

Transitioning Workplace Environments

From an FM Perspective

by

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## ABSTRACT

Facilities Management (FM) around the globe at different companies in different industries are often forced to make difficult decisions on whether or not to transition a workplace environment and how to decide what factors of a workplace environment can benefit or hinder a company's productivity. The data and research presented within this paper are targeted at aiding and educating FM in determining what factors to consider in a workplace transition to an open-seating design and validate the importance of recognizing how these factors impact the productivity of the individual and the organization. Data contained in this paper was gathered through two different survey samples: 1) a semiconductor company that transitioned its employees from cubicles and offices to an open-seating environment; and 2) a general study open to professionals and their experiences and opinions on workplace environments. This data was used to validate or disprove the views on open-seating workspace held by the FM industry today. Data on the topic of how employees react to being transitioned to open-seating environments and looking at the breakdown of the results between engineers and non-engineers is examined within this research. Also covered within the research is data on transitions to other seating environments outside of open-seating concepts to evaluate and compare transition types. Lastly, data was gathered and discussed on the amount of time needed to adapt after a transition and what environment types were linked to being the most productive. This research provides insight on workplace environments and transitions and how they have an impact on productivity and can be used in the decision process when considering transitioning environments.

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## CHAPTER 1

### INTRODUCTION

Companies today are often looking to transition workplace environments on the basis of real estate cost savings. Little research is being done to evaluate the impacts on productivity that these transitions can have on a company and the various factors in need of consideration before a company commits to a particular work environment (Vischer, 2014). There are numerous factors that need to be evaluated before a transition of work environments occurs to lessen the possibility of a new environment negatively impacting a team's productivity. These factors include: historical background of the current environment, critical elements related to the productivity of a department, and time needed to adapt into the new environment. To gain further data on the topic of workplace environmental transitions a survey was released to two distinct test environments. One environment (Case Study) was comprised of employees within the same company and facility that were recently transitioned into a new work environment. The company in the case study was a high-profile semiconductor company and research and development office on the United States west coast. The other test case was an open release to corporate workers globally through the means of an online professional social media website (General Test Case) to compare and further validate any findings discovered in the Case Study. The goal of this survey and the research within this paper is to provide guidance to Facilities Management (FM) around the corporate world on the topic of transitioning workplace environments.

## CHAPTER 2

### LITERATURE REVIEW

Scholastic journals and databases for articles in relation to different corporate working environments and how transitions within the corporate workplace affect employee productivity were searched as part of this study. Three main databases (JSTOR, ABI Inform, EI Compindex) were each searched through extensively with thirteen keywords. These keywords and their varying search results in each database can be seen in Table 1.

Table 1

Literature Database Search Results

Search Terms	ABI Inform	EI Compindex	Jstor
Space Planning	886,988	86,584	195,050
Productivity	1,580,874	3,370,578	294,583
Interior Design	469,173	27,116	93,213
Occupant Performance	31,388	30,698	4,900
Employee Satisfaction	363,979	4,847	31,632
Workspace Design	23,133	9,852	1,214
Performance	8,854,034	6,534,031	908,210
Behavior	2,256,496	2,037,032	1,039,711
Work Environment	2,396,880	340,130	766,925
Transition	1,593,148	1,715,082	561,264
Closed to Open	859,759	105,477	358,290
Open Seating Concept	17,361	93	4,326
Open Office	1,676,999	15,273	481,682

Because of the massive quantity of search results and few being relevant to the topic of this thesis the terms were linked together in pairs to narrow down the searches for more specific results. For example, “Space Planning” was searched with “Productivity”, “Interior Design” and on down the list. Some of these search terms were also fairly vague and because of this, searching through the databases two terms at a time was crucial to the success in finding relevant data. Though the seating environment in corporate settings is and has been a hot topic for some time (Oldham, 1979), throughout the various keyword searches no articles were discovered to directly address or solve the problem statement discussed in this journal.

A total of twenty-four articles were found to be useful sources for this thesis and only four of those twenty-four have content in direct relation to the topic at hand. However, no articles were found specifically to cover the actual transition of the working environments and the overall impact of the transition upon the employee base within those studies.

The four articles that were found to have content in direct relation to the topic of this thesis were helpful in validation of the research covered in this study. In an article titled, “Employee Reactions to an Open-Plan Office: A Naturally Occurring Quasi-Experiment” the author studied data on 81 employees to ultimately determine that changing from a closed to an open environment had negative effects on employee satisfaction and motivation (Oldham, 1979). However, in the example covered no research was put into the open-plan design to accommodate the needs of their employees. Another article, titled, “User Evaluation of the Work Environment: A Diagnostic Approach” also gathered significant research data on measuring employee satisfaction in a workplace and factors that lead to dissatisfaction, but did not discuss the process of creating an environment designed to optimize a particular employee bases



satisfaction (Vischer, 2005). Vischer also wrote another article entitled “Will This Open Space Work” that thoroughly describes the narrative of a company planning to transition to an open environment, but doing so without considering the impacts on productivity nor did the article discuss how to transition to an environment that increases productivity (2014). The article, “Communication strategies for the Transition of Employees to an Open Work Environment” discusses the keys to communication to lessen the impact on productivity, but does not cover what is involved with designing a space targeted at what the average employee is looking for and how to uncover what that looks like (Kleasen, 2002). Lastly, an article titled, “Occupant Satisfaction with Workplace Design in New and Old Environments” again discusses satisfaction and studies the determining factors in dissatisfaction of employees, but they do not discuss what to target in a transition to lessen the negative effects on the workforce (Schwede, 2008).

## CHAPTER 3

### RESEARCH METHODOLOGY

The limited number of scholarly articles available that pertain to the transition of work environments and the impact that the work environment can have on an individual's productivity prompted further research on the topic. In the Case Study that is detailed in this paper, the employee base of a prominent and historical semiconductor company went through a critical transition of workplace environments. They transitioned from a cubicle and office environment to an open-seating concept designed specifically for their employees and was based upon the study and research of their workplace environment and behaviors. This research was conducted over the course of two years by their internal Facilities Management team. A focused survey is the method that was chosen to collect the data for further analysis on the corporate work environment. After the initial survey was drafted it was released to a small focus group of 20 individuals within the Case Study company that were selected due to their passionate interest in the topic. Through the sample survey and meeting with the focus group the survey was revised through the addition and subtraction of questions and various points of editing based on the group's reactions to the questions. Specific wording in certain questions was also adjusted in an attempt to lessen confusion for the future survey takers and strengthen the accuracy of the results. The final survey was created and finalized in Qualtrics which is a data collection and analysis tool for the study of survey results. A link to the final survey was then released to all employees who currently worked in the headquarters building of the Case Study company via a site-wide email. Then, as a General Test Case, the link to the survey was also shared through social media via a post on a prominent corporate social media website. This was done to gain further responses in the corporate world outside of the Case Study results as a separate study to broaden

the scope of research and allow for the comparison of the two studies and the specific data gathered in each.

## CHAPTER 4

### DATA COLLECTION/CHARACTERISTICS

The release of the survey to the semiconductor company's headquarters resulted in the collection of 94 relevant responses. At the time of the survey release the Case Study company's building contained approximately 300 occupants giving a rate of return in survey responses of nearly 32%. The Case Study building was a research and development office consisting of a large engineering employee base. Responses to the survey results were predominantly of the male gender (71%), in the engineering field (49%), and in non-managers roles (47%). View figures 1-3 for full demographics results on gender, field, and management level for the Case Study. The release of the survey through the General Test Case posted through a social media website resulted in the collection of responses from 25 different companies (including the Case Study company). The relevant results were represented by the companies listed in Table 2.

Table 2

#### General Test Case Company Representation

Base King	I.D. Griffith Inc.	Princeton University
Building Block Interiors	Infrastructure Interior Design	Santander Consumer
C&W Services	Invicta FMS	Social & Scientific Systems
ChargeSpot	JLL	Sydexo
Compass Group	Kemos LLC	Superior Climate Strategies
Connectrac	LogistiCare	Texas State University
Echelon Security	NAB	Unisource Solutions
Ergo	PAC Integrations	University of Alberta

Along with these companies there were also 5 responses from unidentified companies. A calculation for the mode, median, and mean of the 94 Case Study responses was also taken and included in these demographics as 3 separate responses. Responses to the survey results were predominantly of the male gender (67%), in the “Other” field (43%), and in manager roles (33%). View figures 1-3 for full demographics on gender, field, and management level for the General Test Case.

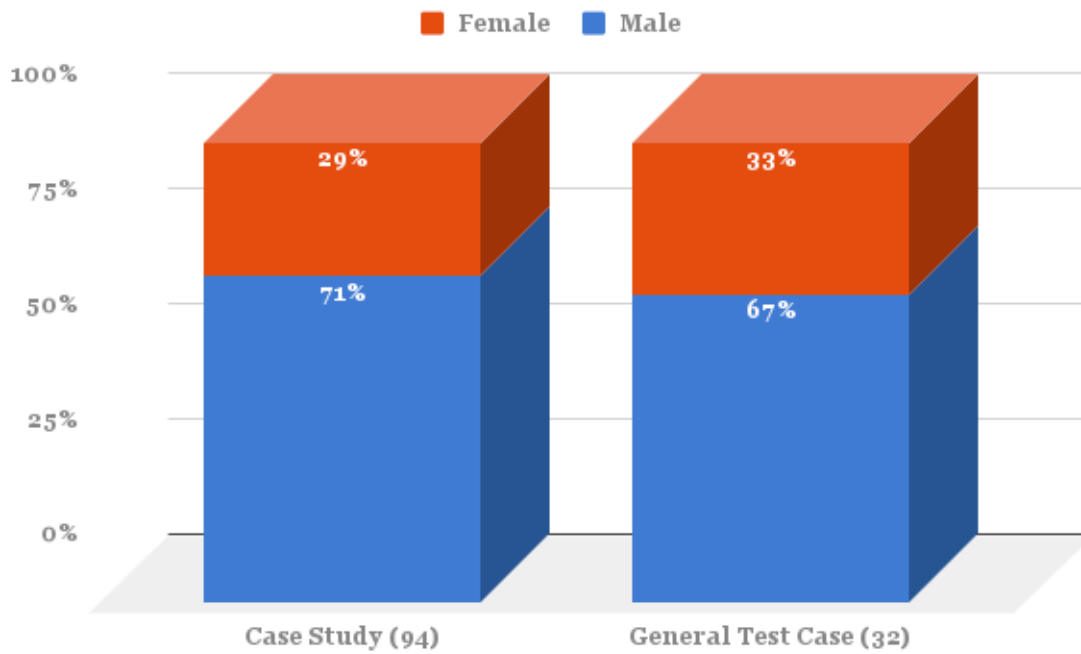


Figure 1. Gender demographics for Case Study and General Test Case.

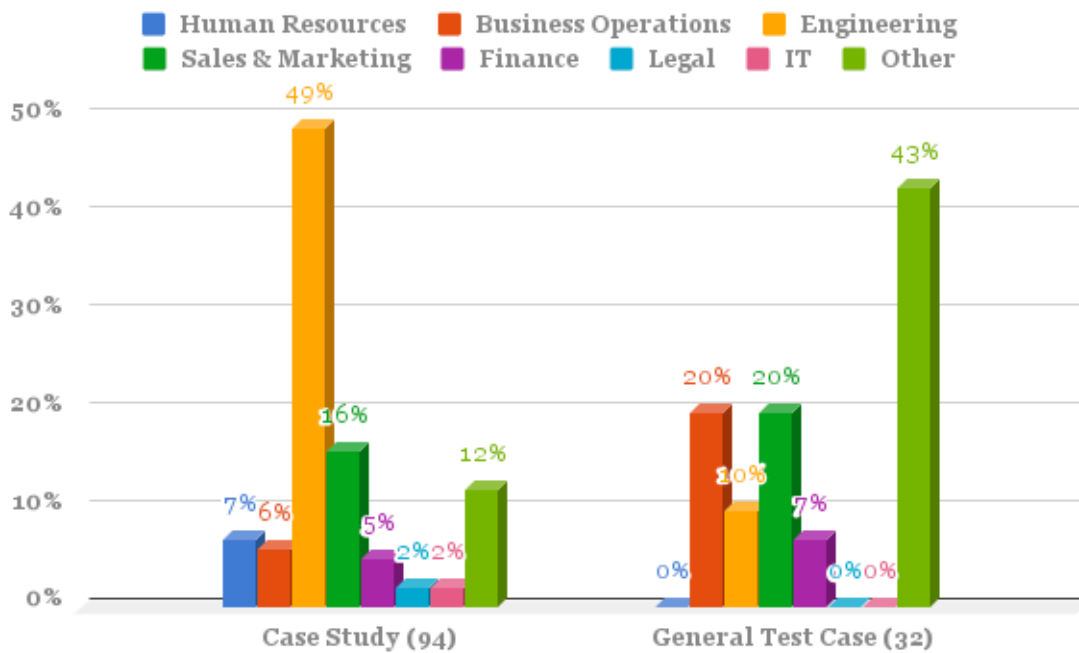


Figure 2. Department demographics for Case Study and General Test Case.

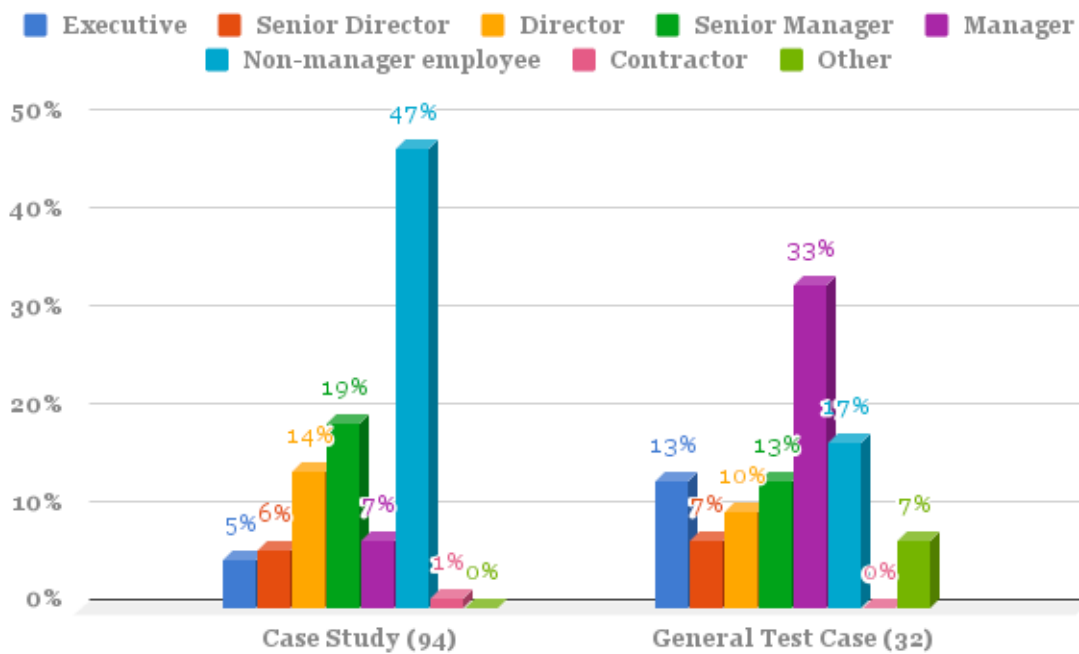


Figure 3. Management level demographics for Case Study and General Test Case.

CHAPTER 5  
DATA ANALYSIS

**Workstation Types**

**Definitions of workstation options.**

The first section of questions within the survey pertained specifically to workspace types. Covered within the four questions were historical workstation experiences, current workspace, ideal workspace for the individual and ideal workspace for subordinates from a management perspective. In each question, there were five different options available for respondents to select. These options were the following: Office (completely enclosed space), Cubicle (enclosed space with no ceiling or door), Open-Seating (limited to no enclosure), Work from Home, and Other. Figures 4 and 5 provide a graphical breakdown of the findings presented below.

**Historical workstation experiences.**

From a historical background the survey takers for both test environments showed a high level of experience with multiple working environment types. The Case Study company received 284 different votes from 94 responders giving an average of 2.85 different environment types per employee over the course of their career. Similarly, from the General Test Case sample 84 results were gathered from 30 participants for an average of 2.80 different workstation types over the course of their career.

**Current workstation type.**

Results of current workspace was largely dominated by open-seating and office results. Unsurprisingly, results for the Case Study's current seating came in at 86% open-seating since they were recently transitioned as an entire site to an open-seating plan with some offices. However, the General Test Case results had a leading answer of an office environment at 40% followed by open-seating with 30% of the results.

### **Ideal workstation for self.**

When asked their opinion on an ideal work environment for themselves, the majority of respondents in both test cases favored an office environment.

Representatives from the Case Study company chose an office as an ideal environment 36% of the time while the General Test Case chose an office 47% of the time.

Interestingly, cubicles in the Case Study company amounted to nearly the same amount as offices and came in at 35% while open-seating scored only 20% and working from home scored a low 2% of selections. Conversely, in the General Test Case open-seating and working from home were chosen 17% of the time while cubicles were only chosen 10% of the time.

### **Ideal workstation for reports.**

When asked about a workspace for your direct reports as a manager both test cases shared the same first choice. Both the Case Study and the General Test Case chose open-seating as an ideal workspace (37% and 47% respectively). For the Case Study this was closely followed by cubicles with 36% and offices at 16%. The General Test Case had offices much higher at 30% and cubicles at only 17%. Both had working from home the fewest times with the Case Study choosing it 11% of the time and the General Test Case results at 0%.



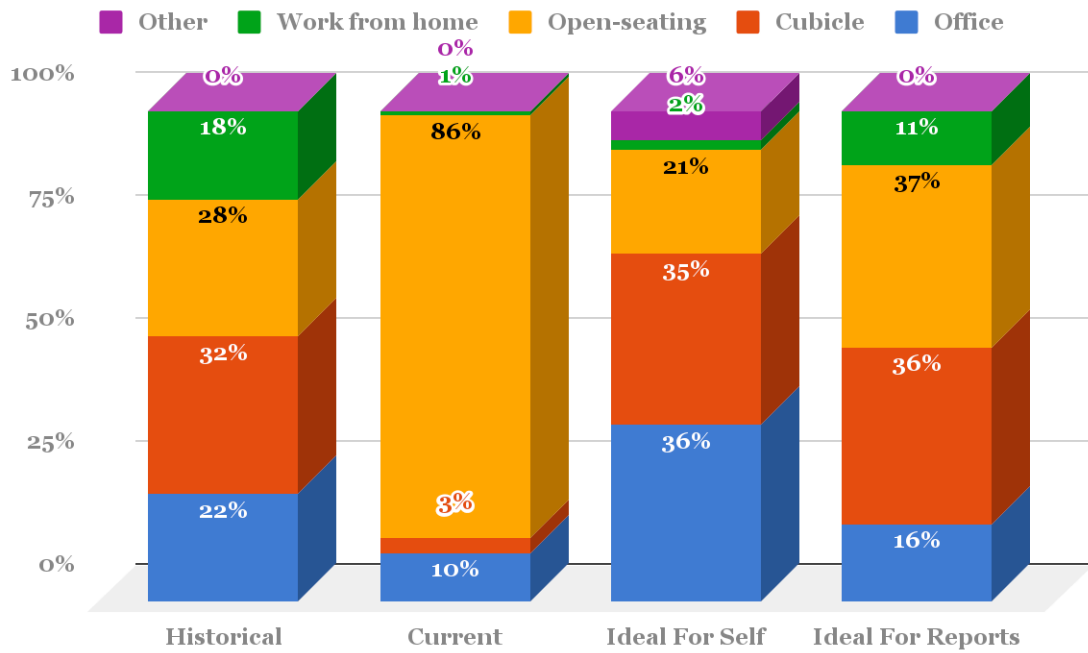


Figure 4. Case Study data on different workstation types.

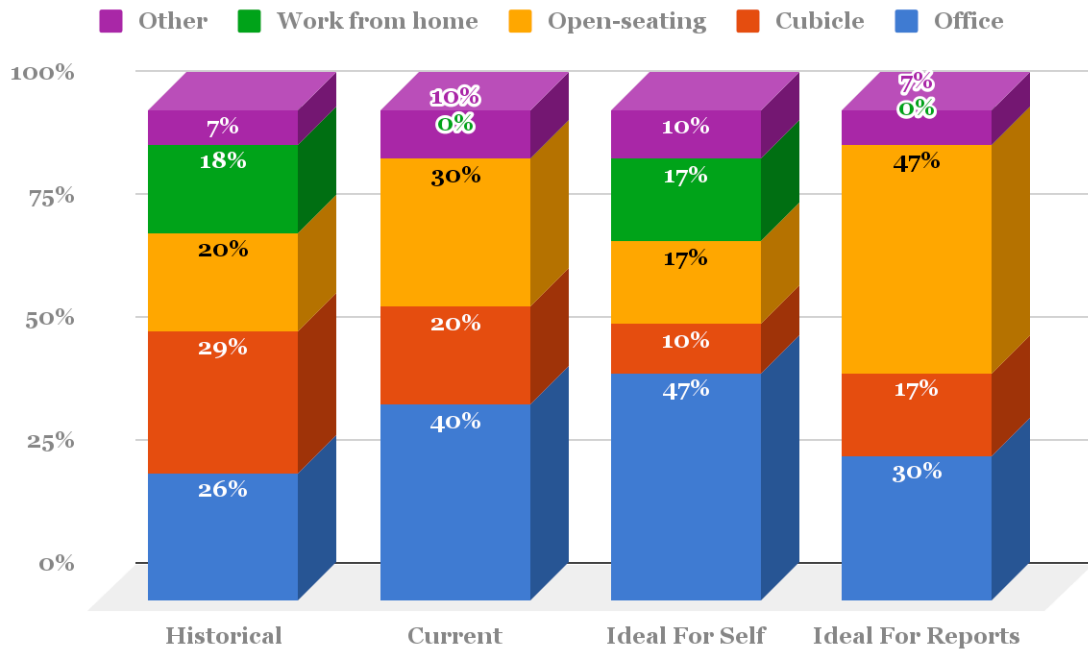


Figure 5. General Test Case data on different workstation types.

## **Workplace Environmental Impacts on Productivity**

The next section of the survey pertained to the working environment and specifically how that environment has an impact on the productivity of the individual. There were two questions in the survey that dealt directly with the working environment and how it is linked to productivity. The first question describes four different working environments and simply asks the respondent to select the environment that they felt would give them the highest level of productivity. The four options included a quiet environment, a collaborative team environment, an always changing active environment, and a flexible environment with solutions for each of the other options. In both the Case Study and the General Test Case the two options with the highest ratings were the collaborative environment and flexible environment. In both studies, these two options had significantly higher selections with the Case Study selecting the collaborative environment 46% of the time and the flexible environment 30% while the General Test Case had them 34% and 52% respectively. Full results for the question on work environments linked to productivity is shown below in figure 6.

The second question deals with environmental factors that can have an impact on your productivity and asks the survey taker to rate them on a scale of 1-5 of how much each factor impacted their individual productivity. The factors that were asked about were the following: privacy, natural light, collaboration, quiet, personal space, storage, conference space, and transitioning workspace. In both cases, storage and transitioning workspace scored the lowest rating on impact while the rest of the factors had high level counts, but were relatively close in value. Collaboration and a quiet working environment received the highest impact scores in both environments, but natural light was the overall highest in the Case Study results. A total of these results can be seen below in figure 7.

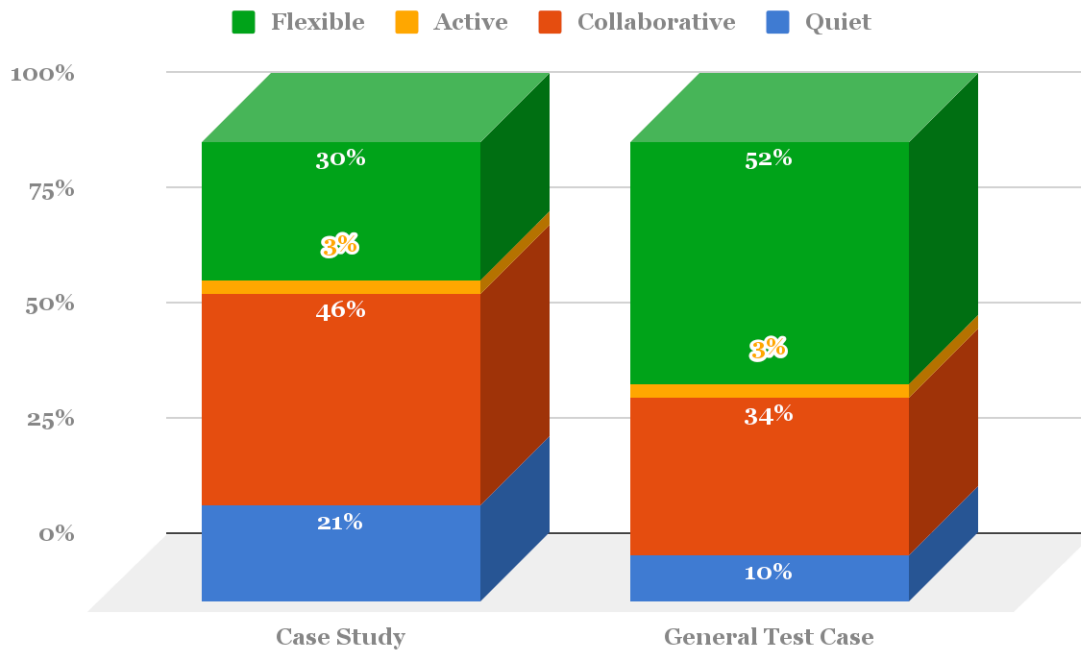


Figure 6. Workplace environment that fosters highest level of productivity.

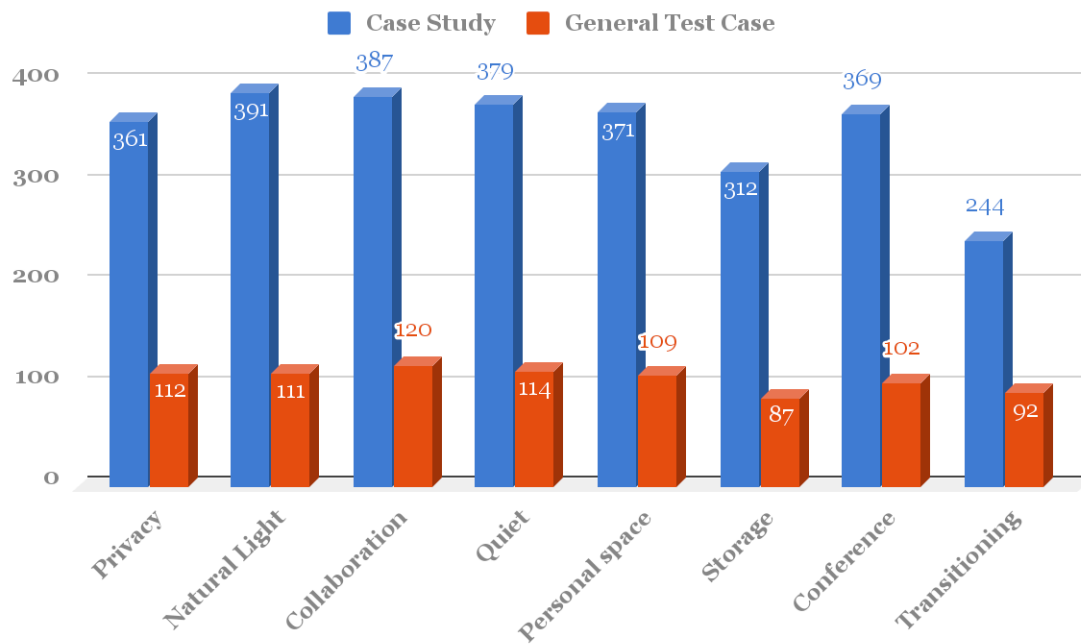


Figure 7. Rating factors that have greatest impact on productivity.

## **Workplace Transitions and the Link to Productivity**

The third and final section of the survey contained five questions that dealt specifically with workplace transitions and tied them into individual productivity and the impact of transitions in a workplace environment.

The first question asked the survey taker if they have been a part of an office transition with a simple “Yes” or “No” answer. Those who answered “No” to this question were sent directly to the end of the survey for final comments. This was done because the preceding questions all have direct relation to office transitions and require prior experience in an office transition to have a relevant answer to the next four questions. In both survey scenarios, the numbers of those that had been a part of a prior office transition were high with the Case Study responses at 80% and the General Test Case at 71%.

The next question relating to office transitions was about the different types of office transitions that the respondent had experienced. This information can be used to see which transitions in the workplace are most commonplace when an individual is transitioned from one type of working environment to another. Confirming the recent wave in popularity of open-seating in the corporate workspace (Blitchok, 2016), the highest percentage of selections in both survey scenarios was the transition from cubicle to open-seating. This selection occurred 46% of the time for Case Study employees and 26% of the time in the General Test Case. Interestingly the General Test Case also has 26% of responses for those that have transitioned from an office to cubicle. In both survey instances the transitions from open-seating to cubicle or office were significantly less frequent than any other type of transition which is further evidence towards the popularity of companies transitioning to open-seating and not turning back to cubicles and offices. For this question, the opportunity to select multiple different types of

transitions was given in order to gather the full extent of each respondent’s experiences. With 20 individuals in the General Test Case responding “Yes” to the question on being a part of a transition and 34 total selections to the present question it can be concluded that a majority of these individuals have been a part of two transitions with an average of 1.7 per respondent. Similarly, in the Case Study 75 individuals answered “Yes” to being a part of a transition and with 104 total answers to the current question the data shows that a majority of this employee base had only experienced one transition with an average of 1.4 transitions per respondent. The breakdown for the respondent’s transition experiences are detailed below in figure 8.

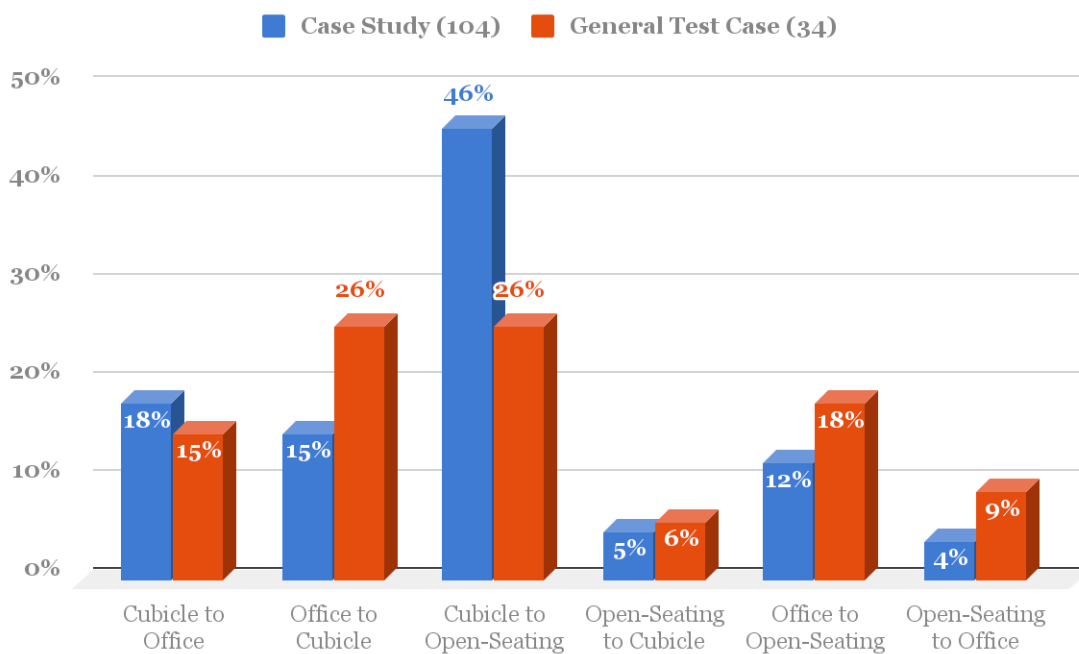


Figure 8. Different types of transitions that respondents had experienced.

The third question pertaining specifically to office transitions is the first question that ties these transitions into an individual’s productivity. The goal of this question was to determine which transition was the most impactful on each individual’s productivity. With the average individual experiencing less than two transitions during their career

the assumption would be that the distribution of selections would be similar to the previous question. However, in the General Test Case, the selections favored a transition from office to cubicle having the biggest impact on productivity coming in at 29% with cubicle to open-seating at 24% and office to open-seating not far behind and at 18%. In the Case Study survey the transition from cubicle to open-seating captured over half of the selections (53%) with a transition from cubicle to office being the next closest (21%). Open-seating to an office or cubicle were still seldom selected in both survey cases, but in the Case Study the transition from office to cubicle was also low in responses while this category was one of the higher selections in the General Test Case. In all of these responses from both survey studies for this question we are specifically measuring the highest impact on productivity, either positive or negative. In the preceding question the nature of the impact (distinguishing positive and negative) is identified. Further details on the results for this question can be seen in figure 9 below.

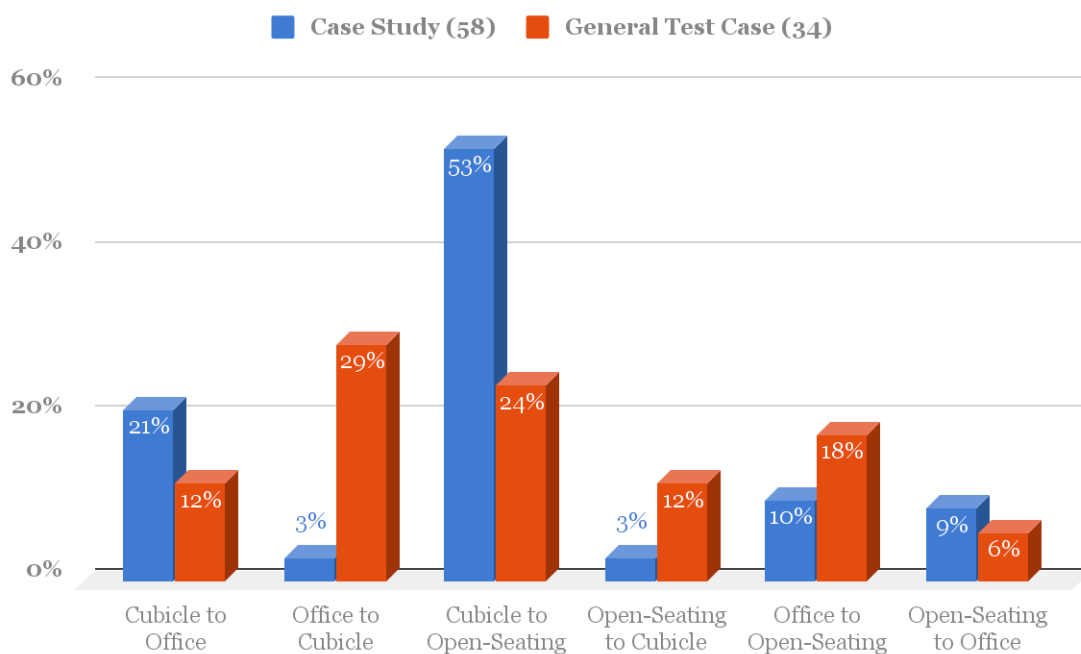


Figure 9. Transition with greatest impact on productivity.

The next question relating to office transitions and productivity ties in specifically with the previous question on the office transition that had the greatest impact on productivity. The previous question identified the survey takers most impactful workplace transition, but never identifies whether that transition was a negative or positive impact on their productivity. This next question specifically asks whether the previously stated impactful experience was a positive or negative impact. In the Case Study the results were split evenly with 50% of respondents having a positive or negative impactful workplace transition. In the General Test Case the results were in favor of a positive impact with 63% of the responses.

The last question pertaining to office transitions deals directly with the timing it took the end user to get comfortable in their new space after the transition. The answers to this question are helpful in assessing the success of the transitions that had the biggest impact on the respondent's productivity. Though there were still a large number of respondents that said their most impactful transition was a negative experience (37% General, 50% Case) ultimately the short or even long-term ability of an employee to adapt and grow comfortable in their new space is critical to the success of the transition. Adapting to change is always a difficult process and this includes workplace transitions, especially if they are different types of environments ("Adapting to Change", 2016). In the General Test Case results and Case Study the majority of respondents said that they felt comfortable in their new space within 30 days of the transition (42% General, 49% Case). A small portion of individuals stated they were still not comfortable in the space (12% General, 17% Case), but the fact that over 80% of respondents in both scenarios did actually grow comfortable in their new space at some point after the transition shows the importance of not only measuring the positive/negative reaction to the transition, but

also the longer-term ability of an individual to adapt and adjust to their new environment. Further details are shown in figure 10 below.

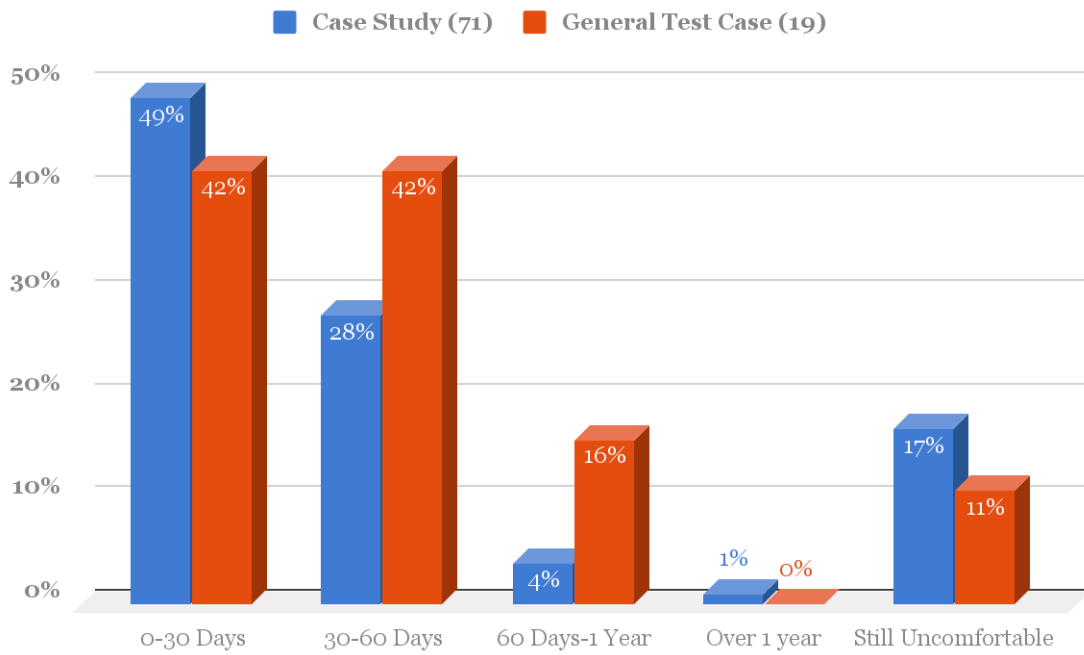


Figure 10. Time needed to adapt to new environment.



## CHAPTER 6

### RESEARCH RESULTS

#### **Background of the Case Study Company**

The research and data within this paper was driven by a lack of data available to facilities management to assist in measuring the impact of transitioning work environments. The following is a background summary of the semiconductor company used in the Case Study and the time period leading up to the survey release. The background and history of this semiconductor company is not repeatable in every company's situations, but there are key factors and steps to be taken that not only impact the transition of this company's environment, but can also be applied to any working environment transition.

The headquarter building within the company used in the Case Study experienced a major transition from predominantly closed cubicle environment to an open and collaborative environment within 60 days of the release of this survey. There was valuable data gathered through this survey that stems from the timing in the release of this survey, but is also driven by the demographics of the employee base within the building and the historical background leading up to the transition.

As a traditional and historical semiconductor company, the Case Study company followed many of the same values and limitations held by others within the semiconductor industry. Constrained by small profit margins yet driven by development and innovation, new executive management sought to bring improvements to the work environment and break the culture free of the traditional mold (Clark, 2015). Facilities Management (FM) within this semiconductor company was tasked with developing this new environment through experiments and research of the company and its various teams to influence the design development of a future office buildout. The environment

within the company's headquarters at the beginning of FM's research was a high wall cubicle environment with no collaboration space outside of conference rooms and very little natural light due to offices/conference rooms existing along the window line of the facility. Based on executive guidance FM's first point of action was to begin working with individual teams and the leadership of those teams to discover their points of dissatisfaction in the current environment and propose solutions. Points of dissatisfaction varied from team to team, but a majority revolved around furniture changes within their space to foster collaboration and unify their team. To do this FM experimented with a few different reconfigurations including bullpens (opening up a team's space, but enclosing their team space away from other teams), complete open-seating, and neighborhood open-seating (completely open, but isolated from other teams). In many cases FM was able to come up with custom solutions to accommodate the needs of each team all the while FM was collecting data on what was working well and what was not. This data was used in the development of a standard design guide that included a workstation that met the needs of a majority of teams and began implementing these new workstations for team's that were interested. This allowed FM to further observe and develop the workstation based on the feedback from the team's using them as well as created live examples of an open and collaborative seating concept for individuals and teams to observe who were apprehensive to such a major transition. FM used the data from these experiments to begin designing a new facility that would incorporate the findings from these experiments and develop a future environment that solved for a majority of the points of dissatisfaction for each team. The new facility was designed and built out with the specific needs of each individual team in mind and because a majority of the employee base had already been transitioned into different types of experimental workplace environments the general consensus from the employee

base was an excitement for the new space. After the buildout of the new office FM transitioned everyone to the new facility and into a standard open furniture concept in neighborhoods where teams would most benefit from the space to collaborate. This included the transitioning of employees and teams that were excited about a new open and collaborative working environment as well as teams that were apprehensive and even opposed to the new concept due to various fears captured within the survey. The survey was released within 60 days of the transition to the new office and the history and background of the Case Study company's experiences with environmental transitions had influence on the results of the survey.

## **Transitioning Workspaces and the Productivity Impact**

### **Transitions to open-seating concepts.**

#### ***Results for those in an engineering field.***

The results of this survey produced numerous findings that are new to Facilities Management and will be valuable for any FM preparing for an office transition. One of the critical findings of this survey was the data gathered around a departmental breakdown and their experiences with the most impactful transition. A stereotype in FM circles is that open-seating does not work well in engineering environments and by looking closely at the data from this survey we are able to examine this assumption (Kim, 2013). The Case Study company's site that was transitioned to the new open environment was a research and development building that was comprised of a majority of those that worked within an engineering department. By pulling out all the respondents in the Case Study results that stated they were in an engineering department the results were slimmed down to 46. From that list those who described their most impactful transition as a transition from a cube or office to open-seating were then further filtered down to 19 individuals. Out of those 19 individuals, 2 transitioned

from an office to open-seating while 17 transitioned from cubicles to open-seating. Out of those 19 respondents only 3 described this transition to have a positive impact on their productivity. This result shows a rate of 84% of individuals within the engineering field who described their most impactful transition as one that transitioned into an open seating concept had a negative impact on their productivity. This further validates the assumption that engineering departments have decreased productivity in open-seating environments.

When looking at the General Test Case results to further validate the findings in the Case Study survey we find little information due to the limited number of respondents in the engineering department. There were only 4 respondents in the engineering department and one did not respond to the question on transitions and productivity. This brought the results down to three individuals whose most impactful transition was a positive experience of transitioning from an office or cubicle to open-seating. However, two out of these three results came from the mode and median calculations of the Case Study results.

### ***Results for those in non-engineering fields.***

Furthermore, when looking at the data of impactful transitions for other departments outside of the engineering department there is valuable information in regard to these departments and the impact that transitions have on them. In FM circles, popular belief is that departments outside of engineering should be less inclined to be negatively impacted by a transition to an open-environment (Scalco, 2017). The breakdown of other departments does not produce enough data to validate an argument for any one department, but together as a non-engineering group we are able to uncover valuable information. In the Case Study survey the non-engineering departments represented along with how many survey takers were within that field are the following:

Human resources (7), Business Operations (6), Sales & Marketing (15), Finance (5), Legal (2), IT (2), Other (11). This is a total of 48 relevant survey accounts which can then be filtered down by their relation to the most impactful transition that they had experienced. Out of the 48 results only 26 respondents answered the question on their most impactful transition and out of those 26, 16 of them were most impacted by a transition from a cubicle or office to open-seating. Out of these 16, 8 described the experience as a positive experience. With only a 50% positive experience to the transition to open-seating FM must evaluate the value of a transition to a new environment in comparison to the potential risk of having a low approval rating of the transition and even negatively impact the productivity of their labor force. In a smaller sample size the General Test Case results had 28 respondents outside of an engineering department and out of those 28 only 5 described their most impactful transition as one from a cubicle or office to open seating. However, out of those 5, 4 (80%) responded as the experience being positive for them.

***Results for all fields.***

When looking at the total number of transitions to open-seating and conversely transitions to any other environment the results further support the argument against the open-seating environment. Combining all departments in the Case Study totals 94 responses filtered down to 35 whose most impactful transition was from an office or cubicle to open-seating. Out of those 35 respondents 25 (71%) claimed the transition had a negative impact on their productivity. In the General Test Case, there were 9 survey respondents whose most impactful transition was one from a cubicle or office to open-seating. Filtering the data further, 7 (78%) of these 9 respondents claimed the transition had a positive impact on their productivity.

### **Transitions to all other seating environments.**

In looking at all other transitions, besides transitioning to open-seating, further validation is met in the argument against transitioning to open-seating. The other most impactful transition options in the survey were: cubicle to office, office to cubicle, open-seating to cubicle, and open-seating to office. In the Case Study example one of these four options was selected as their most impactful transition in 20 different occurrences. Out of those 20, 17 described the transition as a positive impact on their productivity (85% positive). When looking at this same data in the General Test Case example, 5 out of the 9 respondents described their transitions as positive (56%) with 3 out of the 4 (75%) negatives being a transition from office to cubicle. With the gathering of these results it is helpful to see that not all transitions are negative and in both survey cases transitions not related to transitioning into open-seating had a majority of responses having positive impacts on productivity. This further validates the argument against open-seating environments by showing that the transition itself is not the factor influencing the negative responses.

### **Time to Adapt in New Workplace Environment**

Another interesting observation taken from the data in the survey results relates to the length of time it takes an individual to become comfortable in the new space they were recently transitioned to. The conception in FM circles is that space changes are difficult and often painful for individuals, but often times once they have been in the new space for at least 90 days they will grow accustomed to it and maybe even prefer it over their previous environment (“Adapting to Change”, 2016). By taking a closer look at the survey data within this study filtering those who claimed that the transition into the new environment had a negative impact on their productivity 28 Case Study (50%) and 6 General Test Case (38%) we are able to pair this data with the amount of time it took

them to feel accustomed to a new environment. Out of the 28 Case Study respondents who claimed a negative impact on their productivity only 25 answered the question pertaining to length of time it took them to be comfortable in their new space. Out of those 25 the two main responses were 30-60 days (40%) and Still not comfortable (36%). Considering that many of the Case Study survey takers likely are using a transition that happened within 60 days of this survey release shows that more research is needed before ultimately determining the validity of this conception of time to become comfortable in a new space. In a smaller sample size, however, we do see a majority of individuals in the General Test Case survey who described their most impactful transition as negative to select 60-90 days before they felt comfortable in the new space and this was 50% of the six respondents who qualified.

### **Environmental Productivity in Engineering Field**

Another valuable piece of data taken from this study pertained to the breakdown of departmental categories and how each department responded to the type of environment they considered most productive for themselves. A common conception in FM circles is that engineering environments should be quiet and private space for focus and concentration (Vogel, 2013). Taking a closer look at those within the engineering field at the company used in the Case Study once again we are able to filter the data by department and see how the engineering department breaks down as far as respondents claimed most productive work environment. When we do this, we see that in a sample size of 46 Case Study engineers only 24% are most productive in a quiet and secluded space while 20% prefer a flexible space with a combination of options and a surprisingly 57% of engineers actually claim to be most productive in a collaborative environment with their team. This contradicts the stereotypical engineering environment and shows that there is an actual need for collaboration even in engineering spaces.

CHAPTER 7  
CONCLUSION

**Summary of Results**

There is a minimal amount of data available to Facilities Management on transitioning workplace environments and the impact they have on the productivity of corporate workers. Because of this a survey was created and distributed to gain further insight on corporate work environments and transitioning between the different types. The survey was released to two main audiences including those within the HQ building of a large western Semiconductor company (Case Study) who had experienced a major transition from offices and cubicles to an open-seating environment within 60 days of the survey release. The other audience was one that was captured via a release to a popular professional social media website to gather results from volunteers around the globe interested in corporate workplace environments. The opportunity to compare data from two different survey samples was imperative to not only validating certain findings in the research, but also show that survey collections from two highly variable resources can produce differing results. One of the key findings in the data gathered from the survey results was validating the argument of those on engineering teams having negative experiences in workplace transitions from cubicles and offices to an open-seating concept. At the Case Study company, even after the teams were studied and carefully transitioned into the new open-seating concept 84% of the engineers described the transition as negatively affecting their productivity. We then looked at non-engineering departments to see their results relating to transitioning to open-seating and still had a low rating of 50% having a positive impact on their productivity. When analyzing all other transitions not relating to transitioning into open-seating we found that 85% of these transitions had a positive impact on the respondent's productivity. All



of this data validates that transitions can have a positive impact on productivity, but transitions to an open-seating environment are less likely to be positive especially for those in the engineering field. Another valuable observation found within the research was in relation to the amount of time it took an individual to feel comfortable in their new space after they had a negative experience in the transition to that environment. It was found that in the Case Study results 40% said they were now comfortable in the space between 30-60 days and 36% were still not comfortable (factoring in that these semiconductor employees had been transitioned to the space less than 60 days before the survey release). Lastly, it was discovered that even though those in an engineering department had a large majority of negative responses to open-seating, there were still a large contingent that argued they were most productive in a collaborative environment.

### **Suggestions for Future Study**

Though there are many findings in the data gathered through these surveys, there is still an abundance of information that can be attained in future studies. The perspective of the Case Study example in this data was informative in many ways because of how recent to the survey release they had experienced a major transition. However, because the survey was released within 60 days of the transition there is opportunity to gain results from a company that had more time between the transition and the survey release to have a more beneficial study of the timing it took the employees to adapt to the new environment. For future studies on this topic it would also be beneficial to gain a higher response count in a General Test Case to further solidify the validation of the findings.

## **Closing Remarks**

As companies continually seek opportunities to increase the productivity of their workforces the workplace environment will continue to transform in appearance and in the way people work. The importance of continual research on the impacts of future transitions is critical information for Facilities Management as they seek to optimize their company's workplace environments. For FM everywhere the key to a successful transition is in-depth planning and research on the company and individual departments in advance of any transition. As seen in the research and data gathered in this study, workplace environments impact the productivity of a workforce in many ways and a transition from one environment to another will have an impact on the productivity of individuals and even organizations. For FM, the ultimate goal in any future transitions should focus on creating a positive impact on overall productivity.

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APPENDIX A

ACTUAL SURVEY USED IN DATA COLLECTION

[Consult Attached File]