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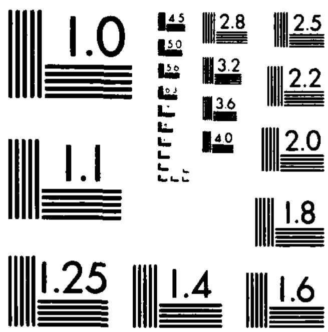

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STRATEGIC MANAGEMENT FOR
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THE EFFECT OF HUMAN RESOURCE PLANNING
ON RETENTION AND RELATED ISSUES

Lynn S. Oppenheim, Ph.D.
Susan D. Hyman, Ph.D.
Christine T. Kydd, Ph.D.

The Wharton Applied Research Center
University of Pennsylvania

December 1984

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This research was sponsored by the Organizational Effectiveness Research Program, Office of Naval Research (Code 452), under Contract Number N00014-82-C-0803; NR170-949. Lynn S. Oppenheim, Principal Investigator.

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REPORT DOCU. NTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER ONR-FR-1	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Strategic Management for Organizational Effectiveness: The Effect of Human Resource Planning on Retention and Related Issues		5. TYPE OF REPORT & PERIOD COVERED Final Technical Report 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Lynn S. Oppenheim Susan D. Hyman Christine T. Kydd		8. CONTRACT OR GRANT NUMBER(s) N00014 82-C-0803
9. PERFORMING ORGANIZATION NAME AND ADDRESS Wharton Applied Research Center The Wharton School, University of Pennsylvania 3508 Market St., Suite 100, Phila., PA 19104		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR-170-949
11. CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Research Programs Office of Naval Research (Code 452) Arlington, VA 22217		12. REPORT DATE December 1984 13. NUMBER OF PAGES 452
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified 15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release: distribution unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

Strategic management; organizational effectiveness; human resources; retention; mobility; rewards; organizational communication; perceptions of organization

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The research reported here assessed the match between strategic direction, human resource policies and the perceptions of those policies held by middle managers in five successful organizations. Human resource practices related to retention -- job movement, organizational signals, and incentives -- were the focus of three separate studies. Results from the studies were combined with information from formal documents and interviews to form the basis f r comparative case studies. Approximately 100 managers at each of six site

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20. contributed to the results reported here.

The key research findings were: 1) a model of job movement which took expectations into account was a good predictor of the way in which a manager and his boss divided tasks; 2) the rate of movement from one job to the next was more rapid in organizations where jobs were clearly and narrowly defined than when jobs evolved and expanded over time; 3) signals from the organization which were public, positive and relevant to a manager's goals increased the likelihood of his remaining with the organization; 4) managers were more likely to see themselves as resource constrained if goal setting and resource allocation were decided at different levels in the organization; 5) informal incentives were more salient to middle managers than most formal incentives.

The results indicated that the strategic considerations of these organizations were well served by their human resource practices although the configuration of policies and practices differed. The research also indicated that these effective organizations exhibited greater flexibility in interpreting policy and enforcing boundaries in areas in which they needed information to innovate and adapt.

CONTENTS OF VOLUMES

TABLE OF CONTENTS

STRATEGIC MANAGEMENT FOR ORGANIZATIONAL EFFECTIVENESS:
THE EFFECT OF HUMAN RESOURCE PLANNING ON RETENTION AND RELATED ISSUES

I. Introduction

Every organization, whatever its mission or strategy, must be managed so that the people within contribute to the achievement of organizational objectives. Organizations are effective when they can achieve their short term objectives and build to accomplish their long term strategies. Clearly, many factors can contribute to this effectiveness, one of which is the ability of the organization to attract, motivate and retain the appropriate work force. This ability can be enhanced by human resource policies and practices which are consistent with the mission and direction of the organization.

The studies described herein explored the relationship of human resource policies and practices to organizational strategy in six organizations. These six organizations were chosen as examples of organizations which have invested in the development of human resources policies and are reputed to have good human resource policies. Therefore, they are organizations to learn from, organizations whose experiences can inform others.

A. Organizational Effectiveness

An effective organization is one in which activities are consistent with the mission and purpose of the organization. It is an efficient organization in that it conserves energy to focus on appropriate tasks; things within the organization move smoothly, so that energy is not absorbed by internal struggles or inconsistencies. An effective organization must also be adaptive. If an organization were inflexible, adapted too specifically to a time or to a particular market, it might be unable to respond to the inevitable changes in the environment. Effectiveness, efficiency, and

adaptiveness are commonly given as characteristics of healthy organizations (c.f., Kotter, 1979; Katz & Kahn, 1978; Perrow, 1982).

Hence, the issues of organizational effectiveness are issues for all organizations. Large public sector organizations, such as the Navy, must be concerned with effectiveness, efficiency and adaptiveness, as must private sector organizations whose goal is long term profit maximization. However, because organizational missions are unique, effectiveness will mean different things to different organizations.

B. Strategic Management

Implicit in the concept of organizational effectiveness is activity that is focused and directed towards the achievement of the strategy of the organization. For the past years, the emphasis in management education and in the management literature was on strategic planning. The focus of the strategic planning planners was on the external environment (c.f., Porter, 1980; Lorange, 1980). Many models were developed for looking at corporate strategy in terms of the businesses represented in the corporate portfolio. Although there was a great deal of interest in some of the models and matrices developed, not all corporations subscribed to this approach to planning. Many that did began to find it incomplete. (See Wheelwright, 1984.)

From this recognition came an interest in strategic management. Strategic management is an attempt to tie implementation and strategy together, to recognize explicitly that a good portfolio is not enough. Wheelwright (1984) for example, describes an incremental value-based approach to strategy, which begins the planning process with explicit incorporation of management values, and in which choices among strategic options require that management be committed to the chosen alternative.

As theory has moved from strategic planning to strategic management, there has necessarily been more focus on the internal environment of the organization. Some of this focus has been on human resource planning and practice (Lorange and Murphy, 1984; Tichy, 1983; Tichy et al., 1982, 1981) and some on the culture of the organization (Deal and Kennedy, 1982; Peters and Waterman, 1982; Pettigrew, 1979). The renewed interest in internal processes and culture has made evident the contributions possible from human resource policies and practices.

Strategic management implies that internal stakeholders in the organization can play a critical role in the effectiveness, efficiency, and adaptiveness of the organization. Human resources as a discipline addresses itself to these internal stakeholders, and to their role in the organization. Within this approach to organizational health, exploring the effect of human resource practices on organizational effectiveness is an important contribution to the overall model.

C. Statement of the Problem

Although there is increasing acknowledgement of the importance of human resource practices to organizational effectiveness, there is less known about what good practices look like. There are, of course, prescriptive theories for human resource planning and policy (e.g., Tichy et.al., 1981). There has also been a great deal of study of the relationship between specific human resource policies and, for example, retention in the military (e.g., Mobley et.al., 1979b). However, the relationships among human resource practices and their consistency with strategy remains largely unexplored. Therefore, we studied five large organizations, the Navy and four "exemplar" corporations. We examined several aspects of human resource practices and their

relationships to each other, and to strategy within each organization. Our goal was to elucidate key features of human resource practices in order to provide examples and illustrations of effective function for the Navy and for other organizations.

D. Structure of the Report

This report is organized in the following way. We begin Section II by discussing the recent shift in the assumptions underlying organization theory, from a focus on specific factors necessary for success in any organization to the notion of alignment among factors within each organizat

Against this background, the role that human resource policies and practices play in achieving alignment is presented in Section III. This is followed by the specific foci of the research, including: (1) mobility and the boss/subordinate dynamic; (2) organizational signals and the stay/leave decision; (3) planning and goal-setting; and (4) incentives and disincentives.

In Section IV we discuss the critical aspects of the methodology utilized during the course of this research. An overarching model which serves to summarize the different study foci together with recent literature is presented in Section V.

Chapters 2, 3, and 4 describe the methodology and results of each of the studies carried out to address the four research areas of specific interest. As mentioned above, these studies examine the influence of the boss/subordinate relationship on mobility-related issues, the potential effect of organizational signals on one's stay or leave decision, and perceptions of planning and goal-setting processes, and various types of organizational incentives.

The results of these studies which extend across organizations are

followed by in-depth case studies of each organization (Chapters 5-10). These cases provide the opportunity to highlight organizational differences and to link company-specific factors to the sub-study findings.

In conclusion, we summarize the overall research effort and discuss the organizational implications of the study in Chapter 11. This discussion addresses general issues of concern to all organizations, as well as the issues of specific concern to the Navy, including mobility, opportunity, and retention of good officers. Technical appendices appear at the end of the report.

II. Organizational Theory and Assumption

A. Brief Review of Historical Concepts

Organizations need to be effective, efficient and adaptive for survival since it is certain that, in the long term, things will change. Because organizations have different missions, environments, goals and histories, the way in which they become and remain effective organizations will differ. Early theories of organization did not take into account the unique confi-urations of events that shape organizations, and attempted to find rules that would apply to all organizations.

These universal theories eventually gave way to contingency frameworks. "Contingency theory" suggested that the form and processes which exist within organizations reflect, or are contingent upon the environment in which the organization operates (for reviews see Miles, 1980; Mintzberg, 1979). In his seminal work, Chandler (1962) argues that organizations are shaped by the period in time in which they are formed and grow to maturity, and that organizations of different ages will look different from each other even if they are of equivalent size. Other theorists (c.f. Kimberly et al., 1980;

Quinn and Cameron, 1983) have described organizations as having a life cycle, where different stages imply different practices.

Given the widespread acceptance of the notion that there is no one right structure, strategy, or set of policies, it was natural for management theorists to move in other directions. Specifically, a number of recent books and articles have suggested that although we cannot prescribe one specific structure or management practice that fits all organizations, we can instead look at the fit or alignment among organizational elements. Two of the most widely known of these fit theories are the McKinsey 7-S model and Kotter's alignment approach. These are described below.

B. Alignment Models

1. The 7-S Model

In two books, Pascal and Athos (1981) and Peters and Waterman (1982), the 7-S model is described and applied. Pascal and Athos describe seven elements of organizations which must be managed carefully for organizations to become or remain healthy and effective organizations. These elements are (1) strategy, (2) structure, (3) systems, (4) staff, (5) skills, (6) style, and (7) superordinate goals. Pascal and Athos assert that these elements must be consistent among themselves, as well as appropriate for its individual function.

Peters and Waterman, in their widely read book "In Search of Excellence," suggest that companies that are successful over a long period of time, look carefully at all seven of these elements. They assert that managers in these organizations pay close attention to "soft" as well as "hard" components of management, and note that the components are part of the management system.

2. Kotter's Alignment Model

In his recent book "Organizational Dynamics," Kotter (1978) outlines an approach to diagnosis and intervention that explicitly incorporates several historical viewpoints. Kotter lists six elements which are tied together by what he terms organizational processes. These elements are (1) the external environment, (2) employees and other tangible assets, (3) formal organizational arrangements, (4) the social system, (5) technology, and (6) the dominant colations. Kotter argues that organizations cannot be efficient if these elements are not in alignment, that deviations from alignment absorb organizational energy. With organizations in which there is a lot of slack, pressure to bring the elements into alignment is weak, and therefore the alignment process is slow. This might occur when market conditions for the firm are very favorable. In the longer term, for example, as market conditions change, it is important that the organization be able to adapt elements and the relationships among them. Rigid or inflexible elements or configurations will not allow the organization to change over time, as it inevitably will need to do.

3. Implications of Alignment Models

As discussed above, movement away from universal theories of organizational effectiveness may have led to the development of models which embrace organizational differences, but allow us to predict which organizations will succeed and which will not. These new theoretical approaches have implications for the way in which management research can best be conducted. They point out the risk of treating all organizations as if they were alike. They push us in the direction of looking at individual organizations in depth, rather than examining one aspect of several organizations.

The method followed in this study follows from this theoretical approach. We describe comparative case studies of six organizations, looking at the consistency of characteristics and relationships within a site, examining patterns rather than elements. Furthermore, we look at successful organizations so that we can learn about the kinds of patterns that work. We focus on human resource policy, practice, and perceptions, examining the patterns which occur and the alignment of those patterns internally and with the strategy of the organization.

III. Human Resources

A. The Role of Human Resources

The human resource function is frequently viewed as managing the intersection of individual employee need and organizational objectives (Hall, 1976; Walker, 1980). The objectives of human resources departments are the selection, development and utilization of a workforce that can perform the operations needed to manage the organization today and in the future (Donahue, 1983). Because of this future orientation, the need to institutionalize human resource policies must be balanced against the need for flexibility and adaptability (see Koolhaas, 1982; Peters and Waterman, 1982; Tichy, 1983).

Human resource development is a process of adapting one's human resource focus to embrace new strategic objectives. In Schein's (1978) words, it is a matching process through which functional changes respond to new strategic priorities. It can serve to translate strategic objectives into operational goals and guidelines (Briscoe, 1980; Stoner, 1982; and Sweet, 1981).

As a function that crosses others in the organization, human resources can control the transmission of information and ideas to and from the organizational level of upper management to the individual employee (Tichy, et al,

1982, 1981; Galbraith, 1977). Human resource management, like other functions, has strategic and operational responsibilities (Lorange, 1980). Historically, the strategic implications of human resources have been ignored.

B. The Tools of Human Resource Management

At the operational level, human resources performs certain functions in order to implement the goals described above. Although categorization schemes differ, a common division is (1) selection and placement, (2) appraisal, (3) development, and (4) reward. These tools have the goal of maintaining a work force that is appropriate in size, skill level, and adapatability.

This study focused on those human resource functions that are nested within the organization, those for which the organizational context is most important and which are most sheltered from consideration of different labor markets for individuals with different skills. Therefore, we ignore the important problem of selection or recruitment in order to focus on other human resource issues that are related to the retention of appropriate employees.

Specifically, we look at perceptions of planning and goal setting, incentives and disincentives (both deliberate and circumstantial), the effect of mobility on the boss/subordinate dynamic, and signals which may affect the decision to stay with or leave the organization. Each of these are described below.

C. Focus of This Research

1. Mobility and the Boss/Subordinate Dynamic

Development activities occur at all levels of the organization and are designed to ensure that individuals are properly equipped with the knowledge, environmental resources, skills, and willingness to perform their jobs now and in the future (Donahue, 1983; Tichy, et al, 1982). Among the tools most

commonly associated with human resources development are promotion, job transfer, job redesign and enrichment, job rotation, retraining and continuing education and management by objectives (Walker, 1980). Of these, promotion, job transfer and MBO's are most widely used at the middle management level. MBO's are treated by us as a variation of the goal setting and appraisal system and therefore are not dealt with here. Instead, we focus on mobility, which is defined as movement within the organization, either a promotion or a job transfer.

Virtually all large organizations move their members from one position to another. It is widely recognized that this mobility has both benefits and costs. Mobility helps integrate members into the total organization rather than just one local unit; mobility allows for development of employees. On the other hand, movement disrupts the fabric of the organization. Contacts that have been made, relationships that have been formed, are severed (see Staw, 1980). In examining the effects of mobility, we focus particularly on the boss/subordinate relationship, because bosses are so critical in the integration of employees into the organization and because organizational information and rewards are generally channeled through them (Levinson, 1981; Schein, 1978; Dansereau et. al., 1975). Because of their importance to the subordinate, they can have a profound affect on the employees willingness to remain within the organization (Graen and Ginsburg, 1977).

2. Signals and the Stay/Leave Decision

A number of factors affect an individual's decision to stay with or leave an organization. Many of these factors are outside the control of the organization. And not all individual decisions to leave are cause for organizational concern. For example, employees who are under-performing or

those whose jobs are headed for obsolescence solve organizational problems by leaving. However, whether the organization wants the individual to stay or to leave, it would improve the organization's effectiveness if it could affect those decisions. We hypothesized that one of the ways it can affect the stay/leave decisions is through organizational signals.

Several authors have pointed out the important role played by signals within the organization. Walker (1980) suggests that an individual's interpretation of what needs to be done and how best to do it is based broadly on signals transmitted through various layers in the organization. Further, Sayles and Strauss (1981) describe inconsistent and ambiguous signals and unresolved perceptual conflicts as critical barriers to effective organizational communication. A natural extension of the use of signals by organizations to achieve effectiveness is to signal to the individual information concerning his or her potential future position with the company. In this way, the individual can be encouraged to stay or leave as appropriate to the long term needs of the organization.

In order to assess whether or not signals can influence the leave/stay decision, it is critical to learn how various types of signals are perceived and interpreted by individuals. Therefore, focusing on the perceptions of signals and on the way in which these perceptions become incorporated onto the decision to leave or stay can improve organizational understanding of how to affect such decisions. This in turn could lead to increased effectiveness of the organization by affecting the fit of its human resources to its goals and directions.

3. Planning and Goal Setting

Planning and goal setting are important organizational processes intimately connected with the appraisal of employees. Planning processes are

ways of communicating organizational goals to employees. Goal setting and appraisal can function as key links between organizational goals and employees behavior. Most theorists (e.g., Ilgen and Feldman, 1983; Kane and Lawler, 1979) argue that appraisal systems must be interactive. That is, they must allow for a two way flow of information. Similar arguments have been made for strategic planning processes (e.g., Lorange, 1980). Exploring the policies which guide planning practices and the perceptions of those practices can help us understand how effective organizations manage these relationships.

In this study, we focus on the planning process as a tool for strategic management. We address such issues as the specificity of goals communicated and the match between goals established in the planning process and day to day activity. The model we adopt for comparison purposes is the type advocated by Lorange (1980) and others where goals filter down through the organization, are assigned or negotiated and then flow back up.

Although planning is in and of itself not a human resource policy, the planning process (or lack of it) can contribute to (or impede) the development of role behavior that is appropriate to the goals of the organization. The formal process itself must be considered as well as the type and amount of information conveyed. Inconsistent content of messages, or planning which is viewed as irrelevant would imply a failure to use these processes for strategic ends.

4. Incentives and Disincentives

There is general acknowledgement of the importance of rewards in organizational life. There is also tacit, and sometimes explicit, recognition that organizations provide much more than formal rewards. For example, both academics and managers are familiar with Maslow's hierarchy of needs (e.g.,

Patten, 1981). Most employees in an organization have gone beyond basic physiological needs and safety needs (Maslow's first two levels) and therefore focus on belongingness, ego gratification or self-actualization. Rewards appropriate to these last three categories are frequently informal and may not involve compensation (McGregor, 1967; Myers, 1970).

By using the terms "incentives and disincentives" rather than the more widely used label "reward," we call attention to the fact that organizations not only motivate their members to act in certain ways, but they also motivate them not to do other activities and behaviors. Furthermore, we are interested in both deliberate and circumstantial incentives and disincentives. Human resources management has focused primarily on policy guiding reward structures. There is acknowledgement of both formal and informal rewards, but the emphasis is almost always on deliberate or intentional rewards. However, organizations also provide rewards by virtue of circumstances which may or may not be intentional. For example, an engineer who is highly motivated by working on tasks which are on the forefront of technology may lose interest in his work if the company decides not to invest in a particular business and therefore loses its technological edge. Many of these circumstantial incentives and disincentives are invisible to top management, but very important to those affected by them.

Consistent with increased interest in strategic human resources, a number of authors have noted that there needs to be a match between strategy and rewards (Schwartz and Davis, 1981). A reward system must also blend the strategic and operational perspectives (Tichy, 1983; Lorange and Murphy, 1984). We therefore examine incentives and disincentives in light of the strategy of the organization in which they occur.

IV. Methodological Issues

This section describes specific features of the study which reflect links between the problem of interest and the methodology used. Briefly, we studied the perceptions of middle managers and middle level personnel of the human resource policies and practices described earlier. We were able to learn about the characteristics and strategic directions of these organizations through policy manuals and other documentation, as well as through interviews with top managers and human resource personnel. All respondents were employed by large, complex, successful organizations reputed to have good human resources practices. Within each site, managers varied on a variety of characteristics, including function, location and appraised performance.

A. Focus on Perceptions

In the research described below, we look not only at formal organizational policies, but also at the perceptions that members of the organization have of those policies.

The effective functioning of an organization requires not only good plans and good human resource policies, but also good practices. Employees work in a perceived environment rather than an objective one (Snyder and Glueck, 1982; Peters and Waterman, 1982). Inadequate or distorted channels of communication can disrupt the most carefully designed plans. It is widely accepted--and frequently ignored--that there are many barriers to adequate communication. Within organizations, there are additional barriers to accurate communication. For example, there is the fact that signals must be passed through functional, hierarchical layers of the organization (Walker, 1980). These problems are important to organizational function. Koolhaas (1982) asserts that perceptual ambiguity causes dissonance and lowers performance.

These considerations are important to effective organizational

functioning. Katz and Kahn (1978) and Stoner (1982) note that synergy between organizational and employee objective is achieved when their perceptions of what should be done and what is actually done are the same. In a dynamic environment, the effectiveness of these signals, and consequently, performance, are positively correlated with the quality and immediacy of the transmission and reception of signals.

Because it is abundantly clear that perceptions matter to employees and drive their behavior, and because perceptions ca be very different from policy, we look explicitly at the perceptions of managers of the human resource policies described above. We compare these perceptions to the objective policies and to descriptions of practice reported by top management and by human resource personnel. All three sources of information must be consistent for the full value of good human resource policies to be realized by the organization.

B. Middle Manager Respondents

Perceptions of policies will differ from every vantage point in the organization. Although each group of employees contributes to the organization, we focus our attention on middle managers and mid-level employees. Because of their position within organizations, middle managers are frequently responsible for the implementation of strategic plans. They are, as a group, often distant from the formulation of the strategic component of planning, and therefore have to interpret motivation and direction from limited and somewhat distorted information. Furthermore, as managers of others, they continue to transmit information, both about business plans and about other policies. Misperceptions of direction and policy among middle managers therefore implies misperceptions at other levels within the

organization. Whereas top management can plan, middle management must help execute; execution of plans is of course critical to effective functioning of an organization.

C. Site and Respondent Selection

1. Criteria for Site Selection

This field experiment was carried out at six different organizational sites. The organizations solicited for participation (and therefore those who became the actual participants) met certain pre-established criteria. In order to provide complexity, all organizations considered were large and had more than one organizational unit. Only successful organizations were considered. All of the companies within the pool of those solicited were among the leaders within their industries, were growing at a steady rate, and had been profitable within industry standards.

In addition, opinions from a variety of experts in human resources planning were solicited to obtain names of corporations where human resource management was considered to be "good." Although standard for excellence in this area are admittedly subjective, it was important that the companies that participated were committed to human resource planning and that company policy reflected that commitment.

Excluded from consideration were companies that were growing very rapidly or that were undergoing a decline. In terms of life cycle analyses of organizations, mature organizations were desired. There are a number of reasons for this choice. Mature, stable organizations would be most comparable to each other and to the Navy in the kinds of planning that takes place, as well as recruitment and attrition processes. There is mobility but it is generally across well defined positions. Planning and direction setting

are possible and advantageous. In contrast, rapidly growing organizations cannot plan well, either for the business or for the individuals. There is little need to worry about too many people or the wrong kind, since the organization has very little history, and positions within the organization as well as the structure of the organization, tend to be fluid. Declining companies, on the other hand, have a different set of problems. They are rarely interested in recruiting or retaining personnel, there is little mobility, and planning for the future is not a valued activity. It was believed that neither extreme on the life cycle would provide an adequate model for the Navy, which is a mature and successful organization. It was intended that sites that were undergoing reorganization be excluded from participation. However, over an eighteen month time period, organizational needs were perceived differently and unanticipated reorganizations did occur.

2. Procedure

Candidate companies were selected from lists of business publications and from those who had previously evidenced a willingness to work with Wharton. Letters were sent to executive offices within these corporations describing the project and inviting their participation. The letters were followed up by phone calls, and if the company spokesperson was interested, we met to discuss the project and the nature of involvement further.

Approximately twenty letters were sent to obtain the four sites eventually used. The companies which participated are from three industries, consumer products,a division of a conglomerate which is primarily involved in contract work for the federal government, and two financial services institutions. Within two of the companies, two different businesses were used as sites, thereby providing the opportunity to compare different businesses with identical formal policies. Our Navy comparison was the organizational

effectiveness unit.

3. Respondent Selection

Within each site, a similar sampling plan was used for each of three instruments. For each instrument, the number of respondents ranged from 25 at one site to 40 at another. At most sites, 30 individuals responded to the instrument. The same variables were considered at each site. The respondents were 1) middle managers, where the definition was site specific; 2) split between field and headquarters where such a distinction existed at a site; 3) varied across different functions at each site (considerations of percent within function were weighed against variability expected and centrality of the function to the strategic direction of the organization); and 4) chosen equally from the top, middle and lower thirds or the organization in terms of performance. Function was controlled primarily to ensure variability within the sample. Only field/headquarters and performance were systematically varied. To the extent possible, the field/headquarters variable was crossed with performance.

D. Research Process

Within each organization, the procedure established for conducting the research was the same. It included general steps discribed below.

1. Review Documents

After selection of a site, the research team reviewed written documents on the organization. These consisted of (1) articles in the general and business press about the company and the industry, (2) planning and human resource policies provided by the contact person on site, and (3) examples of newsletters or other forms of official communications.

2. Background Interview

In order to understand the strategy and direction of the business the research team met with business managers at each site. Approximately half a dozen interviews of at least an hour in length took place at each location. These open-ended interviews focused on the nature of the business and the competitive environment; key issues for managers both internal and external, and the directions in which the organization was trying to move.

Similar interviews took place with key managers in the human resource function. These focused on the nature of the formal organization; innovative or key human resource policies, and the role played by human resource policies and personnel within the organization.

3. Pilot Interviews

For each of the three specific studies, the research team conducted pilot interviews with middle managers from the respondent pool. The purpose of these pilot interviews was to pretest the instrument and to insure the clarity and applicability to respondent at each site.

4. Conduct Studies

Each of three instruments was used at all sites. The specific methodology adapted for each is described in detail later in the report.

5. Participant Seminars

Two seminars were held at Wharton for representatives of each site selected for the research. The first seminar took place at the beginning of the project and focused on goals of the study, participant interests, increasing the applicability of the findings to the Navy, and innovative human resource practices within participant organizations. The second seminar was held after the data had been collected. It focused on reporting back to participants.

6. Data Analysis

Analyses were conducted by site and by study, as well as aggregated across site and study. Findings are first reported by study, then by site in the form of brief case summaries.

V. Summary

The research described herein compares human resource policies and practices and their consistency with goals of the organiztion. In addition to the collection of background information obtained from documents and from on-site interviewing, three specific studies were conducted, These focus on (1) mobility and the boss/subordinate dynamic, (2) organizational signals and the stay/leave decision, and (3) planning and goal setting and incentives and disincentives. Each study is discussed below in Chapters 2-4. Case reports of each site constitute chapters 5-10. The overall discussion and summary is provided in Chapter 11.

STUDY ONE:

JOB TENURE AND THE SUPERIOR-SUBORDINATE DYNAMIC

I. INTRODUCTION

A common reality of organizational life is the movement in and out of jobs due to either internal transfers, turnover, or the creation of new positions. The rate at which managers change jobs within the corporation (hereafter referred to as "job mobility") and the context in which these changes occur have significant implications for both the manager and the corporation. Optimally, transfers and promotions provide ways for the middle manager to gain a broad organizational perspective, develop professionally, stay challenged, evaluate (and demonstrate) his success, and earn more money. Movement that is too slow can lead to sluggishness, lack of flexibility, boredom, and burnout. Fast movement also has its costs: excessive stress, short-term orientations, and lower effectiveness because individuals never sufficiently master their job before moving on.

There are numerous organizational consequences associated with job mobility, which range from enhanced innovation to operational disruption (see Staw, 1980). One direct effect of job mobility is changes in the people with whom the manager works as subordinates, peers, and superiors. Of these relationships, the relationship that a manager has with his immediate boss is most intertwined with his own mobility and with his integration into the organization.

The boss can affect the manager's current view of the organization as well as future job prospects within the firm through the types of tasks he assigns as well as by the opinions he does or does not express about that manager's performance and readiness to move on. Moreover, a manager's current

effectiveness can be influenced by the type and level of communication that he receives from his boss. The boss is a key link in the organizational communication process with regard to work direction and planning, performance feedback, and information about the business.

Given the prevalence of job mobility and the importance of bosses, the affects of job mobility on superior-subordinate dynamics is a germane topic for practitioners and management scientists. Individuals, including bosses, stay in their positions and in prescribed relationships with others for limited or bounded tenures. In this research, we argue that the duration of these job tenures as well as expected durations will affect the superior-subordinate relationship or "vertical dyad."

* * * * *

Time is central to many aspects of human behavior, and hence of behavior in organizations (McGrath and Rotchford, 1983). The impact of time-on-the-job or "job longevity" has been documented in research on organizational socialization (e.g., Buchanan, 1974; Van Maanen and Schein, 1979; Wanous, 1980), job satisfaction and performance (Katz, 1978a, 1978b), and R&D groups communication and effectiveness (Katz, 1982; Katz and Tushman, 1983; Pelz and Andrews, 1966). The relationship between time passage and interpersonal relationships has been addressed for a number of years in literature on the development of dyadic relationships (e.g., Hinde, 1979; Kelley, 1979), group processes (e.g., Bennis and Shepard, 1965; Hackman and Morris, 1975), and leadership tran-sitions (e.g., Gabarro, 1979; Hersey and Blanchard, 1974; Mitchell, 1976). In addition, very recent work on organizational demography has explored the impact of different tenure profiles of employees on intraorganizational interactions and interorganizational performance

differences (Pfeffer, 1983).

Time, moreover, is a more complicated concept than a chronology of unfolding events, of causes and effects. Just as people have their own organizational theories from which they operate (Weick, 1979; Staw, 1976), they have their own theories about time. People attach meanings to anticipated timing, frequency and duration of events and act on those meanings (Cottle, 1976; Jaques, 1982). The impact of time expectations have been discussed in literature on sales force job cycles (Carroll et al., 1984; Goodstadt and Rao, 1983), transfers (Brett and Werbel, 1980; Marshall and Cooper, 1976; Imundo, 1974), temporary systems (Toffler, 1974; Slater, 1962), and relationship dissolution (Levinger, 1979).

Hence, previous research supports the notion that the amount of time that a person is in a given situation and his expectations regarding time will affect his posture towards his activities and towards others. While job tenure has not been a major temporal focus, current theories and empirical work suggest two approaches to job and its measurement. These approaches parallel the two perspectives of time: (a) objective, clock time and (b) subjective, relative, intention-directed time.

The first approach assumes that an employee's reactions to task characteristics and work relationships will change with "job longevity" or time in the position to date. The model developed by Katz (1980, 1982) outlines a three-stage model of "socialization," "innovation," and "stabilization." Specifically, Katz predicts that new employees and recent transferees are primarily concerned with reducing their uncertainty through interpersonal and feedback processes and interactions. They are not highly motivated by challenging tasks and have little time to educate or develop their own subordinates. During the next stage, which lasts between three and

four years, individuals gradually increase their achievements, participate in broader unit and organizational processes and gain influence. After four to five years on the job, employees become increasingly indifferent and unresponsive to task characteristics. They place less value on intrinsic rewards and place greater relative value on extrinsic rewards, such as compensation, friendly co-workers, and compatible supervision (cf. Maehr and Kleiber, 1981).

The second approach assumes that behaviors and attitudes are affected by one's "job cycle" -- whether the individual is beginning a new job, in the middle of his job tenure, or leaving shortly. A three stage model, which is derived from the concepts of anticipatory socialization and consciously managed exits, assumes that individuals go through the stages of "learning," "establishment," and "separation." During the initial period, the need to understand current tasks and working environment is most salient and its fulfillment supercedes all other job activities (Buchanan, 1974; Hall and Hougaim, 1968; Schein, 1978). Towards the end of the cycle there is a disengagement process with regard to work and others; the manager shifts his focus to the next step, i.e., the new job and network of associates (Levinger, 1979; Van Maanen, 1977). The middle period has the maximum level and balance of reciprocal and other-directed task interactions and career support.

Within the context of the vertical dyad, these time-based responses can affect the middle manager's task and developmental support in two ways. First, a boss's ability and willingness to address subordinate needs may change with his job tenure. Second, a middle manager's needs and desire for supervisory assistance may change with his job tenure. An effective superior-subordinate relationship involves a healthy communication pattern, a reasonable amount of delegated and shared responsibility, and active

developmental support. Consequently, organizational sensitivity to the match between superior and subordinate job rotations is an important consideration with respect to the structuring of a middle manager's task and career support. Appropriate support to a middle managers, in turn, should affect his effectiveness and commitment to the organization.

Accordingly, the overarching purpose of this study is to examine the relationship between superior-subordinate dynamics at the middle management level and job tenure. In view of previous job tenure literature and the nature of the dyad, we focused on two issues:

(1) Which approach to job tenure provides the most explanatory power: the actual passage of time or time expectations (i.e., job longevity of job cycle)?

(2) Whose job tenure plays a more critical role in affecting the vertical dyad: the boss's or the subordinate's?

II. METHOD

The research design selected was a cross-sectional survey in which 155 middle managers and their bosses were interviewed from five organizations.[1] Data was collected in three ways (see Appendix A):

(1) middle managers were interviewed in person for 1/2 hour about tenure and mobility issues using a moderately structured question format

(2) middle managers filled out a closed-ended questionnaire on their working relationship with their boss and on task characteristics of their work, and

1 The Navy was not included in the aggregate analysis because most of the task and developmental behaviors investigated were not within the control of the immediate superior. Hence, its inclusion could have confounded the results.

(3) middle managers' bosses were interviewed on the telephone for 10-15 minutes about mobility and tenure issues using a moderately structured question format.

The relationship between job tenure and boss support was based on a statistical analysis of questionnaire data, self-reports of current job tenures by middle managers and their boss, and boss's estimated job tenures for themselves and their middle manager subordinates. Job tenure, the independent variable, was defined absolutely and relatively. In the first case, job tenures to date were clustered as follows: (a) less than one year, (b) one to four years, and (c) more than four years. These time ranges correspond to the job longevity stages of socialization, innovation, and stabilization. In the second case, job tenure was treated as a proportion of the time already spent on the job in comparison to the total time the individual expected to remain on his job. The calculated percentage was then divided into thirds to represent the beginning, middle, and end of the job cycle.

The questionnaire data for boss support, the dependent measures, fell into three categories: (1) vertical communications, (2) responsibility sharing, and (3) developmental support. These behaviors have been strongly associated with managerial effectiveness and growth, and they are successively more related to job mobility. A brief description of the seventeen dependent variables appears in Exhibit 1.1.

The primary statistical technique employed was analysis of covariance. This technique determines the degree to which the levels of support for the middle manager can be attributed to tenure factors after work characteristics, such as performance and task interdependence, are accounted for. Specifically, thirty-four analyses of covariance (ANCOVA) were performed. For

each of the two job tenure "models" -- job longevity and job cycle -- the seventeen dependent variables were individually examined. The same two covariates were always included in these analyses: task interdependence (based on questionnaire responses) and the middle manager's job performance (based on company records). Organization, middle manager job tenure, and boss job tenure were always included as potential main effects. The rules for sequenced inclusions follow the "classic experimental design" analysis procedure (Nie et al., 1975): it first enters covariates, then main effects, and then interaction effects.

The thirty-four ANCOVAs provided a direct test of one set of alternative job tenure "models" and an indirect test of another. They directly addressed the question of whose job tenure predominates by calculating the unique contribution of the middle manager's and the boss's job tenure in the same ANCOVA run. The comparison of job longevity and job cycle approaches, on the other hand, entailed comparing different ANCOVA runs. The two approaches could not be examined simultaneously because job longevity and job cycle stages are not derived from independent observations; rather, they are based in part on the same information, current time-on-the-job.

Finally, comments about job mobility and managerial development by subordinates and bosses (all members of middle management) were used to explore the ways that individuals think about time-on-the-job and mobility issues. This information also provided a context in which to interpret company specific findings (see the "Perceived Keys to Success and Movement" sections of the individual case studies).

EXHIBIT 1.1

QUESTIONNAIRE SCALES

Vertical Communication

WRITTEN	the number of times over the past three months that the boss and the middle manager communicated about work-related matters in writing
ORAL	the number of times over the past three months that the boss and middle manager communicates about work-related matters verbally in one-on-one or group discussions
ACCESS	the perceived accessibility or openness of the boss to discuss (or listen to) the middle manager's task-related concerns and problems
DIRECT	the degree to which the middle manager perceives his boss as clearly communicating objectives and instructions (viz., direction)
FEEDBACK	the amount of information the boss gives the middle manager on his work performance when (a) he performs well and (b) he performs poorly
EVAL	the degree to which the middle manager is clear about his boss's evaluation of his current performance
INFO	the frequency with which the boss discussed (a) organizational politics and (b) organizational strategies and plans over the past three months

Responsibility Sharing

MM/JOB	the middle manager's say regarding his own work schedule and activities

EXHIBIT 1.1 (cont'd)

MM/UNIT the manager's say regarding his subordinate unit priorities, resources, and operations

BOSS/JOB the boss's say regarding his own work schedule and activities

BOSS/UNIT the boss's say regarding his subordinate unit priorities, resources, and operations

JOINT the input that the subordinate has in decisions that his boss must make and that also affect the subordinate, such as unit objectives, unit procedures, resource matters, and technical issues

Developmental Support

SKILL the boss' assignment of tasks which help the subordinate develop the skills necessary to perform future jobs

VIS the boss' assignment of high visibility tasks and presentations which can directly enhance the subordinate's organizational presence and reputation

PRAISE the boss' public praise of the subordinate and his accomplishments

CAREER the boss' willingness to help the subordinate identify and obtain career advancing job opportunities

* * * * *

Covariates

INTER the extent to which the middle manager and hiss boss are interdependent -- i.e., that they rely upon each other to perform their individual jobs.

III. RESULTS

The current organizational literature, while pointing to the importance of job tenure, does not provide justifications or criteria for choosing one approach or one dyadic member's job "clock" over another. Accordingly, this research began with a test of all reasonable tenure effects and then empirically identified differences. The general predictions are described below, from the boss's and then the middle manager's perspective.

If the boss's tenure dominates, then we would expect that bosses who are new on the job have a lot of learning to do and are probably unable to provide task or career support to their subordinates. As they continue in the job, their ability to provide all forms of support should increase. Eventually the boss, who either is moving on or is "stuck," should become preoccupied with his own concerns and once again provides less support to subordinates. At the same time, the responsibilities of the subordinate may increase, particularly if the boss anticipates leaving.

Alternatively, we envisioned that as a middle manager's time in the job changes, his needs for support could change as well. We would then expect that the usefulness of task information, direction, and feedback tend to remain constant. In contrast, over time, there should be a gradual increase in his desire and ability to increase his organizational participation -- specifically, he probably seeks a higher level of responsibility and more information on organizational issues to support his greater involvement in company matters. Towards the end of the middle manager's job tenure, career support should increase in importance.

The analyses of covariance clearly supported the basic contention that there are transitory processes that occur over a manager's job tenure. More specifically, the aggregate results revealed a strong relationship between the

middle manager's job cycle and his decision-making involvement and developmental activities. These findings are discussed in more detail below.

A. Job Tenure: Does It Matter?

The first question addressed was whether time factors of any kind were related to the boss's treatment of his middle manager subordinate. To answer this question, we counted the number of dependent variables for which at least one job tenure factor was significantly related as a main effect or interactive component in the analyses of covariance. The complete sum of square results of these Analyses of Covariance appear in Appendix B and the adjusted mean cell deviations for the different runs and tenure factors appears in Appendix C (cf. Nie et al., 1975). As the tables in Appendix B show, job tenure was calculated as a significant effect for twelve of the seventeen measures at the .05 alpha level. Hence, this research indicates that job tenure and the superior-subordinate dynamics of middle managers are connected.

B. Job Longevity Versus Job Cycle

Organizational theorists have already demonstrated some of the effects of job tenure as measured by current time-on-the-job (e.g., Katz, 1978a, 1978b, Katz and Tushman, 1983; Pelz and Andrews, 1966). This research investigated the comparative value of job cycle -- and therefore time expectations -- as an explanation of vertical dyadic behavior.

Before we present our findings, it should be noted that a clean test of relative explanatory power was infeasible due to two data constraints in this study. First, over 55% of the middle managers and over 60% of their bosses were classified identically by each job tenure approach. This classification

overlap decreased the likelihood that differential statements could be made. Second, the time interval comprising the third stage of job longevity -- viz., stabilization -- was truncated. While Katz (1978a, 1978b) found the most significant differences with employees of over ten years, only five percent of our respondents had spent at least ten years on their current job.

These two constraints are not merely empirical limitations; they reflect the typical business environment. Middle managers usually do not remain in one position for less than 1.5 years or more than 5 years. The needs for job mastery and job challenge seem to be addressed in corporate job rotation practices.

Moreover, despite data constraints, model differences were significant enough to yield different ANCOVA results. As the pattern of significant main effects in Table 1.1 reveals, job cycle was a more powerful concept than job longevity in this study. Job cycle related in a predicted and interpretable fashion to two out of three of the boss's behavior, while job longevity produced scattered significant findings with no consistent patterns.

C. Middle Manager Versus Boss Job Tenure

As previously mentioned, at various points during their job incumbency, middle managers and their bosses have different task and developmental needs. These needs may be complementary, shared, or in conflict; and the ensuing dynamic will profoundly affect the superior/subordinate relationship. Before these more complex patterns can be explored, it is first important to determine the ways that tenure can affect each individual separately in terms of their behavior within the vertical dyad.

Overall, the middle manager's job cycle was related far more frequently to the boss's behavior as a predicted main effect or an interpretable

TABLE 1.1

PATTERN OF SIGNIFICANT MAIN EFFECTS

	Boss		Middle Manager	
	Longevity	Cycle	Longevity	Cycle
Predicted	* Direct	* Written	* Info * Career	* MM/Job * MM/Unit * Joint * Skill * Vis * Career
Not Predicted		* Eval	* Skill * Vis	

* $p \leq .05$

interactive effect than the boss's job cycle. Moreover, as can be seen in Table 1.1 the dependent measures yielding these ANCOVA results fall neatly into two behavioral categories: (a) the middle manager's level of decision-making responsibility and (b) developmental support provided by the boss. In the first, case, the middle manager's job cycle covaries most significantly with his input into his own work activities, his unit's and his boss's. In the second case, it covaries with the three most direct developmental support measures: skill-building assignments, high visibility tasks, and expressed support for transfer and promotion requests. These significant findings are described more fully in the following section.

As for the other ANCOVA results, measures of vertical communications had scattered statistically significant relationships to the various job tenure measures. While these results may offer very micro-level insights, they could also be attributed to statistical probabilities. In other words, no coherent overall pattern could be discerned. Also, in contrast to the middle manager findings, the boss's job cycle did not produce any significant main results with respect to responsibility sharing or developmental support. Although there were statistically significant interactions, there was no evident pattern; and, given the large number of possible interactions, these results could be attributed to chance.

D. Job Cycle Dynamics

As just noted, the data point to some critical processes over the middle manager's job cycle with respect to the shift of responsibility and the development of middle managers. These two processes of dynamics are discussed in turn below.

Responsibility Sharing: The original prediction was that there is a

curvilinear (inverted-U shape) relationship between the middle manager's job cycle and his level of autonomy and participation. Responsibility sharing was measured in six ways. Measures of autonomy included (1) the middle manager's say regarding his work activities, (2) the middle managers say regarding his unit priorities, resources, and operations, and (3 & 4) the boss's say in the aforementioned work and unit matters. Participation was measured in terms of the middle manager's input into critical boss decisions that affected him too. Table 1.2 gives the cell mean deviations adjusted for covariates, organizational differences, and the boss's job cycle. It also identifies those cases in which middle manager job cycle produced main *effects or interaction effects* with the boss's job cycle at the .05 alpha level or lower (see Nie, et al., 1975).

The middle manager's job cycle was clearly tied to responsibility sharing. As Table 1.2 shows, it was a significant main effect for all three of the measures that were specifically related to the middle manager's input. Moreover, the five decision-making measures, on balance, acted as anticipated. The pattern of cell mean deviations in Table 1.2 suggest that the middle manager was granted the most authority for his own work and his unit's operation and he was most actively involved in joint decision-making during the middle of his job cycle. He had lower input into decisions at the beginning and end of his job tenure. With respect to main effects, the only exception was that the boss's say about unit matters continued to decrease rather than to increase during the middle manager's separation period.

Hence, job cycle findings clearly indicate a pattern of growing expertise and investment and then, at the end of the job cycle, gradual disinvestment in unit operations. Whether the middle manager, the boss, or both initiate the middle manager's change in participation level cannot be discerned from the

TABLE 1.2

ANCOVA RESULTS FOR MIDDLE MANAGER JOB TENURE AND RESPONSIBILITY SHARING

Job Cycle

	Adjusted Means			Main	Interactions	
	Beg	Mid	End	Effects	w/Org	w/Boss
MM/Job	-.30	.15	-.08	*		
MM/Unit	-.31	.20	-.16	*	*	
Boss/Job	.24	-.11	.05			
Boss/Unit	.28	-.03	-.11			
Info	.24	-.05	-.06			
Joint	.03	.15	-.27	*	*	

* $p \leq .05$

data. Regardless of the initiator, if the middle manager's reduced involvement at the end of his job cycle is accompanied by other employees' increasing involvement, these changes are part of a desirable transition process.

Developmental Support: The original prediction was that there is a monotonically increasing relationship between the middle manager's job cycle and developmental support. Developmental support was measured in four ways: (1) the boss's active interest in and support of the middle manager's next job move, (2) the boss's delegation of assignments that help the middle manager build skills that are would be critical to future jobs (preparation), (3) increased middle manager presence via high visibility task assignments, and (4) increased middle manager reputation via the boss's public praise of the middle manager's accomplishments. Table 1.3 gives the adjusted cell mean deviations and identifies those cases in which middle manager job cycle produced significant main effects or interaction effects with the boss's job cycle (see Nie, et al., 1975).

As the cell mean deviations in Table 1.3 indicate, all four variables acted in the predicted fashion, with three out of four variables being significantly related to the middle manager's job cycle as a main effect at the .05 alpha level. As expected, at the end of the middle manager's job cycle, he received more developmental support by the boss. The middle manager was assigned significantly more work projects and presentations which broadened his skill base and which gave him more visibility within the firm. The data also suggest that bosses were more apt to praise the middle manager's accomplishment at the end of that subordinate's job cycle, thereby further enhancing his organizational presence and reputation.

TABLE 1.3

ANCOVA RESULTS FOR MIDDLE MANAGER JOB TENURE

AND DEVELOPMENTAL SUPPORT

Job Cycle

	Adjusted Means			Main	Interactions	
	Beg	Mid	End	Effects	w/Org	w/Boss
Skill	-.30	-.09	.34	*		
Vis	-.23	-.08	.27	*		
Praise	-.07	-.06	.14			
Career	-.39	-.02	.26	*	*	

* $p \leq .05$

Bosses also took significantly more active interest in the middle manager's career as the middle manager approached the end of his job cycle. Bosses both helped the middle manager identify possible next steps and supported his request for a transfer or promotion. There also was a significant interaction effect between the boss's and the middle manager's job cycle on job movement support. The cell mean deviations in Table 1.4 indicate that bosses in the establishment phase are far less apt to support the job movement of a subordinate who is at the end of his job cycle.

Thus, the findings for developmental support are in line with predictions and internally consistent. Praise, the only variable for which the middle manager's job tenure was not a main effect, also has the weakest connection to the overall concept of development support. Job cycle, not surprisingly, was highly related to behaviors directly connected with job movement -- either the preparation for that movement or support for a specific transfer or promotion.

E. The Role of Covariates

We also examined the role of three non-tenure factors -- task interdependence, subordinate (middle manager) performance, and organization -- with regard to the boss's provision of task and developmental support. These analyses served two purposes: (a) to be able to account for alternative explanations and (b) to insure inclusion of possible moderator variables that, if not included, might otherwise confound the tenure effects. In addition, these results provide some additional information about the nature of the superior-subordinate dynamic. The possible effects of the two individually measured non-tenure factor are reviewed in this section. The role of organizational differences follows in Section III.F.

Task Interdependence: Task interdependence was defined as the extent to

TABLE 1.4

Interaction Effect for Career

between MM and Boss Job Cycle

(with 2 covariates)

	BOSS		
	Beg	Mid	End
Beg	.07	-.38	-.91
Mid	.16	.35	.21
End	-1.12	.21	--

which the task that a middle manager performed required him to interact with his boss. As the first column in Table 1.5 shows, the aggregate sample, task interdependent was a critical covariate almost across the board, having a significant F with respect to fourteen out of the sixteen dyadic interactions that were investigated. The correlations presented in the second column of Table support predictions. Higher task interdependence resulted in more dyadic interactions -- both in terms of vertical communications and joint decision-making. In contrast, task interdependence was negatively related to developmental support, suggesting a resistance to losing the valued subordinate.

Subordinate Performance: Middle managers were designated as low, medium, or high performers based on their last official organizational evaluation. As Table 1.6 reveals, for the aggregate sample, performance was significantly related to only one variable: the middle manager's input into the critical boss decisions. A correlation of 0.42 indicates that form of participation covaried as anticipated and positively with subordinate performance. The absence of significant relationships is surprising in light of previous research on boss's responses to poor performance (e.g., Lowin and Craig, 1968). They could, however, reflect measurement error in terms of the performance rating's current accuracy (internal comparability) or differences in organizational standards.

F. Organizational Differences

The main purpose of this research was to investigate the relationship between job tenure factors and boss-subordinate dynamics in large organizations. Accordingly, the majority of the analysis aggregated respondent data across all sites. However, we realize that organizational structures and

TABLE 1.5

TASK INTERDEPENDENCE AS A COVARIATE

Dep Var	Correlation	F-test Signif Job Long	F-test Signif Job Cycle
Written	.12		
Oral	.36*	*	*
Access	.32*	*	*
Direct	-.28*	*	*
Feedback	-.31*	*	*
Eval	-.29*	*	*
MM/Job	.20*	*	*
MM/Unit	.02		
Boss/Job	.17*	*	*
Boss/Unit	.14*	*	*
Info	.31*	*	*
Joint	.30*	*	*
Skill	-.36*	*	*
Vis	-.26*	*	*
Praise	.10		
Career	-.25*	*	*

*$p \leq .05$

TABLE 1.6

PERFORMANCE AS A COVARIATE

Dep Var	Correlation	F-test Signif Job Long	F-test Signif Job Cycle
Written	.10		
Oral	-.08		
Access	.06		
Direct	.05		
Feedback	-.06		
Eval	-.02		
MM/Job	-.04		
MM/Unit	.07		
Boss/Job	-.04		
Boss/Unit	-.09		
Info	.04		
Joint	.18*	*	*
Skill	-.10		
Vis	-.11		
Praise	.08		
Career	-.06		

*p ≤ .05

cultures may mediate this relationship. At the most basic and obvious level, organizations vary with respect to their rates of managerial mobility. They also exhibit different superior-subordinate relationships due to mission and industry requirements as well as company norms. In a less direct fashion, the organization's human resource philosophies and practices can affect time-related behavior by influencing the meanings attached to jobs and job tenure.

The possible nesting of organization and job tenure as well as organizational differences in the overall level of support can be controlled for statistically. The sum of squares explained by "organization" can be removed before the importance of other main effects are tested. Organizationally-driven interpretations and reactions, however, can only be understood by exploring respondent mobility attitudes and by examining individual ANCOVA patterns (See Appendix D).

Undoubtedly, the most interesting insights can be discerned from strong agreements and deviations from the aggregate model. These insights can be divided into three categories: (a) the overall relevance of tenure effects, (b) the applicability of the job cycle versus the job longevity framework for understanding job tenure effects, and (c) the differential importance of the middle manager's versus the boss's job tenure situation.

Job tenure appeared to be most relevant to the superior-subordinate dynamic when the organization was perceived as using the rate of job movement as a measure of professional status and worth. The expressed attitudes ranged from a total emphasis on job movement to an emphasis on achievement coupled with an awareness of benchmark tenure periods or "magic numbers" to a lack of interest in current or future tenure durations.

In line with the aggregate findings, for most participant sites, job cycle was the better predictor of behavior. The mix of significant job cycle

and job longevity effects, however, varied. This variation appears to be related to nature of the job to be performed. The predominance of job cycle effects was greater as the overall job tenure conditions (e.g., the rate of business/unit growth) and past mobility patterns (e.g., employment stability) became clearer -- i.e., with increasing respondent certainty about total expected job tenures. The difference in relatively explanatory power of the job cycle versus job longevity model was widened even further when jobs did not abruptly change but evolved. Under these circumstances, the notion of stabilization -- that people become acclimated and bored with a job over time -- becomes, at a minimum, less apparent because the usual job demarcation, such as a title change, may not coincide with the actual change in responsibilities and accountabilities. The job cycle model has more explanatory power because managers have unambiguous signifiers of a job's beginning and endpoint, like changing organizational units or retiring.

In only one company was tenure-to-date superior to job cycle as a predictor: job longevity accounted for significant ANCOVA results ($p \leq .10$) for eight boss behavior, whereas job cycle did for only one. This finding can be attributed to the nature of this firm's heavy project orientation. The flurry of activities at the end of a project greatly reduces the possibility of gradual disengagement activities, particularly when professional expertise and accomplishment are highly valued. (It is interesting to note that much of the research on job longevity was done with R&D teams.)

Finally, the importance of middle manager's job tenure in comparison to the boss's job tenure varied with the relative power of each dyadic member. The more hierarchical the organization, the greater the separation of strategic planning and operations, the more the boss's tenure mattered. Conversely, the more free rein a middle manager was given to manage his work,

the more his tenure counted.

Hence, as with covariates, it was important to examine the role of organizational differences. In addition to the empirical considerations, knowledge of organization-specific practices and perceptions may help refine or finetune our understanding of job tenure as a motivational and behavioral work factor.

IV. DISCUSSION

Internal job mobility involves processes that are tied into a middle manager's work motivation and integration into the work unit and the organization. The statistical analyses focused on the integration, specifically with regard to the linkage between job mobility and superior-subordinate relationships. The interview data surfaced attitudes regarding transfer and promotion practices and their personal career implications (see also Case Studies).

This research strongly suggests that job mobility matters. The ANCOVA results point to a transitory process associated with job cycle: In general, we found that there was a growing investment and then gradual disinvestment in the current job as middle managers progressed through their job cycles. The specific changes in responsibility and in developmental and career activities seemed related to the most germane job tenure factor -- the middle manager's -- and aptly timed.

In this research we found that over time, the middle manager gained discretion over his own work and unit decisions. This trend is important from an organization and individual point of view. Information and manpower limitations require a division of labor, which involve the delegation of tasks and authority. Participation also can increase the amount of quality

information, and it can create commitment to decisions and their effective implementation (e.g., Vroom and Yetton, 1974). Moreover, from an individual perspective, participation is a precondition for feelings of competence and achievement (Atkinson, 1958; Patchen, 1970), and hence managerial confidence and development. The response to the middle manager leaving seemed equally as healthy. During the separation stage, responsibilities were shifted back to others -- presumably not only the boss but to subordinates -- thereby enhancing the unit's ability to operate effectively during the transition period when a new incumbent needs to concentrate on learning his job.

Development support followed a similar shift in focus from the current to the next job. In this case, as the middle manager progressed through his job cycle, the developmental support his boss gave him grew. This pattern is essential, for job movement serves both developmental and motivational functions. The vast majority of effective managerial development occurs on the job (Digman, 1978) due to a long-range process dependent on the initiative and efforts of line management (Digman, 1978; Walker, 1980); hence, the frequency of skill building assignments needs to increase over time. In addition, for job movement to take place, extensive training and high performance on challenging assignments must be coupled with exposure to those who can judge the employee's potential and who can influence later transfer and promotion decisions (Baird and Kram, 1983). Hence, it is appropriate for opportunities to enhance organizational presence through critical interunit projects as well as direct boss support for movement requests.

Mobility recommendations emerging from this study must consider aggregate results in light of organizational differences and sample characteristics. First, while the two aforementioned aggregate trends may seem natural and obvious, an examination of organizational trends reveals that the predominance

of a "middle manager effect" is not universal. In the two sites with the strongest top-down orientations, the boss's role in fulfilling the middle manager's responsibility, training, and mobility needs were more related to the boss's job tenure than the middle manager's. The fact that all the companies in this sample are leaders in their industries suggests that a "boss-driven" as opposed to "subordinate-driven" human resource system is not necessarily detrimental to the organization's operations.

From an employee development perspective, the desired situation is for the middle manager's treatment to be determined by his (job tenure related) needs. When this occurs company-wide, as it did in our aggregate sample, the stage is set for the continued development and availability of managerial talent. However, when it does not occur, it may be because employee development is a lower priority than other concerns (e.g., maintaining the hierarchy) rather than due to human resource mismanagement. Thus, interventions in "boss-driven" organizations should be based on a diagnosis of whether other concerns should take precedence.

Also, at this point in job tenure's conceptual and empirical development, mobility recommendations need to incorporate both temporal models of job tenure. Since job longevity is defined as current job tenure, recommendations based on this model center on job rotation. Katz (1982b) suggests that companies keep people in positions at least one year so that they have time to learn and to contribute and then moving people into different jobs at least every five years so they do not stagnate. It can be inferred from the average tenure (2.75 years) and expected tenure (3.85 years) of respondents in our sample that successful companies conventionally follow Katz's (1982b) advice.

The policy implications for the job cycle are not as simple to implement, for they entail less formalized, controllable organizational processes. Since

job cycle is derived from total expected job tenure, recommendations based on this model center on the management of job tenure expectations. The intent is to trigger transition processes at the appropriate time in view of task needs and the actual job cycle.

Unfortunately, speculations about the future are far less reliable than reports about past or current event (Gorden, 1969) since they are based on incomplete information and unforeseen contingencies. Moreover, because everyone has different information and past experiences, speculations about the same event can differ. Consequently, transition processes might become unintentionally out of alignment with the actual job cycle.

To minimize the probability of disalignment, an organization needs to ensure that, whenever possible, its actual mobility record matches its espoused human resource philosophies and practices. When actual and espoused practices do not match, employees either may feel misled or may misinterpret their mobility rate as unusual or undesirable (cf. Wanous, 1980). Hence, the organization needs to become more sensitive to the image it portrays -- e.g., as a fast tracking company -- and the consequences of unmet expectations (cf. Wanous, 1980). The lack of alignment, of course, need not be company-wide. Conflicts can arise if the two parties disagree as to when the middle manager will move on. The first step, then, is to promote periodic (e.g., semi-annual or annual) dialogues between superiors and subordinates about current job progress and future job prospects -- including the timing of those opportunities.

The bottom line of any recommendation based on the job cycle model is that the stages be aptly timed. When job tenure expectations are not aligned with reality, the likelihood of inappropriate tasks and developmental behaviors increases. Employee time-based decisions regarding priorities and

effort level and the subsequent behaviors ultimately can influence the organization's ability to satisfy task goals and objectives. Hence, organizational policy can benefit from an understanding of how the boss's ability and willingness to provide support and how the middle manager's needs for support vary with job tenure. The organization has the capacity to affect actual and expected tenure durations through its internal transfer policies as well as its management of voluntary turnover. Given the importance of the middle manager's job cycle in this research, we suggest that managing transitions may be as key to effective human resources management as managing the rate at which a manager moves.

STUDY TWO

ORGANIZATIONAL SIGNALS AND STAY/LEAVE DECISIONS

I. Introduction

A. Purpose

An individual's decision to leave an organization very often has diverse and far-reaching effects. It is a complicated and important choice on the part of the individual, and is influenced by a myriad of both personal and professional factors. To the extent to which this decision rests on professional and organizational aspects, it is useful for an organization to know how it may influence this decision, either intentionally or unintentionally.

The focus of this study is an examination of the individual leave/stay decision of middle managers in large organizations. This decision is affected both by factors which are internal to the organization (such as compensation and benefits, type of work, company values, etc.) and those which occur outside of work life (changing geographical preferences, health needs, spouse and family considerations, etc.) (See Porter and Steers, 1973; Steers and Mowday, 1981 for reviews). One of the critical elements which has an important effect on an individual's willingness to stay with an organization is the opportunity available for future personal growth and career development (Mobley et. al., 1979; Mobley, 1977). If these opportunities are either not available or there is misinformation or no information concerning this availability, managers may be motivated to begin to look elsewhere for these opportunities.

Organizational signals are one way of sending information from the company to the employee because they help the employee to interpret much of what is expected in the organization (Walker, 1980). Furthermore, because

inconsistent signals can act as barriers to effective communication (Sayles and Strauss, 1981), it naturally follows that information about opportunity (or lack thereof) may also be conveyed to individuals through various types of organizational "signals." Since these messages, or signals, comprise one of the factors over which an organization has some control and which can influence a manager's decision to stay with the organization, it is important to understand how various types of signals are interpreted by managers. Therefore, the two major questions addressed here are (1) how are signals from the organization to the individual perceived by those individuals? and (2) how do those perceptions ultimately become incorporated into the leave/stay decision process of those individuals?

Recent decision research advocates an emphasis on the process of reaching a decision rather than on the decision outcome as a way of gaining a deeper understanding of the factors influencing one's decision (see Kunreuther et. al., 1977; Streval, 1980; Shacht, 1981). To the extent possible, such an approach is taken here, as evidenced by the focus on organizational signals and the way that they affect the decision process that one goes through in evaluating a leave or stay decision.

Through this study, the organization can gain a better understanding of how certain signals are perceived and interpreted by its managers, and how these perceptions ultimately influence the individual's leave/stay decision. With this additional understanding, organizations can then use this insight to influence the leave/stay decision in such a way that the decision outcome is consistent with overall human resource and strategic plans.

B. Background: A Signaling Approach to Labor Turnover

In past research a great variety of approaches has been used in studying

the general problem of individuals choosing to leave their jobs. Approximately one thousand studies have been conducted in the organizational behavior area alone, across a wide range of settings in an effort to determine the major factors underlying actual turnover behavior. These factors include salary level, overall job satisfaction, satisfaction with superior and co-workers, perceived chances of promotion, task characteristics, job autonomy, age and tenure with the current firm (see Steers and Mowday, 1981 for review). Unfortunately, these findings rarely yield significant results concerning the relationship between any single variable and the turnover outcome. Although significant correlations have been reported between various individual variables and turnover, in most studies the variables account for a relatively small proportion of the overall variance in turnover.

Recently, more process-oriented models of career-related decisions have been suggested in studies such as those by Mobley et. al. (1979), Porter and Steers (1973), Steers and Mowday (1981), Mobley (1977) and Mihal et. al. (1984). They propose that individuals become aware over time that their current job is not as desirable as it might be. This awareness can come as a result of specific job-related events, or from comparison to other potential external opportunities. These more recent models lend support to a critical factor upon which this study is based -- both the organization and the individual play important roles in this decision. It is highly possible that an individual can be lured away from an otherwise very satisfactory position by external opportunities, depending on the conditions of the labor market as well as on how marketable or mobile the particular individual is. Further, the individual, and perhaps the organization as well, both have some control over this external marketability. This is an expansion of the traditional view that separation is usually based primarily on unsatisfactory internal

conditions (i.e., things that the organization does to the individual; Spector (1978), Mobley et. al. (1979)).

A second area which has given the turnover issue considerable attention, but from a very different point of view, is the burgeoning literature on the economics of information. The literature here is replete with studies of labor market turnover (Parson, 1977; Pencavel, 1972; Salop, 1973), firm-specific human capital (Mortenson, 1978; Carmichael, 1982), contractual employment agreements (Simon, 1961; FitzRoy & Mueller, 1978; Williamson, Wachter & Harris, 1975; Miyazaki, 1977), unemployment and job search models (Shacht, 1983; Lippman & McCall, 1975). These studies have laid a very rich and extensive prescriptive groundwork concerning how individuals should search for jobs, under what conditions to accept offers and finally, under what conditions to leave the current employer. Issues which have emerged as central to many of these studies include the value of wage level in searching for a job, the critical role played by the availability and source of information in the labor market, and the various mechanisms used to signal characteristics and capabilities, both from the organization's viewpoint as well as from that of the individual.

These notions provide a useful standard economic framework for looking at labor turnover in which rationality prevails (i.e., all possible alternatives and their corresponding attributes are known, can be evaluated and trade-offs made among them by individuals). However, virtually all of the empirical research reported in this literature is conducted at a highly aggregated level, where certain behavioral assumptions about individuals are made but never tested. For example, search costs are assumed to be an explicit consideration of a searching individual but there is no evidence which verifies this assumption, nor which examines what factors are considered to be

part of search costs by individuals. By taking a more personalized approach to understanding what influences an individual to leave the job, this study intends to build upon these formal models by using them as a starting point for development of a more descriptive representation of the individual leave/stay decision.

This study extends the standard "rational man" approach to labor turnover (see Parsons, 1977; Stiglitz and Weiss, 1982; Miyazaki, 1977) along the lines of two major economic models which emphasize man's natural limitations in the processing of large amounts of information. These include (1) the "organizational failures" framework applied to internal organization (Williamson, Wachter and Harris, 1977), and (2) the signaling model proposed by Spence (1973). It is suggested here that through the use of signals in an internal organizational setting, certain problems arising from "crowded" internal promotion ladder conditions may be alleviated, in particular the often resulting unintended labor turnover. This approach also allows for the fact that learning occurs on the job and one acquires additional information concerning personal ability to grow with the job over time (Viscusi, 1982).

Therefore, this research studies the individual leave/stay decision by drawing together aspects from standard economic theory and organizational behavior and combining them into a simple mathematical model based on expected utility. It also incorporates an information processing approach concerning how signals are perceived and interpreted by individuals.

C. Theoretical Aspects of Signaling Within the Firm

The problem of primary interest here is the effects of various organizational signals on the individual leave/stay decision. This decision must consider what opportunities are available internally and externally, and

how trade-offs are made between the two. As higher-level opportunities become available, the corresponding expected level of position, responsibility and reward level are assumed to increase. Thus, this study focuses on the impact that signals have on perceptions of future obtainable positions, and how those perceptions then lead to a leave or stay decision outcome.

The emphasis is on search behavior (rather than actual leaving behavior) because search activity is a usual precursor to leaving (Steers and Mowday, 1981; Mobley, 1977). Also, under confidential circumstances, it is easier to elicit an accurate reponse concerning anticipated search activity compared to an anticipated quit. To study this overall process we look at individuals' perceptions of their marketability to the external job market as well as their position for further internal opportunity before and after receipt of signal.

1. Search/No Search Decision: Problem Characterization

As a way of characterizing the leave/stay decision process, we present a simple expected utility-maximizing model here. It is assumed that in terms of present position, an individual is now receiving a wage w_C from the currently employing firm. Many other factors are recognized as important considerations in changing jobs in addition to actual wage level (See Porter and Steers, 1973; Steers and Mowday, 1981). The term "wages" is used here to represent actual salary level and associated benefits, as well as the general utility derived from the position within the company, task assignment, title, responsibility level, etc. Therefore w_c represents all psychic and monetary rewards from the current position in the current organization.

At the same time the individual is receiving signals from the company concerning what his or her reward level might be in the future. We will let $\tilde{w}$ be a random variable which represents potential future reward level attainable

in the next period. For simplicity's sake and without loss of generality, it is assumed that only one signal is received at a time from the current company, denoted here as Sg. The individual then estimates the probability is of attaining a given reward level based on the signal received. This conditional probability can be written as $Pr_C(w/Sg)$. Note that all of this relates to the individual within the current organization.

There is also the potential for the individual to obtain the desired wage (or reward level) from another firm in the general labor market. Based also on receipt of the internal signal, Sg, an individual can estimate the probability of receiving the same reward level from an external organization. This estimate depends largely on perceived external visibility afforded by the internal signal, Sg. The probability of receiving wage, $\tilde{w}$, in the external market given the signal, Sg, is given as $Pr_M(w/Sg)$. There is an additional cost, however, when dealing with the external market. In searching for firms which will offer the desired wage, the individual incurs a search cost denoted as G. This represents the total cost of searching for alternative positions. G can vary widely from one individual to the next depending on initial internal position and level of external marketability. With respect to internal position, an individual who holds a job in a high-demand, low-supply functional area probably will not need to search as long or as hard as one who holds a low-demand, high-supply job, as the former will be sought after with alternative job offers (the data processing area has such a reputation). Likewise it is reasonable to assume that for an individual who has already established an industry-wide reputation (such as in academia through publications), it will not be as costly in time or effort to generate alternative job offers. Thus, G is lower for one who is more marketable.

2. General Decision Rule for Search/No Search

An expression for each of the two cases discussed above can now be written to describe the expected value of receiving a particular signal. Assuming a Von Neumann-Morgenstern utility function for "wages," the individual who remains in the current organization receives the expected value

$$EV_C(Sg) = \int_{w_{min}}^{w_{max}} U(w)\ Pr_C\ (w/Sg)\ dw, \qquad [1]$$

while the individual who chooses to search outside or the company receives the expected value

$$Ev_M(Sg) = \int_{w_{min}}^{w_{max}} U(w-G)\ Pr_M\ (w/Sg)\ dw. \qquad [2]$$

Let

$$\Delta = \int_{w_{min}}^{w_{max}} U(w-G)\ Pr_M\ (w/Sg)\ dw - \int_{w_{min}}^{w_{max}} U(w)\ Pr_C\ (w/Sg)\ dw \qquad [3]$$

Therefore, it can be expected that an individual will behave in the following way:

Search if $\Delta > 0$;

No Search if $\Delta \geq 0$.

It is clear that the decision depends on the value of G, the utility function U, and the parameters of the conditional probability distributions, μ_C, σ^2_C, μ_M, and σ^2_M. In order to make predictions about the potential effects of Sg on these parameters, we must first examine the search response surface for . For illustrative purposes, we assume the following:

i) $U(w) = -e^{-rw}$ (exponential utility)

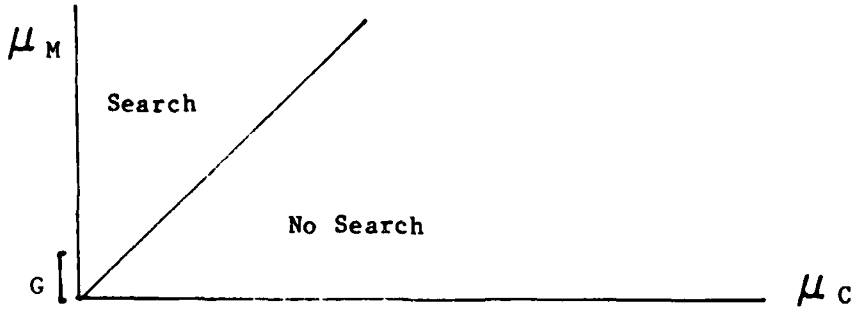
ii) $F_M(w/Sg) = N(\mu_M(Sg), \sigma^2_M(Sg))$

iii) $F_C(w/Sg) = N(\mu_C(Sg), \sigma^2_C(Sg))$

By substituting these expressions into Equation 3 and solving when = 0 (see Appendix E for details), the result is the following relationship:

$$\mu_M = \mu_C + G - \frac{r(\sigma^2_C - \sigma^2_M)}{2} \qquad [4]$$

This equation represents the relationship among the parameters of interest here, namely μ_C, μ_M, σ^2_C, σ^2_M, G and r (risk and aversion). It can be used to illustrate the search space for Δ. We will first assume the simple case where $\sigma^2_M = \sigma^2_C$ and r = 1 (absolute value of risk aversion). The search response surface can then be pictured as the following:



In further examining this relationship, we can determine which changes in the parameters result in decreased search activity. From the diagram it is clear that an increase in G results in a decreased "search" area. This is easily explained by the fact that increased search costs serve as a

disincentive for search activity. Changes in $(\sigma^2_C - \sigma^2_M)$ are more easily evaluated by returning to Equation 4. Here it can be seen that if $(\sigma^2_C - \sigma^2_M) < 0$, the right hand side of the equation increases, leading to a higher value associated with the "company" (c) than with the "market" (m). According to the decision rule, no search would result. This condition may occur as a result of an increase in σ^2_m, in which case the increased variance associated with searching provides a disincentive for search activity. Or, a decrease in σ^2_C results in the condition $(\sigma^2_C - \sigma^2_M) < 0$ also. Here the "no search" decision is explained by the decreased variance in wages associated with remaining in the current job. Therefore, when σ^2_C decreases, a disincentive to search is provided. The effects of changes in r on the decision depend on the relative values of σ^2_C and σ^2_M.

3. Introduction of Signals

We can now introduce the notion that signals received from the current employer are perceived to have an effect on these parameters. Once it has been specified how each signal (Sg) affects μ_C, σ^2_C, μ_M, σ^2_M, and G, we can use the above theory to predict when search behavior is more or less likely to occur.

a. Assumptions

To begin, we will make the following assumptions concerning the effect of Sg on μ_c, σ^2_M, σ^2_C, μ_M, G, and r:

1) Perceptions of μ_C and μ_M vary according to the characteristics of Sg.

This assumption is critical for the model proposed here. It follows from the earlier discussion concerning the effect that a signal can have on estimates of ability to achieve a desired reward level within or external to the current company. The fact that individuals revise those estimates

following receipt of a signal is supported in both the psychological literature (Ilgen et. al. 1979; Fisher, 1979) and organizational (Steers and Mowday, 1981).

This assumption means that an individual's perception of the distribution of wages potentially accessible to him or her varies depending on the nature of the signal received. We are using the distributior means, μ_C and μ_M, to represent the two entire distributions under consideration here (internal versus external distribution of wages). As an example of how these are used throughout this discussion, if it is said that μ_C is perceived to be greater than μ_M, it means that the distribution of wages internally is perceived to be higher than the distribution of wages externally. In general also, higher distributions are assumed to be more desirable than lower distributions.

2) $(\sigma^2_C - \sigma^2_M)$, G and r are perceived to be unaffected by Sg.

These assumptions are made to help simplify the forthcoming analysis concerning the impact of signals with certain characteristics on perceptions of $_C$ and ^{M}. It is first assumed in this research that perceptions of $(\sigma^2_C - \sigma^2_M)$ are unchanged by receipt of signal, Sg. This assumption is supported by the many studies which demonstrate that individuals face serious limitations when trying to process large amounts of information in complex settings (see Hogarth and Makridakis, 1980 for a summary of such studies). For example, individuals have been found to anchor on one particular value when making a prediction and to adjust that value insufficiently in light of further information (Kahneman and Tversky, 1973). Individuals also tend to ignore uncertainty as a way of simplifying complicated information processing tasks (Gettys et. al., 1973). Applied here, we argue that an initial perception of the difference between the variances associated with wage

distributions available from the current employer and from the job market will not be affected by receipt of a signal. First, these variances represent uncertainties which individuals often choose to ignore. Second, it is likely that any initial estimate made will serve as an anchor point. Therefore, perceptions of (σ^2_C - σ^2_M) are assumed to remain unchanged by a single signal, Sg.

It is further assumed that search costs and attitude toward risk will not be perceived to be affected by receipt of signal, Sg. Although perceptions of both may change slowly over time based on a history of signals received from the employing company, it is unlikely that these factors will be perceived to change significantly on the basis of only one signal. The factors suggested earlier as having an effect on G were internal reputation and external marketability. These both require time and repeated confirmations to build up; therefore it is assumed here that receipt of one signal alone will not be perceived as changing either G or r noticeably.

3) $G > 0$, and based on both psychic and monetary costs of search activity.

This assumption is based on standard economic theory relating to job search (see Lippman and McCall,1976; Rothschild, 1974; Stigler, 1962). It represents the notion that there is a cost associated with searching for another job. Although in some cases, G may be perceived to be negligible (such as when an organization pursues an individual with a job offer), there is always some type of transaction cost which accrues to the individual during the decision making process (i.e., time, effort, etc.). Therefore G is assumed to be greater than zero.

b. Definition of Signal Characteristics

Signals are defined here in terms of three primary characteristics:

1) level of "publicity", 2) sign, and 3) goal relevance. A specific signal, Sg, will be represented as Sg = (s_1, s_2, s_3) where s_1 = level of "publicity" of Sg, and s_2 = sign of Sg, and s_3 = goal relevance of Sg. The rationale for defining signals according to each of these three characteristics is given below.

Middle level managers are assumed to be somewhat committed to the organization based on the management positions already achieved, but are also assumed to be interested in developing their personal careers. Support for these assumptions comes from the literature (see Porter and Steers, 1973 and Mihal et. al., 1984). In order to achieve career goals such as promotion to a certain level or job, a middle manager must obtain a certain degree of visibility or "reputation" within the organization. Signals can play an important role in providing a manager with information concerning his or her degree of visibility, or lack thereof, thereby leading the individual to a new awareness of what opportunity is or is not available for that individual within the company.

As the notion of visibility is such an important one in an organizational setting, the "level of publicity" of signals received must play a key role in their effects on an individual. This level determines how widely publicized a signal is concerning the firm's perception of the individual's worth to the organization. It has been noted in the past that how widely known or publicized an individual's reputation is can be an important factor in the market contexts of insurance and contractual agreements(Williamson, Wachter and Harris, 1975; Shacht, 1983; Kunreuther and Pauly, 1982). Since work environments are often characterized as microcosms of the world, this concept of level of publicity should be equally important in an organizational context. Therefore, publicity level of a signal has the potential to directly

affect one's visibility.

For our purposes here, level of publicity is defined as a binary variable $s_1 \in [-1,1]$ where $s_1 = -1$ represents a private signal and $s_1 = 1$ represent a public signal. A private signal is one that is known about only by those who must be involved in the sending or receiving of information, or who must oversee the exchange in some way. A public signal, on the other hand, is one that is well known throughout the company, thereby ensuring that many others know about the receipt of the signal. It is noted here that some signals are public or private by definition (e.g., a confidential meeting is private, a promotion is public), while others can be varied in level of publicity by the organization (e.g., a non-confidential reprimand could be made public or kept private). The important criterion is whether or not the organization makes an effort to keep a signal private or make it public, to the extent to which the level of publicity is variable. Both types of signals are considered here.

Another important characteristic is whether the signal provides positive or negative information about the individual's standing in the firm. Past studies suggest that individuals not only react differently but also attend differently to positive versus negative feedback (Ilgen et. al., 1979; Fisher, 1979). Positive feedback is generally perceived and recalled more accurately than is negative feedback (Shrauger and Rosenberg, 1970). Therefore, the sign of the signal received must be an important influence in several ways. It not only affects how the individual personally interprets the signal, but also has a great potential to influence the individual's reputation within the company.

Sign of a signal is defined here also as a binary variable, $s_2 \in [-1,1]$, where $s_2 = -1$ indicates a negative signal and $s_2 = 1$ indicates a positive signal. Examples of favorable and unfavorable signals include, respectively,

a bonus payment for high performance (presumably positive) and the threat of being dismissed from the firm during a layoff (presumably negative).

Whether a signal is perceived as positive or negative is obviously highly dependent upon an individual's personal values and career goals. Goals and aspirations have long been recognized as important motivating factors for individuals as they help to provide direction for behavior and determine what is most salient in a variety of circumstances (see Schein, 1978). Recently the notion of goals and aspirations has been incorporated more explicitly into models of utility (Loewenstein, 1984) as well. Because we are most interested here in examining the effects of a signal's sign and level of publicity on that signal's perception, we define a third signal characteristic here as the goal relevance of the signal. This characteristic is represented by $s_3 \in [-1,1]$, where $s_3 = -1$ indicates that the signal is most relevant to the goal maintaining job security within the current company; $s_3 = 1$ indicates that corporate advancement is the goal to which the signal is most relevant. These two goals have been chosen as they represent the ends of the spectrum in terms of movement through an organization. Maintaining job security here implies the goal of keeping the current job as is, while corporate advancement implies rapid movement up through the organization's ranks.

Since the focus of this study is on perceptions of signals which are relevant to one's career goals, the following discussion assumes that a match exists between personal career goal and signal goal relevance. In order to be able to achieve this match across varying individual career goals while maintaining parsimony, goal relevance has been defined as a binary variable.

4. <u>Resulting Hypotheses for Effects of Signal Characteristics on</u> μ_C and μ_M

We now want to look at how the perceptions of μ_C and μ_M change from an initial position or perception when a signal is received. Predictions for behavior can then be made based on the individual's resulting perceptions of μ_C and μ_M.

It is important to note here that these changes from initial position are meant to represent whether an individual perceives that his or her position is generally enhanced or hampered by the signal received. For both cases, but particularly in the case where position is perceived to be hampered, this perception may be due to the belief that the signal genuinely hurts the individual's position in an absolute sense, or that it temporarily slows down an otherwise fast, forward-moving career. Examples of the former would be the case of a demotion or cut in salary. Examples of the latter would be losing a promotional opportunity to a colleague (seen as a temporary setback), or receiving a private "pat on the back" from the boss when public recognition was desired. Thus, although not absolutely negative, the signal is perceived as negative relative to previous signals received, to signals desired, or to signals that others receive. This follows the notion of Frank (1984) that an increase in the status of one worker automatically decreases the status of others in comparison. Since it is sometimes difficult to separate absolute from relative perceptions of effects, the hypotheses below are supported by arguments in both modes.

In summary, hypotheses are presented here concerning the effects of the sign and level of publicity of a signal on perceptions of μ_c and μ_m. These perceptions can then be evaluated according to the decision rule which determines resulting search or no search behavior. In this way, the perceived

effects of the signal characteristics on μ_c and μ_m can be linked to one's behavioral responses concerning search.

a. Effect of Sign on Perceptions of μ_G and μ_M

These hypotheses are based on psychological research which demonstrates that positive feedback is generally perceived and recalled more accurately than is negative feedback (Ilgen et. al. [1979]), and therefore encourages continuation of the same or improved behavior. Positive signals, then, should result in the perception that position is enhanced, while negative signals lead to a decreased percpeiton of position. Further, signals should impact perceptions internally more than externally. Therefore,

Hypothesis 1.A: Positive signals will be perceived to enhance both μ_C and μ_M, and will be perceived as enhancing μ_C more than μ_M.

Hypothesis 1.B: Negative signals will be perceived as decreasing both μ_C and μ_M, and will be perceived to hurt μ_C more than μ_M.

Hypothesis 1.C: Positive signals will result in a decreased probability of search, while negative signals will result in an increased probability of search.

b. Effect of Level of Publicity on Perceptions of μ_C and μ_M

There are three predictions here, as follows.

Hypothesis 2.A: When a signal is public, it will serve to amplify the signal's perceived impact on both μ_C and μ_M in the direction of the sign. This amplifying effect will be perceived to be somewhat greater for μ_C than for μ_M.

Hypothesis 2.B: Compared to a public signal, a signal that is private will be perceived to have slightly lower impact on μ_C, but will be perceived to have a significantly lower

impact on μ_M. The impact in both cases will be in the direction of the sign of the signal.

Hypothesis 2.C: Although probability of search cannot be hypothesized directly based only on the level of publicity of a signal, the following observations can be made:

- -- Public signals should be perceived to have a larger impact on both μ_C and μ_M than are private signals.
- -- The perceived impact of private signals on search or no search behavior should be greater than the perceived impact of public signals, based on the larger differential between perceived internal effect and perceived external effect.

These statements imply that although public signals have a larger magnitude effect than private ones on perceptions of position, the effect holds true externally as well as internally. Public signal information is viewed as being easier to distribute. Private signals, however, are perceived to have little, if any, effect externally in comparison to internal impact. Therefore, the resulting search or no search decision should be stronger following receipt of a private signal.

c. Effect of Interactions Between Sign and Level of Publicity on Perceptions of μ_C and μ_M

By considering interaction effects between the sign and the level of publicity of a signal on perceptions of μ_c and μ_m, more exact predictions can be made for resulting search versus no search behavior. The predicted interactions come directly from combining the main effects of sign and level of publicity, as summarized in Table 2-1. Table 2-2 shows the resulting predictions for interactions, which are discussed briefly below.

TABLE 2-1

Predicted Main Effects of Sign and Level of Publicity

Perceived Position / Sign	Internal		External	Propensity to Search
Positive	μ_C	>	μ_M	Decrease
Negative	μ_C	<	μ_M	Increase
<u>Level of Publicity</u>				
Public	a_C	>	a_M	
Private	b_C	>>	b_M	

where a and b represent level of amplication, respectively, for public versus private signals

TABLE 2-2

Predicted Interactions Between Sign and Level of Publicity

Position / Interaction	Internal Effect		External Effect	Propensity to Search
Public/+	$\mu_C * a_C$	$>$	$\mu_M * a_M$	Decrease
Public/-	$\mu_C * a_C$	$<$	$\mu_M * a_M$	Increase
Private/+	$\mu_C * b_C$	$\gg$	$\mu_M * b_M$	Decrease
Private/-	$\mu_C * b_C$	$\ll$	$\mu_M * b_M$	Increase

Hypothesis 3.A: A public positive signal should result in a somewhat stronger positive perception of μ_C than of μ_M. The perceptions resulting from a private positive signal should be similar, but of less magnitude. Since both of these signal types will be perceived to enhance internal position more than external position, they will both lead to a "no search" decision.

Hypothesis 3.B: A public negative signal will be perceived to decrease both μ_C and μ_M, and to have a greater impact on μ_c than on μ_M. Perceptions resulting from a private negative signal will be similar, but again will be of less magnitude. In this case, both signal types should lead to a "search" decision, as internal position is perceived to be hurt more than external position (or, relatively speaking, μ_M is perceived as greater than μ_C).

5. Predictions for Search/No Search Behavior

As a way of summarizing the hypotheses concerning search or no search behavior, we can plot the predicted effects of various signal types on μ_c and μ_m (illustrated in Diagram 1). It should be pointed out here that we are interested in looking at changes in the perceptions of μ_c versus μ_m based on the initial position of the individual. Initial position is determined by how close one is to search behavior at present. It may vary widely across individuals due to factors such as age, tenure with company, education, goals for the job, etc. One initial position (I_1) will be assumed to start in order to illustrate behavioral predictions. Then various other starting positions

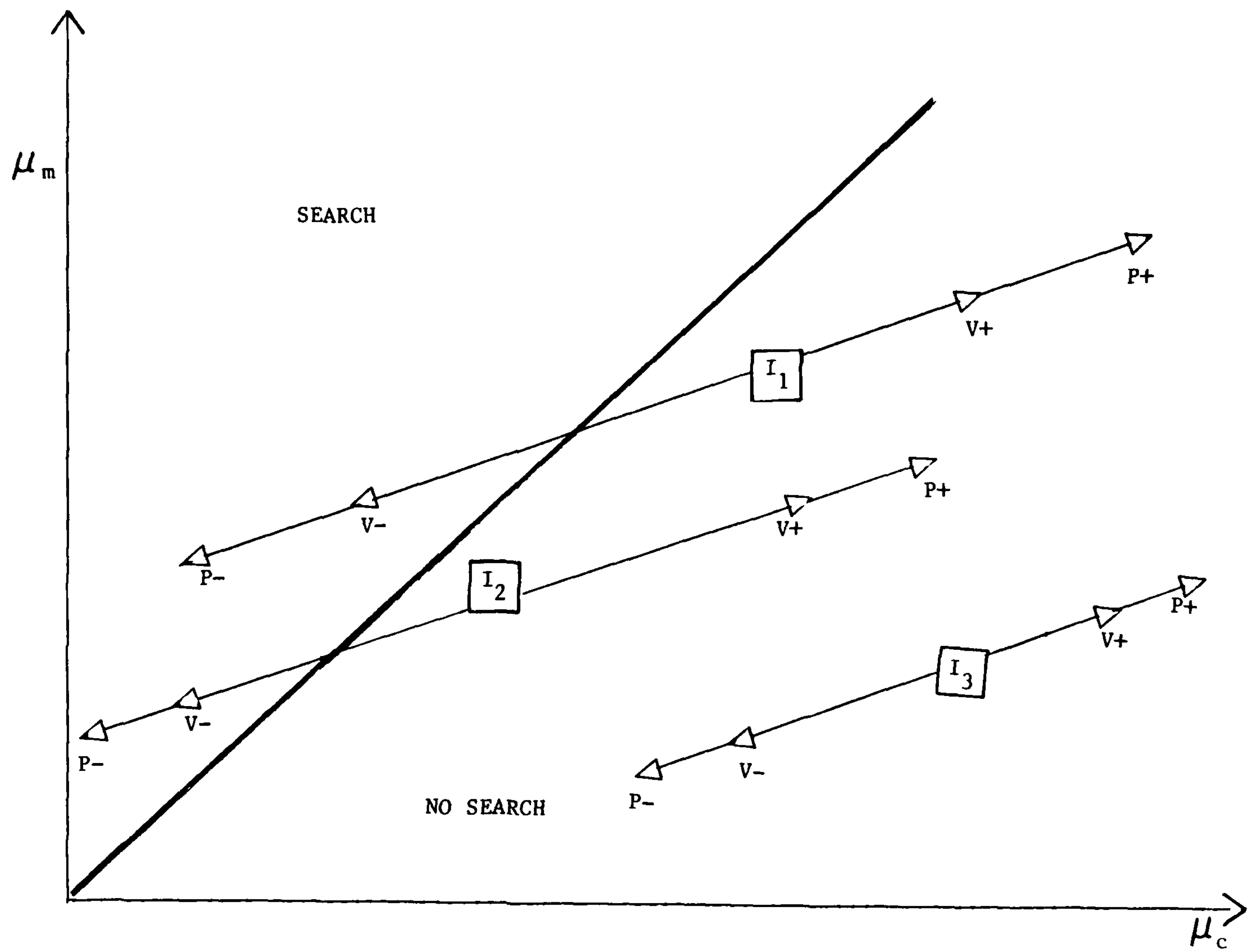
will be examined to show the effect of initial position on predictions. In the cases where there is a different beginning position with respect to current search intentions, different predictions concerning search activity may result. As examples of this, two initial positions other than I_1 are examined in terms of what behavior could be expected to result when each of the four signals are received by individuals in those positions. For starting position I_2, different prediction result while for I_3 the predicted behavior does not change from what it was when starting at I_1. This is illustrated also in Diagram 1.

These predictions for search versus no search behavior can be extended by considering the dotted line passing through I_1 in Diagram 1. With respect to searching, this line represents the individual's current disposition (in Diagram 1, this disposition is "no search"). It can be expected, however, that may signal which moves the individual up and/or to the left will cause that individual to be more inclined to search, as it moves the person closer to the search region. Similarly, if a signal moves the individual to the right and/or down, then he or she will be less inclined to search (movement away from the search region). Thus, whenever $\mu_C > \mu_M$, one will always be less or equally inclined to search than before the signal was received; if $\mu_C < \mu_M$, then one will always be more inclined to search than prior to the signal.

II. Method

In order to examine the effect of organizational signals on the leave/stay decision, a survey instrument was designed and administered which captured the reactions of individual managers to certain types of hypothetical signals sent from the organization. Individuals were presented with signals which were

Diagram 1



embedded within short scenarios. For each scenario presentation, the individuals were asked to react as if the event was happening in the context of their current jobs. (See Appendix F for instrument).

The survey was based on the use of scenario presentations as this provided a viable method of sending organizational signals to individuals within a semi-controlled experimental setting. This type of methodology has been used previously in the market research area (see Bither and Wright, 1977; Pessemier et.al., 1971). By using scenarios here, some control could be maintained over amount of information made available to each subject, and the characteristics of the signal embedded within the scenario could be manipulated as desired.

Signals were designed as either predominantly positive or predominantly negative, as public or private, and as most relevant to the goal of corporation advancement or a proxy for the opposite of that, basic job security. The eight scenario conditions developed for the experiment consisted of the eight possible combinations of these three characteristics, shown in Exhibit 2-1. Each was developed based on information gained during preliminary interviews with middle and top level managers. During these interviews, individuals were prompted to discuss various signals that occurred in their organization along with the generally accepted interpretations of those signals. The eight experiment scenarios were then derived as generalized cases of the signals mentioned during the interviews. In addition, they varied systematically according to the characteristics of interest discussed above.

In an attempt to verify that the scenarios used in the study were realistic once developed, a pilot test was carried out with thirty subjects within one organization in waves of ten subjects each. The scenarios were presented to the subjects and then discussed openly in terms of the realism of

each scenario. During this pilot study the scenarios underwent revision twice until there was substantial agreement as to how realistic the scenarios were. Within the final group of ten subjects, there was approximately 90 percent agreement that all scenarios were feasible and highly realistic. Before presenting the scenarios to the participants in the other four organizations minor changes were made in some cases to maintain a high level of reality for the other companies. These changes focused on factors such as the timing of events (performance reviews, promotions, etc.) and specific organizational terminology differences. These changes did not affect the main content of the scenarios but did help to achieve realistic scenarios for individuals in each company.

The actual data collection method employed in this study was a structured interview along with the scenario presentations. The same set of questions was asked to each participant and in the same order. All but 13 of the 178 interviews were conducted by the same investigator to ensure consistency.

An interview format was chosen over a straight questionnaire in order to encourage discussion of the responses. Although all responses were coded on Likert-type scales, discussion allowed for greater insight into exactly how and why the signals were perceived as they were. The uncoded comments were used to help interpret the formal responses. Likert scales were used because the direction of the responses was more important than exact magnitude. Also when focusing on relative perceptions of signals, exact magnitudes of effects are difficult to estimate and therefore less reliable measures.

Although eight scenarios were developed, each individual was asked to respond to four scenarios only due to time constraints within the experiment (interviews were one hour in duration). A complete set of scenarios for each individual would have resulted in exposure to all combinations of the three

EXHIBIT 2-1

SUMMARY OF SCENARIO CHARACTERISTICS

Scenario 1

Level of publicity: Public
Sign of signal: Positive
Relevant to goal: Corporate ladder advancement
Content: Asked t be on a special, high-visibility task force

Scenario 2

Level of publicity: Public
Sign of signal: Negative
Relevant to goal: Corporate ladder advancement
Content: Miss out on a hoped-fcr promotion

Scenario 3

Level of publicity: Private
Sign of signal: Positive
Relevant to goal: Corporate ladder advancement
Content: Receive private pat-on-the-back from supervisor

Scenario 4

Level of publicity: Private
Sign of signal: Negative
Relevant to goal: Corporate ladder advancement
Content: Receive private reprimand from supervisor

Scenario 5

Level of publicity: Public
Sign of signal: Positive
Relevant to goal: Job security
Content: Company merges with another organization, receive memo from V.P. in charge that no lay-offs will results

Scenario 6

Level of publicity: Public
Sign of signal: Negative
Relevant to goal: Job security
Content: Sudden re-organization in company, large numbers of employees are laid off

Scenario 7

Level of publicity: Private
Sign of signal: Positive
Relevant to goal: Job security
Content: Receive salary incrase, but no promotion or added responsibility

Scenario 8

Level of publicity: Private
Sign of signal: Negative
Relevant to goal: Job security
Content: Receive preliminary warning from boss that the department is going to be phased out soon

variables of interest (sign, level of publicity, goal relevance), each of which had two values. Instead, each subject was presented with four scenarios, where the sample size for each scenario was somewhat smaller (approximately 90) than the total sample size. Each subject was exposed to one of the sets of four scenarios shown in Exhibit 2-2.

To validate each scenario with respect to the value of each of the signal charactertistics (i.e., sign,level of publicity and goal relevance), the scenarios were submitted to a panel of independent judges for evaluation. These judges were not otherwise knowledgeable about the survey, but were deemed capable of judging the scenarios in an objective manner. The alternative approach available was to have the subjects themselves verify the signal characteristics. However, since the pilot test exposed what appeared to be a significant interaction between sign of the signal and level of publicity in terms of interpretation, this alternative was not appropriate. The forty-seven-person panel of judges displayed a considerable amount of agreement with the intended design with the exception of three characteristics (see Table 2-3). Inter-rater reliability was 0.875.

III. Results

A. Summary of Findings

There were two major findings in this study concerning the effect of organizational signals on the individual leave/stay decision. The first builds on standard economic models of labor turnover by suggesting that the underlying motivation of the decision stems from trade-offs made between opportunities perceived to be within the current company and those available elsewhere. The model proposed here predicts that if one perceives the chances of attaining a better position to be higher externally than internally, then

EXHIBIT 2-2

SETS OF SCENARIOS PRESENTED TO PARTICIPANTS

Scenario	Sign	Publicity	Goal
First-1	Positive	Public	Corporate Advancement
Second-2	Negative	Public	Corporate Advancement
Third-7	Positive	Private	Job Security
Fourth-8	Negative	Private	Job Security

[constant pairing between level of publicity and goal]

Scenario	Sign	Publicity	Goal
First-3	Positive	Private	Corporate Advancement
Second-4	Negative	Private	Corporate Advancement
Third-5	Positive	Public	Job Security
Fourth-6	Negative	Public	Job Security

[constant pairing between level of publicity and goal]

Scenario	Sign	Publicity	Goal
First-1	Positive	Public	Corporate Advancement
Second-3	Positive	Private	Corporate Advancement
Third-6	Negative	Public	Job Security
Fourth-8	Negative	Private	Job Security

[constant pairing between sign and goal]

Scenario	Sign	Publicity	Goal
First-2	Negative	Public	Corporate Advancement
Second-4	Negative	Private	Corporate Advancement
Third-5	Positive	Public	Job Security
Fourth-7	Positive	Private	Job Security

[constant pairing between sign and goal]

Scenario	Sign	Publicity	Goal
First-1	Positive	Public	Corporate Advancement
Second-4	Negative	Private	Corporate Advancement
Third-5	Positive	Public	Job Security
Fourth-8	Negative	Private	Job Security

[constant pairing between sign and level of publicity]

Scenario	Sign	Publicity	Goal
First-2	Negative	Public	Corporate Advancement
Second-3	Positive	Private	Corporate Advancement
Third-6	Negative	Public	Job Security
Fourth-7	Positive	Private	Job Security

[constant pairing between sign and level of publicity]

TABLE 2-3

Scenario Characteristics as Evaluated
by Panel of Independent Judges

	Characteristics as Designed	Level of Publicity (1-public, 5-private)	Signif. Diff. from Neutral?	Sign (1-neg, 5-po.)	Signif. diff. from Neutral?
Scen. 1	Public/+	1.777	t=.0005 (Public)	4.17	t=.0005 (Positive)
Scen. 2	Public/-	2.936	n.s (Public)	1.894	t=.0005 (Negative)
Scen. 3	Private/+	4.308	t=.0005 (Private)	1.755	t=.0005 (Negative)
Scen. 4	Private/-	4.755	t=.0005 (Private)	3.149	n.s (Positive)
Scen. 5	Public/+	1.628	t=.0005 (Public)	3.564	t=.0005 (Positive)
Scen. 6	Public/-	2.319	t=.005 (Public)	2.489	t=.005 (Negative)
Scen. 7	Private/+	4.415	t=.0005 (Private)	4.283	t=.0005 (Positive)
Scen. 8	Private/-	2.391	t=.005 (Public)	1.826	t-.0005 (Negative)

one's intention to leave increases. On the other hand, if those chances are perceived to be higher internally, then one's intention to leave decreases. The data were found to support this expectation overwhelmingly. When a signal was perceived to increase internal position more than external position, corresponding changes in intentions to leave showed a decrease in probability of searching and increased intentions to stay. Alternatively, if a signal was perceived to increase external position more than it enhanced internal position, the change in intentions to leave and search increased. Thus, the basic model proposed here gains strong support.

The second major finding concerns the effect of signal characteristics on the resulting perceptions of those signals. Results strongly support the hypothesized main effects of signal characteristics. Level of publicity amplifies the signal's effect both internally and externally in the direction of the sign (i.e., has a magnitude effect). Sign of a signal has a directional effect on perceptions of internal and external position in the predicted directions (i.e, positive signals are perceived to have positive effects, negative signals to have negative effects). All but one of the predicted interaction effects were strongly supported by the data as well. Further, most of the hypotheses were more strongly supported when there was a match between individual career goal and signal goal relevance than when there was no match. The details of the results are provided below.

B. Caveats

1. Signal Goal Relevance as Moderator Variable

The goal relevance of a signal is hypothesized to be a moderator variable here. Specifically, the set of predictions that are made concerning sign and level of publicity are based on a "match" condition between the subject's

actual primary career goal and the goal to which the signal is relevant. Signals were designed to be relevant to either the goal of corporate advancement or the goal of maintaining job security. Over three-fifths of the participants in the study reported that their primary career goal was corporate advancement rather than maintaining job security. Another quarter of the sample reported that primary career goal for them was maintaining or increasing functional expertise. Less than four percent of the sample reported job security as a goal (individuals could report up to three career goals). Therefore, most of the responses to the corporate-advancement-related signals represent a match between actual goal and goal relevance, while over 90 percent of the responses to the job-security-related signals represent a non-match.

However, the sample could be split naturally according to whether or not corporate advancement was a personal goal at all. In over 90 percent of the cases, responses indicated that either corporate advancement represented the individual's only goal, or goals other than corporate advancement represented the individual's set of career goals. Thus, we decided to analyze the data in terms of this natural split (65 percent and 35 percent respectively).

The data were analyzed according to a match and then non-match condition between personal career goal and signal goal relevance (as described above). The data were also analyzed with no regard for career goal in order to determine if there was a difference in effects of signals when goal was and was not taken into account.

2. Signal Characteristics as Judged Versus Designed

The reader is reminded that there is a discrepancy between the characterization of the signals as designed, compared to this characterization as judged, regarding sign and level of publicity. The results are not highly

sensitive to this discrepancy. The hypotheses are slightly better supported when characteristics are assigned as judged rather than as designed. However, the difference is one of magnitude of effect rather than of direction. Therefore, the results are presented primarily according to the characterization as judged; where appropriate, specific sensitivities to this discrepancy are noted.

C. Testing the Decision Rule for Search or No Search Behavior

The underlying hypothesis of the study concerning increased or decreased likelihood of search based on perceptions of internal versus external position, reputation and visibility was very strongly supported. That is, when the difference between the signal's perceived effect on internal position (INT) and the signal's perceived effect on external position (EXT) was positive (INT - EXT > 0), there was a significant tendency toward a decreased probability of search activity. Likewise, when this difference was negative (INT - EXT < 0), there was a significant tendency toward an increased probability of search activity. This relationship was found to be significant at the .01-level in the case of every signal (See Table 2-4).

As further support, a positive difference between INT and EXT was accompanied by an increased intention to stay with the current company, and a decreased probability of leaving within the next year. When this difference was negative, decreased intentions to stay and an increased probability of leaving resulted.

These results lend strong support to the model proposed here and, in particular, for predictions arising from the model concerning when an individual should be more or less likely to search for another job. It emphasizes the fact that trade-offs are made between perceptions of opportunity in the current organization versus in an alternative job, based on

signals received. It demonstrates that according to middle managers' perceptions, if a signal has the effect of increasing the likelihood of gaining a higher position at another company more than it increases that likelihood in the current firm, then it is attractive to managers to at least consider searching outside in the job market. On the other hand, if a signal is perceived to increase the probability of attaining an improved position within the company more than it is perceived to affect the probability of attaining an improved external position, then search activity is generally not attractive.

The results reported here agree with standard economic models of labor turnover which suggest that individuals compare expected overall internal utility with expected overall utility available at an alternative organization in deciding whether to stay or leave (see Miyazaki, 1977; and Stiglitz and Weiss, 1982). However, this study has also shown that certain organizational signals can have a critical impact on those estimated utilities, and in so doing, has extended the standard theory. Further examination of signal characteristics and the resulting effects of those characteristics on estimated utilities add a dimension to the research which has not been addressed previously by economic models and which builds upon the notions of Spence (1973), and Williamson, Wachter and Harris (1975). Below is a description of the effects of varying characteristics on perceptions of internal and external position, reputation and visibility.

D. Testing the Effects of Signal Characteristics

In order to test the predicted hypotheses about the effect of signal characteristics on perceptions of resulting internal versus external position, several analyses were carried out. In each case, an analysis of variance

TABLE 2-4

Intentions to Stay Based on Perceived Internal vs. External Position

Signal	(INT-EXT) vs. Intent to stay* X^2	Signif	(INT-EXT) vs. Pr(Search) X^2	Signif	(INT-EXT) vs. Pr(Leaving) X^2	Signif
1	108.83	.001	211.30	.001	202.47	.001
2	79.56	.001	24.56	.005	16.10	.025
3	83.04	.001	39.33	.005	40.00	.001
4	31.55	.001	54.53	.001	39.70	.001
5	51.40	.001	100.57	.001	38.15	.001
6	22.43	.005	27.64	.005	45.46	.001
7	37.82	.001	71.25	.001	66.81	.001
8	107.02	.001	89.86	.001	75.2	.001

* Intent to stay here was calculated by taking the difference between current intent to leave/stay and resulting intent following receipt of a signal (same for Pr(Search) and Pr(Leaving)). See Appendix G for definitions of variables INT and EXT.

(ANOVA) was performed first to test for main and interaction effects of sign and level of publicity. This was accompanied by specific t-tests to determine whether or not significant differences existed between effects on internal and external position for a given characteristic value (e.g., "positive," "private").

1. Main Effects of Sign

All of the hypotheses regarding the effect of sign of a signal on perceived internal position, external position and search behavior were supported by the data. First, as shown by the ANOVA results in Table 2-5, there is a significant main effect of sign on perceived internal position (INT), on perceived external position (EXT), and in the change in estimated likelihood of search (DIFPRS). Sign also has a significant effect on other variables, such as event rating (RATING), behavior following a signal (BEHAV1), change in intention to leave or stay (INTENT), and change in estimated likelihood of leaving (DIFPRL). In all cases, positive signals were perceived to enhance position, to increase "stay" intentions, and to reduce the probabilities of searching and leaving. Positive signals also influenced individuals to "work harder" or "do nothing different" in terms of follow-up behavior. For each variable, negative signals had the opposite effect on perceptions, and also influenced managers to begin to "search internally" or "search externally" for other jobs.

Positive signals were perceived to enhance both internal and external position, with the effect on internal position being greater than the effect on external position. Similarly, perceptions of negative signals were that both internal and external position would be decreased as a result. The means for INT, EXT, and DIFPRS are shown in Table 2-6. Also given are the means for a match condition between personal goal and signal goal relevance and a

TABLE 2-5

Results of ANOVA for Main Effect of Sign

Dependent Variable	Significance Level	Trend
INT	.0001	Positive signals perceived to have a more positive effect than negative signals
EXT	.0001	Positive signals perceived to have a more positive effect than negative signals
DIFPRS	.0001	Negative signals lead to a higher likelihood of search behavior than positive ones
RATING	.0001	Positive signals rated as more positive than negative signals
BEHAV1	.0001	Positive signals lead to "work harder" or "do nothing different;" negative signals lead to "search internally" or "search externally"
INTENT	.0001	Positive signals lead to stronger intent to stay, negative signals lead to weaker intent
DIFPRL	.0001	Negative signals lead to a higher probability of leaving than positive ones

non-match condition. According to the data, positive signals always have a more positive effect internally than externally (INT - EXT > 0) except in the non-match case, and negative signals always have a more negative impact internally than externally (INT - EXT < 0). Thus,positive signals result in a decreased probability of search and negative ones yield an increased search likelihood, as predicted.

Note that in the case of a non-match of goals for negative signals, hypothesized effects hold true, but there is no significant difference between the impact on INT versus on EXT. In the same case for positive signals, the hypotheses are not supported, as was predicted might be the case due to a lack of salience of the signals for individuals. Here positive signals are viewed as having a more positive effect externally than internally.

It is interesting to note that within the current company, positive and negative signals have equal magnitude effects (measured in terms of deviation from the midpoint 3.0), although in opposite directions. Apparently, there was no discounting of negative feedback here, as the literature suggests sometimes occurs. One manager did say, however, that he perceived some of the negative signals to be directly attributable to his failing, while others were out of his control. Perhaps this feeling accounts for the close to neutral effect of negative signals on EXT ($\mu_M = 3.097$). If the signal is out of one's control, it is not considered to be as great a hindrance in the job market, as it can be explained by other than personal failure.

2. Main Effects of Level of Publicity

The hypotheses regarding the effect of level of publicity on perceived internal position, perceived external position, search behavior, and other variables were supported by a subset of the total dataset. When an ANOVA was

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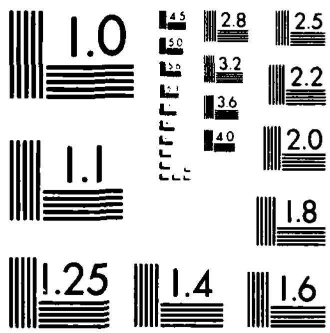
1.0
4.5
5.0
2.8
2.5
3.2
2.2
3.6
4.0
2.0
1.1
1.8
1.25
1.4
1.6

TABLE 2-6

Mean Effects of Positive and Negative Signals

Variable \ Sign	+ (match)	+ (no match)	− (match)	− (no match)
INT	2.569		3.526**	
	(2.383)*	(2.755)	(3.843)•	(3.208)
EXT	2.651		3.097**	
	(2.612)*	(2.690)	(3.277)•	(2.916)

Note: Five-point scales were used for both INT and EXT, where 1 represents a strong positive effect and 5 represents a strong negative effect (3 is the mid-point; no effect).

*, **, and • indicate where significant differences exist between INT and EXT (based on t-tests, significant at the .05-level).

performed on all of the data, the level of publicity had a significant main effect on perceived internal position (INT), signal rating (RATING), amount of information perceived to be carried in the signal (INFO), and follow-up behavior (BEHAV1). These effects are reported in Table 2-7. However, ANOVA results show that when there is a match between personal career goal and the goal relevance of the signal, then level of publicity has a significant main effect on perceived external position (EXT), and on the change in estimated likelihood of search (DIFPRS) as well and as predicted. The results of the second ANOVA are provided in Table 2-8.

In general, public signals have a greater impact on perceptions of resulting position than do private signals, while exact direction depends on the accompanying sign. Thus, level of publicity has a magnitude effect, or, it determines the amount of amplification of a signal.

In comparing the effect of public signals on perceived internal position to the effect on perceived external position, there is a slightly greater impact internally as externally. This same effect holds true for both the match and non-match conditions on goals (the means are shown in Table 2-9). Private signals have a significantly greater impact internally as externally, however, This effect also holds true for both the match and non-match conditions on goals. It is important to point out here that the magnitudes of the differences between the internal and external effects are what is important here, and not the direction of the effects of publicity versus private signals. The directions based purely on level of publicity are an artifact of the design problem of the study. One of the private, positive signals (as designed) was judged to be a private, negative signal. Further, one of the private, negative signals (as designed) was judged to be neutral. Therefore, there is a bias toward a negative effect when looking only at

TABLE 2-7

Results of ANOVA for Main Effect of Level of Publicity
(All Data)

Dependent Variable	Significance Level	Trend
INT	.0001	Public signals have a greater effect than private signals
EXT	n.s.	
DIFPRS	n.s.	
RATING	.0050	Private signals are perceived as more negative than public signals
INFO	.0043	Private signals are perceived to provide more information than public signals
BEHAV1	.0302	
INTENT	n.s.	
DIFPRL	n.s.	

TABLE 2-8

Results of ANOVA for Main Effect of Level of Publicity
(For "Match" Data Only)

Dependent Variable	Significance Level	Trend
INT	.0001	Public signals have a greater impact than private ones
EXT	.0001	Public signals have greater impact than private ones
DIFPRS	.0006	Private signals resulted in a higher probability of search than public signals

private signal data.

3. Interaction Effects of Sign and Level of Publicity

Results show that strong interaction effects exist between the variables sign and level of publicity of a signal. These effects can be seen in Table 2-10, which presents the ANOVA results for interaction effects. The interaction is significant for the major dependent variables, INT, EXT, and DIFPRS, as well as for the minor variables, RATING (signal rating), INFO (amount of information the signal is perceived to provide), INTENT (intent to leave or stay), and DIFPRL (change in estimated likelihood of leaving within the next year).

Most of the hypotheses for the interaction effects between sign and level of publicity gained strong support from the data. As shown in Table 2-11, public positive signals (denoted by P/+) were perceived to have a stronger positive impact on internal position than on external position. Similarly in the case of public negative signals (denoted by P/-), a more negative perception resulted for INT than for EXT. In all cases, these effects are more significant when a match condition occurs between actual career goal and signal goal-relevance.

As predicted also, private negative signals (denoted by V/-) were perceived to have a more strongly negative effect internally than externally. However, unlike the prediction made for private positive signals (denoted by V/+), these were perceived to decrease internal position rather increase it. Further, V/+ signals were perceived to have a more positive impact on external position than on internal position. The probable explanation for this result is that the signal taken to be private and positive was judged to be neutral (slightly positive, but not significantly different from zero). Therefore,

TABLE 2-9

Mean Effects of Public and Private Signals

Level of Publicity / Variable	Public		Private	
	(match)	(no match)	(match)	(no match)
INT	2.627		3.468*	
	(2.619)	(2.634)	(3.607)**	(3.329)
EXT	2.721		3.027*	
	(2.714)	(2.728)	(3.176)**	(2.878)

Note: Five-point scales were used for both INT and EXT, where 1 represents a strong positive effect and 5 represents a strong negative effect (3 is the mid-point; no effect).

*, and ** indicate where significant differences exist between INT and EXT (based on t-tests, significant at the .05-level).

TABLE 2-10

Results of ANOVA for Interaction Effects Between Sign and Level of Publicity

Dependent Variable	Significance Level	Trend
INT	.0001	P/+, V/+, P/-, V/- +<--------------->-
EXT	.0001	P/+, V/+, P/-, V/- +<--------------->-
DIFPRS	.0005	P/+, V/+, V/-, P/- ---more search--->
RATING	.0001	P/+, V/+, P/-, V/- +<--------------->-
INFO	.0236	V/+, P/-, P/+, V/- ----less info---->
DIFINT	.0001	P/+, V/+, V/-, P/- Stay<------->Leave
DIFPRL	.0001	P/+, V/+, V/-, P/- ---more leaving-->

there is a negative bias in the data in terms of the effect of private positive signals on INT and EXT. When the signals were analyzed as designed rather than as judged here,the bias was even more glaring.

We can now compare the effects across all four interaction treatments on various independent variables, keeping the above-described bias in mind. For perceived effects on both internal and external position, the order of signals from most favorable to least favorable was [P/+, V/+, P/-, V/-]. This is interesting because, in the case of the negative signals, public is viewed as better than private. This supports the notion that a high degree of publicity acts to enhance one's career, regardless of whether it is favorable or unfavorable publicity (stated succinctly as SUMU, by one respondent, meaning "screw up, move up"). Another manager suggested that in the case of a public negative signal, a greater challenge exists to try to turn it around to one's benefit. This implies that publicity is harder to achieve than favorability. Therefore, once a public signal is received, it is relatively easier to make it into a positive event than to change something private to public.

In terms of the effects of various signal types on likelihood of search behavior, the order of signals from lowest to highest probability of searching is [P/+, V/+, V/-, P/-]. Here there is a clear direction effect of sign and magnitude effect of level of publicity. This also shows that P/+ signals lead to a lower likelihood of searching than V/+ signals, and that P/- signals lead to a higher likelihood of searching than do V/- signals. As can be seen in the data, these results (for at least the positive signals) arise from the fact that there is a larger difference between INT and EXT (in the positive direction) for P/+ than for V/+. One hypothesis was that whenever $[(INT_1 - EXT_1) > (INT_2 - EXT_2)]$ there should be a greater inclination to not search. This is supported by the effects of the positive signals, but not the negative

TABLE 2-11

Mean Effects of P/+, P/-, V/+, and V/- Signals

Interaction Variable	P/+	P/-	V/+	V/-
INT	2.072*	3.181	3.066@@	3.871†
(match)	(1.40)**	(3.838)•	(3.366)@	(3.849)††
(no match)	(2.744)	(2.525)	(2.766)	(3.892)••
EXT	2.442*	3.000	2.860@@	3.193†
(match)	(2.140)**	(3.288)•	(3.085)@	(3.267)††
(no match)	(2.744)	(2.713)	(2.636)	(3.120)••

Note: Five-point scales were used for both INT and EXT, where 1 represents a strong positive effect and 5 represents a strong negative effect (3 is the mid-point; no effect).

*, **, •, ••, @, @@, †, and †† indicate where significant differences exist between INT and eXT (based on t-tests, significant at the .05-level).

signals.

E. Individual and Organizational Differences

Signal perception varied in a few cases due to differences among groups of individuals. The most important variables of interest include age and tenure, performance, past history of leaving jobs, and whether or not one had friends who had left the current company recently. Those individuals who were older and/or had a longer tenure with the firm tended to view the signals in a more positive light than others. High-level performers also took a more positive stance in terms of signal rating than lower-level performers. However, the high performers also reported higher probabilities of searching and leaving as a result of the positive signals.

If one had a previous history of leaving jobs, then one tended to react more strongly to the direction of the signal (positive signals resulted in a more favorable impact, negative signals in a less favorable impact). The same effect was true for those who had seen friends leave the current job within the past year compared to those who had no prior leaving experience nor friends who had left. This illustrates the strong effect that "friends and neighbors" can have on one's perceptual lens as well as past experience with a particular event (see Kunreuther et. al., 1977; Shacht, 1983).

Although there were few differences in signal perception based on organizational affiliation, the three isolated cases of organizational differences centered around (1) organizational orientation, (2) past experience, and (3) organizational structure. In the firms where there is a strong external orientation (high level of client contact, etc.), signals were generally perceived to have a larger impact externally than for the other companies. When the organization had actually experienced the negative event

described in one scenario, there tended to be a more positive reaction than if there was no prior experience with the event. Within firms where individuals experience a strong functional identity, the signal describing the phase-out of a functional area resulted in more strongly negative reactions than within companies where function is less important.

IV. Discussion

A. Research Implications

This study provides support to the standard economic notion that an individual leave/stay decision is based on a comparison between the likelihoods of attaining an improved position within the current firm and at another company. It has also extended this notion through a detailed examination of one factor which influences the evaluation of those likelihoods, i.e., organizational signals. By focusing on perceptions of signals and their resulting impact on intentions to leave or stay, this research combines economic theory with a behavioral approach to the study of decision making. As a result, it advocates a process orientation for further study of the leave/stay decision or other similar, infrequently made choices. It also suggests that there are numerous factors which may influence such decisions, and that combining prescriptive frameworks, as was done here (i.e., economic models) with descriptive field studies, can be very fruitful.

A new methodological approach was employed in this research which may have implications for the future study of decisions which are difficult to observe. They may be difficult to observe because of the long time span over which the decision is made, or the complexity involved in the manipulation of actual factors under study. The approach used here was based on scenario development. Although problems can arise because scenario interpretation is

not clear-cut, the approach enables the researcher to control the manipulation of the variables of interest. This approach can be refined in future research and can improve the study of certain types of decisions.

B. Organizational Implications

This study has several implications for the organizations whose managers participated. First, the construct of organizational signals was found to be a useful one in that each signal had some definite impact on individuals' perceptions of their resulting internal and external positions, and resulting changes in their intentions about staying with the current company. Further, the same effects were pervasive across organizations and individuals with significantly different profiles. Therefore, for the middle level manager, at least, there is compelling evidence that organizational signals may be similar in interpretation and in importance for leave/stay considerations across companies. However, because of the small and select sample of organizations used, caution should be exercised in extending such assertions.

Given this evidence provided by this study, organizations that wish to influence this stay/leave decision process should be sensitive not only to the types of signals it sends to its managers, but also to managers' goals (and how their goals change over time), to their position with respect to the job market, and to interactions among signals, goals and marketability.

Finally, if organizations wish to achieve a better congruence between desired and actual employees, it is imperative that information concerning the firm's evaluation of the manager be conveyed clearly and accurately. In general, workers want to know where they stand, and want to put their particular talents to the best use possible. Therefore, whether the company values the individual or not, and whether it desires a stay or leave outcome,

sending signals which are congruent with that evaluation is imperative.

C. Suggestions for Further Research

Suggestions for future research based on this study extend in two primary directions. The first is further study of this particular decision through an improved and extended examination of signals and signal characteristics, and their effect on this decision. There are several other potentially important characteristics of signals, such as ease of communication of the signal to external firms, and importance of signal source, that may help to better determine the resulting effects on intentions to stay or leave. It also may be useful to examine the signals that individuals send to organizations in return, and how a match or mismatch of those signals lead to various perceptions of opportunity and, therefore, different decision outcomes.

Second, the scenario approach to the study of the leave/stay decision could be applied to the study of other, similar decisions. Many decisions can be characterized by the notion of individuals reacting to signals sent to them by numerous parties (e.g., signals sent by commercials concerning what a particular product can do for you; signals relating to personal skills, or lack of, and resulting career choice). This idea relates to the study of information salience and general biases in the perception of information. Through the use of manipulatable scenarios with embedded signals, perhaps a greater awareness of critical factors for decision making could be gained, and therefore an improved understanding of the underlying process.

STUDY THREE

PLANNING, GOAL SETTING, AND INCENTIVE SYSTEMS

I. Introduction

In this study we explored a set of issues which revolved around the dissemination of an organization's goals and the incentives and disincentives which could motivate managers to achieve those goals. Because the relationship among these factors is unique to each organization, the case studies described in Volume II should be read in conjunction with the aggregated findings reported here.

To increase clarity and consistency with the academic research, the issues addressed were categorized as either planning or incentives. After reviewing the prescriptive models and considerations offered in the literature about each topic, we present our methodology for exploring these issues. We then examine our sample's planning and human resource management processes as formally structured and as perceived by middle managers. This research approach enables us to compare the idealized process put forth by academicians with organizational policies and organizational practices.

This study aims to contrast descriptions of activities in successful companies with prescriptions by management theory. In so doing, we can indicate refinements to theory as well as suggest alternative practices.

A. Review of the Literature

A.1. Planning, Goal Setting and Appraisal

Planning, goal setting and appraisal are key organizational processes. There is increasing agreement that planning should be linked to goal setting and reward (Lorange, 1980; Hrebiniak and Joyce, 1984), and that linking them

can contribute to the development of incentives which match the strategy of the organization (Bowen and Hall, 1977; Fazel, 1978; Lorange, 1980; Walker, 1980). In addition to this specific purpose, these processes provide important communications links across organizational levels (Byham, 1982; Macklin, 1982).

Lorange (1980), in his well known book on strategic planning, described a model planning process. In this model strategic, tactical and operational decisions are made at different levels of the organization. Similarly, decisions about human resource issues follow the same pattern. General direction and overall goals are provided by top management. These goals are communicated downwards through the organization, and are made specific and operational at lower levels. Subsequently, lower levels feed these specific goals back up to top management. Plans are then negotiated across levels, sometimes with a number of iterations.

An MBO (management by objective) human resource planning process can contribute to the planning process by specifying the contribution of individuals to the overall strategic plan of the organization (Walker, 1980). In theory, the aggregate of all MBOs for all individuals within the organization would sum to the overall strategic plan of the organization. Specific financial objectives for the corporation can be disaggregated across all business units and downwards for employees (Carroll and Tosi, 1973). Since MBOs focus on what the individual will commit to accomplish over the planning period, the links between strategic planning, human resource planning, and incentive systems are strengthened.

A.2. Incentives and Disincentives

Within every organization, a whole range of incentives and disincentives

operate to influence employees at every level. Employees are encouraged to act in certain ways (incentives) and discouraged from engaging in other activities (disincentives). Furthermore, not all incentives and disincentives operating within an organization are those intended by either top management or human resource managers; incentives and disincentives may be either deliberate or circumstantial. Thus, carefully designed human resource compensation and reward policies constitute only a small part of the factors that motivate or interfere with employees' performance of the role specific behaviors expected of them.

A review of the literature indicates that there are very few specific prescriptions established for incentives policies for middle managers. In part, this is because middle managers play a wide range of roles both within and across organizations. Furthermore, many middle managers do not supervise units whose contribution to the organization is separable from the impact of other organizational units. Therefore, bonus or incentive systems which rely upon the separation of a unit into a profit or center cannot easily be applied to many middle managers. Because of the dearth of literature on specific reward systems for middle managers, we looked for guidance to more general formulations for incentive systems and motivation in organization. Some of the key aspects are reviewed briefly below.

a. Link to Strategy

There is general agreement that incentive systems are tied to strategy (e.g., Salter, 1973). There is also general recognition that incentive systems must balance short and long term objectives of the organization (Tichy, 1983; Lorange and Murphy, 1984). Authors who are concerned with the strategic implications of incentives are more likely to describe processes for

achieving the match than specific rules for what those incentive systems should look like, in part because strategies are unique to the organization (cf. Lorage and Murphy, 1984).

b. General Characteristics of Incentive Systems

A review of the literature indicates that incentive systems in general have a number of criteria which they must satisfy in order to function effectively. There must be consistency among the elements of the reward system and between the reward system and the other characteristics of the organization (Gordon, 1982; Peter and Waterman, 1982; Athos and Pascale, 1981;). In addition, incentive systems must concern themselves with behavioral requirements; that is, they must make certain to reward behaviors consistent with role expectations and the job that needs to get done (Katz and Kahn, 1978). Reward systems must be adequate to attract and retain personnel, since organizations compete for employees (Gordon, 1982). When implementing incentive systems, organizations must be certain that they do not interfere with the internal cooperation necessary to run the business (Groves and Loeb, 1979; Cook, 1980; Miller, 1982). They must permit and encourage managers to take a long term perspective (Rappaport, 1978; Naor, 1978; Collier, 1980; Salter, 1973). Finally, the reward systems must allow innovation and risk taking (McGinnes and Ackelsberg, 1983; Salter, 1973).

In addition to these criteria, for a good incentive system, there are several other general considerations that should be taken into account when exploring middle managers' perceptions of these systems. Rewards can be applied to different units, to the individual, the subgroup or to the organization as a whole (Lorange, 1982). Rewards applied to the individual will lead to optimal role performance, while system wide rewards will

encourage cooperation (Katz and Kahn, 1978).

Systems will be affected by the nature of the industry, business, product, and size of the firm (Hirschey and Pappa, 1981). Within firms, measures for staff are often more subjective than for the line (Greene, 1978). Technical career management is particularly difficult because of the need for dual career paths for managers and technical experts (Bailyn, 1980). Consistent with the considerations introduced by Lorange (1982) and Ross (1978) that compensation should reflect a managers influence over results, Miller (1982) argues that a manager's level in the organization is an important determinant of the appropriate reward structure.

The previous literature outlined a number of important considerations for designing incentive systems. However, the focus was not of these systems on middle managers; a well-tested model incorporating the application of these principles to middle managers is not yet available. Therefore, we view this study as an exploratory effort and have used a methodological approach appropriate to that stage of theoretical development. The specific methods are described in the next section.

II. Method

This section describes the methodology used in the planning and incentive systems study. It describes the instrument design, instrument administration, data collection, data transformation, and data analysis techniques used, and it provides the rationale for the selections made.

A. Instrument Design

The focus of this study was the relationship among planning, goal setting, appraisal, and incentive systems within the organizations studied. Because of the paucity of literature detailing these systems for middle managers and

because of our commitment to exploring the relationships among the components, we designed an open-ended interview protocol. We had, for the most part, only a priori hypotheses about what types of answers would be given. The dimensions along which responses would vary, particularly for the questions regarding perceptions of motivation and culture, were not at all clear as we constructed the instrument. Attempting to force responses into preconceived categories -- with no strong empirical research to guide the structure of the categories -- would have been premature and would have truncated the range of responses without justification. Therefore, we chose to use an open-ended interview guide comprised of twelve questions (see Exhibit 3.1).

The questions were laid out in an order that would help establish rapport quickly by letting the respondent speak in general terms initially and then answer more specific questions as the interview proceeded. Comprehensiveness and flexibility were both served through this methodology.

B. Sample

The sample selected for participation was chosen in accordance with the master sampling plan used for all three studies. In this way, a representative mix of tenure, performance, and functional area among the middle manager respondents was obtained.

C. Instrument Administration Protocol

Several characteristics of the interview process combined to ensure consistency of application despite the open-ended nature of the interview. First, and most important, the number of interviewers was limited. Approximately ninety percent of all interviews were conducted by two project staff members. Second, the logical flow of the instrument tended to focus respondents on the requisite elements of each question as they progressed

EXHIBIT 3.1

Study 3 Interview Protocol

1) What do you do in your current job?

2) What do you like about working here? What would you change?

3) What are your unit's goals? How do they contribute to the company's overall objectives?

4) How do you learn about your unit's goals? Do they affect you on a day-to-day basis? How? Evaluation?

5) Who decides on how you get the resources you need to do your job? How are these decision made?

6) What motivates you to do your job well?

7) What does the organization do to motivate you? What does your manager do?

8) Does the organization do anything that make it difficult to do your job? Does your manager?

9) What determines a person's success or failure in this organization?

10) How would you describe this organization's values? Its philosophy toward employees?

11) What is the role of the Human Resources staff in this organization? What do they do for you? What don't they do that they should?

12) How have these things changed over time? How do you think they'll change in the future?

through it. Finally, a set of defined probes were developed to be used if respondents strayed too far from the question. In this manner, the interviewer could control the flow of the interview without jeopardizing either consistency or the data's richness.

The interview procedure was straightforward. Respondents were selected and asked by the Human Resources staff within their organization for their participation. In some cases, the Human Resource staff scheduled the interviews. In other organizations, Wharton team members did the scheduling. The interviewer and respondent met privately, and confidentiality was assured. Administration of the instrument generally took 40 minutes to one hour.

Interview notes were taken by the interviewer as the respondent spoke. The notes were then transcribed and used as the "raw data." The interviews were not tape recorded due to the sensitivity of some questions.

D. <u>Data Coding and Categorization</u>

The raw data interview notes were the basis for all analysis. Responses were abstracted from the notes on a question-by-question basis. Respondents could (and did) provide multiple responses to each question, and all responses were abstracted and placed on coding sheets.

When the pool of responses for each question across all organizations was complete, the research team began the process of creating empirically based and theoretically salient categories of response. Multiple categories were tried, aiming for the goals of mutual exclusivity, exhaustiveness, and most important, fit with what appeared to be the underlying dimensions of the data. At least two staff members categorized each response. Discrepancies were discussed and resolved.

This effort allowed us to reduce the roughly 35-50 responses per question

to a more manageable 7-10 analytically consistent categories. A Question Codebook (see Appendix H) contains the responses that constitute each of these categories. The categories were the variables used as input for the computer analysis.

E. Analysis Plan

Two analytic approaches were used for different units of analysis. The cross-organization analysis of middle management's motivation patterns relied mainly on the computerized frequency analysis. The case study analysis, conversely, took the cross-tabulations as a starting point and leaned heavily on a qualitative analysis of the interview notes. The repetition of key phrases by managers at different levels in different functions reveals a great deal that cannot be derived from the more macro-level computer analysis. In this way, the case studies were developed to describe the way in which concepts or categories were elaborated within the different organizations.

Three analytic tools were used to uncover relationships among the coded data. First, frequencies and relative frequencies were tabulated for each category in each question. These tabulations form the bulk of the findings reported here and are discussed separately for planning and goal setting and incentive systems. Complete frequency counts for questions two through eleven of the interview protocol are provided in Appendix I.

In addition, we attempted to isolate within and across question relationships through the use of cross tabulations for different categories. Given the nature of the instrument, within-question analysis was important in determining how tightly different elements of a given question were linked (i.e., are people who are motivated by recognition likely to also claim to be motivated by money, or are they likely to be two separate occurrences?).

Lastly, we used factor analysis to draw out underlying dimensions. Although intended for use with metric data, factor analysis has been used in an exploratory fashion with unstructured data sets.

In general, we were unsuccessful at finding cross-organizational patterns using either crosstabs or factor analysis. There are two possible explanations for the absence of positive findings, one substantive and one methodological. Given the type of information we are seeking, there are theoretical reasons to believe that there would be very few inter-organizational commonalities, i.e., those things which are incentives at one organization might not be important in other organizations. Organizations possess very powerful cultures and value systems; it is likely that the nature of individual motivation within organizations corresponds to these. The divergence we discovered among our organizations would, under this hypothesis, militate against discovering similar patterns of interrelationship across organizations.

The alternative explanation pertains to the data collection instrument itself. The interview technique itself acted against the development of patterns where the same opinions or perceptions were provided to different questions. Unlike a questionnaire, where the same type of question can be repeated, in an interview, respondents may, and do, refer to answers previously given to similar questions, but do not repeat the response. Essenially, in a "conversation," one does not repeatedly provide the same information.

We therefore report general qualitative findings as well as analysis of frequency data for specific questions, aggregating across individuals and organizations. The results are reported separately for planning and goal setting and incentive systems.

III. RESULTS

The results reported here are a summation of the findings across all case studies. Because many aspects of planning, goal setting and incentive systems were distinctive to organizations, major sections of the analysis are shown within the case studies.

A. Planning, Goal Setting and Appraisal

The purpose of the analysis of planning processes centered around two issues: (1) the match between the policy about planning and its practice within the organizations and (2) the role played by planning processes as integrating mechanisms. Each issue is addressed separately below.

These findings are based primarily on three questions:

1) What are your unit goals? How do they contribute to the company's overall objective?
2) How do you learn about your unit's goals? Do they affect you on a day-to-day basis? How?
3) Who decides on how you get the resources you need to do your job? How are these decisions made?

The first allowed us to assess the nature and specificity of goals and the understanding of the role of the unit in the broader organizational context. The second looked at the middle manager's involvement in the planning process and his perception of the relevance of plans to routine activity. The third question provided information on relationships between goal setting and resource allocation.

1. The Planning Process: Policy and Practice

The formal structure of the planning process was very imilar across the organizations studied, with the exception of the Navy. Th general pattern

described by both written sources and our respondents was that planning began at the top of the organization, moved downward through the hierarchy, moved back up, and then down again. The formal planning horizon varied from one to five years, with the most serious planning done for the next year.

Despite the similarity in the formal systems, perceptions of the planning process differed across organizations on several dimensions. Some organizations allowed for more input to planning from lower levels in the hierarchy than others, where the planning was in fact "top down." The perceived focus of authority differed; for some, divisional heads were seen as having substantial authority, while in other corporations, corporate management made virtually all important decisions. The salience of the planning process to middle managers also differed across organizations.

In order to explore middle managers' involvement with planning, we asked middle managers how they learned about unit goals and what they saw as the connection of goals to activities. The responses to the first question are shown in Table 3.1, which depicts the percent of managers who mentioned a specific source of control. First these responses summed to greater than 100%. This suggests tnat, consistent with management theory,middle managers perceived goal setting as a multi-level determination. Furthermore, in most organizations, except the Navy, most managers mentioned the involvement of their boss. Organizations differed in the perceived role played by upper management where the Navy stands out, followed by Middle Bank. The role played by formal documents also differed; managers in Sky Technologies, which is a project organization, relied more heavily than others on formal documents, presumably proposal specifications. The percent of middle managers who did not know how unit goals were set was markedly larger for Leisure Products than for the other organizations.

These findings demonstrate the variety of ways that the planning process can be implemented. The direct effects of these different approaches cannot be stated conclusively on the basis of the data provided in this study. However, corollary practices are discussed in the case studies which follow and in the last chapter.

2. The Planning Process as an Integrating Mechanism

Planning legitimizes the flow of information through the organization and thereby provides one way to integrate the organization. Clearly, organizations may differ on the use of this mechanism to disseminate information.

Based on the perceptions of our middle manager respondents, different organizations had relatively distinct attitudes towards information. Business information in general was more available in decentralized organizations, such as Metro Financial Services. Not surprisingly, the flow of information in the planning process varied with the attitude towards information prevalent within the organization; that is, more planning information was provided in information rich organizations than those which operated on a "need-to-know" principle. These comparisons are made evident by the case studies presented in Volume II of this report.

Planning processes can also serve to integrate an organization when they are linked to other activities, for example, resource allocation. We asked our respondents who made decisions about resources they needed to do their jobs. Again, interorganizational differences were evident (see Table 3.1). With the exception of Metro Financial Services, few middle managers controlled resources. Interestingly, less than a third saw their boss as in control. This contrasts markedly with boss involvement in goal setting. Upper management dominated most in Sky Technologies and Middle Bank. Many Navy

TABLE 3.1

GOAL SETTING AND RESOURCE ALLOCATION

PERCENT OF MANAGERS RESPONDING

SOURCE OF CONTROL	GOAL SETTING	RESOURCE ALLOCATION
Self	29%	19%
Boss	55%	32%
Upper Management	39%	68%
Formal System	23%	---
DK/NR	10%	6%

personnel did not know who allocated resources.

We compared manager's responses to the perceived sources of control for goal setting and resource allocation. As is evident from the aggregated responses shown in Table 3.1, managers as a group perceived that resource allocation decisions were made at a higher level in the organization than establishment of goals. Furthermore, resource allocation was not frequently tied to a formal system, as was planning.

We asked middle managers whether or not the plans during the planning process affected their day-to-day activities. Although almost all responded yes, their descriptions of how this worked differed. Moreover, these differences were not uniform within organizations. Rather, they varied with types and specificity of goals and stability of the unit environment. The relationship between goals and activities was strong when goals were directly measurable or controllable, when ther were specific sales or profit goals tied to compensation, and when the environment was stable.

There was no discernable relationship between the specificity of the link between goals, activities and rewards and satisfaction. Those managers for whom the linkages were loose thought that linkage was appropriate because the environment was turbulent or because key aspects of goal attainment were outside of their control. These manager's responses suggested that their situations were difficult to evaluate and did not express interest in greater clarity. In fact, some said that their bosses would recognize why they might not meet a plan, and that this was preferable to the automatic use of plans to determine rewards.

In summary, these findings contradict expectations based on the academic literature, which recommends a more systematic and integrated process. According to a number of authors, (cf. Lorange, 1980), goal setting should be

tied to resource allocation through a budgeting system. Furthermore, rewards should be connected to individual plans, because linkage would improve both performance and satisfaction. The data presented here does not support these assertions. The prescriptions of the literature appeared to have more impact on the formal planning systems of the organizations than the way in which those systems were perceived to operate.

B. Incentives and Disincentives

When we began our analysis of the data on incentives and disincentives we were looking for particular practices which were either liked or disliked by our respondents, or which they found motivationally effective or counter-productive. We also looked for the effectiveness of distinctive policies within the organizations. Secondarily, we wanted to assess the consistency of important practices with organizational policies and practices.

Because we were uncertain about how to elicit these responses, we asked a set of related questions which were:

1) What do you like about working here? What would you change?
2) What motivates you to do you job well?
3) What does the organization do to motivate you? Your manager?
4) Does the organization do anything which makes it difficult for you to do your job? Does your manager?

Each manager could offer several responses, which were coded and placed into categories as described in a previous section (See Appendix H for detail). We looked for human resource practices which were important to respondents. A summary of some of these practices are shown for each organization in Table 3.2. More information on human resource policies are described in the case reports.

The data reported below indicate that salient human resource practices are

not well connected to specific policies. When we asked respondents to tell us what they liked and what they would change about their current organizations, they responded with general features of the organization. The percent of respondents who mentioned items in a category are shown in Table 3.2. Table 3.2 makes it evident that formal incentives, represented by such things as salary, benefits, and bonuses are not as salient to our respondents as informal incentives such as the work itself, image/culture, freedom, challenge and opportunity. It should also be noted that some items were mentioned as both "like" and "change"; this is true within organizations as well as in the aggregate data. This suggests that certain features of the organizational environment were important to respondents, whether they were positive or negative.

Another way of approaching incentives and disincentives involves the examination of what motivated middle managers to do their job well and what the organization does to motivate them. Because many of the same types of responses occurred in both cases, we used the same response categories for analysis in both. Figure 3.1 shows the percent of the sample which gave responses in each of the categories. Categories which fewer than 8% of the sample mentioned are not shown. With the exception of salary, we once again see the relative importance of informal incentives over formal incentives.

Responses which referred to individual managers were non-systematic. They focussed primarily on individual personality characteristics.

Overall, our middle manager respondents had a low response rate to the question: What things get in the way of your doing your job? The following responses were given by 10% - 20% of the sample, in descending order of frequency:

o Lack of Resources
o Bureaucracy

TABLE 3.2

ITEMS MIDDLE MANAGERS LIKE OR WISH TO CHANGE

CATEGORY	LIKE	CHANGE
Work Itself	59	16
Image/Culture	52	27
Freedom	32	0
Challenge	30	0
Opportunity	20	0
Salary	18	6
HRM	18	35
Management	15	35
Responsibility	15	0
Benefits	11	1
Bonuses	3	5
Organizational Structure	0	20
Communications	0	17
Politics	0	8
Bureaucracy	0	4

- o Management Inconsistency
- o Organizational Style
- o Management Insensitivity
- o Politics
- o Human Resource Management

Again, with the exception of formal human resource management systems, respondents mentioned general characteristics of the organization, factors which can be seen as part of the culture rather than the direct result of a specific policy.

Because success in an organization is such an important incentive, we asked middle managers to tell us "what makes a person succeed in this organization." Table 3.3 shows the percent of replies in each category in which 10% or more of the subjects responded. The ranges across organizations are shown in the right-most column. It is evident that performance and the qualities of the individual were seen as key factors for success. It is also clear that the ability to be seen and act effectively within the organization are important contributors. Overall, the importance of performance and personal qualities indicate that the organizations represented in our sample are generally seen by their middle managers as equitable.

We found that managers perceived their work organizations as providing more incentives than disincentives. Within the organizations studied, informal (circumstantial) incentives appeared more salient for middle managers than formal (deliberate) incentives. In general, managers liked informal aspects and wanted to change formal aspects of their organizations. Of the formal aspects of the organization, only salary and bonuses were perceived by managers as important motivators. Despite substantial differences from prescriptions of organizational theory, the organizations were generally perceived as equitable by the middle manager respondents.

FIGURE 3.1

INCENTIVES AND DISINCENTIVES

MOTIVATION

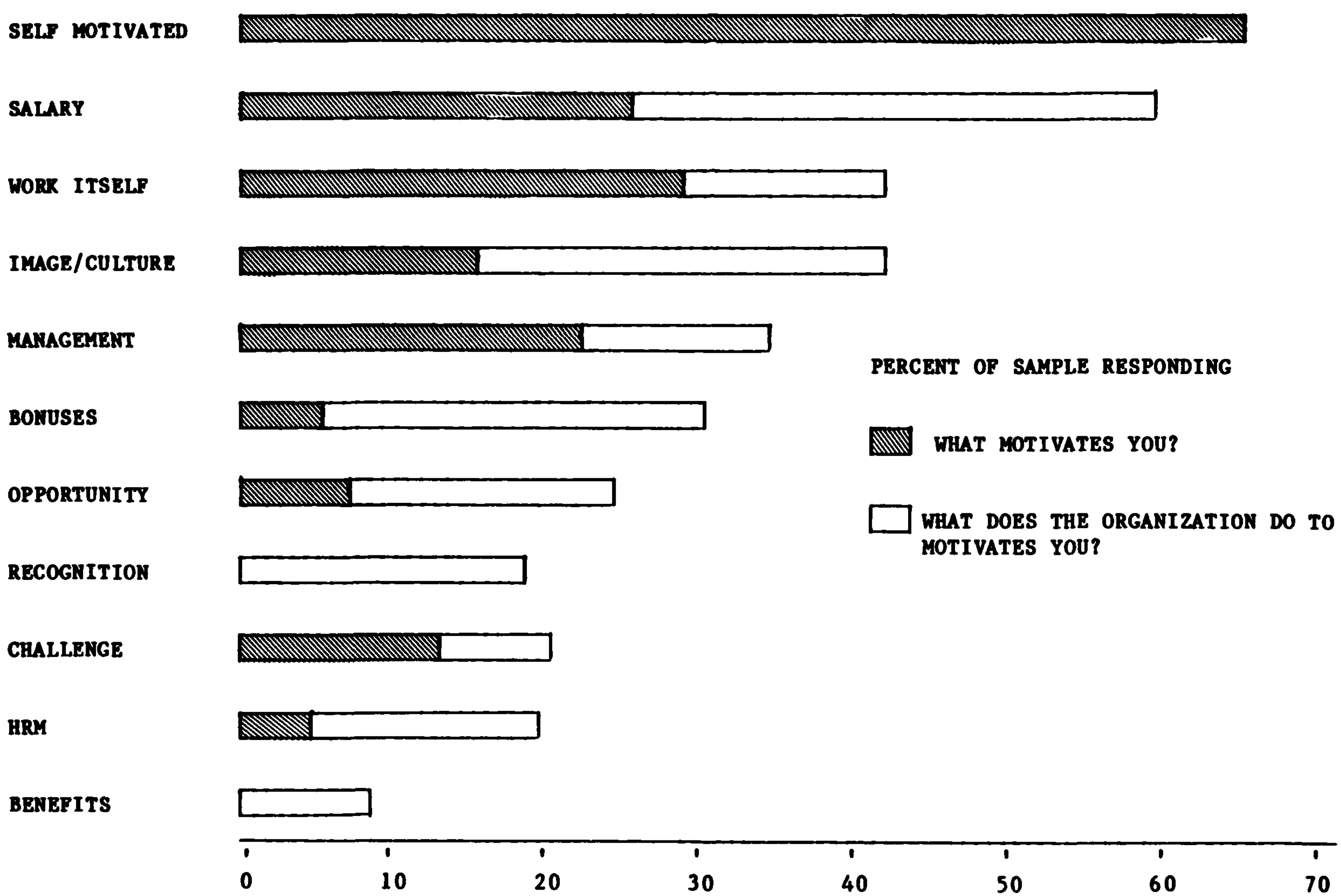

TABLE 3.3

INCENTIVES AND DISINCENTIVES:

WHAT MAKES A PERSON SUCCEED?

CATEGORY	AVERAGE	RANGE OF RESPONSES
Performance	71%	52-76%
Personal Qualities	53%	44-66%
Politics	30%	14-39%
Visibility	16%	9-23%
Right Place and Time	13%	5-22%
Image	11%	0-24%

IV. Discussion

In the previous section, the aggregate findings were described. These general findings were in large measure consistent with expectations based on the literature (see Lawler, Hackman and Haber (1980) for a general discussion of reward structures). However, this study was designed to explore differences across organizations, particularly those which could be linked to differences in strategic direction. The links between strategy and planning and incentives are described in detail in the case studies in Volume II. Therefore, the next volume reports information which is an integral part of this study. The discussion which follows notes those dimensions which appear useful in accounting for organizational differences in incentives and planning. A more complete discussion of these issues is presented in Volume III of the report.

Except for the Navy, the implementation of formal systems was less formal than the policies of the organizations would suggest. This was true of planning, resource allocation, and formal incentive systems (including mobility). As a result of this looseness of application, the ties between planning and incentives were less clear than that suggested by the literature (Lorange, 1980; Hrebiniak and Joyce, 1983). Walker's (1980) view that MBOs can contribute to the implementation of strategy was not well supported by our findings. In only one organization did individual MBOs add up to business unit goals, and even there middle managers perceived great flexibility in changing goals to correspond to fluctuations in the market. MBOs may be important in disseminating goals, but do not seem to ensure their execution.

Kirsche and Pappa (1981) suggested that systems within an organization are clearly affected by the nature of the business. Our findings support their assertion. Specifically, we found that planning as an integrating mechanism

appeared more important in organizations where middle managers had more contact with external audiences. Little involvement in planning was evident for middle managers who were encapsulated by the organization. We also found that managers who operated in turbulent environments accepted the looseness introduced by the environment into human resource systems and into the links between goal setting and rewards. They typically saw flexibility in appraisals and rewards as working for them and for the organization.

Byham (1982) argued that planning can provide important communication links throughout the organization. As we noted above, planning can but does not always serve this function. In different organizations, different types of communication may be perceived as critical. For example, in technology driven firms, the emphasis in communication may be on technical information and training opportunities, whereas business information may be more important in market driven firms. In organizations where market information is critical, business planning legitimizes the flow of this kind of information.

Planning also has been discussed as an important performance link for managers when its outcome, goals, are tied to individual incentives. Incentive systems must balance short term and long term objectives (Tichy, 1983; Lorange and Murphy, 1984) and operate so that they do not interfere with cooperation among groups (Groves and Loeb, 1979; Cook, 1980; Miller, 1980). However, the evaluation of specific incentive systems with respect to these aims is extremely difficult because most managers do not have control over meaningful output measures. In our study, the exception to this rule was middle managers whose units had specific sales or profit goals and who were primarily line managers. This distinction suggests some support for Greene's (1978) finding that line mangers have less subjective measures than staff managers. Nonetheless, few middle manager respondents, staff or line, had

objective performance measures by which they were judged.

Despite the overall salience of informal incentives, formal incentives did have some impact. Salary, the most widely mentioned formal incentive, may serve as a visible marker of success for middle managers (see Lawler (1971) for discussions of the role of pay as a reward). As such, it functions, like promotion, as an individual incentive. Respondents also noted that groups saw themselves as competing with each other for group incentives. This was most evident in functionally arranged organizations. Functional divisions may be more susceptible to "inbreeding" with respect to language, time orientations, and business priorities (cf. Lawrence and Lorsch, 1967; March and Simon, 1957). This inbreeding, in turn, fosters an "us-them" environment. We also noted intergroup competition when formal incentives, such as a bonus pool, were open to only some middle manager groups within a business unit.

In the organizations we studied, the emphasis of middle managers on the culture of the organization and the informal incentives provided appears consistent with an emphasis on long term goals. As suggested by Gordon (1982), Peters and Waterman (1982), and Athos and Pascale (1981), these informal rewards generally are consistent with other aspects of the organizations, such as the style or social system. (Specific instances are discussed in the cases and in the concluding discussion in Volume III.) It is also important to recognize that although organizations are believed to select individuals who value the rewards offered by the particular organization (see Lawler, 1981; Porter, Lawler, and Hackman, 1976), rarely are these general features of organizational life considered as rewards in standard personnel texts and prescriptions.

The data reported here strongly suggest the importance of informal incentives to middle managers. This has implications both for research and for managers. Clearly, informal aspects of the organization are harder to prescribe. They are more easily captured by recent research on the culture of organizations (cf. Deal and Kennedy, 1982; Peters and Waterman, 1982; Pascale and Athos, 1981) than by research on human resources policy.

From a managerial perspective, attention to informal features of the organization appears likely to improve managerial satisfaction. The development of appropriate norms for performance could also lead to improved effectiveness.

There is, however, one important caveat. The organizations studied were successful organizations with strong human resource policies. The same outcomes may not be evident in organizations without those characteristics. Specifically, the organizations studied followed, broadly speaking, the prescriptions of management theorists in setting human resource policies. It may well be that, once established, these features of organizational life lose their salience. Their absence, however, might be sorely noticed.

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