# Workplace Efficiency and Effectiveness: New Directions

Market conditions – the lingering aftereffects of the global recession, skilled labor shortages, stock market volatility, to name a few – continue to put pressure on organizations to maximize the efficiency and effectiveness of their real estate portfolios. In addition, changes in work, technology, social norms and the workforce are changing the way workers use the workplace.

These changes in turn have reduced workplace *utilization* (the number of people physically using a building), but not necessarily the potential *occupancy* (the number of workstations and offices built out in a given square footage). For many organizations, average utilization – the percentage of individual workspaces being used at any given time – is 40%. As a result, continuing to measure efficiency by looking at seat count per square footage is misleading. Organizations are looking for new ways to understand and measure efficiency by understanding utilization rather than focusing on the density of available seats.

Until recently, organizations considered their workplaces to be relatively static – changes and improvements were made infrequently and were typically coordinated with events like lease end dates. Planning for the workplace was straightforward – the number of employees assigned to a facility equaled the number of seats – offices and workstations – required. These offices and workstations, or
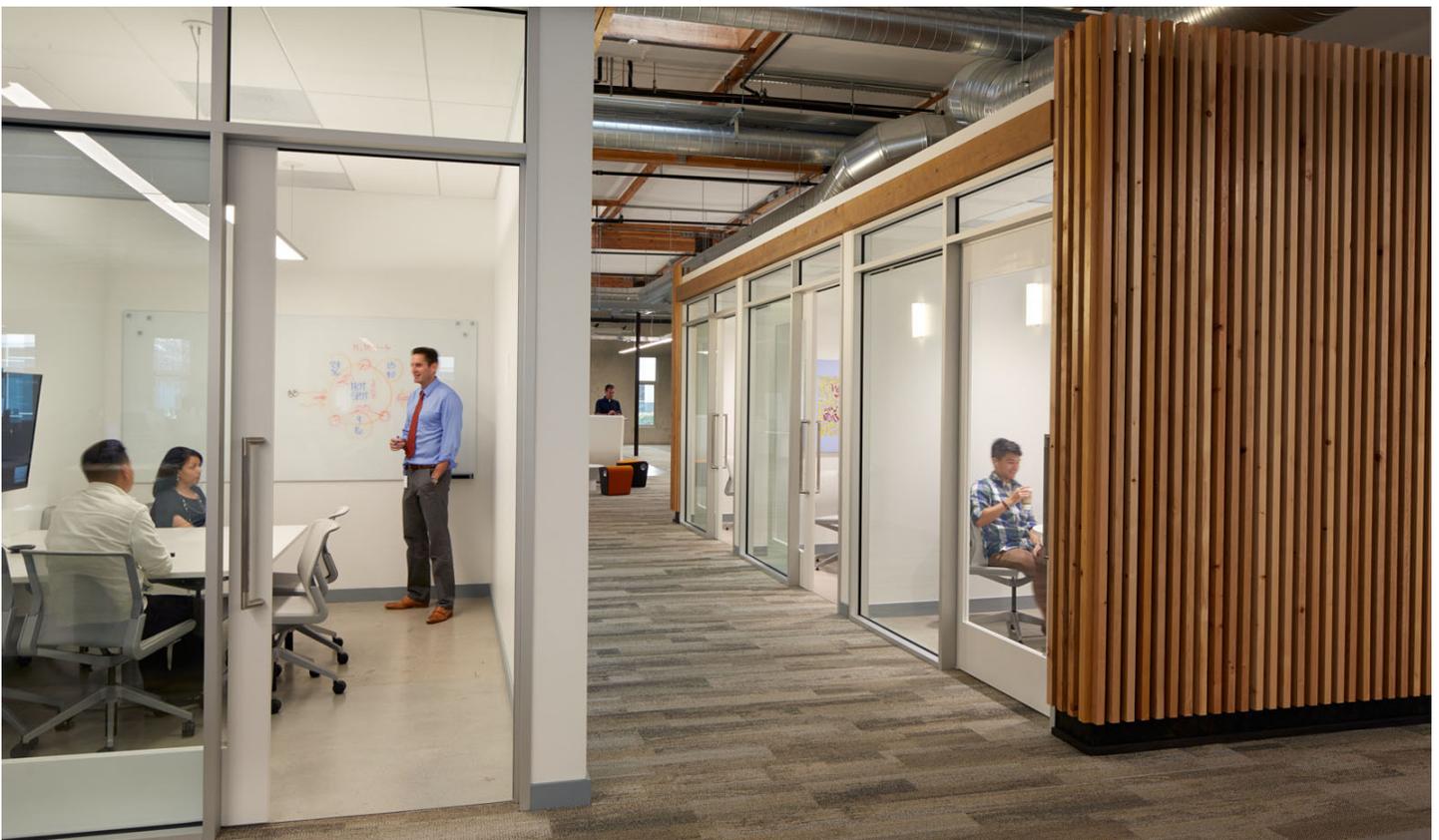
"I" spaces, often used 80% of a floor plan, and spaces for group work or social interaction – "WE" spaces – made up the other 20%. Conference rooms were in consistent locations on each floor, or were grouped together on a single floor. The workforce was not mobile, and technology kept workers tethered to their desks. The majority of work activities were individual, and relatively little collaboration occurred. As the expectation was that the majority of the work was performed in an employee's individual office or workstation, understanding how the space was actually used was not a critical factor to be considered.

How has space been measured in the past?

In the above scenario, most organizations considered the workplace as a cost to be managed – typically the second largest cost after employees' salaries and benefits. Corporate real estate teams measured headcount, "I" space seats, costs, and area – $/square foot (SF), $/seat, $/employee, SF/employee, SF/workstation, etc. Combined, these indicators provided a picture of workspace efficiency.

The data required to determine these indicators was relatively easy to compile and included:

- Useable or rentable square feet
- Assigned headcount
- Number of individual workspaces (offices and workstations)
- Build out, lease and operational costs

As planning and occupying workspaces was consistent across most organizations (one person = one seat), benchmarks for specific industries were a widely used resource for understanding how efficient an organization was relative to its peers – any insurance company or financial institution could reliably use a sector benchmark to evaluate its own real estate efficiency.

In an effort to manage costs, organizations continually sought to make their workplaces more efficient and less costly by reducing their overall real estate footprint with a variety of strategies like densification or mobility programs. But those space reductions can only go so far before they begin to have a negative impact on employee and organizational effectiveness, especially if they undermine critical work practices.

AVERAGE SPACE ALLOTTED PER EMPLOYEE
IN SQUARE FEET, NORTH AMERICA
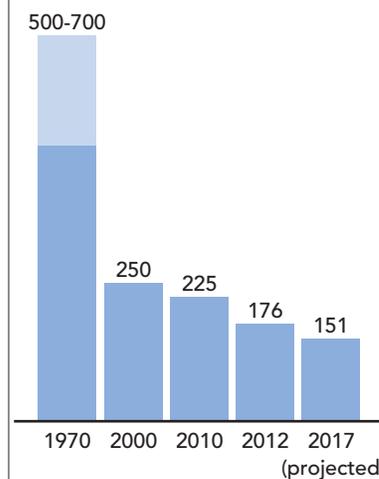
Source: CRESA

What has changed?

Organizations are developing and managing their workplaces in a very different and rapidly evolving business environment. Technology – pervasive and continually changing – has changed not only how work is completed, but also when and where as well. Work is faster, more complex, and more collaborative.

The workforce is more mobile, often more distributed, and comprised of multiple generations, each with different expectations. Employees are looking for choice in the workplace – determining where, when, and how they will do their best work.

As a result of these changes, the physical workplace is also changing. It is often more open while strategically zoned to separate open workspaces for individual "quiet" work from spaces that support collaborative "noisy" group work. At the same time, spaces to support different work activities are consciously kept within users' line of sight to encourage use. Individual offices and workstations may be assigned or shared as part of a flexible desking program (also known as "hoteling" or "free address"). And users move throughout the office, utilizing different workspaces in the office for different activities. They may work at home, at their hotel while traveling, or at a coworking space. The place where work is done is no longer bound by the walls of an individual office or a specific location.

In this new scenario, offices and workstations no longer make up 80% of the floorplan. In some cases the "I" spaces may only be 60% or less of the floorplan, while the

Workplace is a cost to be managed → Workplace is a resource to be utilized

"WE" spaces now take up 40-50% of the floorplan.

How can utilization be measured?

Organizations are looking at the workplace as more than just a cost to be managed; they recognize that the workplace can be a valuable resource that supports achieving organizational goals – improving workforce effectiveness and engagement, fostering innovation and creativity, and attracting the best talent. And like any organizational resource, it is important to understand and measure how the resource is used, and when and where it is most effective.

It is therefore crucial for Counselors of Real Estate (CRE) to understand which data points are relevant, how to efficiently compile this data, and then how to analyze and meaningfully report the data. Coupled with the still very relevant original occupancy data – square footage, cost, seat count, and head count data – additional utilization data is required to create a more complete picture of actual use. All together, then, this information can provide the CRE team with the insights they need to make informed real estate decisions, such as:

- What types of spaces to provide

- How many of each space are needed

- When space revisions may be required based on changes in work activities

- Degree of mobility, and the type of mobility program that may be appropriate

- How a workspace impacts different work activities and behaviors

In addition to the occupancy indicators already mentioned, organizations are beginning to measure utilization as a yardstick for effectiveness, including:

- Percent of time users are working in a facility as opposed to other locations

- Percent of time users are working independently and in groups

- Percent of time different workspaces are being occupied, by whom, for how long, and to support which activities

- Where and when user group interaction is occurring

- How activities and behaviors are impacted by changes in the workplace

The challenge is that it is difficult to obtain such data, especially in a reliable and scalable manner. Most organizations still depend upon on-site observational studies, usually of limited duration and motivated by an imminent project or transaction. This approach presents some limitations, as summarized in Table 1, including that such studies yield a point-in-time snapshot and are quickly out of date.

Some organizations have started with security badge data. However, due to data limitations – exit data is often unavailable – and limitations inherent in the available reporting tools (usually spreadsheets), analysis of badge swipes produces an "attendance" analysis at best, rather than actual utilization. (Attendance is defined as the number of unique individuals entering a location in a day.)

Onsite Observations

Often referred to as "bed checks," this method involves physically observing the workspace at regular intervals during the day over at least a 2 week period. A range of data points may be collected, including:

1. Which spaces are occupied
2. How many users are occupying a space
3. What activities users are engaged in

Pros:	Cons:	Data application:
• Relatively low tech; tablets used to compile and upload observation data • Compiles occupancy, activity, meeting size, and technology use data	• Labor intensive • Cost prohibitive • May be disruptive to users • Relies on observer interpretation • User data is not available • Subject to observer error and Hawthorne effect	• Determining number and types of spaces used and required based on occupancy • Quantifying technology user • Identifying work activities

Building Security Badge Data

This process compiles data from user "badge in" (and sometimes "badge out") of a facility; the typical data points include:

1. Total number of arrivals during a set time period (daily, weekly, etc.)
2. Percentage of users assigned to a facility who enter during given time period
3. Categorization into employees, contractors, visitors, etc.

Pros:	Cons:	Data application:
• Passive data collection • Accurate facility attendance data	• Exit data is rarely available • "Piggy-backing" or "tailgating" can skew the data • Final user destination is not available • Can compromise employee personally identifiable information if not managed • Without advanced algorithms, analysis limited to attendance	• Attendance • Occupant profiles

Sensor Data

This process derives data from wireless sensors installed under desks or in chairs; the data points available typically include:

1. Which seats are being used
2. Duration of use
3. Utilization reports by seat, room, etc. during a set time period

Pros:	Cons:	Data application:
• Passive data collection – sensors report whether people are there or not, without intervention	• Hardware must be installed • Hardware must be maintained (batteries) and sometimes replaced (damaged) • Elevated cost of installation/ maintenance • Not readily scalable • Perceived to compromise employee privacy	• Number, type, and location of seats used over time

Reservation + Check-in Data

This process compiles data from a workspace reservation systems; the data points available typically include:

1. Who reserves and/or checks in to meeting or hoteling workspaces
2. Number and type of rooms or space reserved
3. Number of people invited
4. Reservation length

Pros:	Cons:	Data application:
• Somewhat passive data collection – individuals must use reservation system and adhere to check-in protocols	• Data accuracy contingent on adherence to check-in protocols • Check-out/occupancy length data is rarely available • Reservations usually not reconciled with no-shows	• Number and type of individual spaces reserved, used, and required

Table 1. Common Approaches to Measure Utilization

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A few organizations have experimented with installing wireless sensors in desks or chairs that can report the presence (or absence) of users every few minutes. These systems produce more granular data on utilization, but the cost and complexity of hardware installation and maintenance have limited their adoption.

Within buildings, reservation systems for shared resources such as conference rooms and hoteling desks are sometimes also mined for insight. Limited, or non-existent, implementation of check-in or monitoring systems usually means that the significant number of no-shows are not tracked and skew results.

Taking workplace efficiency and effectiveness to the next level

As mentioned earlier, external factors – the market place, technology, changing workforce – are driving and accelerating changes in how, where, and when work is completed. This in turn is increasing the need for a more flexible workspace, designed to support a range of work activities and generational preferences.

In addition, frequent mergers and acquisitions, and the dynamic nature of global business, drive constant change in the composition of most organizations' portfolios. With sudden demands for new space, or to cut redundant space, occurring frequently, real estate agility is a key to managing a portfolio successfully. In IFMA's 2010 Space and Project Management Benchmark, 94% of the respondents reported they had completed moves within the 12 month period studied. 28% of moves were furniture moves, 14% were construction moves.

With actual utilization of workspaces frequently averaging in the 35-45% range in all sectors and all markets across the globe, it is imperative that organizations enhance their ability to measure and improve utilization. Oblivious to the problem of utilization inefficiency – usually due to lack of data or inadequate tools such as spreadsheets – CRE is unable to ensure the effective allocation of capital to the right kinds of workplaces in the right locations. CRE urgently needs better data and better, real time analytics to inform both day-to-day operational decisions, as well as longer term strategic decisions.

An enterprise-scale real time analytics solution is needed to process and manage a range of data sets and provide business intelligence to enable CRE executives to implement a program of continuous improvement. The Optimo™ platform by Rifiniti™, currently in use by over a dozen major companies, is such a solution. Optimo applies advanced algorithms to existing and new data sources coming from both the enterprise and from buildings to provide historic utilization reports as well as tools for predictive modeling of space use. In 2015, as part of a project to update our Iowa-based Headquarters, Allsteel will be piloting Optimo to experience first-hand the implications of granular business intelligence on workplace utilization for CRE executive decision-making. We will also be using these insights to drive continuous updates to our space as our work practices change and we learn how our spaces are actually being used. ■

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Workplace Advisory at Allsteel

The Workplace Advisory team listens. And we apply research and our extensive workplace experiences and insights to assist organizations develop and implement a situationally appropriate workplace strategy: one that aligns with their organizational culture and business goals, supports their workers' ability to work effectively, utilizes their real estate assets as efficiently as possible, and is highly adaptable to changing business and work practice requirements.

INSIGHT from Allsteel

The INSIGHT mark identifies material – papers, presentations, courses – created specifically by the Workplace Advisory team to share our workplace strategy knowledge and perspective. Additional INSIGHT material may be found at allsteeloffice.com.

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Irina Mladenova is the President and Chief Product Officer of Rifiniti, a software analytics company for workplace optimization. Previously, Irina advised senior executives from leading global companies and government agencies to accelerate their development and adoption of management best practices in higher performance corporate real estate portfolios. She is the lead author of about 1,500 pages of published management best practices for sustainable real estate in addition to articles in prominent international journals. Irina has worked as an urban planning consultant for large-scale, strategic development projects in China, India, Argentina, Morocco, Bulgaria, Singapore, UAE, and the U.S. Irina holds Bachelor's and Master's degrees in Urban Planning from Harvard University.

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Eric Johnson is a key member of the Workplace Advisory team at Allsteel. He effectively integrates the breadth of workplace considerations – design, talent, operations, and technology – to creatively and optimally support changing work practices and an increasingly diverse workforce. Eric's career has included corporate facilities, interior design, strategic workplace consulting, and workplace and mobility program design, implementation, and management. He has also taught graduate level workplace change and strategy. He is a certified interior designer and a member of Corenet Global and IFMA.