



Remote Work: Post-COVID-19 State of the Knowledge and Best Practice Recommendations

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Introduction

What Is Remote Work?

Remote work is a type of alternative (or flexible) work arrangement where work is conducted at an off-site location and employees use telecommunications technology to connect to the workplace. Other terms for remote work include telework, telecommuting, work from home, hybrid work, virtual work, and flexplace.

Remote work arrangements can be formal in nature, meaning there is a clearly stated organizational policy, or they can be informal. Informal arrangements tend to be made idiosyncratically with managers. Arrangements can also vary in their specifics—some employees work fully remotely, others have the option to work remotely several days a week, whereas others work remotely on occasion (e.g., 1 day every other week).

Remote work had been steadily increasing in prevalence over the past few decades but saw the largest increase during the COVID-19 pandemic when shelter-in-place orders forced organizations to accommodate remote work. Estimates from the Global Survey of Working Arrangements, which sampled over 40,000 workers in 34 countries in 2023, suggest that 25.6% of workers engage in some kind of hybrid work arrangement, where they spend at least 1 day per week working from home, and 7.9% of workers are fully remote. Data from the same research group using 26,000 employees collected in late 2022 found that remote work is prevalent across a variety of industries, with those in Information (which includes technology), finance and insurance, and professional and business services reporting the highest frequencies.

In this paper, we first summarize the results of existing studies in terms of how remote work arrangements and extent of remote work relate to key worker and organizational outcomes. The goal of this review is to simply answer basic questions about the impact of remote work. Next, we move on to address more nuanced questions: (a) Which types of workers tend to be the most successful working remotely? (b) What types of jobs are more amenable to remote work? (c) What are the particulars of the most effective remote work arrangements? (d) What does an effective remote work supervisor look like? Last, we close with evidence-based recommendations.

We purposefully highlight the design of individual studies throughout our review because understanding design is critical to interpretation. It dictates how comfortable we can be in assessing cause and effect, and it helps understand the context in which studies were conducted for purposes of generalizability.

Most of the remote work research to date has been based on correlational survey designs. Such research designs are weak in terms of providing evidence of causality. That is, when positive associations between remote work and work outcomes such as job performance are observed, we cannot rule out the possibility that those with stronger job performance are more likely to be selected or to self-select into remote work arrangements than those with weaker job performance.

Research that lends itself to stronger causal inferences may include studies in which two groups of workers are compared—such as those who undergo a remote work intervention of some sort and a comparable group of employees who maintain traditional work arrangements. The strongest designs are when groups are assigned randomly, and we assume that they are equated on all other factors, except their remote work status. This allows differences between groups to be attributed to remote work. When two groups are compared but the assignment was not random (for example, they may have been assigned based on office branch), this is called a quasi-experimental design.

Other types of study designs are when the same people are examined over time. For example, outcomes are measured before and after the introduction of remote work. This does not rule out all alternative factors, but it does hold characteristics of the person constant.





Background

What Do Correlational Data Say About the Benefits and Drawbacks of Remote Work?

Much of the research on remote work has been based on correlational, cross-sectional, survey designs, where employees are asked about their remote work status (working remote or not) and responses are correlated with individual and organizational outcomes. Other studies adopt a similar approach but ask about the extent of remote work (i.e., what percentage of the time a person works remotely) versus treating remote work as an either/or variable. The focus on comparing remote workers to traditional workers allows one to address questions regarding the viability of remote work relative to on-site work, whereas studies on the extent of remote work address questions of interest among remote workers, such as how much the amount work conducted remotely matters.

Moreover, as noted above, although these types of studies are valuable, they do not allow firm inferences about cause and effect (e.g., does working remotely cause an increase in job satisfaction or does high job satisfaction cause employees to choose to work remotely?).

The infographic below summarizes what we know about the most commonly studied outcomes in relation to the intensity of remote work as well as studies that compare remote workers to nonremote workers. Both of these relationships were tested by Gajendran et al. (2024). The patterns of effects are quite similar, with the main differences being that turnover intentions and perceived organizational support are more strongly related to remote work intensity than they are when comparing remote versus nonremote workers. Other relationships with large differences are perceived autonomy and isolation; both of these show a stronger relationship when comparing remote versus nonremote workers compared to simply looking at the extent of remote work.

Compared to those who do not work remotely, remote workers report:

Significantly more favorable:
Perceptions of autonomy
Perceptions of job satisfaction
Supervisor-rated job performance

No significant differences in:
Engagement
Organizational commitment
Organizational citizenship behavior
Burnout
Work interfering with family
Family interfering with work
Work-related stress
Relationships with coworkers
Relationship with supervisor
Perceived organizational support

Turnover intentions

Significantly worse: Social isolation

As the amount of timeone works remotely increases, remote workers report:

Significantly more favorable:
Perceptions of autonomy
Perceptions of job satisfaction
Turnover intentions
Perceived organizational support
Supervisor-rated job performance

Significantly worse: Social isolation



Additionally, there is evidence for curvilinear relationships between job and life satisfaction, which has been tested in individual studies but not in meta-analyses. Three studies found that the relationship between job satisfaction and extent of telecommuting resembles an inverted-U. Job satisfaction is highest at moderate levels of telecommuting (e.g., about 2 days per week; Golden, 2006; Virick et al., 2010; Golden & Veiga, 2005). A similar nonlinear pattern was found with life satisfaction (Fonner & Roloff, 2010).

Other outcomes that are meaningful but have not received as much research attention are career outcomes; recovery; knowledge transfer and collaboration; and diversity, equity, and inclusion.

Career Outcomes

The career consequences of remote work have not received a lot of attention and results across studies are somewhat discrepant. Gajendran and Harrisons's (2007) meta-analysis found no association between remote work status and perceived career prospects. However, individual studies on actual career outcome paint a more mixed picture. In a study of women across a 7-year time period, Glass (2004) found that women with work location flexibility had lower wage growth than women who did not use flexibility. This effect was strongest among women in professional or managerial jobs and those who stayed with a single employer over the course of the study. On the other hand, another study based on a U.S. nationally representative sample of both men and women (Weeden, 2005) found that those who engaged in formal and informal telecommuting earned higher wages than their traditional working counterparts. Likewise, a study (Leslie et al., 2012) of several flexible work practices, including flextime, telecommuting, part time work, and job sharing, found a similar positive association between flexibility use and wages, although the effect size was very small. Most recently, Golden and Eddleston (2020) compared the career success of telecommuters with nontelecommuters based on a matched sample of workers. There were no differences in promotions, but telecommuters experience lower salary growth. These effects were stronger (i.e., poorer career success outcomes) for those who telecommuted more and weaker for those who were in an environment where many other people also telecommuted. It is important to interpret these results in

Researchers have found that job and life satisfaction are highest at moderate levels of remote work (e.g., about 2 days per week)



light of the study design caveats noted above; correlational designs do not allow us to disentangle cause and effect; we can not rule out that those who were granted access to working remotely were already high performers. A few studies have examined how working remotely affects employees' ability to recover from the demands of their workday. A major concern is that when work and home are colocated it becomes difficult to manage boundaries and to sufficiently detach (Allen et al., 2021; Eddleston & Mulki, 2017). Researchers have found that those who report engaging in more work—life integration behaviors also reported less recovery (Wepfer et al., 2018). With regard to specific strategies workers use, Haun et al. (2022) examined how remote workers in Germany used boundary management tactics to improve their recovery. These authors found that temporal boundary tactics (i.e., efforts to deliberately allocate certain times to work and other times to private life to separate these life domains) and technological boundary tactics (i.e., time-lagged sending of emails, filtering emails and calls, switching off email notifications) were both associated with increased psychological detachment from work. Similarly, Pensar and Makela's (2023) study qualitatively examined which aspects of remote work drained remote worker's energy and strategies used to promote psychological detachment (i.e., not thinking about work during nonwork time). This study found that employees can promote recovery after work through four strategies: cognitive control (preventing work-related thoughts by resolutely avoiding work-related behav-



iors); physical disconnection (leaving workstation or putting away computer to physically disconnect from work); time-bound routines (ending work at specific times); and engaging in nonwork activities (focusing on activities like exercising, reading, housework, etc.). For recovering during the workday using breaks, Perry et al. (2022) examined how the type of work break one takes helps remote workers deal with the stress of nonwork interruptions, such as being interrupted by a family member. These authors found that when remote workers engaged in breaks that incorporated both self-care (e.g., engaging in a preferred hobby, meditating) and accomplishing nonwork goals (e.g., finishing a load of laundry), this buffered the draining effects of being interrupted by nonwork demands when working remotely. This suggests that remote workers may benefit more from using their time wisely and getting the most out of breaks during the day.

Knowledge Transfer and Collaboration

An oft-noted challenge of remote work is reduced coworker collaboration and the transfer of knowledge among coworkers who are dispersed. Although research on this topic is sparse, current studies suggest that knowledge transfer and collaboration may be harmed when working remotely if not handled properly. Examining the forced shift to remote work during COVID-19 in over 60,000 Microsoft employees, Yang et al. (2022) found that working remotely resulted in collaboration becoming much more siloed and more reliant on asynchronous communication (e.g., emails, instant messaging). Synchronous communication (e.g., video calls, phone calls) decreased significantly, making it more difficult for employees to acquire information. Gibbs et al. (2023) also found that the transition to fully remote work due to the pandemic resulted in less networking inside and outside of the company and fewer one-on-one meetings with supervisors. Similarly, van der Meulen et al.'s (2019) study of European workers found that frequency of knowledge sharing is reduced when spatial distance and temporal distance (coworkers working during different times) are higher, as this reduces awareness of what information their coworkers currently have.

Other studies have examined which specific conditions of remote work are detrimental to knowledge sharing. For example, Müller et al. (2022) found that when remote workers have higher autonomy, social support, performance feedback, professional development, and an undisturbed remote workplace, they are more likely to collaborate effectively. Golden and Raghuram (2010) found that knowledge sharing among remote workers is highest when employees have high trust, interpersonal bonds, and organizational commitment.

Diversity, Equity, and Inclusion

Research suggests that historically marginalized groups are particularly interested in remote work. For example, women have cited the work-nonwork management benefits of remote work (Thompson et al., 2022), and people with certain disabilities find that remote work allows them to be in the labor force when they could not otherwise comfortably or easily leave their homes to work (de la Roche & Simović, 2023). Persons of color also report a stronger preference for hybrid/full-time remote work than their White counterparts (Subramanian & Gilbert, 2021), with data suggesting that employees of color feel a stronger sense of belonging when working remotely relative to when in the office and have less exposure to microaggressions (Slack, 2021). However, research also indicates that Black employees have greater concerns related to career progression when working remotely relative to their White counterparts (Bachrach et al., 2023). Recent research based on longitudinal data has also suggested that there are different effects between person (when comparing across multiple people) versus within person (when comparing change over time in a single person; Schertler et al., 2023). Specifically, between persons the researchers observed a positive association between the stable extent of remote work used and stable level of belongingness, indicating that employees who generally felt included tend to spend more time working remotely. This could be due to contextual factors at the organizational level such as culture and leadership. However, within persons (i.e., longitudinally), the more employees worked remotely, the less they reported a sense of belongingness, suggesting that the less someone feels that they belong, the more time they will spend working remotely. These findings underscore the importance of designing remote work in a way that promotes belongingness.

Overall Takeaways From Correlational Studies

Some key takeaways can be drawn from the above review of studies based on correlational data. Compared to nonremote workers, remote workers benefit from higher autonomy, job satisfaction, and supervisor-rated performance. Although they



report higher social isolation than their in-person counterparts, this does not appear to translate into worsened social relationships at work (Gajendran et al., 2024). Overall, current correlational research suggests that there are few downsides to remote work and some benefits. Similar takeaways apply to data examining how outcomes related to remote work intensity. For the less studied outcomes of remote work, it appears that it is too early to say how remote work impacts career outcomes, as findings vary across the few studies that exist. In terms of recovery, it appears it is important that remote workers engage in active boundary management tactics like cutting the electronic tether to work and explicitly determining times one stops working to promote recovery. In terms of knowledge transfer, it appears critical for organizations to have procedures in place to promote effective knowledge transfer between remote workers and avoid information being siloed. Finally, for diversity, equity, and inclusion, preliminary research suggests that remote work can be beneficial for individuals from historically marginalized groups, but that it is important that organizations promote belongingness to reap the benefits of remote work.

What Do Experimental and Quasi-Experimental Data Say About the Benefits and Drawbacks of Remote Work?

As noted above, experimental and quasi-experimental designs are an important part of the science of remote work. They help us draw firmer causal conclusions. Studies of this nature are summarized in Table 1. As can be seen in the table, the studies took place in a variety of different organizational and temporal contexts and focused on different outcome variables, which could account for some of the conflicting findings. Nonetheless, this information can be useful to practitioners wishing to understand findings of studies in contexts similar to their own organizational settings.

Overall Takeaways From Experimental/Quasi-Experimental Studies

As shown in Table 1, a few general trends stand out. First, in the between-subject experiments, almost all of the outcomes were favorable for remote workers (e.g., job satisfaction) or showed no significant differences. In other words, there was no tendency for remote work to experience poorer well-being and performance outcomes. Importantly, none on these studies were conducted on fully remote workers, which may be indirectly highlighting the benefits of hybrid work. Second, with regard to within-person experiments (i.e., those that examined the same workers over time whose work location had changed), results were more equivocal. Specifically, indicators of productivity were often poorer when people were working remotely, especially at high levels of remote work. Notably, detrimental performance effects are also associated with studies conducted during the height of COVID -19 (Emanuel & Harrington, 2023; Gibbs et al., 2023). This is consistent with Gajendran et al.'s (2024) meta-analysis, which found numerous distinct effects from studies conducted during COVID versus those conducted before the pandemic. Last, results tended to be neutral (i.e., no significant differences between groups) and sometimes favorable in the quasi-experimental designs (i.e., those where assignment to groups was not random). Conclusions about performance from these studies should be interpreted in light of the fact that all studies used self-report indicators of performance, which could be prone to exaggeration by respondents.

Which Types Of Workers Tend to Be the Most Successful Working Remotely?

Despite a good deal of popular press attention on the role of personality in predicting remote worker efficacy, there has been fairly limited research on the topic. A few key findings are that extraverted workers may end up performing worse over time as they continue to work remotely, perhaps due to the lack of social connection that may occur during remote work (Evans et al., 2022). Other researchers have found that the personality profile of a remote worker who is least likely to experience work exhaustion is someone low in neuroticism and high in conscientiousness and agreeableness (Parra et al., 2022). Finally, there is some evidence that people high in openness to experience and emotional stability benefit more from remote work in terms of key satisfaction and engagement outcomes than their counterparts (Anderson et al., 2015; Perry et al., 2018).

Demographic variables have also been considered as a meaningful individual difference, with most of the focus on gender. There is little systematic evidence that men or women fare differently when working remotely generally. However, during COVID-19, studies did show that remote working women generally performed more poorly than remote working men (e.g., Lee et al., 2023), likely due to the fact that they were burdened with disproportionately more family labor with the closure of daycares and schools (e.g., Shockley et al., 2021); thus, it is unlikely that the results generalize to nonpandemic conditions.





	Setting	Remote work description	Timing	Performance and career outcomes	Attitudes and well-being outcomes			
Between-p	etween-person experiments							
Bloom et al. (2015)	Call center employees in travel	Worked remotely 4 days/week compared	Pre-COVID 9 months	Performance (>RW) promotions () Number of calls per shift (>RW)	Job satisfaction (>RW) Positive work attitudes (>RW)			
	agency in China	to on-site control		Minutes worked per shift (>RW) Turnover (<rw)< td=""><td>Exhaustion (<rw)< td=""></rw)<></td></rw)<>	Exhaustion (<rw)< td=""></rw)<>			
Note: Altho their perfor	ugh there were mance was high	no differences in numb her suggesting that they	er of promot should have	ions among the groups, this indicates a n been promoted at higher rates.	egative bias toward the RM group, as			
Angelici &	Employ-	Allowed employees	Pre-COVID	Objective performance (>RW)	Income satisfaction (>RW)			
Profeta (2023)	ees for multi-utility	to choose where they worked 1 day/week	9 months	Self-rated productivity ()	Health satisfaction (>RW)			
(2023)	company in	compared to fully		Self-rated efficiency (>RW)	Home life satisfaction (>RW)			
	Italy	onsite control group		Self-rated proactivity (>RW)	Social life satisfaction (>RW)			
				Self-rated ability to respond to email ()	Free time satisfaction (>RW)			
				Self-rated deadline compliance (>RW)	Income satisfaction (>RW)			
				Supervisor-rated productivity ()	Job satisfaction (>RW)			
				Supervisor-rated efficiency ()	Life satisfaction (>RW)			
				Supervisor-rated proactivity ()	Work-life balance (>RW)			
				Supervisor-rated ability to respond to email (>RW)	Time on household activities (>RW) Time on family care activities (>RW)			
				Supervisor-rated deadline compliance (>RW)	,			
				te-and blue-collar workers. White collar workere only allowed to choose the time they w				
Choud- hury et al.	Human-re- sources personnel from an or- ganization in	Randomly assigned employees into	During COVID	Number of emails sent (> medium levels of RW)	Work–life balance (> medium levels of RW)			
(2024)		three groups based on work-from-home intensity (more than	9 weeks	More positive sentiment of emails (> medium levels of RW)	Satisfaction with working from home (> medium levels of RW)			
	Bangladesh			Greater novelty of work products (> medium levels of RW)	Social isolation (< medium levels of RW)			
later in the	week may have	been able to plan meet	ings with cov	emote workers came into the office impa workers and manage their time better. Th that the days of the week one works in t	ey found no evidence that coming in			
Bloom et	Engineering,	Worked remotely 2	During	Performance ratings ()	Job satisfaction (> RW)			
al. (2022)	marketing,	days/week versus	COVID	Likelihood of being promoted ()	Life satisfaction (> RW)			
	and finance employees	fully onsite control group	6 months	Amount of code written (>RW)	Work-life balance (> RW)			
	in technol- ogy travel	8.0%		Daily messages sent (>RW) Turnover (< RW)	Likelihood of recommending RW to friends (> RW)			
	firm in China			Absence from work (< RW)	Turnover intentions (< RW)			
	e the experimer king remotely.	nt, managers of the com	pany viewed	remote work negatively, but after the exp	periment their views became positive			
Within-pers	son experiment	s						
Lapierre et al. (2016)	Sales em- ployees in	Comparison of employees 1 month be-	Pre-COVID		Strain-based work-to-family in- creased over time			
	a financial services or- ganization in the Nether- lands	fore, 3 months after, and 12 months after a new policy that required employees to work more from home was enacted.	months		Time-based work-to-family conflict showed no changes			



Note: The authors also note that one's belief in their ability to balance work and family was important factor in the relationship between working from home and both strain-based and time-based work—family conflict. Among those with a high belief in their ability to balance both roles there was no relationship over time with both types of work—family conflict. On the other hand, those with a low belief in their ability to achieve balance exhibited increases in both types of conflict.

	Setting	Remote work description	Timing	Performance and career outcomes	Attitudes and well-being outcomes
Choud- hury et al. (2021)	U.S. Patent and Trademark Office patent examiners	Beginning in 2006, several hundred examiners were granted the flexibility to work from home for up to 4 days per week. Subsequently, from 2012 onward, patent examiners were permitted to reside anywhere in the U.S, with occasional visits to headquarters at their own expense.	ZAZ	Patent actions increased by 5% following transition to hybrid work No impact on quality of patent examinations Those who transitioned from hybrid to work-from-anywhere experienced an additional 8% increase in patent actions	

Note: The authors also found that these productivity increases depended on how geographically far the employee was from the main office. Working from home less than 50 miles from the office resulted in less productivity increases as compared to those working from home more than 50 miles from the main office.

	Employees		Pre-COVID	Self-rated job performance (> RW)	Job satisfaction (> RW)
(2020)	in a life sciences firm in England	ment with a repeated measures crossover design. Specifically, half of the participants were randomly assigned to work remotely as much as sensible for their jobs in weeks 1 and 3 of the experiment and the other half were assigned to work in the office as much as they usually did weeks 1 and 3. The groups switched in weeks 2 and 4.	4 weeks	Coworker helping (> RW)	Family-to-work conflict (< RW, but only for mothers, not fathers)

Note: All em	Note: All employees in this study exhibited improvement in performance during remote work, but mothers saw the largest improvement.							
Eman- uel and Harrington (2023)	Call center in Fortune 500 company in the U.S.	Some had been working remotely pre-COVID and oth- ers onsite. All shifted to remote work during COVID	During COVID 21 months	Productivity in terms of calls per hour and call quality levels saw a 4% decrease in productivity among previously on-site employees relative to those who were already working remotely during the transition to remote work. After the transition to remote work, originally on-site workers were still 8% more productive than already-remote workers despite the initial decrease in productivity. Working remotely was related to being less likely to be promoted both before				
				and after COVID.				

Note: The authors note that when the offices were open pre-COVID, on-site hires spent more time in training and meeting with their managers to plan promotions, making on-site workers more likely to be promoted. Their data showed that the transition to remote work during COVID resulted in both training time in minutes decrease by 26% and manager one-on-one time decrease by 34%.



Gibbs et al. (2023)	Skilled profession- als at an IT services company in India.	Transitioned to fully remote work follow-ing COVID	During COVID 17 months	Work time increased by 1.6 hrs/day. Output (percentage of completed tasks divided by assigned tasks) did not change. Work output decreased by 5.6%/week. Overall productivity fell by 20%.	
	Setting	Remote work description	Timing	Performance and career outcomes	Attitudes and well-being outcomes

Note: The authors estimated that the switch to remote work led to an 8 to 19% reduction in average labor productivity (output per hour worked), which was attributed to increased communication and coordination costs. Specifically, the time allocated to meetings and coordination activities rose, displacing the time available for a focused concentration on work tasks.

Quasi-experimental designs			
Delanoe- ije & Ver- bruggen (2020) (2020) Employee at the hea quarters of a large internatio constructi and prope develop- ment firm Belgium.	description of the state of the	Across groups: Daily engagement () Job performance () Within hybrid group comparing onsite vs RW days: Work engagement (> RW days) Self-reported job performance (> RW days)	Across groups: Time-based work-to-home conflict () Stress () Strain-based work-to-home conflict () Within hybrid group comparing onsite vs RW days: Stress (< RW days) Time-based work-to-home conflict (< RW days) Strain-based work-to-home conflict (< RW days)

Note: The authors note that although work engagement and job performance increased on remote work days, general job performance and work engagement did not change after being allowed to work remotely as compared to before being able to work remotely. With regard to stress, the authors also that there was both a significant decrease in overall stress levels after being able to work remotely as well, which was attributed to less commuting time by the authors.

Hill et al. (1998)	Marketing and service employees at IBM in U.S.	Fully remote workers compared to fully onsite Assigned to condition based on location of offices	Pre-COVID 18 months	Self-reported productivity (>RW) Weekly work hours ()	Work–life balance () Morale () Teamwork ()
Duxbury & Neufeld (1999)	2 Canadian federal government departments	Hybrid workers (1–3 days/week remote) compared to onsite workers following the implementation of a telecommuting pilot program	Pre-COVID 6.5 months	Overall, they found little evidence that working remotely impacts intra-organizational communication, measured through a variety of methods	



Kelly et al. (2011)	Best Buy employees at headquar- ters in U.S.	Results-Only Work Environment (ROWE) (the idea that employees can work whenever and wherever they want as long as the work gets done) compared to a control group that were not given this flexibility	Pre-COVID 6 months	Work—family conflict (< ROWE) Negative work—family spillover (< ROWE) Having enough time to pursue non- work and family (>ROWE)
		One department at Best Buy who developed the initiative was the intervention group, whereas other departments served as the control group.		

Note: The results with work—family conflict held after controlling for initial levels of work—family conflict and additional personal and situational factors, their longitudinal analyses found that ROWE reduced work—family conflict. The effect on work—family conflict was essentially acting through increased schedule control.

Information in parentheses in the results columns indicates if the variable was higher (>) or lower (<) for remote workers (RW). (–) indicates no significant differences between groups.

What Types of Jobs Are More Amenable to Remote Work?

Not all jobs can be conducted remotely, although a great deal are amenable to remote work. Dingel and Neiman (2020) used the Occupational Information Network (O*NET), a database that describes in detail the job requirements of many jobs in the U.S., to quantify which occupations could be performed at home. Jobs that required daily outdoor work and those that involved operating vehicles, mechanized devices, or equipment were deemed as unable to be performed at home. Based on this methodology, they reported that 37% of jobs were amenable to at home work. They also found substantial variation across industries with those working in computers, finance, and law able to work from home. A study conducted in Norway came to similar conclusions finding that 38% of Norwegian jobs can be performed at home (Holgersen et al., 2021). In terms of specific job characteristics, jobs with greater autonomy and lower task interdependence tend to be more amenable to remote work (Gajendran & Harrison, 2007; Golden & Gajendran, 2019).

What Are the Characteristics of an Organizational Culture That Allows Remote Workers to Thrive?

It is challenging to facilitate remote worker effectiveness when the broader organizational context does not truly support remote working. In their review of factors that make remote workers effective, Makarius and Larson (2017) highlight several ways organizations can provide support, including:

- 1) providing employees with appropriate technology and tools to facilitate working from a remote location
- 2) providing ground rules for the use of such technology, as well as communication expectations
- 3) creating a social environment that purposefully facilitates non-face-to-face meaningful social interactions
- 4) incorporating reward structures that are equitable across all types of workers and do not inadvertently discriminate against remote workers
- 5) managers demonstrating that they trust employees

It is also important to not have an "always on" culture, as the lack of a physical boundary between work and home can easily lead to overwork for remote workers. A climate that values facetime can have a similar overwork effect on employees, who feel like they have to compensate while working remotely by being constantly available (Afota et al., 2023).

Building on Makarious and Larson (2017), research is also emerging that examines the features of technology use that can support a culture of effective remote work. For example, Shockley et al. (2021) found that having the camera on during virtu-



al meetings was associated with greater fatigue than having the camera off. Thus, organizations should be thoughtful about required camera use during virtual meetings. As another example, Gajendran et al. (2022) recently reported that the use of text-based communication for complex tasks can be detrimental to employee motivation. As technology for remote work continues to evolve, further consideration of the impact on culture and employee performance and well-being is needed.

What Are the Particulars of the Most Effective Remote Work Arrangements?

Characteristics of the Home Work Station

Ellison (2012) recommends at home assessments of remote workers space to ensure the most ideal environment. A few characteristics of the ideal home work space outlined in Ellison (2012) and Shockley et al. (2020) include:

- A quiet office with a door
- A desk and chair that are ergonomically appropriate
- Adequate lighting
- An adequately sized external monitor and external keyboard
- o Free from distractions from family members

Extent of Remote Work

As noted above in discussing the benefits of remote work, there is some evidence that remote work at moderate levels (e.g., 2 days per week) is the most beneficial for satisfaction outcomes (Choudhury et al., 2022; Golden et al., 2008). Golden et al. (2008) also suggests that professional isolation is more damaging for performance among those who telecommute at a higher frequency versus a lower frequency. These findings align with employee preferences, as a large nationally representative study found that the average employee reports that they would like to work 2.25 days per week remotely (Barrero et al., 2023). It seems that the benefits of a hybrid work arrangement are largely tied to social interactions and the ability to form high quality relationships with coworkers and supervisors that are preserved when in office some of the time.

What Does an Effective Remote Work Supervisor Look Like?

Empirical research on leadership in remote settings is surprisingly sparse, although there are several review and theoretical papers on the topic (see Bell et al., 2019, 2023; Hoch, 2019).

Bell et al. (2023) used Morgeson et al.'s (2010) functional leadership theory, which views leadership as the process of maximizing team effectiveness, to explore the specific leadership behaviors that are particularly important for leaders in virtual settings. They highlighted five key leadership functions:

- encouraging self-management ("Encourage followers to participate in the leadership process and manage their own and the team's performance")
- defining a mission ("Develop a clear and motivating mission that is shared among followers")

Recommendations

- 1. Offer 2-3 days of remote/in-the-office work
- 2. Engage in practices that promote employee autonomy.
- 3. Foster social connection.
- 4. Partner with employees to help them manage the boundary between work and nonwork.
- 5. Assist employees with their work-from-home office set up.
- 6. Ensure that the culture supports remote work.
- 7. Have clear promotion criteria and policies.
- 8. Manage the work, not the worker.
- 9. Support employee health and well-being.
- 10. Follow best practices for technology use.
- 3) establishing expectations and goals ("Set clear individual and team performance goals and expectations for accom-



- plishing the mission")
- 4) supporting the social climate ("Maintain a supportive social environment by fostering positive interpersonal interactions with and between followers, attending to followers' concerns, and promoting their well-being")
- 5) facilitating the use of technology ("Help followers apply technology to improve their virtual interactions by establishing the technology infrastructure, setting technology-related norms, and making adjustments, as needed, to improve how technology is used," p. 348).

Ten Recommendations for Implementing Effective Remote Work

Recommendation #1

Offer 2–3 days of remote/in-the-office work. In general, research suggests that hybrid remote work arrangements can result in the best outcomes in that they offer employees greater autonomy as well as greater protection from social isolation. Ensure going to the office is "worth it." Use the time in office intentionally to benefit collaboration and productivity.

Recommendation #2

Engage in practices that promote employee autonomy. Perceived autonomy is a key mechanism that drives other beneficial outcomes associated with remote work. To the extent possible, provide schedule flexibility in addition to location flexibility.

Recommendation #3

Foster social connection. Include remote workers in organizational events, socialization activities, and training and development opportunities that are available to other employees. On a more daily basis, it may be helpful to set up a "virtual water cooler" and encourage frequent and regular communication among managers and remote workers.

Recommendation #4

Partner with employees to help them manage the boundary between work and nonwork. This includes setting expectations regarding communication practices and availability. For example, establish specific blocks of time as to when employees are expected to be available and when they are not and by what communication channel can help employees manage boundaries. Relatedly, encourage employees to take breaks and to disconnect from work on a daily basis to enable recovery and prevent burnout.

Recommendation #5

Assist employees with their work-from-home office set up. This may include financial support (e.g., furniture stipend) as well as ergonomic training. Remote work home environments have distinct social environments, communication patterns, psychological contracts, and physical designs. Elements of a sound work-from-home set-up that organizations can assist with include providing ergonomically sound desk and chair and providing an external monitor and keyboard.

Recommendation #6

Ensure that the culture supports remote work. The organization culture must also adapt to support use of these policies. This includes the provision of clear performance metrics and evaluation of employees based on their performance and impact rather than by the amount of time they spend at the main office.

Recommendation #7

Have clear promotion criteria and policies. Ensure that promotion and salary systems are not biased against those who work remotely and that all employees are provided with regular feedback and developmental opportunities.



Recommendation #8

Manage the work, not the worker. Because remote workers are "out of sight" it may be tempting to apply stricter standards or invasive electronic employee monitoring. However, research suggests that electronic performance monitoring is not associated with better performance and employees should be evaluated similarly regardless of work location.

Recommendation #9

Support employee health and well-being. Recognize that health and well-being programs may need to differ for remote employees from those who are onsite. Ensure employees who are offsite have access to mental health resources and tools to reduce burnout. Facilitate healthy behaviors (e.g., movement during virtual meetings; time away from computer screens).

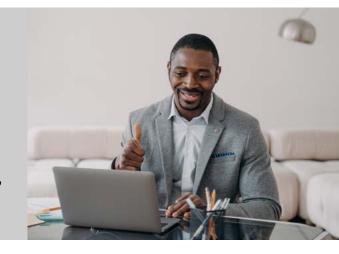
Recommendation #10

Follow best practices for technology use. Video conference technology, such as Zoom, Teams, and WebEx, are important tools for remote workers to engage in more high-fidelity communication with coworkers. However, there are downsides to using these technologies, including excessive electronic tethering and fatigue that may occur if there are too many meetings in a day or if technology is used indiscriminately. Best practices for video conference meetings include allowing autonomy in camera use, calling meetings only when necessary, and being judicious in who is invited.

Next Steps

The nature of work and worker expectations have significantly changed over the past 5 years. No doubt, the future of work includes a substantial number of workers who will work remotely, prompting the need to continue to identify policies and practices designed to increase remote work effectiveness, facilitate employee success, and enhance employee well-being. Data consistently show that the majority of today's workforce want to work remotely at least some of the time. Thus, it is essential for organizations to embrace remote work policies as part of their overall talent management strategy and in doing so ensure that remote workers are provided with the same opportunities to develop and flourish as on-site remote workers. Remote work will also continue to be an important business continuity strategy that enables organizations to continue operations in response to emergency events (e.g., weather disruptions). Moreover, we expect that technology will continue to evolve, introducing new advanced technologies (e.g., virtual reality) that enhance collaboration and communication among coworkers geographically disbursed, further enabling remote work. Looking into the future, organizational considerations include the need for enhanced cybersecurity and robust data privacy processes. Attention is also needed as to policies that regulatory bodies may enact such ergonomic and other occupational health and safety issues for those who work offsite. Research interest in remote work has greatly accelerated in the past 5 years as well. Maintaining science—practice partnerships can be a key strategy for organizations to ensure that their policies and practices are consistent with the latest evidence base.

No doubt, the future of work includes a substantial number of workers who will work remotely, prompting the need to continue to identify policies and practices designed to increase remote work effectiveness, facilitate employee success, and enhance employee well-being





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