



The Trade-Offs of Remote Work

BUILDING A MORE RESILIENT
WORKPLACE FOR THE
POST-COVID-19 WORLD

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A M E R I C A N E N T E R P R I S E I N S T I T U T E

Executive Summary

Before the pandemic, remote work in America was a luxury reserved for just 7 percent of the workforce, mostly highly educated and highly paid knowledge workers. Then, in a matter of weeks, COVID-19 forced virtually every industry, employer, and worker to transform their approach to work by shifting to an almost entirely remote model. It will be years before we fully understand how this shift has affected the economy, individual industries, and employees. This report seeks to outline the positive and negative trade-offs of remote work for employers and employees. We hope to improve the collective understanding of the existing research on remote work and some of the immediate impacts of COVID-19 and point the way toward areas of needed research.

For employers, remote work provides opportunities for increased productivity, operational cost savings, competitive advantages in talent recruitment and retention, and positive environmental impacts. This comes with the potential costs of a loss of organizational culture, complications in managing a remote workforce, exposure to security risks, difficulty adapting remote-work policies to diverse business needs, and disparate impacts on non-remote workers.

Workers may find that remote work increases satisfaction with their jobs and personal lives, which can improve their well-being. They can also save on costs associated with working in the office and may find that increased professional autonomy helps them create more comfortable working conditions. On the downside, remote work can erode boundaries between work and life, weaken social ties and informal communication on the job, slow career advancement, cause communication challenges, and increase fear of job loss as companies import remote talent globally.

Worker choice and the hybrid remote-work model can help employers and employees maximize the benefits while minimizing the harm of remote work. A

significant body of research points to the workplace becoming increasingly remote but also shows that neither workers nor employers want to work exclusively from home. To strike the right balance, employers and employees will have to work together through extensive trial and error to discover what works best for their businesses and workforces.

There are also practical hurdles to scaling remote work. These include expanding broadband and computer access in the home, closing the corporate digital divide, and equipping workers with the work spaces and tools they need to be effective. Cooperation between business leaders, workers, and policymakers will be essential to scale remote work and establish sustainable solutions.

While extensive research has been conducted on the impact of remote work, our ignorance vastly exceeds our knowledge. Most of the research to date has focused on a single employer and is not necessarily representative of all employers or the workforce. Further, this research has been conducted on the types of work that fit well with the remote-work model and skews heavily in favor of positive outcomes. This research has also emphasized the pros and cons employers face, but little is known about the long-term effect of remote work on employees. The pandemic has provided a unique opportunity to fill our knowledge gaps, but the pandemic and other external stressors may distort the results of studies during an extraordinary crisis.

We must invest in research to better understand how long-term remote work affects employees and to educate businesses and policymakers about how they can better address their remote workforce's needs. The real-time demands of the pandemic will continue to require employers and employees to adjust to these new realities and increase pressure to plan and execute the development of an equitable and effective shift to expanded remote work as the "new normal."

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By Brent Orrell and Matthew Leger

Before the COVID-19 pandemic, remote work in America was considered a luxury reserved for highly educated and highly paid knowledge workers,¹ but its popularity was rising, particularly following the Great Recession.² While remote work was gaining traction—increasing by 115 percent between 2005 and 2017³—just 7 percent of the workforce was fortunate enough to spend at least some time working away from the office.⁴

Like many aspects of our lives, the pandemic rapidly changed that. In the face of stay-at-home orders and economic shutdowns, businesses across the US shifted to an almost entirely remote workforce in a matter of weeks. Despite some initial challenges, this was a largely seamless transition that has helped not only keep businesses operational and Americans working but also slow the spread of the virus and minimize its impact.⁵

Eight months into remote work, many high-profile companies are looking to extend it for the foreseeable future, and some are looking to do so permanently.⁶ Companies such as Google, Amazon (corporate), Viacom, and Indeed have told their workers they will be remote until at least 2021. Facebook, Twitter, Square, Slack, and several others have told their employees they do not ever have to return to the office. Estimates of the number of workers who are doing their jobs remotely in the US range from 33 percent to around 50 percent.⁷

Pandemic aside, this sudden shift toward remote work is a drastic change in traditional US work culture. Current projections say upward of 20 percent

of American workers will continue to work remotely at least some of the time after the pandemic, nearly tripling the pre-pandemic level.⁸ Altogether, research shows that roughly a third of all jobs can be done remotely if employers and workers decide to make the shift.⁹

The benefits and challenges of remote work have been studied for many years, but never at a time when the practice was as widespread as it is now. In a sense, the social distancing imposed by COVID-19 is a natural experiment on a massive scale. It provides an opportunity to understand how remote work is affecting workers and businesses on both sides of the ledger, positively and negatively. This report seeks to improve understanding of the existing data and research on remote work and point the way toward crucial areas of future research.

The first two sections outline the top positive and negative trade-offs remote work poses for employers and employees. The third section discusses how worker choice and the hybrid work model can maximize the benefits while minimizing the harm of working remotely. The fourth section covers the essential barriers to scaling remote work that business leaders and policymakers must be aware of and work together to address, including broadband access and bridging the corporate digital divide. In the fifth section, we outline the limits of what we know about the impact of remote work from the studies that have been conducted. We also warn that many external factors may significantly hamper our ability to assess this new working model effectively during the pandemic. This

Table 1. Trade-Offs of Remote Work for Employers

Positive Trade-Offs for Employers	Negative Trade-Offs for Employers
Increased Productivity	Lack or Loss of Organizational Culture
Operational Cost Savings	Complications in Managing a Remote Workforce
Talent Recruitment and Retention Advantages	Difficulty Adapting Remote-Work Policies to Varied Business and Worker Needs
Organizational and Operational Resilience	Increased Exposure to Security Risks
Reduced Environmental Impact	Harm to Non-Remote Workforce

Source: Authors.

report concludes with a call to action for policymakers to invest in research to better understand how long-term remote work affects employees and educate businesses about how they can better address their remote workforce's needs.

Trade-Offs for Employers

Companies everywhere and of all sizes have had to figure out how to shift to remote work in the past several months. For those that did not have a remote workforce previously, many were forced to adjust on the fly with a host of positive and negative trade-offs to consider (Table 1).

Positive Trade-Offs. In the shift to remote work, employers can expect to see increased productivity, operational cost savings, talent recruitment and retention advantages, enhanced organizational resilience, and a reduced environmental impact.

Increased Productivity. One commonly discussed benefit of remote work is increased productivity of individuals and the company as a whole. An analysis of 1,500 studies on remote work by Global Workplace Analytics found many studies driving this point home.¹⁰ For example, the analysis highlights studies that showed companies such as Best Buy, Dow Chemical, JD Edwards, and American Express saw remote

workers' productivity far exceed in-office counterparts by 20 to 40 percent. Much of this productivity increase stems from the time and energy saved on commuting, the ability to work at times or in places when and where workers are most comfortable and productive, increased job satisfaction, and the avoidance of in-office distractions.¹¹

Taking this one step further, a study by researchers at Harvard Business School evaluated teleworkers at the US Patent and Trademark Office and compared workers who took advantage of work-from-home (WFH) policies (which require an individual to live within commuting distance of the office) and those who took advantage of work-from-anywhere (WFA) policies (which have no geographic restrictions).¹² The study found that WFA workers were 4.4 percent more productive than their WFH counterparts were. The authors attributed this boost to workers' ability to move to locations with greater social support and more affordable housing.

While WFA shows promise, patent office workers mostly work independently and in isolation from one another. Organizations and businesses that require more collaboration and teamwork may not be as well suited to WFA policies. Nonetheless, WFA is increasing in popularity, with companies and organizations such as Akamai Technologies, NASA, and GitHub instituting similar policies.

Of course, remote work does not always lead to more productivity, and some organizations have

actually withdrawn their remote-work programs after productivity fell.¹³ Nonetheless, the weight of evidence falls on the side of remote work improving rather than diminishing worker and business performance.

Operational Cost Savings. Having a partial or fully remote workforce also helps organizations reduce operational costs in several ways. The most obvious cost saver is reduced (or in some cases, elimination of) real estate costs.¹⁴ After payroll, real estate costs are often the second-highest expense for companies, such that, even before the pandemic, many companies were seeking to make their businesses more cost-efficient and operationally efficient by reducing their real estate footprint.¹⁵ Following the Great Recession, many employers turned to remote work as a cost-saving measure.¹⁶ Some studies found that companies can save upward of \$11,000 per worker annually after accounting for real estate costs and other costs such as electricity, water, heating, and air conditioning, freeing up resources for other investments that increase firm productivity.¹⁷

Other savings opportunities are less obvious. For example, according to the Owl Labs 2017 State of Remote Work report, companies that offer remote work have seen a 25 percent lower employee turnover rate, generating significant human resource, training, and recruitment cost savings.¹⁸ The 2019 report also showed that remote workers are more likely to accept lower pay for WFH or WFA policies that allow them to live in more remote and less expensive areas.

Talent Recruitment and Retention Advantages. As more companies move to remote-work offerings, workers are seeking job opportunities that allow them to work from home at least some of the time. According to a 2018 survey by Indeed, only 37 percent of people work for companies that offer remote work, but nearly half of job seekers say the ability to work remotely is an important factor in choosing a job.¹⁹ Even more concerning for the companies with no remote-work policy is that 52 percent of their workers in the survey said they are frustrated that their company does not offer the opportunity, leading many to seek other jobs that do.

Companies that have remote-work policies but are considering retracting them may also want to reconsider; Owl Labs' 2019 report asked remote workers if they would consider leaving their job if their employer no longer offered remote work. More than half said they would consider looking elsewhere if that happened, which has significant ramifications for companies that shifted to remote work during the pandemic.²⁰ Nearly three-quarters of employers have also noted remote work now significantly affects retention.²¹

As more companies move to remote-work offerings, workers are seeking job opportunities that allow them to work from home at least some of the time.

More than just an attractive offering for job candidates, moving to remote work allows companies to broaden their talent pool beyond the geographic boundaries of their central office location. With nearly 70 percent of companies reporting challenges in finding the right talent to fit their needs, moving to remote work can help shrink the skills gap by expanding—perhaps even globalizing—the talent catchment area.²² Not only does this help fill crucial skill gaps, but it can also help businesses diversify their talent base, something many organizations say they struggle to do, partly due to the geographic restriction of their office locations.²³ Also, with two-thirds of job candidates now saying diversity is an important factor in choosing a job, remote-work programs can help organizations achieve their diversity and inclusion goals, thus making themselves a more attractive place to work.²⁴

Organizational and Operational Resilience. As we all learned early in the pandemic, the ability to work remotely is essential for operational continuity. Since these types of disruptions—pandemics, natural disasters, terrorist incidents, or even snowstorms—may interfere with commuting, remote work enables businesses and other organizations to continue operations and maintain productivity under adverse circumstances.²⁵

During a 2016 blizzard in the mid-Atlantic, in which some areas received as much as three feet of snow, companies that had remote-work programs in place were more productive than their counterparts that did not offer remote work.²⁶ Global Workplace Analytics found that a company with 1,000 employees earning roughly \$50,000 on average annually would lose around \$250,000 per day in lost productivity if employees could not work from home due to some form of disruption. In the age of COVID-19, or even leading up to the pandemic when natural disasters were already increasing in intensity and impact, the ability to work remotely helps organizations maintain operations regardless of the type of disruption.²⁷

Reduced Environmental Impact. With a decentralized workforce, companies can also make a positive environmental impact. Globally, residential and commercial buildings account for roughly 36 percent of energy use and nearly 40 percent of carbon emissions.²⁸ Shrinking corporate real estate can reduce a firm's carbon footprint and environmental impact.

Reductions in commuting can also have a significant carbon impact. One study showed that the roughly four million employees (pre-pandemic) who work remotely (at minimum half the work week) take roughly three million tons of greenhouse gas emissions out of the air annually—the rough equivalent to taking 600,000 cars off the road.²⁹

Negative Trade-Offs. In the shift to remote work, employers face several negative trade-offs, including loss of organizational culture, complications in managing remote workers, risk of alienating employees unfit for remote work, increased exposure to cybersecurity risks, and harm to non-remote workers.

Lack or Loss of Organizational Culture. Organizational culture and the way it supports communication and innovation are as vital to corporate health as productivity is. There is ample evidence illustrating that strong company culture and highly engaged workforces are loyal, happier, healthier, and therefore more productive.³⁰ In remote-work settings, it can be difficult to establish a strong broadly shared culture and norms that permeate organizational activities.

In the decision to extend remote work for the foreseeable future, organizational leaders will face challenges in maintaining and strengthening organizational culture.

In fact, while strong ties can get stronger with remote work (i.e., close teammates communicate more frequently with one another), research shows that, over time, remote work can actually erode weak ties in an organization (i.e., those who do not regularly engage with each other because they do not interact in their work).³¹ Without the office environment, organizations can miss out on ad hoc cross-team collaboration or “water cooler” chats that support productivity and innovation and help create a positive work experience. Early in the pandemic, Ben Waber, president and cofounder of Humanyze, a software company that helps businesses analyze internal communication flows, found that when the shutdowns first began, strong ties got stronger (meaning teammates and work friends connected virtually more often with one another)

but weak ties “fell off a cliff,” dropping as much as 30 percent.³²

In the decision to extend remote work for the foreseeable future, organizational leaders will face challenges in maintaining and strengthening organizational culture. However, companies can do several things to build a strong culture with a remote workforce; these include investment in team-based communication technology, frequent communication, engagement activities such as virtual happy hours and wellness sessions, and at least one in-person meeting annually for employees to interact (once the pandemic subsides, of course).³³ There are also other important considerations such as soliciting anonymous or interpersonal feedback from employees, which ensures that the organization makes improvements to support employees based on that feedback.³⁴

Complications in Managing a Remote Workforce. Not every aspect of job performance can be measured in directly quantifiable outcomes. For example, it may be difficult to measure an individual’s leadership abilities or his or her ability to communicate or collaborate meaningfully with teammates. Those aspects are often best measured by “eyes on” contact and personal interaction. Without the office to create an observable environment, it can be difficult for managers to see that an individual is getting his or her work done while on the clock, aside from direct outputs that can be monitored on a spreadsheet. Sometimes, the only alternative managers feel they have is to micromanage.³⁵

Some organizations turn to surveillance software to monitor employee activity in remote-work settings, and sales of this type of software have spiked during the pandemic.³⁶ While employers claim the software will help boost productivity, many employees feel it is a violation of privacy³⁷ and damaging to workplace trust.

Without a clear understanding of how to measure performance in remote settings, this tendency toward surveillance and mistrust is somewhat understandable. However, managing a remote workforce is a matter of adapting management tactics to fit this new work style, rather than viewing work and performance

the same way we did in the office. Organizations will have to balance their need to assure productivity with the morale costs of worker surveillance.

In the age of COVID-19 and beyond, companies may need to reevaluate how they define productivity in remote settings.³⁸ For example, rather than restrict workers to getting the job done between 9:00 a.m. and 5:00 p.m. if it is not absolutely necessary to do so, perhaps workers should be judged by their true performance and output.³⁹ The key is to balance employers’ productivity needs with the flexibility employees require to do their jobs most effectively.

Difficulty Adapting Remote Work Policies to Varied Business and Worker Needs. While remote work has largely benefited employers and employees during the pandemic, it has not been a positive experience for everyone.⁴⁰ For example, some have had high levels of difficulty replicating their typical job tasks in online settings, such as brainstorming sessions typically conducted on a shared whiteboard or paper.⁴¹ Additionally, some have a hard time settling into a comfortable work space (if they even have room to make one); some lack adequate technology, broadband access, or tech support at home to help them work; and others have pets, kids, or other family members to take care of that make it difficult to concentrate during normal work hours.⁴²

More than just figuring out how to make telecommuting work, some people simply do not like working from home for several reasons.⁴³ As discussed below, for many it can be difficult to separate work and home life if they occur in the same place. Working and living at home can also keep people in their houses for too long, leading to cabin fever and loneliness.

Increased Exposure to Security Risks. While several cybersecurity solutions are available for businesses, moving to a remote workforce can increase exposure to security risks. In the wake of COVID-19 and the rapid move to remote work, more than half of workers are using their personal computers at home to do their jobs. On top of that, nearly a quarter of workers have “frequent issues with spotty WiFi at home limiting the ability of antivirus software to protect their computer

Table 2. Trade-Offs of Remote Work for Employees

Positive Trade-Offs for Employees	Negative Trade-Offs for Employees
Greater Job and Life Satisfaction	Erosion of Work-Life Boundaries
Improved Physical Well-Being and Healthier Habits	Isolation and Loss of Social Ties
Individual Cost Savings	Slower Career Advancement and Fear of Missing Out
Professional Autonomy	Communication Challenges and “Zoom Fatigue”
	Globalization of Remote Work and Fear of Job Loss

Source: Authors.

from cyber intrusions.”⁴⁴ For months, hackers have been looking to exploit the move to remote work, shifting away from targeting “individuals and small businesses to major corporations, governments and critical infrastructure.”⁴⁵ Cybersecurity, by the very nature of the evolving threats, will likely remain a key challenge for remote work in the foreseeable future.

Harm to Non-Remote Workforce. One challenge with remote work that is often overlooked is how it affects non-remote workers. Studies have shown that having remote coworkers can actually harm colleagues who primarily work in the office.⁴⁶ These negative externalities include lower performance and higher absenteeism and turnover, which may stem from having to take on additional work (e.g., communicating on behalf of the teleworking colleague) or loss of team and social cohesion or morale.⁴⁷ As organizations consider how to effectively leverage remote work post-COVID-19, it is important to consider how it will affect workflow among teammates and the organization overall.

Trade-Offs for Employees

Similar to their employers, workers have had to make big adjustments in their work life since COVID-19 first shut down and then rapidly restructured large segments of the economy. While many have likely adjusted to this new state of work by now, others are still trying to adapt and make sense of the remote-work experience.

This section will break down the leading positive and negative trade-offs of remote work for employees (Table 2), to help organizations and their workers understand the challenges and opportunities ahead.

Positive Trade-Offs. In the shift to remote work, employees may face several positive trade-offs, including increased job and life satisfaction, improved physical well-being, individual cost savings, and more professional autonomy.

Greater Job and Life Satisfaction. One of the greatest benefits of remote work that nearly every study on the topic highlights is greater job and life satisfaction for workers. Likely the largest contributor to this increase in satisfaction is better work-life balance that allows working adults, particularly those with families, to take more time to deal with personal responsibilities.¹⁸ On top of that, half of remote workers say it helps reduce the need to take sick days, and a majority says it helps reduce stress and absences. While there are certainly pros and cons,⁴⁸ the ability to work remotely at least some of the time also benefits parents and caregivers who often face barriers to employment due to family obligations.⁴⁹

Working remotely has also been shown to help people spend more time pursuing personal interests and hobbies and provide them the time they need to improve personal relationships.⁵⁰ All these benefits amount to greater satisfaction⁵¹ with the job itself, which also helps improve life satisfaction.⁵²

That being said, studies show there is a diminishing return on happiness the more hours an individual works remotely. In fact, one study showed that happiness with remote work increases for the first 15 hours an individual works away from the office, but then happiness gains begin to flatten and then decline as employees approach full-time remote work.⁵³

Improved Physical Well-Being and Healthier Habits. In addition to making employees happier, remote work also can make them healthier. When it comes to office-based work, health challenges start before an employee even makes it to the office: Several studies have linked longer commutes to higher stress rates that often lead to psychosomatic disorders resulting in headaches, body aches, digestive issues, and higher blood pressure.⁵⁴ In some cases, long commutes have even been linked to shortened life spans.⁵⁵ Working from home largely reduces commute-related stresses, and many remote employees report lower stress levels because of this.⁵⁶ It is no wonder that Americans with longer commutes express higher levels of interest in working remotely,⁵⁷ and with commutes getting longer, this trend is likely to continue.⁵⁸

In addition to reduced stress, remote employees can also improve their health by sleeping longer, eating healthier, and exercising more.⁵⁹ Of course, these benefits come only for those whose life situations allow it and those who choose to take advantage of the time they recapture, but without remote work, the time they have to do these things is far more limited.

Individual Cost Savings. Remote workers can also benefit from significant cost savings. When an employee commutes to work, he or she typically has to drive a vehicle, and an overwhelming majority do so alone.⁶⁰ An individual vehicle comes with significant costs, such as gasoline, insurance, maintenance, parking fees, and other related expenses. Office jobs also often have specific dress codes that require workers to buy more professional clothing. Incidental costs, such as meals, can also add considerably to the cost of employment away from home. While some of these

costs are transferred back to the home where an individual works remotely, in the form of increased use of electricity, heating, or air conditioning, these cost savings can range anywhere from \$2,000 to \$6,500 per worker annually.⁶¹

Some workers who live in expensive metro areas to be closer to their jobs may also choose to move to a more affordable location to boost their true incomes and reduce their spending, which can save a tremendous amount of money. This is exactly what happened in the US Patent and Trademark Office study, in which workers who were closer to retirement age chose to move to less costly and quieter areas to save extra money for retirement.⁶²

Another benefit for remote workers is the time they get back from not commuting. Without it, Americans lose time they can be working⁶³ either overtime in their current job or in a second job that helps them earn extra money. Workers may also choose to simply take that time back for themselves to rest, develop hobbies, or be with loved ones. With the average worker in America spending roughly 225 hours commuting annually, that is a lot of lost time—for the company and the individual.⁶⁴

Professional Autonomy. Another highly touted benefit of remote work is the professional autonomy it often affords workers, depending on the job. For example, for workers who are not bound by specific business hours (compared to, for instance, customer service representatives) and are provided some flexibility in choosing their work hours, they can work at times when they are most productive.

Additionally, people who work best on the couch, in bed, at the kitchen table, all while wearing their pajamas and sipping coffee (so long as they have no video calls or presentations), have the freedom to tailor their working environment to their needs and desires. For workers who cannot get comfortable in cubicles or become anxious with open floor plans, remote work allows them to design their working space to their needs.⁶⁵

If given the option to work remotely some of the time and in the office other times, workers can choose when working from home is appropriate and when it is

better to go to the office, helping them maximize the benefits and minimize the downsides of remote work.

Negative Trade-Offs. In the shift to remote work, employees may face several negative trade-offs, including the erosion of work-life boundaries, social isolation, slower career advancement, communication problems such as “Zoom fatigue,” and fears of job loss due to the globalization of remote work.

Erosion of Work-Life Boundaries. While remote work has shown to improve job and life satisfaction for the most part, many remote workers struggle to separate work and life as the lines between the two begin to merge. In fact, remote workers tend to clock longer hours and find themselves checking emails or work communication channels at all hours.⁶⁶ Over time, the lines between work and life completely fade, which can actually cause burnout in employees who struggle to shift out of work mode into home mode and vice versa.

While commutes are often time-consuming and frustrating, they sometimes serve as a separation tool for people as they wind down from work and get ready for home responsibilities.⁶⁷ Studies by UK tech companies during the pandemic have found that the proliferation of work-based technology and communication tools in the home have actually increased employees’ anxiety and made it difficult for them to separate from their jobs during nonworking hours, particularly since many are using personal devices.⁶⁸

Isolation and Loss of Social Ties. For many people, particularly in the US, jobs are more than just a paycheck. Nationally, more than a third of all waking hours in an American’s life are spent working.⁶⁹ On average, that is roughly 92,000 hours we spend over our working lives doing some sort of job. Add to that the number of hours we spend getting ready for work and then commuting, and it is safe to assume more than half our lives is dedicated to work.⁷⁰ But for most people, work is more than just a to-do list; it is an aspect of their social lives and an opportunity to collaborate and rub elbows with others.⁷¹ In that sense, human beings are ill-suited to a fully virtual environment that does not provide for

ordinary human exchange or easily accommodate the nonverbal aspects of communication among people. In some respects, the workplace is a mode of socialization we otherwise would not get (or even have time for), and while socializing remotely is possible, virtual links simply cannot fully replace the personal satisfaction we receive from face-to-face interaction.

Remote workers tend to clock longer hours and find themselves checking emails or work communication channels at all hours.

It is well-documented that, when working from home for extended periods of time, workers often eventually feel a sense of loneliness and isolation, even when connected remotely with coworkers. Research has found that feelings of social isolation can lead to depression and sleep problems and, in more extreme cases, can increase the risk of mortality, heart attack, or stroke, potentially offsetting or reversing the positive health benefits highlighted above.⁷²

In a remote-work experiment with a Chinese travel agency, most workers enjoyed their time working remotely and found they could be far more productive from home, but half of them wanted to return to the office.⁷³ When asked why, the workers noted that loneliness and loss of social ties were not worth the trade-off. In the context of the pandemic, there are increasing reports that workers are feeling the strain from this loss of social ties and interpersonal interaction.⁷⁴ Many of them note it is starting to take a toll on their physical and mental well-being. While companies and colleagues are finding creative ways to stay connected virtually, only time will tell how sustainable this actually is.⁷⁵

Slower Career Advancement and Fear of Missing Out. In addition to preventing face time with friends and colleagues, remote work also prevents employees from getting valuable face time with their managers and superiors. Research by MIT's Sloan School of Management found that remote workers often are penalized with lower performance evaluations, smaller raises, and fewer promotions than their colleagues in the office are.⁷⁶ Similarly, in the study of the Chinese travel agency, workers were 50 percent less likely to be promoted despite being 13 percent more productive than their in-office colleagues were.⁷⁷

In addition to loss of social ties, many remote workers in the agency chose to go back to the office due to fears of inhibiting their career advancement by staying home. This fear was well-documented by remote workers even before the pandemic.⁷⁸ In the midst of the shutdowns, many workers are likely feeling this same anxiety, even though everyone is on the same playing field.

However, new research from Northeastern University may help belay some of these fears.⁷⁹ In the study, researchers found that people who worked remotely in any capacity were equally likely to get promoted compared to others who did not work remotely, although the risk of slower wage growth remained. Researchers associated this phenomenon with a negative stigma that comes with working remotely. No matter which side of the research turns out to be correct, this is a psychological challenge workers have to learn to navigate in a remote-work environment.

Communication Challenges and "Zoom Fatigue." While remote workers can communicate at any time through digital channels, communication remains a significant challenge, especially when the entire team is remote. Even though it is easy to send a quick message through Slack or by email, it is not as easy to keep communication flows moving in a timely fashion as stopping by a colleague's desk for a quick chat would be. Communicating across multiple virtual channels can also create challenges in keeping messages consistent, a particular problem when working remotely.⁸⁰

Beyond keeping communication flows moving and consistent, remote workers also struggle with reading coworkers' body language and understanding social cues in video-based settings where they see only coworkers' heads.⁸¹ Many have likely dealt with these challenges firsthand during the pandemic, such as when coworkers often end up talking over one another and video and audio lags make it difficult to anticipate when a coworker is finished speaking. Research also shows that remote workers struggle with a phenomenon now known as "Zoom fatigue": This is when our brains grow tired of staring directly at ourselves and our colleagues, because it is unnatural and uncomfortable to do so for prolonged periods.⁸² The rise of Zoom fatigue may be attributed on some level to the "newness" of this type of communication for many people and may improve over time as we continue to adjust and online communication platforms improve.

Globalization of Remote Work and Fear of Job Loss. Similar to the "offshoring" of manufacturing jobs to capitalize on cheaper labor, some companies may turn to workers in countries with fewer labor laws and less-costly workers for jobs that can be done remotely.⁸³ As technology and broadband connectivity proliferate globally, companies now have access to a wider talent pool that not only makes remote jobs more competitive—and therefore harder for workers to get—but also supplies workers who are far more affordable.⁸⁴

This debate about the offshoring of middle-class office jobs is not new. In fact, many echoed these concerns at the turn of the new millennium as technological advances raised fears that many companies would send office jobs overseas.⁸⁵ However, several operational constraints such as time-zone variance, language barriers, licensing requirements, and legal challenges have so far prevented large-scale offshoring of these jobs.⁸⁶ While there are some tech jobs that are vulnerable to offshoring, the actual threat may be exaggerated.⁸⁷

Finding the Best of Both Worlds for Employers and Employees

The benefits of remote work can be maximized and the challenges minimized if employers allow workers to self-sort into the work conditions in which they are most comfortable and there is a split between time working remotely and in the office.

Discretionary Self-Sorting, Staggered Work Weeks, and the Hybrid Work Model. A recurring theme throughout this report is that working remotely works most of the time but not always and it often works for a lot of people but not everyone. As mentioned earlier, many workers in the Chinese travel agency study chose to return to the office when given the opportunity, but others chose to remain remote. Once everyone was positioned to work in conditions they were most comfortable in, the WFH group then doubled its productivity. In the case of the US Patent and Trademark Office study, workers closer to retirement age chose to move further away from the office, while younger, early career workers chose to remain close. Either way, WFA workers were more productive. In both scenarios, workers were given a choice to select which working conditions best suited their needs, and everyone self-sorted into the scenario that made them most productive and happy.

As previously mentioned, sometimes it makes sense to work from home to focus on individual tasks, while other days it makes more sense to be in the office for more team-oriented work. Sometimes employees need the extra flexibility to work from home to take care of personal responsibilities. In scenarios such as these, it also makes sense to extend choice to picking specific days of the week for some workers to be remote. As noted in a Vox headline, “Remote work works best if it’s by choice and not every day.”⁸⁸

These are scenarios employers should think through as they refine their remote-work policies in the post-COVID-19 world. As noted in an article by McKinsey & Company, there are likely going to be few organizations that can move their workforce fully remote, and there will similarly be few that opt to go

fully on-site; most will have to find a hybrid model with built-in flexibilities that help meet all workers’ needs.⁸⁹ This is a challenging balance, but it is possible.

Sometimes it makes sense to work from home to focus on individual tasks, while other days it makes more sense to be in the office for more team-oriented work.

In the face of remote work’s rising popularity before the pandemic, many organizations attempted to keep up with the trend and rapidly developed their own programs. However, they quickly found themselves reversing their WFH policies, discovering the arrangement did not work well, or at least not the way they did it.⁹⁰ As the pandemic drags on and WFH and WFA policies become more permanent, we may find that, in the rush to maximize benefits, cracks in the model will start to show. While this may cause short-term pain for many employers, it may ultimately help our economy reach a satisfactory equilibrium that leverages the hybrid approach most effectively.

Most of the recent surveys and research conducted on this topic suggest this is where the future of work is going in the short- and medium-term.⁹¹ These surveys show that many employers intend to expand their remote-work offerings, and many employees hope to work from home more often in the future. For the most part, neither party wants to go fully remote, opting instead to take a hybrid approach of staggering the work week. The logic is that employers

and employees can offset the negative side effects of remote work by creating a scenario in which they can take full advantage of the benefits of both types of work environment.

Barriers to Scaling Remote Work

The popularity of remote work has forced companies all over the globe to adjust to this new method and provide this option to attract talent. However, there is still a long way to go to make remote work more widely available and equitable.

Broadband and Device Access at Home. Similar to the challenge facing schools in their debate about returning to in-person classes or continuing remote learning is the lack of access to high-speed broadband and computers in the home. According to the Federal Communications Commission (FCC), roughly 18 million Americans lack high-speed broadband access at home.⁹² Other estimates put the number as high as 162 million.⁹³ This disparity comes from the ways broadband-access data are collected: The FCC uses US Census tracts to determine broadband connectivity, which means if one household in a Census tract has broadband access, then the entire tract is considered connected. According to the American Community Survey, roughly 10 percent of working-age adults lack broadband access, 25 percent of whom say there are either no services available or the services available lack high-speed options.⁹⁴

In response to the pandemic and calls to move work and public services online, the FCC launched a pledge to “keep Americans connected” through the end of June 2020.⁹⁵ Eight hundred telecoms providers signed the pledge to open public Wi-Fi networks, waive late fees, and not disconnect any household. While the program has ended, many providers offered to work with individual customers to help those struggling to pay their bills.⁹⁶

Additionally, some local governments came up with creative short-term solutions to connect households to the internet, including equipping buses with Wi-Fi and parking them in disconnected neighborhoods or

establishing drive-up Wi-Fi hotspots.⁸⁸ Verizon also announced plans to accelerate its 5G network roll-out to improve connectivity.⁹⁷ While this helped prevent Americans from losing in-home broadband and get some disconnected Americans online during the length of the pledge, it did not do much to close the preexisting broadband gap that hampers access to online services such as grocery delivery, telehealth visits, and even unemployment claims.

Beyond the issue of ramping up broadband to get Americans connected, many households have had to share their networks and devices with multiple people in the home. It is not difficult to imagine the technical and bandwidth challenges associated with having two parents working remotely while dealing with multiple children taking classes online. While this particular challenge may be more acute during the pandemic, it is an important consideration for businesses and policymakers looking to advance remote-work policies moving forward.

The Corporate Digital Divide. In the discussion about how digital technology affects society, one piece of that puzzle is often overlooked: the corporate digital divide.⁹⁸ Digital transformations can prove tremendously beneficial to businesses in the 21st-century economy, but despite the long-term benefits, these transformations are not always accessible to small or low-resource businesses. Technological change is difficult, often requires a complete cultural and operational change in how businesses function, and almost always comes with a high price tag for time and money.⁹⁹

Given the high upfront costs of technological change and high rate of failure in digital transformation efforts, many companies have struggled to make digital work.¹⁰⁰ In a study by the Small Business and Entrepreneurial Council, 76 percent of small businesses noted access to cloud services was essential to their survival during the pandemic.¹⁰¹ In a separate study, 81 percent of restaurants reported they would have had to lay off workers or potentially close their businesses if not for access to third-party, app-based food delivery services.¹⁰² While many small businesses are already using technology to support their business activities,

73 percent of small businesses have noted a deficit in their level of awareness of the digital tools available to help them boost their technological capabilities even further.¹⁰³ In light of these surveys, it is not unreasonable to assume many other businesses that did not have access to advanced technologies were forced to close during the pandemic partly because their technology did not support digital operations.

Given the high upfront costs of technological change and high rate of failure in digital transformation efforts, many companies have struggled to make digital work.

This is not just about enabling small businesses to employ a remote workforce; it is also about upgrading technology so businesses can enable contactless transactions, online sales, and other digital capabilities that enable safe operations. If we think about these issues as part of the infrastructure that helps businesses grow and thrive, it makes sense to consider how the government can support and incentivize smaller firms in gaining access to what is not just an information superhighway but a commerce superhighway. In the future, policymakers may need to prioritize assisting small business owners in boosting their digital transformation efforts so the nation's most vulnerable businesses can remain resilient in the face of future economic shocks.

Difficult At-Home Work Environments. While working from home often allows employees to do

their jobs more comfortably, not everyone is fortunate enough to have a healthy, work-friendly home environment.¹⁰⁴ In some cases, the challenges are innocent and even amusing, such as interruptions from young children during a Zoom meeting. Other times, the challenges are more serious, such as living in a crowded, multigenerational home with no privacy or designated work space.

Remote jobs may create more job opportunities for people from disadvantaged backgrounds, but these very people often have few options to choose from in work locations.¹⁰⁵ These challenges are particularly troublesome for remote workers during the pandemic.¹⁰⁶ Some may be able to retrofit their homes to create better work spaces, but without assistance from their employers, this can become cost prohibitive.

Also, as mentioned previously, some people do not like or want to work from home. This may be contributing to the rise of people going to “third places” such as coffee shops and libraries to work.¹⁰⁷ Some are even resorting to paying for membership at coworking spaces to get the office amenities they need or just ensure that work and home life do not overlap too much. When considering remote-work policies, these are important things for employers and policymakers to bear in mind and try to accommodate. Business leaders could consider compensating employees for coworking membership fees or using their homes as corporate real estate in place of office space as a recruitment benefit when searching for or looking to retain talent.

The Limits of What We Know and What We Will Discover Post-COVID-19

While many studies have been conducted on remote work and its effectiveness, our ignorance vastly exceeds our knowledge. For example, many studies referenced in this report were conducted on an individual company and do not necessarily represent all companies or the workforce at large. These studies have largely evaluated knowledge workers who have had the privilege of working remotely with workflows that fit well with a remote-work model. However,

many industries never had the opportunity to experiment with remote work, and they are now being left to their own devices during the pandemic.

Today, more than half the workforce believes remote work is suitable for their industry, but nearly half still believes the negatives outweigh the positives. According to LinkedIn's Workforce Confidence Index, workers in retail, recreation and travel, and entertainment—which make up a significant portion of the nation's workforce—express serious doubt that their industry can continue with remote work indefinitely.¹⁰⁸ Public administration and design workers are largely split in their attitude toward whether their industries can continue with remote work in the future. Meanwhile, media and communications, finance, and IT workers feel strongly that remote work is a good model for their respective industries.

Today, more than half the workforce believes remote work is suitable for their industry, but nearly half still believes the negatives outweigh the positives.

Several studies referenced in this report also evaluated workers who mostly do their jobs in isolation and are not necessarily reliant on their coworkers to complete tasks. This means we do not know much about the effectiveness of remote-work for companies that rely heavily on team-oriented work.¹⁰⁹ That being said, most of the studies that have been frequently cited were done before the major improvements in online collaboration tools such as Zoom, Slack, and Microsoft Teams.¹¹⁰ These platforms enable teams

to communicate and collaborate in an ad hoc fashion similar to how they would in the office. They also enable large teams to set meetings, share screens, and make virtual engagement more interactive than previous virtual tools permitted. These capabilities will likely affect how employees and employers feel about the effectiveness of meetings and collaborative activities in remote-work settings, which previous studies were less likely to capture.

Many of these studies also compared productivity levels for companies that shifted from in-office to remote-work programs in short time frames, and there are no longitudinal studies available on the effects of remote work. Therefore, little is known about how long-term remote work affects productivity. In the context of the pandemic, many newly remote workers are feeling the strain of prolonged remote work, and companies are starting to see a global drop in productivity.¹¹¹ We do not know how much of this is due to reconfigured work processes or other factors such as COVID-19 impacts, a general economic slowdown, rising social tensions, or challenges related to isolation and social distancing. Additional research is needed to sort out the relative impacts of these factors.

This brings us to our last point. While this pandemic has provided us a valuable opportunity to evaluate the effectiveness of remote work on a massive scale, many factors will influence the outcomes of studies on this topic. The feelings of isolation and loneliness remote workers often feel will likely be exacerbated with social distancing and self-quarantining. The external stresses of a collapsing economy and mass layoffs may leave workers feeling uneasy about their job security as they continue to work from home. This can heavily influence their attitudes toward whether remote work is more or less stressful.

The bottom line is that remote work is not a panacea for businesses or workers. It solves some problems and creates others and will likely require a great deal of trial and error to balance these trade-offs. The organizations that can best leverage these working models are those that experiment with what works and move toward programs that balance organizational and employee needs.

Next Steps for Policymakers

Whether companies opt to expand remote work at scale for the future or continue with the predominant traditional office-based model, remote work is growing in popularity for companies and workers. While the decision to extend remote work sits with individual companies, the federal government can be a partner to industry and workers by examining laws and regulations that incentivize or discourage remote work. As always, one of the main positive contributions government can make is to assess and analyze how remote work affects productivity and working conditions to help inform private-sector decision-making in ways that seek to enhance economic growth and reduce harm to workers.

Most importantly, remote work is not just a mode for increasing company performance; it has a significant impact on the workforce and broader society. With such a large portion of American workers now working remotely at least some of the time—pandemic or not—the economy’s health depends on these workers’

well-being. While we were able to find some studies highlighting the positive benefits employees get from remote work, the primary focus was on how companies benefit from this model. For the American economy to maximize the benefits of remote work, more must be done to understand how the workers who make up the remote-work economy can be best supported as the nation continues its ongoing telework transformation.

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