

the Workplace of the Future







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INTRODUCTION

On May 2, 2012, ULI Washington brought 150 real estate industry members together for "The Workplace of the Future—Public and Private Trends and Challenges." This event, which consisted of a keynote speech and two panel sessions, was made possible by an Urban Innovation Grant from the ULI Foundation. There were over 175 attendees at the conference representing a broad mix of real estate developers, federal agency facilities managers, and GSA employees from both the national and regional offices.

The discussion delved into the reasons why both government agencies and private companies are shifting toward a more flexible office arrangement, one in which employees are free to do their work outside of the office or in varying configurations within the office. The basic concept has been around for several years; It is largely a combination of the office-utilization strategies once referred to as "telework" and "hoteling" and a general design shift toward open floorplans and easily reconfigured workstations.

This latest iteration of office space use is now called the "alternative workplace" or "mobile workplace." Both terms refer not only to the physical space of the office, but also the way in which workers do their jobs, both in the office and elsewhere. While the idea of the alternative workplace was conceived before tablet computers and smartphones existed, it is only relatively recently that technology has made widespread implementation possible. The event speaker and the panelists discussed some of the many benefits that the alternative workplace can offer workers, as well as the ways in which the new workplace can save employers money and how it will impact the future of real estate, land use, and transportation. The following pages will summarize ULI's event, explaining what the workplace of the future may look like and the challenges and opportunities that it presents for employers and local governments.

To view the complete set of conference power points, visit **www.washington.uli** and click on *Past Events*.

THE FEDERAL GOVERNMENT MANDATE TO REDUCE OFFICE SPACE USAGE

In a time of ongoing pressures on the federal budget, President Obama signed Executive Order 13514, which is intended in part to cut federal real estate spending. The policy requires government agencies to find savings in their office space usage, which should simultaneously reduce their energy consumption. The General Services Administration (GSA) is the agency charged with supplying office management services for most non-military properties that the federal government owns or leases, and as such is acting as a leader in this area, reducing its own square footage needs to set an example for other agencies who want to follow suit.

Work has become mobile, and the workplace is now adapting. The two costliest items in a typical federal agency's budget are personnel and real estate. The 2012 federal budget addresses the second by calling for steep cuts to the Federal Building Fund, requiring agencies to find opportunities to save money in their real estate spending. Specifically, President Obama called for \$8 billion of cuts to federal spending on real estate. Whether agencies operate out of owned or leased space, they will have to find ways to save by reducing the number of employees using space and/or by reducing the square footage allocated to each employee.

THE NEW GSA MODEL

In the Washington, D.C. area, Thomas James, Deputy Regional Commissioner for the Public Building Service (a part of the GSA), is spearheading the effort and is very familiar with the new workplace because he works out of such a space himself. His desk sits in an open office area with no partitions. His administrative assistant sits immediately across from him, and other members of his staff are in similar arrangements nearby. Some desks and meeting areas in the space are not specifically assigned to a single employee and are only occupied when there are employees that need to use them. The workplace that James occupies springs from a new way of working, or more accurately, an open acknowledgement of how many people have been working for several years already. As James explained, the average desk at the GSA and many other federal agencies is only used 50 percent of the time. If you walk through a typical office, only half of the desks will be occupied. The other half of the employees are in meetings, travelling for business, working remotely, or on leave. Work has become mobile, and the workplace is now adapting.

As James explained, GSA is modeling its transition to a mobile workplace on the methods that private companies have already employed, and seeking advice from several organizations that have invested heavily in the mobile workplace. However, James emphasized that a mobile workforce will look different in each organization. Both the organizational culture and employees' day-to-day needs must drive the new office design and the implementation of mobile work strategies.

EXECUTIVE ORDER 13514

- Barack Obama issued Executive Order 13514 in October,
 2009 with the objective of making federally owned and leased real estate more energy efficient while saving tax dollars.
- » Agencies face a requirement that by 2015, at least 15 percent of each agency's space meets a zero-netenergy objective. This means that buildings produce as much energy as they use. By 2020, all building plans will have the objective of zero-net-energy use.
- » The rule requires all federal agencies to report their progress toward these objectives online. Additionally, government contractors must release their strategies to reduce greenhouse gas emissions.
- » Along with other agencies, the General Services Administration was tasked with developing strategies to achieve these objectives. GSA has developed a set of recommendations for other agencies to use to achieve compliance with the rule and has taken a leadership role in achieving these goals itself.
- One way that agencies have achieved reduced emissions and found savings is by reducing their real estate square footage, embracing office designs with smaller workspaces and planning for some workers to work from home.



Managers have to stop seeing their workspaces as indications of success, but rather as practical productivity tools. In GSA's mobile workplace model, many employees do not have assigned workspaces. Instead, employees have the flexibility to work from home or other remote locations. In the office, different workspaces are designed to support individual work, collaborative projects, conference calls, or meetings. Employees move throughout the various spaces depending on what they are working on, without having permanent desks. Instead, they can reserve a variety of space types as they need them or "touch down" temporarily at work stations available on a first-come, first-served basis.

MAKING THE CHANGE Management, Productivity, Culture and Technology

James explained that it is critical that the transition to an alternative workplace be gradual and that management needs to take a lead role. For instance, most alternative workplace designs reduce the number of private offices or eliminate them altogether. This requires managers to stop seeing their workspaces as indications of success, but rather as practical productivity tools. While this transition will be difficult for some managers, their leadership is a key to achieving buy-in from other employees during the transition. James also stressed that employees are more likely to accept and appreciate a changing office design if the transition is optional at first. Managers should offer the opportunity for employees to try out the mobile workspace without committing to the change. Many employees will



Recently renovated GSA office space at 301 7th Street SW, Washington, DC.

appreciate the new flexibility and more collaborative work environment, and will not want to return to their previous office design. When their coworkers see the benefit of the flexible office design, they will likely want to make the transition as well.

Aside from a new office setup, a mobile workforce requires some other changes. Part of this change must be cultural. For government workers who are enthusiastic about the transition to a mobile workplace, James believes the enthusiasm stems in large part from their pursuit of an improved work-life balance. When work can be done outside of the office, workers often find that they are better able to manage responsibilities in their professional and personal lives concurrently. The GSA has also seen cultural changes within the office. Before the change, cubicle walls made it so that employees could not see one another while at their desks. After implementing the new office design, there are fewer partitions, and the partitions that do exist between workstations are short enough that one can easily see over them when seated. The new office landscape has created increased opportunities for team building and socializing amongst staff at varying levels in the agency's hierarchy.

While some employees and teams see the new mobile workplace as an improvement, the impetus for these changes came from the requirement in Executive Order 13514 to improve efficiency and from budget cuts. The goal is to have less desk space and therefore less square footage per

When work can be done outside of the office, workers often find that they are better able to manage responsibilities in their professional and personal lives concurrently.



Recently renovated GSA office space at 301 7th Street SW, Washington, DC.

employee. That means less leased space and therefore less rent. Because many workers do not have assigned desks, the reconfigured office only includes enough space for the employees who are in the office at peak times.

The transition has involved a move away from cubicles, creating a reduction in the square footage needed for the workspaces that remain. Before GSA's transition, their headquarters building housed 2,300 workers. Once new construction is complete in 2013, the same building will house 4,400 employees, reducing the need for the agency to lease space in other buildings. This is with a renovation of only half the building. Renovating the other half in the same manner should lead to even more efficiencies. For the GSA, the transition will save \$632,000 in rent payments annually. There are upfront costs associated with designing and constructing the new space, but in the long run, the new model will save taxpayer dollars. Furthermore, GSA estimates that the new model will result in the reduction of 223 tons of carbon dioxide annually by reducing the amount that employees commute. For some organizations, the upfront investment may create a significant obstacle. Therefore, James emphasized that with minimal cost, teams can experiment with increased mobility, perhaps just by designating a table where employees are free to work collaboratively outside of their cubicles. If this proves to be a success, employees and managers may later support increased investment in the new model. In implementing its own changes, the GSA has procured new office furniture to develop new collaborative workspaces and spaces that employees can use for quiet work, conference calls, and meetings. Additionally, the transition has required technology investment in computers, cloud computing capabilities, and mobile devices that employees can use to be productive away from the office. Again, there are options for other federal agencies to achieve some of these changes without significant cost. For example, if agencies already have laptops, they may not need to incur any costs to allow employees to work from home.

Transitioning to a mobile workforce has required managers to accept that employees can get their work done without direct supervision, which has been hard for some to embrace. James said that the transition has been most successful for employees who were the most productive before the transition. The agency has not observed productivity gains in those employees who were among the least productive before the transition. For those at the high end, though, the transition has allowed for even better work performance. James speculates that this is because of increased satisfaction and improved opportunities for doing work on the schedule and location that suits them best.

From a productivity perspective, one of the biggest gains of a mobile workplace comes from eliminating commutes on days when employees work from home. In the Washington area, commuters spend on average 33 minutes travelling each way to and from work.¹ Eliminating this travel time from their day opens up time when employees may be able to get additional sleep, exercise, take care of personal chores, or do more work. Whether or not employees spend this "found time" on their job, research demonstrates that improved physical well-being improves work performance. While an organization's least productive employees may not put this time to good use, the GSA experience suggests that most employees do. Transitioning to a mobile workforce has required managers to accept that employees can get their work done without direct supervision.

¹ U.S. Census Bureau, "Commuting in the United States: 2009," American Community Survey, September 2011.

GSA is only in the early stages of adopting the alternative workplace. The renovation of GSA headquarters is taking place over an extended period of time and includes only half of one building. Implementation on a large scale across the entire federal government will clearly take time. However, as James observed, GSA management likes the results thus far.

THE CUTTING EDGE Public and Private Sector Workplace Case Studies

Following Thomas James' keynote address on what the alternative workplace looks like at the GSA and the potential that this arrangement offers other agencies, the first panel of the day turned to the private sector perspective.

The new design fosters collaborative work among employees and has created an office environment that supports more effective communication and teamwork.

Panelist Sampriti Ganguli, a Managing Director at the Corporate Executive Board, started the discussion by describing the workplace that her company has developed in Arlington, Virginia. Corporate Executive Board, which is a publicly traded consulting firm, has not implemented the GSA's ambitious strategy of eliminating designated workspaces. Instead, each of Corporate Executive Board's employees has retained their own permanent desk. However, the firm has built smaller, more open workspaces for each of its employees. The new design fosters collaborative work among employees and has created an office environment that supports more effective communication and teamwork.

As part of its business, Corporate Executive Board helps other companies and the government design programs that will facilitate improved productivity through corporate culture. The underlying thesis for their efforts in this area is that good work-life balance produces good employees. Ganguli explained that Corporate Executive Board manages a project called the Government Finance Roundtable which maintains statistics on federal employee work habits. These figures are then used to determine ways in which government agencies can help their employees be more productive. One study found that 27 percent of employees who say that they have a good balance between responsibilities at home and at work put high levels of discretionary effort into their job performance. For workers who do not have this balance, only three percent are likely to give this extra effort. Because working remotely allows employees to balance work responsibilities with their personal life and work during the hours that are most convenient for them, it can be a key component of achieving employee satisfaction and the associated productivity gains.



Despite the findings of Corporate Executive Board and the success of the mobile workplace program at the GSA, many federal agencies have been reluctant to adopt similar programs. Across all government agencies, only 21 percent of employees that can telework do so. This may be in part because managers are accustomed to traditional workplaces and may not accept that employees will be productive without direct supervision. The General Accountability Office and Patent and Trademark Office have the highest telework participation.

Ganguli emphasized that workplace design and mobile workforce culture must be complementary to realize their potential benefits. While any company can dip a toe into collaborative workspaces at a low cost, only Source: Corporate Executive Board

making a full investment in both a mobile workforce and a collaborative office design has the potential to achieve major savings in office space leasing. Furthermore, without making changes on both ends, a company will not likely achieve the corporate culture that they hope to see with an alternative workplace. She employed the example of Duke Energy, a North Carolina company, to demonstrate the benefits of embracing changes in both physical office space and corporate culture. Duke Energy works with its employees to determine their innate work style and then lets them choose an office environment that suits their preferences.

As Corporate Executive Board helps other organizations find the office and work management styles that work best for them, naturally they have adopted some of these strategies for their own office. The company was forced to find a way to cut costs amidst the economic downturn of 2008. As a result, employees now have smaller workspaces, but the transition has proven to be a success, as the smaller office spaces are designed with furniture that can easily be moved around and re-configured to meet employees' varying needs. When someone is teaming up on a project with another Corporate Executive Board employee, seating and the cabinets can easily be moved to facilitate group work.

Following up on Ganguli's analysis of Corporate Executive Board's mobile workforce strategies for itself and its clients, James Reidy, Director of Federal Practice Real Estate and Location Strategy at Deloitte Consulting LLP, spoke about how this trend impacts his firm. Deloitte has four different business lines: tax work, auditing, consulting, and financial advice. Each of those lines of business has different space needs. He detailed the company's journey from each of its 170,000 employees having a cubicle to a culture where work can happen "anywhere, anytime, anyplace." This transition has relied heavily on a shift in managers' attitudes. They have had to transition away from observing whether or not employees are at their desks and working during office hours to looking at the cumulative work product and disregarding when and where productivity takes place.

Reidy explained that the move to a more flexible working environment has been a success from various perspectives. For employees, being able to work from home and sometimes outside of standard work hours enhances work-life balance. If they are naturally inclined to begin the workday earlier than standard office hours or start later in the day, this is no longer incompatible with Deloitte's requirements. Furthermore, he pointed out that a new office design supports enhanced creative work while employees

While any company can dip a toe into collaborative workspaces at a low cost, only making a full investment in both a mobile workforce and a collaborative office design has the potential to achieve major savings in office space leasing.



are in the office. Rather than being isolated from one another in cubicles, the new set-up encourages group work and increased collaboration and socialization. From the company's perspective, the transition is a clear win because not only does the new system work better for many employees, but it results in cost savings since the company requires less office square footage. Reidy reported that Deloitte's adoption of the alternative workplace resulted in a 30-40% footprint reduction, which translated into a 30-50% cost reduction. By adopting a flexible workplace in their new space there, Deloitte was able to go from 55 percent of the desks being used at any given time, to 85 percent utilization. The reduced need for space and energy use at Deloitte offices, along with employees' reduced commute times, has also contributed to the corporate objective of reducing carbon emissions. The chart on the following page summarizes the key challenges and lessons learned to date about implementing the new work paradigm at Deloitte.

For Deloitte, technology has been key in the implementation of a more flexible work environment. Technology is much better now than it was even five years ago. Most employees use smart phones, latops, and digtal files over desk phones, desktop computers and bulky paper files. In addition to the improved hardware, Deloitte has relied on social media to help employees stay connected. For employees using landlines, phone extensions Managers have had to transition away from observing whether or not employees are in their desks and working during office hours to looking at the cumulative work product and disregarding when and where productivity takes place. can now be automatically routed to whatever desk an employee is using that day. Going forward, the company hopes to continue developing its connected and flexible workforce by increasing the options available to its employees and by offering continuing education classes on new technlogies to help facilitate collaborative work. "Our journey hasn't ended," Reidy said when wrapping up his presentation. "We're actively re-assessing how we're using the space."

Key Challenges	Lessons Learned
Establishing a Program Compelling business case Customizing and scaling programs Measuring and evoluating ROI 	 Capture data to understand success Incorporate HR, IT and Real Estate dimensions Tie workplace flexibility to career flexibility
Establishing Leadership Buy-In and Support Overcoming manager and organizational resistance to change	 Indentify and engage project champions who will provide visible support Use effective stakeholder engagement and two-way communication Provide training, communications, and mentoring on an on-going basis
Staying "Connected" • Change and Communications • Effective training programs • Culture	 Address cultural barriers by maximizing participation in program design Provide scheduled opportunities for face-to-face interaction and team-building Managers use technology and protocols to create a sense of "presence" Address employee concerns in breaking the "space = prestige" paradigm
Managing Performance Managing effectively and establishing employee accountability 	 Provide written agreements that identify expected outcomes with defined goals and objectives Give managers guidance on providing meaningful feed back in virtual environment

The third panelist, Terry O'Connor, Workplace Solutions Lead at Accenture, echoed the sentiments of Ganguli and Reidy. Accenture's model for office space has evolved with technology, he explained, which continually makes it easier for employees to access their work remotely. Focusing on the best available mobile technology for their employees has allowed them to maximize their ability to be productive whether they are in or out of the office.

Andersen Worldwide, Accenture's former parent corporation, pioneered hoteling office space, so it makes sense that today Accenture remains innovative in designing a work strategy that best meets its employees' needs.² O'Connor reminded the audience that it was only less than ten years ago that broadband started reaching a large number of homes. Obviously, a reliable connection to the internet makes working from home much more feasible. Of course, wireless has made the home office even more dynamic. All Accenture laptops are equipped with VOIP, video conferencing and instant messaging. Arranging an intra-office conference call is as simple as selecting a time through Microsoft Outlook and clicking a button, and then the "meeting" happens with everyone joining either a voice or video conference call. It is just as easy as walking down the hall-way to talk with colleagues, and probably more efficient because the Office

² DEGW, "Accenture History: Project Description," http://www.degw.com/project.aspx ?id=85&p=Accenture+(history).

Communicator tool tells you when colleagues are available. Employees working at an Accenture office can utilize the "Room Wizard" technology to reserve the appropriate space for the task at hand. Accenture has also made sure that employee lockers in its new offices are equipped with power outlets, so that laptops, tablets and phones can be recharged. In addition to using hoteling for just-in-time office space utilization and maximum space flexibility, Accenture embraces offices designed around the technology that best fosters collaboration, including digital whiteboards and flexible room designs that permit teams to view input from multiple computers. This focus on collaboration has evolved as employees are embracing a better work/life balance by allowing remote work flexibility. When they are in the office, employees' and managers' focus on maximizing the time that they spend with their teams.

While the transition to a mobile workforce has been a success in many respects for the GSA, Corporate Executive Board, Deloitte, and Accenture, all of the panelists emphasized that the alternative workplace it is not



Organizational leaders must realize that a mobile workforce cannot be successful without buy-in from both managers and their subordinates. a cure-all for every corporate illness. As James pointed out, the transition does not help employees who are unproductive in a traditional office setting suddenly become more productive. The reasons that increased work-life balance benefits only some employees are not well-understood, but managers should not expect the transition to be a positive change for all employees. Further, not all managers are open to the idea, as demonstrated in many government agencies' failure to approve telecommuting for their employees. While this attitude may change in time, organizational leaders must realize that a mobile workforce cannot be successful without buy-in from both managers and their subordinates.

Two groups that may be slower to embrace this type of workplace reform are employees who prefer having a focused office environment that may be difficult to achieve at home, and managers who feel they cannot develop strong relationships with employees they do not see regularly. Related to this, employees who do not see each other on a daily basis are unlikely to develop the camaraderie that those who share a space have. As being a team member requires trust in teammates, any change that undermines this security poses a risk to government organizations and companies. As the Accenture model demonstrates, ensuring that time spent in the office includes collaborative work can help minimize this potential drawback.

Another problem is initial cost. The alternative workplace is not cheap. Corporate Executive Board paid a premium upfront to put in enough wiring for four employees in areas where only two sit now, so that they would have more flexibility in the future. There are, of course, savings in the amount of space occupied. For instance, when Accenture moved from Reston in Fairfax County, Virginia to Ballston in Arlington, it was able to reduce its original space needs from 243,000 square feet to 100,000 square feet. However, Ballston, which is more centrally located in the DC metropolitan area, generally charges higher rents than Reston. Furthermore, Accenture not only had to pay for the build-out of its new space, but also upgrade the mobile technology that its employees were using. Indeed, providing mobile options was as much a response as it was a stimulus for Accenture. By moving from Reston to Ballston, many employees who lived in the Reston area suddenly faced longer commutes. Providing flexible work arrangements helped alleviate some of this problem.

All in all, GSA and the three private sector firms believe that the positive aspects of the alternative workplace outweigh the negative. Therefore,

they are going to keep pushing forward. Will the rest of the office users in the country move toward this model? Given that the benefits of the alternative workplace—less space occupied, more flexibility, and more productive employees—can improve both efficiency and the bottom line, it seems likely that the alternative workplace will start showing up at more and more corporate addresses, even if it is in a slightly diluted format.

THE IMPACTS OF CHANGE

What do the New Trends Mean for Existing Places, Including the Washington, D.C. Region?

The second panel with its four experts picked up where the first ended. The panelists talked about the broader adoption of the alternative workplace across the federal government and the private sector. This adoption will have an impact on government agencies and on real estate developers. Ultimately, the new work habits and their accompanying workplaces will change the way that entire metropolitan regions, like the Washington area, function.

Mina Wright, Director of the 18-month-old Office of Planning and Design Quality in GSA's National Capital Region, offered some observations on how reductions in agency real estate budgets might affect GSA's client agencies. Wright noted that federal agencies in Washington D.C. are uniquely positioned to adapt their workplaces to changes in office space utilization due to changing demographics of the workforce and the availability of supportive technology as discussed in the first panel. This idea is not just for GSA employees, but needs to extend to other federal agencies, because significant budget pressures and reduced resources are not short-term conditions. The impacts of these changes will be felt "deeply and profoundly" throughout the federal workforce as they are implemented beyond the Washington, D.C. area. Wright's office is working with a dozen or more agencies currently housed in over 5 million square feet of office space. To help garner support for workplace changes, her group is building mobile labs that serve in effect as demonstration spaces to help employees experience the alternative workplace and understand what mobile environments look like and how they work. The goal is to go from a current average of 213 square feet per workstation to about 100 square feet.

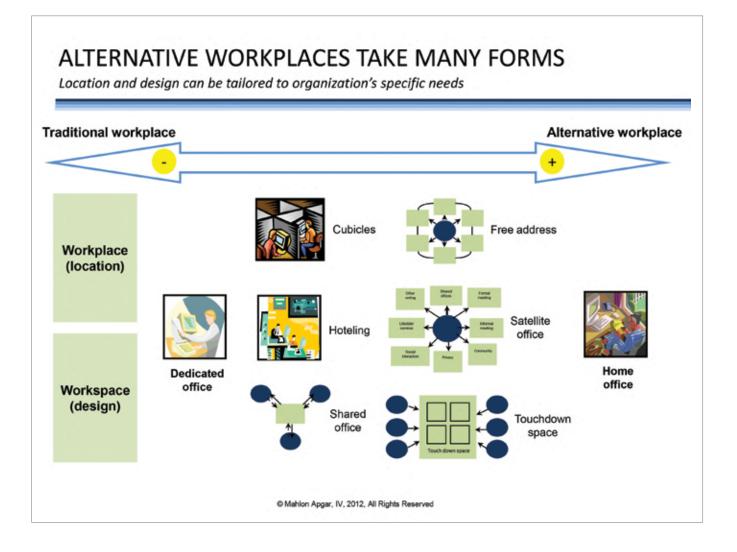
Mahlon "Sandy" Apgar, founder of Apgar and Company and a pioneer in corporate mobility programs, shared his experiences and insights on the "alternative workplace"—a term he coined in the 1990s to embrace The most farreaching applications of the alternative workplace "privatize" workspace by transferring responsibility for acquiring and maintaining it from the organization to the individual occupant. both new concepts of office space design and the technologies that enable workforce mobility.³ Apgar noted that the alternative workplace has matured from a "breakthrough idea" which iconic companies, such as American Express, AT&T and IBM began developing and applying 15 years ago, to a mainstream strategy for many leading-edge organizations in both business and government today. He shared the example of IBM, which took a decade to fully implement its alternative workplace strategy. Through this strategy, called the "Mobility Initiative," IBM achieved more than one billion dollars in occupancy cost savings and major productivity improvements. Apgar believes that the alternative workplace transforms how and where people work by:

- » Moving work to the worker, rather than the worker to work;
- » Enabling greater individual flexibility;
- » Transferring savings from facilities to people; and
- » Valuing productivity as well as cost savings

In Apgar's view, alternative workplace locations and designs can be tailored to meet the needs of the organization and its workforce. Building geometry affects how easily and cost-efficiently office space can be redesigned for alternative workplaces; rectilinear footprints and building envelopes are more functional and thus better suited to facilities management. The wise executive will avoid half-moons, ziggurats and other odd building shapes which increase routine maintenance costs, but will intersperse gathering points and "social hubs" in alternative workplaces to encourage cross-pollination of ideas and foster trusting relationships. Apgar has found that start-ups as well as global enterprises can benefit from new approaches to the workplace. The shift from fixed offices and cubicles to flexible hoteling and home offices improves worker morale and productivity. "Strategic Cost Realignment", Apgar's term for fundamental restructuring of the organization's fixed cost base and the permanent shift to a variable cost structure, results when organizations align their space, measured in square feet, with changing staff needs, measured by square feet per person, and thereby achieve major cost reductions.⁴ In two-thirds of his cases, the traditional method of reducing occupancy costs was to shrink space per person from the average of 250 square feet to roughly half that. While this sharply cuts the space budget, it takes fresh thinking and a radical realignment to achieve further cost reductions. The "space multiplier effect", as Apgar calls it, kicks in when organizations reduce both

³ See "The Alternative Workplace: Changing How and Where People Work", *Harvard Business Review*, May–June 1998.

⁴ See "Uncovering Your Hidden Occupancy Costs," Harvard Business Review, May-June 1993



metrics—the square feet of space allocated per person and the number of people requiring company-managed space. In effect, the most far-reaching applications of the alternative workplace "privatize" workspace by transferring responsibility for acquiring and maintaining it from the organization to the individual occupant. Not all types of work are well-suited to this shift, so it is essential that managers and employees collaborate in identifying the most appropriate functional areas for alternative workplace initiatives. Careful organizational analysis and voluntary employee buy-in tend to increase the scope and number of candidate functions.

It is also essential to consider the impact of the alternative workplace on the tasks assigned to a business unit. Apgar suggests that the workload be re-segmented to align the organization's tasks with the desired work location. For example, mission-critical employees should perform work that requires on-site presence and frequent meeting attendance. Conversely, those not required at the organization's sites should be performing tasks that benefit from customer-related travel and virtual office support. Over This diagram illustrates how organizations manage workspace, from traditional fixed, assigned locations (at left), through various alternative employer-driven design models (in the top and bottom rows), to employeedriven and often employer-subsidized home offices (at right). time, technology advances and cultural acceptance will exponentially increase the opportunity for alternative workplace applications.

Apgar shared insights from successful alternative workplace initiatives in multiple industries both in the US and abroad. Based on these experiences, he recommends a staged approach. First, adopt an alternative workplace model as an experiment at a single site where there is interest in a more flexible work environment. Second, when this has proved successful, conduct a more systematic pilot alternative workplace program with multiple sites to test the benefits more broadly. Third, if the pilot program is also successful, roll out the concept to many sites, areas, and functions. Ultimately, when there is recognition of the strategic benefit of this approach, and its role in supporting the corporate mission, the organization then makes the long-term commitment to this new way of working and transitions the entire organization. IBM, for example, implemented the UK counterpart of its Mobility Initiative more than a decade after its launch in the US.

Challenges to implementing alternative workplaces and the associated culture changes are many. Some organizations go too far, too fast without managing the transition so that managers and employees accept the changes. Other implementations are plagued by leadership changes in the organization-the departure of advocates can hinder or setback a transition in office space utilization. Resistance to change from mid-level managers can also create obstacles to alternative workplaces. Theory can supersede practice, to the detriment of the implementation. Before adopting an alternative workplace, employers need to understand their organizational culture and assess their readiness for the change. For instance, Apgar says that an alternative workplace strategy is doomed to failure if Generation X and Y employees-i.e., those who understand and use workplace technology as their norm-are not on board as champions of change. Similarly, mid-level managers who were schooled in visual supervision during the pre-tech era can undermine the structure as well as the application of alternative workplaces if they cannot adapt to virtual leadership. The first-movers have successfully melded the scope and scale of alternative workplace programs with rewards for its participants.

Before adopting an alternative workplace, employers need to understand their organizational culture and assess their readiness for the change. In applying his experience to the federal workplace, Apgar offered these key "take aways" for GSA⁵:

- » Press federal clients to adopt alternative workplace strategies by stressing the organizational and human resource, as well as the budgetary, benefits; and
- » Use major projects, such as the prospective relocation of FBI headquarters, as "game-changers."

For real estate developers who must assess and adapt to changed approaches to office space from both the private sector and GSA, Apgar recommends that they:

- Infuse "un-real estate" (i.e., workplace mobility) into their business strategy;
- » Convert a project/deal orientation to a portfolio/process orientation; and
- » Position their business as a preferred provider of the type of space and alternative workplace culture that GSA seeks, instead of responding blindly to GSA solicitations.

Since the GSA and private office users are already beginning to follow the advice of Apgar and others, urban planners are rushing to understand what impact these changes, when aggregated, will have on cities and regions. Harriet Tregoning, Director of the D.C. Office of Planning, is tackling this task for the Washington, DC region. Tregoning views the adoption of the alternative workplace alongside several broader trends influencing regional growth and development. First, there is the fact that both the American population and its workforce are aging. Just looking at the federal workforce as an example, nearly one-third of the government's 1.9 million employees are expected to retire or resign between 2009 and 2014. The second trend that Tregoning identified is the shift in population growth back toward urban centers. Talented people, such as those described by Richard Florida in his influential book, The Rise of the Creative Class, tend to move to areas with the most opportunities. These places are usually big cities. The young professionals are joined by empty nesters/retirees, and the two groups together have demonstrated a willingness to pay a premium to be near their offices and cultural amenities. Indeed, other studies have found that this premium may not even be that great when a

⁵ See "The Real Estate Firm of the Future–Today," Urban Land, May–June 2011.

household's entire budget is considered. The core areas of metropolitan regions may actually have the lowest combined housing and transportation costs.⁶

The Washington region is expected to add 657,000 households in the next 25 years, primarily in D.C., Fairfax, Montgomery, and Loudoun Counties.⁷ According to Tregoning, regional employment is projected to total more than 4.2 million jobs by 2030. It is expected that over 70 percent of employment growth in the region will occur in regional activity centers.⁸ This employment growth will happen in a region that already has a high relative cost of real estate, worst-in-the-nation traffic congestion, and rising energy costs. The location decisions of employees, and especially the federal government, will either dampen or exacerbate these trends.

The current Federal workforce is changing demographically, as well. Between 2000 and 2008, the share of Federal workers aged 55 and older increased from approximately 18 percent to 26 percent. The workforce also became more diverse with the share of civilian white non-Hispanic workers decreasing five percent in the last several years (64% to 61%). Similar age and racial changes also occurred for military workers. What does the new future Federal workforce want? Next generation Federal workers, like their private sector colleagues, give priority to work-life balance. Facility with technology, preference for frequent and open communication, and ability to work well in teams all suggest mobile and virtual workplaces.

In recognition of declining budgets and policy that supports increased sustainability, GSA has expressed a preference to own rather than lease space. GSA also prefers that the space be located within one-half mile of transit. Today, GSA-owned spaced is predominantly located in the District of Columbia, with a smattering of locations in close-in Maryland and Virginia. Only 38 percent of the GSA-occupied space in the District of Columbia is leased, whereas 75 percent of the GSA space in Virginia is leased and 82 percent of GSA space in Maryland is leased. In addition to most of the owned space being in D.C., the vast majority of GSA-owned

If GSA is successful in implementing its two preferences for owned and transitaccessible space, the impacts on the private office market are likely to be significant, especially in suburban Maryland and Virginia locations not accessible by transit.

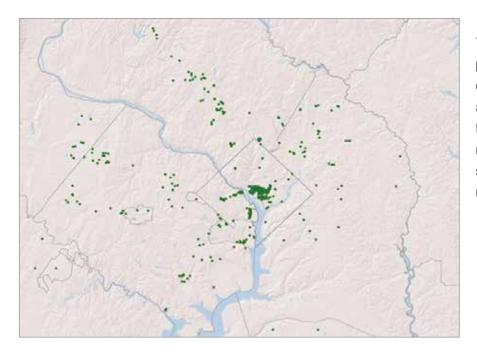
⁶ Haas, Peter and Linda Young, Stephanie Morse. H+T in DC: Housing and Transportation Affordability in Washington, DC. 2011. Chicago, IL: Center for Neighborhood Technology. http://planning.dc.gov/DC/Planning/Planning%20Publication%20 Files/OP/Citywide/citywide_pdfs/HTinDC_1_Executive%20Summary_2011-06.pdf

⁷ Metropolitan Washington Council of Governments, "Growth Trends to 2030: Cooperative Forecasting in the Washington Region," 2007.

⁸ Metropolitan Washington Council of Governments, "Metropolitan Washington Regional Activity Centers and Clusters," 2007.

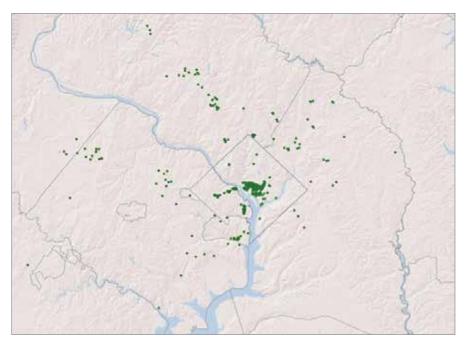
space that is located within one-half mile of transit is also in the District of Columbia. If GSA is successful in implementing its two preferences for owned and transit-accessible space, the impacts on the private office market are likely to be significant, especially in suburban Maryland and Virginia locations not accessible by transit.

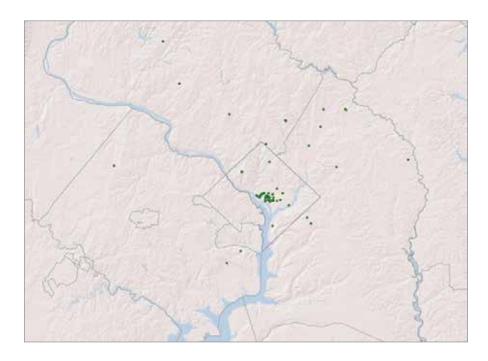
At Tregoning's direction, the D.C. Office of Planning modeled how GSA space reductions might impact Federal employee allocations in the region. The analysis assumed that space allocated per employee would be reduced from 230 square feet to 95 square feet as a result of adoption of the alternative workplace. Scenarios were developed for 5, 10 and 15-year increments (2017, 2022 and 2027). The conclusion was that virtually all current GSA leases could be consolidated in GSA-owned space already existing in the District of Columbia. Federal employee density in D.C. would nearly triple. This potential outcome would have far reaching implications for the local and regional economy.



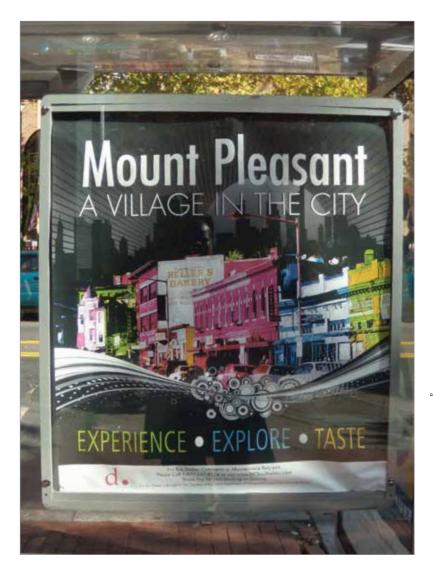
These images here and on the following page show D.C. Office of Planning's model of GSA's shifting office utilization over time as the agency enacts its plan to locate federal agencies in owned office space near transit. More efficient utilization of the space that GSA already owns would be necessary for the 2027 outcome to be achieved.

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Neighborhood identity and amenities create alternate places for people to work and provide community gathering places.

GSA consolidation on the order of Tregoning's study would have corollary impacts on private office space. Private sector and non-GSA government tenants will likely also reduce space allocation per employee. Existing Class B or C space, which is often in buildings with smaller floorplates, might become relatively more attractive, in part because the diminished space needs means that smaller floor plates are workable again, and because of the greater ability to daylight offices by removing walls. Demand for hoteling and telecommuting would likely increase demand for temporary office or swing space. There are many other impacts to explore such as the impacts on transportation, worker spending, retail, and federal worker recruitment and retention.

"Third places," those flexible locations like libraries, coffee shops, bookstores and outdoor seating areas where work gets done outside the office, might be more in demand. Tregoning cited the example of the 2010 Mount Pleasant Street Commercial Revitalization Strategy, which seeks to make the Mount Pleasant Street commercial district in northwest D.C. more vibrant, with a stronger sense of place. The strategy incorporates third places among its key objectives. The goal is to first attract more of the neighborhood customer base to these third places; significant daytime employment in the area would be helpful, whether from teleworking federal workers, or new small 2nd and 3rd story offices or businesses along the commercial street. This should strengthen existing retail businesses. With a stronger local customer base, Mount Pleasant businesses may then be able to attract other consumers to the neighborhood.

Nat Bottigheimer, Assistant General Manager for Planning and Joint Development at the Washington Metropolitan Area Transit Authority (WMATA), addressed the impacts of the new workplace on transit. He noted that the WMATA Board supports compact regional growth as a way to increase the region's environmental sustainability. Metro, the D.C.-area subway system, currently carries 700,000 riders per day and 250,000 riders per rush hour twice a day. Using the Council of Government's Regional Cooperative Forecasts, WMATA projects one million riders per day by 2040. To put these figures in perspective, this is roughly the same number of riders that took the Metro to and from the 2009 Presidential Inauguration, one of the busiest ridership days in Metro's history. These forecasts do not yet take into account GSA's space consolidation policy, but WMATA has been analyzing GSA's location priorities and space allocation changes. More flexible work hours would lead to a flatter peak by spreading ridership out over a longer period each day. Consolidating office locations along suburban transit lines would increase outbound ridership, potentially impacting WMATA's transfer locations.

WMATA is also analyzing its Metrobus service, which today carries 450,000 passengers per day. Though more flexible than fixed rail, WMATA buses are traveling one percent slower per year due to increased road congestion. This results in the need for 15 new buses per year and greater operating costs to carry the same number of passengers. A modest increase in travel speed—as a result of more employees working at home and staying off the road—would reduce travel times and lead to increased ridership. Bottigheimer noted that 24 bus lines carry 50 percent of Metrobus riders. In addition, in suburban locations, at a distance of one-half mile from rail, ridership drops. WMATA is considering whether they are getting value for the investment in the bus system.

Looking to the future, Bottigheimer suggested that the total cost of office space—including transportation costs—would be a better calculation than rents when considering federal interests. Many federal agencies already subsidize their employees' commutes by either providing free parking or Metro farecards. He mentioned Prince George's County as a location where the government could achieve broader efficiency than in some other locations in the region. Bottigheimer further stated that with only 20 percent of all car trips for commuting, it is not sufficient to only address the impact of commuting on the regional transportation system. The remaining 80 percent of all car trips also must be considered for their impact. WMATA must deal with this reality at the same time that it deals with the changing workplace.

As with the first panel, these four experts emphasized that there are barriers to the adoption of the alternative workplace, with initial cost being Those groups charged with planning for cities, like the D.C. Office of Planning and WMATA, have already acknowledged and embraced the change. the greatest. But greater adoption is surely coming. Smart agencies in the federal government and smart private sector companies will acknowledge this inevitability. Furthermore, those groups charged with planning for cities, like the D.C. Office of Planning and WMATA, have already acknowledged and embraced the change. They are beginning to put in place a framework for how the metropolitan region will look and function when more GSA-controlled space is downtown and more employees are working elsewhere than in the office.

FOUR CONCLUSIONS FOR THE WORKPLACE OF THE FUTURE

There were some common themes that ran throughout the day's discussion.

- 1. The concept of the alternative workplace and the mobile worker is constantly changing. It has been around for over a decade, but it still seems new because the form it takes varies, even while the goal of using office design and technology to achieve maximum efficiency remains the same. As Thomas James observed in his keynote address at the beginning of the event, "Our journey hasn't ended. We're constantly re-assessing how we're using space." In a way, this mutability seems appropriate for an idea that is based on our mobile, networked lives.
- 2. Just as the concept of the alternative workplace keeps evolving, there is no one solution that will work for all organizations. Accenture has a ratio of 4,500 employees to 475 workstations in its offices in Arlington County, Virginia. This ratio is possible not only because the workplace is mobile, but because many employees have workstations outside of headquarters, often in a client's space. Deloitte has a ratio of 5,200 D.C.-area practitioners for 1,200 workstations. In its prototype alternative workplace, GSA has an employee to desk ratio of 2:1. Corporate Executive Board, on the other hand, maintains a ratio of one workstation for every employee. These workstations are smaller and they can be easily modified, but the firm feels that the larger number of desks is necessary for its business model. All of these groups have adopted some form of the alternative workplace, but that form can obviously differ drastically.

- 3. The benefits of the alternative workplace are not always easy to quantify. Reducing office space and reducing rent is one thing, but that is only part of the equation. There are also claims of sustainability associated with these new workplaces and work patterns, but most of the energy and pollution savings at this point are only theoretical estimates based on less electricity being wasted to heat, cool and illuminate empty offices and less carbon dioxide being produced by commuting employees. Perhaps the least quantifiable major goal of the alternative workplace is operational efficiency. It has been suggested that measuring employee satisfaction could be use as a stand-in for employee productivity. The theory is that the more satisfied employee should be a more productive employee.
- 4. As the closing panel and indeed all of the participants emphasized, the adoption of the alternative workplace is already accelerating. As Mahlon Apgar observed, "It's not going away. It's not just a GSA idea." Harriet Tregoning perspicaciously tied the alternative workplace to a broad societal trend toward collaborative consumption including renting rooms in homes, renting parking spaces, and sharing bicycles and cars.

The desk is a small piece of real estate like an apartment or a parking space that can be shared by multiple users so that it is never vacant, and an employee's mind can be applied to tasks in many places other than just the office.

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