KASTLE

How to Use Active Office Occupancy Data in a Hybrid World

White Paper

How to Use Active Office Occupancy Data in a **Hybrid World**

In a hybrid world where office workers enter the workplace fewer days per week than pre-pandemic, property owners and operators require more detailed access data than a simple daily attendance count to truly grasp the engagement their tenants with the office they have leased. Simply counting fewer total entries by day than pre-pandemic standards may hide the true engagement level of a lease-paying tenant in hybrid work environment.

Much has been written about workers no longer coming into a central workplace in the new hybrid world we live in, with some pundits asking if there is no longer a need for a central office. On the contrary, our Kastle access data we have tracked since the pandemic began shows that workers still come into the workplace between 2-3 times per week on average and appears to be holding steady if not slowly increasing.

This new 3-ish days per week spent in the office for the average worker may be the new normal for office attendance and the sign of a highly engaged tenant. That's the good news. The bad news is that most commercial owners and operators (or office administrators) don't know how to detect this level of detail in their access data to determine if their tenants or employees are meeting this key metric of engagement, or not, in their hybrid attendance patterns.

To uncover this underlying behavior of occupants, access activity data needs to be captured and organized in a revealing format – merely knowing that hundreds of workers enter you building on a given day doesn't provide any insight into who is coming on what days and how frequently. If 2-3 days per week per employee is the new normal, you need to know how to drill down into your data to determine which tenants or employees are embracing that new frequency standard, and which are not.

The following document delineates the key considerations that commercial real estate owners and operators (and even tenants themselves) must address to gain an accurate and insightful understanding of how to calculate true office occupancy and tenant or employee engagement in the hybrid workplace.

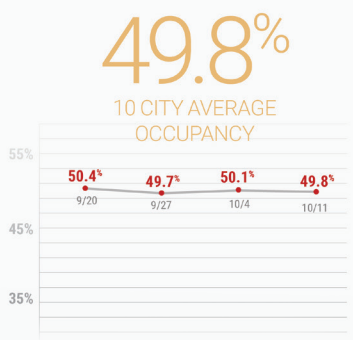
Office Occupancy in the **Hybrid World Era**

In traditional real estate terms, "occupancy" means what percentage of your leasable space was under contract and providing revenue. It had nothing to do with occupants in the building at any specific time. On any given Thanksgiving Day, a fully leased building could be considered at "full occupancy" even though there was hardly a soul inside due to the holiday.

The pandemic changed the frame of reference. When most people were forced to work from home every day and daily office attendance almost evaporated, the meaning of a building's daily "occupancy" shifted in the media to reference the number of human occupants who came in to work in those largely empty-workplaces – the public was less concerned about how much space was leased versus empty.

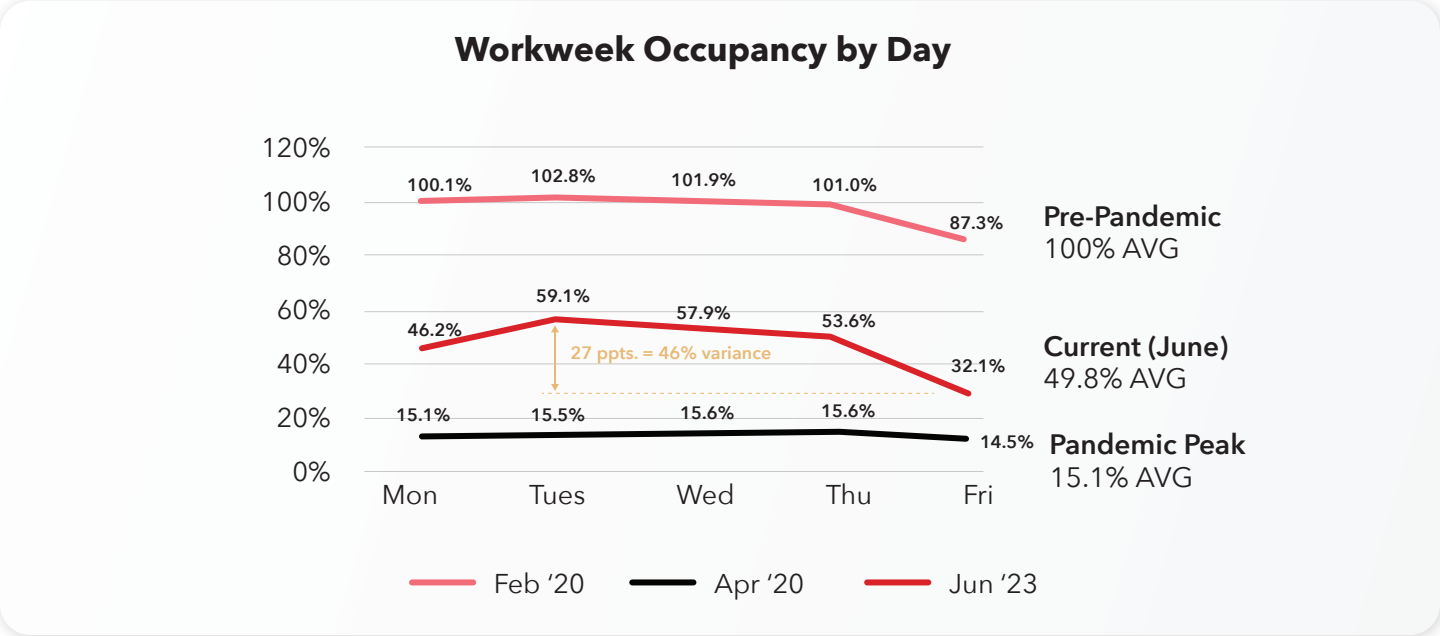
When Kastle launched our Back to Work Barometer in February of 2020, we defined our rate of occupancy to be a comparative ratio between the total count of daily occupants that were entering the locations we secured with access control back in February 2020, relative to whatever that current count is "today" in those same locations. It is simply a measure of workplace entry traffic volume back then versus now. It made no reference to leased versus empty space.

Occupancy Rate % = **Count of work entries "this week"** / **Average count of work entries in February 2020**



When we launched the Barometer at the onset of "work-from-home" mandates in March and April of 2020, it demonstrated that the average workplace occupancy rates had fallen drastically from the 100% baseline of February 2020 down to as low as 15% in April 2020. Since then, as attendance has risen in post-pandemic months and years, our occupancy data has come to inform us that, while average weekly occupancy is down from where it was at its peak, there are even some days of the week, particularly Tuesday and Wednesday, when it approaches 60% of pre-pandemic levels.

Conversely, Mondays and Fridays currently have significantly lower attendance than pre-pandemic, as low as 32%. So, not only is there now a change in the absolute occupancy levels, but also a distinct change in how much it varies day-to-day, swinging by 46% between high and low occupancy across the week.



So now, in the era of hybrid work, occupancy discussions focus less on the "static" measure of leased vs. empty space, and more on the "dynamic" metrics of active occupant attendance and space use over time, which vary so greatly day-to-day. Additionally, this newer attendance-based occupancy terminology can tell us more about real-time tenant behavior relative to their demand for leased space based-on usage. In a fast-paced environment of hybrid schedules and mobile-enabled work, this new measure seems more tangible for agile decision making.

But how do you get to this level of individual occupant-based access data? It needs to be individually attributed to the user access profile.

User-Identity
Attributable Data

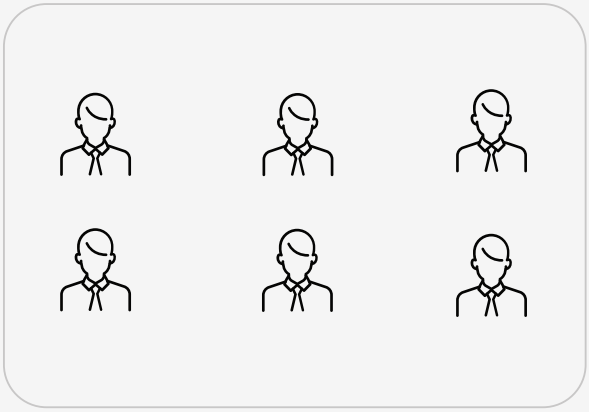
To track individual behavior of the average tenant occupant, a property needs an access system that can attribute data by source into separate user access profiles. In other words, not treating every occupant as an identical user, but rather identifying the difference between each user's unique access profile -- something like how a driver's license number identifies unique drivers.

A building with an older legacy access system may not have the technology to assign unique access profiles to individual users so that data can be attributed to different tenant occupants of a property. Outdated systems such as these can only provide aggregated counts of card swipes, and are not able to recognize variation by individual occupants over time.

When a property manager can view daily access data that is attributable to a unique occupant identity associated with a tenant business, building, space, floor, elevator, etc., they gain the key data variables that can be sorted over time (daily, weekly, monthly, etc.) to differentiate behavioral routines by occupant. Administrators can begin to develop standard reports showing patterns and variations in daily access activity not only by individual tenants, but even down to the level of each occupant to track true engagement.

Data Without Identity Attribution

6 Occupants



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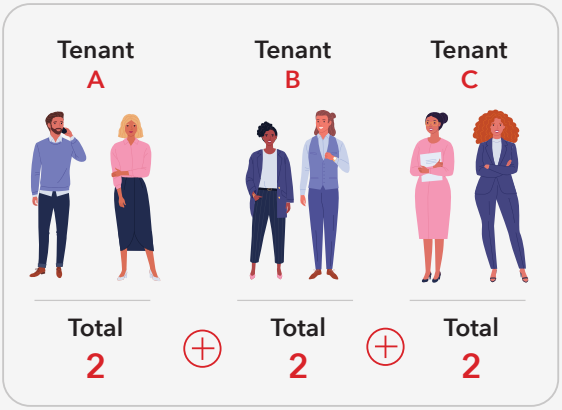


For example, as shown in example 1.1 below, assume an outdated access system is being used in a building that hosted two tenant businesses, A and B, and the system maintains a daily count of admissions that ranges between a low of 1,000 and a high of 4,000 occupants entering that location each day for a total of 10,000 entries that week.

Building Daily Attendance Example 1.1

	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Tenants A + B	1,000	3,000	4,000	1,000	1,000	10,000

How useful is that information? Do these entries represent 10,000 different people, or just some combination of the 4,000 peak occupants that showed up Wednesday? Which tenant, A or B, do they represent? Is either tenant exhibiting low daily attendance which might signal risk of breaking their lease for lack of need? It's difficult for an administrator to know without greater detail.

Now, in this same example, let's assume the same building had a more modern access system, which could attribute data to the user profile by tenant. Assuming the same two tenants, A and B, and 1,000 to 4,000 daily occupants across the days of the week, the data recorded for that week can show more distinct patterns.

With the ability to attribute data by occupant and by day, in this example 1.2 below, we can see details like Tenant A accounting for 6,000 of the entries that week, while Tenant B had 4,000. Further, we can look at the behavior by day to see that Tenant A had attendance spread more evenly across the week while Tenant B's was concentrated on Tuesday and Wednesday.

Building Daily Attendance Example 1.2

	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Tenants A	1,000	1,000	2,000	1,000	1,000	6,000
Tenants B	0	2,000	2,000	0	0	4,000
Total	1,000	3,000	4,000	1,000	1,000	10,000

The ability to sort the 10,000 weekly entries by tenant and by day starts to provide more insight. Tenant A has a consistent attendance pattern of 1,000 per day that spikes to 2,000 on Wednesday, while Tenant B only has staff coming in two days a week, otherwise the space is empty.

This is a simple example, but it sheds light on how greater data detail at a tenant level can provide more nuance to how a single week's attendance can vary. Imagine a more complex scenario with a larger property hosting 10-20 tenant offices, with thousands of occupants, with data for multiple weeks or months of attendance. The ability to attribute data by tenant and day would greatly enhance and simplify the reporting on such a large scale.

Engaged **Tenant Patterns**

The total attendance-by-day numbers in the example 1.2 above would lead you to believe that for Tenant A, there are at least 1,000 staff that are working remotely on four days of this week, since the peak attendance on Wednesday is 2,000, but only 1,000 on the other four days. For Tenant B, there are at least 2,000 staff working remotely on the 3 days nobody enters, but the peak day has 2,000 admissions.

But how much do we really know at this point about how many individual occupants of these two tenants are using the workspace overall? How "engaged" are the employees (occupants) in this given week with that office space they are leasing? By "engaged", we mean how consistently employees in mass and individually actively make use of the office space for which they pay?

Without knowing which individual identities enter each day, we can't grasp the full picture of tenant engagement. But if we knew, for instance, that Tenant A had a mandated 3 day per week in-office policy for staff, with one group of 1,000 staff coming in Monday through Wednesday, and another group of 1,000 staff coming Wednesday through Friday, then we would know that the 6,000 total entries for that 5-day work week were attributable to 2,000 people coming 3 days-per-week. In a hybrid world, 3 days-per-week of office attendance seems fairly engaged. We would only be able to gain this insight from the ability to match access data to individual identity.

Similarly, for Tenant B in example 1.2, without identity-centric data, we only know that 4,000 entries occured in this week. Do less entries for Tenant B (4,000 vs. Tenant A's 6,000) mean fewer people? Not necessarily – Tenant B could still have more total people coming into the office this week than Tenant A. Let's assume Tenant B's staff were all mandated to come in only 1 day per week, with 2,000 individuals coming on Tuesday and another different 2,000 on Wednesday, for a total of 4,000 unique workers coming to the office. That adds up to 2,000 more total people coming in for Tenant B than Tenant A (4,000 for B vs. 2,000 for A), but if they are only coming in 1 day per week, that makes Tenant B's staff seem less engaged with the space even though more individuals come in over the full week.

That's 4,000 individuals in the office for Tenant B versus only 2,000 for Tenant A, which represents a 100% higher total, but if they are only coming once per week, the higher total might be misleading.

Alternatively, using these same numbers under different attendance scenarios:

- If Tenant A had a 1-day-per week in-office policy, each day's entries might be composed of entirely different people with 6,000 entries representing 6,000 individuals that week

- If Tenant B had a mandated two-day-per-week on-site policy, that would mean the same 2,000 people came to the office both Tuesday and Wednesday for a total of only 2,000 individuals.

That would be 200% more workers entering Tenant A's office this week, than Tenant B's office, but Tenant B's staff coming in twice a week while Tenant A's only come in once. These total attendance data are the same numbers in each instance, but they could have widely varying interpretations given different underlying scenarios.

So what? Well, as a property manager whose business depends on tenant demand, you need to better understand the true underlying behavior of your tenant occupiers, not merely the total numbers. You need access data that can be assigned to an individual user to truly grasp the underlying components of the total numbers you are presented.

Defining the Right **Occupancy Benchmark**

Not everyone in a company comes into the office. Even before the pandemic, there were tenant occupiers who may have employed distant regional sales reps and local field marketing groups across the country or other staff that regularly worked remotely (outside of this main office). Those remote staff likely still have authorized access credentials for this office space, but only occasionally come in. How does this remote population impact occupancy calculations?

Let's go back to our scenario in Example 1.2 of Tenant A with 2,000 employees showing up this week with 1,000 people coming in Monday through Wednesday, and the other 1,000 showing up Wednesday through Friday for 6,000 total entries that week. That's 2,000 staff coming 3 days a week, with the office buzzing each day with at least 1,000 staff. They are engaged with the workplace. With this level of engagment, this audience is probably locally based, and not working remotely.

Building Daily Attendance Example 1.2

	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Tenants A	1,000	1,000	2,000	1,000	1,000	6,000
Tenants B	0	2,000	2,000	0	0	4,000
Total	1,000	3,000	4,000	1,000	1,000	10,000

But what if these 2,000 occupants only represented half of all staff employed by Tenant A with another 2,000 that were remote and never came in? In other words, the 2,000 remote non-attendees were not expected to be in this main office, but they still had authorized access cards to get into the main office location.

How could that impact the Property Manager's assessment of Tenant A's level of engagement with the space they lease in this location? Would he/she need to include their numbers in calculating occupancy rate?

If a property manager were to track daily occupancy based on all outstanding authorized credentials, in this scenario, the daily occupancy figures would look like this chart in Example 2.1 below, with a daily average occupancy rate of 30%:

Example 2.1
Calculating Tenant A Daily Occupancy Based on Attendance for All Outstanding Credentials

Tenants A	Staff Count
Local Staff	2,000
Remote Staff	2,000
Total Staff	4,000

Tenant A Daily Attendance (detail from Example 1.2)

Tenants A	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Local Staff	1,000	1,000	2,000	1,000	1,000	6,000
Remote Staff	0	0	0	0	0	0
Total Staff	1,000	1,000	2,000	1,000	1,000	6,000

Tenant A Daily Occupancy Rate Based on Total Staff (Local + Remote = 4,000)

Tenants A	Monday	Tuesday	Wednesday	Thursday	Friday	AVERAGE
Total Attend.	1,000	1,000	2,000	1,000	1,000	1,200
Total Staff	4,000	4,000	4,000	4,000	4,000	4,000
Occupancy	25%	25%	50%	25%	25%	30%

Alternatively, if the property manager were to base the occupancy rate on only the 2,000 staff who were not remote, and were "expected occupants" carrying out their 3-day-per week mandated attendance, then daily occupancy would look like this chart in Example 2.2, with a weekly average of 60%:

Example 2.2:
Tenant A Daily Occupancy Rate Based on Local Staff (Local Staff Only = 2,000)

Tenants A	Monday	Tuesday	Wednesday	Thursday	Friday	AVERAGE
Total Attend.	1,000	1,000	2,000	1,000	1,000	1,200
Local Staff	2,000	2,000	2,000	2,000	2,000	2,000
Occupancy	50%	50%	100%	50%	50%	60%

A 60% average daily occupancy seems strong in the hybrid world, while 30% seems low, even for a hybrid workplace. While these two scenarios are based on the exact same raw attendance data numbers, it's merely the frame of reference as to what is the reasonable benchmark for 100% expected attendance that makes the difference. **Because remote staff are not typically expected to be daily office occupants at this location, we recommend only including those local staff that are expected to work in the office as the basis for calculating realistic office occupancy rates.**

So how do you choose the appropriate benchmark frame of reference?

What is important to track for occupancy is the reasonably expected maximum number of attendees, not the unlikely, but potentially possible maximum. Let's call this "Expected Occupancy", the maximum likely attendance that would be reasonable to plan daily operations around. That should be your benchmark in most situations (every organization has different expectations – we are just defining what is reasonably expected for the "typical" workplace).

Expected Occupancy Based on **Active Users**

So how can you define Expected Occupancy? Especially if you are a landlord with multiple tenants in your building that you have no authority over planning on staff attendance policy? How would you possibly know which access credentials belonged to truly remote staff that should be excluded from being considered likely office attendees?

First, unless you are a small single-office company, you should probably never strive for a benchmark that enables you to regularly hit anywhere close to 100% occupancy.

Even before the pandemic, people worked remotely, were out sick, were travelling for business, or other reasons for never achieving 100% attendance from all expected occupants. This is even more true for a multi-tenant building in a hybrid workplace where attendance naturally fluctuates daily.

Second, you should avoid defining “Expected Occupancy” as a strategic goal to acheive but rather think of it as a benchmark of your current situation – what is happening, not what you want to happen.

This approach provides transparency and consistency in how you assess your data over time. If your actual occupancy increases (or decreases), you will have a clear starting point and consistent benchmark for future reference.

For better or worse, what we are trying to determine is tenant engagement with the workplace they lease (if you are a commercial property owner or operator) or if your staff are following attendance policies of the space you lease (if you are a tenant using access data for your own office suite).

For a property manager in real estate, engagement is most simply measured in active attendance (people vote with their feet -- they either make the commute and enter the workplace or they don't). The simplest way to identify a tenant's employees that should be excluded from "expected occupants" is just to ignore the ones who never come in. You will probably never know which cardholders work remotely or have left the tenant business altogether, so just leave them out of the calculation.

If I work in our Chicago office, but my credential is still accepted to use in our New York office, but I only go into the New York office on rare occasions when I must meet with a national sales director, there is a good chance I have no record of entering the New York office in the last year, or at least 6 months. I am effectively NOT an ACTIVE occupant in New York, even though I am an active employee of the company. The New York office should not be including my attendance in projecting expected office occupancy.

The Formula:

Active Occupancy % = Today's # of entries / Total employees who have entered in 30 days*

This is how we develop the Active Occupancy calculation, based on ACTIVE occupants -- those that have entered the office space within a consistently defined period. Here at Kastle in our own internal occupancy calculations, we include all staff (not visitors) who have entered the office in the last 30 days.

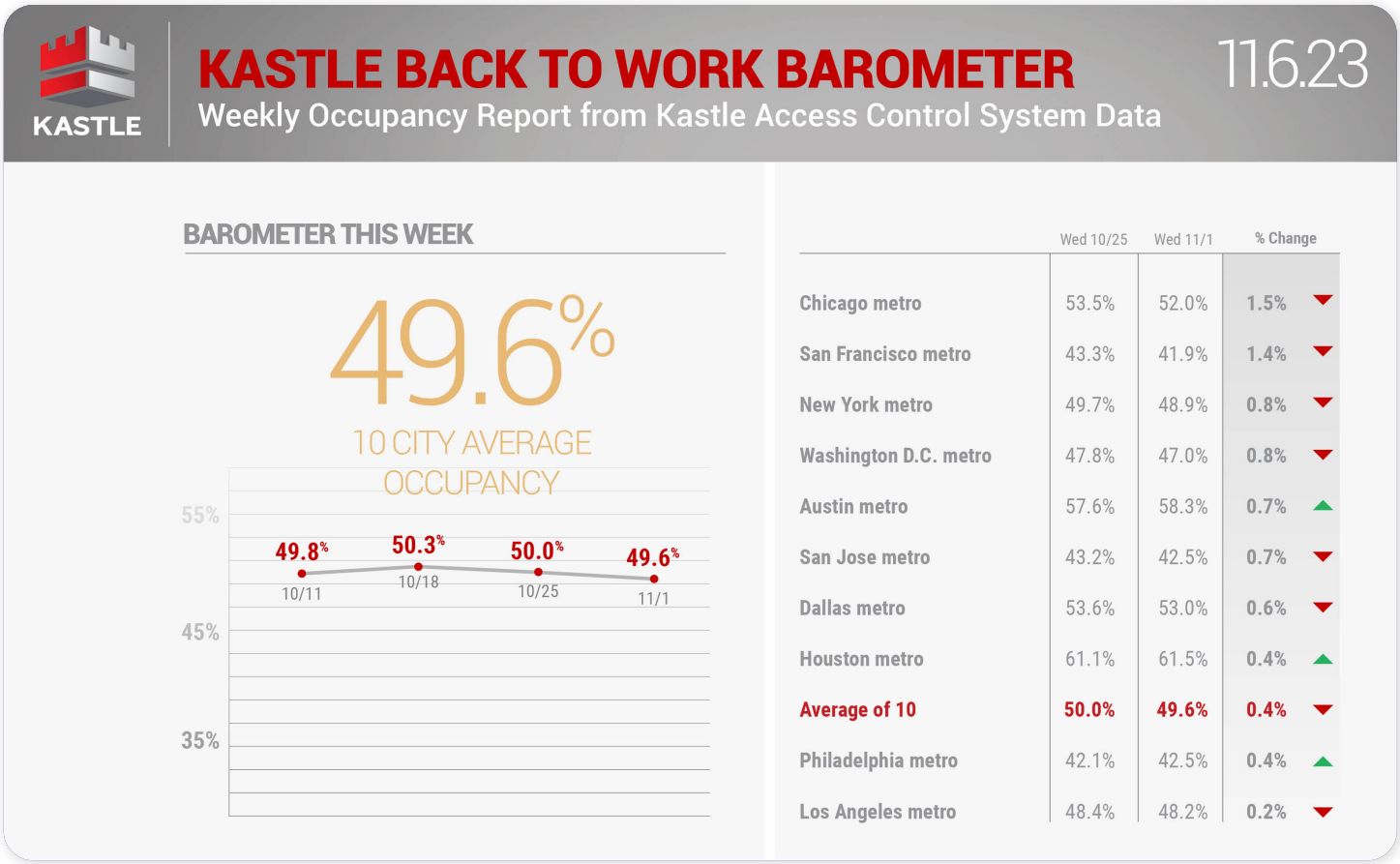
**In our own occupancy tracking at Kastle, we use individuals who have entered the office location in the last 30 days as our relevant target audience for measuring active occupancy. Every business can select their own timeframe for defining the audience for "expected" occupancy.*

For a property owner or operator, you would want this number in aggregate for all your tenants, but more importantly, you would want to see it by each individual tenant workplace, to be able to sort the behavior "by account" to gauge which tenants appear engaged with lots of active employees coming hopefully 2-3+ days a week -- and which do not. Those tenants that do not show an average user entering at least 2-3+ days a week, and/or had a weekly average of daily occupancy under 30% could be at risk of not seeing the value of leasing office space from you and may seek other arrangements.

Comparing Active Occupancy to **Relevant Benchmarks**

The insights you gain from a robust access system and its data attribution sophistication are extremely useful in enlightening the user as to the ongoing operation of your office, building or even a portfolio from which you can glean comparison to your best, or worst, situations over time. But even more enlightening is when you can compare it to the broader market as well -- the external benchmarks. We have distributed our Back to Work Barometer access data over the last three years for the nation to-get a better picture of occupancy countrywide, but also key market by key market we serve.

The Barometer is a good external benchmark for comparing your Active Occupancy against but keep in mind, it is a measure of current unique entries per day relative to the entries per day we measured in February 2020. It is a historical measure (current versus past) not an active measure (current versus current).



You likely were not measuring your office entries in February 2020, so you do not have that historical benchmark for direct comparison of your current entries to pre-pandemic entry levels. While the Barometer might be directionally a useful reference to measure your Active Occupancy against, it is not a truly consistent comparison to your own Active Occupancy.

For a true apples-to-apples comparison of your Active Occupancy relative to similar current benchmarks, some of your best options consist of mostly survey-based reports that come out infrequently from industry trade groups like Corenet (corporate real estate organizations), SHRM (Society for Human Resources Management) or IFMA (International Facility Management Associations).

For a more regularly updated reference, if you have a large-enough source for access data-across multiple tenants or multiple buildings in a portfolio, you could calculate the weekly average Active Occupancy across all those sources and use that as an ongoing benchmark to gauge each individual tenant, or building, against to determine which are above or below average. Or perhaps determine your highest performer in Active Occupancy and use it as the "best practices" benchmark to measure the others against.

Potential good news on this front soon (if you are a Kastle client anyway) is that we plan on developing a real-time Active Occupancy reporting function in our data platform that tracks average aggregate levels in real time across each of our major regional markets as well as the country overall to provide a regional and national benchmark for our customers to use for comparing their own performance against.

Using Active Occupancy Data to Inform Better **Relevant Benchmarks**

In addition to measuring tenant engagement with their leased spaces, Active Occupancy data can provide operational insight for running a building or office suite more efficiently. As our examples have demonstrated, there is variation by day and time of user presence – sometimes almost empty, while other times busy with multiple occupants simultaneously.

This kind of data variation can be useful in determining operational decisions like when to activate HVAC or lighting systems and when to turn them off, saving money on utilities by only using them when necessary. Which shared amenities are being used or not – and if not, how can we activate use with other kinds of programming?

Conclusion

While there is still much to be determined regarding the long-term impact of hybrid work behavior and how shared workspaces are used, current post-pandemic occupancy patterns appear to tell us that going forward:

- The office is not going away -- there is ongoing in-office attendance now and likely for the foreseeable future (it's going up, not down).
- Attendance will be far more dynamic day-to-day versus pre-pandemic.
- It will probably vary by employer and even individual employee.

Responses in the Spring 2023 CBRE Occupier Sentiment Survey echo this "variable" attitude among tenant leadership with 38% of respondents saying their weekly attendance goal is to be "mostly at the office" (but not totally), 33% saying their goal is "An equal mix of office/remote", and 22% saying hope to be "Mostly remote".

Given this expected variability, commercial real estate operators and individual occupant office administrators will increasingly need ongoing insight into not only occupancy counts but also, and equally as import, the composition of each day's attendees' user profiles to assess the true commitment of each tenant and/or employee to using that workplace location as a valued destination.

Having the ability to harness real-time active occupancy data to readily analyze by location and user profile in the moment and over time will uncover the real user intent behind occupancy patterns in modern hybrid workplaces. This will empower commercial owners and operators, as well as office administrators, to better manage tenants and workplaces with informed insight into the fast-moving hybrid behaviors that will define success now and in the future.

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