

DISSERTATION

FACILITY MANAGEMENT REORGANIZATIONS:
DRIVERS FOR CHANGE IN MANAGEMENT OF FACILITY FUNCTIONS

Submitted by

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In partial fulfillment of the requirements

For the Degree of Doctor of Philosophy

Colorado State University

Fort Collins, Colorado

Spring 2009

COLORADO STATE UNIVERSITY

December 8, 2008

WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER
OUR SUPERVISION BY CORY D. HIGGINS ENTITLED FACILITY
MANAGEMENT REORGANIZATIONS: DRIVERS FOR CHANGE IN
MANAGEMENT OF FACILITY FUNCTIONS BE ACCEPTED AS FULFILLING IN
PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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ABSTRACT OF DISSERTATION

FACILITY MANAGEMENT REORGANIZATIONS: DRIVERS FOR CHANGE IN MANAGEMENT OF FACILITY FUNCTIONS

Facility management departments in the United States and Canada are frequently reorganizing the manner which they direct the functionality of the built environment. What is driving this constant change is the subject of this research.

The research approach is an exploratory mixed method design. Through interviews of several facility managers, attributes were discovered that added understanding of the business and personnel activities that occur before department reorganizations. Additional understanding of other potential variables was explored. From this exploratory information a survey was prepared based on themes found. The survey was sent to professional facility managers in the United States and Canada. The survey data were then analyzed with quantitative methods to determine relationships of themes to reorganizations as well as frequency of reorganization types. The survey data built upon, validated, and helped explain the qualitative findings.

Drivers found for facility management department reorganizations included (a) Business Change, which include both business growth and business decline; (b) Business Practice, which includes changes in the host organization, the facility management organization, technology, and communications; and (c) Management or Leader changes or preferences.

The most common type of reorganization that occurs is adding functions to the responsibility of the facility management departments. In two-thirds of the reorganizations the individual most responsible for initiating the facility management reorganization was a senior manager or executive outside the facility management

department. Reorganization of facility management departments was found to occur frequently and on average more than once each year.

An increased understanding of relationships among type of organization, change drivers, and management initiators and the types of reorganization help the facility manager to anticipate or respond better to change. Recognizing reorganization drivers for facility department reorganizations will further help managers better anticipate and control the disruptions of reorganizing for the benefit of the organization.

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CHAPTER 1: INTRODUCTION

Facilities are managed by people organized to engage in activities that maximize worker productivity and minimize the facility impact on occupants and nature. Through the work of these facility organizations or departments a built environment is created and maintained which benefits individuals and society. It is important that facility management organizations function as efficiently and effectively as possible.

Facility management encompasses several functions managed under various organization structural designs. The structuring of these organizations managing facilities is evolving and changing as business dynamics, business technologies, and building technologies change. The drivers of these changes and conditions that facilitate the changes are the subject of this research.

Background

Facility management functions have been performed under various organization titles in past decades. These include building engineering, building maintenance, and real estate. Today there is a professional practice maturing that is known as Facility Management (FM). Facility management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process, and technology (International Facility Management Association [IFMA], 2006). Under facility management are the functions to manage the built environment.

There is a growing awareness of the impact of buildings on people and our environment. The built environment has been linked to occupant productivity. The quality of building air, light, layout, and thermal comfort all impact worker productivity (Aye, 2003). There is a further understanding and increasing concern of buildings' impacts on natural resources. Buildings are the largest consumer of natural resources, not just for construction, but for energy and materials to maintain the buildings throughout their life (RSMMeans, 2002).

Buildings and their surrounding are often referred to as a facility. Facility is a general term that may include a set of several buildings and the grounds they occupy. Facility management is performed by people for the benefit of occupants and the preservation of the facility asset's functional purpose.

Management is a people process. People have skills that are coordinated and combined to move the work of the organization forward. In facility management, the organized workforce applies their skills to the functions of facility management. Organizations are structured to facilitate the coordinated effort of people.

All facilities have an owning (or host) entity; an individual, a corporation, a government, or an association. FM departments may be integral to the owning entity or may be in part or whole a contracted service. In any case there is an organization structure established to manage the facility functions.

There are various organizational designs, each with their own advantages (Gibson, Ivancevich, & Donnelly, 2000). From time to time organizations change their organization's design, in part, to meet changing demands on the organization. Change can impact long term efficiency and effectiveness for better or worse. Reorganization

can be disruptive and non-productive. An expanded understanding of what influences or drives facility organizational change, or reorganizations, may help prevent unnecessary change and may encourage needed change.

Change in non-FM organization, of a general nature, has had coverage in the literature. For FM organizations there is some research related to outsourcing initiatives and changes that may occur as a result. These outsourcing articles are typically espousing the benefits of outsourcing and often take the form of case studies. This research differs in that it will look at the management of facility functions independent of the employee-
outsource contractor arrangements.

With the relatively recent maturing of facility management as a discipline and the recognized impact of facilities on work and environment, there are increasing pressures to understand facilities and the management practices to provide the most efficient, effective, and least impacting facilities. It is with these reasons in mind that this research seeks to understand the drivers of reorganization in FM operations. With a greater understanding, further study may aid facility managers to control and minimize the impacts of department restructuring.

Statement of the Problem

Due to a multitude of reasons facility organizations seem to be under constant change. This may be due to the relative newness of the FM profession or other factors. It may be the increasing demands being placed on facilities, such as higher occupancies, configuration changes, and rising energy costs. It may be due to changing building

technologies and the technologies used in the buildings. All organizational change impacts the effectiveness and efficiency of the facility functions, at least temporarily. Pickard (2004) proposes that FM organizations should be constantly evolving and changing. This is what learning organizations do (Senge, 1990). This continual transformation will at times inevitably lead to reorganizing facility groups and departments.

It has been observed that significant reorganizations occur in facility departments about every five to seven years. Each change event occurs with its share of pain. What is driving reoccurring change? If facilities are to be managed efficiently then it is important that facility departments reorganize only when appropriate. Understanding what drives facility department reorganizing disruptions will help to control those changes.

In comparing reports on facility departments of 1996 and 2001, Friday (2002) observed that there has been an impressive increase in the percentage of departments that report to senior management. This would indicate that a large number of restructurings occurred in those years. By comparing the two reports it appears that over 25% of the facility groups restructured in the five years between 1996 and 2001. It is likely that there were many more reorganizations if we consider the other restructuring types and that a cycle of change could have reverted back to an original reporting relationship.

Purpose of the Research

This research sought to identify conditions in organizations that may drive reorganizations in departments managing facility functions. As FM professionals better

understand drivers for change they may be better prepared to control and facilitate those changes which will benefit the facility functions. This research did not intend to determine whether changes are good or bad.

Research Questions

This research identifies conditions and factors that exist, or are perceived to exist, in the organization which may drive reorganization of facility functional reporting structures. The overall guiding question is what influences departments managing facility functions to change organization structure design (reorganize). Simply stated, what drives facility departments to reorganize?

An understanding of the change and the various drivers is needed for a better understanding of facility department reorganizations. It explores relationships among several of the drivers for change that are worth noting. Though this research does not evaluate if reorganization changes were of actual beneficial value, it does look for correlations with reported perceived benefits.

To identify the drivers of change there are several perspectives considered. Are the drivers for reorganization due to business strategies? Are the changes internally and self imposed? Are they externally imposed? Who are the primary influencers for reorganizations? Conditions affecting the host organization as well as the state of the facility department need to be considered. Answers to these questions develop an acceptable response to the larger and guiding question.

A variety of variables were explored and compared. These variables include

those that describe the type of organization, nature of change or reorganization, and various themes or categories that drive the change. Drivers include business factors and people factors. The identification of these variables was not fully complete until the exploratory qualitative portion of the research was complete. Some general answers were found from the literature on organization change.

Organization Influences on Reorganization

To understand the potential influence of organizations, answers to the following questions were sought.

1. What types of organizations (institutions/government, commercial, non-profit) reorganize most?
2. What types of department reorganizations occur in various types of organizations?
3. Is there any relationship between type of organization and the nature of the reorganization that occurs?

Nature or Type of Reorganization

The questions that address the nature or type of the change were as follows and were answered by comparison of organizations before and after the change as described by the research participants. Additional insight was found as the research data were expanded and analyzed.

1. How often do FM departments reorganize?
2. What types of reorganizations occur most frequently?

3. Are there any correlations between the types of change that occur?
4. Are there any correlations between the types of change and the benefits of reorganization?

Drivers of Reorganizations

The questions that address the condition of the host organization and facility organization (department) prior to the change were expected to identify drivers for reorganization. Conditions affecting the host organization as well as the state of the facility organization were considered. These drivers could be business related or people related. They could be internal or external to the enterprise.

1. What are the internal (self imposed) drivers?
2. What are the external (imposed by others) drivers?
3. Who is the initiator of department reorganizations?
4. Are there any relationships between the initiator of the reorganization and the nature of the reorganization that occurred?
5. What are the reasons given for reorganizing?
6. What are the perceived benefits for reorganizing?
7. Are there any correlations between the benefits perceived for reorganizing?
8. Are there any relationships between the drivers for change and the nature of the reorganization?
9. Are there any barriers to department reorganizations?

Answers to the previous questions will develop the basis for an acceptable response to the larger and guiding question of what influences departments managing facility functions to change organizational structure design (reorganize).

Definition of Terms

As the facility profession has evolved so have many of its definitions for functions. This research uses these definitions for facility terms. Organization is used to describe organizations in general terms while facility department is used to describe FM organization entities (Friday, 2002, p. xviii).

Facility Department Reorganization

Before we can address what drives reorganizations we need to define the nature of organizational change.

A facility department reorganization is when any of the following events have occurred.

1. The entire facility department changes reporting line within the host organization. (Figure 1)
2. Within the facility department, multiple facility functions change under which manager position they report. (Figure 2)
3. Levels of department management are reduced (flattening) or increased (more hierarchy). This change results in reduced (or added) layers of management.

The direction of the change (reduced or added) is not a subject of study only that a change of this nature occurred. (Figure 3)

4. Other organization support functions are added or deleted from department responsibility. No distinguishing of changes that add functions is made from those changes that delete functions. (Figure 4)

The following figures diagram each of these four organizational change conditions.

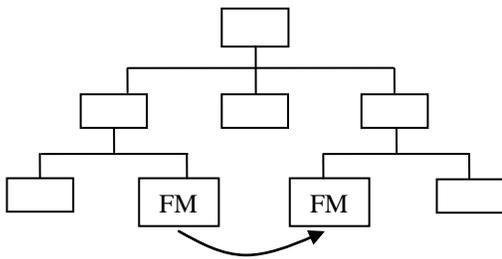


Figure 1 *Entire Department Changes Reporting Line*

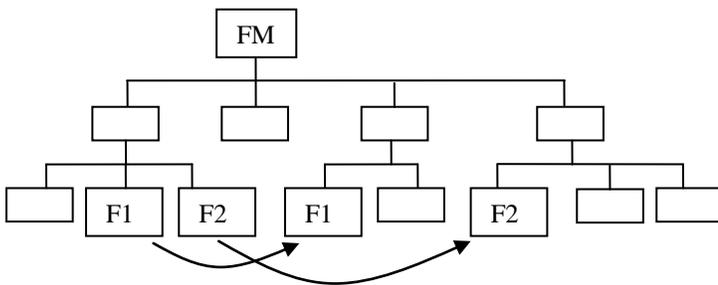


Figure 2 *Multiple Functions Change Reporting Line*

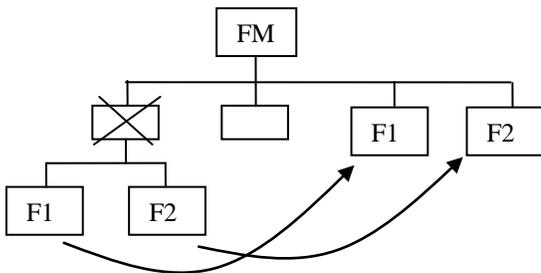


Figure 3 *Levels of Management Reduced (or added)*

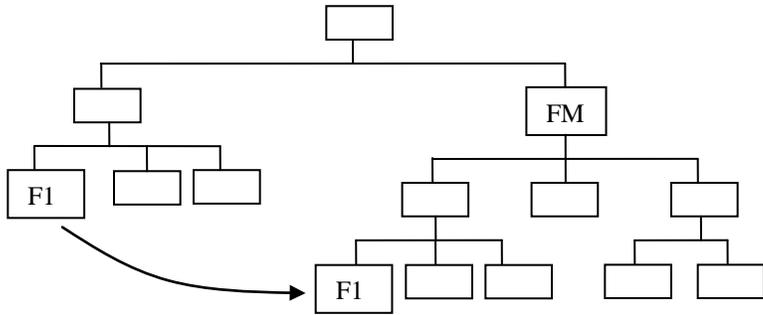


Figure 4 *Functions Added (or deleted)*

Facility Management Terms

Facility Management (FM) is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process, and technology (IFMA, 2006). It includes the principles and practices of business administration, architecture, behavioral sciences, and engineering (Cotts, 1999).

A Facility consists of one or more buildings, structures, and grounds with a common purpose to serve a group or company of individuals.

Facility Functions are defined by IFMA (2002) and are the work performed in several areas: long range and annual facility planning; facility financial forecasting; real estate acquisition and /or disposal; work specifications, installation and space management; architectural and engineering planning and design; new construction and/or renovation; maintenance and operations management; and telecommunications integration, security, and general administrative services. Similarly, in the *Facility Management Handbook*, Cotts (1999) describes facility functions to include planning, programming, budgeting, real estate, design-build cycle, operations, maintenance and other FM practices.

FM Competency Areas – IFMA (2006) has determined that a FM professional should be competent in nine areas to manage the facility functions adequately. These competency areas serve as the basis for FM training and certification programs. However, these competencies are not a basis for organizing FM departments. They are listed here only to give a broader understanding of the skills and perspectives possessed by the facility professionals who participated in this research. Each competency area is defined in the order in which IFMA describes them.

1. *Operations and Maintenance* – acquisition, installation, operation, maintenance and disposition of building systems, structures, permanent interiors, furniture, equipment, grounds and exterior elements.
2. *Real Estate* – management and implementation of the real estate master planning process and asset strategies.
3. *Human and Environmental factors* – development and implementation of practices that promote and protect health, safety, security, quality of work life, the environment, organizational effectiveness, and emergency preparedness.
4. *Planning and Project Management* – development of facility plans including management of all phases of projects through programming, design, and construction.
5. *Leadership and Management* – planning and organization of facility functions, personnel, and delivery of facility services.
6. *Finance* – Management of the facility finances and financial processes.
7. *Quality assessment and innovation* - process of assessing the quality of services and facility effectiveness including benchmarking processes, audit activities,

and developmental efforts to make innovative improvements in facilities and facility services.

8. *Communication* - implementation of effective communication practices and culture.
9. *Technology* – planning, direction, and management of facility business and operational technologies and/or the organization’s technological infrastructure.

Facility Management Departments - The IFMA (2001) study found that FM organizations most frequently include departments for maintenance and operations (91%), facility planning (88%), space management (75%), environmental health and safety (58%), real estate management (56%), and administrative services (52%). Only 8% of departments directly supervise the information technology function. One-half (54%) of all FM departments are structured as a separate department within the organization and typically report to the executive level managers, 42% are part of a larger department (usually Administration, Human Resources, Finance, Operations, or Real Estate), and 4% are split across various departments. When multiple departments are grouped with the FM department they may be referred to as a division of the company.

Organizational Restructuring Terms

Organizational transitions and change have been studied for decades. Terminologies evolve as new methods and approaches are developed. References to organizational parts and drivers for change employ the following terms.

Organization Structure Design is defined by Gibson et al. (2000) as the process by which managers create a structure of tasks and authority. The process facilitates

decision making. The structure refers to relatively fixed relationships that exist among jobs.

Organizational change or structural change occurs when a significant shift results in the reporting responsibilities of facility function groups.

Outsourcing is when an organization contracts with another to perform some or all of the functional tasks and management. Outsourcing is not in and of itself reorganization, although reorganization and outsourcing initiatives may occur simultaneously.

Host organization is the organization for which the facility department manages facilities. Typically the owner of the building or of the space occupied.

Change drivers are events or persons who start an action or significantly change a direction. They initiate the reorganization activities.

Internal drivers are those actions or conditions that occur within the facility department. Department growth, personnel changes, technology uses are internal drivers.

External drivers are those actions that come from outside the facility department's host organization. Market forces and environmental changes are examples.

Host drivers are those actions that come from within the host organization but outside the facility department. Corporate driven changes such as mergers/acquisitions are an example.

Delimitations and Limitations

In designing the research, boundaries had to be established to have the findings applicable and understandable. These limits served as delimitations in the research. Similarly the environment in which facility activities reside provides additional limitations to the research.

Delimitations

To fully understand the drivers, it is not conceivable or practical for every person in the host and facility organization to be interviewed or surveyed. This study was limited to contacts of senior facility staff from participating organizations. Only the opinions and observations of these key individuals could be analyzed.

To help make the findings of this research the most applicable possible, the study looked at facility demographics that are most common throughout the United States and Canada. These are typically large entities (corporations, government, private or public agencies) where a single facility organization is responsible for a large portfolio of space. The facility department would manage three or more of the facility functional areas as defined by the International Facility Management Association (IFMA, 2002). Participating organizations were selected from membership of IFMA and similar professional organizations. Organizations that had undergone recent facility function restructuring were sought. Employment arrangements (internal, contracted, or outsourced) of the organization members were not considered in the selection of

participating organizations. These organizations were studied from the perspective of the facility manager.

Limitations

There are a large number of commercial use buildings in the United States and Canada managed by thousands of facility organizations. It is not reasonable to expect that the drivers for change in facility organizations can be generalized for all. Nor are all facility organizations represented by membership in the professional associations and are available from which to draw our sample of participants. Therefore a representative sample will only be as good as professional membership represents all facility organizations.

The IFMA membership data base had identified professional, associate, and student members. It was assumed that professional members only are those who would generally have experience inside a facility department. Associate members typically are vendors or suppliers of services and products. Students were assumed not to have the relevant experience. It is possible that both Associate members and Students may have at some time been leaders of facility organizations but their input will not be part of this study.

Personal perspectives and biases of the interviewees could distort and limit the research findings. It is possible that key individuals would not fully know the drivers of the restructuring but may reveal their perspectives of the outcomes. This may lead to speculation on their part as to what was occurring that drove the restructuring.

There was the potential that some individuals or organizations may wish to remain unidentified and not risk exposure from participation. Their responses in the interviews or to the survey may be affected in an effort to further conceal their identity. This concern is minimal since specific cases are not presented in their entirety. Names of individuals and organizations are not needed, only structure design and functions. Persons with these concerns were likely to choose not to participate.

The survey instrument developed for this study will receive only limited testing. No previously tested instrument was found that could be applied in this study. The reliability of the survey may be subject to various common problems. Efforts were made to avoid common problems such as those noted by Creswell (2002, p. 407). It was assumed that the survey instrument used provided reasonably reliable and accurate responses from the participants.

Researcher's Perspective

Though the most scholarly justification to study a research problem would come from suggestions of other researchers in published studies, evidence to study a problem may also come from personal work experience. Creswell (2002) further suggests that in addition to quantitative methods, qualitative methods may be appropriate for exploring research questions derived from experiences in the workplace.

The interest in this topic stems from the researcher's more than 20 years of experience in facility management. Personal experiences in driving facility department reorganizations, as well as participation in changes that were thrust upon organizations

managed, must be recognized. Personal observations and experiences of the researcher drove much of this research. It is hoped that the research was performed in an objective manner as the experiences of others were collected and assimilated into common themes of drivers of facility department reorganizations and change.

This research project by its nature was influenced by the researcher. Interviews have limited structure with open ended questions. Follow up questions were initiated by the researcher. Analysis of the responses and the themes identified related to the topic were limited to the researcher's ability and experience to recognize and assimilate information.

The primary focus of the research is on FM department organizations. However, from the current literature an understanding of non-facility department organizations and organizations in general may be obtained.

CHAPTER 2: REVIEW OF LITERATURE

This review of literature is organized to first explore studies and writings of a general nature from the field of organizational behavior. Organization designs, impact on restructuring, and drivers of change will then be reviewed. More specifics of FM organizations follow the general review. FM functions are reviewed from the literature on FM organization design and changes. Changes in organization design and structure, or restructuring, have an impact on organization effectiveness.

Background of Organizational Study

Organizations of people and resources have been around since human beings began working together to accomplish work. However, the field of organizational behavior began around 1950. That field emerged to help managers understand people better. The behavior sciences provide the basic framework for the study of organizations. Before the twentieth century, organization theory, or an emphasis on management of organizations, was given little consideration. Society's infrastructure was primarily based on models from the military, the Catholic Church, or European governments. Little thought was given to what made these organization models effective or ineffective. With the industrial revolution, a factory-based economy emerged which required a need for structure and determinations of ways to perform work faster and more accurately (Friday, 2002).

Corporate, business, and government organizations have been studied in various ways. Studies have included the dynamics of organization structure and the impact on effectiveness of function and personnel. Prior to the 1970s change was slow. The organizational approach was a top-down hierarchy with authority in the hands of top executives. During the 1970s, government regulations, information technology, global competition, and customer demands changed and put pressure on organizations to change as well (Gibson et al., 2000). The study of organizations delivering facility functions is relatively recent and has not been well addressed in research literature.

Organizational theories are embodied in the disciplines of organizational behavior and organizational development. These disciplines have studied the nature and types of organization designs and their impacts on productivity. Much has been written on the impact of these on management of various organization types and their appropriate use or application (Galbraith, 2002; Gibson et al., 2000; Hampton, Summer, & Webber, 1982; Jensen, 1998).

Until 1986 there were few studies of FM organization structures. During the real estate boom of the 1980s, FM departments had a tendency to grow and restructure almost haphazardly as functions were acquired or dropped (Friday, 2002). Many FM reorganizations occurred during this period of real estate boom and growth.

Organizational Theory and Designs

There is no one best organizational design. The organizational design to use is dependent on the circumstances of the organization and stakeholder environment. There

are many alternative ways to organize. One approach is a functional organization, which is simply an organizational unit of work, configured on a hierarchical basis, with each person having one superior. People are grouped by specialty such as engineering, finance, and construction. Some of the likely problems that such an organizational design can create include interdepartmental politics and territorial battles; avoidance of conflict resolution; overdependence on the existing formal communications networks; dependence on people who lack the proper credentials to provide schedule and cost control support; dependence on accounting and financial information systems that are based on department needs and are fiscal year-oriented rather than project-oriented; propensity of department personnel to compromise schedule and cost needs to meet quality standards; and a general lack of concern for what goes on relative to the work (Cleland, 2002).

Organization Structural Design

“Structure is simply a matter of translating task-oriented, measurement-based focus from an individual to an organization. It’s a matter of designing tasks so that people know where and how to spend their energy” (Marshall, 1999, p. 10). Organizational structure then can be described as how persons are organized so that relationships are clear and defined to accomplish work. Structure has an influence on behavior with the keyword being control. Organizational design is the process by which managers create a structure of tasks and authority. There are various organizational designs, each with their own advantages (Gibson et al., 2000). From time to time organizations change their designs, in part, to meet changing demands on the organization. The approach to

organization design is subject to the skills and experiences of the managers. Therefore there are multiple approaches to designing organizations (Hampton et al., 1982).

Performance management within each type of organization takes on different emphasis depending on the inherent strengths that occur from the structure itself. For this discussion on organizational structures, organization types are discussed with a brief note of their performance management nuances.

A change in organization structure is a transactional change. A transactional change implies a give and take: something taken for something given. Transformational change may include reorganization but has a larger and more permeating impact on the operations of the facility departments.

There are many variations of organizational design. To describe these variations organizations are divided into two types as suggested by Gibson et al. (2000) in their classic text on organizational behaviors. They divided organizations into those of a mechanistic model and those of an organic model. Mechanistic organizations are those with a more traditional hierarchical and bureaucratic nature. Organic organizations build more on human capital and may have a matrix approach to supervision.

Each type of organization may take on orientations based on functions, products, markets, geography, and processes. The multiple natures of these organization types and orientations make understanding and defining organization structures complex. The design and application of organization structures to a particular condition become difficult as well.

Basic Decisions that Result in Organization Type

There are four key design decisions along a continuum of application which are applied to organization structure. These design decisions are division of labor, departmentalization, span of control, and authority (Gibson et al., 2000).

Division of labor is concerned with the extent of specialization in a job. Specialization may be a personal specialty such as professional or technical skill. It may also be similar tasks to be performed by a group. High specialization would occur when an organization groups similar tasks or skills. Low specialization would then be where the organization's group or teams are varied in what they know or in activities performed.

Departmentalization is where organizations are divided by the combination of jobs that have some shared characteristic or basis. These shared characteristics may be that the group of jobs or people share common function, territory, product line, or a set of customers. Each department then will share in a common purpose.

Span of control basically deals with the number of interactions for department managers. The manifestations of these interactions are typically indicated by the number of direct reports to a manager. The more direct reports the greater will be the number of interactions to manage. The abilities of the managers, as well as the complexity and diversity of the work managed, will determine the extent of interaction that can be handled by any one person (Christiansen, 2000).

Authority to make decision can be distributed throughout an organization or centralized in a few positions.

Organizations that generally have a high division of labor, homogeneous departmentalization, narrow span of control, and centralized decision making are those

that are the most mechanistic. Mechanistic organizations can be termed as classical, formalistic, structured, bureaucratic, and system I.

On the other side are organizations that will generally have low division of labor, heterogeneous departments, wide span of control, and decentralized decision making. These organizations are generalized as organic in nature and may be termed as neoclassical, informalistic, unstructured, nonbureaucratic, and system 4.

Table 1 graphically depicts the range of the continuum for each of these organization design features. At the extremes are the most mechanistic or organic organization types.

Table 1 Mechanistic versus Organic Structures

	Mechanistic Designs		Organic Designs
Division of Labor	High	←-----> Level of Specialization	Low
Departmentalization	Homogeneous	←-----> Basis	Heterogeneous
Span of Control	Narrow	←-----> Number of Reports	Wide
Authority	Centralized	←-----> Delegation of Decision Making	Decentralized

(Table adapted from Gibson et al., 2000, p. 329)

Transactional Design Factors

Organizational design changes alone are transactional in nature. Burke (2008, p. 191) includes in his model for organization performance and change several factors. The transactional factors include management practices; structure; system (policies and procedures); work unit climate; motivation; task requirement and individual skills;

individual needs; and individual and organizational performance. Events in these areas create transaction level change. Department reorganizations are transactional in nature. There is a give and take (a transaction) for this level of change. Many of these listed factors are similar to those found for facility organization changes. These generally are internally directed and driven.

Burke (2008, p. 190) further lists factors that are part of more sweeping and lasting change which he refers to as transformational change. These factors include external environment, mission and strategy, leadership, organization culture, and individual and organizational performance. These factors influence both internal and external to the organization. A transformational change may include a variety of transactional level changes. Department reorganizations may then be a transactional change or part of a transformational change. The factors that are part of transformational change may also then be found as factors driving or associated with department reorganizations.

Mechanistic Designs of Organization Structure

The most visible aspects of mechanistic organizations are the span of control which is often referred to as its hierarchy. Bureaucratic organizations are associated with high hierarchy organizations. The impact of mechanistic designs has been described by several writers (Christiansen, 2000; Galbraith, 2002; Gibson et al., 2000). To simplify the discussion, two organization types, the hierarchical and bureaucratic, are described. Obviously there are many gradations of mechanistic organizations that cannot be fully

covered. These two types will however serve to generalize the structures that are described toward the left in Table 1; those that are most mechanistic in their designs.

Hierarchical

Hierarchy and its variables on span of control impact the speed and effectiveness of responses to new opportunities. The length and density of the communication paths, or the difficulty in getting through to decision makers, impact these decisions. In a hierarchical organization, innovation specialists rise to the top giving greater prominence and priority to innovation initiatives (Christiansen, 2000). High hierarchy minimizes the span of control which allows for higher levels of control as well as coaching.

Managing the performance of such organization includes clear communication channels up and down the hierarchy. Performance issues can be quickly identified and managed. Mentoring of individuals can easily be performed when needs are identified.

Density and length of the communication path will affect the speed and response to new opportunities. In a hierarchy organization a fundamental assumption is that the chief officer is in command and control.

In contrast to highly hierarchy organization where individuals are in control, bureaucratic organizations rely more on process and procedures.

Bureaucratic

Bureaucratic organizations have allowed for improvements in the effectiveness of delivering products and services that were complex and more demanding than what any one person could manage. Six characteristics of a bureaucratic organization are (a)

hierarchical chain of command; (b) specialized by function; (c) uniform policies on rights and duties of workers; (d) standardized procedures for each job; (e) careers based on promotions and technical competence; and (f) impersonal relationships (Hug, 1997). A simple operating principle of the bureaucratic organization is that all coordination of work is performed one or more levels above the level at which the work is performed.

Clear chains of commands and clear procedures enable a system to consistently manage delivery of services and controlling performance. This is a powerful way to bring order to large groups working for a common enterprise. Large corporations and many governmental organizations have found many aspects of the bureaucratic organization beneficial.

Drawbacks of the bureaucratic organization are its inflexibility and slowness to change. Bureaucracies get engulfed in their own procedures and risk losing sight of their products or customers' demands.

Organic Designs of Organization Structure

Organic designs are gaining momentum and replacing the more traditional and mechanistic organization structures. Focus on individuals and skills along with a disdain for the rigidity of mechanistic structures has fueled this movement.

Matrix Organizations

Hampton et al. (1982) put forward the concept that there is a range of organizational alternatives. The range is from the functional organization where function

has high relative influence on decision making to the product organization where product influences the decision making. In the middle are matrix organizations. Matrix organization decision making is influenced by both function and product. Often matrix organizations have dual reporting structures.

Hampton, et al. (1982) further labels five types of matrix organizations. In all cases, the matrix organization shares traditional responsibilities between two management chains. Typically one management group is responsible for systems or processes while another is responsible for functions or competencies. At an individual level this results in two (or more) supervisors directing the work of an individual.

Virtual Organizations

Where once workers were traditionally grouped on the basis of function, product line, geography, or some combination, new virtual organizations are rising. New and alternative organization designs are being considered and explored. Lack of structure or virtual teams have been considered as designs. Some have explored management without a leader (Belbin, 1996; Harrington, 1991; Nielson 2004).

There was a tendency in the 1990s to group workers less by function and more on the basis of shared responsibility for a common task. This has resulted in a proliferation of cross-functional teaming even at quite low levels in the hierarchy. More recently, companies have begun to fragment further. Task forces, development teams, customer focus teams, and other specialized bodies proliferate until an organization begins to look like a loose coalition of semi-independent groups organized around a set of loosely related products, customers, or technologies. There is no accepted name for this project-

based organization. These special structures sometime solve innovation problems best. When a handful of individuals hold a competence that is needed in several different places in the organization and there are not enough to divide among the organization, one solution is to share the resources; hold resources in a central lab for all to access (Christiansen, 2000).

Organizational Orientations

Miciunus (2002) observed that organizational structures can take on five orientations: Functional (organized by skills and areas of expertise); product (organized by type of space/facility); market/customer (organized by business unit relationship); geographical (organized by regions, territories or theatres); and process (organized by ownership and management of business processes). Friday (2003) and Cotts (1999) further applied these variations to FM organizations.

Both the size of the organization and its level of innovation will affect the organization orientation. The volume of work performed by an organization, such as the number of products to produce or customers to be served, affects the number of people required to perform the service and thereby the size of the organization. A high rate of innovation means that there are a large number of outputs or processes that are new to the organization. The opposite of innovation is routine operations, which leads to low task uncertainty and is most effectively organized by rules set by hierarchy. As the organization increases in diversification it should divisionalize and use progressively more decentralization. Medium diversified organizations should choose a functional

structure where cost control is the main goal and a divisional structure where sales growth is the main goal. Medium diversified organizations should choose a functional-product matrix structure where both cost control and sales growth are goals. Where each locality operates independently of other localities then the structure should be geographical divisions (Donaldson, 2000).

Functional

Functional structures are typically found in organizations that have small-size single product lines. Their markets are undifferentiated. There is a level of expertise required within each function. Product development takes time and product life cycles are long. Standards for work practices and procedures are common (Galbraith, 2002). Most companies start by organizing around functions or activities. The functional organization provides several advantages. By gathering persons of one function together the transfer of ideas, knowledge, and contacts can be accomplished. It allows them to achieve a greater level of specialization. The functional group provides a more singular standard of delivery of services. It may allow greater sharing of specialized equipment and tools among the group.

Product

Product structures are found when the organization focus is on a particular product or where there are multiple products for separate customers. Typically product life cycles are short in companies that organize on this basis (Galbraith, 2002).

Market

Market structures are organized around important market segments. The products and services are unique to the segment. Buyers exert strength to the buy decision and thus knowledge of the customer's business is an advantage. Rapid customer service and short product cycles drive need to focus on market segments (Galbraith, 2002).

Geographical

Organization structures designed around geography exist where there is a low value to transport cost ratio. Services are provided or delivered on customer sites. Closeness to customers for delivery and support is essential. There is a perception that the organization is local. The market segments need to also be geographical (Galbraith, 2002).

Process

The process structure is seen as an alternative to the functional structure. It has the potential for new processes and radical process changes. It reduces working capital (Galbraith, 2002).

Performance Management Systems

Much has been written on the impact of these organizational orientations on management of various organization types and their appropriate use or application (Galbraith, 2002; Gibson et al., 2000; Hampton et al., 1982; Jensen, 1998). Organization

effectiveness and progress require that performance be managed. A performance management system is a function of both job design and job analysis. Organization performance is accomplished as individuals in various jobs perform. Since organizations are created by combining various jobs to accomplish some work, the proper design of the jobs is critical. Once jobs are designed then individual performance in each job can be evaluated and improved.

A performance management system is more easily applied and understood in the mechanistic organization designs. In these hierarchical designs job relationships are more easily described. The task analysis and assignments of positions can more easily be described in relationship to others. In the organic organizations, positions are described more in terms of the roles of the team and the contributions of the individuals to the team. Therefore team performance and evaluations play a bigger part. Self directed teams with highly self motivated persons may do well in organic structures where they have more ability for self evaluation and direction. Management's challenge in these organizations is to identify self directed persons and their fit in the group.

Application to Facility Organizations

Design considerations for an effective FM organization include the relevance of the facility activities to the work of the enterprise. The FM organization should be such that tactical plans and priorities align with what is important to the company and its strategy for success. Managing facility functions require a broad range of skills. The conventional FM organization has followed a functional design where skills are grouped

by functions such as engineering, construction, maintenance, and operations. These functional groupings then report to a diverse set of corporate divisions which may include finance, human resources, procurement, manufacturing, or perhaps a shared services division (Miciunas, 2002). In other organizations, facility functions may be grouped by corporate products, business or customer markets, geography, or by nature of process in the facility.

Cotts (1999) exerts that facility departments must reflect the needs of the parent organization. He put forth a list of organization models for facility departments to follow. They include the (a) office manager model, (b) one-location one-site model, (c) one-location multiple-sites model, (d) multiple-locations, strong regional or divisional-headquarters model, and (e) the fully international model.

There are needed improvements in the practice of facility management and design of organizational structures. There are unique aspects to each facility department. Some facility managers have used these minor differences to justify failure that might come to even the best organized departments. Others are realizing that there are better way to organize the physical plant departments. Serious research needs to be done and practitioners need to start using best practices for best results. Cotts (1999) advises that facility managers not confuse outsourcing, which is a staffing issue, with organization design.

No one type of structure best fits any one business strategy.

Impact of Organization Designs

The dynamics of teams and groups are greatly affected by the organization structure in which individuals work. Therefore the design of the organization will affect the work of the organization, positively or negatively. Team size, skill mixes, and communication methods are just some organization considerations (Beblin, 1996). Several authors have written on the dynamics of teams and groups, why some fail and others succeed, as well as factors that define organizational structure and the implications of design on performance of the organization (Galbraith, 2002; Gibson et al., 2002; Hackman, 1990; Harrington, 1991; Klein, 2000). Table 2 summarizes some of these design impacts on organizations.

Table 2 Design Impact on Organizations

<i>Organizational Design Attribute</i>	<i>Impact of Design on Organization</i>
Hierarchical Design	Clear communications. Slow decision making. Customer voice hard to hear.
Matrix Design	Good skill integration but sometimes confusing tasks and direction for individuals.
By Specializations	Easy to maintain high level of skills. May not integrate skills on projects.
Project / Customer Teams	Good integration of skills and strong customer focus. Difficult to support individual skills over time. Lack resources within to change for new projects.
Departmentalized by Function	Good processes for functional area. Integration of functions poor. Response to customer needs may be difficult.
Geographic Departments/Teams	Similar to Project/Customer Teams but focus on geography and not necessarily customer.

Impacts of Restructuring

Restructuring an organization involves some level of change. Change and transitions have an impact on the organization. Each restructuring will bring its own impacts.

Organizational resizing has become pervasive in today's global workplace. Just about every work organization has gone through layoffs, plant or office closings, or divestitures. When these events are mismanaged they have negative, not merely neutral, effects on work organizations and their people (Marks & De Meuse, 2005). Restructuring has impacts on the markets of companies and thus on the progress or success of companies (Marcus, 1996). Persons at all levels are affected by change. Who they are and how they conduct themselves during the change will affect the results and the organization (Connor, Lake, & Stackman, 2003). The manners in which individuals define their jobs drive aspects of reorganization (Klein, 2000). In the book *Change at Work* (Cappelli, Bassi, Katz, Knoke, Osterman, & Useem, 1997), the authors explain that foreign competition and domestic pressures for profitability facilitate widespread organizational restructuring in large U.S. corporations.

Reorganization Drivers

Organizations change and take on different forms or structures. What is sometimes less clear and a challenge for social scientists is the development of theory to explain why organizations form as they do (Jensen, 1998). Organizational characteristics

that may explain why organizations function as they do are encompassed in their performance measurement and evaluation systems; their reward and punishment systems; and their systems for partitioning and assigning decision rights among participants. This last characteristic of assigning decision rights is associated with organization structure. Internal or external pressures on an organization in these and other areas may drive the organization to change form. There have been many advances in business methods and pressures brought on by globalization that have led organizations to change.

Drivers to Move Organizations Away from Existing Condition

Beblin (1996) proposes that nothing changes without a reason. For one system to replace another, two conditions in combination are needed: Dissatisfaction or disillusionment with the old system along with some beckoning model of the new. Maurer (2005) makes the point that change will not occur until the need for change is identified and made clear. “How” a change proceeds must follow an understanding for “why”. The “why” comes from the identification that the current situation is undesirable and that a new condition is more desirable.

Organization change is driven when destabilization forces disrupt the organization. For example, traditional hierarchical organizations come under pressure as their efficiencies become suspect. Reliance on rules and regulations and separation of operation levels have been questioned. Bureaucratic hierarchies may deny control to those who are capable of meeting their responsibilities. Social factors are forcing change. Increasing populations of educated self thinkers cannot work comfortably in

organizations where as subordinates they have little say over the direction of their efforts. Another factor leading to change is the gender factor. Power based hierarchies with military overtones which nearly always have been dominated by men create a climate which women do not comfortably fit (Beblin, 1996; Connor, Lake, & Stackman, 2003).

Sherer and Lee (2002) found that external market forces, such as labor resource shortages, moved large law firms to question their long held hiring practices. However, until internal forces, such as prestige of the firms, created enough legitimacy to try a new approach, change did not occur. Pioneering firms that held sufficient prestige to make the change legitimate moved forward, less prestigious firms did not follow. In all cases, until there was the external market forces pushing a need to change and there was sufficient internal comfort created by legitimate power, no change occurred. Both internal and external pressures were needed to facilitate a change.

Forces that create organizational change may originate outside the organization such as from competition or regulatory pressure. Forces for change may come from within the organization and from such events as a new CEO or management, a new goal is established, or an engineer returns from a conference with a new idea.

The key findings of the Bamford and Forrester (2005) study found that the external forces for change included economics, socio-economic, legislative, shareholders, and customers. The primary internal forces were the financial reporting system, culture, and perceptions of middle management.

In a study of 100 manufacturing companies in England it was found that some companies depend heavily on formally structured coordination systems. As companies move up the scale increasing in diversity and complexity and deal with stable and known

goals, there was more and more separation of coordinating from operating. Furthermore there was a separation within the coordinating function between those who plan production and those who supervise production. Size of the company made little difference in how many managerial positions there were. The stability of production and the external environment were the crucial determining factors. Therefore as companies evolve and grow in their external environment, conditions are created to apply pressures internal to consider changes (Hampton et al., 1982).

A University of Louisville study (Kemelgor, Johnson, & Srinivasan, 2000) findings grouped internal and external drivers for change into three categories of technological, competitive, and workplace. They looked at changes made in business schools to become more competitive and found that new technologies for classrooms along with learning methods were factors in driving change. Competition from other schools to recruit students, shifts in society on methods, needs for traditional schooling, and a move toward career and lifelong learning were affecting their programs. The third area of workplace included drivers from the changing ways in which businesses utilized business graduates.

From these studies we see that drivers for change can come from sources internal to the organization (personnel, technology, etc.) or from external sources (markets, competition, etc.).

Internal Sources

Internal sources for drivers are grouped into three areas as indicated by Connor et al. (2003). These three internal sources are professionals who retain outside affiliations, establishment of new organizational goals, and excess (or reduced) organizational resources.

Professional Association

Change from professional associations is a result of new methods of performing work in specialty areas of an association. New organizational processes are designed to accommodate these new methods (Connor et al., 2003). As professionals are exposed to new tools, ideas, and methods they desire to incorporate them into their work environments. Introduction of new methods will create pressure on an organization to change to accommodate the change in work approaches. Since the employee is part of the organization, professional association involvement creates internal pressure for something better.

In the study by Sherer and Lee (2002) the new method came from observing operations in a client organization. The interaction with other companies and an understanding of their practices develop new thinking and approaches that infiltrated internally to an organization. After the initial firm changed its hiring practices, others learned of their approach to the resource hiring problems. When other forces (external in the law firm case) combined then a change occurred.

New Organization Goals

New organization goals inspire new tasks for individuals and organizational units which in turn require changes in organization structure. New people are hired to accomplish new tasks. The organization revises its structure to accommodate new tasks and personnel changes (Connor et al., 2003). There may be external sources that contribute to the new goal or direction, but the source for the goal will be internal evaluation and adoption. The desire to move in a new direction is internally established and therefore is an internal source for change.

Where do new goals come from? In many cases it is new leaders and ideas. In several studies a new CEO may be the internal driver. In the Bamford and Forrester (2005) study the most influential group was middle managers. The study organization had created a system that encouraged and empowered the operations managers to identify and lead changes. Mid managers then set new directions with each small process change or improvement.

Excess Organizational Resources

As organizations accumulate excess resources, new and extra services may be added for employees. For example as a company grows they may add services such as cafeterias and fitness facilities. Employee training in areas not essential to the success of the organization may be offered. Companies may search for new ways to do business or new areas of business in which to expand. These additional services or expanded business offerings can lead to organization change. (Connor et al., 2003). Company mergers and acquisitions will greatly affect the levels of resources available.

On the flip side, as organization resources reduce, services and less profitable functions may be eliminated. There may be a ripple effect through various support functions such as accounting or facility management.

External Sources

External sources of change are the business's or industry's social, political/legal, economic, and technological environments.

Social

Values of the society apply pressure to an organization to conform. Society's growing value for a clean environment, a sustainable future, and inclusion or equality for all are driving change. Government policies reflect social values and are becoming prolific in requiring more environmental friendly practices. Regulating environmental activities has and will have a big impact on the work of organizations. Regulations for clean air, clean water, elimination of toxins, conservation of forests, and others abound. New pollution-reducing technologies are developed and applied within the organization's work (Connor et al., 2003).

Political/Legal

Political shifts impact the demands on organizations. Conservative political leadership tends to provide businesses with capital for which they can expand. Liberal political leadership tends to highly regulate business and require more of the business

benefits to be returned to the workers and community. Deregulation of industries can introduce changes in competitive environments for those industries (Connor et al., 2003).

Economic

Expanding and receding economic conditions affect organizations. In times of growth, businesses expand and conglomerates flourish. During recession businesses layoff workers, cutback services, divest assets, and even fail or close (Connor et al., 2003).

Technological Development

Changes in technology, particularly in the communication and transportation industries, affect the ways businesses operate. As these technologies evolve, so does business to capitalize on the technology to increase productivity and competitiveness. Organizations can reach customers and clients in a greater variety of ways. Changes in transportation can reduce inventories of raw materials and finished goods, shipping just-in-time to meet customer schedules (Connor et al., 2003). Many organizations have changed as new methods and tools have become available, which were driven by rapid changes in technology. The changes have not just occurred with the computer age but have occurred in past eras as well. Changes in organizations driven by the use of electricity, the assembly line, and other industrial age technologies had just as great of impact on organizations of their day.

Drivers that Beckon Organizations toward New Conditions

Adjustments in an organization are made to respond to internal or external disruptions and come in four organizational elements: (a) tasks performed by individuals; (b) various organizational processes such as communication, decision making, control; (c) overall strategic direction taken over the long run; and (d) organizations dominant values, norms, and customs (culture). Stabilization continues until a new equilibrium is reached (Connor et al., 2003).

It is human nature to want to be comfortable. The pursuit of a stable and comfortable environment motivates individuals and organizations to seek a better way. When internal or external forces drive dissatisfaction with the current state, a new state is sought. Leadership in organizations creates a vision for the new condition. Cultural values of individuals shift over time and leaders emerge. Leadership is not always at the top of the organization structure.

The dream or vision for a new condition must be part of the drivers for change. These perceived new conditions may come from observation or design. Establishing new directions often appears to be experimental, which is why change appears to be unplanned and chaotic.

Bamford and Forrester (2003) noted that there are two approaches to change. The traditional methods imply that stable environments first plan, then execute change. A stable environment is sometimes hard to find in current business environments. This contributes to many external and internal demands on businesses. Bamford and Forrester

note that the newer “emergent approach” to change appears to be more reactively managing change rather than managing by design.

Change in organizations may be influenced by many drivers. These drivers can generally be grouped into external and internal sources. Change often will not occur without the right combinations of drivers. The many drivers and combinations make predicting change difficult.

Facility Management Organizations

Facility management as a discipline has matured and been separately defined over the past decades by both the functions it performs and identified as a separate support organization. The history of facility management goes back as far as humans have built structures to protect themselves from the elements. However, facility management as a business is relatively new with its widespread identification starting with the creation of the Facility Management Institute in 1979 (Cotts, 1999).

Friday (2002) noted in her research on facility organization development that there is little written on FM organizations. Cotts (1999) observed that there is a general lack of basic research in the FM profession and research needs to be of a higher quality. Cotts believes that too much research has been on defining facility managers and not producing research helpful to practitioners. He suggests that research topics focus on three areas, one of which is how facility departments should be organized.

The newness of facility management as a separate discipline and the growing recognition of how facilities impact business have generated an interest in understanding

impacts to FM effectiveness. The observed changes in department structure and the understanding of the impact of change in general on organizations leads us to explore and understand drivers for change in facility departments.

Organizational Designs for Delivery of Facility Functions

In 2001 the IFMA foundation conducted a survey of 905 facility professionals. They found that 54% of FM divisions are structured as a separate department of an organization, 42% are part of a larger department (usually Administration, HR, Finance, Operations, or Real Estate), and 4% are split across various departments. Two-thirds (64%) of these FM departments use a functional design. FM departments tend to be flat in organizational design, with typically four or fewer levels from top to bottom. The head of the department most often reports to a member of senior management.

FM departments most frequently include maintenance and operations (91%), facility planning (88%), and space management (75%). One-half of FM departments include environmental health and safety (58%), real estate management (56%), and administrative services (52%). Only 8% of departments directly supervise the information technology function. The overall size and number of facilities coupled with growth in the facility space and number of occupants were the most common reason for an organization to create an FM department.

FM departments often out-task or out-source many of their functions to contractors. Out-tasking is when individuals or specialized vendors are contracted to provide support for one or more functions. For example, routine maintenance for a boiler may be performed by the FM department but annual specialized tasks may be contracted.

All the maintenance for the boiler system may be out-tasked but other systems are maintained by other contractors or performed by FM department staff. Out-sourcing (as compared to out-tasking) is when most FM department tasks are managed by a full service contractor. Out-sourcing bundles more of the functions of the FM department together under a single contractor. The extent of out-sourcing varies and may include the entire FM department. The out-sourcing contractor may self perform or out-task the contracted functions. It is rare for the out-source provider to self perform all FM functions.

Most (80%) FM departments out-task some functions while about 6% out-source. That leaves 14%, according to the 2001 survey, that handle all services internally. The trend is to out-source and out-task more and more of the non-core functions. As a result, providing services to FM departments is a growing industry.

Friday (2003) has written much on the FM organization, its development, makeup, and nature. Her descriptions include functional differentiations. The impact of organization culture, both that of FM and corporate organization, cannot be ignored in the design of the FM organization. “Those that study culture consider it the key to organization consistency” (Friday, 2003, p. 1).

Facility Management Reorganizations

Pickard (2004) proposes that FM organizations should be constantly evolving and changing. This is what learning organizations do (Senge, 1990). Continual transformation will at times inevitably leads to reorganizing facility groups.

External changes in the environment which facilities support and interaction have driven facility functions and organizations to change. Additionally changes within the practice of facility management, as it becomes better understood and managed, have lead to new and different ways of performing FM work.

Facility Management Reorganization Drivers

In looking at the makeup of FM organizations, Friday (2002) observes that as the work place has moved away from manual and labor intensive functions, so have the FM organization of human resources changed. Today buildings continue to change as building and occupant technologies change. Friday notes that corporate acquisitions and mergers impact FM organization. The global business environment, even for companies that do not have facilities abroad, is affecting what the FM organization must consider in making FM decisions.

Summary

Organizational research and impacts of change have not specifically been applied to facility organizations. This research adds to the understanding of organizational drivers of change in FM departments.

CHAPTER 3: RESEARCH METHODOLOGY

The research method for this study was a qualitative inquiry enhanced with quantitative analysis of survey data. Creswell (2002) refers to this research approach as an exploratory mixed method design. The advantage of a mixed method design is that it combines the strengths of both quantitative and qualitative methods. Qualitative data offers information about the context while quantitative data provides for some generalizability of the findings. The procedure is to first gather qualitative data to explore a question, and then to collect quantitative data to explain the relationships found in the qualitative data. Collecting quantitative data second is important to test the themes from the qualitative first phase.

The approach is diagramed in Figure 5. First, qualitative data were collected through interviews of facility managers to explore the drivers for facility department reorganizations. A survey then was prepared based on the themes found. The survey data were analyzed with quantitative methods to determine relationships of themes to reorganizations as well as frequency of reorganization types. The survey data builds upon, validates, and helps explain the qualitative findings. Examples from the interviews provide additional insights to the quantitative results. The following Figure diagrams the steps and order in which data collection and analysis occurred.

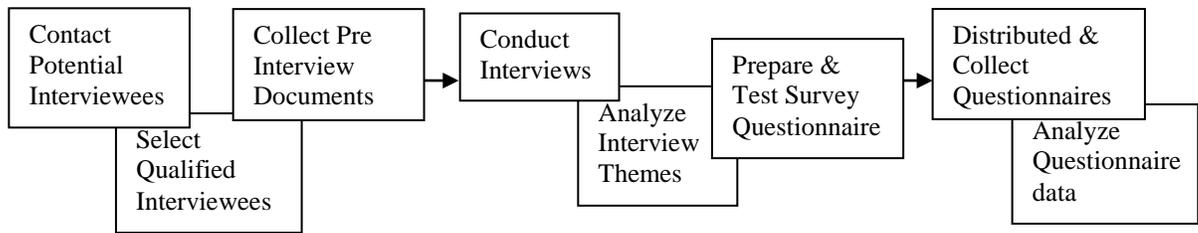


Figure 5 *Data Collection and Analysis Process*

Research Design and Rationale

Because little research on facility department organizations has been performed we needed a research design that would identify drivers for department reorganizations. Determining what association these drivers may have to general facility department reorganizations required a research design that could provide some generalizability to a broad array of facility departments. To identify the drivers and to obtain some level of generalizability a mixed method design was chosen.

Qualitative inquiry is preferred for establishing what conditions exist in an organization prior to reorganization that may drive reorganization. Qualitative studies have research questions that require descriptions of experience rather than measurement of aspects of experience. Qualitative interviews have an important place as tools for information gathering and can be used in conjunction with quantitative surveys (Oishi, 2003). Qualitative methods are best for explorative inquiry. The constructivist approach allows for flexibility in that no predetermined drivers for reorganizations are established. It allows for exploration of the drivers. The approach starts with a problem; the drivers for reorganizing facility departments. Gliner and Morgan (2000) suggest that the emergent designs are open to the possibility that there could be a major change in

emphasis about the problem during the research. No specific hypothesis is formed prior to the study.

In person interviews were preferred but not practical.

Surveyors often choose in person interviews when they need to ask complex questions and /or the list of response choices are long or may be confusing. The physical presence of an interviewer often enhances interviewer-respondent rapport and allows for observation of nonverbal cues that may indicate confusion or hesitation of the respondent. (Oishi, 2003, p. 6)

Once we completed the qualitative inquiry and developed themes of the research problem, a quantitative correlational design focused on examining the associations or relationships of several variables. Correlational research is a quantitative design approach that does not use interventions but uses association or relationship of variables in predictable patterns for one group of individuals. Correlational statistics can be used to describe and measure the degree of association between or among variables (Creswell, 2002).

To obtain data for correlational analysis a survey was developed to test the frequency and impact of various variables. Survey designs are another form of quantitative research where researchers seek to describe trends in large populations. The survey was administered to a sample of the FM population. The research results then can claim some generalizability to the population.

Gliner and Morgan (2000) note that it is likely when an associational and descriptive approach is taken that both interviews and surveys are utilized. Surveys as a data collection technique are most likely used, however interviews as part of the qualitative inquiry are also utilized.

An exploratory research design includes the following six characteristics (Creswell, 2002).

1. Two or more variables are correlated.
2. Data are collected at one point in time.
3. Participants are analyzed as a single group.
4. At least two scores for each individual in the group are obtained; one for each variable.
5. Correlational statistical tests are reported in the data analysis
6. Interpretations and conclusions are drawn from the statistical tests

This study used a cross sectional approach and collected data that reflects a current opinion and activity, not change over time. We were looking for current practices, activities, and beliefs toward drivers for change in organizations.

The framework of this research is in the identification and associational analysis of many variables present when reorganizing facility departments. Gliner and Morgan (2000) broadly define attribute independent variables to include predictors, antecedents, or presumed drivers on influencers under investigation. Of the five basic research approaches described by Gliner and Morgan, this one is associational. In associational approaches there are no random assignments of participants. There are attribute independent variables but no variable is controlled or manipulated by the researcher. The independent variables have only a few levels or categories generally. The relationships between the variables are to be investigated.

Various attributes that were compared are included in Table 3. These attributes developed as the phenomena of reorganizations in facility departments were investigated through the interviews.

Table 3 *Research Variables*

<i>Variable Category</i>	<i>Potential Variables</i>
Nature of Change	<ol style="list-style-type: none">1. Department changes reporting line within organization2. Multiple facility functions change under the manager3. Department reporting layers flattened or increased4. Functions are added or deleted from the department
Organization Type	<ol style="list-style-type: none">1. Private/public corporation2. Government/Institutions3. Non-profit agencies
Reorganization Drivers	<ol style="list-style-type: none">1. Business strategies2. Internal (self imposed) drivers3. External (imposed by others) drivers4. Management/personnel drivers

Interview participants were asked to recall various conditions and aspects of operations and business climate prior to reorganizations. The inquiry is explorative in nature and lends itself well to interviews and discussion. Analyses of several of these inquiries provide opportunity to identify common themes for restructuring. A semi-structured interview of five facility organizations was performed. The interviews included a set of open ended questions (Appendix E). A survey (Appendix G) was then developed that asks a sample of the facility manager population to indicate how their restructuring experiences were similar or dis-similar to the interview findings.

Identifying Participants

There were two sets of participants, those who participated in interviews and those that were asked to complete a survey.

The target population was FM departments in the United States and Canada. The assessable population (the survey population) were professional facility managers of these departments who are members of the International Facility Management Association (IFMA) managing facilities primarily located in the U.S. and Canada. The selected sample is the smaller group of participants who were selected from IFMA membership. The actual sample was those that complete the surveys; approximately 10% of the sample group.

Interview Participant Selection

The interview participants were selected from among the professional associates and personal contacts of the researcher. All interviewees were familiar to the interviewer as they had met at national conferences, workshops, or worked on national facility committees. They were facility professionals who (a) have managed facilities, (b) have been involved in a restructuring event while a manager, and (c) were willing to assist the researcher by participating in an interview. Initial contact was by personal e-mails with follow-ups by phone. A sample of the e-mail request is provided in Appendix A. The follow-up phone conversation was to screen potential participants using questions provided in Table 4. The purposes of the questions were to identify the professionals to interview with the broadest and most involved experience in restructuring events.

Table 4 Participant Selection Questions

<i>Selection Question</i>	<i>Screening Criteria Applied to Responses</i>
Have you been involved in a reorganization of an FM department in the past 10 years?	Preferably the reorganization occurred in the last five years.
What was the nature of the organization host entity? (Government, Commercial, Non-Profit, etc.)	This information was used to ensure a mix of organization entities participate in the interviews.
Where were the facilities located?	Must be primarily in the U.S. or Canada
What was the nature of the organizations business? (Office, Retail, Medical, Research, Manufacturing, etc.)	This information was used to ensure a mix of organization businesses participate in the interviews.
How large was the responsibility of the FM Department? (SF managed, FTE number of staff/contractors, budget, etc.)	This information was used to ensure that departments studied are large enough to meet the generalizable size for the study (i.e., larger than 1 million square feet).
What position did you hold in the organization at the time reorganization began?	Must be in a level of management to ascertain the department and host organization conditions just prior to the reorganization.
Very briefly, describe the nature of the reorganization?	This helped further identify if the change was significant enough to be used in the study.
Would you be willing to be interviewed by the researcher about your company's reorganization in the next four weeks?	Willing participants who can provide the time for the interview are needed.

Interview participants were selected from those who respond favorably toward a willingness to participate and where their reorganization experience met the study criteria. Participant's affiliations and position at the time and place of reorganization is the subject of study. Current company affiliation or position was not used to screen participants.

The following organization parameters were met by the prescreen responses. Only those individuals who responded with nature of business and facilities that meet these criteria were interviewed.

1. The facility department managed at least one million square feet

2. The facility department was responsible for at least three of the facility functions
3. There were at least 25 persons, including contractors, in the department.
4. The department reorganization was initiated in the last 10 years

A facility department reorganization is when any of the following events had occurred. Outsourcing and out tasking may constitute a reorganization if any of the events below also occurred at the time of the contract. A facility department reorganization is when any of the following events have occurred.

1. The entire facility department changes reporting line within the host organization.
2. Within the facility department multiple facility functions change under which manager position they report.
3. Levels of department management are reduced (flattening) or increased (more hierarchy).
4. Other organization support functions are added or deleted from department responsibility.

Participants who expressed an interest to participate were involved in the reorganization at a management level or had been in a position to have known well the conditions of the organization prior to the change. Prior to the interview, consent was provided and documented using the consent form in Appendix C.

Survey Participant Selection

The database of members in IFMA was reviewed to identify those facility managers who manage facilities. There are over 18,000 members internationally with a largest percentage of those from the U.S. A large number of the members are vendors and suppliers who would not qualify as managers of facility functions or facility organizations. The membership list indicated the type of membership. Suppliers, students, staff level positions that are not managing facilities but work in the FM field were, as best possible, removed from participation.

The survey was sent to professional members of IFMA located in the United States and Canada. In January 2008 the membership directory contained 16,942 members (of all types) located in the U.S. and Canada. It was estimated that about 30% of the members in the director were not classified as professional level members. Membership type was not listed with the member list but could be obtained through a separate and more tedious individual look up inquiry in the database. To simplify and expedite the selection of approximately 1000 random addresses of facility professionals, it was determined that the full list would be reduced to approximately 1400 members then eliminate associate and student members to arrive at less than 1000 professional members for survey distribution. A systematic selection of every 12th name on the list was performed to obtain a set of 1410 random members. This set of members was then reviewed to select only those members at the professional level. This process eliminated those listed as students, associates, and retired and yielded 953 e-mail addresses.

Survey notices were distributed by e-mail. The survey was completed online using Survey Monkey as the distribution and collection tool. In the e-mail cover letter a

link to the online website was provided. E-mail is the most efficient method for reaching facility managers. There were some limitations to the survey distribution. The e-mail list available from IFMA had a few outdated addresses. The list is maintained by individual members who are encouraged to review and update their personal information at their annual renewals.

Data Collection Procedures

Data collection consisted of two sets of documents. The first set was the transcribed interviews and associated pre interview documents. The second was the survey response data.

Pre Interview Documents

Following the initial contact and prior to the interviews, the participants were asked for the following materials providing additional individual and company reorganization information. The e-mail letter requesting this material is provided in Appendix B. These documents helped facilitate the interview as well as provide data for further analysis. Individual and company identification (names) was not important to the research results and were removed from analysis and reports.

The pre interview documents requested include the following.

1. Informed consent form with permission to audio record (attached as Appendix C).

2. Organization charts showing where in the host organization the facility department reported both pre and post reorganization (if available).
5. Department organization charts indicating functions managed and how groups reported within the department pre and post reorganization (if available).
6. A description of the FM department pre reorganization. This description should include: (a) Locations of facilities managed (one site, multiple sites, cities, states); (b) Nature of facilities (conditions, ages, size, etc.); (c) FM staff location and numbers; (d) Host organization's ownership nature and business (i.e., government and manufacturing; public and retail); (e) Any other description of the FM department just prior to the reorganization (employee morale, business and market conditions, management changes)

This information was reviewed by the interviewer and used to help better direct the interview questions. It also helped in the analysis of the reorganization. The primary focus of this research was on pre reorganization conditions that may influence or drive organizational change. Any information obtained regarding the after or post reorganization structure was interesting but not directly relevant to the research.

Interviewing Procedures

The interviews were scheduled for one hour and were audio recorded. Phone interviews were used for all individuals for convenience of the researcher and the interviewees. Interviewees were in different states from the interviewer. No follow-up interviews were required. In person interviews would have been preferred but were not practical or deemed necessary.

Interview questions were used to facilitate the interview and ensure similar information was discussed at all interviews. These questions were guidelines and were only asked if information intended from the question was not obtained in the discussion. The questions were generally open ended, with probing follow-up and clarity questions as necessary. The interview questions were provided to the interviewees prior to the interview to help prepare them with appropriate time to recall or research thoughts and answers.

The questions were tested in a pilot situation on a facility professional. The data collected from the pilot were used to determine if the questions got to the data needed and that the data collected lead to identification of drivers for restructuring. The pilot data was not used in the results. Some interview questions were modified to incorporate the learnings from the pilot interview. The table in Appendix E includes the interview introduction, questions, and conclusion scripts.

Survey Procedures

At the completion of the analysis of the interviews, a survey was created that incorporated the restructuring drivers learned from the interview data. The purpose of the survey was to validate with a larger group if the findings apply beyond the interview cases. The content of the survey followed an outline that gathered information similar to that from the interviews but in a more concise manner. The survey format included multiple choice questions and rating of criteria along with a couple of open ended questions. The survey addressed the following areas.

1. type of organizational entity (government, public)

2. type of the restructuring experienced.
3. events in the organization that might have initiated the restructuring
4. persons who initiated the restructuring
5. stated reasons or goals for the restructuring
6. observed major driving force behind the restructuring

Additionally the survey asked for the experience of the respondent on how often it appears that FM departments reorganize, the best (or better) reasons for reorganizing, and any additional comments on reorganizing.

The survey was piloted on selected members of facility professional in Utah and Colorado. Their input was valuable in improving the format and questions of the survey instrument. The data collected were not used in the final results.

The survey was developed using an online survey format (Survey Monkey) then distributed with a cover letter to the e-mail distribution addresses obtained from the IFMA membership list. The survey cover letter can be found in Appendix F. The survey is in Appendix G. Final survey content included the findings and themes found from the interview data. A reminder follow up was not sent.

Self administered surveys should only be used when the study objectives are clear and not complex. These surveys must be shorter than those administered in other ways. Questions generally will be closed-ended. The survey should stand alone. All information to answer the questions should be provided in the survey. The survey will need to be as easy as possible for the respondent to complete without assistance from others. (Bourque & Fielder, 1995; Fink, 2003). Fowler (2002) suggests that to improve reliability of the answers to surveys that the survey stimuli (the questions) be

administered clearly. Areas such as inadequate wording, inconsistent meaning to respondents, and multiple ideas or concepts should be avoided in each item or question. Ask about one concept or issue per question. Formatting and length of the survey should be carefully considered. Use language that is comprehensible to the target population. Keep wording neutral. Include enough information so that respondents can give meaningful answers (Oishi, 2003).

The data were collected by the online survey provider Survey Monkey. The opportunity to add written comment to the responses was provided on the survey.

Data Analysis Procedures

The two data sets (from interviews and surveys) form the basis for the analysis. The interview data were analyzed using qualitative analysis procedures. The survey data were summarized and analyzed quantitatively.

Interview Analysis

The interviews were transcribed with assistance of others however a single researcher coded and establish themes for all five interviews. In this manner consistency in coding and theme identification for all interviews was achieved.

The qualitative methods for analysis of the interview data were accomplished by coding and identification of themes. Five interviews were recorded and transcribed. The transcriptions were then reviewed and corrected as needed by the researcher or assistants. The texts were color coded for various themes and recurring thoughts. No initial set of

themes were developed until after all the interviews had been transcribed. Then the findings of the interviews were placed in a table where all common themes could be reviewed and analyzed simultaneously. From the table emerged common themes and examples. Conditions of the organization along with internal and external factors were discovered as drivers for reorganization.

Survey Analysis

To find associations and most common drivers for various variables a variety of statistics were considered. Measures of central tendencies appeared to be the most relevant. Comparisons of central tendencies quickly provided some of the variable relationships. The research looked at the associations between types of reorganizations, types of organizations, the drivers of reorganizations, and who initiated or lead the changes. This analysis determined if nature of change can be predicted by an organization's pre conditions.

The first steps in the analysis of the survey data were to consider the most common responses to questions. Then tables with measures of central tendencies were created and analyzed. These tables are a matrix of the central measures for various variable sets. By comparing these numbers we were able to ascertain a variety of relationships. Particularly groups of dependent variables (such as the presumed reorganization drivers) as related to independent variables (such as nature of change and organizational types) were considered in the analysis.

The survey responses were quantified looking for most common themes, least common themes, and new themes. These were compared with the interview results.

Comparison of type of change and type of entity and other similar comparison were also completed. Significant variations in respondent groups of company nature were sought and evaluated.

Answering the Research Questions

The interviews provide preliminary reorganization drivers along with other insights into characteristics of when each driver occurs. Other common factors or situations in organizations at times of change were identified. The interviews provide a greater depth of understanding to the research questions than the survey alone. Additionally, the survey is derived and refined from the interview results. Therefore the survey data along with the interview data provide a better list of drivers and a deeper understanding than either alone could have provided.

To address the research questions both interview results and survey data were used. From the analysis of the survey data we look at the relationships of the various variables. Presumably there are some relationships that are stronger than others. Examples from the interviews help illustrate the relationships that are determined to be of some significance and relevant to the reorganization drivers. (Creswell, 2002, p. 485) For each research question, the sources providing the answers are summarized in Table 5.

The answers to the research questions regarding drivers for FM department restructuring will be obtained from the surveys. The survey results should give some indication of the most prevalent drivers and the drivers most influencing the change. Examples may be obtained from the interviews.

Table 5 Answering the Research Question

<i>Research Question</i>	<i>Sources for Answering the Question</i>
Organization Influences on Reorganization	
What types of organizations (institutions/government, commercial, non-profit) reorganize most?	Literature reviewed, Interview findings, Survey results
What types of department reorganizations occur in various types of organizations?	Interview findings, Survey results
Is there any relationship between type of organization and the nature of the reorganization that occurs?	Survey results
Nature or Type of Reorganization	
How often do FM departments reorganize?	Literature reviewed, Interview findings, Survey
What types of reorganizations occur most frequently?	Survey results
Are there any correlations between the types of change that occur?	Survey results
Are there any correlations between the types of change and the benefits of reorganization?	Survey results
Drivers of Reorganizations	
What are the internal (self imposed) drivers?	Literature reviewed, Interview findings, Survey
What are the external (imposed by others) drivers?	Literature reviewed, Interview findings, Survey
Who is the initiator of department reorganizations?	Literature reviewed, Interview findings, Survey
Are there any relationships between the initiator of the reorganization and the nature of the reorganization?	Survey results
What are the reasons given for reorganizing?	Literature reviewed, Interview findings, Survey
What are the perceived benefits for reorganizing?	Literature reviewed, Interview findings, Survey
Are there any correlations between the benefits perceived for reorganizing?	Survey results
Are there any relationships between the drivers for change and the nature of the reorganization?	Survey results
Are there any barriers to department reorganizations?	Literature reviewed, Interview findings, Survey
Guiding Question	
What influences departments managing facility functions to change organizational structure design (reorganize)?	Literature reviewed, Interview findings, Survey results

CHAPTER 4: RESULTS

The findings of this research are derived from two sources with the second source building on the first. Five interviews were conducted of facility professionals followed by a survey sent to 944 facility professionals.

Interview Findings

Five interviews of FM professionals were conducted in August of 2007. The interviews were conducted by telephone and lasted approximately 45 minutes each. The interviews were held during the work day with the Facility Manager being contacted at their workplace at a prearranged time.

The interviews were recorded and transcribed. The text of each interview was coded by highlighting topics and themes. As the interviews were conducted the themes were identified. Initially 22 themes were identified from all the interviews. Many of the themes were repeated in more than one interview. Similar themes were combined to reach a final analysis set of 16.

Fewer new themes were identified as later interviews were conducted. The final interview, though repeating many themes, did not add any new themes. It was determined that five interviews were sufficient to identify research topic relevant themes

for analysis. These themes and the findings are discussed in the next three sections.

Appendix H contains the full extracts of the interview texts grouped into these themes.

Organization and Reorganization Information

The organizations represented by the five interviewees included high tech manufacturing, medical equipment supply, retail sales, federal government, and higher education.

Type of Reorganizations: Six types of reorganizations had been defined prior to the interviews. The organizations represented had experienced one or more FM department reorganizations. Three of the organizations had added functions to the FM department. Two had removed functions. In two organizations the entire FM department had been moved to a new senior executive. In one case the added functions to the FM department included additional layers of management in the FM department.

Frequency of Reorganizations: All of the organizations represented by the interviewees had undergone one or more reorganization in the past 10 years. The interviewees reported that these reorganizations occurred on average about every three to four years. Two individuals reported reorganization occurring in FM departments every one to two years. Two others reported changes every three to four years. One individual only experienced one reorganization in the last 10 years but also observed maybe three in a 27 year career at the company. However, when asked how often they thought reorganizations should occur, their answers varied from several times a year to every five years or longer.

Leaders of the Change: The reorganization changes in these organizations were led from upper management such as a senior executive (two cases) or the FM department director (three cases). However in one case a manager in the FM department was very involved and provided support and ideas to the senior executive who pushed for the reorganization.

Reorganization Drivers

When the themes were reviewed, those that described the condition of the organization and what was happening in the company at that time were grouped into potential drivers for the reorganization. These are the conditions or issues that appeared to be occurring that influenced the leaders for the reorganizations to take actions. The identified drivers were (a) business expansion or contraction, (b) changes in business practices of the host or FM organizations, (c) FM technology changes and additions, (d) management or leadership personalities, preferences, abilities, and (e) communication and coordination.

Business Expansion or Contraction: Contraction or expansion of the business was noted several times by four of the five interviewees. This business change was typically significant. Three interviewees described a growth in the business supported by the FM department and used phrases such as “a lot of change”, “rapid”; “doubling the square foot”; and business “double digit growth”. One interviewee indicated the company was experiencing stable business conditions but declining revenues or budgets. Contraction of business or downsizing was noted by several interviewees as a potential driver but not used in any specific reorganization cases cited. The decline in the business

created growth in the FM department. The business change resulted in much new facility work including construction or removal of space and often included some form of space refurbishing.

Person B: The headquarters site was in the process of going through a major expansion. We were adding on a phase three. Square footage probably went from 300,000 to over 1 million square feet.

Person E: It was at a time they were growing in double digits, mid teens, an annual growth rate of 18% or so. And it had been growing even faster than that at 21% or 22% the previous year or two. We were adding several new locations all in the general geographic area. We had two corporate campuses and were expanding to three corporate campuses.

The elimination of some space would require modifications to existing space to accommodate the consolidation of business functions. It appeared that FM departments grew even in the case with tightening budget constraints. This was due to the FM department taking on partial functions of other groups being downsized or eliminated.

Changes in Business Practices of the Host or FM Organization: Even without business growth or decline there could be changes in the business which apply conditions to the FM organizations that may cause them to change. Three interviews mentioned specific changes in business practices. Two examples are given.

Person B: They were moving from a 9 to 5 Monday to Friday to meet more needs and requirements of customers to be available at all times. To do that the facilities had to be available.

Person C: Some focusing on the larger bits of business rather than a silo thing. I think they (senior executives) were looking for some larger business organization which would then not be specifically housed at specific sites. That is also when the organization began a split into two companies.

These business practices may have resulted in larger restructuring of organization in the companies and the FM departments would be one of many affected. The businesses

were often focusing on a new way of delivering their core product or service. They might becoming more global or geographically focused.

FM Technology Changes and Additions: One of the interviews specifically mentioned technology change as a driver but these changes in FM practices have been rapid and common to most organizations. This driver was stated as internal to the FM department though technology changes in the host organization may also have been a potential driver. Software tools to track and manage FM scope and work have been developed and maturing. These tools provide additional information to the FM enterprise and allow for new methods or approaches to accomplishing work. An example provided was when a Capital Asset Facility Management (CAFM) system was introduced to manage space and drawings in ways previously too cumbersome. The implementation of this database required adjustments in roles, reporting, and interactions of several FM groups and thus led to some reorganization needs.

Management or Leadership Personalities, Preferences, Abilities: This theme was referenced most frequently by four of five interviewees. The people factors tended to take on two sides. One side of this change factor was driven by the personalities or leadership abilities of top managers. The second was driven by a change in leadership where a different personality was placed over the FM functions. Changes occurred if a manager had too much to do or could not handle certain functions. It might be “argued to take this burden off this already too busy manager”. Someone, typically a senior manager, would look for synergies between work and capability of FM leadership. Changes might occur in an attempt to improve those synergies. Sometimes these changes would not result in

good fits. Personalities clashed which led to a new change or a reversal of the previous change.

Person A: He is not a strong manager, he's a strong doer. You know, where he kept getting a little bit more influence based on the skills he did have, but he really wasn't managing that group very well. And so little by little those pieces were moved away from that individual.

Changes might occur naturally as individuals retire. Many occur due to growth of individual capacity to take on more than originally assigned. However it was noted that changes occurred because the function grew faster than the individual's ability to grow in the position. Sometimes it would be the ambition of the manager. "Perhaps the manager needed a larger organization so she convinced the powers that be that she should also manage the facility organization." Often the changes in managers/leaders brought change because a new set of eyes and different perspectives bring new ideas for solutions to problems and old ways of doing business. This new view may result in a new vision and a realignment of functions and organization in light of the new direction.

Person D: I found that when I came here as a new person with a fresh set of eyes I was wondering why this person was handling a responsibility in this part of the organization.

It looked like a lot of functions being performed by various individuals weren't rooted so much in the mission of the unit but maybe given to them years ago and they kept it with them. So we moved things back and forth across traditional departments of our facilities management organization to better align it with mission.

Communication and Coordination: An organization condition that was noted by one interviewee many times was the observed establishment of silos in communication. Over time it appears that some organizations may become so involved in completing their functions that they ignore their connections to other groups. One approach noted was for FM functions to be moved around and mixed under different managers. At different

times the FM functions might be grouped together in ways that might not be so connected otherwise.

Person A: As much as we try to communicate across, if they are not under the same directors they are more separate; for example, combining real estate groups and construction engineering groups so that they would communicate more closely”.

Other times it appeared that there was a “hot potato moved around to whomever they were not getting along with.”

Person A: I think anytime we go far enough down a road where there’s a perception that parts of the facilities organization are not working as closely together as they should that multiple times I’ve seen that appear to drive re-organizations

Reasons or Goals Given for Reorganization

Occasionally the factors for reorganizations that were noted previously were also the stated reasons for the changes. But there were differences. The justifications given by managers for changing FM organizations were more often couched in some form of “becoming the best” or in improving operations.

Visibility or Authority of FM Roles: One reason given by two of the persons interviewed was that the organization wanted the FM groups to have a broader influence in the company; a greater role in setting standards in facilities across the company. This desire led to the FM departments reporting at a higher level or to a more global business unit.

Person A: They have a little broader scope in terms of setting standards and in terms of doing the design and specifications for sales offices around the country.

Person B: With [reorganization] came a seat at the management table. At the end of the reorg he was a senior vice president. So he reported directly to the number one and number two in the organization. So the stated or at least the implied

reasons for the change was that the consolidation would make the FM role be more visible.

Align Facility Management with Best Industry Practices: Another reason stated was that the change would better align the FM department with other FM departments that were perceived to be the best in the industry. As FM managers associate in professional organizations or move from company to company they find or bring what they perceive are good work practices. Reorganizing an FM department to look like another was given as a reason to restructure. Presumably the reorganizations were intended to foster the work practices that brought success in other FM departments. Three of the persons interviewed reference seeking best industry practices as desire of the restructuring.

Person A: Desire and opportunity to look at best practices globally and share those and perhaps create more common processes globally.

Person D: I also found an organization that wasn't what I would call adopting best practices. [They were not] having a national exposure that you get by going to conferences and networking with others. This was sort of an isolated island. I had not seen them adopt best practices.

Improve Efficiencies: One of the most noted reasons for changing the FM department organization structure was to reach a more efficient state of work practices. Three of the interviews hit on this theme as a goal of the restructuring.

Person C: They are approaching getting the right size on the staff which will fix the budget problem. That is how budgets drive reorganization and restructuring. There are times when you look at it and say we probably do not need three layers of management to get this done.

Person E: There were missed opportunities to take advantage of economies of scale. I would guess a frequent driver at least in today's world is [pursuing] ways to cut costs. The situation I described was not really cost cutting although it probably resulted in cost savings. I think it is something that drives it now. We continually are trying to take costs out of businesses.

Efficiency usually equated to some form of less cost. Statements were given such as “to become more streamlined and efficient”, “to put services provided where it will be best supported”, and to “take advantages of economies of scale”. Looking at functions to be performed in house or outsourced was also part of this decision. Consideration of what the organization does well and does not do well and that perhaps another company could be contracted to provide was part of the justification for change that was given.

Increase Effectiveness: Similarly and almost as frequently noted as improve efficiencies as a reason for change was to become more effective. Three of the interviewees referenced this theme.

Person A: I think a stated reason for the big picture reorgs has to do with preparing ourselves to better serve our clients.

Person B: To become more effective, which may cost more money, is also a reason.

Person E: You did not need for example three persons managing roads and grounds, all different pieces of it, when it is all part of one campus. We felt it made much more sense to have individuals responsible on more a functional basis. It was a matter of trying to increase effectiveness with the size that we had become. That is a pretty broad statement but if the organization has major change whether it is in the way it does business, growth, reductions, or a change in direction the facility organization needs to make sure it is meeting the current needs of the business.

Effectiveness includes better meeting the needs of the facility occupants or customers. It may or may not be coupled with efficiency or cost savings. Statements given by managers included “preparing ourselves to better serve our clients” and “better meet the changing needs of the business”.

Improve Technical Expertise: Related to effectiveness but stated somewhat separate was the notion that the reorganization would increase technical expertise. This

increased expertise would then be able to more effectively meet the needs of the facility organization and its customers. Three persons provided comments such as these.

Person B: [Desire] to better utilize resources and the skills that you have in house.

Person D: We hired out a cadre of associate directors to execute the work and to be content experts in the organization.

Person E: What we felt was that we needed to develop higher levels of expertise than what we probably had [previously].

The reorganization may be to move technical expertise closer organizationally to the customers or it might be to consolidate expertise into a central unit for access by many business units. Consolidating expertise may provide opportunities to develop or recruit expertise as well.

Improve Communications, Understanding, and Synergies: Improved communication is commonly given as a cure-all to many business issues. In the interviews one person specifically identified communication improvement as a reason for reorganizing. They stated the change was to improve communications, understanding, and synergies. This was more often observed as the reason or the results of the change and less often stated as the reason by management at the onset of FM department restructuring.

Barriers to Reorganizing FM Organizations

Interviewees were asked to share what they observed or thought might be barriers to organization changes. Stated another way, what got in the way of or made more difficult the reorganization effort? Basically, barriers were grouped into two areas. The

first was lack of planning and considering all areas affected. The second was personalities and peoples' perceptions.

Poor Planning: The lack of "having a plan upfront" and "looking at everything holistically" created barriers to effective reorganizations. This barrier was only noted by one interviewee but appeared to have hindered several of the reorganization efforts. The ability to take into account all the functions being changed and the impacts on those functions was inadequately considered.

Person B: What was the biggest barrier; having a plan upfront, really looking at everything holistically, and really taking into account what every single functions was coming in and laying that all out.

Personalities or Culture: The most observed and stated barrier by all but one interviewee was personalities or persons' perceptions of the value of a change. Some person may believe for whatever reason that some things cannot or should not be changed. These were stated by one interviewee as the "sacred cows" of the organization. These are the "unwritten but known things that are perceived to not be allowed to change". The strength of a personality and commitment to sacred cows would combine to be a strong barrier to change. Personalities and beliefs do not change as easily as an organization chart.

Person B: Personalities don't change because you have a reorganization.

Person C: A lot of change does not occur because it is uncomfortable.

Person D: You get somebody in our position that's been there 20 years or more and that organization gets set in its ways. I think that's what I'm really dealing with.

Person E: I think every organization has those sacred cows. Those are probably those unwritten but known things that people believe or perceived that are not allowed to be changed maybe due to individuals and personalities, politics, or that is the way we have always done it that I think get in the way of making change.

The interaction of personalities may be described as the politics of the organization. The courage, comfort, and commitment of persons, particularly management, toward the change were stated as having the biggest impact toward reorganization. The converse, or lack of courage and commitment, then became the greatest barriers.

Interview Summary

From the analysis of the interviews several factors were observed to be drivers for FM department reorganizations. Additionally several stated reasons for department reorganization were provided. And lastly several barriers for change were given from the experiences of these FM professionals. Table 6 is a tabulated summary of the interview findings. The full interview analysis is provided in Appendix H.

Table 6 Summary of Interview Findings

<i>Factor Grouping</i>	<i>Drivers Found</i>
Drivers for Reorganization	<ol style="list-style-type: none"> 1. Business Contraction or Expansion 2. Changes in Business Practices 3. Technology Changes 4. Management Preferences 5. Communication and Coordination
Stated Reasons for Reorganizing	<ol style="list-style-type: none"> 1. Visibility of FM Roles 2. Align with Best Practices 3. Improve Efficiency 4. Increase Effectiveness 5. Technical Expertise 6. Communications and Synergies
Barriers Observed for Reorganizing	<ol style="list-style-type: none"> 1. Poor Planning 2. Personalities or Culture

From these interview findings a survey was developed to further identify drivers for FM department reorganizations and to validate the interview findings in a larger community of FM professional experience.

Survey Results

From the January 2008 IFMA membership directory 953 e-mail addresses for facility professionals were randomly selected for distributing the survey. When the survey was distributed in February and early March of 2008, a few of these e-mail addresses were found to be invalid. In total 944 professional facility managers belonging to IFMA received the request to participate in the survey. The survey responses were collected throughout the month of March and April 2008.

Of the 944 survey requests distributed, 92 surveys were completed for just under a 10% response rate. This was less than anticipated compared with other official IFMA surveys sent by mail but still sufficient for this study. The numbers of responses were evaluated and indicated the universal generality of the findings. Of course, more responses and consistency of responses would strengthen the results. Much can still be learned even with a low response rate.

Response rate for IFMA Foundation (2001) study was 22%. They had sent 4,182 surveys to facility managers in the U.S. and Canada and collected 905 responses for a 22% response rate. The IFMA study survey was five pages and distributed through regular mail. It was anticipated that the short length of this on-line survey and distribution

by e-mail would encourage a larger response rate. The survey was one page and only had 8 questions.

Survey Design

Using the findings of the interviews, the survey was developed. The researchers were able to minimize the survey by focusing on the drivers and other findings of the interviews. The survey was designed to collect the experiences of many facility managers and validate if the interview findings were common and general to the population.

The survey asked eight questions related to the research. See Appendix G for the full survey. These eight questions collected information on (a) type of organization, (b) type of reorganization, (c) drivers for reorganization, (d) reasons given for reorganization, (e) who initiated the reorganization, (f) benefits for reorganizations, (g) opinion of major drivers, and (h) any additional comments. From the survey results the following statistical and relational findings were observed.

Survey Results Reported

Participants from private commercial and industry enterprises comprised the largest group (44%) of respondents. Government or educational institutions (26%) were the next largest group identified followed closely (22%) by public commercial industries. Just less than 9% were identified as non-profits.

Many reorganizations occurred over the past nine years. On average there was more than one reorganization (1.23 reorganizations per year) occurring every year in each FM department. The two most common reorganizations were when new functions were

added (28%) to the FM department or FM functions changed reporting lines (24%).

However adding or deleting management layers was found with each occurring about the same frequency at 10% and 11%, respectively. The least likely reorganization was for FM functions to be deleted from the FM department (8%).

Of the factors identified from the interviews as drivers for reorganization, five were validated as having commonly occurred (more than 10% reporting) among facility organizations. Table 7 lists the factors from the interviews with the percentages of survey responses which indicated them as drivers for reorganization. These drivers may come from external sources such as the social, political/legal, economic, and technological environments or from internal sources such as professional interactions of staff, new business goals, or the availability (or shortage) of internal resources. Table 7 notes the source (internal or external to the organization) of each driver.

Table 7 Reported Drivers for Change Among Facility Professionals (N = 92)

Driver for Reorganization	Percent Reported	Source of Driver
Business growth or expansion	28	External
New or changed business practices in the host organization	18	Internal
Personnel leadership styles, preferences, abilities, or conflicts	17	Internal
Management personnel change	17	Internal
Business declines or downsizing	11	External
New or changed business practices in the FM organization	3	Internal & External
Issues with dept. communications, coordination, or customer service	3	Internal
Other	2	
New/added technologies in FM or business	1	External

A majority of the drivers identified are internal to the organization, but a large percent (40%) are driven by events outside the control of the organization. The single largest driver was growth or expansion of the business supported by the FM organization. However personnel, typically management, drivers combine to be a major driver (34%) in reorganizations. Communications issues and technology changes each were seldom identified as drivers (less than 3%). However communication improvements were a stated reason to change (13%) more than actually observed as a driver.

There could be several stated reasons for reorganizing. The two most common reasons given for reorganizing the FM department was to improve efficiency (48%), which often is manifested in reducing costs, and to improve the effectiveness (47%) of the organization. Others reasons noted frequently were to align FM organization with best industry practice (18%), improve communication, understanding, synergies (13%), and to increase the authority, visibility, autonomy of the organization (7%). The least likely reason given for reorganizing was to increase technical expertise (4%)

It was reported that in two-thirds (66%) of the FM reorganizations the individual most responsible for initiating the organization were senior managers or executives outside the FM department. Nearly a third (28%) of the time it was the FM department head or manager that initiated the reorganization. Occasionally (7%) the reorganization would be initiated from someone else inside the FM department. It was not reported that reorganizations were initiated by customers or occupants. However occupants or customers of FM departments often report to the same executive managers so it is possible that a motivator for an executive over the FM department to initiate a reorganization could have come from encouragement of an occupant or customer.

Unlike where desires to improve efficiency was followed closely by desire to improve effectiveness as the most common drivers for FM department reorganization, the reverse of these were stated as the most beneficial reasons for making an organizational change. On a scale from one to five with five being the most benefit, improving effectiveness of the organization (meeting customer needs, aligning with missions, improving quality) was rated 4.1 as the most beneficial reason to reorganize the FM department. Improving efficiency (reduce costs, etc.) did rate second highest at 3.8. The two reasons reported as least beneficial were to improve technical expertise (3.0) and to increase the authority, visibility, autonomy (2.9) of the FM department.

Survey Results Relationship

Relationships between several variables were explored and found. Correlations found between variables can infer that other factors may be involved. Correlations may as well provide common occurrences that might predict outcomes. No causal relationships are to be inferred from these comparisons. However, the relationships do provide insight on how elements of the reorganization drivers, such as the persons initiating and the type organization, might relate to the drivers for reorganization.

Three questions were asked relating to the relationship of three variables with the type of reorganizations that occur. These questions were (a) is there any relationship between the organization type and the type of reorganization that occurs; (b) is there a relationship between the drivers for reorganization and the type of reorganization; and (c) is there a relationship between who initiates the reorganization and the type of reorganization?

To investigate these relationships a one way ANOVA was performed on the means for each of the three relationships and where significant relationships were found Tukey post hoc tests were performed. The next three sections address the analysis for the three variable groups in relationship to the types of reorganizations.

Organization Type and Type of Reorganization

One question asked was whether there were any relationships between the type of organization and the type of reorganization that occurred. Are certain types of organizations more prone to a particular type of reorganization structure? A comparison of the means using one way ANOVA test was performed.

The ANOVA test determined that there were no relationships that were significant between the type of organization (institutional/government, private commercial, public commercial, and non-profit) and any of the six types of reorganization that occurred. The types of reorganizations compared included (a) all FM reports to a new area ($F(3, 83) = .964, p = .414$); (b) reporting lines in FM change ($F(3, 83) = .667, p = .574$); (c) management layers added ($F(3, 83) = .079, p = .971$); (d) management layers deleted ($F(3, 83) = 1.729, p = .167$); (e) functions added to FM ($F(3, 83) = 1.713, p = .171$); and (f) functions deleted from FM ($F(3, 83) = .251, p = .861$). This indicates that a particular type of organization has no likely relationship to any one type of reorganization. For example, government institutions reorganize FM organizations similarly as private commercial organizations.

From a look at the descriptives of the survey results (Table 8) we learn that private commercial entities reorganize most with almost 1.5 (1.46) reorganizations per

year. Non-profit entities reorganize the least with less than one (.80) reorganizations per year. Public commercial and Government institutions reorganized at near the same frequency of 1.16 and 1.11 reorganizations annually, respectively.

Table 8 Organization Type and 10 year Frequency for Type of Reorganization

Organization Type		Type of Reorganization					
		All FM Reporting Lines Chg	Functions Report Lines Chg	Mgmt Layers Added	Mgmt Layers Deleted	Functions Added	Functions Deleted
Institutional/ Government (N = 23)	Mean	1.78	2.65	1.26	0.83	3.74	0.83
	Median	1.00	2.00	0.00	0.00	3.00	0.00
	Mode	0.00	2.00	0.00	0.00	3.00	0.00
	Std Dev	1.93	2.59	2.38	1.19	3.05	1.19
Private Commercial (N = 36)	Mean	2.61	3.11	1.50	1.72	4.47	1.14
	Median	2.00	2.00	1.00	1.00	4.00	0.50
	Mode	1.00	1.00	1.00	1.00	2.00	0.00
	Std Dev	2.76	2.87	2.38	2.34	3.16	1.97
Public Industry (N = 20)	Mean	2.05	2.50	1.30	1.35	3.30	1.05
	Median	1.50	2.00	1.00	1.00	3.00	0.50
	Mode	1.00	1.00	1.00	0.00	3.00	0.00
	Std Dev	1.70	1.57	1.26	1.35	1.59	1.43
Non-profit (N = 8)	Mean	1.50	1.88	1.25	0.38	2.25	0.75
	Median	1.50	1.50	0.50	0.00	1.50	0.50
	Mode	0.00	2.00	0.00	0.00	0.00	0.00
	Std Dev	1.51	1.96	2.05	0.52	1.04	1.04

Adding functions was the most prevalent reorganization type for all of the organizations types. And as previously mentioned private commercial organizations are most likely to engage in a reorganization of any type. Adding functions to FM departments is on average the most likely reorganization type for all organization types. However, the standard deviations are large for the Institutional and Private commercial organization indicating that there is a wide variation. The distribution is close to normal in both cases. There are organizations that have added functions many times more and

many times less than the average. There may be some other distinguishing factors than organization type related to when functions are added to the FM department.

Change Drivers and Type of Reorganization

Another question was whether there was a relationship between the drivers for the change and the type of reorganizations that took place. Comparisons of the measures for central tendencies for each driver for change and reorganization type are presented in Table 9.

Seven of the eight drivers for change most commonly occur with adding functions to the FM department. The exception was that communication issues most often occurred with function reporting lines changing.

Three drivers for reorganization (FM business practices, new technologies, and communication issues) had few responses ($N \leq 3$). These were just not commonly found to be drivers for change. Both communication issues and new technologies had been identified as drivers from the professionals interviewed but the survey group indicated they were infrequent drivers.

To look at the relationships of these many variables some were combined so as to have enough data points for an ANOVA test. The previously reported eight drivers for reorganization were combined into three groups. These groups were (a) Business Change which includes both business growth and business decline; (b) Business Practices which includes host business practice, the FM business practices, new technologies, and communication issues; and (c) Management or Leader changes or preferences. Table 10

provides the mean responses for these combined groups of reorganization drivers as reported for each of the types of reorganizations that occurred.

Table 9 Drivers to Reorganize and 10 year Frequency for Type of Reorganization

Drivers		Type of Reorganization					
		All FM Reporting Lines Chg	Functions Report Lines Chg	Mgmt Layers Added	Mgmt Layers Deleted	Functions Added	Functions Deleted
Business growth (N = 25)	Mean	1.72	1.96	1.24	0.56	3.92	0.88
	Median	1.00	1.00	1.00	0.00	3.00	0.00
	Mode	0.00	0.00	1.00	0.00	3.00	0.00
	Std Dev	2.25	2.24	1.96	2.02	2.69	2.19
Host business practice (N = 16)	Mean	2.38	2.88	0.81	1.69	3.69	1.13
	Median	1.50	1.50	0.50	1.00	3.00	1.00
	Mode	0.00	1.00	0.00	1.00	1.00	1.00
	Std Dev	2.60	2.90	1.17	2.09	2.75	1.09
Leader preference (N = 15)	Mean	2.40	3.53	1.87	2.13	3.93	1.60
	Median	2.00	3.00	1.00	2.00	4.00	1.00
	Mode	2.00	5.00	0.00	1.00	5.00	0.00
	Std Dev	1.88	2.23	1.92	2.00	3.20	1.84
Management changes (N = 15)	Mean	2.93	3.93	2.93	1.00	4.93	0.87
	Median	2.00	3.00	2.00	0.00	3.00	0.00
	Mode	1.00	3.00	1.00	0.00	3.00	0.00
	Std Dev	2.52	2.74	3.31	1.46	3.22	0.99
Business declines (N = 10)	Mean	2.40	2.10	0.50	1.90	3.70	0.40
	Median	2.50	1.50	0.00	2.00	3.50	0.00
	Mode	4.00	1.00	0.00	2.00	0.00	0.00
	Std Dev	1.87	2.02	0.71	1.73	0.84	0.84
FM business practices (N = 3)	Mean	1.33	1.67	0.33	0.33	1.67	0.33
	Median	2.00	2.00	0.00	0.00	2.00	0.00
	Mode	2.00	2.00	0.00	0.00	NA	0.00
	Std Dev	1.15	0.58	0.58	0.58	1.53	0.58
Communication issue (N = 3)	Mean	0.67	3.00	0.00	0.33	0.67	0.33
	Median	0.00	2.00	0.00	0.00	1.00	0.00
	Mode	0.00	2.00	0.00	0.00	1.00	0.00
	Std Dev	1.15	1.73	0.00	0.58	0.58	0.58
New technologies (N = 1)	Mean	0.00	0.00	0.00	0.00	5.00	3.00
	Median	0.00	0.00	0.00	0.00	5.00	3.00
	Mode	NA	NA	NA	NA	5.00	3.00
	Std Dev	NA	NA	NA	NA	NA	NA

Table 10 *Combined Drivers to Reorganize and 10 year Frequency for Type of Reorganization*

Combined Drivers		Type of Reorganization					
		All FM Reporting Lines Chg	Functions Report Lines Chg	Mgmt Layers Added	Mgmt Layers Deleted	Functions Added	Functions Deleted
Business Change (N = 35)	Mean	1.914	2.000	1.029	0.943	3.857	0.743
	Std Dev	2.133	2.156	1.723	2.014	2.724	1.900
Business Practices (N = 23)	Mean	1.913	2.609	0.609	1.261	3.087	1.000
	Std Dev	2.334	2.554	1.033	1.864	2.627	1.087
Management/Leader Changes/Preference (N = 30)	Mean	2.667	3.733	2.400	1.567	4.433	1.233
	Std Dev	2.202	2.463	2.711	1.813	3.191	1.501

Using the combined Drivers for Reorganization groups the ANOVA test found two relationships that were significant. Table 11 shows the results of the one way ANOVA test.

Table 11 *One-Way ANOVA Summary Comparing Driver Groups with Types of Reorganization*

Types of Reorganization	<i>df</i>	SS	MS	F	<i>p</i>
All FM Report to New Area					
Between Groups	2	11.208	5.604	1.147	.322
Within Groups	85	415.236	4.885		
Total	87	426.443			
Reporting Lines in FM change					
Between Groups	2	49.155	24.578	4.376	.016
Within Groups	85	477.345	5.616		
Total	87	526.500			
Mgmt Layer Added					
Between Groups	2	49.214	24.607	6.195	.003
Within Groups	85	337.650	3.972		
Total	87	386.864			
Mgmt Layer Deleted					
Between Groups	2	6.301	3.151	.865	.425
Within Groups	85	309.687	3.643		
Total	87	315.989			
Functions Added to FM					
Between Groups	2	23.601	11.801	1.434	.244
Within Groups	85	699.478	8.229		
Total	87	723.080			
Functions Deleted from FM					
Between Groups	2	3.902	1.951	.775	.464
Within Groups	85	214.052	2.518		
Total	87	217.955			

In reorganizations where the reporting lines in the FM department changed there was a significant relationship ($F(2, 85) = 4.376, p = .016$). The post hoc Tukey HSD Tests indicated the difference was significant ($p = .012$) between the drivers for business change and the drivers of management or leader preferences. The mean response for business change drivers was 2.00 and the average response for management or leader preference was 3.73 when the reorganization was to change the reporting lines in the FM department. This indicates that in the reorganization type where reporting lines in the

FM change that management preference is more likely to be the driver for the change than business changes.

In reorganizations where management layers were added to the FM department structure, two relationships that were found to be significant ($F(2, 85) = 6.195, p = .003$). The post hoc Tukey HSD Tests indicated the difference was significant ($p = .019$) between the drivers of business change and management or leader preferences. The average response for the driver of management or leader preference was 2.40 while the average response for business change was significantly lower at 1.03. The post hoc Tukey HSD Tests indicated the difference was significant ($p = .005$) between the drivers of business practices and management or leader preferences. The average response for the driver of management or leader preference was 2.40 while the average business practice changes were significantly lower at .61. This indicates that in reorganizations where management layers are added management is more likely to be the driver for that change than either changes in the business environment or changes in business practices.

Change Initiated/Lead by and Type of Reorganization

A management change most frequently led to adding functions to the FM department. Changes in FM business practices might lead to reorganization however the type of reorganization to occur is not clear. Both changes in function's reporting lines and adding functions to the department had high frequencies for the 10 years reported.

The final question sought to answer was whether there was a relationship between the persons who drive or initiate the change (senior management, FM department leadership, or internal FM department staff) and the type of reorganization that took

place. A study of the relationships among these variables using a one way ANOVA test did not find any significant relationships. The types of reorganizations compared persons who may drive reorganizations included (a) all FM reports to a new area ($F(2, 87) = .049, p = .952$); (b) reporting lines in FM change ($F(2, 87) = .535, p = .588$); (c) management layers added ($F(2, 87) = .690, p = .504$); (d) management layers deleted ($F(2, 87) = .721, p = .489$); (e) functions added to FM ($F(2, 87) = .522, p = .595$); and (f) functions deleted from FM ($F(2, 87) = 1.717, p = .315$).

The survey did not collect data on the leader/manager driving each reorganization so it would not be valid to assume that all reorganizations in the organization were driven by the same leader/manager type. However, if you do make this assumption and look at the reorganization frequency we see that there was little difference among the three groups. The largest management group (59 of 90) to lead/drive the change was the executive managers. They reorganized on average at about the same frequency (1.23 times per year) as the overall average for all groups. FM department managers might reorganize slightly less frequent (1.19 times per year) while managers within the department might reorganize slightly more (1.40 times per year). A comparison of the measures for central tendencies for each leader/manager group and reorganization type is presented in Table 12.

Again the most frequent reorganization type for the all leader/driver variable in this group was to add functions. However, no particular variable in the group consistently drove the reorganization. Senior management most frequently added functions, moved the entire organization reporting line, or deleted management. FM department leadership most frequently added functions but also changed functional

reporting lines. Internal FM department staff would lead similar reorganizations as the FM department leaders however with a more likely tendency to add management layers.

Table 12 Leader/Initiated Reorganization and 10 year Frequency for Reorganizing

Leader/Initiated		Type of Reorganization					
		All FM Reporting Lines Chg	Functions Report Lines Chg	Mgmt Layers Added	Mgmt Layers Deleted	Functions Added	Functions Deleted
Senior Management (N = 59)	Mean	2.19	2.59	1.34	1.41	3.63	1.12
	Median	2.00	2.00	1.00	1.00	3.00	0.00
	Mode	1.00	1.00	0.00	0.00	3.00	0.00
	Std Dev	2.00	2.40	1.93	2.10	2.80	1.77
FM Dept Leadership (N = 25)	Mean	2.04	2.80	1.24	0.92	4.32	0.56
	Median	2.00	2.00	1.00	0.00	4.00	0.00
	Mode	0.00	2.00	1.00	0.00	2.00	0.00
	Std Dev	2.49	2.42	1.98	1.98	3.02	0.87
Internal FM Dept Staff (N = 6)	Mean	2.00	3.67	2.33	0.83	4.00	1.17
	Median	0.50	2.50	1.00	0.00	2.50	0.50
	Mode	0.00	2.00	1.00	0.00	2.00	0.00
	Std Dev	3.16	3.27	3.78	1.60	2.90	1.60

Survey Results Correlations

Three questions were asked relating to correlations among the types of reorganization changes that occurred and the benefits for such reorganizations. These questions are (a) is there a correlation between the types of reorganization that occur; (b) is there a correlation between the benefits of reorganizing and the types of reorganization; and (c) is there any correlation between the benefits for reorganizing? The survey results were reviewed to see if there were any correlations among these variables. The full correlation matrix is found in Appendix J.

Among the beneficial reasons given for reorganizing FM departments was a significant correlation among all but one of the reasons given. With the exception of

those beneficial reasons correlated to increased authority the significance levels were at $p < .01$. The strength of the Pearson correlation values were generally medium to large ranging from $r = .373$ to $r = .606$. The correlation of those related to increasing authority of the FM department all but the correlation with technical skills being improved were significant at $p < .05$. The effect sizes for correlations with increased authority were small to medium ranging from $r = .210$ to $r = .270$. All the correlations between the beneficial reasons to reorganize, though significant statistically, do not reveal anything of particular interest. It generally can be interpreted that respondents who reported any of the benefits high reported all the benefits high, and the reverse also would be true. The only small change to this generalization was that increasing authority of the FM organization was not stated as often as other reasons given to reorganize.

Similar as found with beneficial reasons for reorganizing, the correlations among the types of change were significant ($p < .01$) with three exceptions and all were at a medium effect sizes of $r = .351$ to $r = .556$. In two correlations, all FM reporting lines reported to a new area and one case where reporting lines in the FM changed, the strength of the correlations were larger than typically found ($r = .661$ to $r = .760$). Considering that all the correlations among the types of reorganizations were significant statistically and at a medium to larger effect size we can generalize the relevance of the findings. It is interpreted that as organizations increase frequency of any one type of reorganizing that they are likely to increase in all other types. Another way to look at this might be that organizations that reorganize frequently are not likely to implement any one type of reorganization over any other.

In comparing the correlations between the benefits of reorganizing FM organizations and the type of reorganization which occurred there were only a few areas where significant ($p < .05$) correlations were found. These correlations were negative and small with Pearson correlation factors ranging from $r = -.218$ to $r = -.266$. Four of the five significant correlations were found between the benefit of improved communication and with four types of reorganizations (All FM report to a new area ($r = -.226, n = 90, p = .032$); reporting lines in FM change ($r = -.225, n = 90, p = .033$); management layers added ($r = -.240, n = 90, p = .023$); and functions added to the FM ($r = -.218, n = 90, p = .039$)). This generally indicates that in organizations where these types of reorganizations occurred more frequently that improved communication was found less beneficial. The reverse interpretation would be that the benefit of improved communication was less related with any of these four types of reorganization. Again it should be noted that though the correlations were significant the strength of the correlations were small and further study should be considered before conclusions of any importance are drawn.

One other significant ($p < .05$) and negative correlation was found between the benefit of becoming more effective and the type of reorganization where all FM department functions report to a new area ($r = -.266, n = 90, p = .011$). The Pearson correlation factor is small but approaching what is typical for research in the social sciences. This correlation indicates that there may be some relationship of organizations becoming less effective with increasing number of reorganizations where the entire department changes reporting lines.

Other Comments and Observations

Survey participants were given the opportunity to comment on their opinions as to what drove reorganization of their FM department. These comments along with statements from the interviews resulted in the following observations. A vast majority of the comments (over 75%) addressed two topics.

The largest number of survey participant comments reflected the opinion that reorganizations occurred due to management preferences. However, responses to the survey questions indicate that business changes, such as growth, were driving reorganizations. The connection to business drivers that management would be addressing was not being made by individuals in their comments. This could be a reflection of poor communication between manager's explanations for reorganizations from what FM department personnel perceive as the reasons.

Many comments noted business change (typically growth) was occurring at the time of reorganizations. The comments further reflected that the reasons for the change were to obtain efficiencies and (closely followed by) effectiveness.

The remainder of the opinions given indicated that changes in the business practices of either the host organization or the FM department, including changes in communication approaches, was the reason why FM departments reorganize. This is consistent with the survey results.

Though a comparison of the interview findings with the survey results was not intended, because one was to prepare for the other, some comparisons of the results are noted. The interviews had indicated that changes in technologies used in the FM business

were drivers for reorganization of the department. The survey did not indicate technology changes were a driver. Less than one percent of the respondents indicated this to be so. Another more dramatic difference was that the interviews indicated reorganization occurred less than once per year on average and perhaps that every few years would be ideal. The survey results revealed that reorganization of FM departments occurred more than once per year on average.

CHAPTER 5: DISCUSSION AND CONCLUSIONS

This chapter summarizes the study, discusses the results, and presents the important findings. Additionally it presents implications from the findings and recommendations for future study.

Summary of the Study

This research sought identification of drivers for reorganizing departments engaged in managing facility functions. Facility management as a separate organization has generally occurred in companies for only about the last 20 years. As a result little research has occurred on how these organizations behave. Additionally it had been observed that these departments appear to be frequently reorganizing. This research brings greater understanding of these frequent reorganizations. To answer the research question in these new functional organizations, a mixed method research design was selected. Interviews of five FM professionals using open ended questions were first used to gain greater insight into facility organizations and in particular their reorganization experiences. From analysis of this greater understanding gained from the interviews, a survey was created. The survey asked questions related to FM reorganizations. It was distributed to facility professions associated with the International Facility Management Association (IFMA). The survey results validated most and disputed some of the findings from the interviews. The survey results were derived from a larger and more diverse set

of facility professionals which then could implicate the results to a broader group of facility organizations.

Each facility department reorganization has the potential to introduce a disruption on the effectiveness in the delivery of facility services. The knowledge gained from this research can assist leaders of FM departments to better understand and control reorganizations.

Findings

Reorganization of FM organizations were found to occur frequently. On average FM department reorganizations occur more than once each year. It was thought to be less often and suggested by most participants that less than annually would be ideal. From the researcher's personal experience as well as that of the five professionals interviewed, FM department reorganizations occurred less or much less frequently than annually. When the consideration of multiple reorganizations occurring in a single event is considered, it starts to become reasonable for the average number of reorganizations to exceed one per year.

The most likely reorganization scenario based on the findings for a FM department could be described as follows: Just over 8 months following the last reorganization, a senior executive of a private commercial organization initiates a FM department reorganization in response to growing business conditions. The senior executive adds additional functions for the FM department to manage and tells the organization that the change is being implemented to improve efficiency which might

include reducing costs. The FM department should become more effective in providing services as a result.

The least likely reorganization scenario for a FM department could be described as follows: Nearly a year and a half following the last reorganization, a manager within the FM organization of a non-profit organization initiates a FM department reorganization in response to a change in technology used in the company. The manager removes one or more functions from the FM department and tells the organization that they are implementing the change to improve their technical expertise. The FM department would become more visible and have more authority in the company as a result.

From the literature we found that organizations have reasons to change (Beblin, 1996) and to reach a more desirable condition. Change generally occurs when a destabilization force disrupts the organization. In FM departments these destabilizing forces were external business conditions and internal management changes/preferences. The literature review suggested a reason for organizations to change was to free the organization from bureaucracy and rules (Beblin, 1996; Connor, Lake, & Stackman, 2003). This concept was not found or mentioned in the interviews or comments from the facility managers. Apparently freedom from procedures, rules, or regulations is not seen as a reason or driver for FM departments to reorganize.

Literature reviewed did suggest internal changes such as changes in management, new ideas obtained by leaders from attending conferences, and setting new goals did influence changes in organizations. This study confirmed that leaders and managers did have a major influence and were drivers in FM department reorganizations. New

business practices, which are often learned by attending professional conferences, were also found to be a driver.

From the interviews eight conditions or situations were identified as drivers of reorganizations of FM department. Six of these were validated by the survey participants as occurring often. The interviews suggested that the organization leaders were typically initiating and advocating the reorganizations. Leader involvement in making reorganization occur was validated by the survey participants. From the combination of the two approaches (interviews and survey) what was thought to be beneficial reasons to change were not necessarily what were observed.

The drivers listed in Table 7 have some notable comparisons to the change factors that Burke (2008) provides in the Burke-Litwin model for change. Many of the comparisons are to the transactional portion of the model but there are some that are part of the transformational factors. External drivers can be part of the external environment factor the Burke-Litwin model includes as a transformational change factor. This should not imply that external drivers for reorganizations will result in transformation level changes; only that they could be part of a more broad change of an organization. The internal drivers from Table 7 can each find a connection with the transactional change drivers in the Burke-Litwin model. For example, business practice drivers found in this study are part of the systems (policy and Procedures) factor for change from the Burke-Litwin model. Other examples include the personnel leadership style or management changes drivers that would be part of the management practices factor.

Answers to Research Questions

This research sought to answer questions related to FM department reorganization changes, the nature or type of changes, and what might be driving those changes.

Organizational Influences on Reorganization

The general reasons for reorganizing FM departments were to address business changes such as growth. Growth changes the size and nature of the facilities being managed and the organization is adjusted to respond to the changes. Changes in the organizational structure are typically lead by senior executives or perhaps the FM department leader.

The functions of FM departments are related to the facilities that are managed. The type of organization has little impact on restructuring as there was little difference on how different organizations (government, commercial, non-profit) address facility organizations.

Nature or Type of Reorganization

Two general types of reorganizations occurred most frequently; functions being added to the FM responsibilities and the redistribution of functional responsibilities among FM department managers. This latter reorganization type is mostly manifested by increases or decreases in the number of FM department managers.

In at least a couple of reorganization types (where management layers are added and reporting lines in the department are changed) management preference that may be a result of changes in leadership is more of a driver for the reorganization than the business environment or the business practices of the organization. Though business factors were commonly reported as drivers it appears that at least in some cases that manager or leader preferences were more influential.

Business environment changes are typically externally driven as the organization has less control of those factors. However, management changes and what leaders are allowed to do are internal drivers and therefore should be more controllable by the organization. If reorganizing FM departments is to be beneficial then caution should be taken when management or leadership is changed to assure that subsequent department reorganization adds the benefits sought.

The frequency of FM department reorganizations identified in the survey was surprising when compared with the interview statements. The facility professionals indicated FM reorganizations occurred every few years. They suggested that reorganization be considered more frequently and perhaps on a regular basis but there was not a suggestion that it should occur ever year or more as was reported by the survey respondents. One possible explanation for the survey responses indicating a high frequency of reorganization could be a result of the survey design. The survey asked respondents to record the number of each type of reorganization that they had experienced in the past 10 years. If a single reorganization event included several types of organizational changes at that same time then that single reorganization may have been reported as multiple reorganization types. The number of reorganizations (1.23 per year)

may be bundled into fewer reorganization events. For example a reorganization that occurred after three years but changed three elements in the organization (e.g., added management layers, added functions to the department, and the entire department changed where they report in the organization) may appear to be reorganizations that occurred once every year.

Since intent of this research was to gain greater understanding of reorganizations of FM departments we may learn as much from the reported number of reorganization types as if they were reported as single events. It was assumed that each reorganization would have an impact (good or bad) on the FM department. Over a longer period of time, single types of reorganizations that occur frequently could have a similar impact on the department as less frequent, but more comprehensive, reorganization events. Further study with an adjusted survey instrument to look at this area could be considered.

Drivers of Reorganizations

Internal or self imposed drivers from within the business comprised the greatest impact toward reorganizing the FM department. These internal drivers include changing business practices along with changes in personnel and managers. The single largest driver however was external market growth. Business growth combined with its antitheses of business decline are frequent drivers. It is perceivable to consider that some if not most internal drivers for reorganizations are influenced by these external drivers.

The conditions that drive reorganizations are as follows and listed in the order that they most frequently were reported as occurring prior to reorganization.

1. Business growth or expansion

2. New or changing business practices in the host organization
3. Leadership preferences or styles
4. Changes in management personnel
5. Business declines and downsizing
6. New or changing business practices in the FM department
7. Communication issues
8. Technology changes

In the reorganization type where reporting lines in the FM change we found that management preference is more likely to be the driver for change than business changes. Similarly when management layers are added to the FM department, management was more likely to be the driver for that change than either changes in the business environment or changes in business practices. The influence of management as a major driver over other drivers was indicated from the interviews as senior management was implicated to initiate the changes. These types of changes have much to do with people relationships as manifest in reporting lines. This might indicate that personal relationships have some relevance to the type of reorganization attempted when management is the driver.

The initiator and leader of most reorganizations were management over the FM department, either directly or above. The influence of these positions is evident. The results indicated they often were the driver. Caution should be taken each time a change in management is made or when this level of management is exposed to a new organization model. Management may be responding to other drivers but in some types

of reorganizations they appear to be responding to personal preferences and personal relationships.

Communications is often stated as the cure and the cause of many issues in organizations. It was stated as a driver by several of the interviewees but was not indicated by the survey respondents to be a common driver. Apparently FM departments do not see reorganization of functions as a method to address communications issues.

In today's business environments technology continues to change and revolutionize the manner in which many functions are performed as well as what work is performed. However this change in the FM departments does not appear to be a common driver for reorganizing the management of the functions.

Implications for Practice

Facility managers should avoid reorganizations that do not fulfill meaningful goals. Reacting to changing business needs with a goal to be more efficient or effective are common for reorganizing FM departments. A change in leadership is one method to start a drive toward an organization change that could meet these goals. However, as shown by some of the variable relationships, management changes that lead to reorganization do not necessarily bring positive reorganization change. Caution should be taken and clear goals should be developed and communicated before a department reorganization effort is initiated.

Facility managers should expect and perhaps not avoid adjusting the FM organization on a frequent basis. This research suggested that FM reorganization occurs more frequently than what facility managers expect and suggest as preferred.

Though not envisioned in the research design, these findings may have some applicable to non-FM organizations. FM organizations are not as mature as many other types of functional organizations. For that reason alone FM organizations are distinct. This research was conducted primarily from data gathered from membership of one FM organization (IFMA). Since IFMA is the largest and most diverse of the FM organizations it is perceived that its members are a good representative sample of FM organizations.

Limitations of the Study

As stated at other times, this study did not explore the questions related to if the reorganization changes actually made the organization better. Only perceived benefits were asked. Much work could be expended to determine if reorganizations actually improve the performance of the FM departments.

It is observed and assumed that reorganizations are disruptive, at least temporarily, to FM departments. How disruptive and the nature of these disruption have not been explored. How to better manage these disruptions and methods to minimize their impact were not considered.

This research was limited to the experience of a few facility managers belonging to one professional organization. It was not performed as an official association study nor

distributed on association letterhead. When IFMA has surveyed members in a more official manner using mailings to member's offices the participation was more than double that of this survey. One way to increase the number of participants might be for IFMA to sanction and encourage participation. Another way to increase participation would be to seek participants from other organizations engaged or associated with the profession of facility management.

The survey for this research was distributed by e-mail and completed online. Other methods could be utilized that might obtain additional participation and insights. The online survey instrument could be refined and further tested to encourage a greater return. More follow up to non-participants could be done to encourage increase survey responses.

In a few cases there was not enough responses obtained to adequately evaluate all the variables and their relationships. A more broad distribution and more participation would allow additional variables to be explored.

Recommendations for Research

A better understanding of the drivers does not give us information on the value of the reorganization. Additional research could be done on the benefits of reorganizations. Further understanding could be sought on the impacts or disruptions on the business of the department caused by a restructuring of FM functions.

The subject organization for this research was FM departments. Similar research could be conducted on other organizations or departments. A comparison of other industry drivers with FM organization drivers may be beneficial.

From this data set other relationships and questions regarding FM reorganizations could be further analyzed. For example:

1. How do the reasons for reorganization given compare with the observed benefits of the reorganization?
2. What comparison is there between the stated reasons to reorganize and the type of reorganization that occurred?

Some insights to these questions may be obtained with further analysis of the survey data. However, the intent of the survey was to validate reorganization drivers. The accuracy of the stated reasons for reorganizations or the observed values of reorganizing are subjects of future research.

Comparison of the drivers for reorganization of FM departments could be compared and contrasted with drivers found from organizations managing other functions.

This study did not explore any of the attributes of organization type that might be best for facility functions as suggested by Cotts (1999). Reorganization intentions are to move the organization to a better position. This study did not explore what would be the best organization structures and the reasoning behind such structure. Exploring these questions and applying the understanding of FM department reorganizations drivers might provide tools to guide FM reorganizations to a more productive goal.

Conclusions

Though organizations of many types have been studied in various ways, studies of drivers for reorganizing FM departments are limited. Demands on facility departments to effectively and efficiently manage facilities increases the importance that any interruptions such as reorganizations be made only when needed.

At the onset of this research the personal experience of the researcher in the field of facility management suggested that facility department reorganizations occurred frequently and haphazardly. Though this research validates that reorganization do occur frequently there are some general reasons to reorganize. It is common for the personal preferences of organization leaders to influence or drive change. The most likely driver for reorganizing the FM department comes as a reaction to business growth and at the influence of a leadership idea that might be sparked by a change in management.

By understanding the conditions and drivers for reorganizing FM department, better control and facilitation of change when appropriate can be pursued. Avoiding temptations to reorganize without valid drivers and conditions is needed. Being better able to control reorganizations will allow facility managers to utilize their resources more effectively thus reducing the burden of facilities on people and our environment.

The results of this research should be of interest to all facility managers interested in managing their organization efficiently and effectively. Controlling their organization designs and changing those designs when needed require an understanding of the change drivers most likely to influence their departments.

Further research should be pursued regarding types of organizations that best contribute to FM department success. The value gained from FM department reorganizing and the potential harm or disruption created from reorganizations could be studied.

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Appendix A: E-Mail Letter Requesting Screening for Interview Participation

[This e-mail was sent to 10 personal professional contacts throughout the country. The intent was to find a minimum of 5 professionals who best meet the parameters of the research and were able to participate in the interviews. Colleagues met from local and national facility committees, conferences, and other professional contacts were considered.]

E-mail Subject line: Request for Research Participation

Re: Request for Research Participation on Facility Management Department Reorganizations

Dear [insert name]:

We have met at a [insert event or how known]. I would appreciate your help and participation in a research study being conducting as part of my doctoral program.

The research is being conducted at Colorado State University as part of a doctoral dissertation. The purpose of the research is to identify and understand drivers for reorganizing facility departments. We plan to initially conduct several interviews of facility managers and directors that have experienced a major reorganization of their FM department. From the interviews common themes and conditions present prior to FM department reorganizations will be identified. Then from the interview findings a questionnaire will be developed that will seek to validate these change drivers and their general application within FM departments. The questionnaire will be distributed to a larger group of facility management professional.

I will call you in the next couple of days to see if your professional experience will meet the study qualification criteria. This call will only take a couple of minutes. Please provide a phone number and time of day you prefer I call. If you meet the study criteria I would then schedule an interview that will require about one hour of your time. Additionally there will be organization data and research consent approval requested prior to the interview.

Your assistance is greatly appreciated and your contributions to the FM profession are welcomed. I look forward to talking with you again and learning more of your experience in facility management.

If you have any question regarding this request or the nature of the research, you may contact me at the number and email below.

Sincerely,

Cory D. Higgins, PE, CFM
Phone number 801-618-5171
Email address cory.higgins@juno.com

Gene Gleockner, Ph.D.
Graduate Advisor
Colorado State University

Appendix B: E-mail Letter Requesting Pre-Interview Documents

E-mail Subject line: CSU Research Pre-Interview Documents

Re: Research Consent Form and Request for Additional Information on Department Reorganization

Dear [insert name]:

Thank you for your willingness to assist with this research on facility management reorganizations. As stated previously, this research is part of a doctoral dissertation being prepared at Colorado State University.

Your phone interview has been scheduled as follows. I will call you at the number provided at that time.

Date:

Time:

Phone number:

As a facility professional you have experienced change in your profession and organizations. Through your experience we hope to better understanding the drivers for change in facility management departments.

Questions you will be asked include but may not be limited to the following:

- Describe the reorganization that occurred.
- What was the business or market climate like just prior to the change?
- What was the climate in the FM organization just prior to the change?
- What studies, data, benchmarks were used, if any, to justify the reorganization?
- What did management state as goals/objectives for making the change?
- Who led the charge for restructuring?
- In your opinion, why did the reorganization occur?
- In your opinion, what was the biggest force or driver behind the restructuring?
- How often have you observed FM reorganizations?
- What should be the reasons to restructure an FM department?

Before the interview is conducted I need the attached consent form completed and returned to the address below. The interviews will be recorded and transcribed for later analysis. Your responses and identity will be kept confidential and will be known only to the researchers. Your responses will be combined with others and reported in a manner that individual responses and organizations cannot be identified.

Additionally, prior to the interview a review of as many of these other documents listed below would be helpful. These documents will be used to help facilitate the interview as well as provide data for further analysis. We understand some of these documents may not be readily obtainable. Please provide what you can. Again, the individual and company identification (names) are not important to the research results. Although they are likely to be known to the researcher they will be removed from analysis and reporting documents.

The primary focus of this research is on pre reorganization conditions that may influence or drive organizational change. Any information regarding after or post reorganization may be interesting but may not be relevant to this research.

Please fax or mail these items so that they are received at least 5 days before the scheduled interview.

Mailing Address
Cory D. Higgins
9650 So. Glacier Lane
Sandy, Utah 84092

Fax Number
801-581-4263

If you have any question regarding this request, the nature of the research, or you need to reschedule you may contact me at the number and email below.

Thanks again for your assistance and willingness to participate

Sincerely,

Cory D. Higgins, PE, CFM
Doctoral Candidate
Colorado State University
801-618-5171
cory.higgins@juno.com

Attached: Interview Consent Form

Appendix C: Interview Consent Form

Consent to Participate in a Research Study Colorado State University

TITLE OF STUDY: FACILITY MANAGEMENT REORGANIZATIONS: DRIVERS FOR CHANGE IN MANAGEMENT OF FACILITY FUNCTIONS

PRINCIPAL INVESTIGATOR: Gene Gloeckner, Associate Professor
School of Education
Colorado State University
gene.gloeckner@colostate.edu
970-491-7661

CO-PRINCIPAL INVESTIGATOR: Cory D. Higgins, Doctoral Candidate
School of Education
Colorado State University
cory.higgins@juno.com
801-618-5171

WHY AM I BEING INVITED TO TAKE PART IN THIS RESEARCH? You are a facility management professional who has experienced in your career a facility management department reorganization. Your observations of that professional experience will serve as data for this research.

WHO IS DOING THE STUDY? Cory D. Higgins is the primary researcher. His graduate advisor at Colorado State University is Gene Gloeckner. This research will in part be used for a dissertation in partial fulfillment of the requirements for a Degree of Doctor of Philosophy (Ph.D.)

WHAT IS THE PURPOSE OF THIS STUDY? The purpose of this study is to identify and understand drivers for reorganizing facility management departments.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST? The interview is to be conducted by phone if a face to face interview cannot be arranged. The interview is expected to take about one hour. Follow up questions may be needed but are not anticipated.

WHAT WILL I BE ASKED TO DO? You will be asked a set of questions regarding your experience and observations of conditions prior to and during a facility management restructuring event. Your responses will be audio recorded and later transcribed for analysis by the researchers. The interview will be conversational in nature and informal. Examples of the questions to be asked include the following.

- Describe the reorganization that occurred.
- What was the business or market climate just prior to the change?
- What was the climate in the FM organization just prior to the change?
- What did management state where the goals/objectives for making the change?
- In your opinion, what was the biggest force or driver behind the restructuring?
- What should be the reasons to restructure an FM department?

The purposes of the interview responses are to develop a set of typical reorganization drivers. Your responses will assist in creating a questionnaire on reorganization drivers. We are not examining any particular organization or individual experience.

ARE THERE REASONS WHY I SHOULD NOT TAKE PART IN THIS STUDY?

There is no reason you should not participate. Your responses and company references will be kept confidential. Individuals and companies will not be identifiable in any reports or findings.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?

It is not possible to identify all potential risks in research procedures, but the researcher(s) have taken reasonable safeguards to minimize any known and potential, but unknown, risks. There is a slight risk that professional embarrassment or a breach of confidentiality may occur by participating but the researchers will minimize these risks by removing your identifiers from your data and when published neither your name nor the name of your organization will be used.

WILL I BENEFIT FROM TAKING PART IN THIS STUDY? There are no direct benefits of participating in this study. Indirectly you will be adding to the knowledge of change in facility management organizations and practices.

DO I HAVE TO TAKE PART IN THE STUDY? Your participation in this research is voluntary. If you decide not to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

WHAT WILL IT COST ME TO PARTICIPATE? There are no costs to participate. A time commitment of approximately one hour is expected.

WHO WILL SEE THE INFORMATION THAT I GIVE?

All research records will be kept private that identifies you, to the extent allowed by law.

Your information will be combined with information from other people taking part in the study. When we write about the study to share it with other researchers, we will write about the combined information we have gathered. You will not be identified in these written materials. We may publish the results of this study; however, we will keep your name and other identifying information private.

We will make every effort to prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. You should know, however, that there are some circumstances in which we may have to show your information to other people. For example, the law may require us to show your information to a court.

CAN MY TAKING PART IN THE STUDY END EARLY? You can end your participation at any time by informing the researcher. If you participate in the interview your responses will be considered. However, not all interview information may be used if it is not applicable to the study purpose or findings.

WILL I RECEIVE ANY COMPENSATION FOR TAKING PART IN THIS STUDY? No.

WHAT HAPPENS IF I AM INJURED BECAUSE OF THE RESEARCH? The Colorado Governmental Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury.

WHAT IF I HAVE QUESTIONS? Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions about the study, you can contact the investigator, Cory Higgins at 801-618-5171. If you have any questions about your rights as a volunteer in this research, contact Janell Meldrem, Human Research Administrator at 970-491-1655. We will provide you with a copy of the fully signed consent form.

WHAT ELSE DO I NEED TO KNOW? The interview will be recorded then later transcribed. The original voice recording will be erased after transcriptions are complete and verified to be accurate by the researchers.

Do you grant permission to be audio recorded? Yes _____ No _____

Your signature acknowledges that you have read the information stated and willingly sign this consent form.

Signature of person agreeing to take part in the study

Date

Printed name of person agreeing to take part in the study

Cory D. Higgins

Name of person providing information to participant

Date

Signature of Research Staff

Appendix D: Institutional Review Board Approvals

Page 1 of 5

Cory Higgins

From: Barker,Janell [Janell.Barker@Research.ColoState.edu]
Sent: Thursday, January 03, 2008 9:26 AM
To: Cory Higgins
Cc: Gloeckner,Gene (EID)
Subject: RE: HRC ID 07-120H

Your request to use the final cover letter and survey for your project 07-120H has been approved as of January 3, 2008. The amendment approval is being processed and will be sent in the next several days.

THE HRC IS NOW KNOWN AS THE IRB
(INSTITUTIONAL REVIEW BOARD)

Janell Barker
IRB Administrator
Research Integrity & Compliance Review Office
321 General Services Building
Colorado State University
Fort Collins, CO 80523-2011
Janell.Barker@Research.Colostate.edu
970-491-1655
FAX: 970-491-2293
<http://ricro.research.colostate.edu>

From: Cory Higgins [mailto:cory.higgins@fm.utah.edu]
Sent: Monday, December 24, 2007 11:02 AM
To: Barker,Janell
Cc: Gloeckner,Gene (EID)
Subject: HRC ID 07-120H

Janell:

This is a follow-up to the previous approval (HRC ID 07-120H) and a request for approval of the final survey instrument as requested.

5 interviews have been completed and the approved consent form was obtained prior to each interview.

The approved electronic cover letter for the survey is again attached and has been updated to incorporate the link to the electronic survey. Also in the document, below the cover letter, is the final survey. You can also follow the link in the cover letter to the website to see the survey in its final online form. This survey has been reviewed by Gene, other advisors, and tested on a select few others. All comments have been incorporated.

I request HRC review and approval to use this survey for distribution to up to 1000 participants. It is my desire to distribute the survey by e-mail at about the end of January 2008. If approval is not possible by that time, let me know.

I look forward to HRC comments and approval.

Thanks,
Cory D. Higgins

8/4/2008

Doctoral Candidate
Colorado State University
801-618-5171

From: "Meldrem,Janell" <Janell.Meldrem@Research.ColoState.edu>
Sent: Mon, 18 Jun 2007 16:58:43 -0600
To: "Cory D Higgins" cory.higgins@juno.com
Cc: "Gloeckner,Gene" <gloeck@cahs.colostate.edu>
Subject: RE: human research, Gloeckner, Facility Management Reorganizations: Drivers for Change in Management of Facility Functions

Thanks.
Your project, Facility Management Reorganizations: Drivers for Change in Management of Facility Functions, has been approved as of June 18, 2007 with the following conditions:
1) the approved consent form must be used to obtain consent for the interviews
2) the approved electronic cover letter must be used to obtain consent for the survey
3) the final survey must be submitted for review and approval prior to use
The approval is for a maximum of 10 interviews and 1,000 survey participants. The HRC ID is 07-120H.
The approval letter is being processed and will be sent in the next several days.

Janell Meldrem
HRC Administrator
321 General Services Building
Colorado State University
Fort Collins, CO 80523-2011
970-491-1655
FAX: 970-491-2293
<http://portal.research.colostate.edu/RCO/>

From: Cory D Higgins [mailto:cory.higgins@juno.com]
Sent: Sunday, June 17, 2007 10:24 AM
To: Meldrem,Janell
Cc: Gloeckner,Gene
Subject: Re: human research, Gloeckner, Facility Management Reorganizations: Drivers for Change in Management of Facility Functions

Attached are the updated documents with the requested additional information.
Thanks.
Cory.

On Wed, 6 Jun 2007 13:10:25 -0600 "Meldrem,Janell" <Janell.Meldrem@Research.ColoState.edu> writes:

Cory,
After looking at your consent form & cover letter again, there still seems to be some missing information. Please make these minor changes and submit the final versions of the consent form and cover letter and we can finish processing your protocol.

Consent form:
Please add Dr. Gloeckner's academic title, department and contact information. Please add your department and contact information as well at the beginning of the consent form.

Cover letter:
Please add Dr. Gloeckner's contact information at his signature block and add my contact statement: *If you have any questions about your rights as a volunteer in this research, contact Janell Meldrem, Human Research Administrator at 970-491-1655.*

8/4/2008

Thank you.
Janell

Janell Meldrem
HRC Administrator
321 General Services Building
Colorado State University
Fort Collins, CO 80523-2011
970-491-1655
FAX: 970-491-2293
<http://portal.research.colostate.edu/RCO/>

From: Cory D Higgins [mailto:cory.higgins@juno.com]
Sent: Sunday, June 03, 2007 11:26 AM
To: Meldrem,Janell
Cc: Gloeckner,Gene
Subject: Re: human research, Gloeckner, Facility Management Reorganizations: Drivers for Change in Management of Facility Functions

June 3, 2007

To: Human Research Committee, Colorado State University

Re: Response to Initial Review Notification dated May 29, 2007

Protocol title Facility Management Reorganizations: Drivers for Change in Management of Facility Functions
PI Gene Gloeckner, Education
CO-Investigator Cory Higgins, Education

Responses to the comments received are as follows:

1. The consent form has been modified to incorporate a statement on risk mitigation. See the attached. The added statement was added to the question on possible risks and discomforts.
2. It is agreed that the questionnaire, when fully developed, will be submitted for review and approval by the HRC prior to its use.
3. In the unlikely event of an adverse event, the protocol suggested will be utilized. That procedure is that the PI will notify the HRC through the RCO as soon as communication is available and report the event.

If there are any further comments or additional clarifications are need, please let us know. We look forward to HRC final approval to proceed with the research.

Cory Higgins
Doctoral Candidate
Colorado State University
801-618-5171
cory.higgins@juno.com

On Tue, 29 May 2007 10:59:18 -0600 "Meldrem,Janell"

8/4/2008

<Janell.Meldrem@Research.ColoState.edu> writes:

HUMAN RESEARCH COMMITTEE DETERMINATION NOTICE

Protocol title Facility Management Reorganizations: Drivers for Change in Management of Facility Functions

PI Gene Gloeckner, Education via e-mail

Cory Higgins, Education via e-mail

Review date May 23, 2007

Notification date May 29, 2007

Type of review INITIAL (expedite review)

Review of the information you provided resulted in the following determination:

1. The H-100 indicates there may be a breach of confidentiality risk or possible career impacts. These possible risks should be included in the risks section of the consent form and discuss how these will be minimized. For example, "There is a slight breach of confidentiality risk in participating, but the researchers will minimize this risk by removing your identifiers from your data and when the information is published, neither your name nor the name of your organization will be used."
2. Once the questionnaire is developed, please submit a copy for review and approval prior to use.
3. Although no adverse events are expected, a plan should be in place. Generally, an accepted procedure is for the PI to notify the HRC through the RCO as soon as communication is available and report the event. Please confirm if this procedure will be followed or if a different one will be used.

Please submit your response in memo format via e-mail or hard copy and submit any revised documents. Your response to this memo will be routed to a reviewer, typically within a day after it is received unless the Committee must re-review it. Your prompt response is important. Please do not resubmit the H-100. Research participants may **not** be recruited until the protocol has been approved.

If you have questions, please address them to the HRC, care of Janell Meldrem, Administrator to the HRC, at 1-1655 or janell.meldrem@colostate.edu.

Access our web page at <http://www.research.colostate.edu/rcoweb/> for current information and application forms for human research.

Animal Care and Use · Drug Review · Human Research · Institutional Biosafety

321 General Services Center

<http://www.research.colostate.edu/rcoweb/>

8/4/2008

Janell Meldrem

HRC Administrator

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<http://portal.research.colostate.edu/RCO/>

[Click here to become a professional counselor in less time than you think.](#)

8/4/2008

Appendix E: Interview Questions and Script

<i>Interview Introduction Script</i>		
<p>Thank you for meeting with me. I am a doctoral candidate at Colorado State University. Your participation today is part of the research being conducted for my dissertation, the purpose of which is to identify drivers for facility management department reorganizations. Your responses and identity will be kept confidential and will be known only to the researchers. Your responses will be combined with others and reported in a manner that individual responses cannot be identified. The interview responses will be analyzed with the results in part being used to develop a questionnaire that will be distributed to a larger group of facility managers with experience similar to yours.</p>		
<i>Interview Question</i>	<i>Learning Intent of Question</i>	<i>Clarity/Follow-up Questions</i>
Describe the reorganization that occurred.	Understand the extent, nature, and type of reorganization that occurred.	
What was the business or market climate like just prior to the change?	Understand business conditions	Was the business growing, shrinking, or changing?
What was the climate in the FM organization just prior to the change?	Understand the FM department conditions.	How was morale? What was turnover or management stability at the time?
What studies, data, benchmarks were used, if any, to justify the reorganization?	Understand if reorganization was driven by data or personal preferences.	What did management see that prompted them to seek reorganization?
What did management state as goals/objectives for making the change?	Understand management's driver for reorganization.	What did management hope to change with restructuring?
Who led the charge for restructuring?	Understand what positions drive the change	What was the motive behind this person's drive?
In your opinion, why did the reorganization occur?	Understand what drivers may exist.	Has your perspective change over time?
In your opinion, what was the biggest force or driver behind the restructuring?	Understand what drivers may exist.	
How often have you observed FM reorganizations?	Understand the frequency of reorganizations	
What should be the reasons to restructure an FM department?	Learn from interviewee what reasons they might desire or drive FM department reorganization.	
Do you have any additional comments on FM restructuring?	Learn of any addition comment on this or other observed FM restructuring events.	
<i>Interview Conclusion Script</i>		
<p>Thank you for your time and sharing of your experience. Your responses will be analyzed for themes related to conditions prior to FM department reorganizations to identify drivers for change. It is from a greater understanding of these drivers that we hope to prevent unnecessary changes and to facilitate needed change. The results of the research will be published as my dissertation. I hope as well that you may see the results in future conference proceedings and FM publications.</p>		

Appendix F: Survey Cover Letter sent to FM Professionals via Survey Monkey

Research on Facility Department Reorganizations

Re: Research Questionnaire on FM Department Change, Colorado State University

Dear Facility Manager/Director:

You are being asked to participate in research being conducted at Colorado State University. The purpose of the research is to identify and understand drivers for reorganizing facility management departments. Participation is voluntary. Your responses and identity will be kept confidential and will only be known to the researchers. Your responses will be combined with others and reported in a manner that individual responses cannot be identified.

Change in our industry is both beneficial and disruptive. This research will provide information to facility professionals to assist with driving and controlling organizational changes. Your professional experience as part of this research will help us to understand drivers for facility department reorganizations.

Please go to [\[link to web page\]](#) and complete a brief questionnaire regarding your experience and observations. The questionnaire will take about 10 or 15 minutes to complete. The questions are derived from preliminary research already concluded. Your responses add to the research validity and applicability.

Your assistance is greatly appreciated and your contributions to the FM profession are welcomed. If you have any questions regarding this questionnaire or the nature of the research, you may contact Cory Higgins at the following number and email. If you have any questions about your rights as a volunteer in this research, contact Janell Meldrem, Human Research Administrator at 970-491-1655.

Cory D. Higgins, PE, CFM
Doctoral Candidate
School of Education
Colorado State University
cory.higgins@juno.com
801-618-5171

Gene Gleockner, Ph.D.
Associate Professor & Graduate Advisor
School of Education
Colorado State University
gene.gleockner@colostate.edu
970-491-7661

Appendix G: Survey sent to FM Professionals via Survey Monkey

[Exit this survey >>](#)

Answer the following 8 questions regarding a facility management (FM) department in which you were intimately involved within the past 10 years.

What best describes the entity that is/was the host organization of the FM department?

- Institutional, government, educational
- Private commercial or industry
- Public commercial or industry
- Non-profit
- Other (please specify)

In the past 10 years, how many of each of the following FM department reorganization types have occurred?

	0	1	2	3	4	5	6	7	8	9	10+
The entire FM department changed management reporting line	<input type="checkbox"/>										
One or more FM functions changed reporting line(s) within the FM department	<input type="checkbox"/>										
Management layers were added within the FM department	<input type="checkbox"/>										
Management layers were deleted within the FM department	<input type="checkbox"/>										
Additional functions were added to the FM department responsibilities	<input type="checkbox"/>										

Additional functions were deleted from the FM department responsibilities

Other (please specify)

In your observation, which one factor/event most drove the FM department to make one or all of the organizational changes?

- Business declines or downsizing
- Business growth or expansion
- New or changed business practices in the Host organization
- New or changed business practices in the FM organization
- New/added technologies in FM or business
- Personnel leadership styles, preferences, abilities, or conflicts
- Issues with department communications, coordination, or customer service
- A management personnel change
- Other (please specify)

What reasons or goals were given (or implied) for reorganizing the FM department?

- Increase the authority, visibility, autonomy of the FM functions
- Align FM organization with best industry practices
- Improve efficiency (streamline, reduce costs, create economies of scale)
- Improve effectiveness (meet customer needs, alignment with business missions, improve quality)
- Improve communication, understanding, and synergies.
- Improve technical expertise
- Other (please specify)

Who initiated the restructuring of the FM department?

- Senior or executive management
- FM department management
- Management inside the FM department
- Customer/occupant management

Other (please specify)

On a scale of 1 to 5 rate each of these as to its benefit as a reason for FM reorganizations to occur.

	Least Benefit	1	2	3	4	5 Most Benefit
Increase the authority, visibility, autonomy of the FM functions.	<input type="checkbox"/>					
Align FM organization with best industry practices	<input type="checkbox"/>					
Improve efficiency (streamline, reduce costs, create economies of scale)	<input type="checkbox"/>					
Improve effectiveness (meet customer needs, align with missions, improve quality)	<input type="checkbox"/>					
Improve communication, understanding, and synergies	<input type="checkbox"/>					
Improve technical expertise	<input type="checkbox"/>					
Other (please specify)						

In your opinion, what were the major drivers or forces behind the reorganization of the FM department?

Please provide any comments or observations that could enhance our understanding about FM department reorganizations.

If you would like a summary of the research findings please provide your e-mail address.

Thank you again for your time and assistance with this research project.

Done >>

Appendix H: Interview Results

Interviewee Statements

Person A	Person B	Person C	Person D	Person E
Reorganization Information				
Type of Reorganization				
<p>construction engineering services was part of global real estate, along with the planning and design group. I think the first major change in that chain was that planning and design was separated out and came under the facility and operations side. Then the construction piece ended up breaking out separately, construction engineering, as it grew. Then the planning and design piece went back under global real estate</p> <hr/> <p>Construction engineering became its own</p> <hr/> <p>biggest change is that construction and engineering used to be part of global real estate and now it's its own separate entity</p> <hr/> <p>planning and design has switch back and forth between global real estate and facility and supply operations</p>	<p>The one that was the largest was a centralization of the facility function under one division</p> <hr/> <p>There was a branch that did the O&M underneath Admin and a branch that did the field under a totally different department, the management engineering department. They were combined and put under a whole new division which was at the same level as the Admin and Management Engineering departments. So there became a facilities and management division</p> <hr/> <p>Management Engineering stayed in tact and just lost the field facility management group.</p>	<p>all the facility functions were moved over to be under HR.</p> <hr/> <p>And then that changed to where there were not site managers. So then they reorganized again to have facilities report to a regional facility structure. there was created regional facilities managers that reported to a corporate real estate group. So they started to structure toward a more global or at least country wide facility management.</p>	<p>The reorganization in the change is not singular. It is ongoing and it's on multiple fronts and all corner of the organization. It's a transformation of just about the entire operation on various levels. And maybe the best way to characterize this is that we have moved a lot of things around based on alignment with mission.</p> <hr/> <p>The responsibility for deferred maintenance, budgeting and all that was not in our operations and maintenance organization. It was handled by a staff member and assistant to the director for facility management. A two man position, so that's a responsibility that we shifted to the operations and maintenance group. We defined them more as a asset management group rather than as just a service provider.</p> <hr/> <p>some of the things we move into the organization from outside including our maintenance warehouse</p> <hr/> <p>things moving out as when I got here we were doing class scheduling</p> <hr/> <p>Another thing we moved was equipment services in the classroom and technology.</p> <hr/> <p>We moved some of the engineering functions out of our design construction services group into our energy and utilities</p>	<p>went from an organization by building or location to one that was more centralized organization and tasks assigned by function rather than by physical location.</p>
Frequency of Reorganizations				
<p>something like that happens maybe, twice a year or once or twice a year anyway</p>	<p>they had another reorg three years later when the space went out.</p> <hr/> <p>Every three years. That was my experience. I was there twelve years.</p>	<p>every three to four years which is probably not often enough</p> <hr/> <p>All of us get too comfortable in a position over time and things that</p>	<p>I don't think it happens all that often. I don't know if there's a lot of reward for it.</p> <hr/> <p>in the 4.5 years you can count 5 or</p>	<p>in my career which spans 27 years, I have seen what I would consider three. Many times there are minor changes when somebody retires or</p>

Person A	Person B	Person C	Person D	Person E
	So every three to four years	should be addressed don't get addressed because everything's fine I think in our organization that those conversations probably happen on an annual basis	so. One every 1 or 2 years. There's been 7 moves here inside the organization that I'm looking at that moved I do think that a five year review cycle is the right rhythm to take a critical look at what the organization is doing and whether it still has the right alignment. And probably every ten years it needs to be redefined	leaves things tend to get shifted around a little So in my career every nine years but I think the pace is increasing based on what I have observed and people I have talked with you should always be looking at it and evaluating if what you have is right
Change Leaders				
the vice-president of the organization. The VP Workplace Solutions. these major changes that occurred pretty much occurred with or not long after this new VP came in.	The number 2 guy in the organization. Basically the senior executive Vice President. guy that was in charge of O&M was very involved in IFMA and very strong and active in making things happen. And he had the number 2 guys ear. So he did a lot of educating	the real estate side of the organization. It could have been in the finance side but I am thinking it was more of a real estate place that it was argued that we ought to do it this way.	It would start with me I would guess. It was a step in my career and an opportunity for me to try to make a positive impact	Who was it that decided that this restructuring needed to occur? Who drove the restructuring? The position that all this reported up to. They did not use titles in this company. But he was essentially a partner that was responsible for all real estate and facilities
Drivers for Reorganization				
Business Contraction or Expansion				
as I said the construction engineering grew enough that they ended up separating it back out again that there was a lot of change in construction were in the process, of obtaining the property and starting to make plans this large new campus plans as part of that to renovate a number of the existing buildings as a follow-up to the new campus. And so they were adding more people to their staff and taking on some very significant responsibilities organization had grown to fill what was our original three building campus. As well as overflowing into a number of different leased facilities I think growth As the company has grown and our client's needs have grown the facilities organization has grown	The headquarters sites which was the 50 group was in the process of going through a major expansion. If you count the parking structure, 1.35 million sf. And this was in two buildings, a small building and a very large headquarters building. The small one was 50k sf. There were lots going on. I know the field offices group at that time was seeing more ATMs being installed and that might have been what was going on and they were quite busy. we were adding on phase 3. I can't remember the square footage but it that is probably when we went from 600k sf to about a 1M sf plus a 300k sf parking structure. We probably double the sf in all	No comments	this institution was feeling the tighten of the state budget problems of September 11 after effect and all that	This was done in a company that was growing very rapidly It was at a time they were growing in double digits, mid teens, an annual growth rate of 18% or so. And had been growing even faster than that at 21% or 22% the previous year or two. We were adding several new locations all in the general geographic area. We had two corporate campuses and were expanding to three corporate campuses. All within a five to eight mile radius. A change in the business environment. It was an opportunity to evaluate if we were doing it the best we can. We realized as we grew that the model that we had before was not as good. That's one driver. I think there are probably a few things that would drive that (department restructuring). The first thing is an overall change in business

Person A	Person B	Person C	Person D	Person E
				climate. That is a pretty broad statement but if the organization has major changing whether it is in the way it does business, growth, or reductions, or a change in direction the facility organization needs to make sure it is meeting the current needs of the business
Changes in Business Practices				
- No Comments	They were moving from a 9 to 5 Monday to Friday to meet more needs and requirement of customers to be available at all times. To do that the facilities had to be available	some structure further up focusing on the larger bits of business rather than a silo thing. I think they were looking for some larger business organizations which would then not be specifically housed at specific sites. That is also when the organization began a split into two companies	No Comments	I think there are probably a few things that would drive that. The first thing is an overall change in business climate. That is a pretty broad statement but if the organization has major changing whether it is in the way it does business, growth, or reductions, or a change in direction the facility organization needs to make sure it is meeting the current needs of the business.
Technology Changes				
No Comments	new requirement that has come into play like CAFM systems that came in created something that no one did before	No Comments	No Comments	No Comments
Management Preferences				
depending how strong the different directors are typically at that first row underneath the vice-president those are directors they've had varying levels of influence at different times <u>But, he is not a strong manager, he's a strong doer. And it was a little bit of a Peter Principle thing, I think. You know, where he kept getting a little bit more influence based on the skills he did have, but he really wasn't managing that group very well. And so little by little those pieces were moved away from that individual.</u> whatever somebody feels is a more	I think it was the senior guys vision to do this. <u>personalities don't mix like that reorg where the Field came in and three years late the field went out but space stayed. The reorg worked for some and did not work for others</u>	they would have argued that would be to say lets take this burden off this <u>already too busy business manager</u> except that perhaps the HR manager was needing a larger organization. So she convinced the powers that be that she should also manage the <u>facility operations</u> <u>It really felt like it was just that here was a manager (HR) gaining more power saying I need to manage this stuff too. I do not think there was any business climate that said we need to get better control of this or someone does not have time for this.</u> When she moved on to something else, people were listening again as	I found that when I came hear as a new person fresh set of eyes I was wondering why is this person handling this responsibility in this <u>part of the organization</u> <u>It looked like a lot of functions being performed by various individual weren't rooted so much in the mission of the unit but maybe given to them years ago and they kept it with them. So we moved things back and forth across traditional departments of our facilities management organization to better align it with mission</u> <u>there was a disconnect between those responsible for maintaining of assets and those responsible for planning</u>	No Comments

Person A	Person B	Person C	Person D	Person E
<p>important synergy and perceives to be a better synergy</p> <hr/> <p>they went to back to Global Real Estate was when the individual that now has that team became the leader of that team</p> <hr/> <p>he wasn't giving them strong direction or maybe Mark, or the VP, felt the appropriate direction and so they were separated off.</p> <hr/> <p>thinking some of that really had to do with the individual</p> <hr/> <p>that split occurred when that individual kind of stepped down from a lot of the management responsibilities</p> <hr/> <p>specific individual people. As they grow or change and as the function grows sometimes the function grows bigger than what is appropriate for that individual</p>		<p>to was that the right structure</p> <hr/> <p>some due to attrition</p> <p>It is the kind of thing where it is okay when the person leaves and we are not going to replace you.</p>	<p>for the future and budging for improvements</p> <hr/> <p>every one of these positions has turned over. It makes a big difference. I have been able to name every one of these directors. If I weren't able to do that the rate of progress would be much much slower</p>	
Communication and Coordination				
<p>the silo piece we had with these different ways that had organized there always seem to be, and there still is, an organizational silo around each of these pieces. As much as we try to communicate across, if they're not under the same director, they are more separate</p> <hr/> <p>planning and design was moved to real estate along with the construction engineering so that they would communicate more closely with the construction engineering</p> <hr/> <p>They seem like a hot potato that going to be moved around to whomever they're not getting along with.</p> <hr/> <p>Because of the need for them to be closer to a particular group</p> <hr/> <p>I think the communication that we've had to improve synergies between the organizations</p>	No Comments	No Comments	No Comments	No Comments

Person A	Person B	Person C	Person D	Person E
synergies between the organizations, I think anytime we go far enough down a road where there's a perception that parts of the facilities organization are not working as closely together as they should that that has multiple times I've seen that appear to drive re-organizations				
Stated Reasons for Reorganizing				
Visibility of FM Roles				
They have a little broader scope in terms of setting standards and in terms of doing the design and specifications for sales offices around the country <hr/> broader scope to do with recognizing the increasing responsibilities of those parts of the company	With that came a seat at the management table <hr/> At the end of the reorg he was a senior vice president. So he reported directly to the number one and number two in the organization <hr/> It could have been empire building. I thing the goal was more so of getting a seat at the table <hr/> I think there were a lot of issues. There was a lot of visibility when something went wrong. <hr/> So the stated or at least the implied reasons for the change was that the consolidation would make the facility management role be more visible.	No Comments	No Comments	do more standardization across buildings
Align with Best Practices				
desire and opportunity to look at best practices globally and share those and perhaps create more common processes globally	No Comments	No Comments	I also found an organization that wasn't what I would call adopting best practices Having a national exposure that you and I get by going to conferences and networking with others. This was sort of an isolated island. I had not seen them adopting best practices. <hr/> the external forces. The other thing that was going on that I interpreted was our board kept interjecting look at what private sector, look at what business do. You know, you ought to look at them for best practices.	There was probably peer discussion with other companies through professional associations and local chambers of commerce
Improve Efficiency				
No Comments	to take advantage of streamlining and efficiencies	In the past these services were performed by company employees.	No Comments	we wanted to do more standardization across buildings. The

Person A	Person B	Person C	Person D	Person E
	<p>streamline, to make things more efficient</p> <hr/> <p>to save money</p> <hr/> <p>to be more efficient and save money is one reason</p>	<p>Then in an outsourced model they were performed and bundled into the service provider. So as an example JCI doing the maintenance and small projects and handling all the moves. Then you have Eurest handling the cafeteria and vending. In the past these were handled and managed under an HP employee. There would have been a employee managing grounds and custodial for example. Now all of those functions have been outsourced and bundled under the single company</p> <hr/> <p>When they honestly start to look at what does it take for you to provide that service? And then look at layers of management and who is really providing the service and doing it verses whos managing it. There are times when you look at it and say we probably do not need three layers of management to get this done.</p> <hr/> <p>So they are soft approaching getting the right size on the staff which will fix the budget problem. That is how budgets drive reorganization and restructuring.</p>		<p>way we were currently set up was that each building had its own organization that did things in its own way. There were missed opportunities to take advantage of economies of scale</p> <hr/> <p>I would guess a more frequent driver at least in today's world is are there ways to cut costs? The situation I described was not really a cost cutting although it probably resulted in cost savings over if we had continued the way we were going. That would have been more costly but it wasn't costs that drove the reorganization then. But I think it is something that drives it now. It continually trying to take costs out of businesses.</p>

Person A	Person B	Person C	Person D	Person E
Increase Effectiveness				
<p>I think a stated reason for the big picture reorgs one of those stated reasons has to do with preparing ourselves to better serve our clients</p> <hr/> <p>I think the best reason would be to better serve the needs of the company.</p>	<p>I do not think that there was a business change going on at that time. It was more of a philosophy of we need to centralize and consolidate our resources so that we could assist to become more effective which may cost more money is also a reason</p>	No Comments	No Comments	<p>Each manager then split the area up. A building manager was then doing roads and grounds as well as all the individual building and internal functions, space planning, operations and maintenance, and all of those kind of things. So you had three persons that were generalists doing all of it. You did not need for example three persons managing roads and grounds, all different pieces of it when it is all part of one campus. We felt it made much more sense to have individuals responsible on more a functional basis.</p> <hr/> <p>The purpose was really to support the growth in a way that better met the changing needs of the organization.</p> <hr/> <p>It was a matter of trying to increase effectiveness with the size that we had become</p> <hr/> <p>That is a pretty broad statement but if the organization (again most of my experience has been in the for profit sector but even in the non-profit or institutional sector) has major changing whether it is in the way it does business, growth, or reductions, or a change in direction the facility organization needs to make sure it is meeting the current needs of the business</p>
Technical Expertise				
No Comments	<p>Perhaps they thought that some of the technical expertise that we had on facilities could assist.</p> <hr/> <p>to better utilize your resources and the skills that you have in house</p>	No Comments	<p>alignment where there's more interest and expertise</p> <hr/> <p>it was not so much mission alignment it would be technical support where we put these services that we provide where it be best supported. We felt that expertise was better planted in our utilities and energy management group and in fact we redefined their mission as both supply side and demand side</p>	<p>what we felt was that we needed to develop higher levels of expertise than what we probably had</p>

Person A	Person B	Person C	Person D	Person E
			<p>management of energy.</p> <p>We didn't have the rich expertise in the organization so the directors were in a fires fighting mode and not in a strategic management mode. Or you know planning mode. So part of the organization not to be under estimated was elevating the same positions to a new role so the director became much more strategic much more planning much more enabling. We hired out a cadre of associate director to execute the work and to be content and nurture experts in the organization</p>	
Communications and Synergies				
No Comments	No Comments	No Comments	-You got management and others together to develop this strategic plan that then became a kind of driver to say, this is what we want to be doing to look at the organization to say why are we doing this or why are we not doing this	No Comments
Barriers Observed for Reorganizing				
Poor Planning				
No Comments	Having a plan upfront, really looking at everything holistically, and really taking into account what every single functions was coming in and laying that all out.	No Comments	No Comments	No Comments
Personalities or Culture				
No Comments	<p>strong personality in place that never changed</p> <p>Personalities don't change because you have a reorg</p>	<p>in many cases we don't have the courage within the management to do something about it</p> <p>A lot of change does not occur because it is uncomfortable.</p>	<p>You get somebody in our position that's been there 20 years or more and that -organizing gets set in its ways. I think that's what I m really dealing with. The guy that only lasted 18 months probably banged his head against the wall and gave up</p> <p>It's always people</p> <p>So my challenges have been internal and had been almost, well my biggest challenge was with direct reports</p>	I think every organization has those sacred cows. Those are probably those unwritten but known things that people believe or perceived that are not allowed to be changed maybe due to individuals and personalities, politics, or that is the way we have always done it that I think get in the way of making change.

Appendix I: Survey Results

RESPONSE SUMMARY DATA

What best describes the entity that is/was the host organization of the FM department?		
Answer Options	Response Percent	Response Count
Institutional, government, educational	25.6%	23
Private commercial or industry	40.0%	36
Public commercial or industry	22.2%	20
Non-profit	8.9%	8
Other (please specify)	3.3%	3
<i>answered question</i>		90
<i>skipped question</i>		0

Number	Other (please specify)
1	Medical-for profit
2	Financial /Banking
3	Consultant

In the past 10 years, how many of each of the following FM department reorganization types have occurred?												Response Count	# Reorgs in 9 yrs	
Answer Options	0	1	2	3	4	5	6	7	8	9	10+	Response Count		
The entire FM department changed management reporting line	23	21	14	14	8	4	1	1	1	2	1	90	182	19%
One or more FM functions changed reporting line(s) within the FM department	14	20	18	12	7	9	3	1	1	3	2	90	225	24%
Management layers were added within the FM department	34	34	9	4	1	4	1	0	0	0	3	90	94	10%
Management layers were deleted within the FM department	44	20	13	4	3	2	1	1	1	0	1	90	101	11%
Additional functions were added to the FM department responsibilities	8	10	15	18	8	10	8	1	1	3	8	90	266	28%
Additional functions were deleted from the FM department responsibilities	49	18	15	2	2	3	0	0	0	0	1	90	77	8%
Other (please specify)												7		
<i>answered question</i>												90	945	
<i>skipped question</i>												0		

Number	Other (please specify)
1	outsourced some work
2	Outsourcing was evaluated as an option on 2 occasions. Also, scheduled overtime was eliminated for HVAC dept.
3	We are a flat organization. Manager and 25 direct reports. This has to change.
4	Shipping and receiving went to the sourcing/logistics department
5	I was unsure how to answer this section. Need to be clearer on what you are looking for in the answer.
6	Note, this is observations as a consultant over the last six-years and as a rFTE during the previous 4-years
7	Amalgamation of two departments

In your observation, which one factor/event most drove the FM department to make one or all of the organizational changes?		
Answer Options	Response Percent	Response Count
Business declines or downsizing	11.1%	10
Business growth or expansion	27.8%	25
New or changed business practices in the Host organization	17.8%	16
New or changed business practices in the FM organization	3.3%	3
New/added technologies in FM or business	1.1%	1
Personnel leadership styles, preferences, abilities, or conflicts	16.7%	15
Issues with department communications, coordination, or customer service	3.3%	3
A management personnel change	16.7%	15
Other (please specify)	2.2%	2
<i>answered question</i>		90
<i>skipped question</i>		0

Number	Response Date	Other (please specify)
1	02/13/2008 15:45:00	Corporate purchase
2	02/13/2008 20:54:00	Aquisition by larger company

What reasons or goals were given (or implied) for reorganizing the FM department?		
Answer Options	Response Percent	Response Count

Increase the authority, visibility, autonomy of the FM functions	6.7%	6
Align FM organization with best industry practices	17.8%	16
Improve efficiency (streamline, reduce costs, create economies of scale)	47.8%	43
Improve effectiveness (meet customer needs, alignment with business missions, improve quality)	46.7%	42
Improve communication, understanding, and synergies.	13.3%	12
Improve technical expertise	4.4%	4
Other (please specify)	10.0%	9
<i>answered question</i>		90
<i>skipped question</i>		0

Number	Other (please specify)
1	N/A
2	Didn't have anyone else to fulfill the function and new my team would get it done.
3	Consolidation of the company into one place
4	No reasons were given
5	change facilities reporting (admin v. finance) and have purchasing report to accounting mgt
6	A company layoff offered the opportunity to remove ineffective facilities personnel.
7	Layer of upper level management added.....
8	Alignment with changing overall company org structure.
9	i dont recall any reason being given.

Who initiated the restructuring of the FM department?		
Answer Options	Response Percent	Response Count
Senior or executive management	65.6%	59
FM department management	27.8%	25
Management inside the FM department	6.7%	6
Customer/occupant management	0.0%	0
Other (please specify)		0
<i>answered question</i>		90
<i>skipped question</i>		0

On a scale of 1 to 5 rate each of these as to is benefit as a reason for FM reorganizations to occur.							
Answer Options	Least Benefit 1	2	3	4	5 Most Benefit	Rating Average	Response Count
Increase the authority, visibility, autonomy of the FM functions.	17	12	30	21	10	2.94	90
Align FM organization with best industry practices	6	21	28	24	11	3.14	90
Improve efficiency (streamline, reduce costs, create economies of scale)	2	11	16	36	25	3.79	90
Improve effectiveness (meet customer needs, align with missions, improve quality)	2	6	10	33	39	4.12	90
Improve communication, understanding, and synergies	5	12	21	32	20	3.56	90
Improve technical expertise	12	18	33	14	13	2.98	90
Other (please specify)							1
<i>answered question</i>							90
<i>skipped question</i>							0

Number	Other (please specify)
1	primarily driven by executive interest (or disinterest) in one or more facilities' functions

COMMENT SUMMARY

N your opinion, what were the major drivers or forces behind the reorganization of the FM department?	
Drivers for Reorganization	
Business Contraction or Expansion	
15	<ul style="list-style-type: none"> - Dynamic business growth, typically trending upward, but also responding during down-turn in early 2000's. - Business declines or downsizing - Growth - Business growth (acquisition and new construction) Enhanced focus on security Synergies and service level agreements to meet internal customer expectations - The first phase was due to a down turn in our industry and second phase was due to an up turn in our industry. The net gain moved us to a reactive instead of a proactive department. - increased work - The organization grew and the FM dept. did not change with the addition of more workers. It needs to be re-organized. - growth - scaling to business needs and requirements - EMCOR Facilities Services purchased Siemens Facility Management Services. - Growth within the organization and additional responsibilities (e.g., purchasing, security dept.). - Growth of the organization both locally and within a 60 mile radius. - Growth of staff; expansion into new space - Streamline process, employee cut backs, company reorganization -A college campus that was expanding Fm needed to take charge and facilitate the needs for this to happen.
Changes in Business Practices	
8	<ul style="list-style-type: none"> - (1) clarity of vision/functions especially related to workplace safety & environmental health issues; (2) merger - EMCOR Facilities Services purchased Siemens Facility Management Services. - To be better positioned to support a changing, more global organization. - To define / re-organize multiple functions - Merging with sister and parent companies. Standardization and best practice focused. - The formal addition of a department managing the FM role as opposed to having it be part of day to day duties of operating divisions. This resulted in the formal organization of a department dedicated to FM as well as other related areas. - change in the eng. departments - Increase responsibilities and regulations without adding staff.
Technology Changes	
0	
Management Preferences	
19	- personalities! There are 100's of acceptable ways to organize, they are all driven by people.

	<ul style="list-style-type: none"> - Restructuring of Leadership - Egos - Someone at a at a very sr level thought it made more sense. - Personnel Change/retirements, and aligning with FM best practice - Most of the time the reason given is to realign the workforce with the goals of the company, however it is typically the whim of the management team that decides to reorganize. - Sr. Management changes, improved support from FM - The thinking that consolidating smaller groups into a larger group being under one umbrella. - New managment, coupled with two many individual departments - Lax supervision and organization from previous management. - Convenience - Difference in management styles. - internal management performance problems - Internal company politics - primarily driven by executive interest (or disinterest) in one or more facilities' functions - VP or Department head changes led to opportunities to restructure. - Management changes - executive empire building - Conflict between senior management and facilities manager
Communication and Coordination	
3	<ul style="list-style-type: none"> - Lack of understanding and Cost Cutting - Changes and expection from the client or business units. We were asked to do more with less, cut costs, improve communication and worked with a client who was indecisive - (1) clarity of vision/functions especially related to workplace safety & environmental health issues; (2) merger
Stated Reasons for Reorganizing	
Visibility of FM Roles	
1	<ul style="list-style-type: none"> - Reduction of costs, not valuing the benefits of a fully funded Facilities program.
Align with Best Practices	
6	<ul style="list-style-type: none"> - Personnel Change/retirements, and aligning with FM best practice - Most of the time the reason given is to realign the workforce with the goals of the company, however it is typically the whim of the management team that decides to reorganize. - Lack of understand of particular sites mission - modeling after other sites without providing adequate resource. - Balanced scorecard - alignment with mission is the most improtant. - A more focused approach to FM. It was previously mixed in with too many other related by non specific FM responsibilities - Merging with sister and parent companies. Standardization and best practice focused.

Improve Efficiency	
15	<ul style="list-style-type: none"> - Save money - The new organization was in response to the need for efficiency in response to changes in customer needs. - Changes and expectation from the client or business units. We were asked to do more with less, cut costs, improve communication and worked with a client who was indecisive - Eliminate outsourcing thereby reducing costs and improving effectiveness and efficiency - Inefficient reasons - keeping long-term employees happy, and putting underachievers in roles where they would not have to perform at such a high level. - Streamline, downsize, & do more with less - Remove ineffective personnel; Promote new leadership - Cost reduction, improved efficiency - Shortage of resources - Cost savings - Reduced budgets. Increasing efficiency - Reduction of costs, not valuing the benefits of a fully funded Facilities program. - costs - Budget - Streamline process, employee cut backs, company reorganization
Increase Effectiveness	
12	<ul style="list-style-type: none"> - losing in house personnel to contracting. more focus on customer delivery - head count reduction and the need to better manage costs - meeting customer needs with cradle to grave services in the same group - Employee retention and growth opportunities Meeting business unit needs. - The new organization was in response to the need for efficiency in response to changes in customer needs. - Put us in a better position to anticipate our customers needs. - Changes and expectation from the client or business units. We were asked to do more with less, cut costs, improve communication and worked with a client who was indecisive - Business growth (acquisition and new construction) Enhanced focus on security Synergies and service level agreements to meet internal customer expectations - Eliminate outsourcing thereby reducing costs and improving effectiveness and efficiency - Customer complaints - A more focused approach to FM. It was previously mixed in with too many other related by non specific FM responsibilities - Customer satisfaction
Technical Expertise	
0	
Communications and Synergies	

1	- Business growth (acquisition and new construction) Enhanced focus on security Synergies and service level agreements to meet internal customer expectations
---	---

Please provide any comments or observations that could enhance our understanding about FM department reorganizations.	
Open-Ended Response	
I think a couple of issues drive FM department organization...a natural expansion/contraction cycle (they always seem to be centralizing or decentralizing), leadership personalities and the level of "trust" the organization puts in them (more trust equals broader role), whether they are in-house or contract (different structures), and whether they operate a facility with tenants or operate and occupy a facility (difference between many office buildings versus corporate campuses).	
Alignment of Facilities Management should be whole with all areas of support including the Facilities Planning & Development areas	
Rarely totally effective in accomplishing long term savings as the usually reverts back to the way it was after a few years.	
in-house maintenance staff was down-sized to handle only preventive and emergency maintenance, all maintenance projects above in-house capabilities were out-sourced, maintenance and capital project management was combined to provide cradle to grave planning, design, and construction services for all contract work.	
Outsourcing parts of FM can save \$\$ but requires strong communication to avoid we/ they. When you are employees of the company you tend to not be so black and white about roles and can flex to support each other. With contracts for service, sometimes the outsource provider is more black and white about what they do vs what the company employee is responsible for in FM projects and daily work.	
The largest portion of the department is maintenance. We found some doubt in the minds of those individuals as to the reason for change. We spoke individually and then as a group with them and involved them in the change. Their involvement made the difference in terms of long term success.	
It is key to know the state of the organization prior to the re-org before making determinations.	
The bus units we service must be more and more agile to meet their customer's needs, so must we.	
Transition w/staff members in mind - emotions will have a significant impact on the reorg.	
The FM department has to have a direct line of communication with the top management of the company. Members in the FM department are critical in business and organizational decisions and need to be included to help facilitate change for the organization and to understand how their roles may change based on the environment, type of employees and organizational challenges.	
In my experience it is upper management who would like to see more produced by less workers. If this means taking on extra work or taking on specialties that the company hasn't necessarily hired, that's okay to. Somehow they think/know that the FM group will figure it out for them.	
The work and responsibilities increase and you have to do it with less staff.	
Number of sites and buildings are increasing. The staff needed to provide a given level of services needs to grow.	
Business is changing and FM needs to understand that it needs to change along with it or it loses its value to the organization it supports.	
Senior leadership has a tremendous effect, particularly as FM departments report differently through organizations, such as: Finance Human Resources Corporate Real Estate Operations Direct to President or CEO Their backgrounds and perspectives have a real impact depending on the strength of the FM leader	
What senior leadership wants us to be, they don't support with staff, budget, training or technology.	
Efficiencies	
Typically seen by management as low hanging fruit -cutting heads/adding responsibilities; primarily due to the fact that FM's are terrible marketeers.	

<p>Facility managers often allow their departments to become reactive to occupant needs and breakdowns as opposed to being proactive and keeping up with preventative maintenance. A good facilities and maintenance department will demonstrate the need to continually improve facilities by protecting assets, following a well-designed preventative maintenance program, and identifying and correcting potential problems before they occur. A reactive department falls into the trap of waiting for a call to action and playing the role of the hero when things go bad. When this mode of thinking becomes prevalent and habitual, a shake up may be necessary.</p>
<p>FM functions do best when aligned properly--usually together and not decentralized among other functions</p>
<p>Most of the reorganizations that I have been involved with are or have been because of upper management changing. Some come in with a better understanding of how the department should be ran and others have had little to no experience. The things that effected reorganization are or have been an increase of responceability to include adding information technology, security, and purchasing to my job functions.</p>
<p>they are most always driven by the CFO</p>
<p>Without specifically reorganizing, my client has directed a great deal of functional changes to my role and the role of my assistant and my second-in-command over the last five years.</p>
<p>FM units need to be fully aware of organizational evolution in order to be positioned and prepared to support the changing needs, new technology or more diverse client base.</p>
<p>Change in management style. Some senior management retired making room for improvement</p>
<p>In my experience, in small to mid-size companies, it is driven by the executive who has or doesn't have interest in the function.</p>
<p>Separating the connection between Capital construction division and maintenance functions did not provide an increase in efficiency - it restricted effective communication</p>
<p>Many FM organizations are still functioning as "enhanced" maintenance departments. Supervisors are not keeping up with technology or seeking opportunities to have their people trained and educated. Limited funds for education. They fail to see the importance of continued education.</p>
<p>Cultural differences are not always easily addressed, however allowing each company to have influence over the decision is paramount in successfully transitioning functions.</p>
<p>Alignment with Finance seems to make better sense than with Administration due to the daily interactions between Purchasing, Receiving, and lease administration with Accounting.</p>
<p>Loss of Senior Management advocate for Facilities through retirement started the reorganization process. Facilities Management becamce seen as an unnecessary cost so it was reduced. Remaining Facilities Management must now rebuild value with Senior management.</p>
<p>Change is good if done correctly.</p>
<p>Facilities management has grown substantially over the past 10 years. Increasingly, FM's roles and responsibilities have evolved and they are considered an important component in the strategic planning of an organization.</p>
<p>split product lines</p>
<p>reorganization is most often a function of senior level management's need to appear to be doing something to "improve" some facet of their sphere of influence. Most times this is simply a ploy to improve their opportunity for promotion at the expense of middle management.</p>
<p>In general, some degree of change is good to stimulate thought and avoid stagnation and the "that's the way we always did it" attitude.</p>
<p>Administrations (those outside of FM) have little understanding of the complexities FM faces. therefore staffing needs are seldom met as FM managers constantly make adjustments within their ranks to absorb more responsibility. this leaves FM with few contingencies in it's operational approach. Impact on the facility operation is the last thought when expanding program. "Facilites is the first to need and the last to KNOW"</p>

Appendix J: SPSS Analysis Correlation Matrix Results

CORRELATIONS

```

/VARIABLES=BAuthority BIndustryAlign BEfficiency BEffectiveness BCommunica
BTechnical AllFMLineRO InFMLineRO MgmtAddRO MgmtDelRO FunctAddRO
FunctDelRO RODrivers
/PRINT=TWOTAIL NOSIG
/STATISTICS DESCRIPTIVES
/MISSING=PAIRWISE .
    
```

Correlations

[DataSet0] C:\Documents and Settings\u0546680\Desktop\Research & Data Working Copy\Survey\Full Data Analysis.sav

Descriptive Statistics

	Mean	Std. Deviation	N
Authority is Increased	2.9444	1.25744	90
Aligned with Industry	3.1444	1.11739	90
Became More Efficient	3.7889	1.05463	90
Became More Effective	4.1222	1.00368	90
Communication Improved	3.5556	1.14275	90
Technical Skills Improved	2.9778	1.21764	90
All FM Report to New Area	2.1333	2.20418	90
Reporting Lines in FM change	2.7222	2.44962	90
Mgmt Layer Added	1.3778	2.08568	90
Mgmt Layer Deleted	1.2333	1.89054	90
Functions Added to FM	3.8444	2.85181	90
Functions Deleted from FM	.9667	1.56830	90
Reorg Drivers or Factors	4.1364	2.19289	88

Correlations

		Authority is Increased	Aligned with Industry	Became More Efficient	Became More Effective	Communication Improved	Technical Skills Improved	All FM Report to New Area	Reporting Lines in FM change	Mgmt Layer Added	Mgmt Layer Deleted	Functions Added to FM	Functions Deleted from FM
Authority is Increased	Pearson Correlation	1	.270(*)	.161	.210(*)	.225(*)	.197	-.046	-.089	.060	.147	-.012	.130
	Sig. (2-tailed) N	90	.010 90	.131 90	.047 90	.033 90	.062 90	.667 90	.404 90	.577 90	.166 90	.912 90	.222 90
Aligned with Industry	Pearson Correlation	.270(*)	1	.408(**)	.355(**)	.412(**)	.457(**)	.015	-.153	-.028	.000	-.063	.035
	Sig. (2-tailed) N	.010 90	.010 90	.000 90	.001 90	.000 90	.000 90	.889 90	.149 90	.790 90	.999 90	.553 90	.744 90
Became More Efficient	Pearson Correlation	.161	.408(**)	1	.577(**)	.509(**)	.373(**)	-.205	-.123	-.096	-.026	-.097	-.018
	Sig. (2-tailed) N	.131 90	.000 90	.000 90	.000 90	.000 90	.000 90	.052 90	.248 90	.367 90	.810 90	.363 90	.867 90
Became More Effective	Pearson Correlation	.210(*)	.355(**)	.577(**)	1	.606(**)	.342(**)	-.266(*)	-.151	-.119	-.151	-.135	-.076
	Sig. (2-tailed) N	.047 90	.001 90	.000 90	.000 90	.000 90	.001 90	.011 90	.157 90	.264 90	.154 90	.206 90	.477 90
Communication Improved	Pearson Correlation	.225(*)	.412(**)	.509(**)	.606(**)	1	.542(**)	-.226(*)	-.225(*)	-.240(*)	-.175	-.218(*)	-.065
	Sig. (2-tailed) N	.033 90	.000 90	.000 90	.000 90	.000 90	.000 90	.032 90	.033 90	.023 90	.099 90	.039 90	.544 90
Technical Skills Improved	Pearson Correlation	.197	.457(**)	.373(**)	.342(**)	.542(**)	1	-.141	-.187	-.063	-.203	-.014	-.159
	Sig. (2-tailed) N	.062 90	.000 90	.000 90	.001 90	.000 90	.000 90	.184 90	.078 90	.555 90	.055 90	.896 90	.134 90
All FM Report to New Area	Pearson Correlation	-.046	.015	-.205	-.266(*)	-.226(*)	-.141	1	.760(**)	.661(**)	.510(**)	.482(**)	.447(**)
	Sig. (2-tailed)	.667	.889	.052	.011	.032	.184	.000	.000	.000	.000	.000	.000

		Authority is Increased	Aligned with Industry	Became More Efficient	Became More Effective	Communication Improved	Technical Skills Improved	All FM Report to New Area	Reporting Lines in FM change	Mgmt Layer Added	Mgmt Layer Deleted	Functions Added to FM	Functions Deleted from FM
	N	90	90	90	90	90	90	90	90	90	90	90	90
Reporting Lines in FM change	Pearson Correlation	-.089	-.153	-.123	-.151	-.225(*)	-.187	.760(**)	1	.685(**)	.545(**)	.486(**)	.395(**)
	Sig. (2-tailed)	.404	.149	.248	.157	.033	.078	.000		.000	.000	.000	.000
	N	90	90	90	90	90	90	90	90	90	90	90	90
Mgmt Layer Added	Pearson Correlation	.060	-.028	-.096	-.119	-.240(*)	-.063	.661(**)	.685(**)	1	.516(**)	.548(**)	.488(**)
	Sig. (2-tailed)	.577	.790	.367	.264	.023	.555	.000	.000		.000	.000	.000
	N	90	90	90	90	90	90	90	90	90	90	90	90
Mgmt Layer Deleted	Pearson Correlation	.147	.000	-.026	-.151	-.175	-.203	.510(**)	.545(**)	.516(**)	1	.382(**)	.556(**)
	Sig. (2-tailed)	.166	.999	.810	.154	.099	.055	.000	.000	.000		.000	.000
	N	90	90	90	90	90	90	90	90	90	90	90	90
Functions Added to FM	Pearson Correlation	-.012	-.063	-.097	-.135	-.218(*)	-.014	.482(**)	.486(**)	.548(**)	.382(**)	1	.351(**)
	Sig. (2-tailed)	.912	.553	.363	.206	.039	.896	.000	.000	.000	.000		.001
	N	90	90	90	90	90	90	90	90	90	90	90	90
Functions Deleted from FM	Pearson Correlation	.130	.035	-.018	-.076	-.065	-.159	.447(**)	.395(**)	.488(**)	.556(**)	.351(**)	1
	Sig. (2-tailed)	.222	.744	.867	.477	.544	.134	.000	.000	.000	.000	.001	
	N	90	90	90	90	90	90	90	90	90	90	90	90

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).