



Journal of Business and Social Science Review
Issue: Vol. 2; No.11; November 2021 (pp.1-11)
ISSN 2690-0866(Print) 2690-0874 (Online)
Website: www.jbssrnet.com
E-mail: editor@jbssrnet.com
Doi: 10.48150/jbssr.v2no11.2021.a1

The Impact of the Pandemic on Telework

Robert W. Eames, Jr., PhD.

Associate Professor of Business
William Gordon Buckner Chair of Business
Westminster College
501 Westminster Ave.
Fulton, MO 65251
E-mail: Robert.Eames@westminster-mo.edu

Abstract

Prior to the COVID-19 pandemic, teleworking was underutilized and viewed by many managers and executives as an employee reward and often a privilege an organization could leverage to control employees' behavior. Despite demonstrated measurable savings in various areas of organizational expenses, benefits to the environment, and improved life and work balance for teleworking employees, telework had not achieved the level of adoption its benefits merited. After the onset of the pandemic in 2020, many companies reviewed their telework practices and began to rely on them as a lifeline to allow employees to continue to work and be productive without coming into the office. This empirical study explores questions related to the adoption of telework practices during the pandemic and attempted to answer questions about the nature, extent of usage, and likelihood of telework practices becoming a more significant part of working relationships between employees and organizations in the future.

The Impact of the Pandemic on Telework

If a silver lining for business from the COVID-19 pandemic during 2020 and into 2021 was discovered, it could be argued that it was the explosive expansion of telework. Prior to the pandemic, a majority of companies were reluctant to embrace telework practices despite the latter's proven record of measurable benefits that included operating cost savings and positive environmental results (Parker, Horowitz & Minkin, 2020).

Yet, despite these benefits, teleworking has not been perceived by many organizations and managers as a cost savings measure. Instead, telework was generally viewed as a reward or privilege that could be leveraged to control employees (Glass, 2013). The pandemic changed that perception. Teleworking suddenly became a lifeline for many organizations whose employees feared to even go to work for fear of infection. This scenario raised questions of interest such as: Which industries and jobs were most suitable for telework? and: Would the increased use of telework continue or return to its previous levels? This empirical study investigated these questions by juxtaposing past telework practices against contemporary trends in the context of a pandemic that was far from being resolved.

Background

Also referred to as remote working or working from home, the environmental benefits of telework have not changed since the pandemic. If anything, these practices are of even greater benefit to the environment as the US and countries around the globe struggle with the effects of ongoing climate change. Organizations that previously used telework as a work option have lowered the environmental impact of their business activities and reduced overall business expenses. The environmental issues in particular have been significant. Commuting to work and traffic congestion, for instance, have produced about one-third of all greenhouse emissions annually in the US, resulting in ozone depletion, poor air and water quality, damaged soil, and a negative impact on biodiversity (Arenas, 2016).

Some organizations concluded that telework not only lowered their environmental footprint, but also improved positive worker behaviors (Sutton, 2015), reduced overall real estate and utility expenses (Lavey-Heaton, 2014), and in some cases, was a valuable recruiting tool (Peck, 2017). Despite these measurable benefits, telework was not convincingly embraced by the business world.

Defining telework. Telework has been characterized by a variety of labels including telecommuting, mobile working, web commuting, working from home, remote working, and e-working among others. Some researchers developed taxonomies and definitions of their own to aid in their research on telework such as *employee teleworker* and *contract teleworker*. The difference between the terms was significant. An employee teleworker was a full or part-time employee who worked remotely at least one day per month during normal business hours, while a contract teleworker was self-employed or an individual who accepted the occasional telework contract (WorldatWork.org, 2011).

The term telecommuting was first defined by Jack Nilles, a NASA communications system employee who worked remotely and characterized his work arrangement in 1972 as 'telecommuting' (Allied Telecom, 2016). The notion of teleworking grew from this concept and was popularized by an article in the *Washington Post* in 1979, *Working From Home Can Save Gasoline*, by Frank Schiff (Schiff, 1979). In the 1990s, federal government agencies embraced telework with the end result of adopting streaming technologies to facilitate the process. Congress later provided appropriations in 2004 that encouraged remote working arrangements for federal employees. By 2009, 100,000 federal employees were teleworking. The Telework Enhancement Act was passed in 2010 which contained some security and stability enhancements for federal employees who teleworked (alliedtelecom.com, 2016).

Challenges in assessment. The terms telecommuting and telework have often been used interchangeably. As a result, the statistical information regarding telework has been confused by the differing interpretations. Telework has generally been accepted as meaning the use of technology has been substituted for travel, while telecommuting has been more narrowly interpreted as the use of technology as a substitute for commuter travel. By this reasoning, working at home after working during the day at a regular place of employment was considered telework, while a worker who never went into the workplace was considered a telecommuter. Researchers have acknowledged this inherent confusion and have generally accepted that if an employee worked at home at least half the time they were considered a teleworker. In this sense, telecommuting was simply a facet of telework and the latter did not include self-employed individuals who, when included, have distorted the actual number of employed teleworkers (GlobalWorkplaceAnalytics.com, 2018).

Pre-pandemic Telework in the 21st Century

In the early 2000's, telework practices occurred in all three sectors of human activity. Besides public agencies at all levels of government, telework experienced growth in the private and nonprofit sectors. The use of telework by all organizations increased by 16 million workers from 2001 to 2008, when teleworking hit its peak in the US at nearly 35 million workers. Beginning in 2008, the number of teleworkers declined significantly to about 26 million over the next two years as the effects of the Great Recession rippled throughout the US economy (WorldatWork.org, 2011).

Besides the economic setbacks of the Great Recession, employee anxiety surrounding job security and a lack of awareness of telework options at their organizations also likely contributed to the decrease in teleworkers from 2008 to 2010. By 2010, teleworkers were about 20% of the 139 million working adults in the US (WorldatWork.org, 2011). From 2015 to 2016, teleworkers had the largest annual growth since 2008 at 11.7% (GlobalWorkplaceAnalytics.com, 2018) and the number of workers who embraced telework arrangements since 2005 increased by 115% (Parris, 2017).

Early growth. In the pre-pandemic private sector, for-profit companies experienced nearly 95% telework growth between 2005 and 2014. Nonprofit organizations had similar telework growth at 105% for the same time period. Telework growth in the public sector between 2005 and 2014 varied with the level of government, with federal government telework growth the greatest at 424%. Local government experienced nearly 79% telework growth and state government about 131% (GlobalWorkplaceAnalytics.com, 2018). Per one study, only a few companies in the private sector employed any significant numbers of full-time teleworkers, even though well over a third of companies offered teleworking in some form to segments of their workforce.

The business context of US-based call centers, for example, was so appropriate for teleworking that some companies employed thousands of home-located teleworkers (WorldatWork.org, 2011).

Pre-pandemic predictions. Most of the pre-pandemic telework was performed in professional occupations and often by college graduates. Notably, college graduates at all levels were at least four times more likely to telework than workers with only a high school education. From approximately 2009 to 2019, teleworkers increased by a scant 2% to about 6% of the total workforce (Coate, 2021). Prior to the pandemic, telework had been predicted to increase annually at a steady rate, but confusing statistics and the absence of standardized data about teleworkers prevented informed predictions related to growth. In 2011, one study estimated 45% of the US workforce had a job compatible with teleworking at least on a part time basis (Lister & Harnish, 2011). That meant that as many as 64 million US workers had jobs that were compatible with telework, nearly half of the workforce (Shrm.org, 2013).

Telework has always required a certain amount of self-discipline and self-motivation from employees, as well as strong time management skills. Because in many instances it was not possible to manage a teleworker's specific schedule, the scheduling issue has become one of the biggest obstacles to creating a standardized telework policy for many organizations. Successful teleworking also depended heavily on the use of collaborative tools like video conferencing, but many organizations and government agencies have not always used the technology to its fullest (Shrm.org, 2013).

Performance of strategic planning also required recognition of the growing telework trend. Contingency plans for natural disasters and other unexpected emergencies when offices were closed or inaccessible were updated and included teleworkers. Subsequently, the Department of Transportation conducted a readiness test of the agency's telework response capability in 2012, with a record participation of 61% of the agency's workforce (Wright, 2012). NASA conducted a similar telework readiness exercise in early 2020, including some Air Force personnel. In that readiness exercise, all employees remotely worked from home for a day to test large-scale preparedness for teleworking in case of emergency (Feldscher, 2020).

Teleworker profile. Teleworkers were mainly salaried and companies who used the practice were most likely to be non-union. Teleworkers were typically in their late 40s, worked at a company with over 100 employees, were college educated, and had an annual salary of about \$58,000 (WorldatWork.org, 2011). Gender breakdown of teleworkers from 2006 to 2010 showed males were 56% of teleworkers in 2010 and the most numerous in each subsequent year. Although 40 was the median age of teleworkers in 2010, over half of teleworkers ranged from 35 to 54 years old. Only 8% of teleworkers in 2010 were 55 or older (WorldatWork.org, 2011). A study that researched a group of 500 workers at a travel agency concluded that telework was most common among workers at the highest end of the pay scale and workers at the lowest end of the pay scale (Peck, 2017).

Where do teleworkers work? The top five states for teleworking in 2017 in descending order were California, Texas, New York, Florida, and Illinois. These states provided almost one fourth of all remote work job postings in the US (Guta, 2018). Teleworkers have tended to use more than one work location, but working at home topped the list of specific locations. The working at home location also showed the largest decline from 2008 to 2010 as teleworkers worked more often at satellite centers, hotels, and while on vacation (WorldatWork.org, 2011).

In 2010, 40% of teleworkers worked in their cars, 37% while on vacation, 36% at a hotel, 34% at a restaurant, and 33% at a client's place of business. Other locations used by teleworkers included transportation platforms located at airports, train depots, or the subway, as well as parks and outdoor locations, the library, or while in transit on an airplane, train, or subway (WorldatWork.org, 2011).

In 2015, 24% of employees performed some or all their work at home, and 35% of those who were most likely to use telework were in professional and related occupations like management, business, and finance. Economic sectors that had the smallest increases in telework in 2015 included production at 5.5%, transportation and material moving at 7.7%, and installation and repair at 9.6%. Slightly higher growth for telework was found in service occupations at 10.5%, office and administrative support at 11.2%, and construction and extraction at 16.2% (Bureau of Labor Statistics, 2015).

Embracing Telework Before the Pandemic

The top five industries that offered telework jobs in 2017 were information technology, sales, healthcare, account management, and education (Guta, 2018). In 2014, the top five companies with telework options were Xerox, United Health Group, Dell, Aetna, and American Express. Top executives of these organizations were convinced of the benefits of a successful telework plan and used telework as a cost-cutting tool in a variety of areas (Reynolds, 2014). Dell, Aetna, and Xerox, for instance, reduced consumption of physical resources like electricity and heating oil, were able to consolidate buildings, and reduced paper usage after embracing telework programs (Onley, 2015). Similarly, American Express' telework policies saved the organization between \$10 million and \$15 million annually (Loubier, 2017). Even small businesses saved an average of \$11,000 a year when employees were allowed to telework at least half the time. Organizations also reduced overall costs for janitorial services, furniture, office equipment, office supplies, and even coffee (Loubier, 2017).

Sun Microsystems and Diebold. An internal evaluation by Sun Microsystems on in-house telework practices found the telecommuting program saved the company \$64 million per year in real estate costs and \$2.5 million on utilities like electricity. Sun Microsystem employees saved an average of slightly over \$2,300 per year in commuting costs (Lavey-Heaton, 2014). At Diebold in 2015, new CEO Andy Mattes immediately changed the company's recruiting strategy and put in place a robust telework policy. He lured talented tech workers that were unavailable locally from national tech companies like

Oracle, Hewlett-Packard, and Intel with the promise of remote working arrangements (Peck, 2017).

Dell. One-fifth of Dell's 100,000 worldwide employees teleworked under the company's

Connected Workplace program, and thousands more teleworked at more informal venues like coffee shops and hotels in addition to working from home. Managers and team members at Dell collaborated to craft work schedules from flexible work plans which included dimensions like work-from-home, part-time work, variable daily work times, and job sharing. A senior vice president responsible for directing Dell's human resource strategy claimed that this working flexibility was part of Dell's DNA. Employee response to the telework initiative was positive. The company's telework strategy received high reviews from employees in the areas of engagement and job satisfaction, and consequently many employees rated Dell as a great place to work (Onley, 2015).

Aetna and Xerox. Aetna and Xerox both had an extended commitment to telework. Aetna embraced teleworking for over 20 years, with 43% of its 48,000 employees now teleworking. What began as an effort to consolidate office space, became a corporate notion that Aetna ought to be more concerned about the organization's impact on the environment, and resulted in today's robust telework practices (Onley, 2015). Aetna removed 2.7 million square feet of office space from use after they implemented telework policies, a savings of \$78 million (Loubier, 2017).

Xerox offered telework options longer than any other company. Beginning with data-entry jobs more than 30 years ago, Xerox provided the key-punch machines needed by its employees for use at home so they could work remotely. In 2014, Xerox had more than 8,000 full time home teleworkers who performed a wide variety of jobs that included finance director, systems developer, and software programmer. Some of these teleworkers were worldwide employees who teleworked for Xerox part-time (Onley, 2015).

Embracing Telework During the Pandemic

By March, 2020, millions of workers choose to telework from home instead of going into the office. A recent study by economic researchers estimated that 37% of US jobs could now be performed entirely by teleworking, a marked departure from many previous estimates of about one fourth of US jobs. Concurrently, percentages of jobs suitable for telework varied across the country and revealed a clear relationship between higher income levels and jobs in the fields of professional and scientific services, finance, and corporate management as particularly appropriate for telework (Hicks, 2020).

The Bureau of Labor Statistics administered the Current Population Survey with regularity for years. Since the pandemic, the agency added questions to assess the number and types of workers affected by the coronavirus. Analysis of the survey's findings revealed that during the months of May through June 2020 over 33% of workers aged 16 years and over teleworked because of the pandemic. Over 40% of workers in jobs classified as being suitable for telework chose to do the practice. Only 13% of regular wage workers had telework arrangements (Dey, Frazis, Piccone, & Loewenstein, 2021).

Also according to the Bureau of Labor Statistics, by February, 2021, whether or not an employee teleworked varied by worker group. Telework was most likely among employees 25 to 54 years of age and was less likely among those who were younger or older. Over 25% of those 25 to 54 teleworked, compared to about 22% for older workers and slightly more than eight percent for younger workers. Women teleworkers outnumbered male teleworkers slightly, 25% to 20% respectively. By ethnicity, the largest group of workers who teleworked because of the pandemic were Asians (37.8%), followed by Whites (21.9%), Blacks (19.5%), and Hispanics (13.4%) (Bureau of Labor Statistics, 2021).

Google. Although Google had initially allowed workers widespread access to teleworking as the pandemic began in earnest during early 2020, the company soon recanted and announced that workers needed to return to their pre-pandemic office settings several days a week. Google then quickly reversed that policy and offered employees permanent remote work or even a change of office location (Iyengar, 2021).

US government. In July, 2021, the Office of Personnel Management (OPM) released a 38-page guidance report on the use of teleworking. The report supplemented initial guidelines released to the public a month earlier. The new guidance document detailed post-reentry options available to employees who had been teleworking because of the pandemic. The agency called for new policies based on lessons learned from coping with the pandemic and conveyed its belief that remote working options would attract and retain top talent. From a strategic perspective, OPM expected that the new guidelines would allow more eligible federal employees to telework on a regular basis in addition to making government agencies more competitive in attracting the best talent to move agency missions forward. The guidelines were also noteworthy in that they adopted a perspective of engagement with employees that conveyed an understanding of employees' particularly unique individual circumstances and challenges returning to the office setting (Stark, 2021).

Uber. In early 2021, Uber announced that employee engagement in the office was so important that the company was willing to relinquish some of their ability to attract top talent nationwide by not fully embracing the practice. Accordingly, the company announced that all teleworking employees must return to the office at least three days per week. Three months later, Uber backtracked on its telework position and announced that employees now had options to apply for fully remote work or to move to another office location. Employees who chose to come back to the office were required to spend 50% of their time there, but the company announced there would be flexibility in the structure of the employees' work schedules (Iyengar, 2021).

Facebook and Twitter. Both Facebook and Twitter adopted remote working as part of their strategic reopening plans as the pandemic eased. Twitter said employees were allowed to work from home as long as they wished and even CEO Mark Zuckerberg of Facebook reported he planned to work at least half of his time next year at home. Conversely, Apple employees were required to spend at least three days a week in the office (Iyengar, 2021).

The Environmental Impact of Telework

Transportation industry operations annually have caused millions of tons of nitrous oxide to be released into the air, reducing the planet's protective ozone layer. The combination of carbon dioxide and nitrous oxide emissions have reduced air quality. Such air pollution has been found to cause a variety of debilitating diseases, including neurological, respiratory, and cardiovascular diseases as well as cancer. Chemical spills at harbors, railroads, airports, and from motor vehicles on the road have added to the environmental contamination. Acid rain from sulfur dioxide and nitrogen oxides created by these substances being released into the environment have affected agricultural yields and had a widespread negative impact on biodiversity (Arenas, 2016).

When one considered greenhouse gases, any gas released into the atmosphere was considered a greenhouse gas if the gas absorbed infrared radiation and subsequently radiated heat (Rouse, 2013). Greenhouse gases emitted by motor vehicles and other forms of transportation were closely linked to global warming. US commuters who drove personal vehicles to work emitted 20 pounds of carbon dioxide for every gallon of gas burned. In 2016, motor vehicle commuters averaged five and a half tons annually of carbon dioxide emissions (Arenas, 2016). Eighty-six percent of all workers drove to work an average commuting distance of 32 miles, and 75% drove alone (Palmer, 2010). Traffic congestion in 2011 cost US commuters \$121 billion in lost time and wasted fuel. Commuting costs have continued to climb. By 2020, the average commuter burned six more gallons of gas and spent seven additional hours in traffic each year than previously (Leonard, 2013).

Telework's Contribution to Protecting the Environment

Workers have averaged about 10,000 miles per year commuting and consumed more than 67 billion gallons of gas annually (Rogers & Kostigen, 2007). Experts have predicted that telecommuting could reduce greenhouse gas emissions by about 247 million tons annually (TelCoa.org, 2011) and lessen the impact on transportation infrastructure by lowering the number of commuter miles driven (Howington, 2019).

In 2014, the telework policies of Dell, Aetna, and Xerox together saved 95,294 metric tons of emissions, the equivalent of removing 20,000 passenger cars from the road (Onley, 2015). In 2012, Dell launched its *2020 Legacy of Good Plan* which committed the company to make 50% of its workforce remote by 2020. About 20,000 employees at Dell teleworked in 2012, approximately 20% of its workforce. Dell's teleworkers eliminated 16 million miles of driving in 2014. CEO Michael Dell's stance was that by incorporating environmental sustainability into the mission of the company, Dell could minimize its impact on the planet (Sutton, 2015).

Similarly, Aetna reduced its carbon footprint by creating teleworking programs and eliminated 127 million commuting miles, a savings of 5.3 million gallons of fuel and overall reduced carbon dioxide emissions by 46,700 metric tons (Onley, 2015). Because Aetna had embraced telework for over two decades, by 2015, 43% of the company's workforce had some type of virtual work arrangement (Sutton, 2015).

Xerox tied performance and sustainability to efforts to reduce greenhouse gas emissions. Xerox's *Virtual Workforce Program* was so successful that the company added 1,000 telework positions in 2014 (Sutton, 2015). In the same year, Xerox teleworkers drove 92 million fewer commuting miles, saved 4.6 million gallons of gas, and reduced carbon dioxide emissions by nearly 41,000 metric tons. This saved Xerox over \$10 million (Onley, 2015).

The Benefits of Telework Practices

Reduced commuting time from home to work was one of the potential greatest benefits from embracing telework practices, but only a fraction of US workers who could viably work from home teleworked. If workers with compatible jobs teleworked just half of the time, the national savings would be more than \$700 billion per year. Under that scenario, a typical business saved \$11,000 per year, telecommuters saved \$2,000 to \$7,000 per year, and greenhouse gas emissions were reduced by an amount equal to removing the entire workforce of the state of New York off the roadways (GlobalWorkplaceAnalytics.com, 2016).

Teleworker productivity. The number one reason many companies decided to create a telework program was because of improved worker productivity (SHRM, 2013). By some reports, US businesses have lost nearly \$1.8 trillion a year to poor productivity. Teleworkers who have been permitted to adjust their work schedule during the day found ways to boost their productivity (Loubier, 2017). For context, a single day of lost productivity from one day of shut down federal offices in Washington DC due to snow was about \$100 million, while the five-year cost of implementing telework throughout the government was about \$30 million (GlobalWorkplaceAnalytics.com, 2016).

Gains in positive employee work behaviors. A long or stressful commute has taken such a toll on some employees that they sometimes decided to take a personal day off when a running a little late, or the commute has caused them to arrive repeatedly at work fatigued or in a bad mood (Leonard, 2013). Working from home removed time pressure for some teleworkers, but also created ambiguity about start and stop work times for some managers. It has been a challenge for many teleworkers to turn off thinking about work while doing other life activities. It has also been common to find that many teleworkers have worked longer hours than their peers who went into the office (Peck, 2017).

Teleworking employees have benefited from flexible working arrangements and gained a general improvement in their work/life balance (Peck, 2017). In a recent survey at Cisco of nearly 2,000 employees, besides increased retention researchers found that 80% of employees reported their work quality improved and 69% cited productivity increases (Palmer, 2010). In other studies, teleworkers viewed themselves as productive, intensely loyal, and hard-working (Mendoza, 2013).

One study conducted by the University of Minnesota found the benefits for participants of Best Buy's telework *Results Only Work Environment* program included a 45% lower turnover rate, less work-life conflict, and employees who were better able to adjust their schedules to suit their lifestyles.

Established in 2005 and the subject of a *BusinessWeek* cover story the next year, Best Buy decided to curtail the program a few years later after Yahoo announced they would end all telecommuting (Pepitone, 2013).

Impact on hiring and retention. Some organizations reported increased ease of hiring and improved retention of top talent when they offered telework programs (Onley, 2015). Job seekers who wanted who want to work for employers with demonstrated flexibility found lists of companies online who offered a variety of remote working options ranging from full-time at home to individual arrangements that benefited both the employee and the organization. These companies used remote workforce technology to foster growth and help their companies prosper (Reynolds, 2014). Telework policies that created a healthy work/life balance have reduced turnover rates in many organizations, with one study finding 76% of teleworkers felt more loyal to their company and were willing to work overtime if needed (Loubier, 2017).

Why Don't More Companies and Managers Support Telework?

Companies like Yahoo, Best Buy, and Hewlett-Packard have either ended their telework programs or cut them back dramatically, citing a need for in-house collaboration and innovation (Lavey-Heaton, 2014). Some analysts have claimed that this opposition to telework was more about maintaining control over employees and outdated management practices than creating innovation. Yahoo's policy in 2013 to eliminate telecommuting, for instance, was viewed by some as a superficial attempt to imitate a 20-something group of engineers at a tech start-up. Detractors claimed Yahoo's policy was an ineffective approach to innovation and motivation that actually stifled employee autonomy. Further, executives who established these types of policies that young start-ups used often forgot that many of those start-ups failed, and those who survived and were successful quickly grew beyond the confines of a small select group of innovators who were able to easily work together all the time (Glass, 2013).

Telework perceived as a reward. Some employers viewed telework as an accommodation that they could wield like a reward for leverage with employees. At the same time, many employees were unaware of their organization's telework options. This was because telework program availability and options were implemented informally or inconsistently, with no written policies, forms, or publicity, and were often left up to managerial discretion (WorldatWork.org, 2011). Additionally, many organizations benefited from the notion that it was standard practice for employees in some industries and jobs to take work home. This work was always unpaid work and was usually done at night or over the weekend. Of these workers, a scant 20% revealed they were paid occasionally for this work at home and about 12% of the workers performed this type of work at least one full workday per month (Guyot & Sawhill, 2020).

Telework perceived as a benefit. Many employers certainly viewed telework as a discretionary employee benefit. Some companies considered working from home a privilege that needed to be earned and periodically reevaluated. For these organizations, the need to control and monitor behavior was so engrained that even proven professionals who worked virtually from remote locations were subject to close oversight and reevaluation of their status. Some companies were more focused on shaping the employee behavior of remote workers rather than monitoring the quality and quantity of the employee's work, for example, worrying about whether the employee was surfing the internet between tasks or feeding the dog (Schiffer, 2015).

Negative assumptions about workers. Other research indicates there might be a relationship between those companies that frowned on telework practices and those same companies' requirements that workers be available outside of working hours such as at night, on weekends, or even on vacation. Organizations concerned about distractions for teleworkers likely held many negative assumptions about employees, i.e., being suspicious of employees who worked out of sight because of the belief they needed close supervision or they would not produce. In some organizations, when things had not gone well or as scheduled, telework plans became ready scapegoats because they were often vaguely understood and the arguments proposed against using telework usually made good sense from an idealistic perspective (WorldatWork.org, 2011). Some analysts have concluded that the expansion of telework has been held back by a lack of vision, a dearth of trust, and an irrational acceptance of outdated notions of where and how work ought to be performed (Leonard, 2013).

Douglas McGregor wrote *The Human Side of Enterprise* in 1960, and described managers who actively practiced controlling behavior on their employees and also held overall negative views of those employees.

Among others, these views included assumptions that workers were inherently lazy and needed close supervision, and that money was the primary motivation for work. McGregor dubbed these views Theory X beliefs, as opposed to Theory Y assumptions which posited that workers were complex individuals ruled by equally complex behavior, and that individuals were socially motivated and enjoyed working for a variety of reasons, not just monetary compensation. McGregor felt Theory X views represented stereotypical thinking about workers and were prevalent among modern managers (McGregor, 2006).

Telework in the Era of the Pandemic

Today's flexible organizational cultures have viewed telework in strategic terms, as another tool that aided effectiveness rather than as something that leveraged employee motivation. In general, telework programs needed to be designed, implemented, and maintained like any other organizational process to be successful and useful (WorldatWork.org, 2011). Further, telework opportunities have tended to be context-bound to location and job type. For example, while jobs in professional fields like finance, corporate management, and scientific services proved to be appropriate for work at home, other jobs in restaurants, hotels, and agriculture simply required too much face-to-face interaction for telework to be feasible (Hicks, 2020). Similarly, a recent survey from the Pew Research Center revealed that 84% of workers in manufacturing, construction, forestry, fishing and hunting, and mining felt that their job duties were inappropriate for telework. At the same time, results revealed that 59% of those in education and other professional fields or those who provided technical or specialized services felt their jobs were easily done at home (Parker, Horowitz, & Minkin, 2020).

Just prior to the pandemic, some experts in 2018 suggested that less than a fourth of US workers worked from home and that those workers spent less than half of their working hours in that location. Telework practices began to accelerate in March, 2020, however, as the pandemic flourished. A working paper from prominent economists estimated in mid-2020 that 37% of US jobs could be performed by remote working at home and would account for 46% of all wages (Hicks, 2020).

Workers' perspectives. According to the Pew Research Center, workers who teleworked as response to the pandemic found that the transition to remote working at home was fairly easy. Most workers said they had never previously teleworked. Fifty-four percent of workers surveyed who currently teleworked wanted to continue the practice once the pandemic ended. The most significant factor that influenced employees' positive reactions was having the equipment and technology they needed to do their jobs. The research revealed that teleworkers working at home since the pandemic enjoyed a number of benefits that reinforced their preference to continue with the practice into the future. Among these benefits were greater flexibility of when to schedule their hours and an overall improved work/family balance (Parker, Horowitz, & Minkin, 2020).

Research into telework has expanded since the pandemic. A recent survey in 2020 reported that jobseekers in the US showed a decided preference for the option to work from home. The average applicant for a US call center position, for example, accepted an 8% reduction in hourly wage for the ability to work from home. In fact, the work from home option was perceived as the most highly valued of all employee friendly practices (Guyot & Sawhill, 2020).

An earlier national US research study in 2014 focused on the perspectives of women, particularly regarding the commute to work. While for many individuals the popular conception that the daily work commute, especially on public transportation, was a time to decompress or enjoy as a buffer between work and home, for many women it was a time of continuous stress and sometimes danger. The survey revealed that women spend more time in traffic than men. Additionally, nearly two-thirds of all women experienced street harassment, nearly a fourth had been sexually touched, and a fifth had been followed by strangers during a commute either to or from work. Other similar studies revealed that large numbers of women experienced catcalling and even groping behavior during their commute. A study in the UK in 2019 revealed that women were more likely to quit their jobs because of the commute than men. Besides the stress of sexual harassment, women reported being challenged by other work/life responsibilities such as household chores and child care (Campoamor, 2021).

There was also evidence that employees' educational attainment and job level affected whether or not they felt they were in a job appropriate for telework. Over 60% of employees with a bachelor's degree or higher said their jobs were suitable for telework, while less than a fourth of those without a four-year college degree felt the same about their jobs.

Other findings concerned attitude differences related to age group. For instance, while only 20% of workers aged 50 and older reported motivational problems with the telework setting, 42% of younger workers aged 18 to 49 said they experienced motivational challenges (Parker, Horowitz, & Minkin, 2020).

The most obvious condition that has driven the adoption of telework by organizations was concern about workplace infection through interaction between co-workers. Views on this topic varied by gender and ethnicity. Women were much more concerned than their male counterparts about exposure to the virus, 60% to 48% respectively. As well, Black and Hispanic workers tended to have a higher concern than their white colleagues about infection and a less favorable perception of workplace measures to protect them from the virus (Parker, Horowitz, & Minkin, 2020).

Post-pandemic Predictions

Because of the high volume of workers who now telework, some experts have predicted that the trend will continue beyond the end of the pandemic and potentially last for the long-term. Even though the adoption of telework has lagged in the past, employers and industries have now invested in technology and practice. This has resulted in a growing body of workers who are comfortable with and familiar in the use of the newest remote technology. Additionally, many employers have accepted that telework has measurable advantages. Significantly, workers have shown a marked preference for working at home at the same time that many employers have realized reduced overhead costs and the ability to tout the organization's contribution to reducing its carbon footprint (Guyot & Sawhill, 2020).

The benefits of telework have certainly received greater scrutiny since the pandemic and have proved to be a powerful advocate for continuing the practice. Recent surveys and studies have concluded, for example, that workers saved an average of 40 minutes per day on the daily commute, saved nearly \$500 dollars per month by working from home, and nearly a fourth of those surveyed would take a 10% pay cut to continue working remotely. Close to two thirds of survey respondents said they preferred to work for an employer who offered remote work and well over three quarters of respondents said they believed their employer planned to continue the practice. Other studies predicted that telework would continue to increase for at least a decade, but definitely for the next few years (apollotechnical.com, 2021).

Hybrid arrangements of in-office time and remote working have also multiplied since the pandemic. A recent study in 2021 revealed that 70% of companies said they planned to adopt such a hybrid model. Prominent companies that have already established hybrid telework practices include Adobe, Salesforce, Spotify, and Twitter. Employees have also responded favorably to the new teleworking environments offered at many companies, for example, 58% of survey respondents were interested in full time remote work and 39% were interested in a hybrid working environment. There was also further reinforcement that full time remote work and hybrid arrangements attracted top talent, particularly among senior executives who had a 90% favorability response to personally working from home. Despite prior assumptions to the contrary, recent research also strengthened the notion that remote workers are productive. Businesses have lost \$600 billion per year in productivity because of workplace distractions, while some researchers estimated that remote workers were 35% to 40% more productive than in-office workers. Employees surveyed reported the top reasons productivity was higher at home included more focused time, avoiding office politics, more comfortable workplace, quieter work environment, and fewer interruptions (Courtney, 2021).

Environmental benefits also accrued during the pandemic with the increased adoption of remote working practices. These benefits included slowed deforestation rates, improved water quality, reduced traffic congestion, and reduced air pollution in the form of greenhouse gases. Experts estimated that by 2025 there could be over 36 million US workers working remotely with a resulting reduction in commuter miles driven by as much as 140 billion road miles per year (Courtney, 2021).

Conclusion

Organizations that successfully transitioned to telework programs during the pandemic adopted a new perspective based on balancing the benefits and disadvantages for themselves and for their employees. The biggest challenge for many organizations was the creation of a solid program that accepted realities as well as the need for accountability and oversight with meaningful support (Guyot & Sawhill, 2020). Remote workers found they were generally happier than their in-office peers (Courtney, 2021). As well, remote job seekers have found that jobs are currently plentiful and easily found online.

Accounts are required at most job finding websites and are generally established quickly. Basic tools and search capabilities are provided to job seekers, often accompanied by display or print ads featuring remote job positions (indeed.com, 2021).

References

- Alliedtelecom.com (2016). *The History of Telecommuting*. Accessed June 18, 2019: <https://www.alliedtelecom.net/the-history-of-telecommuting/>
- Apollotechnical.com (2021). *Statistics on Remote Workers That will Surprise You (2021)*. Accessed October 18, 2021: <https://www.apollotechnical.com/statistics-on-remote-workers/>
- Arenas, J. (2016). *Your Commute is Killing the Environment*. Accessed June 18, 2019: <https://www.business2community.com/space-science/commute-killing-environment-01484840>
- Bureau of Labor Statistics. (2015). *U.S. Department of Labor, The Economics Daily, 24 percent of employed people did some or all of their work at home in 2015 on the internet*. Accessed December 18, 2016: <http://www.bls.gov/opub/ted/2016/24-percent-of-employed-people-did-some-or-all-of-their-work-at-home-in-2015.htm>
- Bureau of Labor Statistics. (2021). *TED: The Economics Daily*. Accessed October 18, 2021: <https://www.bls.gov/opub/ted/2021/workers-ages-25-to-54-more-likely-to-telework-due-to-covid-19-in-february-2021.htm>
- Campoamor, D. (2021). *Covid exposure during work commutes is only one danger. Here's what else we need to stop*. Accessed October 18, 2021: <https://www.nbcnews.com/think/opinion/covid-exposure-during-work-commutes-only-one-danger-here-s-ncnal281075>
- Coate, P. (2021). *Remote Work Before, During, and After the Pandemic*. Accessed October 18, 2021: https://www.ncci.com/SecureDocuments/QEB/QEB_Q4_2020_RemoteWork.html
- Courtney, E. (2021). *Remote Work Statistics: Navigating the New Normal*. Accessed October 18, 2021: <https://www.flexjobs.com/blog/post/remote-work-statistics/>
- Dey, M., Frazis, H., Piccone, D. Loewenstein, M. (2021). *Teleworking and lost work during the pandemic: new evidence from the CPS, Monthly Labor Review, US Bureau of Labor Statistics, July 2021*. Accessed October 18, 2021: <https://www.bls.gov/opub/mlr/2021/article/teleworking-and-lost-work-during-the-pandemic-new-evidence-from-the-cps.htm>
- Feldscher, J. (2020). *NASA, Air Force conduct telework test on Friday as coronavirus threat looms*. Accessed October 18, 2021: <https://www.politico.com/news/2020/03/04/nasa-airforcecoronavirus-121452>
- Glass, J. (2013). *It's About the Work, Not the Office*. Accessed June 20, 2019: <https://www.nytimes.com/2013/03/08/opinion/in-defense-of-telecommuting.html>
- GlobalWorkplaceAnalytics.com. (2018). *Telecommuting Trend Data (Updated July 2018)*. (2018). Accessed June 18, 2019: <https://globalworkplaceanalytics.com/telecommuting-statistics>
- Guta, M. (2018). *Up to 25% of Americans Now Work Occasionally at Home Even at Small Businesses*. Accessed October 9, 2021: <https://smallbiztrends.com/2018/03/2017-virtual-vocations-year-end-report-and-telecommuting-statistics.html>
- Guyot, K. & Sawhill, S. (2020). *Telecommuting will likely continue long after the pandemic*. Accessed October 9, 2021: <https://www.brookings.edu/blog/up-front/2020/04/06/telecommuting-will-likely-continue-long-after-the-pandemic/>
- Hicks, M. (2020). *The number of people who can telework is higher than was estimated*. Accessed October 9, 2021: <https://www.bls.gov/opub/mlr/2020/beyond-bls/the-number-of-people-who-can-telework-is-higher-than-was-estimated.htm>
- Howington, J. (2019). *The Positive Environmental Impact of Telework*. Accessed October 9, 2021: <https://www.flexjobs.com/blog/post/the-positive-environmental-impact-of-remote-work/>
- indeed.com (2021). *Telework jobs*. Accessed October 18, 2021: <https://www.indeed.com/q-Telework-jobs.html?vjk=8b39009cc39b27d6>
- Iyengar, R. (2021). *Uber is the latest tech company to rethink its return-to-office plans*. Accessed October 18, 2021: <https://www.cnn.com/2021/06/29/tech/uber-remote-work-policy-change/index.html>
- Lavey-Heaton, M. (2014). *Working from home: how Yahoo, Best Buy and HP are making moves*. Accessed June 18, 2019: <https://www.theguardian.com/sustainable-business/working-from-home-yahoo-best-buy-hp-moves>
- Leonard, B. (2013). *Study Examines Benefits of Telework*. Accessed Oct 8, 2021: <https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/study-examines-benefits-of-telework.aspx>

- Lister, K. & Harnish, T. (2011). *The State of Telework in the U.S.* Accessed June 19, 2019: <https://www.shrm.org/ResourcesAndTools/hr-topics/technology/Documents/Telework-Trends-US.pdf>
- Loubier, A. (2017). *Benefits of Telecommuting for the Future of Work.* Accessed October 6, 2021: <https://www.forbes.com/sites/andrealoubier/2017/07/20/benefits-of-telecommuting-for-the-future-of-work/#5424415116c6>
- McGregor, D. (2006). *The Human Side of Enterprise.* McGraw Hill, 3 – 145, ISBN: 978-0-07-178487-0
- Mendoza, D. (2013). *Yahoo work-from-home policy riles workers everywhere.* Accessed June 19, 2019: <https://www.cnn.com/2013/02/26/tech/yahoo-reaction/index.html>
- Onley, D. (2015). *How Telecommuting Helps the Environment.* Accessed June 19, 2019: <https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/how-telecommuting-helps-the-environment.aspx>
- Palmer, B. (2010). *How Green is Telecommuting.* Accessed October 9, 2021: <https://slate.com/technology/2010/09/how-green-is-telecommuting.html>
- Parker, K., Horowitz, J. & Minkin, R. (2020). *How the Coronavirus Outbreak Has – and Hasn't – Changed the Way Americans Work.* Accessed October 5, 2021: <https://www.pewresearch.org/social-trends/2020/12/09/how-the-coronavirus-outbreak-has-and-hasnt-changed-the-way-americans-work/>
- Parris, J. (2017). *The State of Telecommuting in the U.S. in 2017.* Accessed June 19, 2019: <https://www.workflexibility.org/state-of-telecommuting-us-2017/>
- Peck, E. (2017). *Proof that Working from Home is Here to Stay: Yahoo Still Does It.* Accessed June 18, 2019: http://www.huffingtonpost.com/2015/03/18/the-future-is-happening-now-ok_n_6887998.html?utm_hp_ref=business
- Pepitone, J. (2013). *Best Buy ends work-from-home program.* Accessed June 20, 2019: <https://money.cnn.com/2013/03/05/technology/best-buy-work-from-home/>
- Reynolds, B. (2014). *100 Top Companies with Remote Jobs in 2014.* Accessed June 19, 2019: <https://www.flexjobs.com/blog/post/100-top-companies-for-remote-jobs/>
- Rogers, E. & Kostigen, T. (2007). *The Greenbook: The Everyday Guide to Saving the Planet One Simple Step at a Time.* New York, NY: Three Rivers Press. p. 2 – 62, 141 – 146, ISBN: 978-0-307-38135-4.
- Rouse, M. (2013). *Greenhouse Gas.* Accessed Oct 6, 2021: <https://whatis.techtarget.com/definition/greenhouse-gas>
- Schiff, F. (1979). *Working at Home Can Save Gasoline.* Accessed June 19, 2019: https://www.washingtonpost.com/archive/opinions/1979/09/02/working-at-home-can-save-gasoline/ffa475c7-d1a8-476e-8411-8cb53f1f3470/?utm_term=.abc8bb14774e
- Schiffer, E. (2015). *Why some bosses are now banning work from home.* Accessed June 20, 2019: <https://finance.yahoo.com/news/why-bosses-now-banning-home-150427429.html>
- Shrm.org. (2013). *Telecommuting Extinction Appears Doubtful.* Accessed June 20, 2019: <https://www.shrm.org/resourcesandtools/hr-topics/talent-acquisition/pages/telecommuting-extinction-doubtful.aspx>
- Stark, L. (2021). *More federal workers expected to telework in the future, feds say.* Accessed October 18, 2021: <https://www.cnn.com/2021/07/26/politics/more-federal-workers-expected-to-work-from-home/index.html>
- Sutton, S. (2015). *How Telecommuting Reduced Carbon Footprints at Dell, Aetna, and Xerox.* Accessed June 18, 2019: <https://www.entrepreneur.com/article/245296pl>
- TelCoa.org. (2011). *Home.* Accessed Oct 8, 2021: <http://www.telcoa.org/>
- WorldatWork.org. (2011). *Telework 2011 A WorldatWork Special Report.* Accessed June 18, 2019: <https://www.worldatwork.org/docs/research-and-surveys/telework-2011-final-report.pdf>
- Wright, G. (2012). *Telework Far From Being Embraced.* Accessed June 19, 2019: <https://www.shrm.org/resourcesandtools/hr-topics/technology/pages/telework-faltering.aspx>