Revisiting Office Space Standards

by: Judy Voss

Office space has been getting a lot of attention lately. After staffing, office space is typically an organization's second-largest expense. And because office space can impact the ability to recruit, as well as the satisfaction and productivity of employees, many organizations have been taking a very careful look at how their space is working for them.

Part of the reason for re-evaluation is that organizations are trying to free up space for more collaborative work processes. In order to make room for new gathering spaces, individual workstations are often re-sized.

Mergers, acquisitions, and globalization also lead to space analysis. The value of announced cross-border mergers and acquisitions has been surging, and organizations are looking for ways to use their workspaces to communicate a sense of their corporate culture across the world. Even within a single country, merged companies with varying cultures can use a standard-setting process to reach consensus on how work will be supported.

What's more, many organizations are undergoing fundamental changes in the way they work. For organizations moving to internet-based business models or making other significant changes, traditional workspaces may no longer work well. These organizations don't want to give up standards, but know that they need new approaches.

Ultimately, most aspects of workplace design relate back to cost. It is well worth the effort to balance costs with the harder to calculate but potentially larger productivity gains a truly supportive office space can foster. In the United States, "assuming an employee salary of $48,000, the benefits of an appropriately designed workplace range from $1,440 to $7,200 per employee" (Fisher, 2000). This amounts to 4.7 to 23.7 percent of the average corporate profits when broken down to a per-employee basis.

Concern for people and processes, moves into new spaces, the need to integrate global operations, and the drive to control costs are all generating renewed interest in how the best offices work.

International Differences Influence Space Standards

Private offices and team spaces tend to require more space than standard cubicles. The BOMA Experience Exchange Report found that the average U.S. cubicle or management station is 90 square feet, while the average private office is 186 square feet. Bullpen spaces for multiple workers average 1,402 square feet. Many jobs in IT programming also use private offices of around 120 square feet. Published space studies may seem generous, however, as many U.S. projects tend to allot about 64 square feet (an 8' x 8' space) for a typical office worker. Some go as small as 6' x 6", or 48 square feet.

In Europe, private offices and team spaces or group rooms are commonly used. As in North America, Northern Europe has a strong tradition of private or semi-private offices being of higher status. There are also many national building and employment codes requiring specific working conditions. For example, European workers have a right to be near windows for natural light and ventilation. This basically outlaws the very large floors you might find in North American offices. There are also more worker councils in Europe than in other parts of the world, so there is employee and governmental enforcement of workplace quality standards.

In the U.K. and Europe today, there is some shift toward more alternative officing with new spaces being developed to support collaboration and alternative work styles. Real estate costs also have had some influence on office sizes, with London being at the high end of the cost scale.

European Space Standards

City	Average Space per Employee
Central London	181 sq. ft. / 16.8 m2
Frankfurt	274 sq. ft. / 25.5 m2
Amsterdam	258 sq. ft. / 24.0 m2
Brussels	258 sq. ft. / 24.0 m2

(van Meel, 2000, p. 62)

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U.K. office standards are quite similar to the U.S. and tend to be smaller than on the European continent.

Typical Space Standards in the U.K.

Function	Type of Space	Typical Office Size
Senior manager/director	Private office	215 – 323 sq. ft. / 20-30 m2
Manager/head of department	Private office	161 – 215 sq. ft. / 15-20 m2
Manager/professional	Private office	108 – 161 sq. ft. / 10-15 m2
Professional	Group room/ open plan	97 sq. ft. / 9 m2
Secretarial/administration	Open plan	97 sq. ft. / 9 m2
Clerical	Open plan	75 – 97 sq. ft. / 7-9 m2
Dealer/trader	Group room/ open plan	65 – 97 sq. ft. / 6-9 m2

(van Meel, 2000, p. 61)

In the U.S., offices were trending slightly smaller for professional and managerial job grades throughout the 1990s.

U.S. Space Standards

Job function	Space per Employee — 1994	Space per Employee — 1997
Upper management	289 sq. ft. / 26.9m2	280 sq. ft. / 26.0 m2
Senior management	200 sq. ft. / 18.6m2	193 sq. ft. / 17.9 m2
Middle management	151 sq. ft. / 14.0 m2	142 sq. ft. / 13.2 m2
Senior professional	115 sq. ft. / 10.7 m2	114 sq. ft. / 10.6 m2
Technical/professional	90 sq. ft. / 8.4 m2	92 sq. ft. / 8.6 m2
Senior clerical	81 sq. ft. / 7.5 m2	84 sq. ft. / 7.8 m2
General clerical	69 sq. ft. / 6.4 m2	73 sq. ft. / 6.8 m2

(International Facility Management Association, 1994, 1997)

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In the U.S., private offices are concentrated at senior management job levels. The use of open plan predominates for professional, technical, and clerical workers.

Typical Space Standards in the U.S.

Function	Type of space	Typical Office Size
Upper management	95 percent private office 5 percent open plan	280 sq. ft. / 26.0 m2
Senior management	85 percent private office 15 percent open plan	193 sq. ft. / 17.9 m2
Middle management	65 percent private office 34 percent open plan 1 percent group room/bullpen	142 sq. ft. / 13.2 m2
Senior professional	39 percent private office 60 percent open plan 1 percent group room/bullpen	114 sq. ft. / 10.6 m2
Technical/professional	15 percent private office 80 percent open plan 5 percent group room/bullpen	92 sq. ft. / 8.5 m2
Senior clerical	9 percent private office 86 percent open plan 5 percent group room/bullpen	84 sq. ft. / 7.8 m2
General clerical	5 percent private office 82 percent open plan 13 percent group room/bullpen	73 sq. ft. / 6.8 m2

(International Facility Management Association, 1997)

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In the 1980s, the U.S. became highly driven by office standards because they facilitated quick absorption of new space and new employees. During periods of large increases in employment, consistent furniture and space plans made growth more manageable. Organizations used up to 13 different office standards, based on job levels. Offices were used to reward people and to visually communicate subtle status differences.

In the 1990s, a need to simplify office planning was driven by increasing rates of change. It was difficult to move people quickly if offices had to be exactly matched to job levels. Most organizations pared down to as few as three different office sizes and configurations so most workers could be moved into existing spaces with minimal changes.

The lean-and-mean movement also caused many organizations to pare office sizes down as far as possible to save real estate costs, with some moving to offices as small as 6' x 6'. This resizing resulted in higher densities than many office floorplates were set up to accommodate, so HVAC, acoustic support, and elements had to be adapted. Most large organizations now routinely measure costs and other performance data about their spaces. Along with more use of user-moveable furniture and less concern about adherence to strict workstation standards, there is a higher degree of interest in overall workplace cost control.

How Small Is Too Small?

What constitutes "too small" depends partly on national culture, partly on corporate culture, and partly on the science of anthropometrics, or allowing humans comfortable space and room to move. Increasingly, it also depends on workstyle.

In highly collaborative work groups, where the bulk of the day is spent in meetings or out visiting customers, a very small workstation may be perfectly adequate. Some consulting firms, for example, have reduced individual workspaces to around 30 percent of total leased space because not all employees are in the office most

days. For people who do work in one place most of the time, however, feeling crowded in a small space would be stressful.

Cultural issues also influence the perception of enough space. North Americans and Northern Europeans value having personal space. Large offices have traditionally been used as rewards in these regions too, reinforcing the bigger-is-better mentality. In parts of Asia, however, an office may have a spacious feel relative to the worker's home environment.

Perception of workstation sizes is also a matter of comparison. If your peers have bigger offices, your office will definitely seem too small. Psychological research has also flagged a "loss of space versus your last office" condition as a potential performance issue. "Analysis found a substantial decrease in job satisfaction for workers whose workspace floor area has been reduced by more than 25 percent" (Brill, Margulis, Konar, & BOSTI, 1984, p. 108).

True space requirements depend on anthropometrics, or human body measurements. Offices need to accommodate people physically and let them move while doing their jobs. More space would always be appreciated for storage, visitors, and greater movement, but these are absolute minimums.

Minimum size standards vary by country. A Dutch or Danish workstation minimum would be 75 square feet, excluding circulation and filing space. German regulations 86 square feet. U.K. offices would average about 65 square feet (van Meel, 2000).

A study of workstations determined that the ideal workstation for a full-time computer user would be 8.7 feet by 8 feet. (Cohen, James, Taveira, Karsh, Scholz, & Smith, 1995, p. 1669). Their U-shaped station model was developed based on task analysis and ergonomic measurements for typical computer-based workers.

Application	U.S. Minimum Requirement Ranges	Space per Employee — 1997
Two people, such as a supervisor and an employee, can meet in an office with a table or desk between them	60 to 72" x 90 to 126" / 5.78 m2 to 11.7 m2	280 sq. ft. / 26.0 m2
Worker has a primary desk plus a return	60 to 72" x 60 to 84" / 5.78 to 7.8 m2	193 sq. ft. / 17.9 m2
Executive office — three to four people can meet around a desk	105 to 130" x 96 to 123" / 9.75 to 11.4 m2	142 sq. ft. / 13.2 m2
Basic workstation such as a call center	42 to 52" x 60 to 72" / 3.9 to 6.7 m2	114 sq. ft. / 10.6 m2

(Panero & Zelnik, 1979)

Standards 101

Developing standards or programming is typically the first step in the space-design process. This process can be fairly detailed and time consuming. However, the benefit is not only that it makes the initial space design successful, it can also provide a long-term plan for the organization to use over multiple spaces in multiple countries.

A professional designer or a member of an in-house facilities department usually leads this process. The basic elements typically considered include:

• How much space is available?

• What is the staffing plan? How many more people will be added to the space over time?

• What technology do individual workers have? What does each group share?

• Who interacts daily? What other interaction patterns may influence adjacencies?

• What are the workgroup structures? Are there status differences and how are they represented by the organization?

• What workstyles and processes should be supported?

• Which specific pieces of furniture do the people in these jobs need?

• How much and what types of storage do people need in their workstations?

• What kinds of storage and work support are needed in shared group areas?

• What kinds of adjustability are needed — keyboard, chair, worksurface heights, etc.

• Any special ergonomic or ADA concerns or requirements?

• What are the aesthetic preferences or expectations?

• What are the HVAC and lighting capacities? Will those be adequate when the layout changes?

• If a global standard, what are the cultural considerations for personal and shared spaces, colors, workstyles, and so on?

Observation will also reveal space needs that people might not think about when filling out forms or being interviewed. Are there lots of hallway meetings going on because there is nowhere else to go? Are offices spilling over because there's not enough storage? Have people started bringing in their own furniture or making their own ergonomic interventions, such as cardboard monitor glare guards or using phone books as monitor lifts? Observations like these all point to a need for change.

Over the past few years, many organizations have taken programming to a higher level by looking into how they want people to feel while working in or visiting a space, or how a space could influence work to be done in a fundamentally different way. Looking at ways to spread a corporate culture around the world without ignoring local differences can also be part of this deeper look. Working with an outside design firm is often helpful in this process because they may be more exposed to national and international trends and practices.

After this information is collected, some basic decisions have to be made about how much space each person and each group will get. With the basic space standard decision made, a designer can move forward with allocation of space locations to different groups and to individuals within those groups. Basic furniture specifications can be put together along with a budget for the new space. Each step of this process can involve reviewing options and negotiating to get the best work support possible.

Conclusion

Growing organizations often find that they don't have the space to give every worker an appropriately sized area. The temptation is to simply divide the total space by the number of people and call it a plan.

People can work in a cramped space for a while, especially during the exciting start-up phase of a company or project. But over time, the best way to support productivity and encourage employee retention is to offer appropriate space that supports the

work being done. That doesn't just happen — it takes a plan.

It's worth addressing standards properly as a way to research and plan for future growth and space requirements. Standards can help set the timing and justification for moving to another building. Standards can also help organizations prevent individuals and groups from claiming excessive space and causing dissatisfaction among their colleagues.

Setting standards and reviewing them periodically helps employers to stay in touch with how jobs and needs are changing. Reviewing how offices support workers and the work being done is an integral and important part of overall corporate planning.

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