 4: Corporate Employees on Distributed Teams at a Fortune 500 Company



Note: This graph shows the share of employees at a Fortune 500 company who are on geographically distributed teams either because teammates are assigned to a distant office or because they are fully remote. The vertical line shows the beginning of the pandemic.

Figure 5: Organizational Sprawl Among Fortune 500 Companies

Note: Panels (A) and (B) show the HHI measures of occupations within their respective Fortune 500 companies, and of those companies as a whole, based on resume and job posting data. Panel (C) shows the share of jobs posts listing multiple locations. Vertical lines indicate the period of peak pandemic.

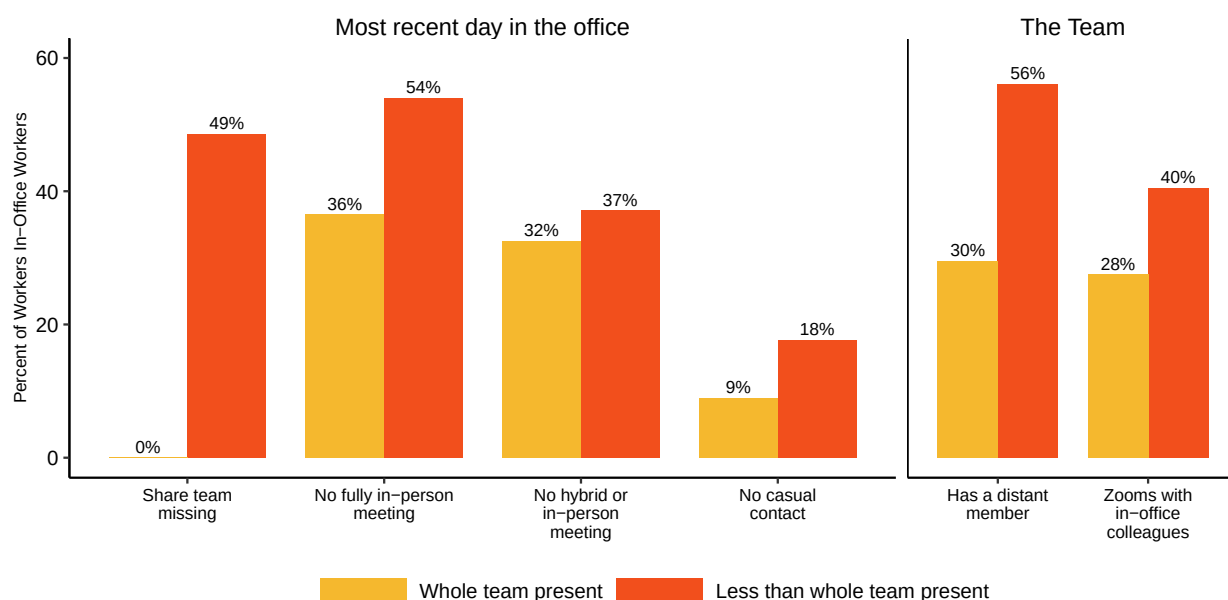
Online Appendix to

Remote Work From The Office⁸

Natalia Emanuel · Emma Harrington
October 13, 2026

Appendix A: Additional Exhibits

Figure A.1: Degrees of Remoteness In the Office



Note: The graph shows the share of employees in our survey who report different degrees of remote-ness on their most recent full day in the office. We include only those people whose most recent day was a week day in the past week. The survey was conducted in September 2026.

⁸The findings and conclusions expressed are solely those of the authors and do not reflect the opinions or policy of the organizations that supported this work, our employers, the Federal Reserve Bank of New York or the Federal Reserve System.

Appendix B: Survey Instrument

After providing consent, the following questions were displayed:

1. Do you work for pay right now?

- Yes, full time
- Yes, part time
- Occassionally
- No

2. What is your main occupation?

For example: mechanical engineer, marketing director, 2nd grade teacher

3. How many years have you been working with your current company?

4. How many people are on your team at work?

5. Could your job be done outside the office (if your company allowed it)?

- Yes
- No
- Other:

6. Normally, how often do you work remotely (that is, outside the office/client site)?

- 5 days/week remote
- 4 days/week remote
- 3 days/week remote
- 2 days/week remote
- 1 day/week remote
- Once every other week
- Once a month
- Less than once a month
- Never

7. What was the most recent day that you were in the office?

- Today
- Yesterday
- Monday

- This past weekend
- Last Friday
- Last Thursday
- More than a week ago

Asked to 40% of respondents:

8. On that day, how many people from your team were in the same office as you?

9. On that day, did you do any of the following activities with teammates?

(check all that apply)

- Slack, email, message, or text
- Video meetings where everyone is on Zoom or Teams
- Hybrid meetings, with some colleagues in-person, some remote
- In-person meetings, where every participant was in the same room
- Talk in-person, casually outside a formal meeting

10. On that day, did you do any of the following activities with colleagues who are not on your team?

(check all that apply)

- Slack, email, message, or text
- Video meetings where everyone is on Zoom or Teams
- Hybrid meetings, with some colleagues in-person, some remote
- In-person meetings, where every participant was in the same room
- Talk in-person, casually outside a formal meeting

11. When your teammates come into the office, what number go into a different office than your office?

For example, you go into the Chicago office, and they go into the San Francisco office of your company.

12. How many of your teammates are fully remote?

Asked to 40% of respondents:

13. In the past week, how many days did you go into the office?

14. On your most recent day in the office, how many meetings did you have?

15. **On your most recent day in the office, how many meetings did you have *where everyone was physically in the office, but it occurred online (via Zoom/Teams/Meet, etc)* anyway?**
16. **Does your company require a certain number of days/week in the office?**
- No days required to be in the office
 - 1 day/week required to be in the office
 - 2 days/week required to be in the office
 - 3 days/week required to be in the office
 - 4 days/week required to be in the office
 - 5 days/week required to be in the office
17. **Does your company specify *which* days have to be in the office?** For example, Tuesdays and Thursdays must be in the office.
- My company specifies which days are in the office
 - My company let's us choose which days are in the office
 - My company has no in-office requirement

Asked to 20% of respondents:

18. **How does your team handle meetings where several participants are in the office, but one or more are online?**
- The people in the office use video conferencing from their own cubicles ("One zoom, all zoom")
 - Those in the office go to a meeting room together, while those online video conference in
 - Not applicable; we are fully remote
 - Not applicable; we are always fully in-office
 - Other:

Asked to all respondents:

19. **Is there anything you'd like to share with us?**