Marketing Material *

July 2020 / Research Report

REMOTE WORK AND OFFICE SPACE DE-DENSIFICATION EFFECT ON OFFICE DEMAND POST-COVID

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1 / Work from Home Trends

With the fast and forced adoption of work from home (WFH), several business leaders have commented on their success in operating remotely and claim to be reevaluating their future office space needs. Moreover, Fed Chairman Powell during his testimony to congress on June 17th, 2020 acknowledged that COVID-19 has accelerated changes that were already happening in the workspace which are expected to continue post pandemic.

An entire nation connected virtually during the COVID-19 lockdown with office workers adjusting to new “work routines” bounded by many space and connectivity limitations and inconveniences. Still, employees proved that work can get done even in a fully remote environment thanks to the advancements in digitization that happened over the past decade.

As a medical solution is found to the current pandemic, office workers will be able to return back to their pre-COVID work arrangements. An important question is whether workers are going back to the traditional office environment or are likely to prefer accommodations for more remote work. In our view, that will depend on two distinct factors: Their willingness and their ability to perform their work duties remotely. These factors will ultimately guide corporate decisions around space allocation going forward.

Willingness to work remotely

There are many recent surveys that have analyzed employees’ desire to work from home.

Gensler, an architectural firm, surveyed 2,300+ full-time U.S. office workers at companies of 100 or more people from April 16 to May 4, 2020. The survey found that only 12% of U.S. workers want to work from home full-time and another 18% want to work three to four days remotely. Before this experience, only one in 10 U.S. office workers had regularly worked from home, and less than a third previously had the option to work from home. The research found that people overwhelmingly want to return to the office. Most people want to return to the workplace, but with significant changes to address distancing as well as concerns over growing densification prior to the pandemic[1].

A GWL Realty Advisors (GWLRA) survey found 40% of office workers are finding working from home less productive and most desire to return to the office once COVID-19 is resolved. Most office workers have found things to like in the unusual times of the pandemic, whether avoiding a commute, spending more time with family, or being able to do focused work more effectively. Yet working from home has also created productivity challenges[2]. Issues when working from home include slow and spotty connectivity, lack of equipment, and inability to collaborate with colleagues in a timely way. According to the GWLRA survey, 42% found they were more productive at home, albeit at a price. The survey showed 22% of those working from home were more productive because they were working more hours[3]. Therefore, work from home will likely be only partially adopted once the COVID-19 crisis runs its course.

Ability to Work Remotely

The ability to work remotely is a function of companies’ willingness to provide for it and functional limitations that do not allow for sustained work from home (e.g. SEC regulations and compliance limitations). In some jobs, working from home may increase the risk of data leaks and security. A recent analysis finds that only 37% of jobs in the U.S. can be performed entirely at home, with significant variation across cities and industries[4]. According

[1] Gensler, March 2020.
[2] GWL Realty Advisors Survey, May 2020.
[3] GWL Realty Advisors Survey, May 2020.
[4] How Many Jobs Can be Done at Home?, https://brentneiman.com/research/DN.pdf, May 2020.
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to the 2018 American Time Use Survey, less than a quarter of all full-time workers work at all from home on an average day, and even they typically spend well under half of their working hours at home.

There is significant variation across cities and industries. Table 1 reports the top five metropolitan statistical areas (from among the 100 largest, by employment) in terms of the share of jobs that could be done at home. More than 45% of jobs in San Francisco, San Jose, and Washington, DC could be performed at home. Most jobs in finance, corporate management, and professional and scientific services could plausibly be performed at home.

Table 1: Top five share of jobs that can be done at home (by metropolitan area and industry)

MSA (% work-from-home)	Industry (% work-from-home)
1. San Jose, CA – 51%	1. Educational Services – 83%
2. Washington, DC – 50%	2. Professional, Scientific, and Technical Services – 80%
3. Durham – 46%	3. Management of Companies and Enterprises – 79%
4. Austin, TX – 46%	4. Finance and Insurance – 76%
5. San Francisco, CA – 45%	5. Information – 72%

Source: BLS, https://brentneiman.com/research/DN.pdf, May 2020.

According to NAI Partners, a commercial real estate brokerage, most companies say the work from home policies popularized during the pandemic may lead to more remote work in coming years. Almost 60% of survey respondents said that they prefer employees in the office, but they recognize they may be required to implement long-term remote policies and allow some employees to work remotely[5].

The Bottom Line of Working Remotely

For the work from home trend to be sustainable and acceptable long-term, there need to be benefits to employers. The benefits for employees are clear: Significant time savings from a lack of commute – more than an hour per day per employee, on average. These time savings have been spent on additional family time, sleep, and exercise. Furthermore, as the surveys suggested, most workers were just as productive working from home as they were in an office. For employers, the benefits of working from home have not been significant during the pandemic. But, there are potential real estate and payroll savings as well as talent recruitment and retention if implemented post-pandemic. However, those cost savings come at the expense of company culture, mentorship, and serendipitous collaboration.

As mentioned above, according to Gensler, only 30% of the employees were allowed to work from home pre-pandemic, and 10% of employees were actually working from home regularly[6]. Post-pandemic, 30% of the Gensler survey responders would prefer to work from home three to four days per week. According to an UGov survey[7], 60% of companies are planning to encourage employees to work from home, therefore 18% of the U.S. workforce will likely work from home regularly. Net, this will amount to a net increase of 8% in employees working from home regularly.

[5] NAI Partners Survey, May 2020.
[6] NAI Partners Survey, May 2020.
[7] UGov, June 2020.

2 / De-densification Trends

Over the past decade, we have seen office density rise substantially. Per our estimates, the average space used per employee declined by almost 10% from 2009 to 2019. Organizations have increasingly allocated less square footage to individual workstations. As a result, most office space is not configured to facilitate social and physical distancing.

Research argues that beyond 40% occupancy rate[8], physical distancing cannot not be implemented without office layouts being redesigned. Two forces are at play. For some employees, if an office space does not adhere to the 'rules' then they will simply refuse to return to work (potentially supported by government decree). Employers, in the constant social media covered world in which we live, also need to be seen to be doing the 'right thing'. It is clear that safely re-entering the workplace will require a reversal of the densification trend, at least for the near-term.

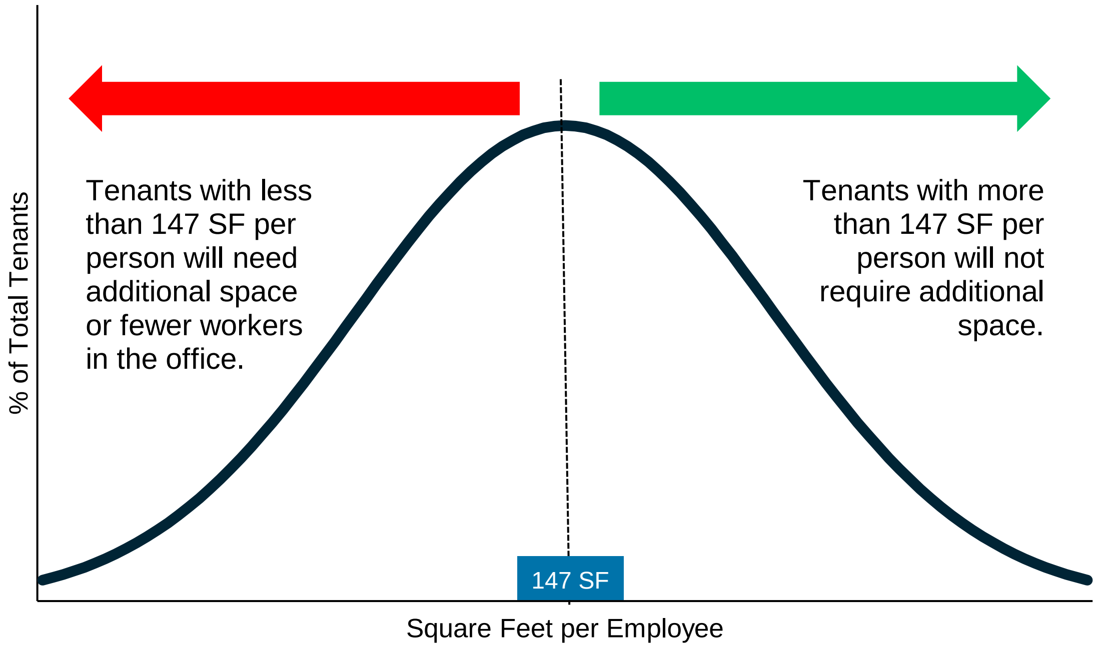
We took a theoretical approach to analyze how much density is optimal to achieve physical distancing according to CDC[9] guidelines. Assuming a 6-foot radius for each employee and a 30% load factor for common areas, bathrooms, mechanical, etc., each employee would require around 147 square feet of office space to achieve physical distancing. Using occupied stock divided by office-using employment as proxy, we estimate that the amount of square feet per person in the U.S. is currently about 159 square feet.

While, on average office tenants may comply with the CDC guidelines for physical distancing, the reality is different. Many tenants across the U.S. are likely short of the necessary space if all employees return back to the office. As of mid-May, the JLL occupancy planning team had developed social distancing plans for approximately 150 million square feet of their clients' real estate portfolios. Among clients for whom they had developed social distancing plans, 49% reported that they were losing 50% capacity or more on their floors to accommodate for social distancing[10].

As illustrated in Figure 1, assuming a normal distribution, 50% of tenants with an average of square feet per person equal to the CDC guideline (147 SF/person) would need additional space. At the same time, tenants that have more than enough space to meet the physical distance guidelines most likely would not make changes in their space needs as their layout is driven by company-specific space requirements. According to SunTrust, companies would require more than 20% increase in office space per employee to achieve the range that allows for proper social distancing[11].

[8] https://www.burohappold.com/articles/social-distancing-in-the-workplace/, April 2020.
[9] CDC stands for Centers for Diseases Control and Prevention.
[10] JLL, May 2020.
[11] SunTrust Robinson Humphrey, June 2020.
Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect

Figure 1: Illustrative tenants' space allocation of 147 square feet per employee (CDC guideline for physical distancing)



Source: RREEF America L.L.C. May 2020.

3 / Conclusion

Many investors are concerned that the work from home trend will obviate the need for office space. However, most companies will likely need to de-densify their existing space and may use work from home as a way to reduce density

Combining the effects of work from home and de-densification, we calculate that in a scenario in which 18% of the workforce works remotely, companies may have to increase their space allocation to accommodate physical distancing. This could result in an increase of 9% in office demand (Table 2). As many employees remain reluctant to return to the office until a medical solution for COVID-19 is found, this will likely not materialize immediately. However, our analysis suggests that the net effect of working-from-home and de-densification may be accretive, or at least not destructive, to office demand over the longer term.

Table 2: Post-COVID change in office space requirements per 100 employees

	Pre-COVID	Post-COVID	Change
Employees	100	100	-
% Work From Home	10%	18%	+8%
Office Employees	90	82	-9%
Space/Worker	159	191	+20%
Total Space Required	**14,310**	**15,646**	**+9%**

Source: BLS, Gensler, CBRE-EA, SunTrust Robinson Humphrey, DWS. May 2020.

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