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## Post-COVID Analysis on Workplace Design and Trend

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### Abstract

Prior to the COVID pandemic, workspace design lowers workstation panels, densifies work seating, and increases spontaneous interaction to provide amenity spaces and engage community collaboration. As a recent response to COVID-19, workplaces were forced to shut down and allow employees to work in the comfort of their homes, allowing the opportunity to re-prioritize their use of time. There are mixed reviews on how employees respond to the work-from-home conversation. However, none of these responses address any of the design trends. This year-long social experiment of working from home informed the future. It provided a new outlook on what employees truly want in workplace design. This study aims to determine which environment allows workers the most productivity and which lifestyle they prefer. Survey and focus group methods were used in this research. The survey questionnaire was sent to the AED community to determine overall productivity, the value of office space amenities and resources, comfort for the personal and professional blend of life. Respondents were narrowed down to the AED (architectural, engineering, design) community to those knowledgeable and experienced in the design trends. Based on the research findings, the workplace would thrive from a normalized hybrid work culture where remotely perform routine tasks. The total elimination of a workplace site may be unrealistic. However, days would be best set at home for routine tasks accounting for most designers. Productivity is studied to be higher while accommodating for a better work-life balance.

# 1 Introduction

Before the 2020 cultural collapse, workplace design abused buzzwords such as spontaneous interaction, culture, employee health and well-being, and sustainability. Design strategies included lowering workstation panels and densified work seating to provide amenity spaces and engaging community areas. Collaboration and coworker friendship became an integrated component of the office culture routine. These recurring design techniques targeted comfort and unique environments to increase young professional employee interest and retention while reducing the footprint to facilitate. In the past year, work culture has been manipulated by COVID-19. As an initial response, essential workers are defined and encouraged to continue working in the danger zone, while other non-essential workers begin the new adventure of the work-from-home lifestyle. There are mixed reviews on how employees respond to the work-from-home conversation. However, none of these responses address any of the design trends investing research into the prior years. So why build these fashionable workplaces to accommodate our everyday work? Research into the future of workplace design alludes to minimal modification from current planning strategies. Articles written by designers and real estate brokers are dedicated to defending the importance of the historic investment in the densified sea of workstations showcasing a monumental stair and coffee bar rather than integrating the recent discovery in satisfaction of employees work from home lifestyle. The community is questioning the physical changes of de-densifying as short-term fixes (Vaughn, 2020), and is claiming open floor plans are the trend (Vicus Partners, 2021). The quick fix and future seem to fall into the same category, including further integration of technology and cleanable surfaces. As employees have gained experience working remotely during the pandemic, their confidence in their productivity has grown. The number of people who said they worked more productively increased by 45 percent from April to May (Lund, Madgavkar, Manyika, & Smit, 2021). It is acknowledged that water-cooler conversations, meetings, and social engagements are a distraction, whether enjoyed or wasteful, to employees (Delecourt, 2021). Relevant questions, for example, “Has working from home succeeded only because it is viewed as temporary, not permanent?” arise regarding the future of talent and that of a real estate crisis associated with a transition to work from home future. (Delecourt, 2021).

However, has anyone asked the question, why go back? Or, at least, instead of forcing this new way of life into our existing definition of the workplace, should we consider adapting our definition of workplace given this new work-from-home model? This year-long social experiment of working from home should inform the future and provide a new outlook on what employees truly want in workplace design. This study narrowed it down to the AED (architectural, engineering, design) community, to those knowledgeable and experienced in the design trends and benefits they are intended to provide. The survey questionnaire was sent to the AED community to determine overall productivity, the value of office space amenities and resources, comfort for the personal and professional blend of life. The objective is to determine which environment allows them the most productivity and which lifestyle they prefer.

## 2 Methods and Procedures

Survey and focus group methods were used in this research. The same criteria applied to all people eligible to participate in the research with the following assumptions. 1) This research cannot apply to careers such as general labor, healthcare, or education as they require physical interaction, not a desk-based job with this work-from-home opportunity. Participants were all within the AED community – architect, engineer, or designer to streamline this research to a specific sector. This defines an equal set of work activities, including drafting, creative collaboration with peers, material planning, and client presentations. This also sets a standard for people who understand and have experienced trendy

workplace design. 2) Employees must have remained at their company throughout the work from the home era. This is important to eliminate any variability in transition except for the workplace shift and allow these employees to understand the typical office culture of this company compared to the new work-from-home style. 3) Employees must have worked from home for some time.

A questionnaire was developed to investigate productivity, overall satisfaction, and future work expectations by reducing the physical workplace. The questionnaire was administered through a service called SurveyMonkey (<http://www.surveymonkey.com>). The recipients of the questionnaire survey were obtained through social media, past coworkers, college classmates, and others within the geographically diverse AED community. Seven questions were asked in the survey, each item directly related to productivity, satisfaction, and future work expectations, as shown in Table 1.

#	Questions
1	While working from home, do you find your productivity is greater/lesser/or equal than in the office?
2	Do you find you work greater/lesser/or equal hours a week than in the office?
3	Do you find fewer/greater/or equal distractions at home than within the office?
4	Do you find your mental and physical health (directly correlated to your new working schedule and resources) has changed while working from home?
5	Do you find you are provided sufficient resources to communicate with your superior and project teams as needed while working from home?
6	Given the experience in both WFH and office, how would you prefer a typical work week for the future?
7	Have you or do you have a timeline for returning to the office?

**Table 1:** Questionnaire

The researchers reached out to seven people creating two zoom-based focus groups. Participants ranged at varying levels of experience, within different companies from Nashville to Philadelphia and from residential designers with four employees to commercial architects with over 4,000 global employees. For each focus group, the researcher introduced the discussion by asking about their satisfaction of work from home specifically targeting work/home balance, productivity, and overall well-being.

### 3 Results and Findings

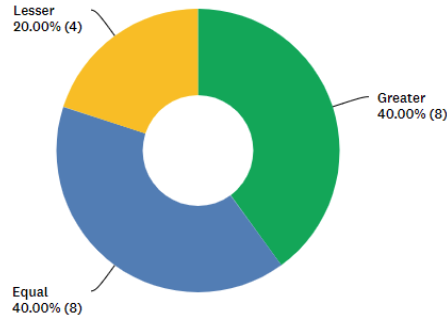
Question 1: While working from home, do you find your productivity greater/lesser/or equal than in the office?

80% of respondents who took the survey felt that their productivity was equal or greater at home than within the office, as shown in figure 1. Within the focus group, it was discussed that productivity has a new definition while working from home. It is expected in any work environment, employees take breaks. Instead of these breaks spent by casual coffee station conversation, integration of household chores and family interaction makes employees feel more productive even when they are not specifically focusing on their workplace tasks.

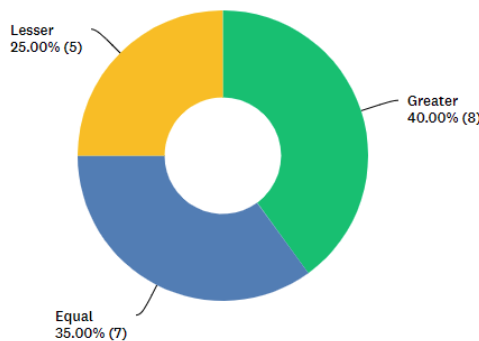
Question 2: Do you find you work greater/lesser/ equal hours a week than in the office?

Of this added productivity, 40% said they work greater hours, 35% equal, and 25% lesser, as shown in figure 2. From focus groups, the shortened workweek hours could be a direct product of the pandemic and reduction in staffing hours, or it could be that with the heightened productivity taking fewer hours to accomplish work. Those working more hours could be associated with the new flexible pace offered while working at home, or given the reduction in staffing, employees have to work the additional time to make up for the loss of coworkers. Within both focus groups, there was an

extensive discussion on pace. As mowing the lawn and having lunch with their children became a part of the workday, it no longer is an 8-hour block of time dedicated to just working. There is a blur between working hours and personal hours, preventing employees from turning their computers off until later. The pace of completing work within the traditional working window is no longer relevant.



**Figure 1:** While working from home, do you find your productivity greater/lesser/or equal than in the office?



**Figure 2:** Do you find your work greater/lesser/ equal hours a week than in the office?

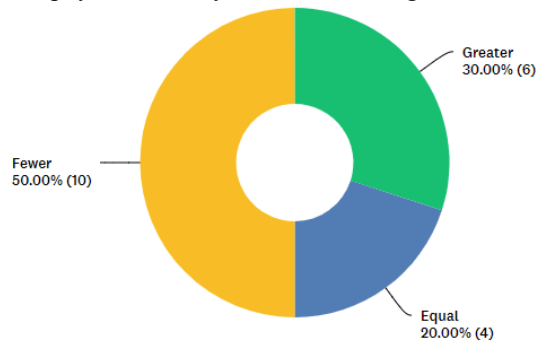
Question 3: Do you find fewer/greater/ equal distractions at home than within the office?

Half of the participants indicated that there were fewer distractions at home than within the workplace, as shown in figure 3. From discussions and questions further addressing clarifications and descriptions, people's primary distraction while working from home is children. However, it is noted that families experiencing this unusual teaching method for the year 2020 would not typically experience this or these associated distractions in the future. Another note was that of these distractions, they were primarily declared productive rather than fruitless.

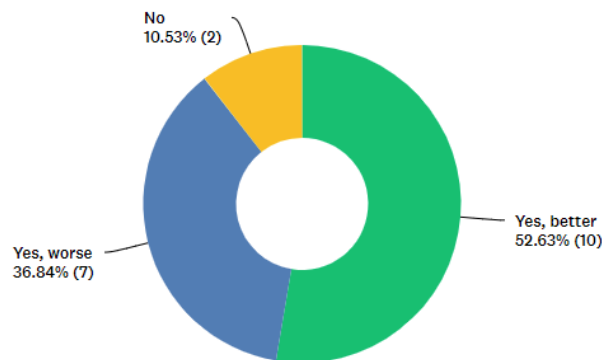
Question 4: Do you find your mental and physical health (directly correlated to your new working schedule and resources) has changed while working from home?

The survey results in figure 4 show over half found better mental and physical health while working from home. In our era of digital resources, employees were able to hop on the Peloton or take an exercise class on Youtube rather than squeezing in a trip to the gym after a long commute, which has been primarily closed throughout this year. The additional and flexible time also allows people to prepare proper meals or take a break to walk their dog. A focus group participant described this newfound balance of personal health and work as a direct product of this work-from-home lifestyle. Mental health has changed with a reduction in stress for this additional productive time. Unanimously,

those who live alone noted that the isolation was unhealthy for their well-being. Those living in larger cities also noticed a decrease in physical activity when eliminating their commute to work.



**Figure 3:** Do you find fewer/greater/or equal distractions at home than within the office?



**Figure 4:** Do you find your mental and physical health (directly correlated to your new working schedule and resources) has changed while working from home?

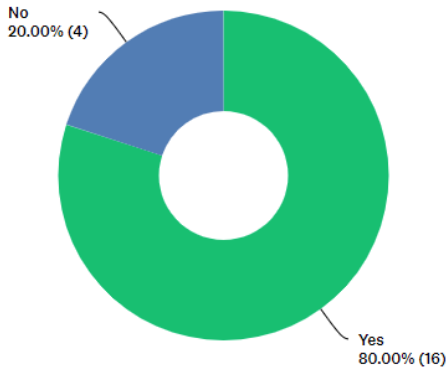
Question 5: Do you find you are provided sufficient resources to communicate with your superior and project teams as needed while working from home?

The majority of participants believed they were equipped to perform their work from home, as shown in figure 5. Those who felt unequipped noted they worked for more traditional employers whose companies had minimal integrated technology into their work cultures prior to working from home. One had to bring a full desktop setup home while working from home. Another issue with proper equipment not supplied by the employer is space and personal resources. A year ago, fast internet connection, comfortable seating, and dedicated work surface were not found in every home. Working at a kitchen table is not sustainable.

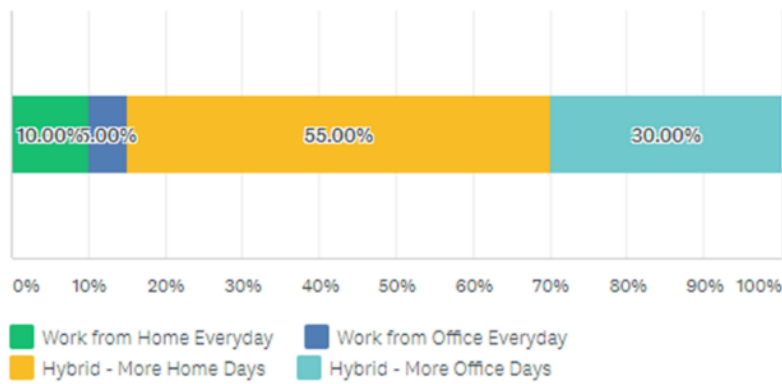
Question 6: Given the experience in both work-from-home and office, how would you prefer a typical work week for the future?

When asked preference for future working accommodations, only one person preferred to return to the traditional office culture every day. 85% preferred to work in a hybrid culture, as shown in figure 6. In discussion, most people preferred an irregular schedule of work/home to provide the flexibility of personal obligations and based on working type requirements each week. Those with children unanimously preferred a hybrid with more work-from-home days. Working from home over the last year has presented opportunities and challenges to employees. The new repetitive buzz words are irrelevant to those of sustainability, social interactions, and company cultures instead of booming with

topics of productivity and work-life balance. Employees have control of their time. A day is no longer divided into work and home hours but instead blurred to create one holistic life.



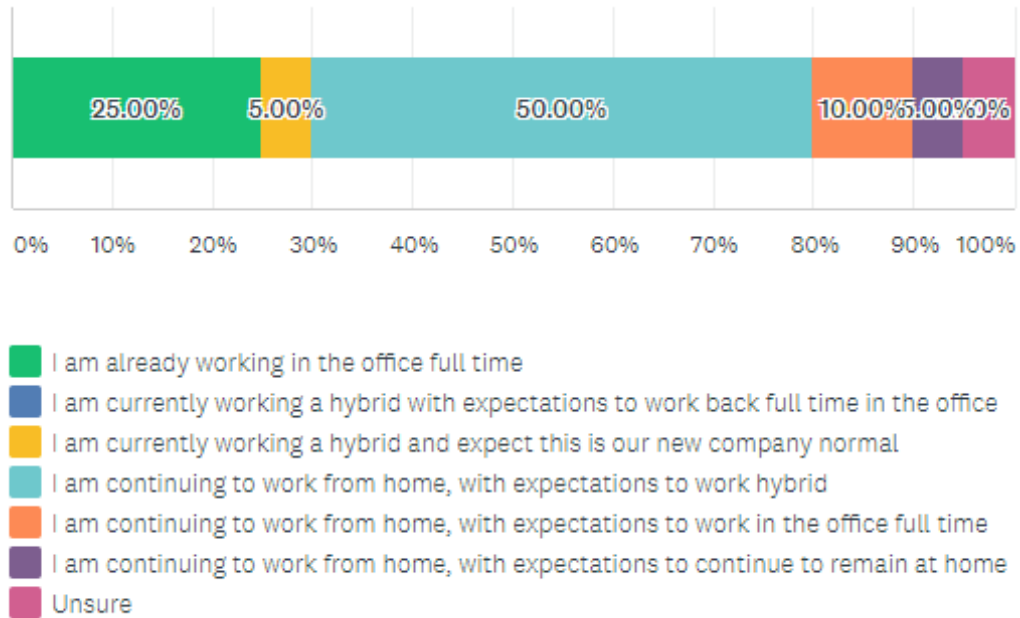
**Figure 5:** Do you find you are provided sufficient resources to communicate with your superior and project teams as needed while working from home?



**Figure 6:** Given the experience in both work-from-home and office, how would you prefer a typical work week for the future?

Question 7: Have you or do you have a timeline for returning to the office?

In reflection on the past year of work from home, employees note the decrease in collaboration and ability to engage in creative processing as a team, as shown in figure 7. Lack of design library access has become a nuisance. Furthermore, there is pressure and guilt associated with the inability of superiors to monitor attendance and productivity. Employees are now responsible for creating the working environment that is best suited for them and their own accountability for keeping themselves on task with the inability of supervisors to micromanage. Work-life balance, productivity, and overall satisfaction have excelled. The AED community, those who have preached the value of working within a trendy workplace, acknowledge the flaws in an exclusive work from home model, but otherwise prefer to work from home to working in the office.



**Figure 7:** Have you or do you have a timeline for returning to the office?

## 4 Discussions

### 4.1 Opportunities

Companies that currently have an entire work-from-home model (prior to the 2020 pandemic) saw a 25% lower turnover rate (Ludichart, 2020). By modifying our definition of the workplace to a hybrid environment balancing routine tasks at home, many opportunities become available for employees and employers. In addition to this research proving productivity and employee satisfaction increases, there is a potential opportunity to access new talent pools with fewer locational constraints, adopt innovative processes to boost productivity, create an even stronger culture, and significantly reduce real-estate costs (Delecourt, 2021). This would, in turn, increase employee retention rates.

Employers would lower costs financially by reducing amenities, rental footprint with associated overhead, and basic office necessities such as toilet paper and coffee. Ludichart (2020) estimated that a typical business would save \$11,000 per person per year by switching to an entirely remote working environment. (Ludichart, 2020). Reduction in real estate demand would also help prevent urban sprawl and allow to de-densify cities. By minimizing commuters to work every day, traffic and CO2 emissions caused by cars can decrease. The EPA announced that 600 million tons of construction and demolition debris were generated in the United States in 2018 (EPA, 2020), with predictions to increase exponentially over the next 4 years. By reducing the need for real estate, It can reduce the construction and demolition waste.

## 4.2 The agile workplace

In recent years, people have begun to see the evolution of WeWork-style working spaces to thrive and combat the typical permanent workplace. This style of co-working facilitates temporary dedicated working environments and collaborative spaces to rent as needed. Memberships allow for employers to cover expenses without the associated owner/rental overhead. Companies where employers are dispersed geographically, can all benefit from their local sites. This model has served larger and technologically advanced clients over the last few years, panicking real estate agents at the thought of eliminating permanent workplaces. This has not been a usual work model thus far but shows promise when considering reducing work hours and weighing the value of permanent real estate.

## 4.3 Conflicts

As with any progression, there are certainly some potential conflicts to navigate through. The elephant in the room with a discussion of reduction in real estate demand is that a mass exodus from the real estate market would result in a severe recession or worse (Brownell, 2020). Further, how would this affect the construction industry and design industry? The reduction in real estate reduces design needs and, therefore, construction. Commercial Real Estate Services (CBRE) published that in the 2019/20 fiscal year over \$16 billion was approved in CBRE managed workplace construction costs with just one real estate broker.

Less severe challenges would arise in workplace culture. Companies would have to re-evaluate their culture model, integrating opportunities for community building. If the work from home future results in a sprawled geography of their employees, these activities may only exist virtually. Spontaneous intimate collaboration would be the wayside requiring millennials to pick up the phone and call a coworker for help. Inexperienced designers would miss opportunities to overhear others solve problems and observe the evolution of a successful finish palette. The next generation would need to adapt to a life of isolated work balanced by virtual critiques.

Another topic of discussion is relationships between management and their employees. How can employers monitor their employee productivity? Employers may have to learn to trust their employees or continue to embrace technology and adopt tracking software. How can employers track their employee's growth and successes? How could companies determine who is suited for promotions or raises without inadvertent check-ins and observation? The "water cooler" effect is described as the informal visualization and quick interaction a superior has with the employees. These brief moments consistently remind a superior who may not directly work with these employees that they are active and interject enough personal connection for an employer to consider them in future promotions. By working from home, this connection would be lost, or worse, irregularly reduced to only those in the office frequently for meetings or other required visits. This could potentially create an ununiform and biased position for employees. Companies may require a new set of criteria for qualifying success.

## 5 Limitations

It is acknowledged that this recent cultural revolution has not only changed our current working state but that of our entire lives. There is an overarching social void in the world that would otherwise not impose a disproportional role in our working conditions. Additionally, this instance of pandemic culture is rare. It cannot be considered for normal work from home life going forward. The subject group was comprised of diverse ages with different family situations, usual methods and time of commutes, personalities, and experience levels. Companies also provided varying levels of technology for employees, causing some unnecessary burdens in their work from home experience.



## 6 Conclusions and Recommendations

In recent years, design research has focused on creating a workplace to foster employee interaction, ultimately leading to employer creativity and employee retention. As a recent response to COVID-19, workplaces were forced to shut down and allow employees to work in the comfort of their homes, allowing the opportunity to re-prioritize their use of time. After six months of this global experiment, functional work has become a laptop and a fast connection, wherever you are (Schwarz, 2020). This research was designed to evaluate the future of workplace culture based on a measure of productivity and employee satisfaction. The study targeted the design community, allowing those to compare to a trendy and previously successful office. This research proves that the majority of people prefer a work-from-home culture with the integration of office days as required. Productivity is studied to be higher while accommodating for a better work-life balance. The workplace would thrive from a normalized hybrid work culture where remotely perform routine tasks. However, the total elimination of a workplace site may be unrealistic.

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